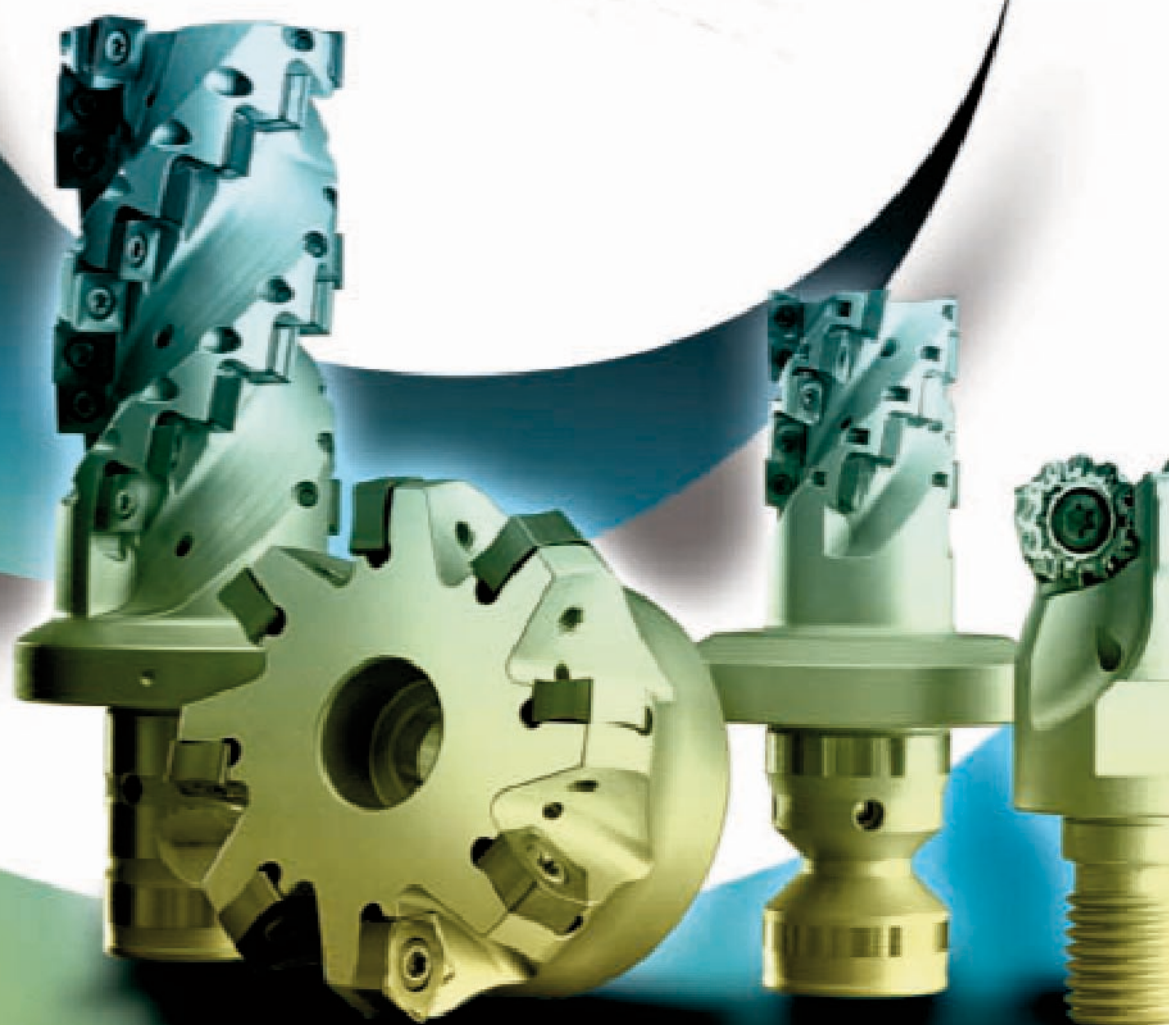


# INNOVATION

LOOK OUT!



**GB** INNOTOOL, which stands for „Innovative Tooling“, is a market leader in indexable milling products.

The high shear geometry design of cutter body and inserts ensures that Innotool performs very well on low powered machines and often the cutting data can be increased considerably due to the soft cutting action.

The range of standard tooling has increased to now also contain a full range of tools for die & mould machining, as well as a range of indexable insert short hole drills.

In addition to the complete range of standard end mills, square shoulder mills, helical end mills, side and face mills and die and mould tooling, INNOTOOL can offer an excellent and fast service for special solutions.

We look forward to being of service.

**FR** INNOTOOL, „l'innovation des outils“, est un fabricant de fraises à plaquettes, leader sur son marché.

La recherche géométrique et technologique des fraises, associée aux nuances et géométries des plaquettes, permettent des gains de productivité très importants. Tout particulièrement sur les machines à moindre puissance grâce aux faibles couples engendrés par nos fraises.

Le large programme standard a été renforcé par une gamme complète de fraises pour l'industrie des moules et matrices, ainsi qu'un tout nouveau programme de forets à plaquettes.

Nous pouvons vous proposer en complément à notre gamme standard, de fraises à surfacer, surfacer-dresser, fraises hérissons, à rainurer, à chanfreiner ou fraises pour l'industrie du moule et matrices, toutes fraises spéciales dans un délai court et dans le cadre d'un service très performant.

En espérant pouvoir vous servir bientôt!

**IT** INNOTOOL, il cui nome sta per „Utensili Innovativi“, è leader del mercato nelle frese a fissaggio meccanico.

Il design dalla geometria molto positiva delle frese e degli inserti garantisce che INNOTOOL va molto bene su macchine con poca potenza e spesso grazie al taglio molto dolce si possono aumentare i dati di taglio.

Il programma standard è stato aumentato e comprende una vasta gamma di utensili per stampisti, e anche un programma di punte a forare ad inserti indexati.

Oltre al programma completo delle frese standard, alle frese per spallamento, alle frese elicoidali, alle frese a disco e a quelle per stampisti, INNOTOOL può offrire inoltre anche un servizio eccellente e veloce per le soluzioni speciali.

Speriamo di soddisfare le Vostre esigenze.

**ES** INNOTOOL, una compañía que se dedica a las „herramientas innovadoras“, es una empresa líder en el mercado de productos de fresado.

La alta geometría de corte de las piezas cortantes y de las plaquitas asegura el éxito de las máquinas poco potentes, y a menudo, los datos de corte pueden aumentar considerablemente debido a la acción suave del corte.

La gama de herramientas estándar ha mejorado con el tiempo, hasta tal punto que actualmente podemos ofrecerles una amplia gama de herramientas para moldes y matrices, así como una gran diversidad de brocas con plaquitas intercambiables.

Además de la gama completa de fresas planas, laterales y herramientas para moldes y matrices, Innotool también les ofrece un servicio excelente y rápido para herramientas especiales.

Deseamos poder complacer sus necesidades satisfactoriamente.

INNOTOOL



# INNOTOOL

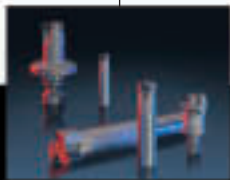


# T



## 6-57

End Mills  
Fraises en bout  
Frese per spallamento  
Fresas de mango



## 58-93

Helical End Mills  
Fraises hérrison  
Frese elicoidali  
Fresa cilíndrica frontal



## 94-123

Square Shoulder Cutters  
Fraises à surfacier dresser  
Frese 90° a manicotto  
Fresa angular



## 124-145

Face Mills  
Fraises à surfacier  
Frese a spianare  
Fresa para planear



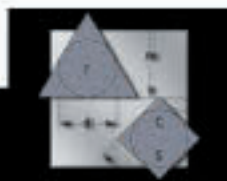
## 146-163

Side and Face Cutters  
Fraises disques  
Frese a disco  
Fresa de disco



# INNOCENT

# CONTENTS



164-183

Form Cutters  
Fraises de forme  
Frese per smussi  
e cave a T  
Fresa perfilada

184-299

Mold and Die  
Industrie des moules et matrices  
Frese per stampi  
Herramienta/Matricería

300-401

Drills/Thread Milling  
Forets à plaquettes / Filetage Routeur  
Punte ad inserti / Filo Fresatura  
Herramientas para taladrar / Hilo Fresado

402-463

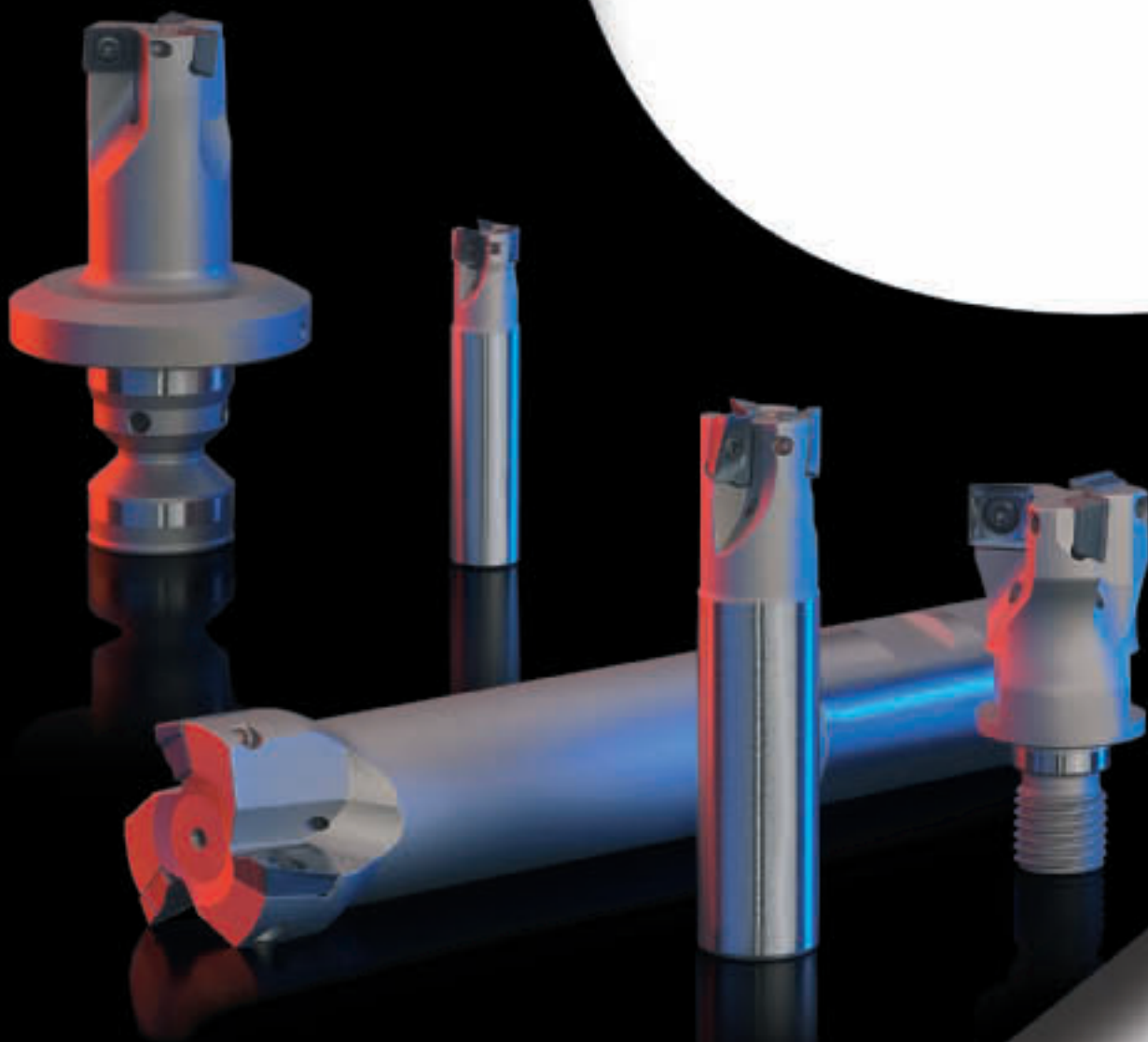
Tool Holders and Adaptors  
Attachements outils  
Attachi  
Soporte de las herramientas

464-551

General Technical Information  
Annexe technique  
Appendice Tecnica  
Anexo técnico



FR FRAISES EN BOUT  
IT FRESE PER SPALLAMENTO  
ES FRESAS DE MANGO



MINNO



**END MILLS**



**STOOL**



	D	a	Description / Description Modello / Descripción	Code / Série Codici / Serie	Page / Page Pagina / Página
	10 - 25	5,7	<del>HIPER-MIXED</del>	SA06D02	12
	9,5 - 25	5,7	<del>HIPER-MIXED</del>	SA06D03	14
	10 - 25	5,7	<del>HIPER-MIXED</del>	SA06M01	16
	10 - 35	5,7	<del>HIPER-MIXED</del>	SA06E01	18
	12 - 25	9	<del>HIPER-PLUS</del>	SB09D03	20
	16 - 32	9	<del>HIPER-PLUS</del>	SB09M01	22
	12 - 32	9	<del>HIPER-PLUS</del>	SB09E01	24
	16 - 32	11	<del>HIPER-PLUS</del>	SA11D03	26
	16 - 32	11	<del>HIPER-PLUS</del>	SA11M01	28
	16 - 42	11	<del>HIPER-PLUS</del>	SA11E01	30
	20 - 32	12	<del>HIPER-PLUS</del>	SB13D03B	32

Subject to printing error or technical changes / Sous réserve d'erreurs d'impression ou de modifications techniques / Quanto stampato puo' essere  
soggetto ad errori di stampa e variazione tecniche / Queda reservado el derecho sobre eventuales fallos de impresión, errores o modificaciones  
técnicas














# END MILLS

**FR** FRAISES EN BOUT





**IT** FRESE PER SPALLAMENTO

**ES** FRESAS DE MANGO

	D	a	Description / Description Modello / Descripción	Code / Série Codici / Serie	Page / Page Pagina / Página
	20 - 32	12	<b>HIPO2-PLUS</b>	SB13M01B	34
	20 - 40	12	<b>HIPO2-PLUS</b>	SB13E01B	36
	25 - 40	16	<b>HIPO2-PLUS</b>	SA16D03	38
	25 - 40	16	<b>HIPO2-PLUS</b>	SA16M01	40
	16 - 32	7,5	<b>HIPO2-QUAD</b>	SS08D03	42
	16 - 32	7,5	<b>HIPO2-QUAD</b>	SS08M03	43
	25 - 40	8,4	<b>ALUMINATOR</b>	SS11E01	44
	20 - 42	15,5	<b>ALUMINATOR</b>	EX14E01	46
	32 - 80	15,5	<b>ALUMINATOR</b>	EX14D08A	48
	32 - 80	15,5	<b>ALUMINATOR</b>	EX14D08B	50
	32 - 80	15,5	<b>ALUMINATOR</b>	EX14D08C	52

Subject to printing error or technical changes / Sous réserve d'erreurs d'impression ou de modifications techniques / Quanto stampato può essere soggetto ad errori di stampa e variazioni tecniche / Queda reservado el derecho sobre eventuales fallos de impresión, errores o modificaciones técnicas



	D	a	Description / Description Modello / Descripción	Code / Série Codici / Serie	Page / Page Pagina / Página
	25 - 42	21		EX25E01	54
	50 - 50	25,5		EX33D08	56

Subject to printing error or technical changes / Sous réserve d'erreurs d'impression ou de modifications techniques / Quanto stampato puo' essere  
soggetto ad errori di stampa e variazione tecniche / Queda reservado el derecho sobre eventuales fallos de impresión, errores o modificaciones  
técnicas



# END MILLS

FR **FRAISES EN BOUT**

IT **FRESE PER SPALLAMENTO**

ES **FRESAS DE MANGO**

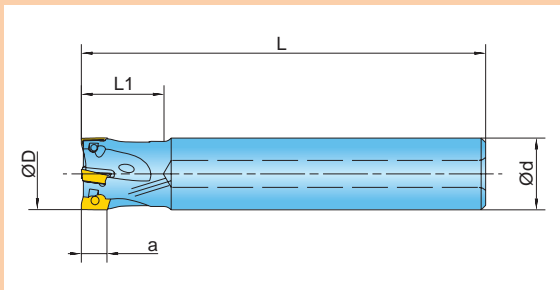
D	a	Description / Description Modello / Descripción	Code / Série Codici / Serie	Page / Page Página / Página
---	---	--	--------------------------------	--------------------------------


Subject to printing error or technical changes / Sous réserve d'erreurs d'impression ou de modifications techniques / Quanto stampato puo' essere soggetto ad errori de stampa e variazione tecniche / Queda reservado el derecho sobre eventuales fallos de impresión, errores o modificaciones técnicas



FR FRAISES EN BOUT  
 IT FRESE PER SPALLAMENTO  
 ES FRESAS DE MANGO

ADAPTION ACC. TO DIN 1835 A / ATTACHEMENT DIN 1835 A  
 ATTACCO DIN 1835 A / ADAPTACIÓN SEGÚN DIN 1835 A



Designation / Réf. de l'article  
 Articolo / Referencia

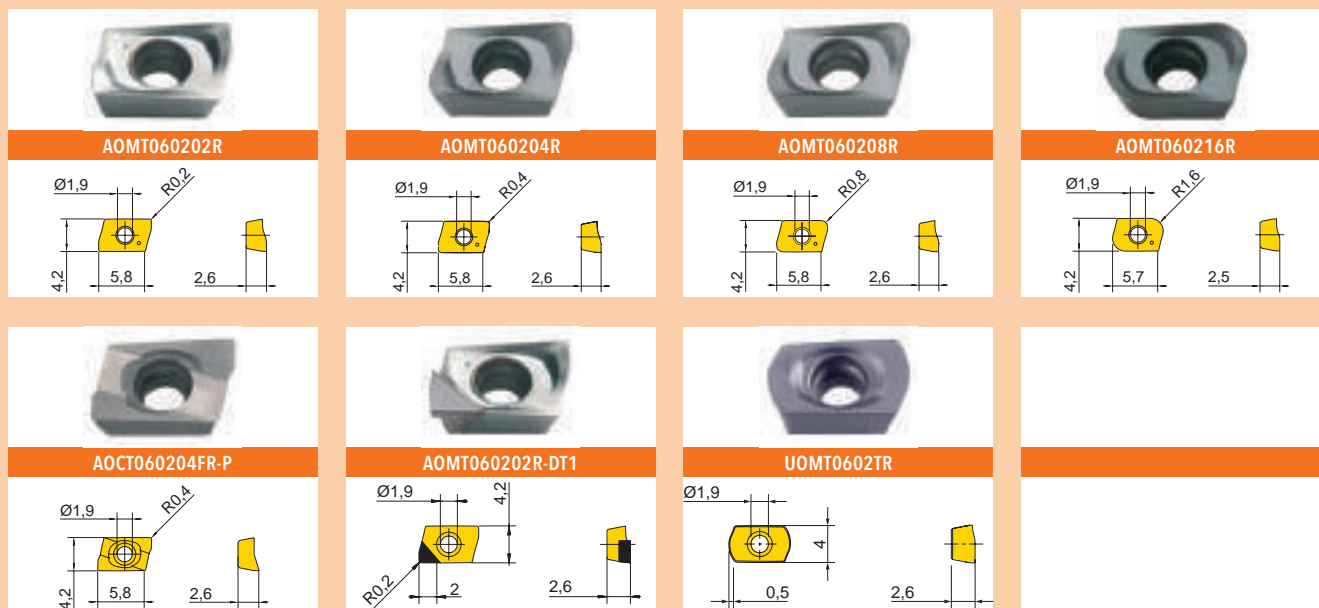
	D	d	L	L1	a	Z			
SA.010.006	10	10	55	16	5,7	2	10,0°	✓	0,03
SA.012.007	12	12	60	17	5,7	3	6,5°	✓	0,04
SA.016.009	16	16	90	19	5,7	4	4,0°	✓	0,11
SA.020.015	20	20	105	19	5,7	5	2,5°	✓	0,21
SA.025.015	25	20	115	65	5,7	7	2,0°	✓	0,24

SA06D02

HIPDS-MIGRO



## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA

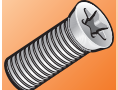



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2005	IN2030	IN2035	IN2505	IN90D		
AOMT060202R	positive geometry R0,2			●	●	●	●			
AOMT060204R	positive geometry R0,4			●	●		●			
AOMT060208R	positive geometry R0,8			●	●		●			
AOMT060216R <sup>1)</sup>	positive geometry R1,6			●	●					
AOCT060204FR-P	non-ferrous geometry, polished R0,4		●							
AOMT060202R-DT1	with short PCD-tip R0,2							●		
UOMT0602TR	high feed geometry				●	●	●			

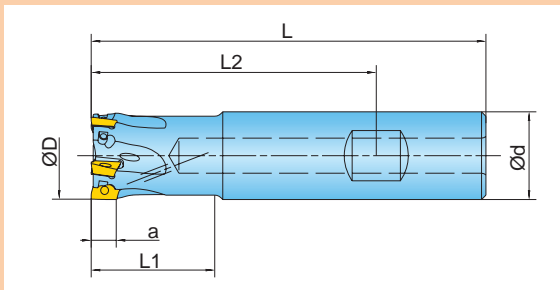
● = P   ● = M   ● = K   ● = N   ○ = S   ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM18-041-00 	DS-TP06S (TX-Plus) 		

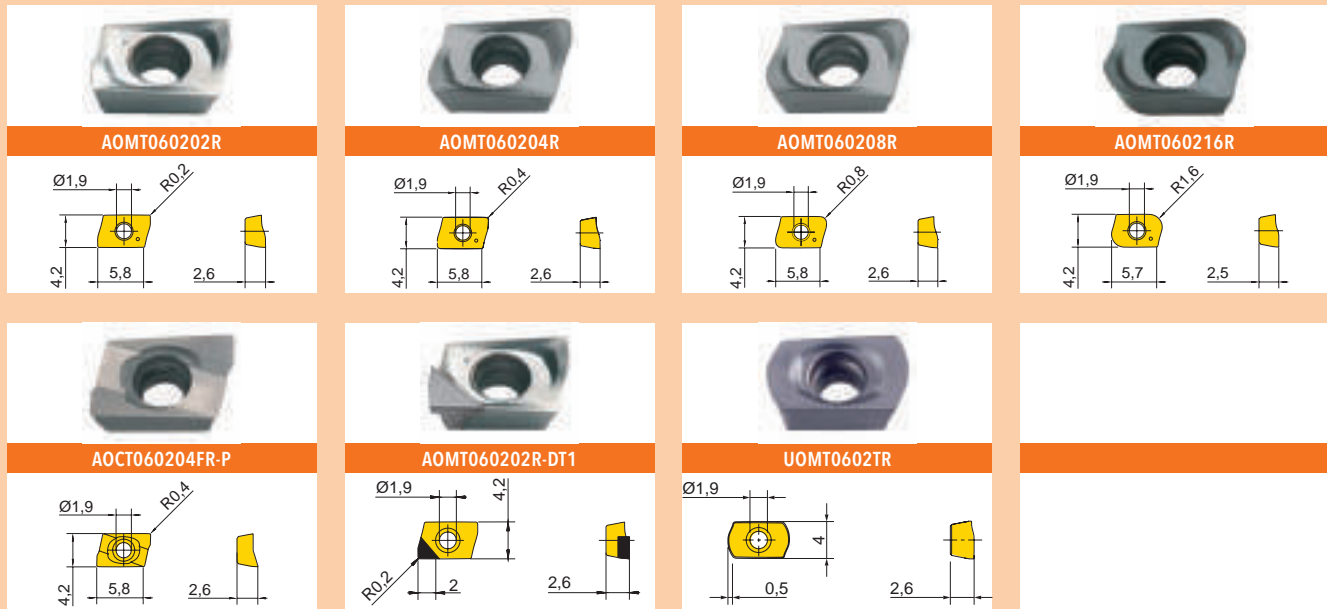
ADAPTION ACC. TO DIN 1835 B (WELDON) / ATTACHEMENT DIN 1835 B ( WELDON)  
 ATTACCO DIN 1835 B (WELDON) / ADAPTACIÓN SEGÚN DIN 1835 B (WELDON)



Designation / Réf. de l'article  
 Articolo / Referencia

	D	d	L	L1	L2	a	Z		IK	kg
SA.010.004	9,5	16	80	18	56	5,7	2	10,5°	✓	0,09
SA.010.005	10	16	80	18	56	5,7	2	10,0°	✓	0,09
SA.012.005	11,5	16	80	20	56	5,7	3	7,0°	✓	0,09
SA.012.006	12	16	80	20	56	5,7	3	6,5°	✓	0,09
SA.014.004	13,5	16	80	22	56	5,7	3	5,5°	✓	0,09
SA.014.005	14	16	80	22	56	5,7	3	5,2°	✓	0,09
SA.016.008	16	16	85	26	61	5,7	4	4,0°	✓	0,10
SA.020.014	20	20	90	30	65	5,7	5	2,5°	✓	0,17
SA.025.014	25	25	100	40	68	5,7	7	2,0°	✓	0,31

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA





Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2005	IN2030	IN2035	IN2505	IN90D		
AOMT060202R	positive geometry R0,2			●	●	●	●			
AOMT060204R	positive geometry R0,4			●	●		●			
AOMT060208R	positive geometry R0,8			●	●		●			
AOMT060216R <sup>1)</sup>	positive geometry R1,6			●	●					
AOCT060204FR-P	non-ferrous geometry, polished R0,4		●							
AOMT060202R-DT1	with short PCD-tip R0,2							●		
UOMT0602TR	high feed geometry				●	●	●			

● = P   ● = M   ● = K   ● = N   ○ = S   ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

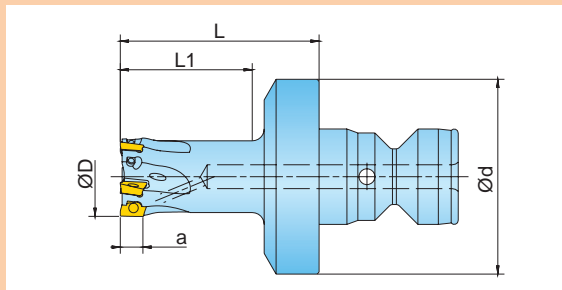
## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM18-041-00 	DS-TP06S (TX-Plus) 		



FR FRAISES EN BOUT  
 IT FRESE PER SPALLAMENTO  
 ES FRESAS DE MANGO

MODULAR MILLING ADAPTOR INNO-FIT / ATTACHEMENT MODULAIRE INNO-FIT  
 CON ATTACCO MODULARE INNO-FIT / FRESA CON CONEXIÓN MODULAR INNO-FIT



Designation / Réf. de l'article  
 Articolo / Referencia

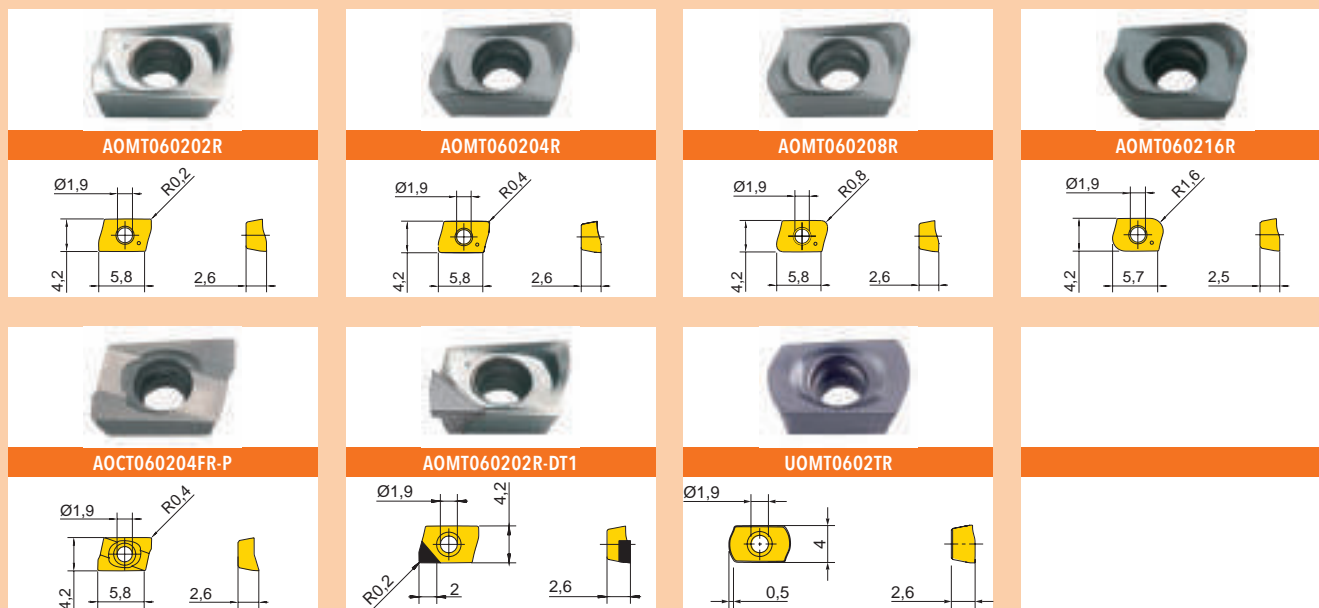
Designation / Réf. de l'article Articolo / Referencia	D	d	L	L1	a	MOD	Z			
SA.010.007	10	49	40	22	5,7	40	2	10,0°	✓	0,25
SA.012.009	12	49	40	22	5,7	40	3	6,5°	✓	0,25
SA.016.011	16	49	45	28	5,7	40	4	4,0°	✓	0,27
SA.020.017	20	49	50	36	5,7	40	5	2,5°	✓	0,30
SA.025.017	25	49	55	41	5,7	40	7	2,0°	✓	0,36

SA06M01

HIPDS-MIGRO



## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA





Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2005	IN2030	IN2035	IN2505	IN90D		
AOMT060202R	positive geometry R0,2			●	●	●	●			
AOMT060204R	positive geometry R0,4			●	●		●			
AOMT060208R	positive geometry R0,8			●	●		●			
AOMT060216R <sup>1)</sup>	positive geometry R1,6			●	●					
AOCT060204FR-P	non-ferrous geometry, polished R0,4		●							
AOMT060202R-DT1	with short PCD-tip R0,2							●		
UOMT0602TR	high feed geometry				●	●	●			

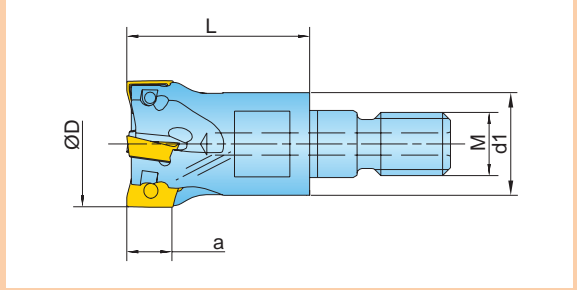
● = P ● = M ● = K ● = N ○ = S ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM18-041-00 	DS-TP06S (TX-Plus) 		

SCREW-TYPE ADAPTION / ATTACHEMENT FILETÉ  
 ATTACCO FILETTATO / ADAPTACIÓN MEDIANTE ROSCA



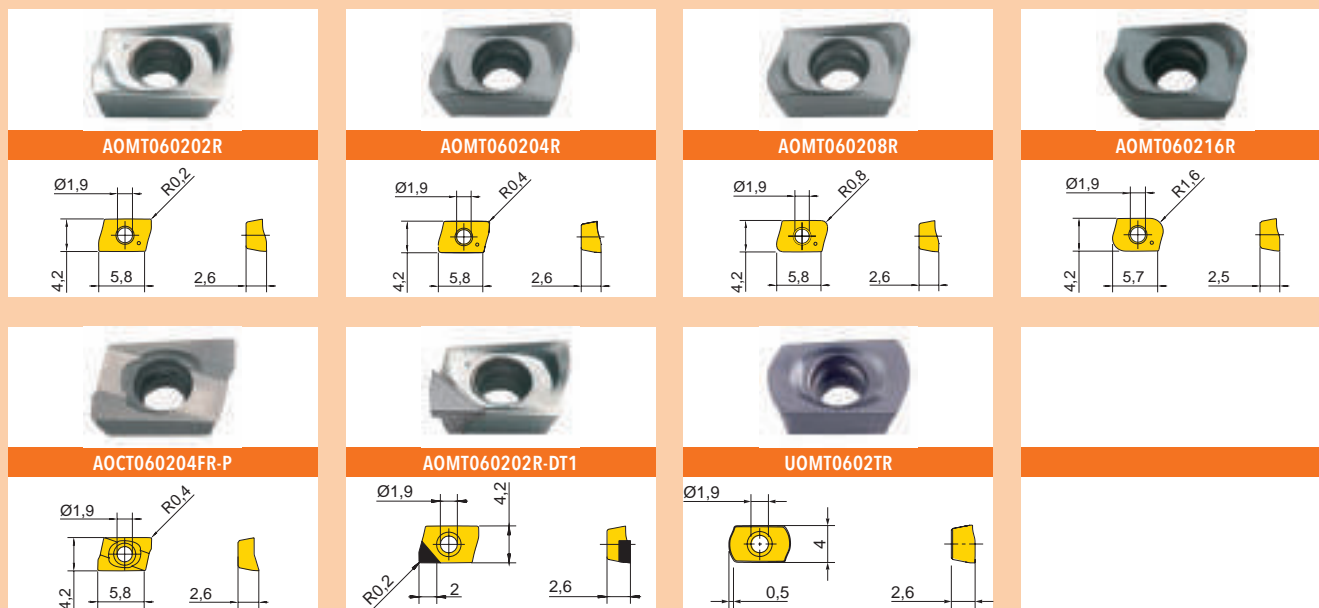
Designation / Réf. de l'article  
 Articolo / Referencia

D d1 L a M Z



Designation / Réf. de l'article Articolo / Referencia	D	d1	L	a	M	Z		IK	kg
SA.010.009	10	9,8	17	5,7	6	2	10°	✓	0,01
SA.012.008	12	12	23	5,7	6	3	6,5°	✓	0,02
SA.015.002	15	13	23	5,7	8	4	4,4°	✓	0,02
SA.016.010	16	13	23	5,7	8	4	4,0°	✓	0,03
SA.020.016	20	18	30	5,7	10	5	2,5°	✓	0,06
SA.025.016	25	21	35	5,7	12	7	2,0°	✓	0,10
SA.030.001	30	29	43	5,7	16	8	1,7°	✓	0,21
SA.032.018	32	29	43	5,7	16	8	1,6°	✓	0,22
SA.035.002	35	29	43	5,7	16	9	1,4°	✓	0,24

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA





Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2005	IN2030	IN2035	IN2505	IN90D		
AOMT060202R	positive geometry R0,2			●	●	●	●			
AOMT060204R	positive geometry R0,4			●	●		●			
AOMT060208R	positive geometry R0,8			●	●		●			
AOMT060216R <sup>1)</sup>	positive geometry R1,6			●	●					
AOCT060204FR-P	non-ferrous geometry, polished R0,4		●							
AOMT060202R-DT1	with short PCD-tip R0,2							●		
UOMT0602TR	high feed geometry				●	●	●			

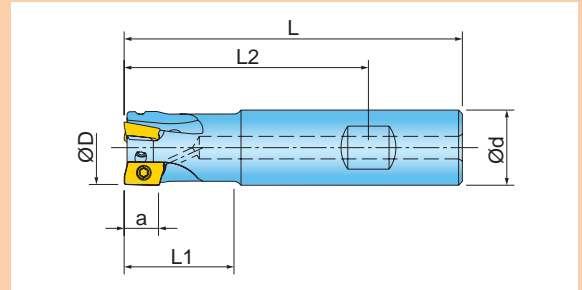
● = P   ● = M   ● = K   ● = N   ○ = S   ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM18-041-00 	DS-TP06S (TX-Plus) 		

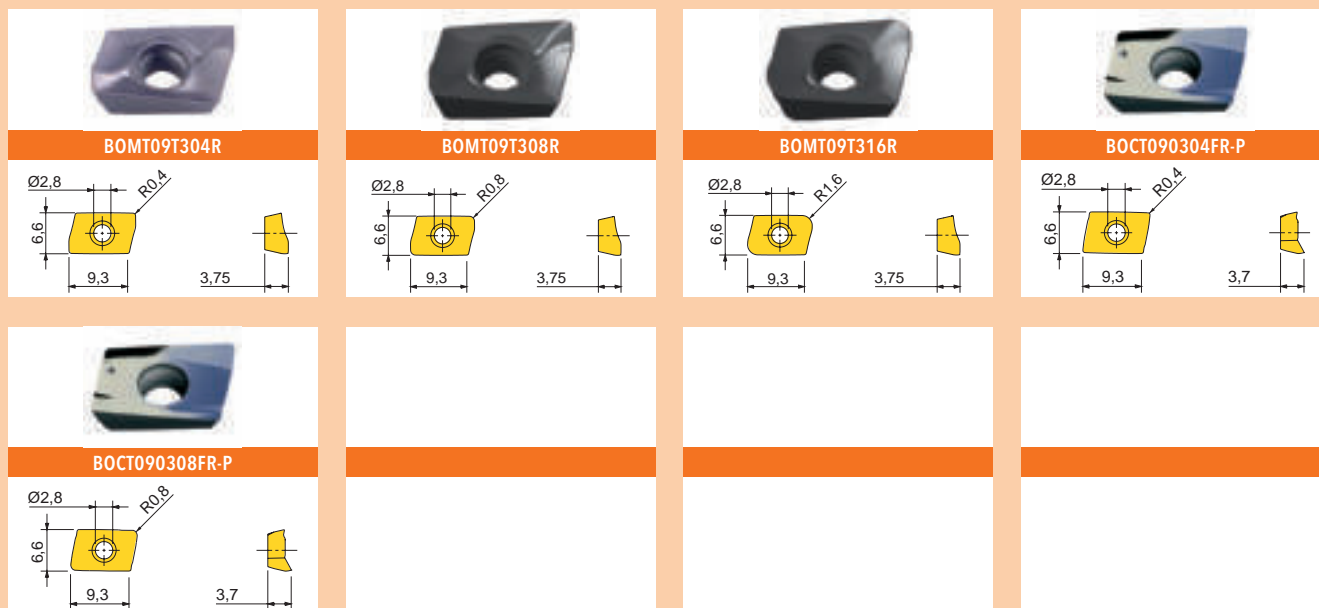
ADAPTION ACC. TO DIN 1835 B (WELDON) / ATTACHEMENT DIN 1835 B ( WELDON)  
ATTACCO DIN 1835 B (WELDON) / ADAPTACIÓN SEGÚN DIN 1835 B (WELDON)



Designation / Réf. de l'article  
Articolo / Referencia

Designation / Réf. de l'article Articolo / Referencia	D	d	L	L1	L2	a	Z			
SB.012.001	12	16	80	20	56	9	1	10,0°	✓	0,09
SB.016.001	16	16	85	26	61	9	2	10,0°	✓	0,10
SB.020.005	20	20	90	30	65	9	3	7,0°	✓	0,17
SB.020.006	20	20	125	75	100	9	2	7,0°	✓	0,23
SB.025.009	25	25	100	40	68	9	4	4,4°	✓	0,31
SB.025.010	25	25	145	85	113	9	3	4,4°	✓	0,45

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA





Designation / Réf. de l'article Artículo / Referencia	Insert Version / Execution Tipología Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN2005	IN2030	IN2035	IN2505			
BOMT09T304R	positive geometry R0,4			○	●	●	●			
BOMT09T308R	positive geometry R0,8			○	●	●	●			
BOMT09T316R <sup>1)</sup>	positive geometry R1,6				●	●	●			
BOCT090304FR-P	non-ferrous geometry, polished R0,4		●							
BOCT090308FR-P	non-ferrous geometry, polished R0,8		●							

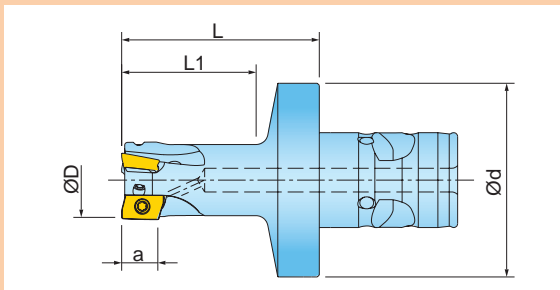
● = P   ● = M   ● = K   ● = N   ○ = S   ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Diameter Range / Diamètres Campo diâmetros / Rango de diâmetros	Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador
12 - 16 20 - 25	SM25-054-00 SM25-064-00 	DS-T08S DS-T08S 

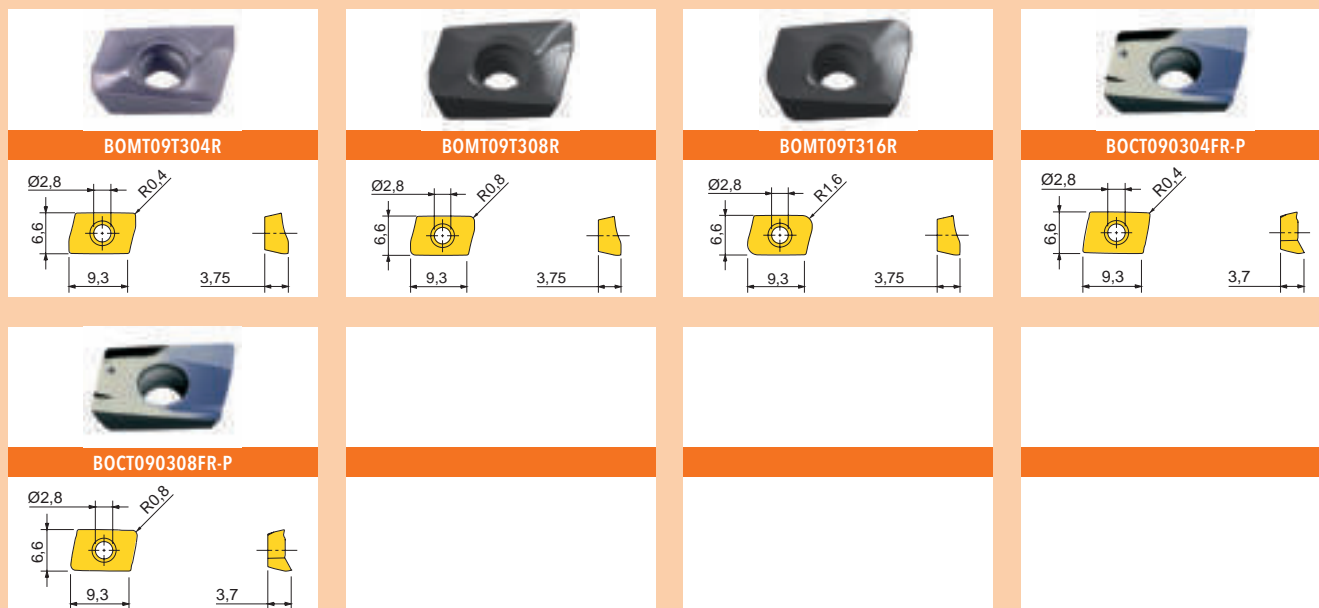
**MODULAR MILLING ADAPTOR INNO-FIT / ATTACHEMENT MODULAIRE INNO-FIT**  
**CON ATTACCO MODULARE INNO-FIT / FRESA CON CONEXIÓN MODULAR INNO-FIT**



**Designation / Réf. de l'article**  
**Articolo / Referencia**

	D	d	L	L1	a	MOD	Z			
SB.016.002	16	49	45	28	9	40	2	10,0°	✓	0,29
SB.020.007	20	49	50	36	9	40	3	7,0°	✓	0,32
SB.020.008	20	49	70	56	9	40	2	7,0°	✓	0,36
SB.025.011	25	49	55	41	9	40	4	4,4°	✓	0,37
SB.025.012	25	49	100	86	9	40	3	4,4°	✓	0,51
SB.032.010	32	49	55	41	9	40	5	2,8°	✓	0,45

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA





Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN2005	IN2030	IN2035	IN2505			
BOMT09T304R	positive geometry R0,4			○	●	●	●			
BOMT09T308R	positive geometry R0,8			○	●	●	●			
BOMT09T316R <sup>1)</sup>	positive geometry R1,6				●	●	●			
BOCT090304FR-P	non-ferrous geometry, polished R0,4		●							
BOCT090308FR-P	non-ferrous geometry, polished R0,8		●							

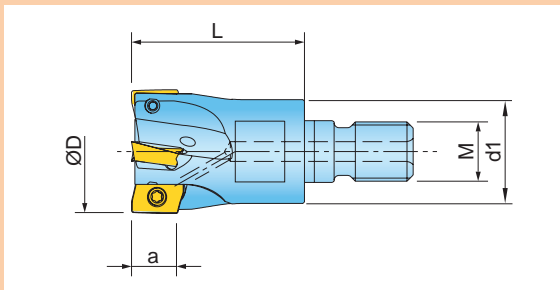
● = P   ● = M   ● = K   ● = N   ○ = S   ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Diameter Range / Diamètres Campo di metri / Rango de diámetros	Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador
16 20 - 32	SM25-054-00 SM25-064-00 	DS-T08S DS-T08S 

SCREW-TYPE ADAPTION / ATTACHEMENT FILETÉ  
 ATTACCO FILETTATO / ADAPTACIÓN MEDIANTE ROSCA

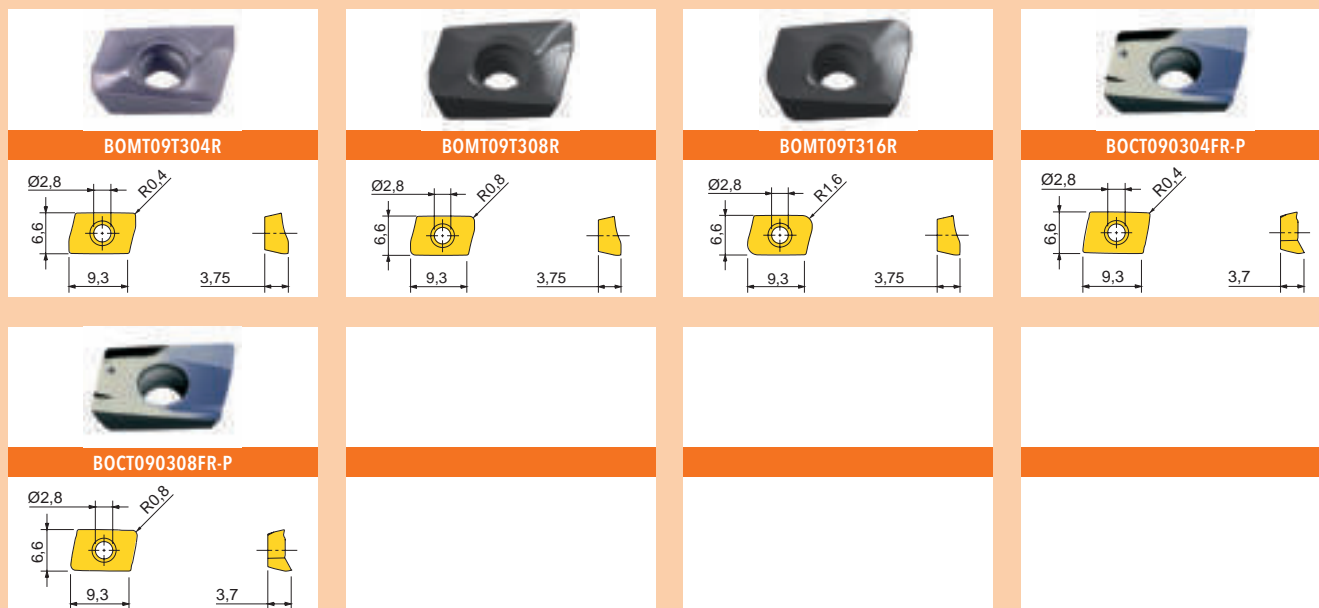


Designation / Réf. de l'article  
 Articolo / Referencia

Designation / Réf. de l'article Articolo / Referencia	D	d1	L	a	M	Z	°	IK	kg
SB.012.002	12	12	30	9	6	1	10,0°	✓	0,02
SB.015.001	15	13	30	9	8	2	11,0°	✓	0,03
SB.016.003	16	13	35	9	8	2	10,0°	✓	0,03
SB.020.009	20	18	35	9	10	3	7,0°	✓	0,06
SB.025.013	25	21	35	9	12	4	4,4°	✓	0,09
SB.032.011	32	29	43	9	16	5	2,8°	✓	0,20



## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA





Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN2005	IN2030	IN2035	IN2505			
BOMT09T304R	positive geometry R0,4			○	●	●	●			
BOMT09T308R	positive geometry R0,8			○	●	●	●			
BOMT09T316R <sup>1)</sup>	positive geometry R1,6				●	●	●			
BOCT090304FR-P	non-ferrous geometry, polished R0,4		●							
BOCT090308FR-P	non-ferrous geometry, polished R0,8		●							

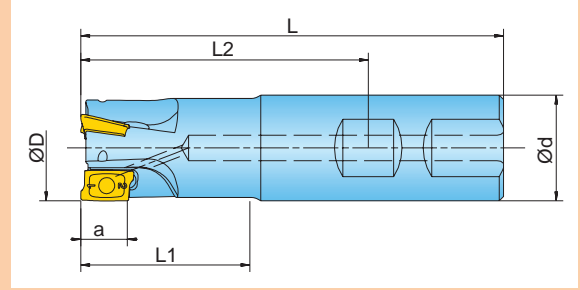
● = P   ● = M   ● = K   ● = N   ○ = S   ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Diameter Range / Diamètres Campo diâmetri / Rango de diâmetros	Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador
12 - 16 20 - 32	SM25-054-00 SM25-064-00 	DS-T08S DS-T08S 

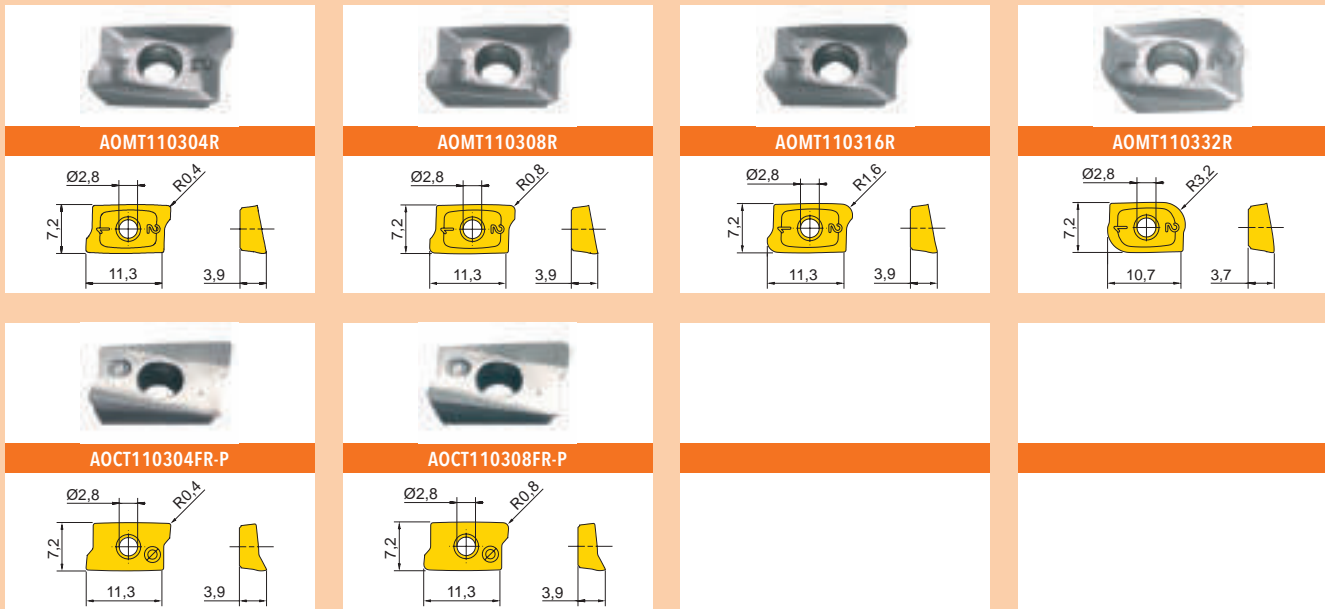
ADAPTION ACC. TO DIN 1835 B (WELDON) / ATTACHEMENT DIN 1835 B ( WELDON)  
 ATTACCO DIN 1835 B (WELDON) / ADAPTACIÓN SEGÚN DIN 1835 B (WELDON)



Designation / Réf. de l'article  
 Articolo / Referencia

	D	d	L	L1	L2	a	Z			
SA.016.004	16	16	85	26	61	11	2	11°	✓	0,11
SA.018.004	18	20	85	26	60	11	2	10°	✓	0,16
SA.020.007	20	20	90	30	65	11	2	7°	✓	0,17
SA.020.018	20	20	90	30	65	11	3	7°	✓	0,18
SA.020.008	20	20	125	75	100	11	2	7°	✓	0,24
SA.025.007	25	25	100	40	68	11	3	5,5°	✓	0,30
SA.025.008	25	25	145	85	113	11	2	5,5°	✓	0,45
SA.025.020	25	25	100	40	68	11	4	5,5°	✓	0,31
SA.032.006	32	25	100	40	68	11	4	3,9°	✓	0,34
SA.032.007	32	25	155	95	123	11	3	3,9°	✓	0,54

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA





Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN30M	IN1030	IN2005	IN2015	IN2030	IN2040	IN2505
AOMT110304R	positive geometry R0,4				●	●	●	●	●	●
AOMT110308R	positive geometry R0,8				●	●	●		●	●
AOMT110316R	positive geometry R1,6				●	●	●		●	
AOMT110332R <sup>1)</sup>	positive geometry R3,2				●	●	●		●	
AOCT110304FR-P	non-ferrous geometry, polished R0,4		●	●						
AOCT110308FR-P	non-ferrous geometry, polished R0,8		●	●						

● = P ● = M ● = K ● = N ○ = S ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

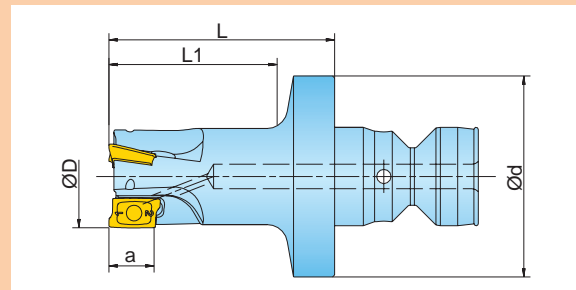
SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM25-064-00 	DS-T08S 		



FR FRAISES EN BOUT  
 IT FRESE PER SPALLAMENTO  
 ES FRESAS DE MANGO

MODULAR MILLING ADAPTOR INNO-FIT / ATTACHEMENT MODULAIRE INNO-FIT  
 CON ATTACCO MODULARE INNO-FIT / FRESA CON CONEXIÓN MODULAR INNO-FIT



Designation / Réf. de l'article  
 Articolo / Referencia

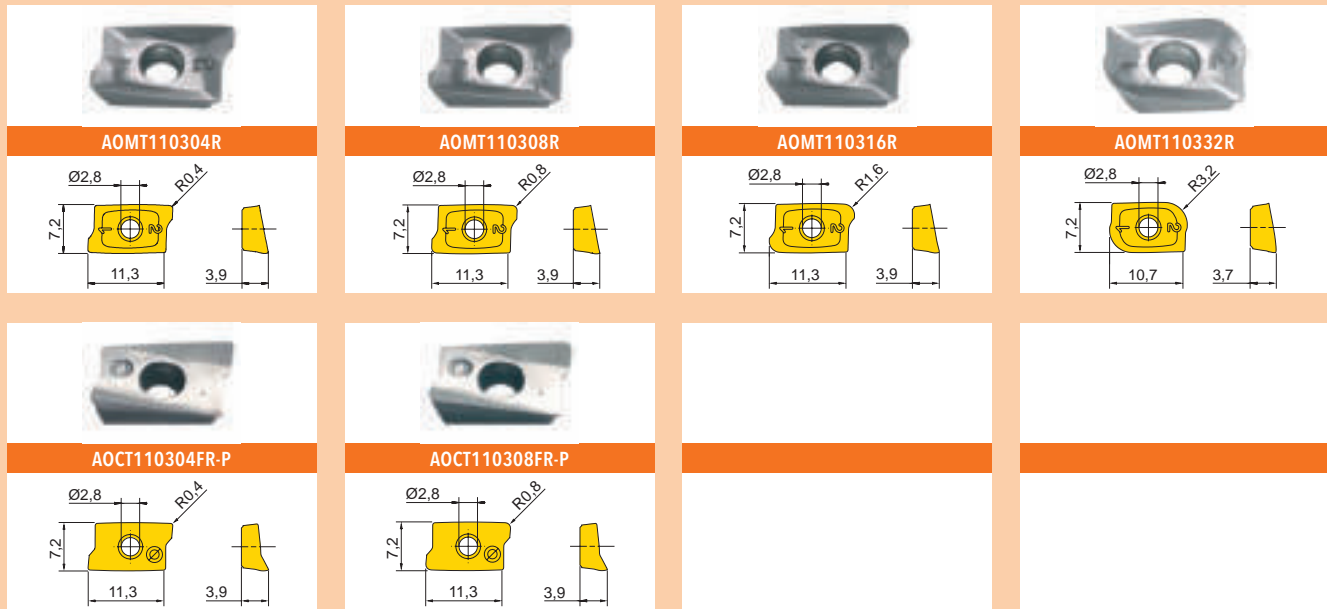
D d L L1 a Z



Designation / Réf. de l'article Articolo / Referencia	D	d	L	L1	a	Z		IK	kg
SA.016.005	16	49	45	28	11	2	11°	✓	0,27
SA.018.005	18	49	45	28	11	2	10°	✓	0,28
SA.020.009	20	49	50	36	11	2	7°	✓	0,31
SA.020.019	20	49	50	36	11	3	7°	✓	0,31
SA.020.010	20	49	70	56	11	2	7°	✓	0,35
SA.020.011	20	49	90	76	11	2	7°	✓	0,39
SA.025.009	25	49	55	41	11	3	5,5°	✓	0,35
SA.025.021	25	49	55	41	11	4	5,5°	✓	0,37
SA.025.010	25	49	80	66	11	3	5,5°	✓	0,43
SA.025.011	25	49	100	86	11	2	5,5°	✓	0,51
SA.032.008	32	49	55	41	11	4	3,9°	✓	0,43
SA.032.009	32	49	80	66	11	4	3,9°	✓	0,57
SA.032.010	32	49	110	96	11	3	3,9°	✓	0,75

HIPDS PLUS SA11M01

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA





Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN30M	IN1030	IN2005	IN2015	IN2030	IN2040	IN2505
AOMT110304R	positive geometry R0,4				●	●	●	●	●	●
AOMT110308R	positive geometry R0,8				●	●	●		●	●
AOMT110316R	positive geometry R1,6				●	●	●		●	
AOMT110332R <sup>1)</sup>	positive geometry R3,2				●	●	●		●	
AOCT110304FR-P	non-ferrous geometry, polished R0,4		●	●						
AOCT110308FR-P	non-ferrous geometry, polished R0,8		●	●						

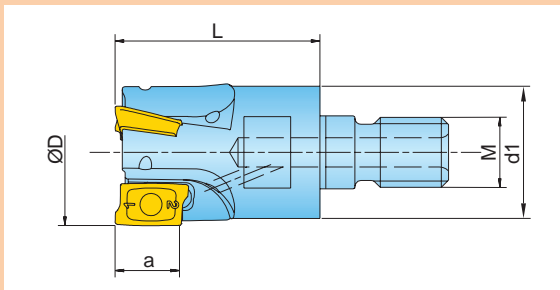
● = P ● = M ● = K ● = N ○ = S ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM25-064-00 	DS-T08S 		

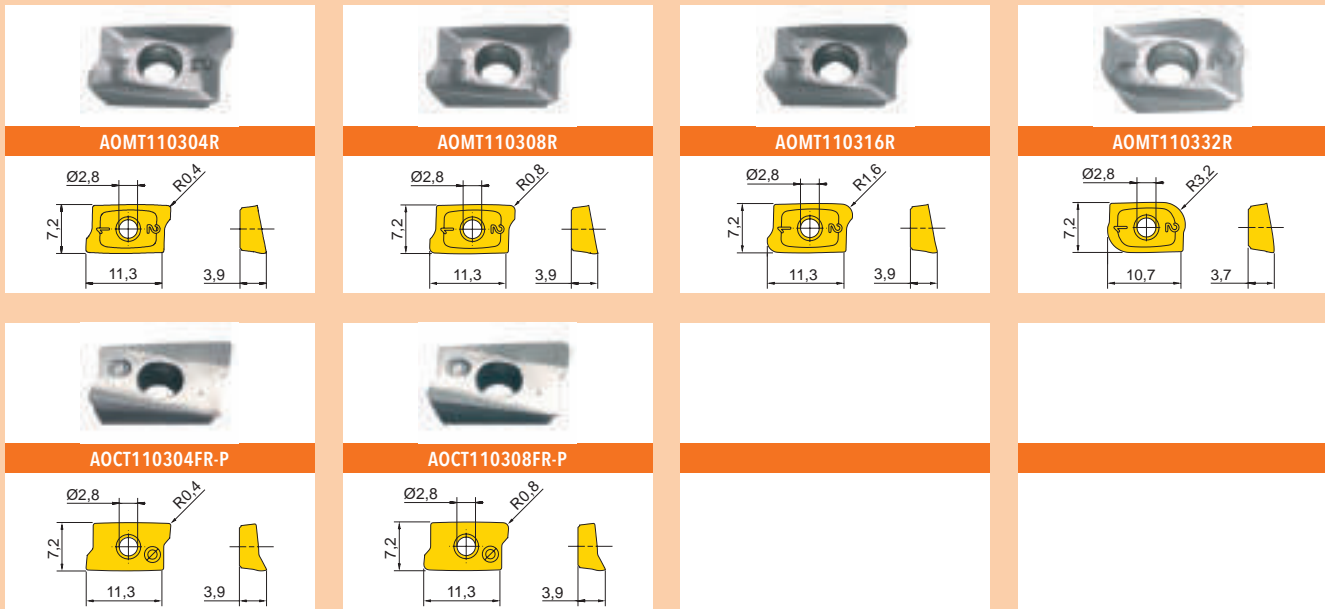
SCREW-TYPE ADAPTION / ATTACHEMENT FILETÉ  
 ATTACCO FILETTATO / ADAPTACIÓN MEDIANTE ROSCA



Designation / Réf. de l'article  
 Articolo / Referencia

Designation / Réf. de l'article Articolo / Referencia	D	d1	L	a	M	Z			
SA.016.006	16	13	35	11	8	2	11°	✓	0,04
SA.020.012	20	18	35	11	10	2	7°	✓	0,06
SA.020.020	20	18	35	11	10	3	7°	✓	0,06
SA.025.012	25	21	35	11	12	3	5,5°	✓	0,09
SA.025.022	25	21	35	11	12	4	5,5°	✓	0,09
SA.032.011	32	29	43	11	16	4	3,9°	✓	0,20
SA.035.001	35	29	43	11	16	4	3,3°	✓	0,21
SA.040.001	40	29	43	11	16	5	2,8°	✓	0,25
SA.042.001	42	29	43	11	16	5	2,7°	✓	0,27

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA





Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN30M	IN1030	IN2005	IN2015	IN2030	IN2040	IN2505
AOMT110304R	positive geometry R0,4				●	●	●	●	●	●
AOMT110308R	positive geometry R0,8				●	●	●		●	●
AOMT110316R	positive geometry R1,6				●	●	●		●	
AOMT110332R <sup>1)</sup>	positive geometry R3,2				●	●	●		●	
AOCT110304FR-P	non-ferrous geometry, polished R0,4		●	●						
AOCT110308FR-P	non-ferrous geometry, polished R0,8		●	●						

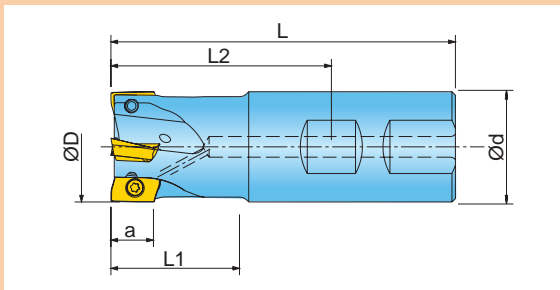
● = P   ● = M   ● = K   ● = N   ○ = S   ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM25-064-00 	DS-T08S 		

ADAPTION ACC. TO DIN 1835 B (WELDON) / ATTACHEMENT DIN 1835 B ( WELDON)  
 ATTACCO DIN 1835 B (WELDON) / ADAPTACIÓN SEGÚN DIN 1835 B (WELDON)

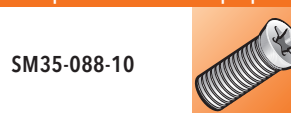


Designation / Réf. de l'article  
 Articolo / Referencia

Designation / Réf. de l'article Articolo / Referencia	D	d	L	L1	L2	a	Z			
SB.020.001	20	20	90	30	65	12	2	7,0°	✓	0,17
SB.025.005	25	25	100	40	68	12	3	7,9°	✓	0,30
SB.032.007	32	25	100	40	68	12	4	5,0°	✓	0,33
SB.032.005	32	32	100	38	64	12	4	5,0°	✓	0,51

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Insert screw / Vis de serrage  
 Vite per inserto / Tornillo plaquita



SM35-088-10

Screw driver / Tournevis  
 Cacciavite / Destornillador



DS-T105



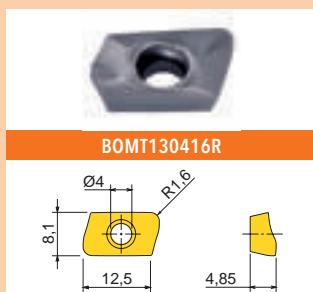
## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



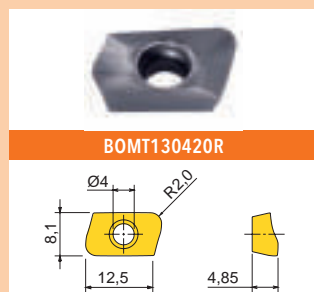
**BOMT130404R**



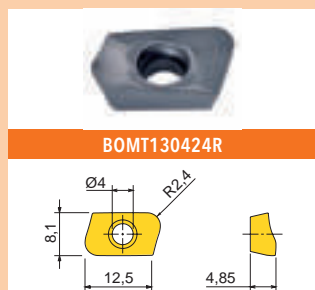
**BOMT130408R**



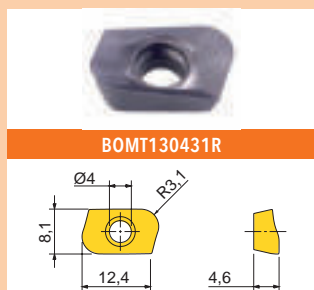
**BOMT130416R**



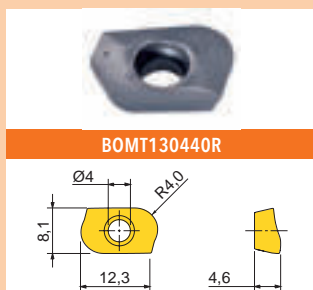
**BOMT130420R**



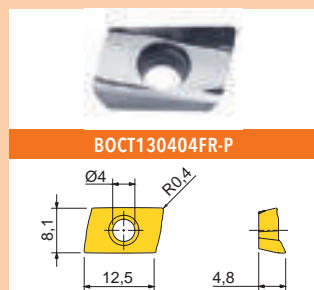
**BOMT130424R**



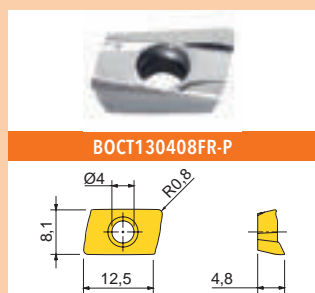
**BOMT130431R**



**BOMT130440R**



**BOCT130404FR-P**



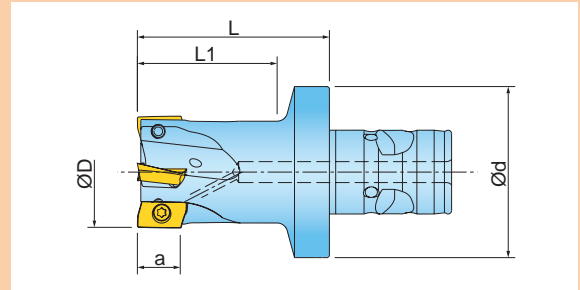
**BOCT130408FR-P**

Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN2005	IN2030	IN2035	IN2505			
BOMT130404R	positive geometry R0,4		○	●	●	●	●			
BOMT130408R	positive geometry R0,8		○	●	●	●	●			
BOMT130416R	positive geometry R1,6			●	●	●	●			
BOMT130420R	positive geometry R2,0			●	●	●	●			
BOMT130424R <sup>1)</sup>	positive geometry R2,4			●	●	●	●			
BOMT130431R <sup>1)</sup>	positive geometry R3,1		○	●	●	●	●			
BOMT130440R <sup>1)</sup>	positive geometry R4,0		○	●	●	●	●			
BOCT130404FR-P	non-ferrous geometry, polished R0,4	●								
BOCT130408FR-P	non-ferrous geometry, polished R0,8	●								

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

● = P   ● = M   ● = K   ● = N   ○ = S   ○ = H

MODULAR MILLING ADAPTOR INNO-FIT / ATTACHEMENT MODULAIRE INNO-FIT  
 CON ATTACCO MODULARE INNO-FIT / FRESA CON CONEXIÓN MODULAR INNO-FIT



Designation / Réf. de l'article  
 Articolo / Referencia

Designation / Réf. de l'article Articolo / Referencia	D	d	L	L1	a	MOD	Z			
SB.020.003	20	49	50	36	12	40	2	7,0°	✓	0,31
SB.020.004	20	49	70	56	12	40	2	7,0°	✓	0,35
SB.025.007	25	49	55	42	12	40	3	7,9°	✓	0,36
SB.025.008	25	49	100	87	12	40	2	7,9°	✓	0,51
SB.032.008	32	49	55	42	12	40	4	5,0°	✓	0,43
SB.032.009	32	49	135	122	12	40	3	5,0°	✓	0,84

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

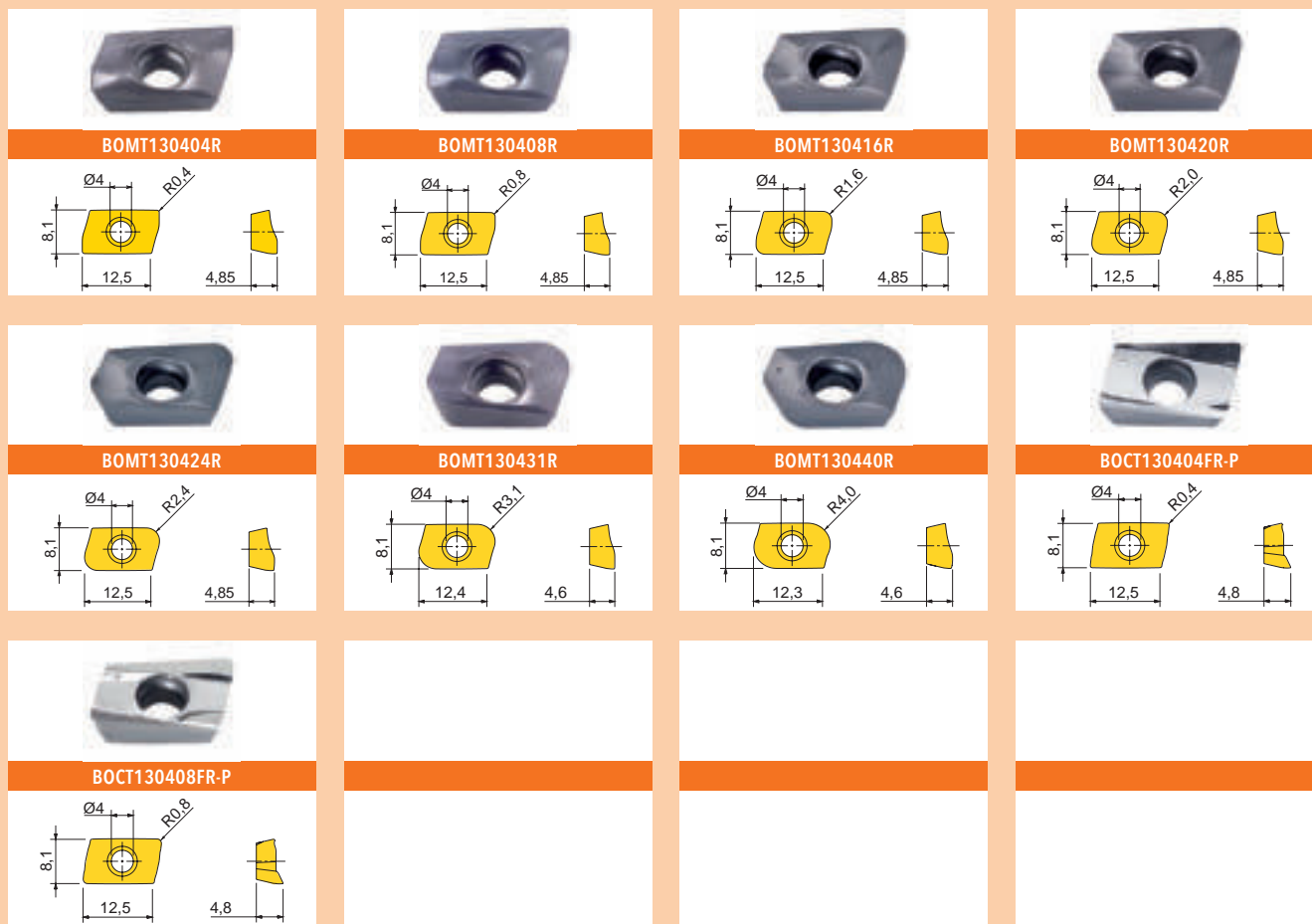
Insert screw / Vis de serrage  
 Vite per inserto / Tornillo plaquita



Screw driver / Tournevis  
 Cacciavite / Destornillador



INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA

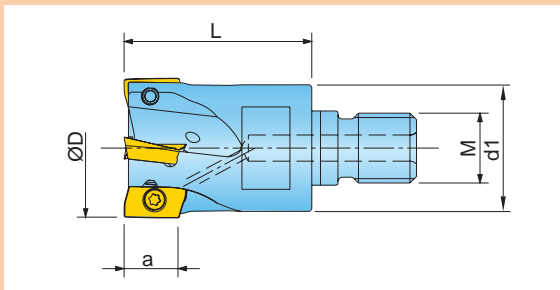


Designation / Réf. de l'article Artículo / Referencia	Insert Version / Execution Tipología Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN2005	IN2030	IN2035	IN2505			
BOMT130404R	positive geometry R0,4		○	●	●	●	●			
BOMT130408R	positive geometry R0,8		○	●	●	●	●			
BOMT130416R	positive geometry R1,6				●		●			
BOMT130420R	positive geometry R2,0				●		●			
BOMT130424R <sup>1)</sup>	positive geometry R2,4				●		●			
BOMT130431R <sup>1)</sup>	positive geometry R3,1		○	●	●	●	●			
BOMT130440R <sup>1)</sup>	positive geometry R4,0		○	●	●		●			
BOCT130404FR-P	non-ferrous geometry, polished R0,4		●							
BOCT130408FR-P	non-ferrous geometry, polished R0,8		●							

● = P   ● = M   ● = K   ● = N   ○ = S   ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

SCREW-TYPE ADAPTION / ATTACHEMENT FILETÉ  
 ATTACCO FILETTATO / ADAPTACIÓN MEDIANTE ROSCA



Designation / Réf. de l'article  
 Articolo / Referencia

Designation / Réf. de l'article Articolo / Referencia	D	d1	L	a	M	Z			
SB.020.002	20	18	35	12	10	2	7,0°	✓	0,06
SB.025.006	25	21	35	12	12	3	7,9°	✓	0,08
SB.032.006	32	29	43	12	16	4	5,0°	✓	0,19
SB.035.001	35	29	43	12	16	4	4,2°	✓	0,20
SB.040.001	40	29	43	12	16	5	3,2°	✓	0,23

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

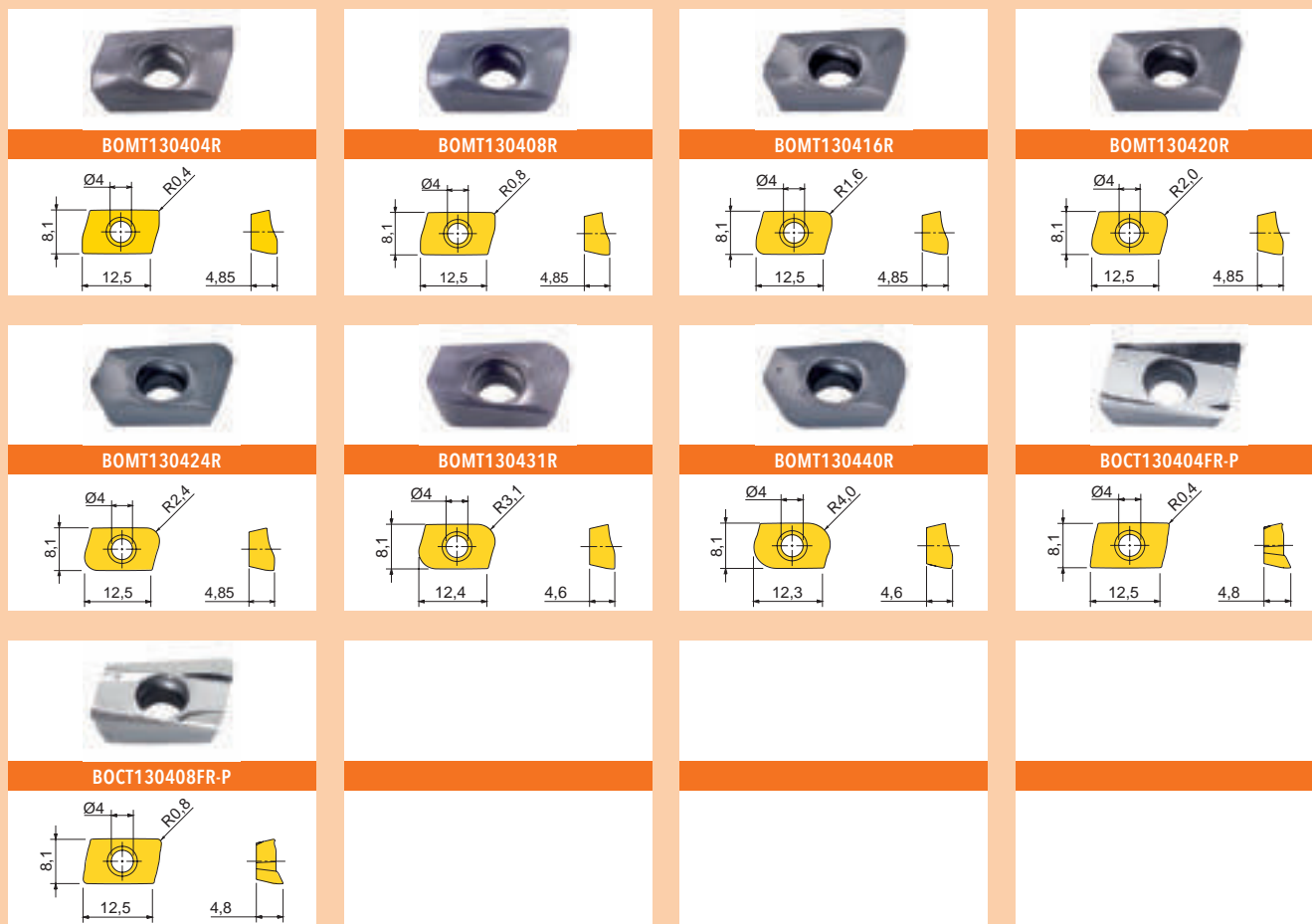
Insert screw / Vis de serrage  
 Vite per inserto / Tornillo plaquita



Screw driver / Tournevis  
 Cacciavite / Destornillador



INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



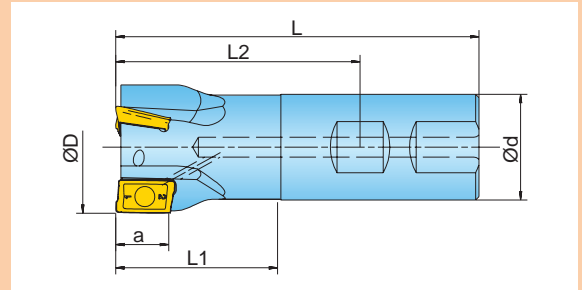
Designation / Réf. de l'article Artículo / Referencia	Insert Version / Execution Tipología Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN2005	IN2030	IN2035	IN2505			
BOMT130404R	positive geometry R0,4		○	●	●	●	●			
BOMT130408R	positive geometry R0,8		○	●	●	●	●			
BOMT130416R	positive geometry R1,6				●		●			
BOMT130420R	positive geometry R2,0				●		●			
BOMT130424R <sup>1)</sup>	positive geometry R2,4				●		●			
BOMT130431R <sup>1)</sup>	positive geometry R3,1		○	●	●	●	●			
BOMT130440R <sup>1)</sup>	positive geometry R4,0		○	●	●		●			
BOCT130404FR-P	non-ferrous geometry, polished R0,4		●							
BOCT130408FR-P	non-ferrous geometry, polished R0,8		●							

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

● = P   ● = M   ● = K   ● = N   ○ = S   ○ = H

18 FRAISES EN BOUT  
17 FRESE PER SPALLAMENTO  
16 FRESAS DE MANGO

ADAPTION ACC. TO DIN 1835 B (WELDON) / ATTACHEMENT DIN 1835 B (WELDON)  
ATTACCO DIN 1835 B (WELDON) / ADAPTACIÓN SEGÚN DIN 1835 B (WELDON)



Designation / Réf. de l'article  
Articolo / Referencia

D

d

L

L1

L2

a

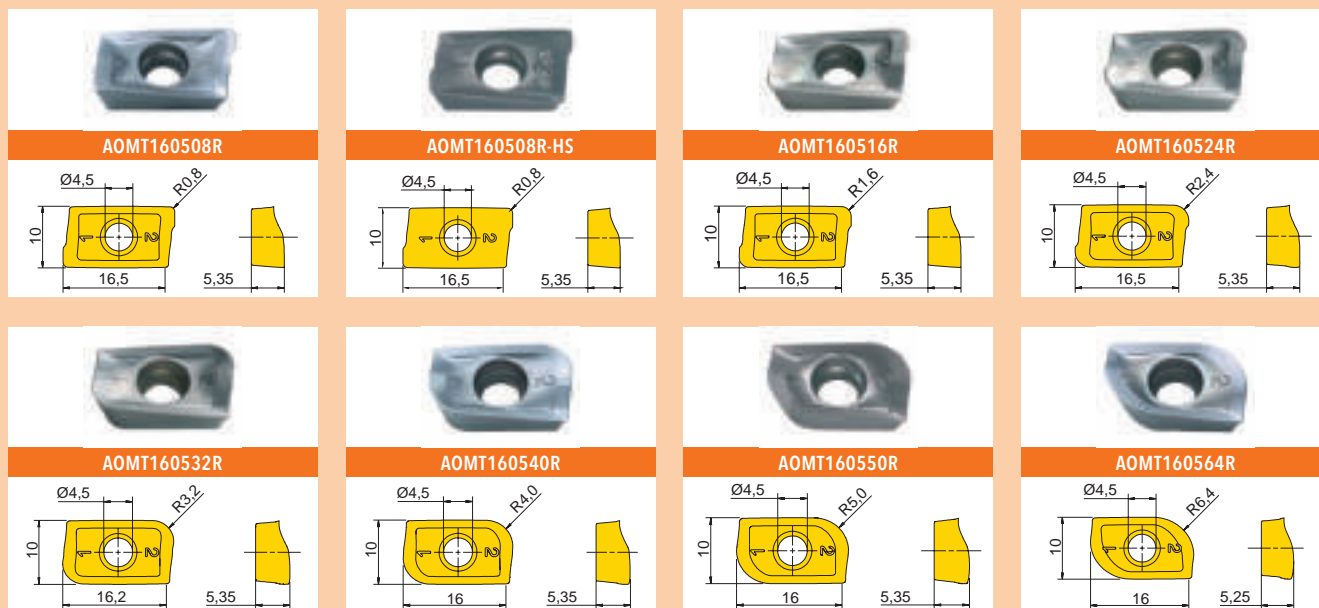
Z



Designation / Réf. de l'article Articolo / Referencia	D	d	L	L1	L2	a	Z	Icon	IK	kg
SA.025.018	25	25	100	40	68	16	2	10°	✓	0,30
SA.032.012	32	32	100	40	64	16	2	3,6°	✓	0,52
SA.032.013	32	32	185	120	149	16	2	3,6°	✓	1,00
SA.040.002	40	32	110	50	74	16	3	2,6°	✓	0,63
SA.040.003	40	32	195	130	159	16	3	2,6°	✓	1,13

HIPDS PLUS SA16D03

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA





Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN1030	IN2005	IN2015	IN2030	IN2040	IN2505
AOMT160508R	positive geometry R0,8			●	●	●	●	●	●
AOMT160508R-HS	positive titanium geometry R0,8		●	●					
AOMT160516R	positive geometry R1,6			●	●	●		●	
AOMT160524R	positive geometry R2,4			●	●	●		●	
AOMT160532R <sup>1)</sup>	positive geometry R3,2			●	●	●		●	
AOMT160540R <sup>1)</sup>	positive geometry R4,0			●	●	●		●	
AOMT160550R <sup>1)</sup>	positive geometry R5,0			●	●	●		●	
AOMT160564R <sup>1)</sup>	positive geometry R6,4			●	●	●		●	

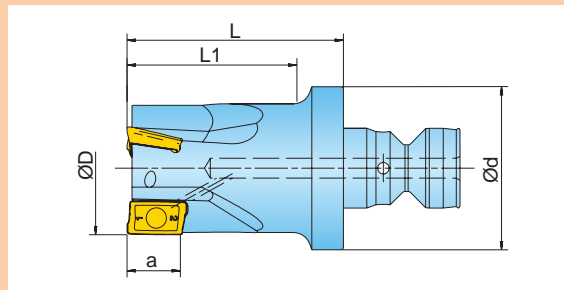
● = P ● = M ● = K ● = N ○ = S ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Diameter Range / Diamètres Campo di metri / Rango de diámetros	Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador
25 32 - 40	SM40-080-10 SM40-093-20 	DS-T15S DS-T15S 

MODULAR MILLING ADAPTOR INNO-FIT / ATTACHEMENT MODULAIRE INNO-FIT  
 CON ATTACCO MODULARE INNO-FIT / FRESA CON CONEXIÓN MODULAR INNO-FIT

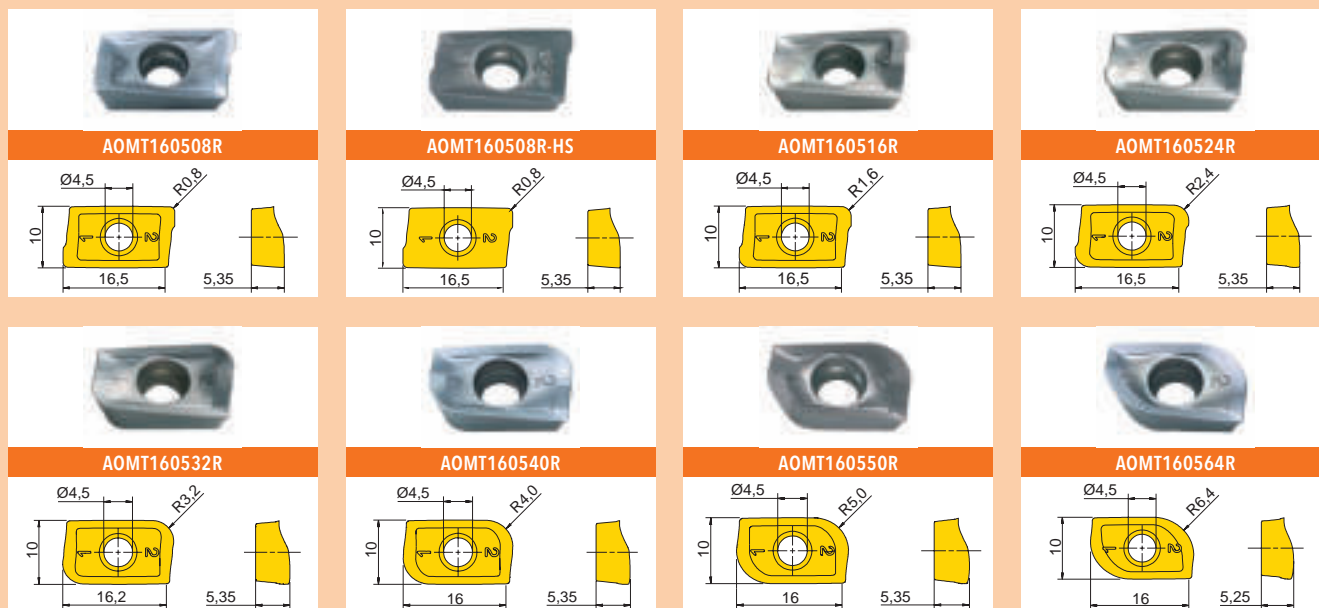


Designation / Réf. de l'article  
 Articolo / Referencia

	D	d	L	L1	a	Z			
SA.025.019	25	49	55	41	16	2	10°	✓	0,36
SA.032.014	32	49	55	41	16	2	3,6°	✓	0,42
SA.032.016	32	49	55	41	16	3	3,6°	✓	0,41
SA.032.015	32	49	135	122	16	2	3,6°	✓	0,87
SA.040.004	40	49	65	51	16	3	2,6°	✓	0,61
SA.040.005	40	49	145	132	16	3	2,6°	✓	1,33



## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA





Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN1030	IN2005	IN2015	IN2030	IN2040	IN2505
AOMT160508R	positive geometry R0,8			●	●	●	●	●	●
AOMT160508R-HS	positive titanium geometry R0,8		●	●					
AOMT160516R	positive geometry R1,6			●	●	●		●	
AOMT160524R	positive geometry R2,4			●	●	●		●	
AOMT160532R <sup>1)</sup>	positive geometry R3,2			●	●	●		●	
AOMT160540R <sup>1)</sup>	positive geometry R4,0			●	●	●		●	
AOMT160550R <sup>1)</sup>	positive geometry R5,0			●	●	●		●	
AOMT160564R <sup>1)</sup>	positive geometry R6,4			●	●	●		●	

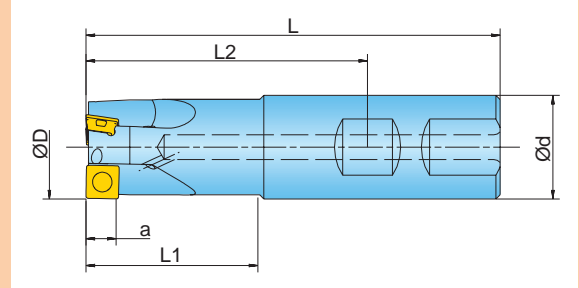
● = P ● = M ● = K ● = N ○ = S ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Diameter Range / Diamètres Campo di metri / Rango de diámetros	Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador
25 32 - 40	SM40-080-10 SM40-093-20 	DS-T15S DS-T15S 

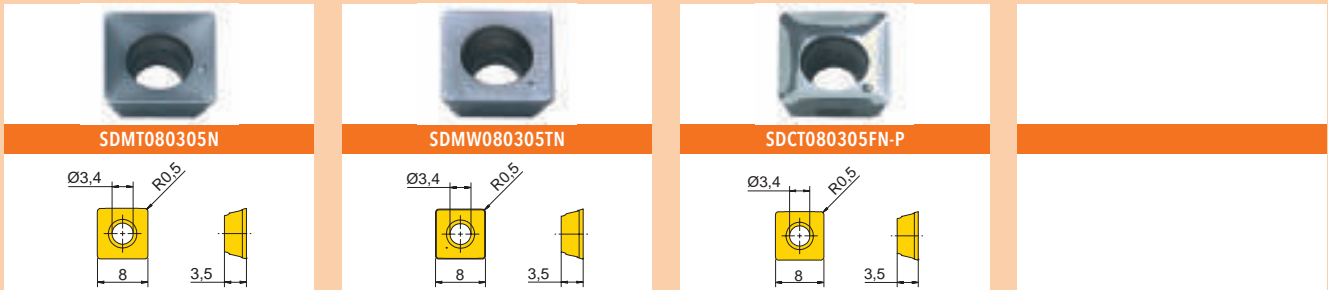
ADAPTION ACC. TO DIN 1835 B (WELDON) / ATTACHEMENT DIN 1835 B ( WELDON)  
 ATTACCO DIN 1835 B (WELDON) / ADAPTACIÓN SEGÚN DIN 1835 B (WELDON)



Designation / Réf. de l'article  
 Articolo / Referencia

	D	d	L	L1	L2	a	Z		IK	kg
SS.016.001	16	16	85	26	61	7,5	1	2,5°	✓	0,10
SS.018.001	18	20	85	26	60	7,5	2	2,5°	✓	0,16
SS.020.001	20	20	90	30	65	7,5	2	2,0°	✓	0,17
SS.025.001	25	25	100	40	68	7,5	3	2,0°	✓	0,30
SS.025.003	25	25	145	87	113	7,5	2	2,0°	✓	0,45
SS.032.001	32	32	100	38	64	7,5	4	1,6°	✓	0,53
SS.032.003	32	32	155	93	119	7,5	3	1,6°	✓	0,83

INSERTS / PLAQUETTES DE COUPE  
 INSERTI / PLAQUITA



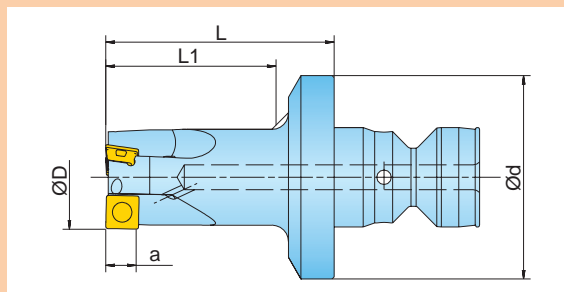
Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN30M	IN1030	IN2005	IN2015	IN2030	IN2040		
SDMT080305N	positive geometry R0,5			●●●	●●●	●●●	●●●	●●●		
SDMW080305TN	neutral geometry, K-land R0,5			●●●	●●●	●●●	●●●	●●●		
SDCT080305FN-P	non-ferrous geometry, polished R0,5		●	●						

● = P ● = M ● = K ● = N ○ = S ○ = H

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM30-065-00 	DS-T09S 		

MODULAR MILLING ADAPTOR INNO-FIT / ATTACHEMENT MODULAIRE INNO-FIT  
CON ATTACCO MODULARE INNO-FIT / FRESA CON CONEXIÓN MODULAR INNO-FIT



Designation / Réf. de l'article  
Articolo / Referencia

	D	d	L	L1	a	MOD	Z			
SS.016.002	16	49	45	28	7,5	40	1	2,5°	✓	0,27
SS.018.002	18	49	45	28	7,5	40	2	2,5°	✓	0,28
SS.020.002	20	49	50	36	7,5	40	2	2,0°	✓	0,29
SS.025.002	25	49	55	41	7,5	40	3	2,0°	✓	0,34
SS.025.004	25	49	80	66	7,5	40	3	2,0°	✓	0,42
SS.025.005	25	49	100	86	7,5	40	2	2,0°	✓	0,48
SS.032.002	32	49	55	41	7,5	40	4	1,6°	✓	0,42
SS.032.004	32	49	80	66	7,5	40	4	1,6°	✓	0,56
SS.032.005	32	49	110	96	7,5	40	3	1,6°	✓	0,73

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA

SDMT080305N	SDMW080305TN	SDCT080305FN-P	

Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN30M	IN1030	IN2005	IN2015	IN2030	IN2040		
SDMT080305N	positive geometry R0,5									
SDMW080305TN	neutral geometry, K-land R0,5									
SDCT080305FN-P	non-ferrous geometry, polished R0,5									

● = P ● = M ● = K ● = N ○ = S ○ = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM30-065-00	DS-T09S		

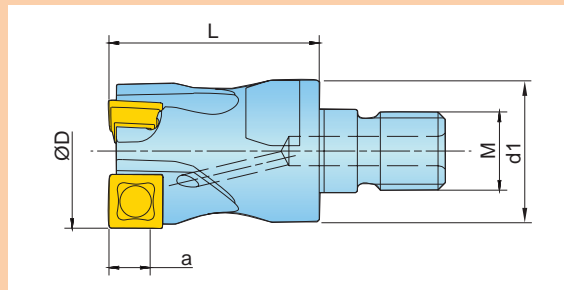
SS08M01

HIPOS QUAD



**FR FRAISES EN BOUT**  
**IT FRESE PER SPALLAMENTO**  
**ES FRESAS DE MANGO**

SCREW-TYPE ADAPTION / ATTACHEMENT FILETÉ  
 ATTACCO FILETTATO / ADAPTACIÓN MEDIANTE ROSCA



Designation / Réf. de l'article  
 Articolo / Referencia

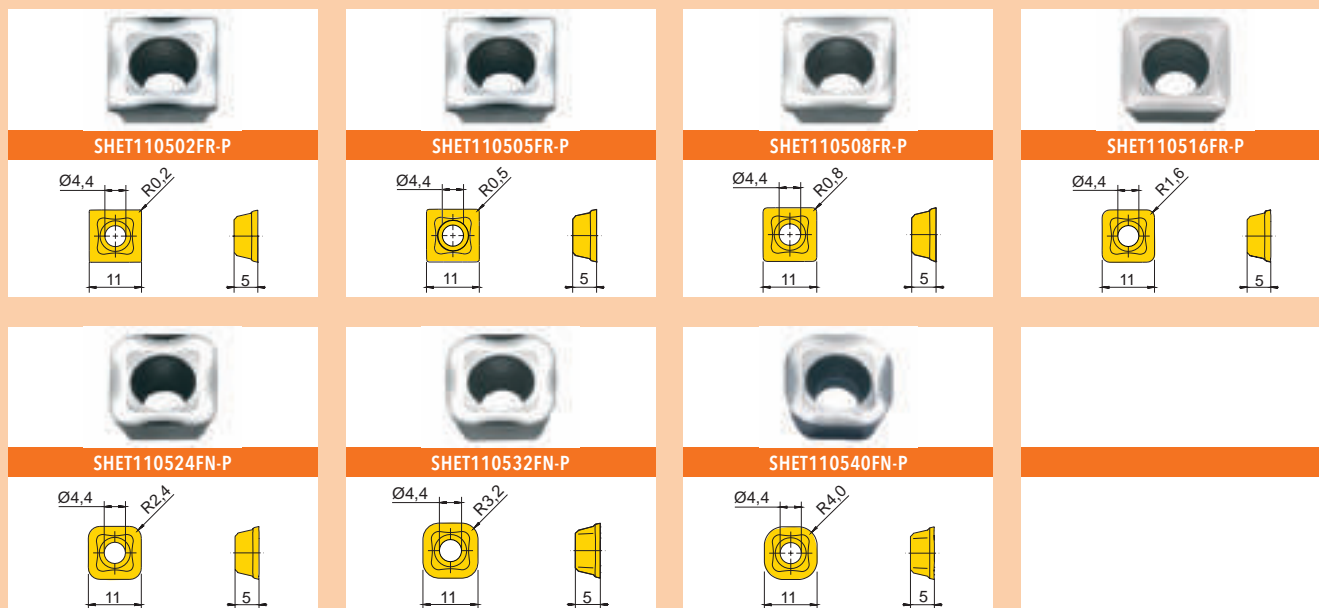
D d1 L a M Z 



Designation / Réf. de l'article Articolo / Referencia	D	d1	L	a	M	Z		IK	kg
SS.025.006	25	21	35	8,4	12	2	7,0°	✓	0,08
SS.032.006	32	29	43	8,4	16	3	6,0°	✓	0,18
SS.040.002	40	29	43	8,4	16	3	4,0°	✓	0,22

**ALUMINATOR SS11E01**



## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



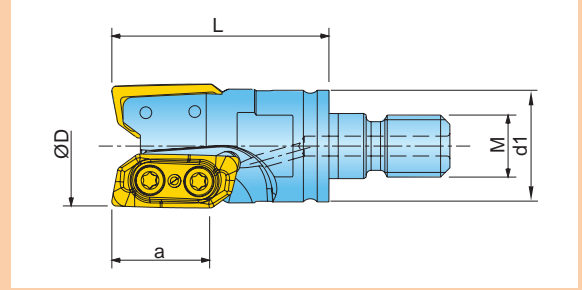
Designation / Réf. de l'article Artículo / Referencia	Insert Version / Execution Tipología Inserto / Tipo de Plaquita	Grade Nuance Grado Grado	IN15K									
SHET110502FR-P	non-ferrous geometry, polished R0,2		●									
SHET110505FR-P	non-ferrous geometry, polished R0,5		●									
SHET110508FR-P	non-ferrous geometry, polished R0,8		●									
SHET110516FR-P	non-ferrous geometry, polished R1,6		●									
SHET110524FN-P	non-ferrous geometry, polished R2,4		●									
SHET110532FN-P	non-ferrous geometry, polished R3,2		●									
SHET110540FN-P	non-ferrous geometry, polished R4,0		●									

● = P   ● = M   ● = K   ● = N   ○ = S   ○ = H

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM40-093-20 	DS-T15S 		

**SCREW-TYPE ADAPTION / ATTACHEMENT FILETÉ**  
**ATTACCO FILETTATO / ADAPTACIÓN MEDIANTE ROSCA**



**Designation / Réf. de l'article**  
**Articolo / Referencia**

**D d1 L a M Z**

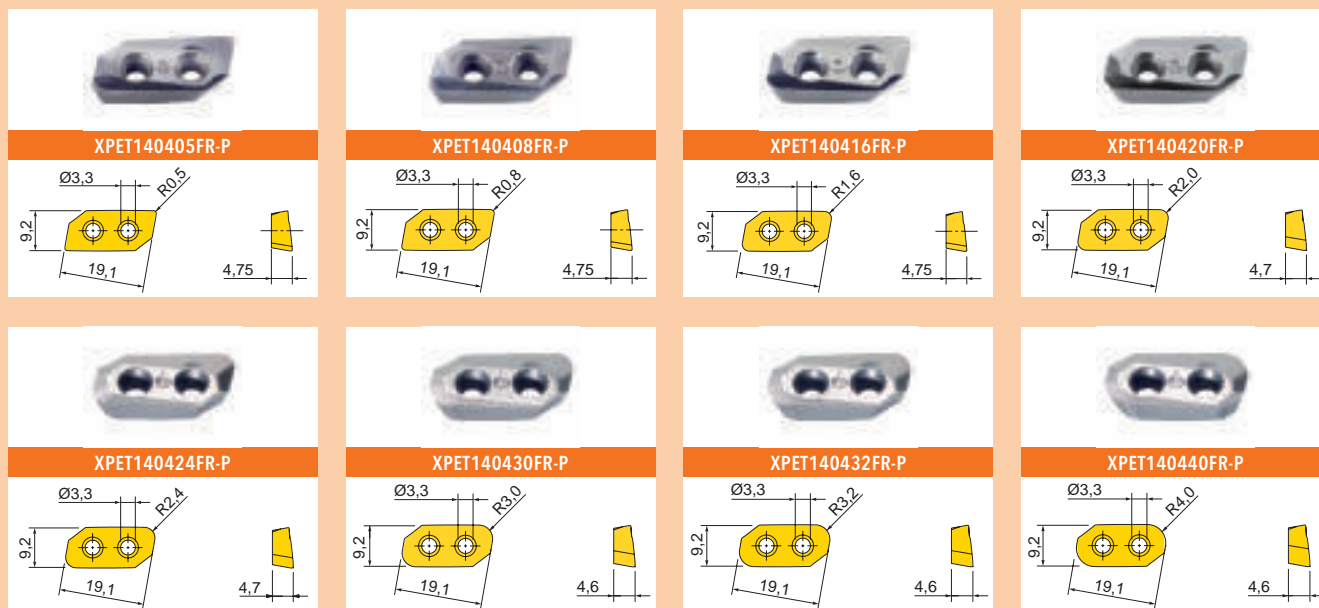


Designation / Réf. de l'article Articolo / Referencia	D	d1	L	a	M	Z		IK	kg
EX.020.001	20	18	35	15,5	10	2	4,6°	✓	0,06
EX.025.002	25	21	43	15,5	12	2	9,6°	✓	0,12
EX.032.002	32	29	43	15,5	16	3	12,2°	✓	0,21
EX.040.001	40	29	53	15,5	16	3	8,6°	✓	0,32
EX.042.002	42	29	53	15,5	16	3	8,1°	✓	0,34

**EX14E01**

**ALUMINATOR**

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA





Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN15K							
XPET140405FR-P	non-ferrous geometry, polished R0,5		●							
XPET140408FR-P	non-ferrous geometry, polished R0,8		●							
XPET140416FR-P	non-ferrous geometry, polished R1,6		●							
XPET140420FR-P	non-ferrous geometry, polished R2,0		●							
XPET140424FR-P	non-ferrous geometry, polished R2,4		●							
XPET140430FR-P <sup>1)</sup>	non-ferrous geometry, polished R3,0		●							
XPET140432FR-P <sup>1)</sup>	non-ferrous geometry, polished R3,2		●							
XPET140440FR-P <sup>1)</sup>	non-ferrous geometry, polished R4,0		●							

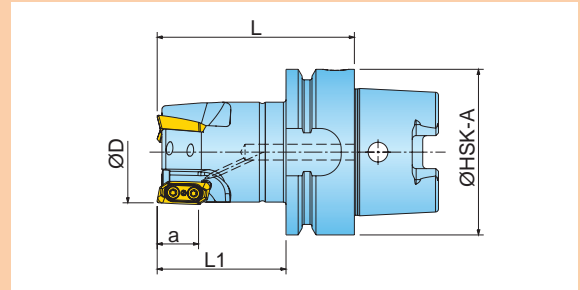
● = P ● = M ● = K ● = N ○ = S ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM30-065-00 	DS-T09S 		

ADAPTION ACC. TO DIN 69893 A / ATTACHEMENT DIN 69893 A  
 ATTACCO DIN 69893 A / ADAPTACIÓN SEGÚN DIN 69893 A

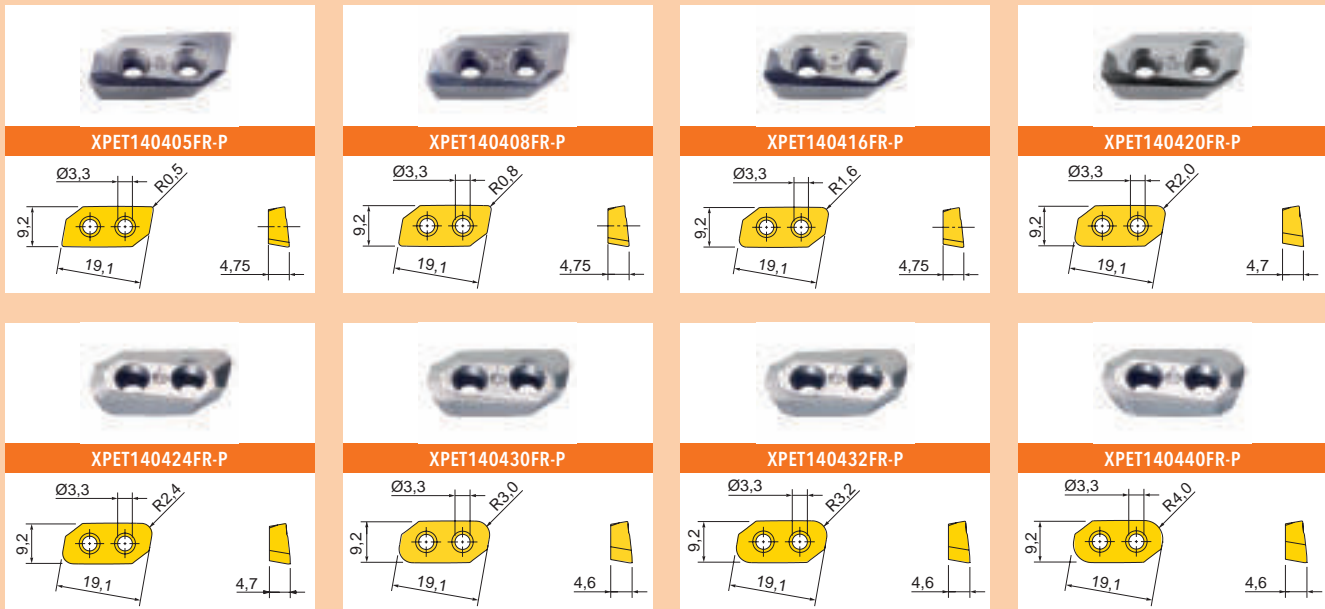


Designation / Réf. de l'article  
 Articolo / Referencia

	D	L	L1	a	HSK-A	Z			
EX.032.003	32	75	48	15,5	50	3	12,2°	✓	0,59
EX.032.004	32	100	73	15,5	50	3	12,2°	✓	0,72
EX.032.005	32	150	123	15,5	50	3	12,2°	✓	1,00
EX.040.002	40	75	48	15,5	50	3	8,6°	✓	0,73
EX.040.003	40	100	73	15,5	50	3	8,6°	✓	0,96
EX.040.004	40	150	123	15,5	50	3	8,6°	✓	1,41
EX.050.003	50	75	48	15,5	50	4	6,2°	✓	0,85
EX.050.004	50	100	73	15,5	50	4	6,2°	✓	1,12
EX.050.005	50	150	123	15,5	50	4	6,2°	✓	1,64
EX.063.003	63	75	48	15,5	50	5	4,7°	✓	1,00
EX.063.004	63	100	73	15,5	50	5	4,7°	✓	1,30
EX.063.005	63	150	123	15,5	50	5	4,7°	✓	1,83
EX.080.003	80	75	48	15,5	50	5	3,5°	✓	1,32
EX.080.004	80	100	73	15,5	50	5	3,5°	✓	1,65
EX.080.005	80	150	123	15,5	50	5	3,5°	✓	2,29



## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA





Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN15K								
XPET140405FR-P	non-ferrous geometry, polished R0,5		●								
XPET140408FR-P	non-ferrous geometry, polished R0,8		●								
XPET140416FR-P	non-ferrous geometry, polished R1,6		●								
XPET140420FR-P	non-ferrous geometry, polished R2,0		●								
XPET140424FR-P	non-ferrous geometry, polished R2,4		●								
XPET140430FR-P <sup>1)</sup>	non-ferrous geometry, polished R3,0		●								
XPET140432FR-P <sup>1)</sup>	non-ferrous geometry, polished R3,2		●								
XPET140440FR-P <sup>1)</sup>	non-ferrous geometry, polished R4,0		●								

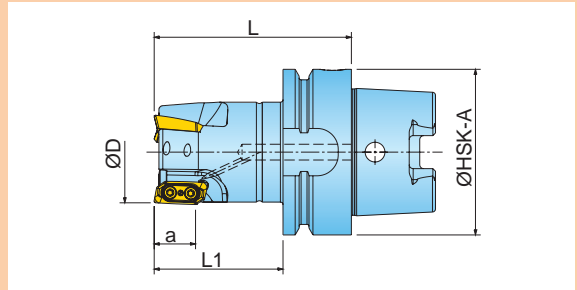
● = P   ● = M   ● = K   ● = N   ○ = S   ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM30-065-00 	DS-T09S 		

ADAPTION ACC. TO DIN 69893 A / ATTACHEMENT DIN 69893 A  
 ATTACCO DIN 69893 A / ADAPTACIÓN SEGÚN DIN 69893 A



Designation / Réf. de l'article  
 Articolo / Referencia

D L L1 a HSK-A Z

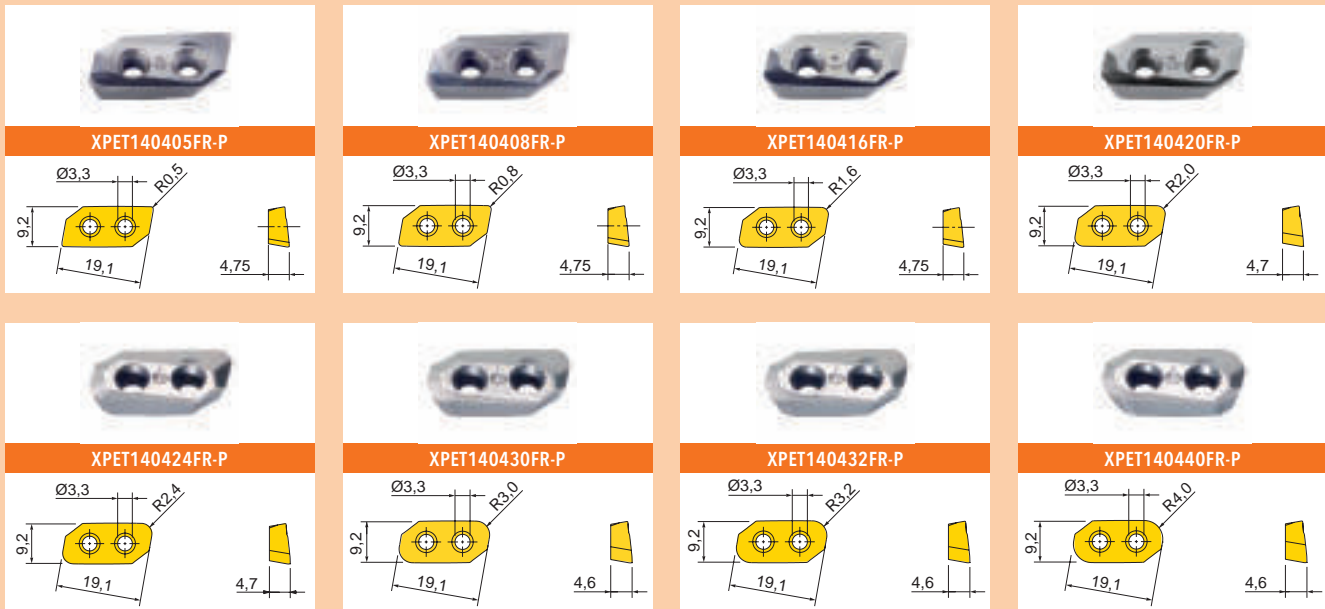


Designation / Réf. de l'article Articolo / Referencia	D	L	L1	a	HSK-A	Z		IK	kg
EX.032.006	32	75	48	15,5	63	3	12,2°	✓	0,84
EX.032.007	32	100	73	15,5	63	3	12,2°	✓	0,98
EX.032.008	32	150	123	15,5	63	3	12,2°	✓	1,24
EX.040.005	40	75	48	15,5	63	3	8,6°	✓	1,00
EX.040.006	40	100	73	15,5	63	3	8,6°	✓	1,21
EX.040.007	40	150	123	15,5	63	3	8,6°	✓	1,66
EX.050.006	50	75	48	15,5	63	4	6,2°	✓	1,18
EX.050.007	50	100	73	15,5	63	4	6,2°	✓	1,55
EX.050.008	50	150	123	15,5	63	4	6,2°	✓	2,26
EX.063.006	63	75	48	15,5	63	5	4,7°	✓	1,39
EX.063.007	63	100	73	15,5	63	5	4,7°	✓	1,81
EX.063.008	63	150	123	15,5	63	5	4,7°	✓	2,66
EX.080.006	80	75	48	15,5	63	5	3,5°	✓	1,73
EX.080.007	80	100	73	15,5	63	5	3,5°	✓	2,15
EX.080.008	80	150	123	15,5	63	5	3,5°	✓	3,07

ALUMINATOR EX14D08B

ALUMINATOR

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA





Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN15K							
XPET140405FR-P	non-ferrous geometry, polished R0,5		●							
XPET140408FR-P	non-ferrous geometry, polished R0,8		●							
XPET140416FR-P	non-ferrous geometry, polished R1,6		●							
XPET140420FR-P	non-ferrous geometry, polished R2,0		●							
XPET140424FR-P	non-ferrous geometry, polished R2,4		●							
XPET140430FR-P <sup>1)</sup>	non-ferrous geometry, polished R3,0		●							
XPET140432FR-P <sup>1)</sup>	non-ferrous geometry, polished R3,2		●							
XPET140440FR-P <sup>1)</sup>	non-ferrous geometry, polished R4,0		●							

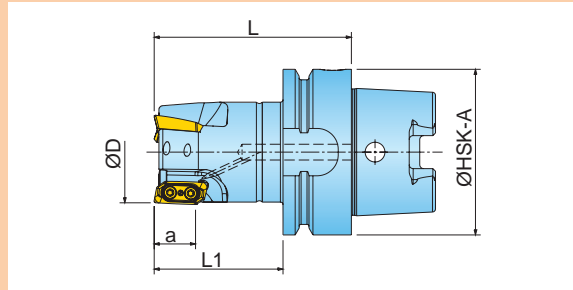
● = P ● = M ● = K ● = N ○ = S ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM30-065-00 	DS-T09S 		

ADAPTION ACC. TO DIN 69893 A / ATTACHEMENT DIN 69893 A  
ATTACCO DIN 69893 A / ADAPTACIÓN SEGÚN DIN 69893 A



Designation / Réf. de l'article  
Articolo / Referencia

D L L1 a HSK-A Z

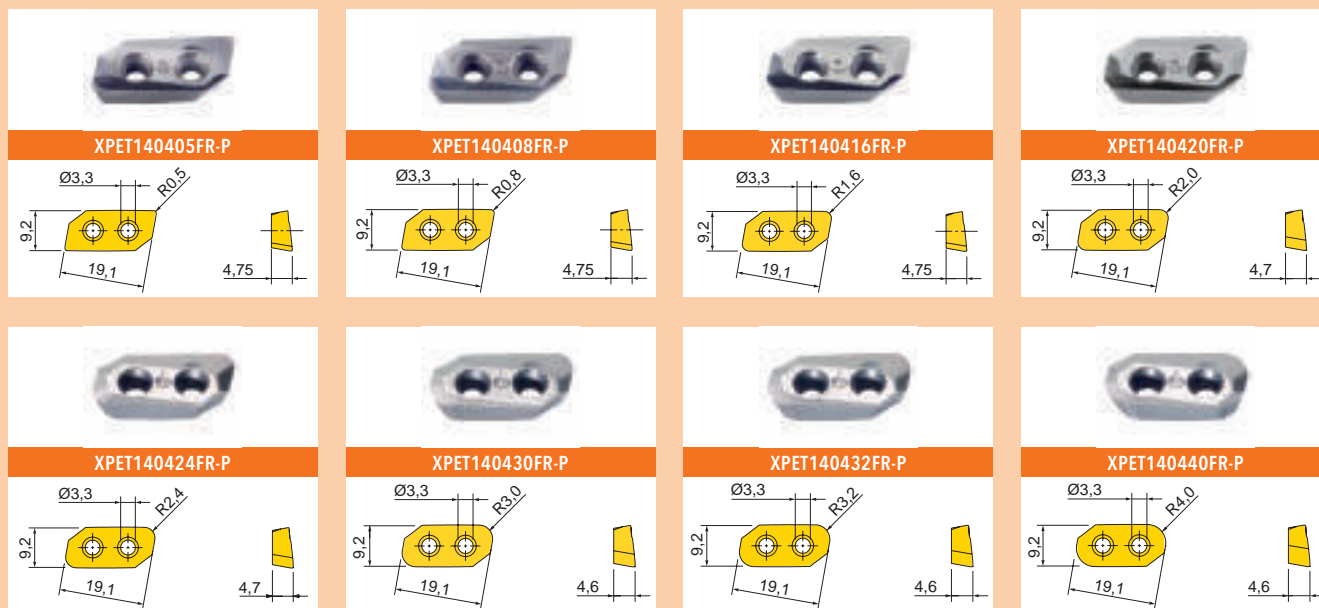


Designation / Réf. de l'article Articolo / Referencia	D	L	L1	a	HSK-A	Z		IK	kg
EX.032.009	32	75	48	15,5	80	3	12,2°	✓	1,32
EX.032.010	32	100	73	15,5	80	3	12,2°	✓	1,44
EX.032.011	32	150	123	15,5	80	3	12,2°	✓	1,71
EX.040.008	40	75	48	15,5	80	3	8,6°	✓	1,42
EX.040.009	40	100	73	15,5	80	3	8,6°	✓	1,64
EX.040.010	40	150	123	15,5	80	3	8,6°	✓	2,08
EX.050.009	50	75	48	15,5	80	4	6,2°	✓	1,62
EX.050.010	50	100	73	15,5	80	4	6,2°	✓	1,98
EX.050.011	50	150	123	15,5	80	4	6,2°	✓	2,60
EX.063.009	63	75	48	15,5	80	5	4,7°	✓	1,95
EX.063.010	63	100	73	15,5	80	5	4,7°	✓	2,53
EX.063.011	63	150	123	15,5	80	5	4,7°	✓	3,67
EX.080.009	80	75	48	15,5	80	5	3,5°	✓	2,37
EX.080.010	80	100	73	15,5	80	5	3,5°	✓	3,05
EX.080.011	80	150	123	15,5	80	5	3,5°	✓	4,41

ALUMINATOR EX14D08C

ALUMINATOR

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA





Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN15K							
XPET140405FR-P	non-ferrous geometry, polished R0,5		●							
XPET140408FR-P	non-ferrous geometry, polished R0,8		●							
XPET140416FR-P	non-ferrous geometry, polished R1,6		●							
XPET140420FR-P	non-ferrous geometry, polished R2,0		●							
XPET140424FR-P	non-ferrous geometry, polished R2,4		●							
XPET140430FR-P <sup>1)</sup>	non-ferrous geometry, polished R3,0		●							
XPET140432FR-P <sup>1)</sup>	non-ferrous geometry, polished R3,2		●							
XPET140440FR-P <sup>1)</sup>	non-ferrous geometry, polished R4,0		●							

● = P   ● = M   ● = K   ● = N   ○ = S   ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

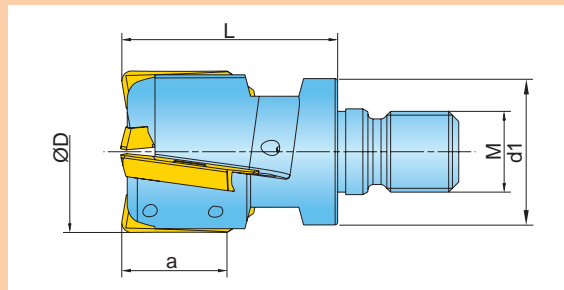
## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM30-065-00 	DS-T09S 		



**FR FRAISES EN BOUT**  
**IT FRESE PER SPALLAMENTO**  
**ES FRESAS DE MANGO**

SCREW-TYPE ADAPTION / ATTACHEMENT FILETÉ  
 ATTACCO FILETTATO / ADAPTACIÓN MEDIANTE ROSCA



Designation / Réf. de l'article  
Articolo / Referencia

D d1 L a M Z

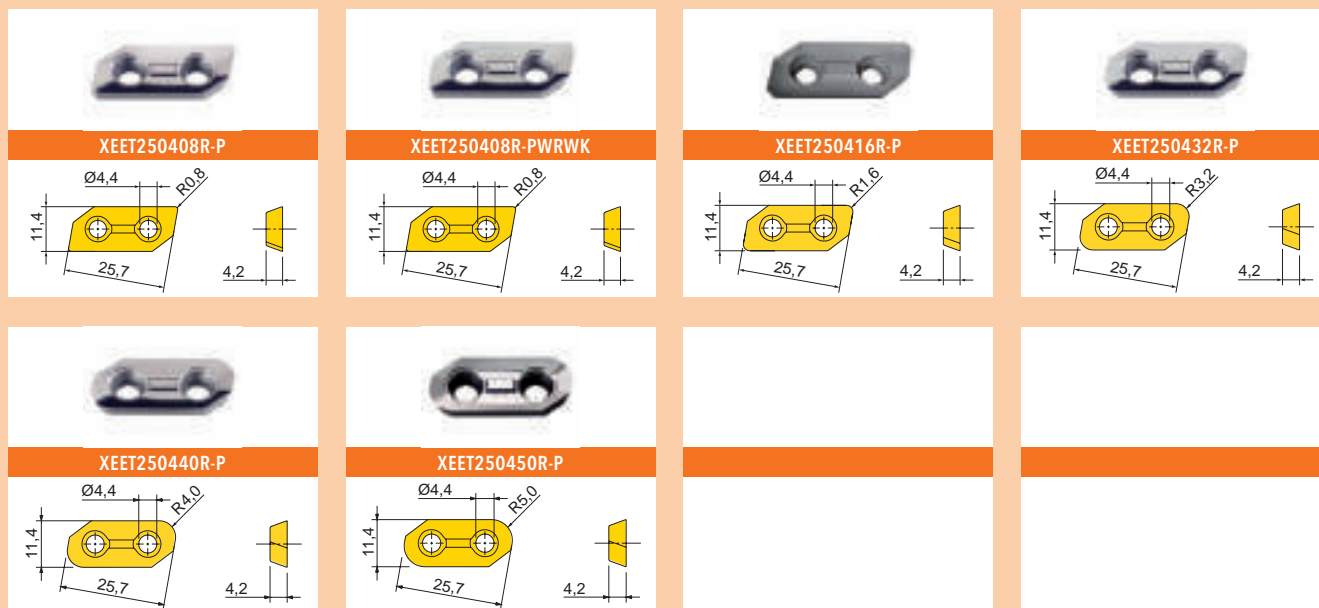


Designation / Réf. de l'article Articolo / Referencia	D	d1	L	a	M	Z		IK	kg
EX.025.001	25	21	43	21	12	1	20,0°	✓	0,12
EX.032.001	32	29	43	21	16	2	15,0°	✓	0,15
EX.042.001	42	29	53	21	16	3	10,0°	✓	0,20

ALUMINATOR EX25E01

ALUMINATOR

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA





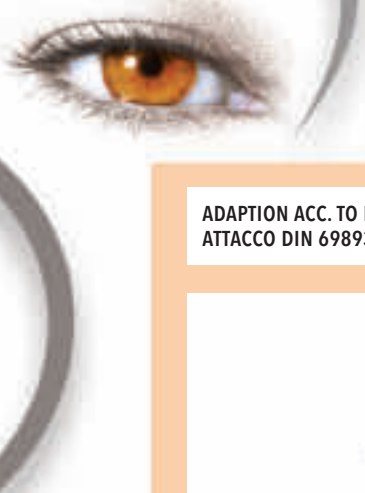
Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN15K							
XEET250408R-P	non-ferrous geometry, polished R0,8		●							
XEET250408R-PWRWK	non-ferrous wiper geometry, polished R0,8		●							
XEET250416R-P	non-ferrous geometry, polished R1,6		●							
XEET250432R-P	non-ferrous geometry, polished R3,2		●							
XEET250440R-P	non-ferrous geometry, polished R4,0		●							
XEET250450R-P <sup>1)</sup>	non-ferrous geometry, polished R5,0		●							

● = P   ● = M   ● = K   ● = N   ○ = S   ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

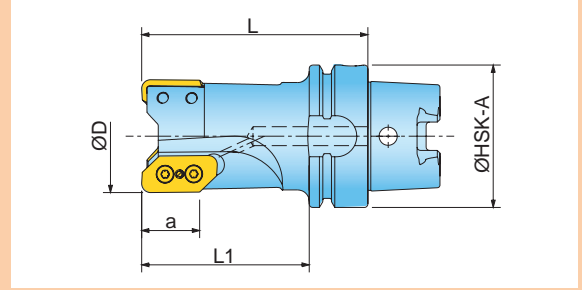
## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM40-070-00 	DS-T15S 		



FR FRAISES EN BOUT  
 IT FRESE PER SPALLAMENTO  
 ES FRESAS DE MANGO

ADAPTION ACC. TO DIN 69893 A / ATTACHEMENT DIN 69893 A  
 ATTACCO DIN 69893 A / ADAPTACIÓN SEGÚN DIN 69893 A



Designation / Réf. de l'article  
 Articolo / Referencia

D L L1 a HSK-A Z



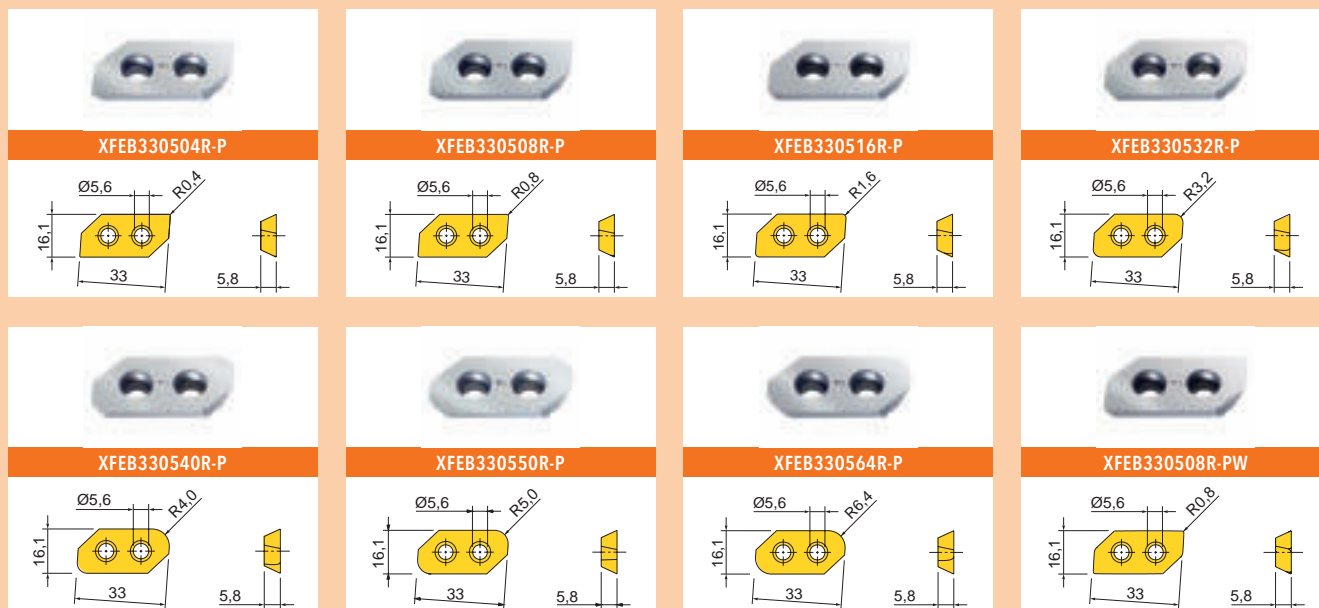
Designation / Réf. de l'article Articolo / Referencia	D	L	L1	a	HSK-A	Z		IK	kg
EX.050.014	50	100	72	25,5	63	2	15,0°	✓	1,22
EX.050.015	50	100	72	25,5	80	2	15,0°	✓	1,64

ALUMINATOR EX33D08

ALUMINATOR



## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN15K							
XFEB330504R-P	non-ferrous geometry, polished R0,4		●							
XFEB330508R-P	non-ferrous geometry, polished R0,8		●							
XFEB330516R-P	non-ferrous geometry, polished R1,6		●							
XFEB330532R-P	non-ferrous geometry, polished R3,2		●							
XFEB330540R-P	non-ferrous geometry, polished R4,0		●							
XFEB330550R-P	non-ferrous geometry, polished R5,0		●							
XFEB330564R-P <sup>1)</sup>	non-ferrous geometry, polished R6,4		●							
XFEB330508R-PW	Wiper non-ferrous geometry, polished R0,8		●							

● = P   ● = M   ● = K   ● = N   ○ = S   ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM50-100-10 	DS-T20T 		



FR FRAISES HÉRISSE  
IT FRESE ELICOIDALI  
ES FRESA CILÍNDRICA FRONTAL



MINNO

**HELICAL END MILLS**



**TOOL**



	D	a	Description / Description Modello / Descripción	Code / Série Codici / Serie	Page / Page Pagina / Página
	16 - 25	16,5 - 27	<del>HIPOE-MORD</del>	IA06D03	62
	16 - 25	17 - 27	<del>HIPOE-MORD</del>	IA06M01	64
	25 - 32	26 - 34	<del>HIPOE-PLUS</del>	IB09D03	66
	25 - 40	26 - 42,5	<del>HIPOE-PLUS</del>	IB09M01	68
	28 - 40	29 - 48	<del>HIPOE-PLUS</del>	IA11D03	70
	40 - 63	39 - 48	<del>HIPOE-PLUS</del>	IA11D10	72
	28 - 50	29 - 77	<del>HIPOE-PLUS</del>	IA11M01	74
	32 - 40	35 - 46	<del>HIPOE-PLUS</del>	IB13D02B	76
	40 - 80	35 - 46	<del>HIPOE-PLUS</del>	IB13D10B	78
	32 - 63	35 - 138	<del>HIPOE-PLUS</del>	IB13M01B	80
	63 - 125	45 - 59	<del>HIPOE-PLUS</del>	IA16D10	82

Subject to printing error or technical changes / Sous réserve d'erreurs d'impression ou de modifications techniques / Quanto stampato puo' essere  
 soggetto ad errori di stampa e variazione tecniche / Queda reservado el derecho sobre eventuales fallos de impresión, errores o modificaciones  
 técnicas










# HELICAL END MILLS

**FR** FRAISES HÉRRISON

**IT** FRESE ELICOIDALI

**ES** FRESA CILÍNDRICA FRONTAL

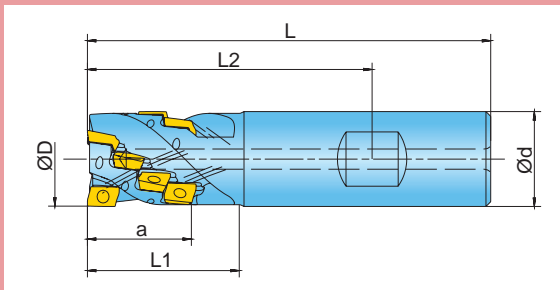
	D	a	Description / Description Modello / Descripción	Code / Série Codici / Serie	Page / Page Pagina / Página
	40 - 80	45 - 146	<b>HIPO2-PLUS</b>	IA16M01	84
	28 - 40	28 - 48	<b>HIPO2-QUAD</b>	IS08D03	86
	40 - 63	28 - 48	<b>HIPO2-QUAD</b>	IS08D10	87
	28 - 50	28 - 68	<b>HIPO2-QUAD</b>	IS08M01	88
	63 - 160	32 - 53	<b>HIPO2-QUAD</b>	IS12D10	90
	63 - 80	63 - 105	<b>HIPO2-QUAD</b>	IS12M01	91
	63 - 100	60 - 84	<b>HIPO2-QUAD</b>	IS14D10	92

Subject to printing error or technical changes / Sous réserve d'erreurs d'impression ou de modifications techniques / Quanto stampato può essere soggetto ad errori di stampa e variazioni tecniche / Queda reservado el derecho sobre eventuales fallos de impresión, errores o modificaciones técnicas



FR FRAISES HÉRISSEON  
 IT FRESE ELICOIDALI  
 ES FRESA CILÍNDRICA FRONTAL

ADAPTION ACC. TO DIN 1835 B (WELDON) / ATTACHEMENT DIN 1835 B ( WELDON)  
 ATTACCO DIN 1835 B (WELDON) / ADAPTACIÓN SEGÚN DIN 1835 B (WELDON)



Designation / Réf. de l'article  
 Articolo / Referencia

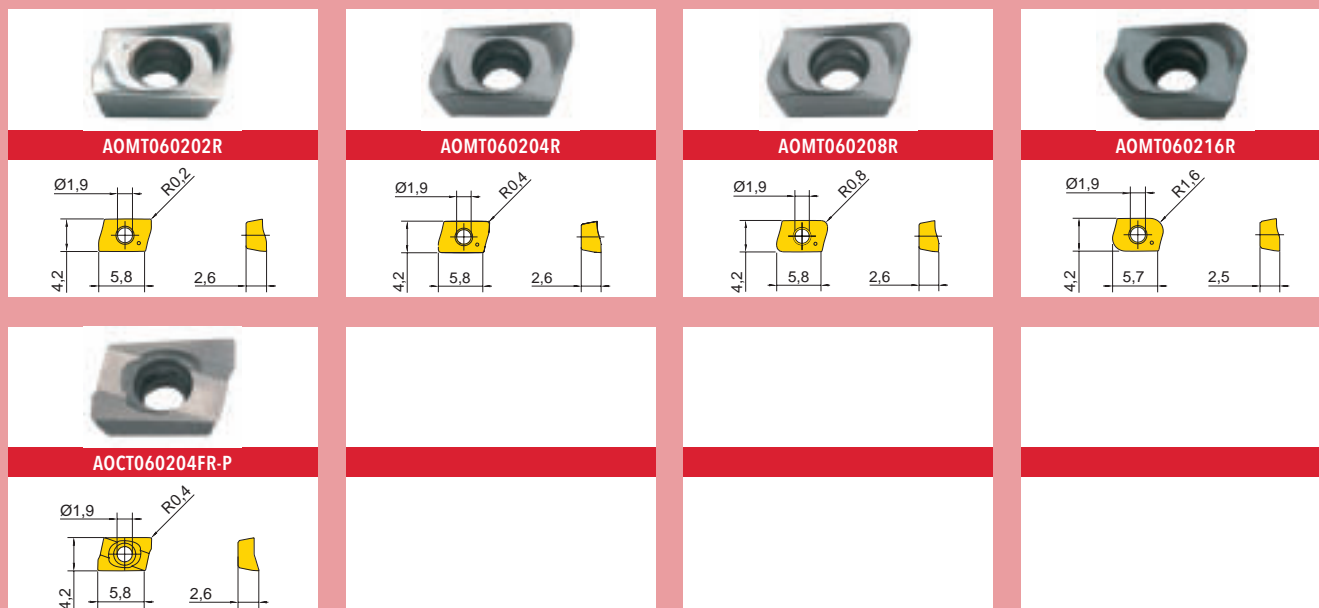
Designation / Réf. de l'article Articolo / Referencia	D	d	L	L1	L2	a	Z	Zeff			
IA.016.001	16	16	80	30	56	16,5	6	2	4,0°	✓	0,10
IA.019.001	19	20	85	32	60	22	12	3	2,6°	✓	0,16
IA.020.003	20	20	85	32	60	22	12	3	2,5°	✓	0,16
IA.022.001	22	20	85	32	60	22	16	4	2,3°	✓	0,17
IA.025.003	25	25	95	36	63	27	20	4	2,0°	✓	0,29

HIPOS-MIGRO IA06D03

HIPOS-MIGRO

# HELICAL END MILLS

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA





Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2005	IN2030	IN2035	IN2505			
AOMT060202R	positive geometry R0,2			●	●	●	●			
AOMT060204R	positive geometry R0,4			●	●		●			
AOMT060208R	positive geometry R0,8			●	●		●			
AOMT060216R <sup>1)</sup>	positive geometry R1,6			●	●					
AOCT060204FR-P	non-ferrous geometry, polished R0,4		●							

● = P   ● = M   ● = K   ● = N   ● = S   ● = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

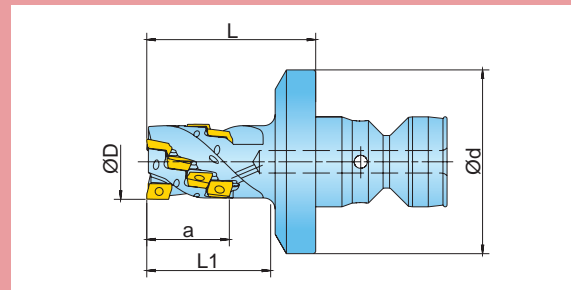
Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM18-041-00 	DS-TP06S (TX-Plus) 		



FR FRAISES HÉRISSEON  
 IT FRESE ELICOIDALI  
 ES FRESA CILÍNDRICA FRONTAL



MODULAR MILLING ADAPTOR INNO-FIT / ATTACHEMENT MODULAIRE INNO-FIT  
 CON ATTACCO MODULARE INNO-FIT / FRESA CON CONEXIÓN MODULAR INNO-FIT



Designation / Réf. de l'article  
 Articolo / Referencia

D d L L1 a MOD Z Zeff



Designation / Réf. de l'article Articolo / Referencia	D	d	L	L1	a	MOD	Z	Zeff			
IA.016.002	16	49	45	32	17	40	6	2	4,0°	✓	0,27
IA.020.004	20	49	45	32	22	40	12	3	2,5°	✓	0,28
IA.025.004	25	49	55	43	27	40	20	4	2,0°	✓	0,34

IA06M01

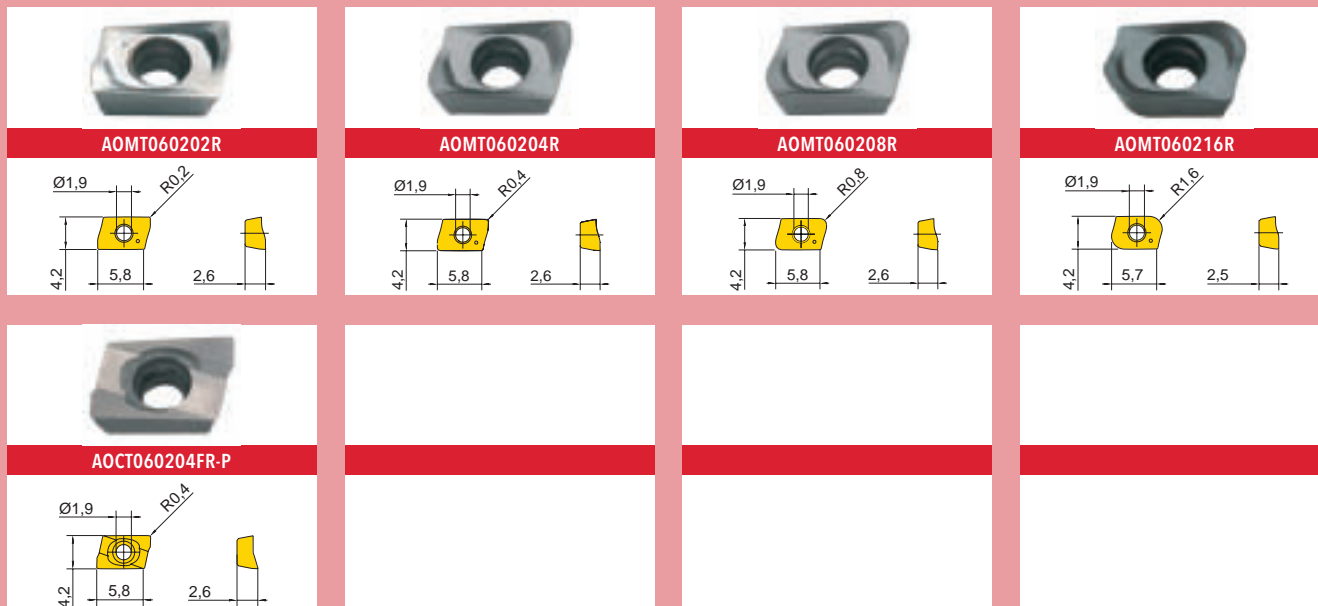
HIPDS-MIGRO





# HELICAL END MILLS

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA





Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2005	IN2030	IN2035	IN2505			
AOMT060202R	positive geometry R0,2			●	●	●	●			
AOMT060204R	positive geometry R0,4			●	●		●			
AOMT060208R	positive geometry R0,8			●	●		●			
AOMT060216R <sup>1)</sup>	positive geometry R1,6			●	●					
AOCT060204FR-P	non-ferrous geometry, polished R0,4		●							

● = P ● = M ● = K ● = N ● = S ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

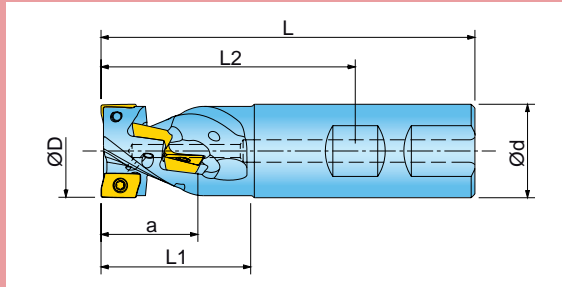
## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM18-041-00 	DS-TP06S (TX-Plus) 		



**FR** FRAISES HÉRISSEON  
**IT** FRESE ELICOIDALI  
**ES** FRESA CILÍNDRICA FRONTAL

ADAPTION ACC. TO DIN 1835 B (WELDON) / ATTACHEMENT DIN 1835 B ( WELDON)  
 ATTACCO DIN 1835 B (WELDON) / ADAPTACIÓN SEGÚN DIN 1835 B (WELDON)



Designation / Réf. de l'article  
 Articolo / Referencia

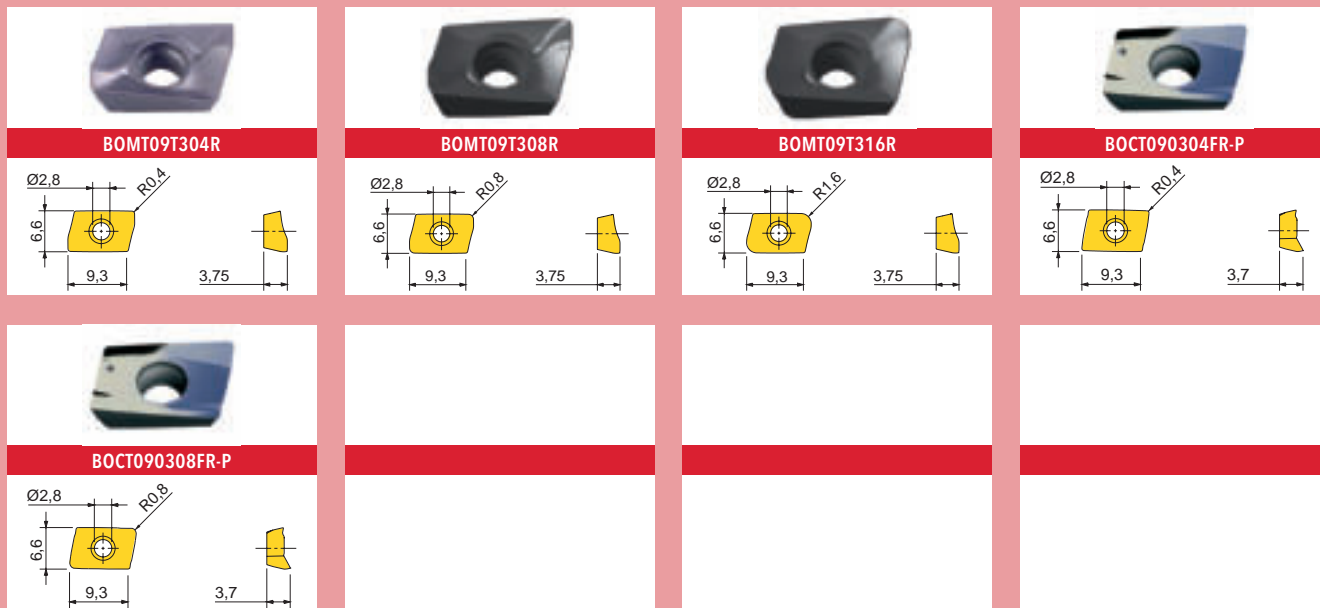
	D	d	L	L1	L2	a	Z	Zeff			
--	---	---	---	----	----	---	---	------	--	--	--

IB.025.001	25	25	100	40	68	26	6	2	4,4°	✓	0,28
IB.032.005	32	32	110	50	74	34	12	3	2,8°	✓	0,52

**HIPDS PLUS** IB09D03

# HELICAL END MILLS

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA





Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN2005	IN2030	IN2035	IN2505			
BOMT09T304R	positive geometry R0,4			●	●	●	●			
BOMT09T308R	positive geometry R0,8			●	●	●	●			
BOMT09T316R <sup>1)</sup>	positive geometry R1,6				●	●	●			
BOCT090304FR-P	non-ferrous geometry, polished R0,4		●							
BOCT090308FR-P	non-ferrous geometry, polished R0,8		●							

● = P ● = M ● = K ● = N ● = S ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

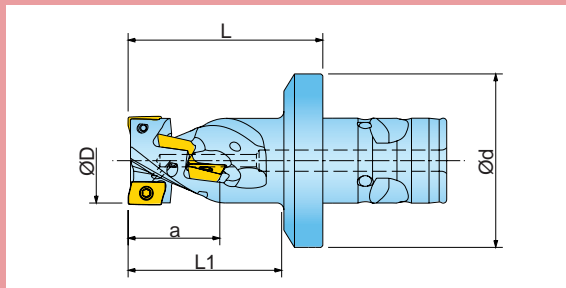
Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM25-064-00 	DS-T08S 		



**FR** FRAISES HÉRISSEON  
**IT** FRESE ELICOIDALI  
**ES** FRESA CILÍNDRICA FRONTAL



MODULAR MILLING ADAPTOR INNO-FIT / ATTACHEMENT MODULAIRE INNO-FIT  
 CON ATTACCO MODULARE INNO-FIT / FRESA CON CONEXIÓN MODULAR INNO-FIT



Designation / Réf. de l'article  
 Articolo / Referencia

	D	d	L	L1	a	MOD	Z	Zeff			
--	---	---	---	----	---	-----	---	------	--	--	--

IB.025.002	25	49	55	43	26	40	6	2	4,4°	✓	0,33
IB.028.001	28	49	72	60	34	40	8	2	3,7°	✓	0,42
IB.032.006	32	49	72	60	34	40	12	3	2,8°	✓	0,48
IB.040.014	40	49	72	60	42,5	40	20	4	2,4°	✓	0,58

**HIPDS PLUS** IB09M01

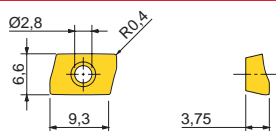


# HELICAL END MILLS

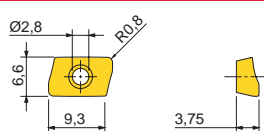
## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



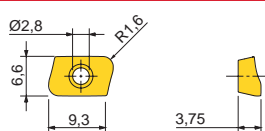
**BOMT09T304R**



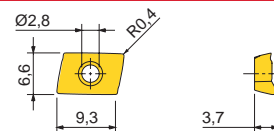
**BOMT09T308R**



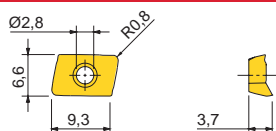
**BOMT09T316R**



**BOCT090304FR-P**



**BOCT090308FR-P**



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN2005	IN2030	IN2035	IN2505			
BOMT09T304R	positive geometry R0,4			●	●	●	●			
BOMT09T308R	positive geometry R0,8			●	●	●	●			
BOMT09T316R <sup>1)</sup>	positive geometry R1,6				●	●	●			
BOCT090304FR-P	non-ferrous geometry, polished R0,4		●							
BOCT090308FR-P	non-ferrous geometry, polished R0,8		●							

● = P ● = M ● = K ● = N ● = S ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage  
Vite per inserto / Tornillo plaquita

SM25-064-00

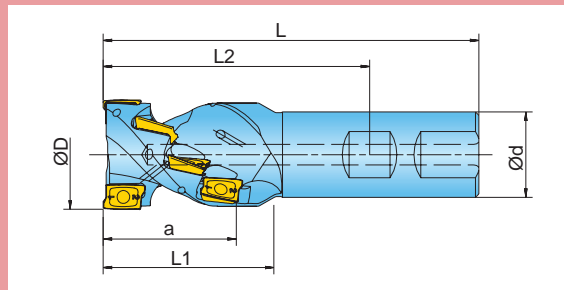
Screw driver / Tournevis  
Cacciavite / Destornillador

DS-T08S



**FR** FRAISES HÉRISSEON  
**IT** FRESE ELICOIDALI  
**ES** FRESA CILÍNDRICA FRONTAL

ADAPTION ACC. TO DIN 1835 B (WELDON) / ATTACHEMENT DIN 1835 B ( WELDON)  
 ATTACCO DIN 1835 B (WELDON) / ADAPTACIÓN SEGÚN DIN 1835 B (WELDON)



Designation / Réf. de l'article  
 Articolo / Referencia

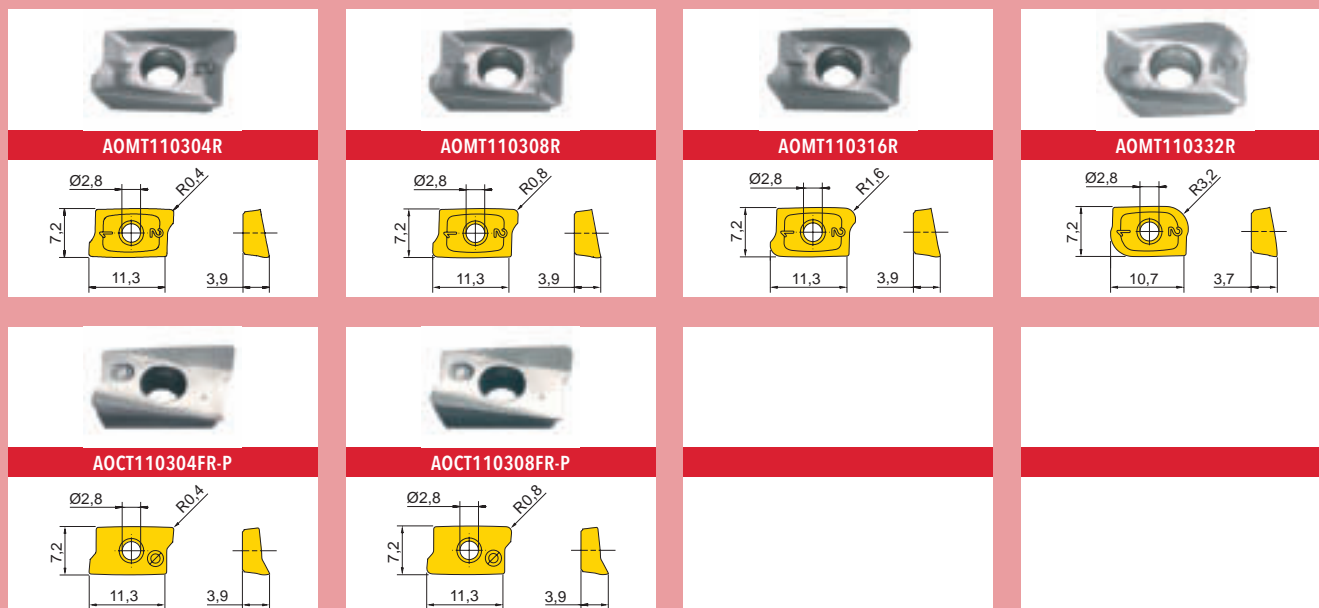
	D	d	L	L1	L2	a	Z	Zeff			
--	---	---	---	----	----	---	---	------	--	--	--

IA.028.001	28	25	100	40	68	29	6	2	5,0°	✓	0,29
IA.032.001	32	25	110	50	78	39	8	2	3,9°	✓	0,34
IA.040.002	40	32	130	65	94	48	15	3	2,8°	✓	0,74

**HIPDS PLUS IA11D03**

# HELICAL END MILLS

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA





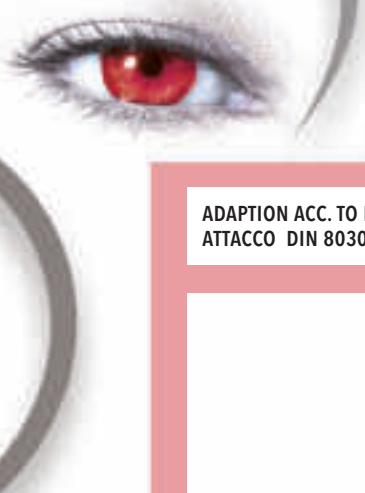
Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN30M	IN1030	IN2005	IN2015	IN2030	IN2040	IN2505
AOMT110304R	positive geometry R0,4				●	●	●	●	●	●
AOMT110308R	positive geometry R0,8				●	●	●		●	●
AOMT110316R	positive geometry R1,6				●	●	●		●	
AOMT110332R <sup>1)</sup>	positive geometry R3,2				●	●	●		●	
AOCT110304FR-P	non-ferrous geometry, polished R0,4		●	●						
AOCT110308FR-P	non-ferrous geometry, polished R0,8		●	●						

● = P ● = M ● = K ● = N ● = S ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

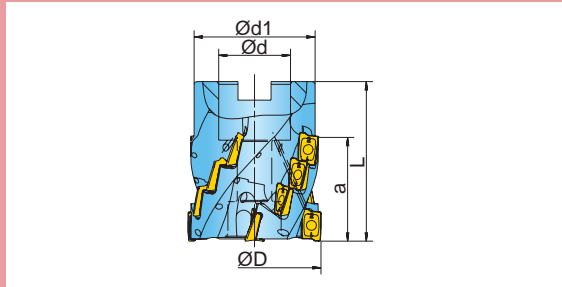
## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM25-064-00 	DS-T08S 		



FR FRAISES HÉRISSEON  
 IT FRESE ELICOIDALI  
 ES FRESA CILÍNDRICA FRONTAL

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
 Articolo / Referencia

D d d1 H a Z Zeff



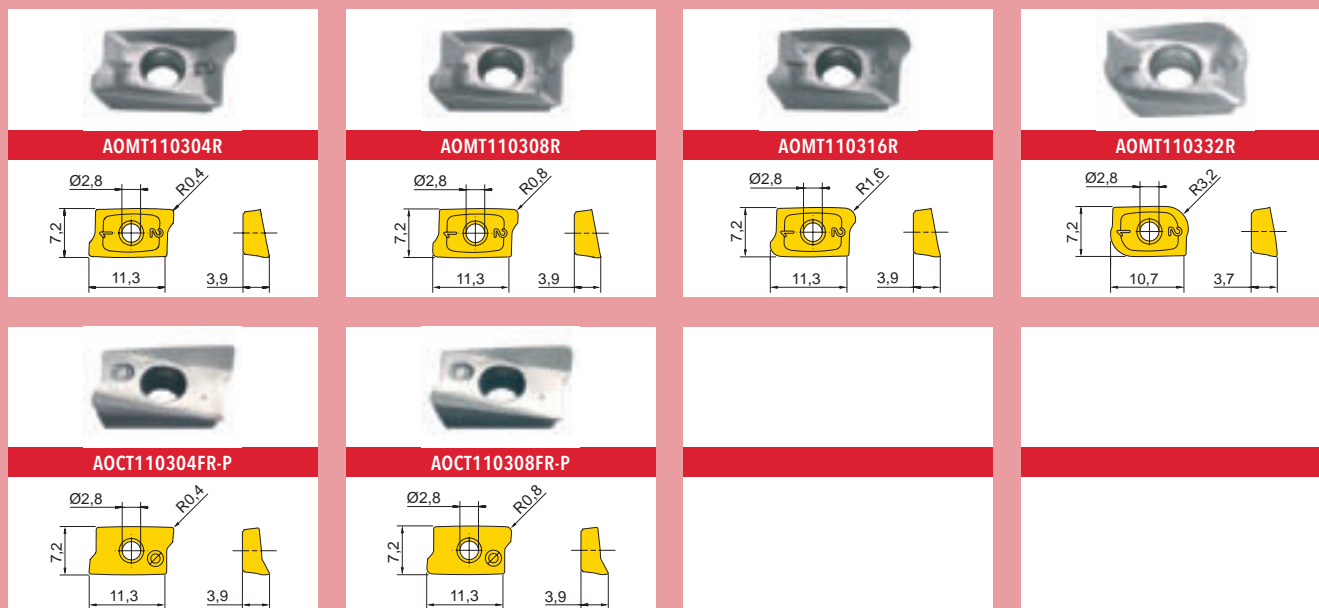
Designation / Réf. de l'article Articolo / Referencia	D	d	d1	H	a	Z	Zeff		IK	kg
IA.040.003	40	16	36	55	39	12	3	2,8°	✓	0,29
IA.050.002	50	27	45,5	60	39	16	4	2,1°	✓	0,45
IA.063.009	63	27	55	70	48	25	5	1,7°	✓	1,00

HIPDS PLUS IA11D10



# HELICAL END MILLS

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA





Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN30M	IN1030	IN2005	IN2015	IN2030	IN2040	IN2505
AOMT110304R	positive geometry R0,4				●	●	●	●	●	●
AOMT110308R	positive geometry R0,8				●	●	●		●	●
AOMT110316R	positive geometry R1,6				●	●	●		●	
AOMT110332R <sup>1)</sup>	positive geometry R3,2				●	●	●		●	
AOCT110304FR-P	non-ferrous geometry, polished R0,4		●	●						
AOCT110308FR-P	non-ferrous geometry, polished R0,8		●	●						

● = P ● = M ● = K ● = N ● = S ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

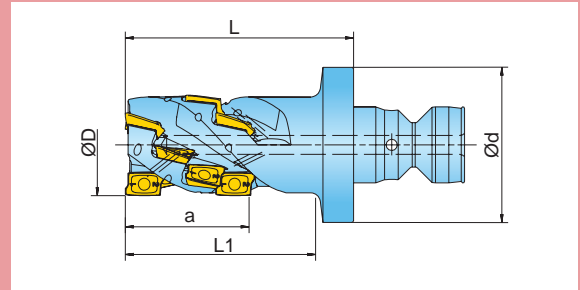
## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM25-064-00 	DS-T08S 		



FR FRAISES HÉRISSEON  
IT FRESE ELICOIDALI  
ES FRESA CILÍNDRICA FRONTAL



MODULAR MILLING ADAPTOR INNO-FIT / ATTACHEMENT MODULAIRE INNO-FIT  
CON ATTACCO MODULARE INNO-FIT / FRESA CON CONEXIÓN MODULAR INNO-FIT



Designation / Réf. de l'article  
Articolo / Referencia

D d L L1 a Z Zeff 



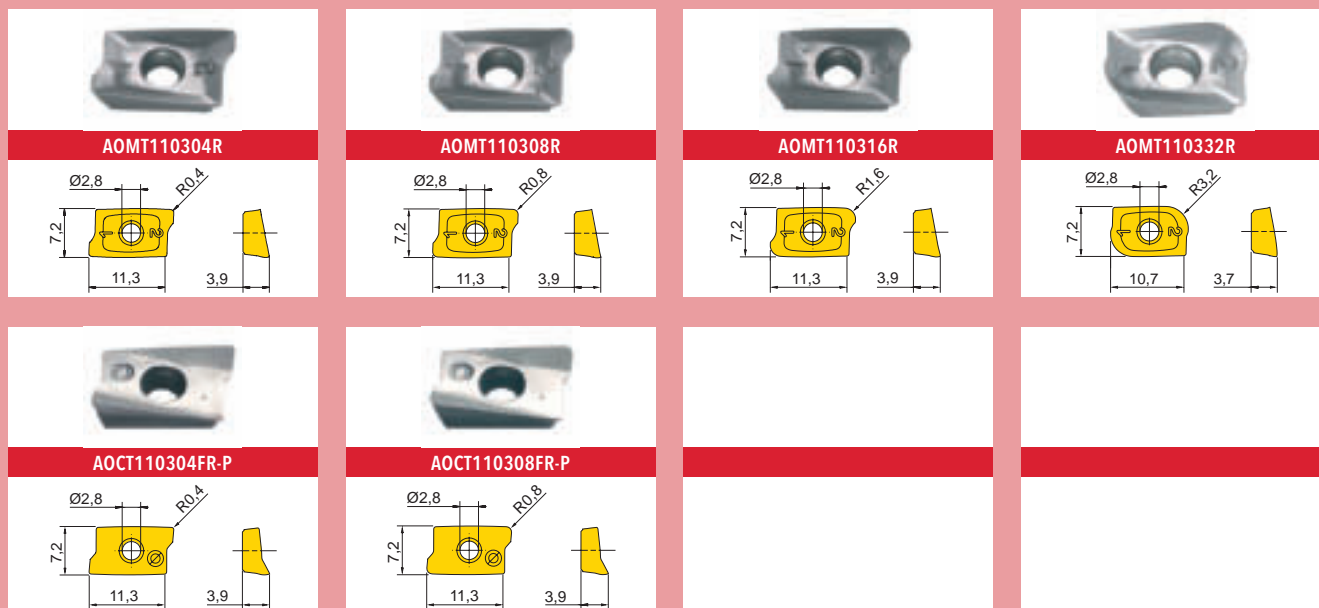
Designation / Réf. de l'article Articolo / Referencia	D	d	L	L1	a	Z	Zeff		
IA.028.002 <sup>1)</sup>	28	49	55	43	29	6	2	5,0°	✓ 0,33
IA.028.003	28	49	72	60	29	6	2	5,0°	✓ 0,40
IA.032.002 <sup>1)</sup>	32	49	55	43	29	6	2	3,9°	✓ 0,37
IA.032.003	32	49	72	60	39	12	3	3,9°	✓ 0,45
IA.040.004 <sup>1)</sup>	40	49	72	60	48	15	3	2,8°	✓ 0,57
IA.040.005 <sup>1)</sup>	40	78	82	65	48	15	3	2,8°	✓ 1,24
IA.040.006	40	49	94	82	67	28	4	2,8°	✓ 0,71
IA.040.007	40	78	110	93	77	32	4	2,8°	✓ 1,39
IA.050.003 <sup>1)</sup>	50	49	72	72	48	15	3	2,1°	✓ 0,80
IA.050.004 <sup>1)</sup>	50	78	82	65	48	15	3	2,1°	✓ 1,49
IA.050.005	50	78	110	93	77	32	4	2,1°	✓ 1,69

HIPDS PLUS IA11M01

<sup>1)</sup> Recommended for slotting / Recommandé pour le rainurage dans le plein / Consigliata per fresature dal pieno / Preferentemente para ranurado completo

# HELICAL END MILLS

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA





Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN30M	IN1030	IN2005	IN2015	IN2030	IN2040	IN2505
AOMT110304R	positive geometry R0,4				●	●	●	●	●	●
AOMT110308R	positive geometry R0,8				●	●	●		●	●
AOMT110316R	positive geometry R1,6				●	●	●		●	
AOMT110332R <sup>1)</sup>	positive geometry R3,2				●	●	●		●	
AOCT110304FR-P	non-ferrous geometry, polished R0,4		●	●						
AOCT110308FR-P	non-ferrous geometry, polished R0,8		●	●						

● = P ● = M ● = K ● = N ● = S ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

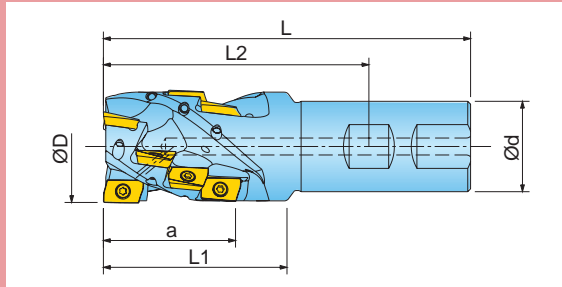
## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM25-064-00 	DS-T08S 		





**FR** FRAISES HÉRISSEON  
**IT** FRESE ELICOIDALI  
**ES** FRESA CILÍNDRICA FRONTAL

ADAPTION ACC. TO DIN 1835 B (WELDON) / ATTACHEMENT DIN 1835 B ( WELDON)  
 ATTACCO DIN 1835 B (WELDON) / ADAPTACIÓN SEGÚN DIN 1835 B (WELDON)



Designation / Réf. de l'article  
 Articolo / Referencia

	D	d	L	L1	L2	a	Z	Zeff			
IB.032.003	32	32	110	48	74	35	6	2	5,0°	✓	0,50
IB.040.008	40	32	130	65	94	46	12	3	3,2°	✓	0,71

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Insert screw / Vis de serrage  
 Vite per inserto / Tornillo plaquita

SM35-088-10



Screw driver / Tournevis  
 Cacciavite / Destornillador

DS-T10S



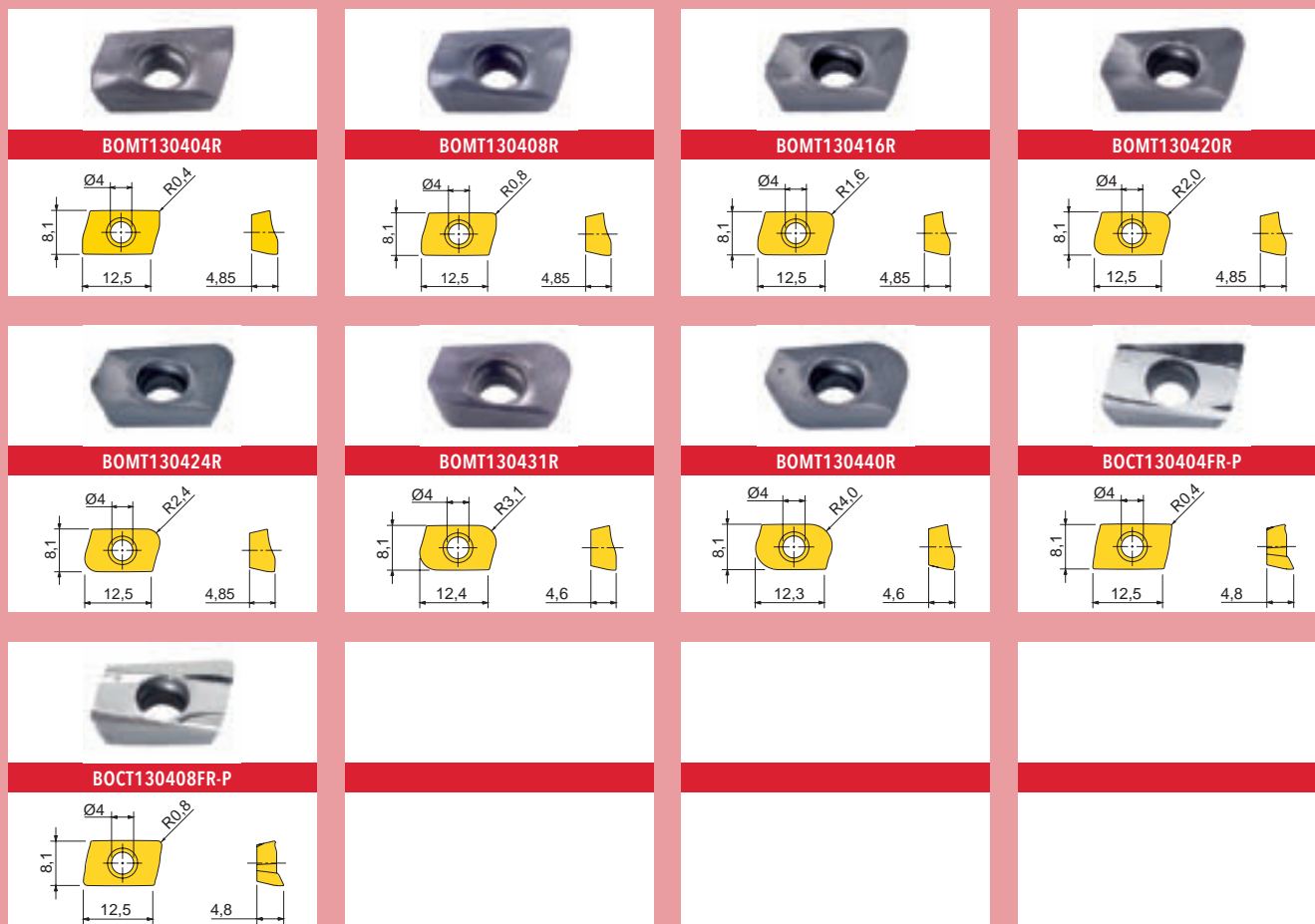
Empty red box

Empty red box

**HIPDS PLUS IB13D02B**

# HELICAL END MILLS

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN2005	IN2030	IN2035	IN2505			
BOMT130404R	positive geometry R0,4		●	●	●	●	●			
BOMT130408R	positive geometry R0,8		●	●	●	●	●			
BOMT130416R	positive geometry R1,6				●		●			
BOMT130420R	positive geometry R2,0				●		●			
BOMT130424R <sup>1)</sup>	positive geometry R2,4				●		●			
BOMT130431R <sup>1)</sup>	positive geometry R3,1		●	●	●	●	●			
BOMT130440R <sup>1)</sup>	positive geometry R4,0		●	●	●		●			
BOCT130404FR-P	non-ferrous geometry, polished R0,4		●							
BOCT130408FR-P	non-ferrous geometry, polished R0,8		●							

● = P ● = M ● = K ● = N ● = S ○ = H

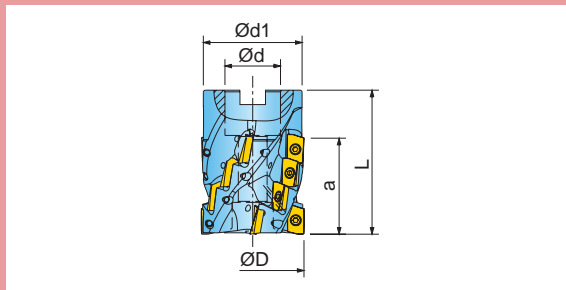
<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado



IB FRAISES HÉRISSEON  
 IT FRESE ELICOIDALI  
 ES FRESA CILÍNDRICA FRONTAL



ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
 Articolo / Referencia

D d d1 L a Z Zeff

IB.040.009	40	16	36	55	35	9	3	3,2°	✓	0,23
IB.050.008	50	27	48	70	46	16	4	2,1°	✓	0,48
IB.063.006	63	27	55	70	46	16	4	1,4°	✓	0,98
IB.080.003	80	32	73	70	46	20	5	1,0°	✓	1,62

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIO

Insert screw / Vis de serrage  
 Vite per inserto / Tornillo plaquita

SM35-088-10



Screw driver / Tournevis  
 Cacciavite / Destornillador

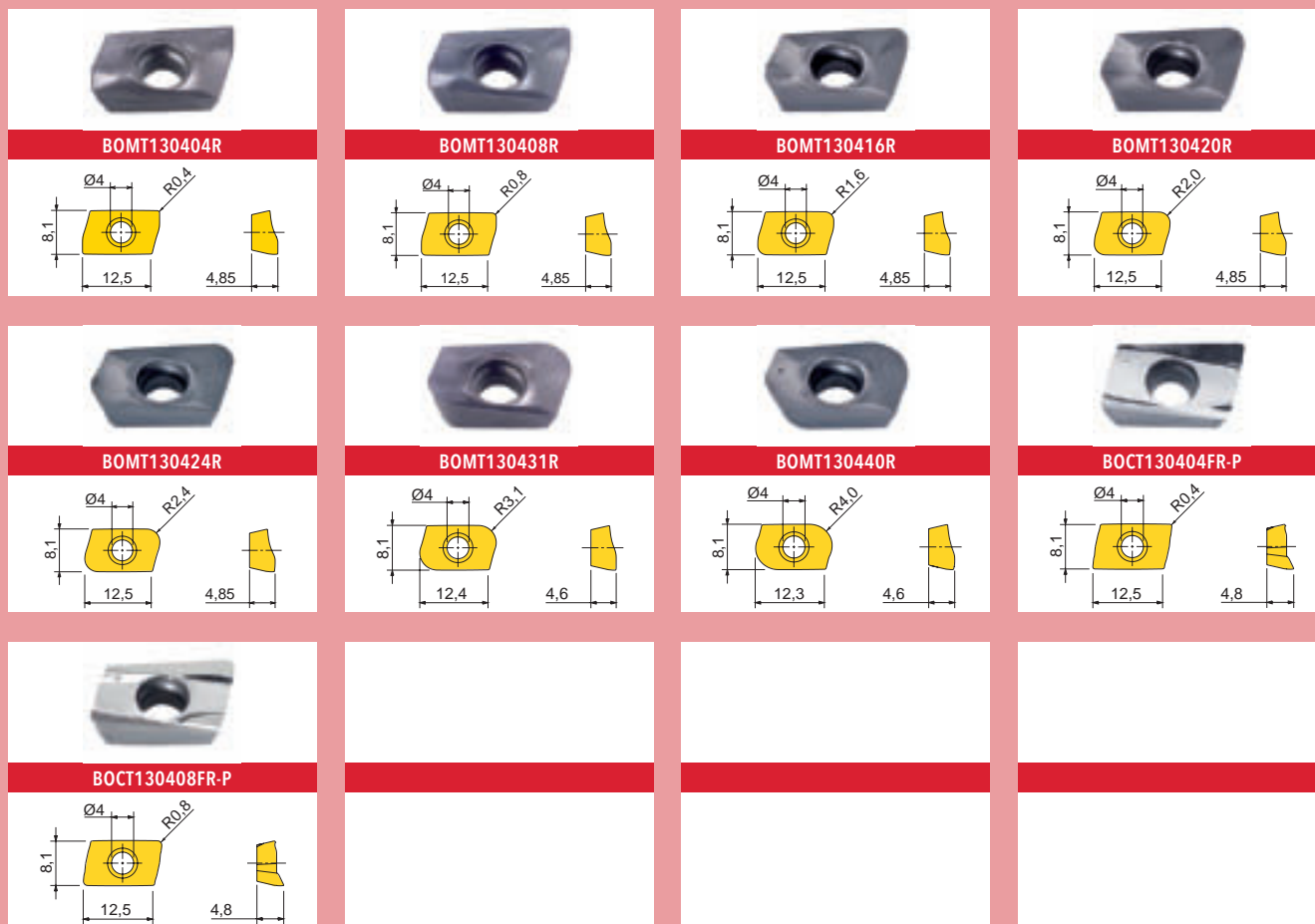
DS-T10S



HIPDS PLUS IB13D10B

# HELICAL END MILLS

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA

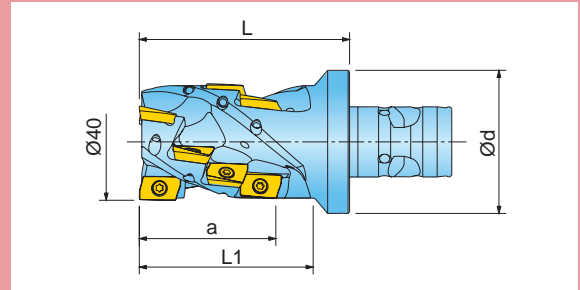


Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN2005	IN2030	IN2035	IN2505			
BOMT130404R	positive geometry R0,4		●	●	●	●	●			
BOMT130408R	positive geometry R0,8		●	●	●	●	●			
BOMT130416R	positive geometry R1,6				●		●			
BOMT130420R	positive geometry R2,0				●		●			
BOMT130424R <sup>1)</sup>	positive geometry R2,4				●		●			
BOMT130431R <sup>1)</sup>	positive geometry R3,1		●	●	●	●	●			
BOMT130440R <sup>1)</sup>	positive geometry R4,0		●	●	●		●			
BOCT130404FR-P	non-ferrous geometry, polished R0,4		●							
BOCT130408FR-P	non-ferrous geometry, polished R0,8		●							

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

● = P ● = M ● = K ● = N ● = S ○ = H

MODULAR MILLING ADAPTOR INNO-FIT / ATTACHEMENT MODULAIRE INNO-FIT  
 CON ATTACCO MODULARE INNO-FIT / FRESA CON CONEXIÓN MODULAR INNO-FIT



Designation / Réf. de l'article  
 Articolo / Referencia

Designation / Réf. de l'article Articolo / Referencia	D	d	L	L1	a	MOD	Z	Zeff			
IB.032.004	32	49	60	49	35	40	6	2	5,0°	✓	0,38
IB.040.010	40	49	72	60	46	40	12	3	3,2°	✓	0,54
IB.040.011	40	49	94	83	69	40	18	3	3,2°	✓	0,64
IB.040.012	40	78	100	79	69	50	18	3	3,2°	✓	1,28
IB.040.013	40	78	112	91	81	50	21	3	3,2°	✓	1,32
IB.050.009	50	49	72	72	46	40	16	4	2,1°	✓	0,80
IB.050.010	50	78	100	80	69	50	24	4	2,1°	✓	1,60
IB.063.007	63	78	120	102	92	50	32	4	1,4°	✓	2,43
IB.063.008	63	78	143	125	115	50	40	4	1,4°	✓	2,76
IB.063.009	63	78	166	148	138	50	48	4	1,4°	✓	3,09

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Insert screw / Vis de serrage  
 Vite per inserto / Tornillo plaquita



SM35-088-10

Screw driver / Tournevis  
 Cacciavite / Destornillador



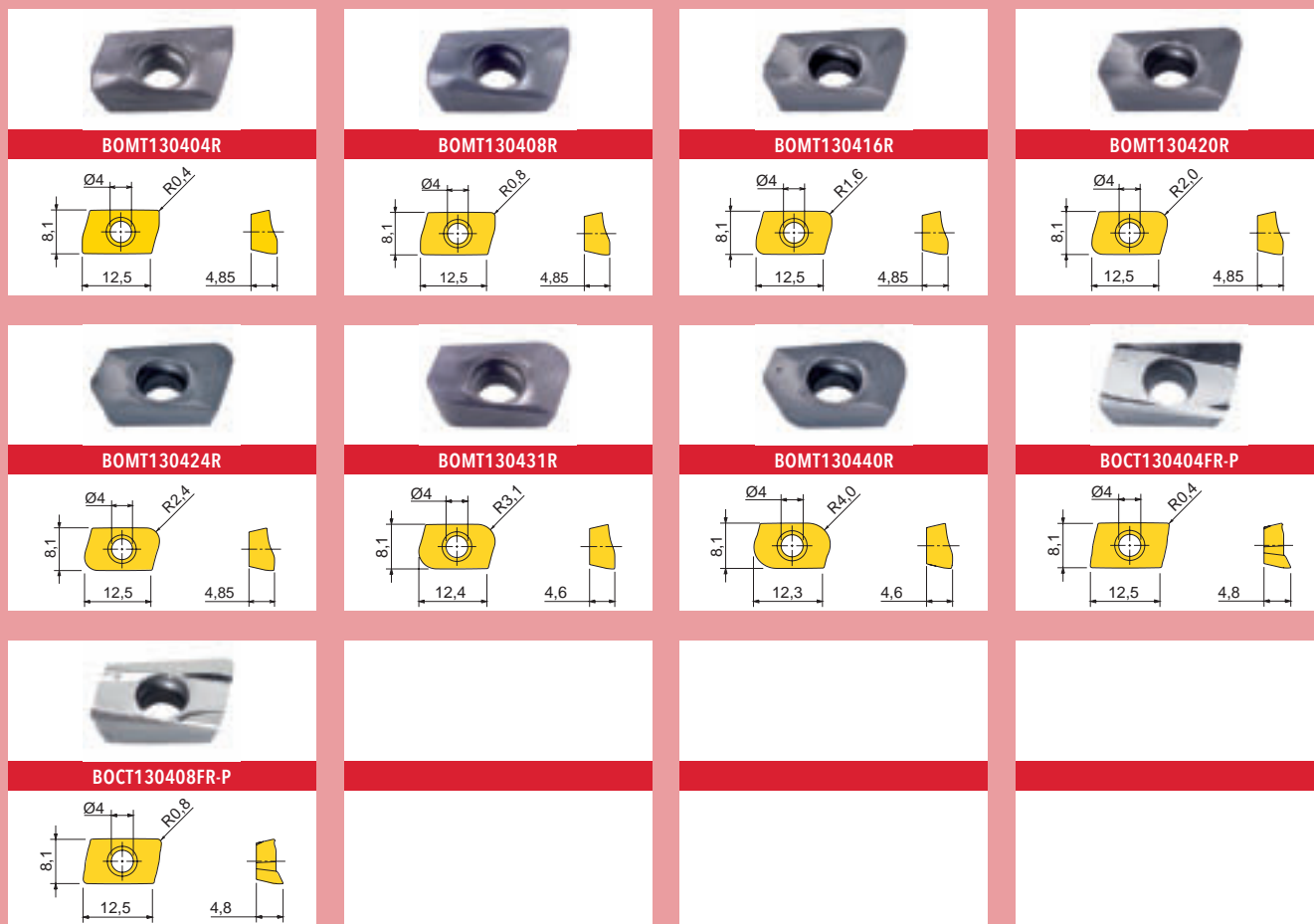
DS-T10S





# HELICAL END MILLS

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN2005	IN2030	IN2035	IN2505			
BOMT130404R	positive geometry R0,4		●	●	●	●	●			
BOMT130408R	positive geometry R0,8		●	●	●	●	●			
BOMT130416R	positive geometry R1,6				●		●			
BOMT130420R	positive geometry R2,0				●		●			
BOMT130424R <sup>1)</sup>	positive geometry R2,4				●		●			
BOMT130431R <sup>1)</sup>	positive geometry R3,1		●	●	●	●	●			
BOMT130440R <sup>1)</sup>	positive geometry R4,0		●	●	●		●			
BOCT130404FR-P	non-ferrous geometry, polished R0,4		●							
BOCT130408FR-P	non-ferrous geometry, polished R0,8		●							

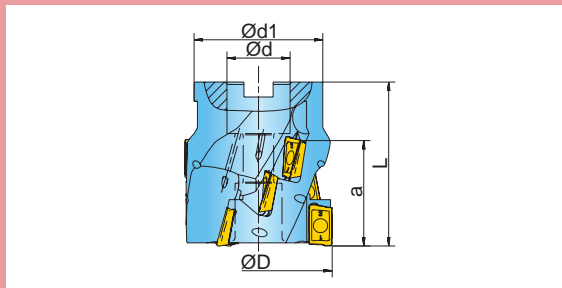
● = P ● = M ● = K ● = N ● = S ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado



FR FRAISES HÉRISSEON  
 IT FRESE ELICOIDALI  
 ES FRESA CILÍNDRICA FRONTAL

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
 Articolo / Referencia

D d d1 H a Z Zeff

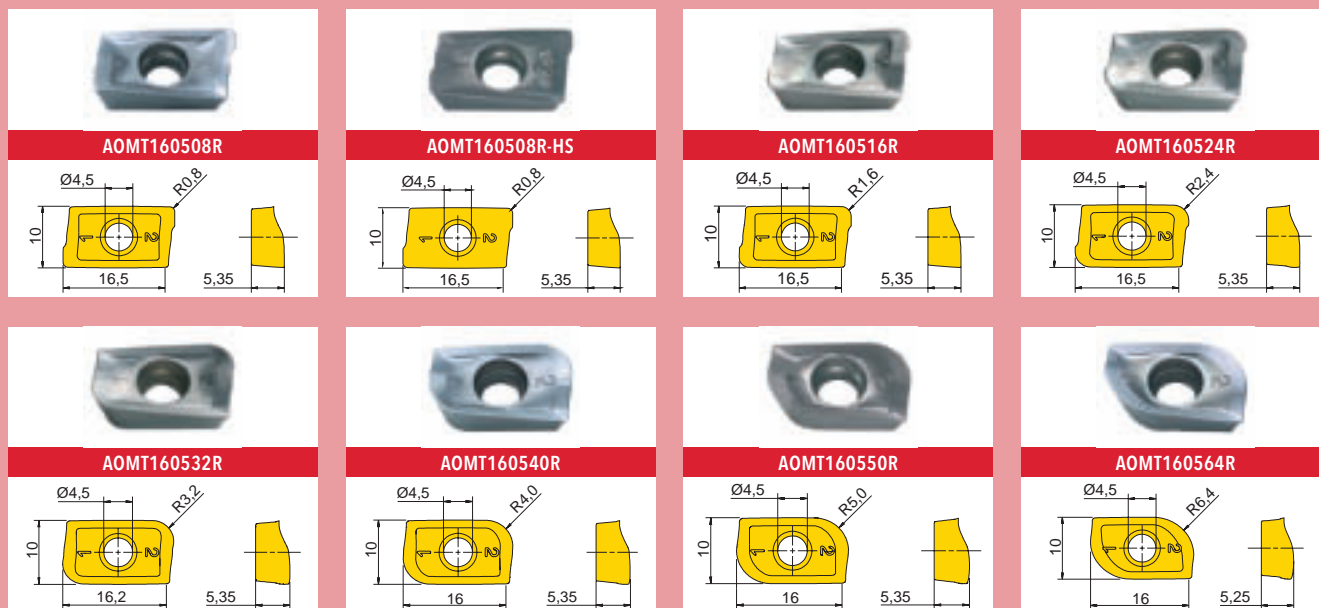
IA.063.001	63	27	55	70	45	9	3	1,4°	✓	0,90
IA.063.002 <sup>1)2)</sup>	63	27	55	70	50	8	2	1,4°	✓	0,85
IA.063.003	63	27	55	85	59	12	3	1,4°	✓	1,13
IA.063.010	63	27	55	85	59	16	4	1,4°	✓	1,04
IA.080.001	80	32	73	99	74	20	4	1,0°	✓	2,33
IA.080.002	80	32	73	99	74	25	5	1,0°	✓	2,43
IA.080.003 <sup>1)2)</sup>	80	32	73	99	72	12	2	1,0°	✓	2,23
IA.100.001	100	40	92	114	88	36	6	0,8°	✓	4,76
IA.125.001 <sup>3)</sup>	125	40	114	85	59	24	6	0,6°	✓	3,98

HIPDS PLUS IA16D10

<sup>1)</sup> Recommended for slotting / Recommandé pour le rainurage dans le plein / Consigliata per fresature dal pieno / Preferentemente para ranurado completo; <sup>2)</sup> Half effective / Demi-effective / Ridurre l'avanzamento di meta / Eficacia media; <sup>3)</sup> Additional bolt circle Ø66,7 mm / Trous de fixation supplémentaires sur Ø66,7 mm / Diametro per viti di fissaggio Ø66,7 mm / Eje circular Ø66,7 mm

# HELICAL END MILLS

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA





Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN1030	IN2005	IN2015	IN2030	IN2040	IN2505
AOMT160508R	positive geometry R0,8			●	●	●	●	●	●
AOMT160508R-HS	positive titanium geometry R0,8		●	●					
AOMT160516R	positive geometry R1,6			●	●	●		●	
AOMT160524R	positive geometry R2,4			●	●	●		●	
AOMT160532R <sup>1)</sup>	positive geometry R3,2			●	●	●		●	
AOMT160540R <sup>1)</sup>	positive geometry R4,0			●	●	●		●	
AOMT160550R <sup>1)</sup>	positive geometry R5,0			●	●	●		●	
AOMT160564R <sup>1)</sup>	positive geometry R6,4			●	●	●		●	

● = P ● = M ● = K ● = N ● = S ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

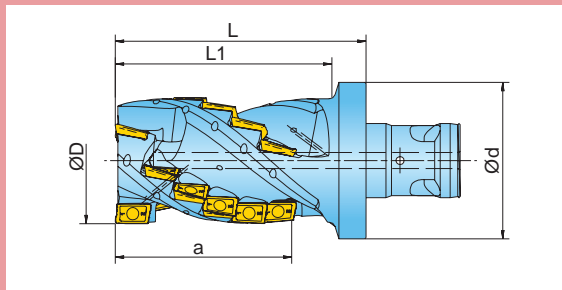
SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIO

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM40-093-20 	DS-T155 		



18 FRAISES HÉRISSEON  
 17 FRESE ELICOIDALI  
 15 FRESA CILÍNDRICA FRONTAL

MODULAR MILLING ADAPTOR INNO-FIT / ATTACHEMENT MODULAIRE INNO-FIT  
 CON ATTACCO MODULARE INNO-FIT / FRESA CON CONEXIÓN MODULAR INNO-FIT



Designation / Réf. de l'article  
 Articolo / Referencia

D d L L1 a Z Zeff  

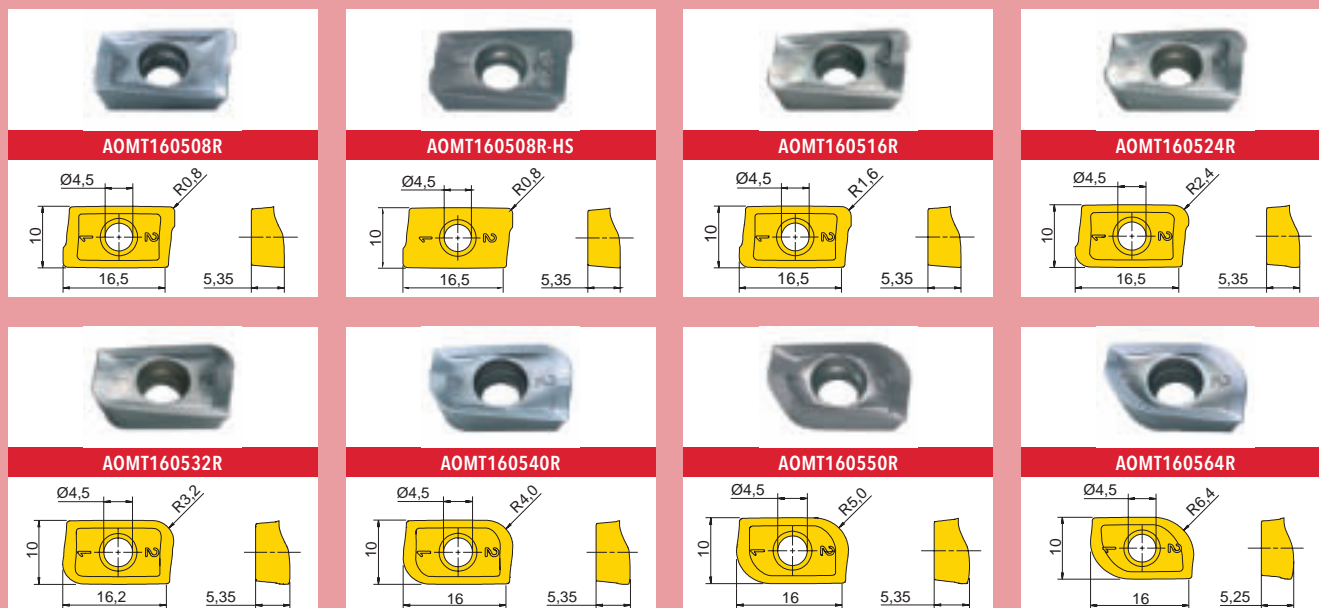
IA.040.001	40	78	82	65	45	6	2	2,6°	✓	1,21
IA.050.001	50	78	96	79	59	12	3	1,9°	✓	1,54
IA.063.004	63	78	96	79	59	12	3	1,4°	✓	2,08
IA.063.006	63	78	125	108	88	18	3	1,4°	✓	2,49
IA.063.007	63	78	154	137	117	24	3	1,4°	✓	2,89
IA.063.008	63	78	183	166	146	30	3	1,4°	✓	3,28
IA.080.004	80	78	125	125	88	24	4	1,0°	✓	3,66
IA.080.005 <sup>1)2)</sup>	80	78	125	125	84	14	2	1,0°	✓	3,71
IA.080.006	80	78	154	154	117	40	5	1,0°	✓	4,50

HIPDS PLUS IA16M01

<sup>1)</sup> Recommended for slotting / Recommandé pour le rainurage dans le plein / Consigliata per fresature dal pieno / Preferentemente para ranurado completo; <sup>2)</sup> Half effective / Demi-effective / Ridurre l'avanzamento di meta / Mitad dientes efectivos

# HELICAL END MILLS

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA





Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN1030	IN2005	IN2015	IN2030	IN2040	IN2505
AOMT160508R	positive geometry R0,8			●	●	●	●	●	●
AOMT160508R-HS	positive titanium geometry R0,8		●	●					
AOMT160516R	positive geometry R1,6			●	●	●		●	
AOMT160524R	positive geometry R2,4			●	●	●		●	
AOMT160532R <sup>1)</sup>	positive geometry R3,2			●	●	●		●	
AOMT160540R <sup>1)</sup>	positive geometry R4,0			●	●	●		●	
AOMT160550R <sup>1)</sup>	positive geometry R5,0			●	●	●		●	
AOMT160564R <sup>1)</sup>	positive geometry R6,4			●	●	●		●	

● = P ● = M ● = K ● = N ● = S ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

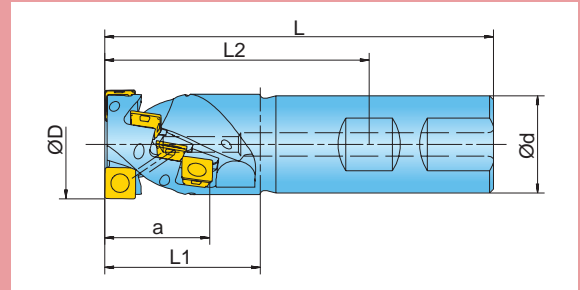
## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador
SM40-093-20 	DS-T155 



FR FRAISES HÉRISSEON  
 IT FRESE ELICOIDALI  
 ES FRESA CILÍNDRICA FRONTAL

ADAPTION ACC. TO DIN 1835 B (WELDON) / ATTACHEMENT DIN 1835 B ( WELDON)  
 ATTACCO DIN 1835 B (WELDON) / ADAPTACIÓN SEGÚN DIN 1835 B (WELDON)



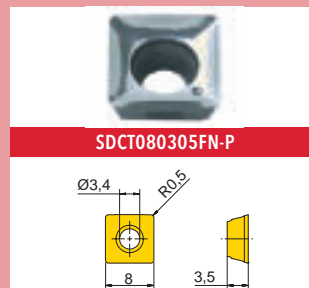
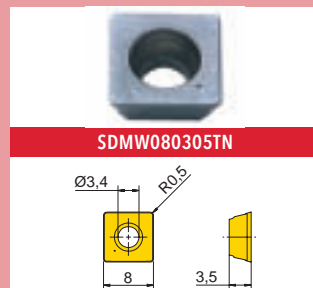
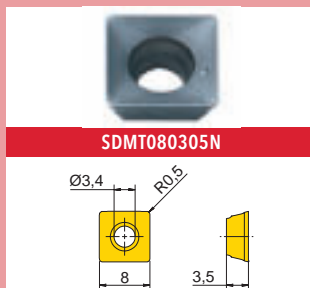
Designation / Réf. de l'article  
 Articolo / Referencia

D d L L1 L2 a Z Zeff



IS.028.001	28	25	100	40	68	28	8	2	✓	0,30
IS.032.001	32	25	110	50	78	34	15	3	✓	0,36
IS.040.001	40	32	130	65	94	48	28	4	✓	0,75

INSERTS / PLAQUETTES DE COUPE  
 INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN30M	IN1030	IN2005	IN2015	IN2030	IN2040
SDMT080305N	positive geometry R0,5			●	●	●	●	●
SDMW080305TN	neutral geometry, K-land R0,5			●	●	●	●	●
SDCT080305FN-P	non-ferrous geometry, polished R0,5		●	●				

● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIO

Insert screw / Vis de serrage  
 Vite per inserto / Tornillo plaquita

SM30-065-00

Screw driver / Tournevis  
 Cacciavite / Destornillador

DS-T09S

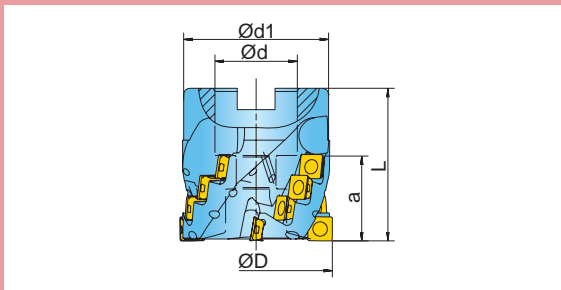


IS08D03

HIPOS-QUAD

# HELICAL END MILLS

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
Articolo / Referencia

D d d1 L a Z Zeff

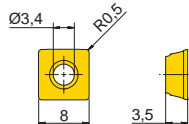


IS.040.002	40	16	38	45	28	12	3	✓	0,24
IS.040.003	40	16	38	55	41	24	4	✓	0,26
IS.050.001	50	27	47,5	50	28	16	4	✓	0,40
IS.050.002	50	27	47,5	60	41	24	4	✓	0,47
IS.063.005	63	27	58,5	55	35	25	5	✓	0,78
IS.063.006	63	27	58,5	70	48	35	5	✓	1,04

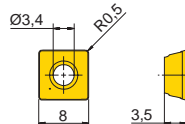
INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



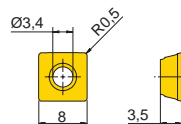
SDMT080305N



SDMW080305TN



SDCT080305FN-P



Designation / Réf. de l'article  
Articolo / Referencia

Insert Version / Execution  
Tipologia Inserto / Tipo de Plaquita

Grade Nuance Grado Grado IN30M IN1030 IN2005 IN2015 IN2030 IN2040

SDMT080305N	positive geometry R0,5		●	●	●	●	●	
SDMW080305TN	neutral geometry, K-land R0,5		●	●	●	●	●	
SDCT080305FN-P	non-ferrous geometry, polished R0,5	●	●					

● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIO

Insert screw / Vis de serrage  
Vite per inserto / Tornillo plaquita

SM30-065-00



Screw driver / Tournevis  
Cacciavite / Destornillador

DS-T09S



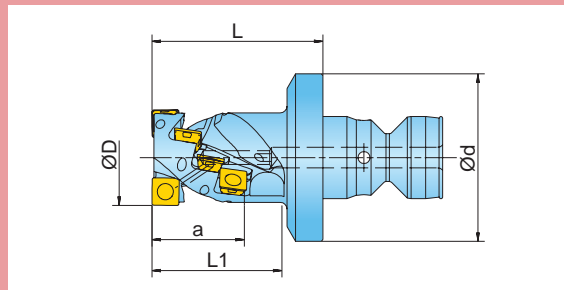
HIPOS QUAD IS08D10

HIPOS QUAD



FR FRAISES HÉRISSEON  
 IT FRESE ELICOIDALI  
 ES FRESA CILÍNDRICA FRONTAL

MODULAR MILLING ADAPTOR INNO-FIT / ATTACHEMENT MODULAIRE INNO-FIT  
 CON ATTACCO MODULARE INNO-FIT / FRESA CON CONEXIÓN MODULAR INNO-FIT



Designation / Réf. de l'article  
 Articolo / Referencia

D d L L1 a MOD Z Zeff



Designation / Réf. de l'article Articolo / Referencia	D	d	L	L1	a	MOD	Z	Zeff	IK	kg
IS.028.002 <sup>1)</sup>	28	49	50	38	28	40	8	2	✓	0,32
IS.028.003	28	49	65	53	28	40	8	2	✓	0,38
IS.032.002 <sup>1)</sup>	32	49	55	43	34	40	10	2	✓	0,37
IS.032.003	32	49	55	43	34	40	15	3	✓	0,36
IS.040.004 <sup>1)</sup>	40	49	72	60	48	40	14	2	✓	0,58
IS.040.005	40	49	72	60	48	40	21	3	✓	0,57
IS.040.007	40	49	72	60	48	40	28	4	✓	0,56
IS.040.006	40	49	92	80	68	40	30	3	✓	0,67
IS.040.008	40	49	92	80	68	40	40	4	✓	0,67
IS.050.003	50	49	92	92	68	40	40	4	✓	1,00
IS.050.004	50	78	92	75	68	50	30	3	✓	1,56
IS.050.005	50	78	92	75	68	50	40	4	✓	1,50

IS08M01

HIPER-QUAD

<sup>1)</sup> Recommended for slotting / Recommandé pour le rainurage dans le plein / Consigliata per fresatura dal pieno / Preferentemente para ranurado completo

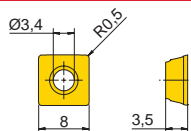


# HELICAL END MILLS

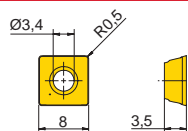
## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



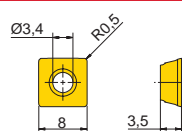
SDMT080305N



SDMWO80305TN



SDCT080305FN-P



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN30M	IN1030	IN2005	IN2015	IN2030	IN2040		
SDMT080305N	positive geometry R0,5			●	●	●	●	●		
SDMWO80305TN	neutral geometry, K-land R0,5			●	●	●		●		
SDCT080305FN-P	non-ferrous geometry, polished R0,5		●	●						

● = P   ● = M   ● = K   ● = N   ● = S   ○ = H

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIO

Insert screw / Vis de serrage  
Vite per inserto / Tornillo plaquita

SM30-065-00

Screw driver / Tournevis  
Cacciavite / Destornillador

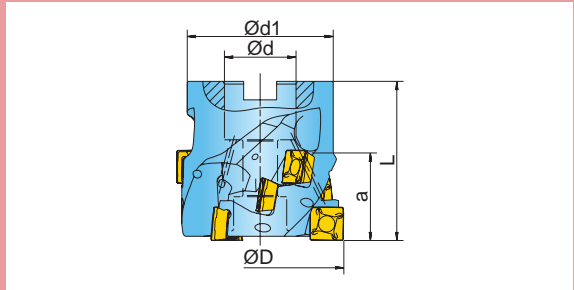
DS-T09S



FR FRAISES HÉRISSEON  
 IT FRESE ELICOIDALI  
 ES FRESA CILÍNDRICA FRONTAL



ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article Articolo / Referencia	D	d	d1	L	a	Z	Zeff	IK	kg
IS.063.001	63	27	55	60	32	9	3	✓	0,75
IS.080.001	80	32	75	65	42	16	4	✓	1,38
IS.100.001	100	40	85	65	42	20	5	✓	2,31
IS.125.001	125	40	85	65	42	24	6	✓	3,62
IS.160.001 <sup>1)</sup>	160	60	128	80	53	35	7	✓	5,07

INSERTS / PLAQUETTES DE COUPE  
 INSERTI / PLAQUITA

<b>SDMT120608R</b>	<b>SDMT120608R-HS</b>		

Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN2005	IN2015	IN2030	IN2040			
SDMT120608R	positive geometry R0,8								
SDMT120608R-HS	positive titanium geometry R0,8								

● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIO

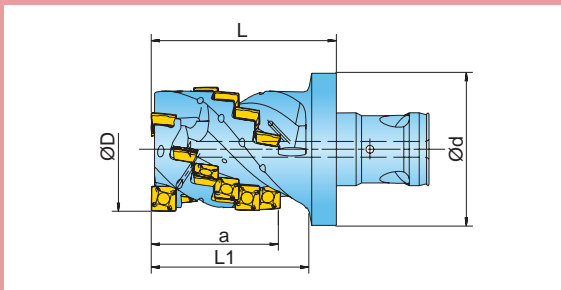
<b>Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita</b>	<b>Screw driver / Tournevis Cacciavite / Destornillador</b>		
SM40-093-20	DS-T155		

<sup>1)</sup> Additional bolt circle Ø101,6 mm / Trous de fixation supplémentaires sur Ø101,6 mm / Diametro per viti di fissaggio Ø101,6 mm / Diámetro orificios para tornillos Ø 101,6 mm

HIPOS QUAD IS12D10

# HELICAL END MILLS

MODULAR MILLING ADAPTOR INNO-FIT / ATTACHEMENT MODULAIRE INNO-FIT  
CON ATTACCO MODULARE INNO-FIT / FRESA CON CONEXIÓN MODULAR INNO-FIT



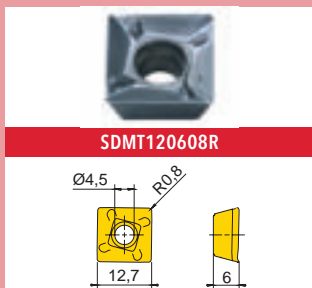
Designation / Réf. de l'article  
Articolo / Referencia

D d L L1 a MOD Z Zeff

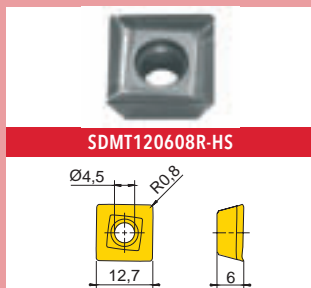


IS.063.002	63	78	94	80	63	50	18	3	✓	1,92
IS.063.003	63	78	116	102	84	50	24	3	✓	2,22
IS.063.004	63	78	138	124	105	50	30	3	✓	2,51
IS.080.002	80	78	110	110	84	50	32	4	✓	3,02

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



SDMT120608R



SDMT120608R-HS

Designation / Réf. de l'article  
Articolo / Referencia

Insert Version / Execution  
Tipologia Inserto / Tipo de Plaquita

Grade Nuance Grado IN2005 IN2015 IN2030 IN2040

SDMT120608R	positive geometry R0,8	
SDMT120608R-HS	positive titanium geometry R0,8	

● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Insert screw / Vis de serrage  
Vite per inserto / Tornillo plaquita

SM40-093-20



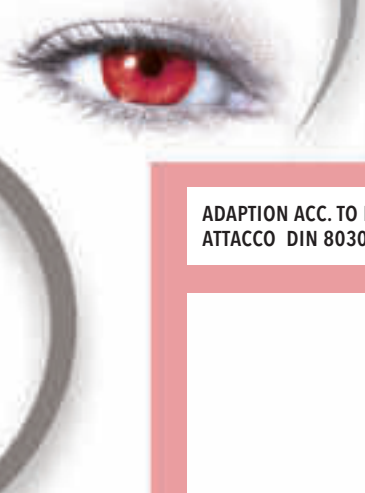
Screw driver / Tournevis  
Cacciavite / Destornillador

DS-T15S



IS12M01

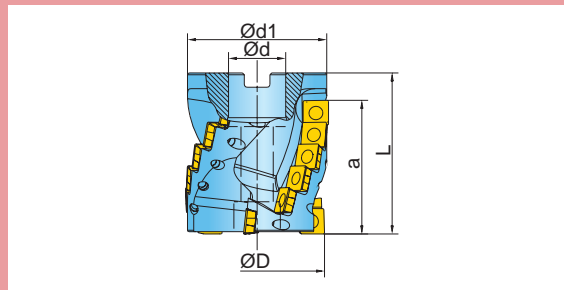
HIPOS QUAD



FR FRAISES HÉRISSEON  
 IT FRESE ELICOIDALI  
 ES FRESA CILÍNDRICA FRONTAL



ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
 Articolo / Referencia

D d d1 L a Z Zeff



IS.063.007	63	27	60	80	60	15	3	1,60
IS.080.003	80	32	77	90	72	18	3	2,37
IS.100.002	100	40	97	100	84	28	4	4,11

HIPOS QUAD IS14D10

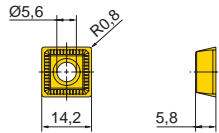


# HELICAL END MILLS

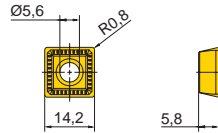
## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



SHLT140508TN-HR



SHLT140508TN-HS



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN2005	IN2010	IN2030	IN2040			
SHLT140508TN-HR	positive geometry R0,8									
SHLT140508TN-HS	non-ferrous geometry R0,8									

● = P ● = M ● = K ● = N ● = S ○ = H

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage  
Vite per inserto / Tornillo plaquita

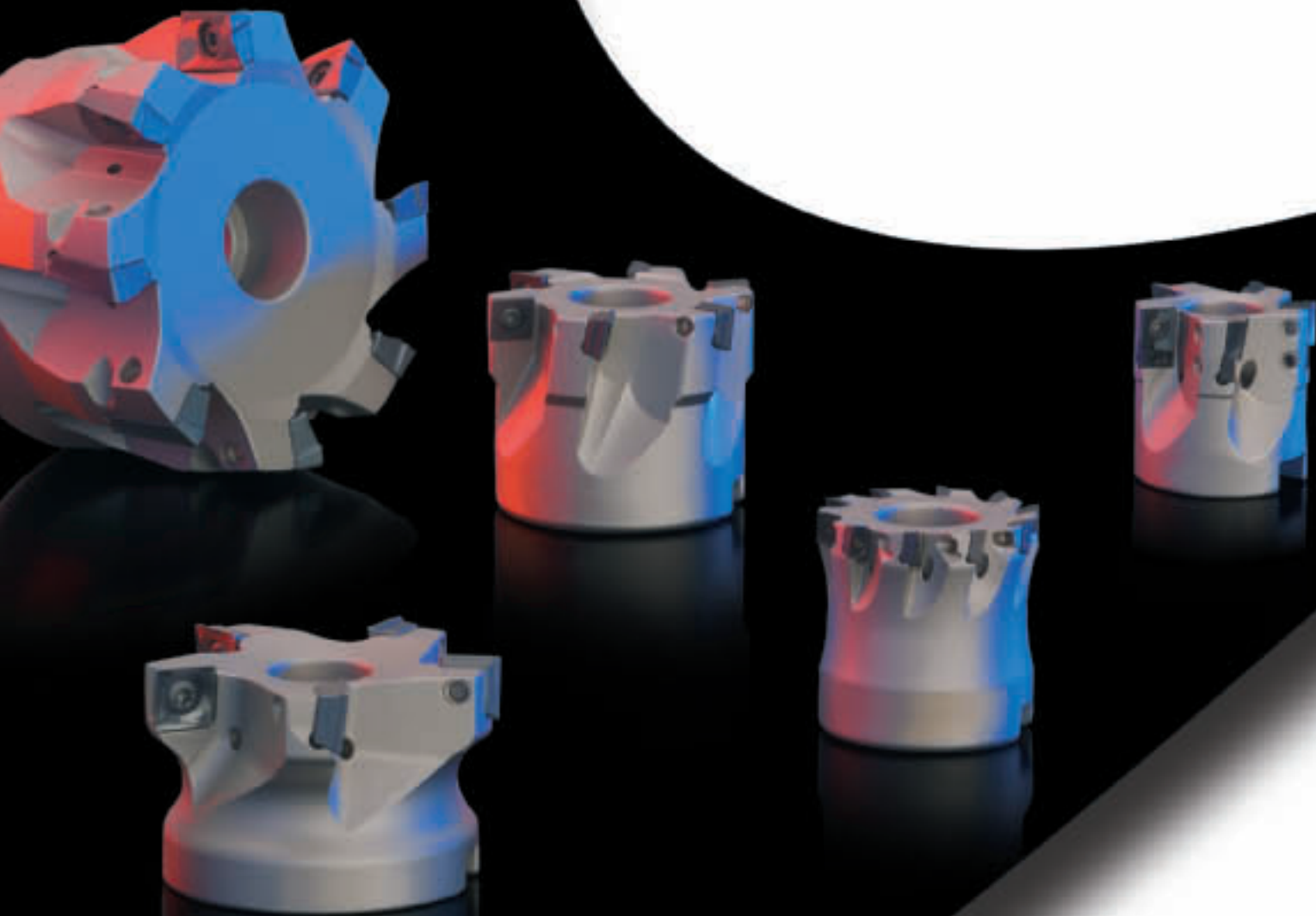
SM50-108-20

Screw driver / Tournevis  
Cacciavite / Destornillador

DS-T20S



**FR** FRAISES À SURFACER DRESSER  
**IT** FRESE 90° A MANICOTTO  
**ES** FRESA ANGULAR



**WINO**

**SQUARE SHOULDER CUTTERS**





	D	a	Description / Description Modello / Descripción	Code / Série Codici / Serie	Page / Page Pagina / Página
	32 - 40	5,7	<del>HIPOE-MIORD</del>	EA06D10	98
	32 - 100	7,5	<del>HIPOE</del>	EA08D10A (adjustable)	100
	32 - 63	9	<del>HIPOE-PLUS</del>	EB09D10	102
	35 - 100	11	<del>HIPOE-PLUS</del>	EA11D10	104
	35 - 125	12	<del>HIPOE-PLUS</del>	EB13D10B	106
	40 - 160	16	<del>HIPOE-PLUS</del>	EA16D10	108
	40 - 80	7,5	<del>HIPOE-QUAD</del>	ES08D10	110
	40 - 80	8,7	<del>HIPOE-QUAD</del>	ES09D10	112
	50 - 100	10	<del>HIPOE-QUAD</del>	ES11D10A	113
	50 - 100	8,4	<del>ALUMINATOR</del>	ES11D10	114
	50 - 160	12	<del>HIPOE-QUAD</del>	ES12D10	116

Subject to printing error or technical changes / Sous réserve d'erreurs d'impression ou de modifications techniques / Quanto stampato puo' essere  
 soggetto ad errori di stampa e variazione tecniche / Queda reservado el derecho sobre eventuales fallos de impresión, errores o modificaciones  
 técnicas







# SQUARE SHOULDER CUTTERS

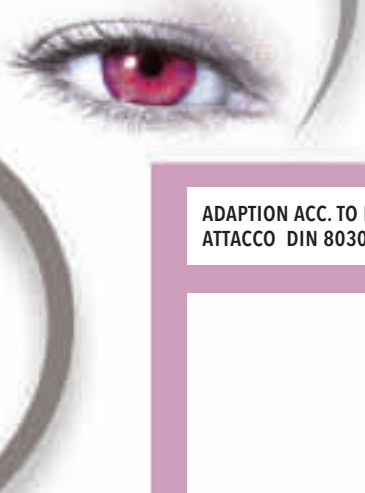
FR FRAISES À SURFACER DRESSER

IT FRESE 90° A MANICOTTO

ES FRESA ANGULAR

	D	a	Description / Description Modello / Descripción	Code / Série Codici / Serie	Page / Page Pagina / Página
	50 - 160	13	<b>HPDC-QUAD</b>	ES14D10	117
	50 - 80	15,5	<b>ELIMINATOR</b>	EX14D10	118
	50 - 125	21	<b>ELIMINATOR</b>	EX25D10	120
	50 - 200	0,5	<b>SUPER-FINISH</b>	PYD10	122

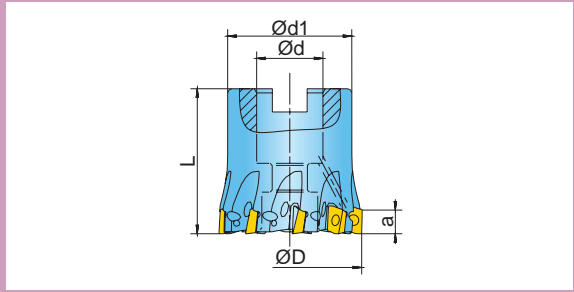
Subject to printing error or technical changes / Sous réserve d'erreurs d'impression ou de modifications techniques / Quanto stampato può essere soggetto ad errori di stampa e variazione tecniche / Queda reservado el derecho sobre eventuales fallos de impresión, errores o modificaciones técnicas



FR FRAISES À SURFACER DRESSER  
 IT FRESE 90° A MANICOTTO  
 ES FRESA ANGULAR



ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



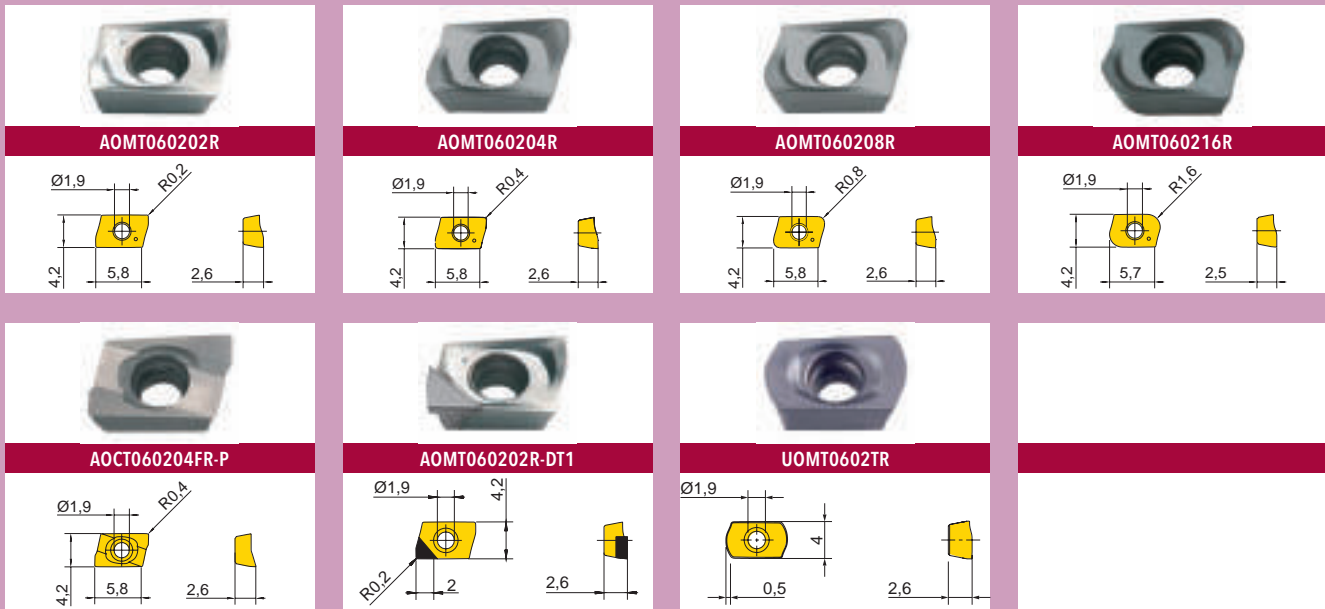
Designation / Réf. de l'article  
 Articolo / Referencia

	D	d	d1	L	a	Z			
EA.032.003	32	16	30	32	5,7	8	1,6°	✓	0,11
EA.035.002	35	16	30	35	5,7	9	1,4°	✓	0,14
EA.040.005	40	22	38	40	5,7	10	1,2°	✓	0,22

HIPOS-MIGRO EA06D10

# SQUARE SHOULDER CUTTERS

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA

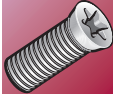



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2005	IN2030	IN2035	IN2505	IN90D		
AOMT060202R	positive geometry R0,2			●	●	●	●			
AOMT060204R	positive geometry R0,4			●	●		●			
AOMT060208R	positive geometry R0,8			●	●		●			
AOMT060216R <sup>1)</sup>	positive geometry R1,6			●	●					
AOCT060204FR-P	non-ferrous geometry, polished R0,4		●							
AOMT060202R-DT1	with short PCD-tip R0,2							●		
UOMT0602TR	high feed geometry				●	●	●			

● = P ● = M ● = K ● = N ● = S ○ = H

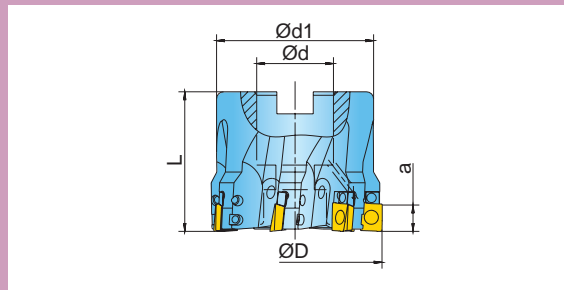
<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM18-041-00 	DS-TP06S (TX-Plus) 		

FR FRAISES À SURFACER DRESSER  
 IT FRESE 90° A MANICOTTO  
 ES FRESA ANGULAR

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
 Articolo / Referencia

D d d1 L a Z



EA.032.002	32	16	30	32	7,5	5	✓	0,10
EA.040.002	40	22	38	40	7,5	6	✓	0,21
EA.050.002	50	22	45	40	7,5	7	✓	0,34
EA.063.002	63	22	55	40	7,5	8	✓	0,59
EA.080.002	80	27	70	50	7,5	10	✓	1,23
EA.100.002	100	32	85	50	7,5	12	✓	2,02

EA08D10A (ADJUSTABLE)

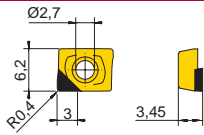
HIPDS

# SQUARE SHOULDER CUTTERS

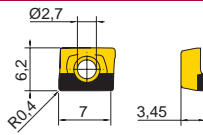
INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



APKT080304R-DT1



APKT080304R-DT2




Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado Grado	IN90D							
APKT080304R-DT1	with short PCD-tip R0,4		●							
APKT080304R-DT2	with long PCD-tip R0,4		●							

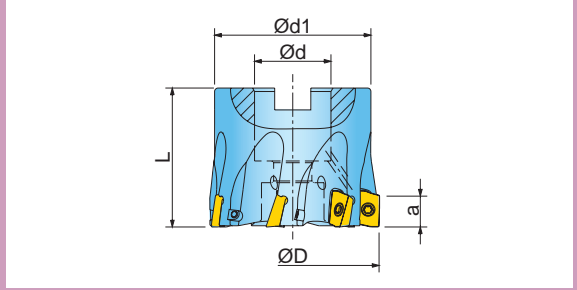
● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador	Wedge / Cale de réglage Spigolo / Cuña presión	Differential screw / Vis à pas différentiel Cacciavite dinamometrico / Tornillo diferencial
SM25-064-00	DS-T08S	PAR5061	SB025-00
Screw driver / Tournevis Cacciavite / Destornillador			
DS-T05F			

FR FRAISES À SURFACER DRESSER  
 IT FRESE 90° A MANICOTTO  
 ES FRESA ANGULAR

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
 Articolo / Referencia

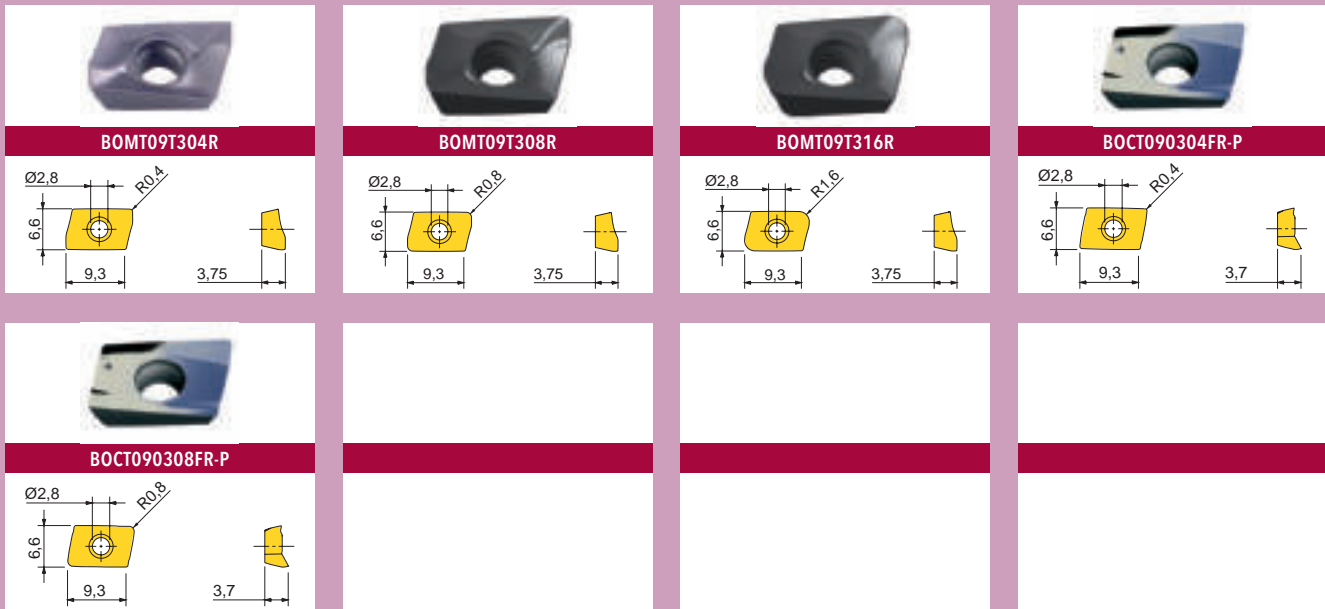
D d d1 L a Z



Designation / Réf. de l'article Articolo / Referencia	D	d	d1	L	a	Z			
EB.032.001	32	16	30	32	9	5	2,8°	✓	0,09
EB.040.004	40	16	30	40	9	6	2,4°	✓	0,16
EB.050.003	50	22	45	40	9	7	1,3°	✓	0,32
EB.063.003	63	22	55	40	9	8	1,0°	✓	0,55

# SQUARE SHOULDER CUTTERS

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA





Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN2005	IN2030	IN2035	IN2505			
BOMT09T304R	positive geometry R0,4			●	●	●	●			
BOMT09T308R	positive geometry R0,8			●	●	●	●			
BOMT09T316R <sup>1)</sup>	positive geometry R1,6				●	●	●			
BOCT090304FR-P	non-ferrous geometry, polished R0,4		●							
BOCT090308FR-P	non-ferrous geometry, polished R0,8		●							

● = P ● = M ● = K ● = N ● = S ○ = H

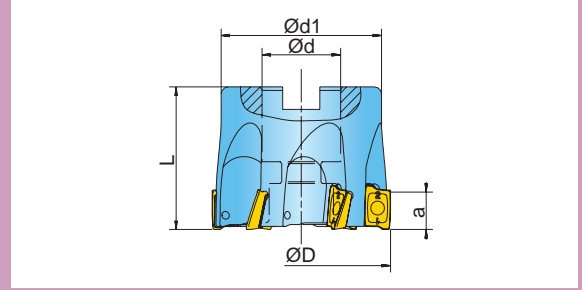
<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM25-064-00 	DS-T08S 		

FR FRAISES À SURFACER DRESSER  
 IT FRESE 90° A MANICOTTO  
 ES FRESA ANGULAR

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
 Articolo / Referencia

D d d1 H a Z



Designation / Réf. de l'article Articolo / Referencia	D	d	d1	H	a	Z		IK	kg
EA.035.001	35	16	30	35	11	4	3,3°	✓	0,12
EA.040.004	40	22	37	40	11	5	2,8°	✓	0,20
EA.050.005	50	22	45	40	11	6	2,1°	✓	0,34
EA.063.006	63	22	55	40	11	6	1,7°	✓	0,58
EA.063.005 <sup>1)</sup>	63	22	55	40	11	7	1,7°	✓	0,59
EA.080.005	80	27	70	50	11	9	1,3°	✓	1,26
EA.100.005	100	32	85	50	11	11	1,0°		2,04

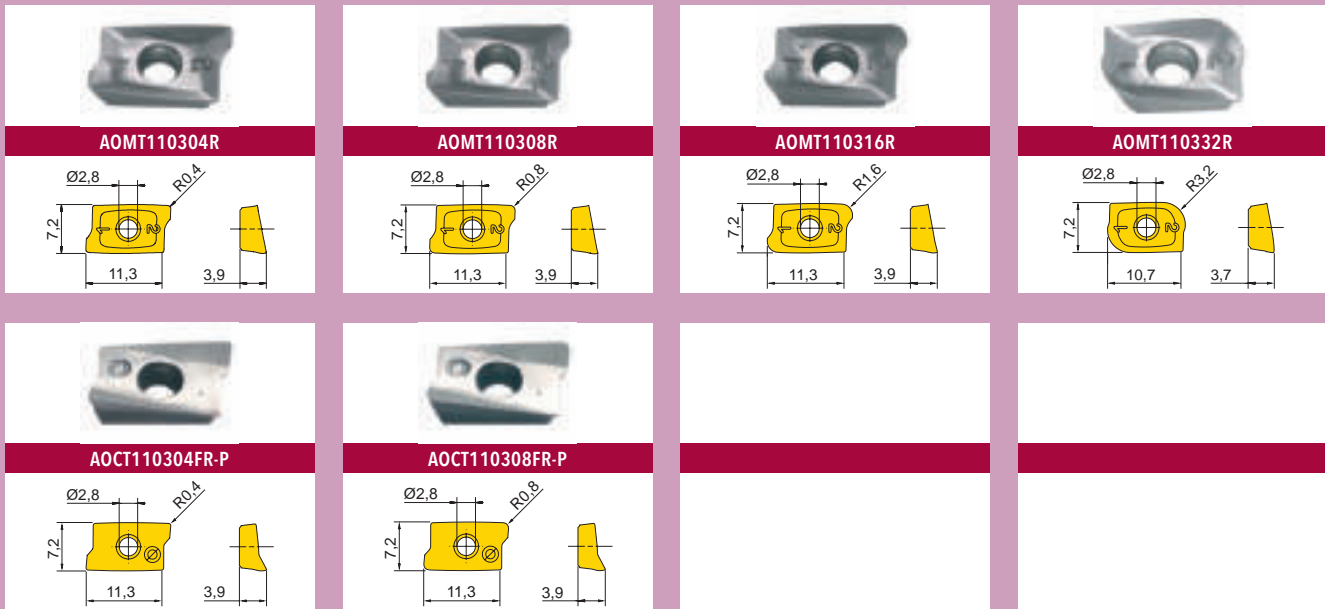
HIPDS PLUS EA11D10

<sup>1)</sup> Narrow spacing (only for short chip producing materials) / Pas réduit (pour matières à copeaux courts) / Passo stretto / Paso estrecho



# SQUARE SHOULDER CUTTERS

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA

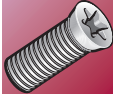



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN30M	IN1030	IN2005	IN2015	IN2030	IN2040	IN2505
AOMT110304R	positive geometry R0,4				●	●	●	●	●	●
AOMT110308R	positive geometry R0,8				●	●	●		●	●
AOMT110316R	positive geometry R1,6				●	●	●		●	
AOMT110332R <sup>1)</sup>	positive geometry R3,2				●	●	●		●	
AOCT110304FR-P	non-ferrous geometry, polished R0,4		●	●						
AOCT110308FR-P	non-ferrous geometry, polished R0,8		●	●						

● = P   ● = M   ● = K   ● = N   ● = S   ● = H

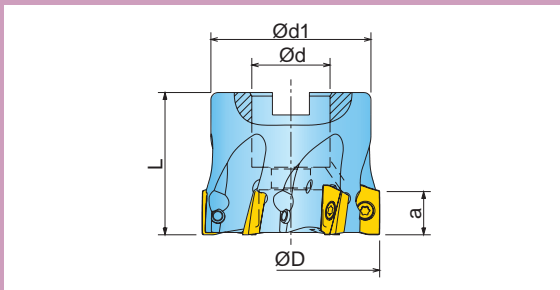
<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIO

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM25-064-00 	DS-T08S 		

FR FRAISES À SURFACER DRESSER  
 IT FRESE 90° A MANICOTTO  
 ES FRESA ANGULAR

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
 Articolo / Referencia

D d d1 L a Z



Designation / Réf. de l'article Articolo / Referencia	D	d	d1	L	a	Z		IK	kg
EB.035.001	35	16	30	35	12	4	4,2°	✓	0,10
EB.040.002	40	16	38	40	12	5	3,2°	✓	0,21
EB.040.003	40	22	38	40	12	5	3,2°	✓	0,18
EB.050.002	50	22	45	40	12	6	2,1°	✓	0,30
EB.052.001	52	22	40	50	12	5	2,0°	✓	0,37
EB.063.002	63	22	55	40	12	7	1,4°	✓	0,54
EB.066.001	66	27	48	50	12	6	1,2°	✓	0,60
EB.080.002	80	27	70	50	12	9	1,0°	✓	1,20
EB.085.001	85	27	70	50	12	7	0,9°	✓	1,33
EB.100.002	100	32	85	50	12	11	0,8°		1,89
EB.125.002	125	40	100	63	12	13	0,6°		3,76

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIO

Insert screw / Vis de serrage  
 Vite per inserto / Tornillo plaquita



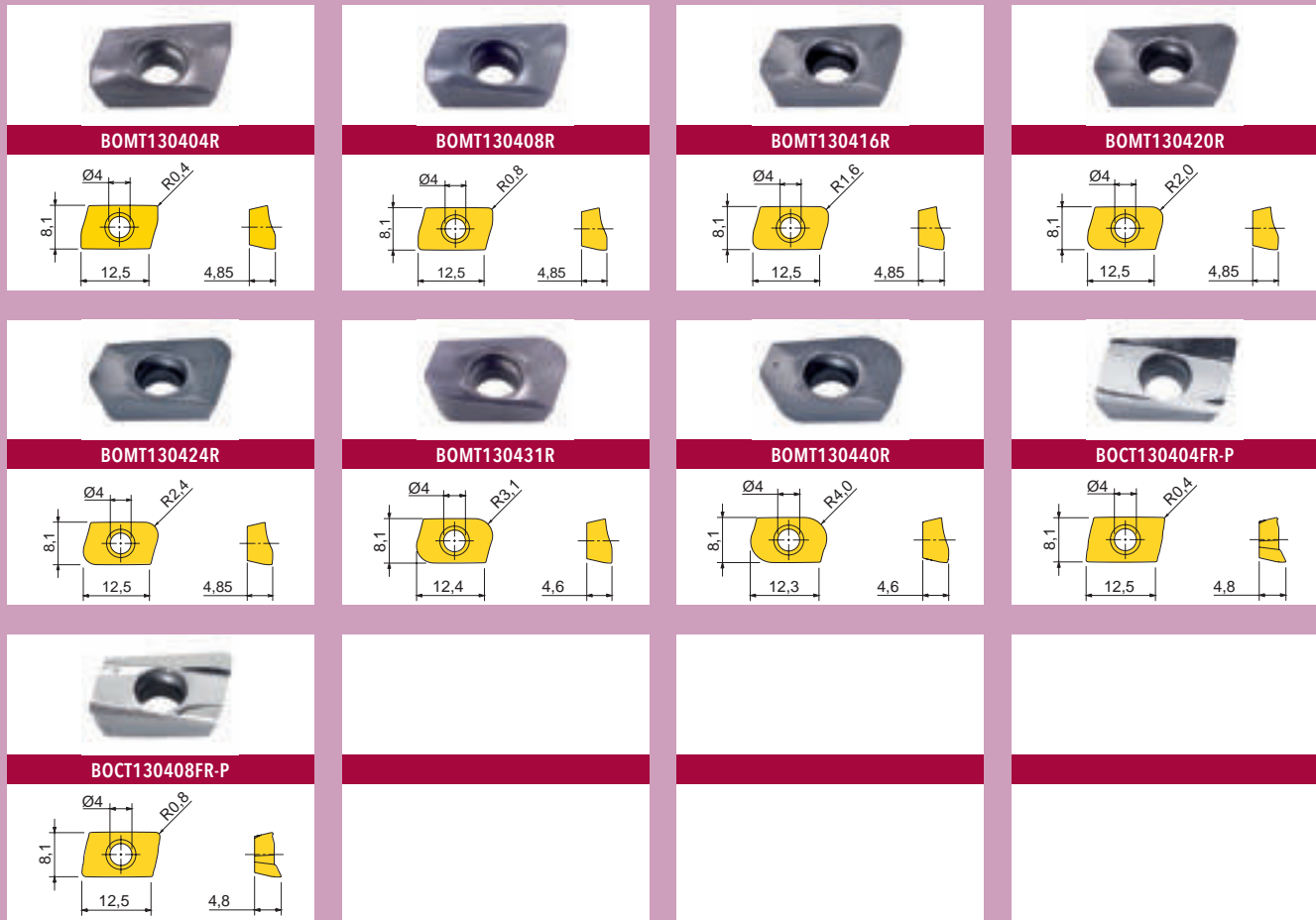
Screw driver / Tournevis  
 Cacciavite / Destornillador



HIPDS PLUS EB13D10B

# SQUARE SHOULDER CUTTERS

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



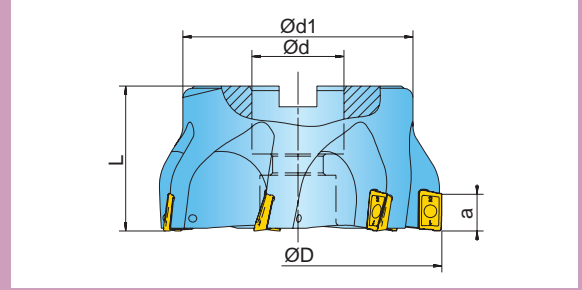
Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN2005	IN2030	IN2035	IN2505			
BOMT130404R	positive geometry R0,4		●	●	●	●	●			
BOMT130408R	positive geometry R0,8		●	●	●	●	●			
BOMT130416R	positive geometry R1,6				●		●			
BOMT130420R	positive geometry R2,0				●		●			
BOMT130424R <sup>1)</sup>	positive geometry R2,4				●		●			
BOMT130431R <sup>1)</sup>	positive geometry R3,1		●	●	●	●	●			
BOMT130440R <sup>1)</sup>	positive geometry R4,0		●	●	●		●			
BOCT130404FR-P	non-ferrous geometry, polished R0,4		●							
BOCT130408FR-P	non-ferrous geometry, polished R0,8		●							

● = P   ● = M   ● = K   ● = N   ● = S   ● = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

FR FRAISES À SURFACER DRESSER  
 IT FRESE 90° A MANICOTTO  
 ES FRESA ANGULAR

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
 Artículo / Referencia

D d d1 H a Z



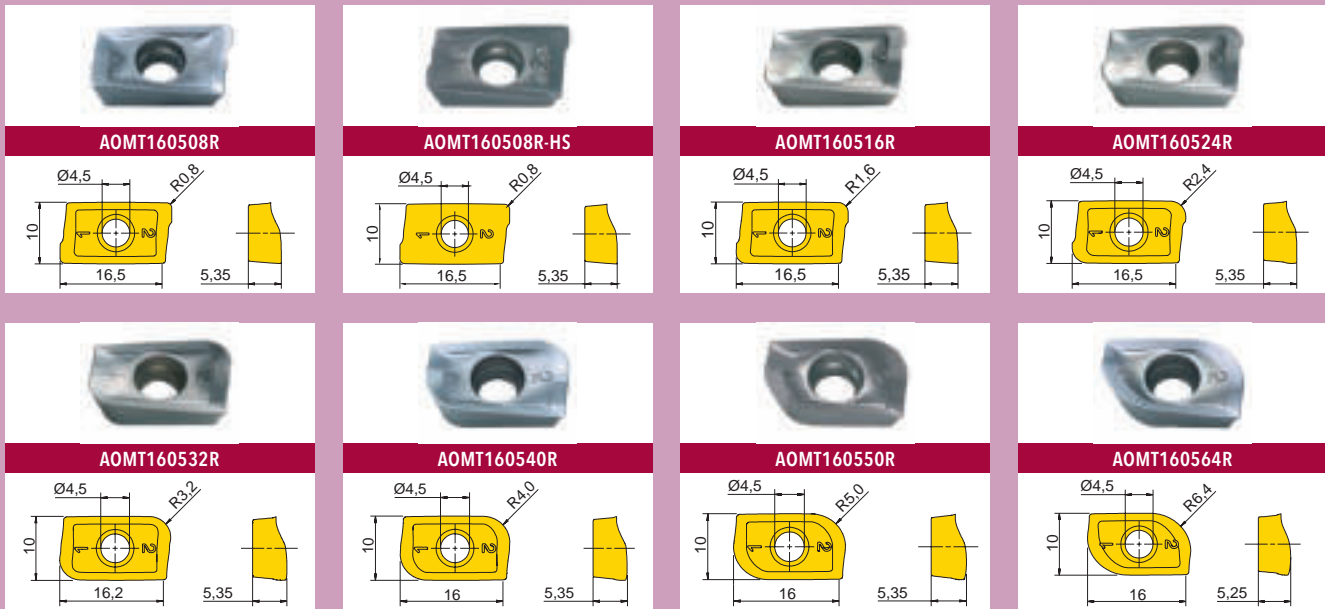
Designation / Réf. de l'article Artículo / Referencia	D	d	d1	H	a	Z		IK	kg
EA.040.003	40	16	30	40	16	3	2,6°	✓	0,17
EA.050.003	50	22	45	40	16	4	1,9°	✓	0,30
EA.050.004 <sup>1)</sup>	50	22	45	40	16	5	1,9°	✓	0,31
EA.063.003	63	22	55	40	16	5	1,4°	✓	0,52
EA.063.004 <sup>1)</sup>	63	22	55	40	16	6	1,4°	✓	0,53
EA.080.003	80	27	70	50	16	6	1,0°	✓	1,19
EA.080.004 <sup>1)</sup>	80	27	70	50	16	8	1,0°	✓	1,25
EA.100.003	100	32	85	50	16	6	0,8°		1,79
EA.100.004 <sup>1)</sup>	100	32	85	50	16	9	0,8°		1,92
EA.125.001	125	40	100	63	16	7	0,6°		3,56
EA.125.002 <sup>1)</sup>	125	40	100	63	16	10	0,6°		3,74
EA.160.001	160	40	100	63	16	8	0,5°		5,36
EA.160.002 <sup>1)</sup>	160	40	100	63	16	12	0,5°		5,65

HIPDS PLUS EA16D10

<sup>1)</sup> Narrow spacing (only for short chip producing materials) / Pas réduit (pour matières à copeaux courts) / Passo stretto / Paso estrecho

# SQUARE SHOULDER CUTTERS

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA





Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN1030	IN2005	IN2015	IN2030	IN2040	IN2505
AOMT160508R	positive geometry R0,8			●	●	●	●	●	●
AOMT160508R-HS	positive titanium geometry R0,8		●	●					
AOMT160516R	positive geometry R1,6			●	●	●		●	
AOMT160524R	positive geometry R2,4			●	●	●		●	
AOMT160532R <sup>1)</sup>	positive geometry R3,2			●	●	●		●	
AOMT160540R <sup>1)</sup>	positive geometry R4,0			●	●	●		●	
AOMT160550R <sup>1)</sup>	positive geometry R5,0			●	●	●		●	
AOMT160564R <sup>1)</sup>	positive geometry R6,4			●	●	●		●	

● = P ● = M ● = K ● = N ● = S ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

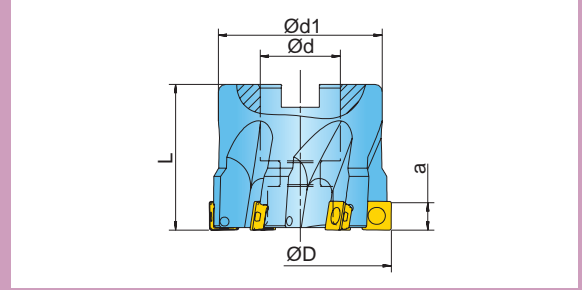
SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador
SM40-093-20 	DS-T155 



FR FRAISES À SURFACER DRESSER  
 IT FRESE 90° A MANICOTTO  
 ES FRESA ANGULAR

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
 Articolo / Referencia

D d d1 L a Z

kg

Designation / Réf. de l'article Articolo / Referencia	D	d	d1	L	a	Z		kg
ES.040.001	40	22	38	40	7,5	5	1,5°	0,21
ES.050.002	50	22	45	40	7,5	6	1,2°	0,34
ES.063.003	63	22	55	40	7,5	5	1,0°	0,56
ES.063.002 <sup>1)</sup>	63	22	55	40	7,5	7	1,0°	0,59
ES.080.004	80	27	70	50	7,5	7	0,5°	1,26
ES.080.003 <sup>1)</sup>	80	27	70	50	7,5	9	0,5°	1,25

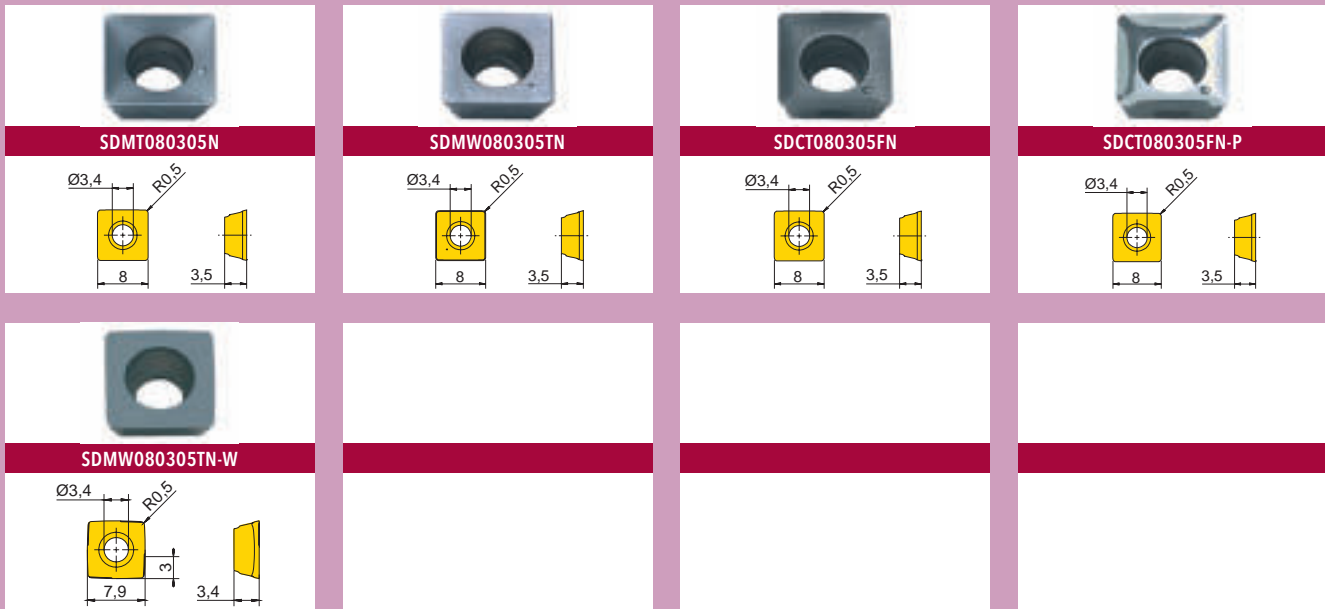
ES08D10

HIPER-QUAD

<sup>1)</sup> Narrow spacing (only for short chip producing materials) / Pas réduit (pour matières à copeaux courts) / Passo stretto / Paso estrecho

# SQUARE SHOULDER CUTTERS



INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN30M	IN1030	IN2005	IN2015	IN2030	IN2040		
SDMT080305N	positive geometry R0,5			●	●	●	●	●		
SDMW080305TN	neutral geometry, K-land R0,5			●	●	●		●		
SDCT080305FN	non-ferrous geometry R0,5			●						
SDCT080305FN-P	non-ferrous geometry, polished R0,5		●	●						
SDMW080305TN-W	wiper insert R0,5				●	●				

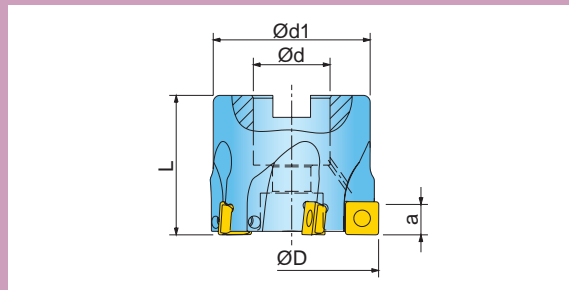
● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM30-065-00 	DS-T09S 		

FR FRAISES À SURFACER DRESSER  
 IT FRESE 90° A MANICOTTO  
 ES FRESA ANGULAR

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



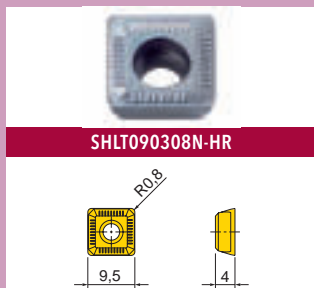
Designation / Réf. de l'article  
 Artículo / Referencia

D d d1 L a Z



Designation / Réf. de l'article Artículo / Referencia	D	d	d1	L	a	Z		IK	kg
ES.040.002	40	22	38	40	8,7	5	1,9°	✓	0,17
ES.050.005	50	22	45	40	8,7	6	1,3°	✓	0,30
ES.063.006	63	22	55	40	8,7	7	0,9°	✓	0,52
ES.080.008	80	27	70	50	8,7	9	0,6°	✓	1,15

INSERTS / PLAQUETTES DE COUPE  
 INSERTI / PLAQUITA



SHLT090308N-HR

Designation / Réf. de l'article  
 Artículo / Referencia

Insert Version / Execution  
 Tipologia Inserto / Tipo de Plaquita

Grade  
 Nuance  
 Grado  
 Grado

IN1030

IN2005

SHLT090308N-HR

positive geometry



● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIO

Insert screw / Vis de serrage  
 Vite per inserto / Tornillo plaquita

SM30-065-00



Screw driver / Tournevis  
 Cacciavite / Destornillador

DS-T09S

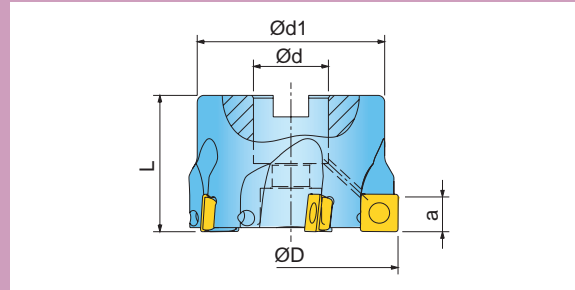


HIPER-QUAD ES09D10



# SQUARE SHOULDER CUTTERS

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
Articolo / Referencia

D d d1 L a Z

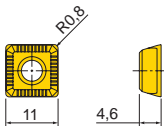


ES.050.006	50	22	45	40	10	5	1,8°	✓	0,28
ES.063.007	63	22	55	40	10	6	1,2°	✓	0,50
ES.080.009	80	27	70	50	10	8	0,8°	✓	1,12
ES.100.005	100	32	85	50	10	9	0,6°	✓	1,83

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



SHLT110408TN-HR



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado Grado	IN1030	IN2005	IN2035	IN2040				
SHLT110408TN-HR	positive geometry R0,8									

● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Insert screw / Vis de serrage  
Vite per inserto / Tornillo plaquita

SM40-093-20



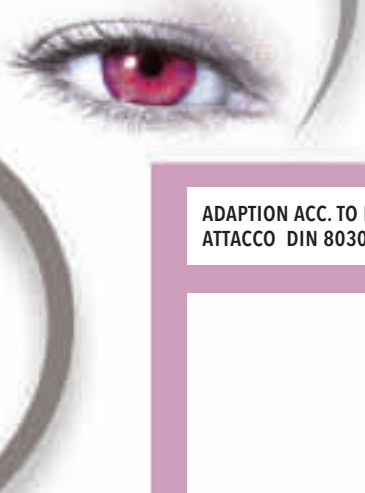
Screw driver / Tournevis  
Cacciavite / Destornillador

DS-T15S



ES11D10A

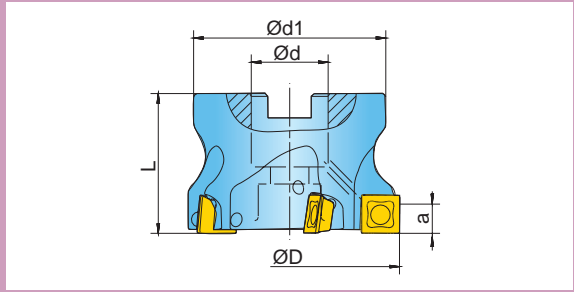
HIPOS QUAD



FR FRAISES À SURFACER DRESSER  
 IT FRESE 90° A MANICOTTO  
 ES FRESA ANGULAR



ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
 Articolo / Referencia

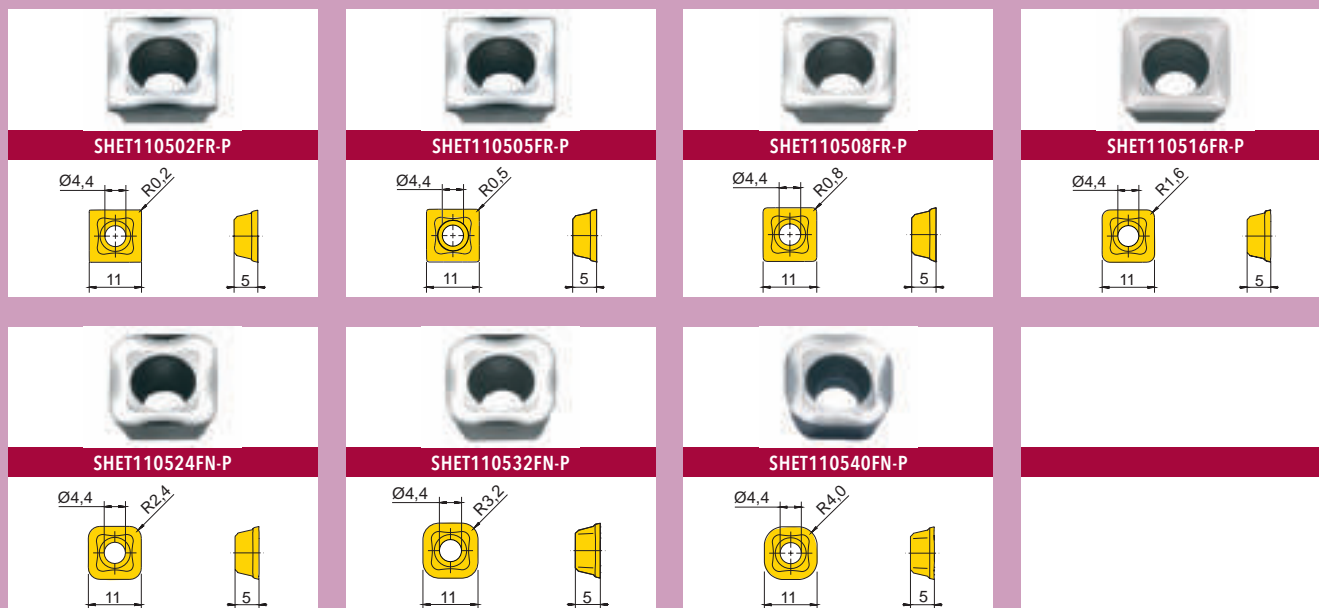
	D	d	d1	L	a	Z			
ES.050.004	50	22	45	40	8,4	4	2,0°	✓	0,24
ES.063.005	63	22	55	40	8,4	5	1,0°	✓	0,45
ES.080.007	80	27	70	50	8,4	7	0,5°	✓	1,08
ES.100.004	100	32	85	50	8,4	9	0,5°	✓	1,72

ALUMINATOR ES11D10



# SQUARE SHOULDER CUTTERS



INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN15K								
SHET110502FR-P	non-ferrous geometry, polished R0,2		●								
SHET110505FR-P	non-ferrous geometry, polished R0,5		●								
SHET110508FR-P	non-ferrous geometry, polished R0,8		●								
SHET110516FR-P	non-ferrous geometry, polished R1,6		●								
SHET110524FN-P	non-ferrous geometry, polished R2,4		●								
SHET110532FN-P	non-ferrous geometry, polished R3,2		●								
SHET110540FN-P	non-ferrous geometry, polished R4,0		●								

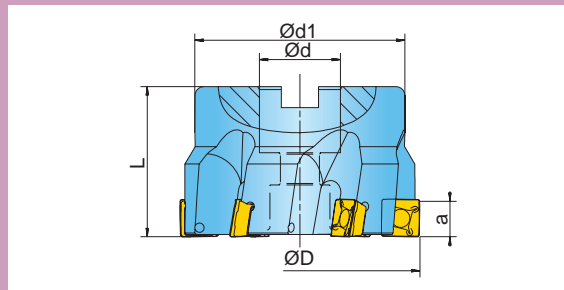
● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM40-093-20 	DS-T15S 		

FR FRAISES À SURFACER DRESSER  
 IT FRESE 90° A MANICOTTO  
 ES FRESA ANGULAR

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



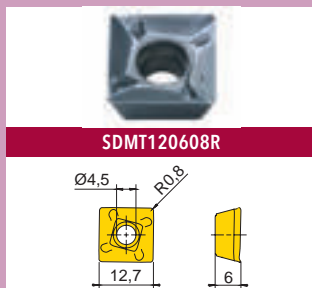
Designation / Réf. de l'article  
 Articolo / Referencia

D d d1 L a Z

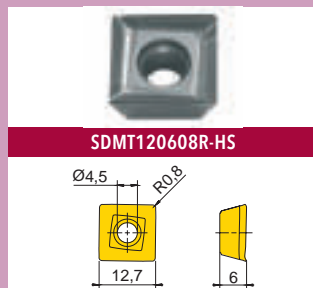


Designation / Réf. de l'article Articolo / Referencia	D	d	d1	L	a	Z	kg
ES.050.001	50	22	45	40	12	4	0,27
ES.063.001	63	22	55	40	12	6	0,52
ES.080.001	80	27	70	50	12	6	1,21
ES.080.002 <sup>1)</sup>	80	27	70	50	12	7	1,22
ES.100.001	100	32	85	50	12	8	1,94
ES.125.001	125	40	100	63	12	9	3,85
ES.160.001	160	40	140	63	12	11	7,09

INSERTS / PLAQUETTES DE COUPE  
 INSERTI / PLAQUITA



SDMT120608R



SDMT120608R-HS

Designation / Réf. de l'article  
 Articolo / Referencia

Insert Version / Execution  
 Tipologia Inserto / Tipo de Plaquita

Grade  
 Nuance  
 Grado  
 Grado

IN2005

IN2015

IN2030

IN2040

SDMT120608R

positive geometry R0,8



SDMT120608R-HS

positive titanium geometry R0,8



● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

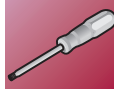
Insert screw / Vis de serrage  
 Vite per inserto / Tornillo plaquita

SM40-093-20



Screw driver / Tournevis  
 Cacciavite / Destornillador

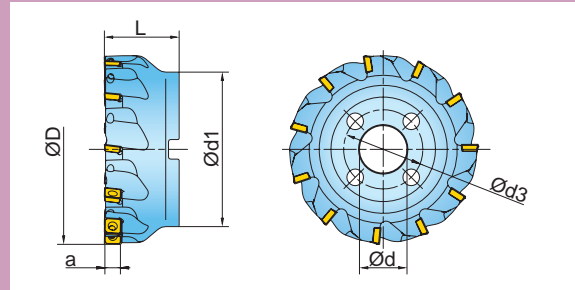
DS-T155



<sup>1)</sup> Narrow spacing (only for short chip producing materials) / Pas réduit (pour matières à copeaux courts) / Passo stretto / Paso estrecho

# SQUARE SHOULDER CUTTERS

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



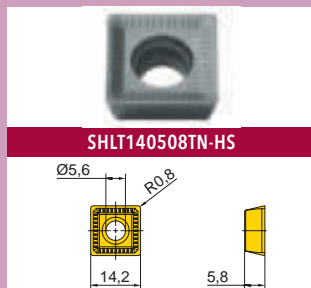
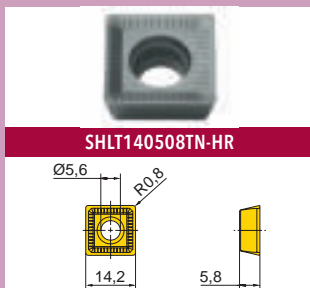
Designation / Réf. de l'article  
Articolo / Referencia

D d d1 d3 L a Z

kg

ES.050.003	50	22	48	-	40	13	4	1,5°	0,80
ES.063.004	63	22	50	-	40	13	5	1,0°	1,00
ES.080.005	80	27	70	-	50	13	6	0,6°	1,30
ES.100.002	100	32	90	-	50	13	7	0,5°	2,20
ES.125.002	125	40	100	-	63	13	9	0,4°	3,40
ES.160.002	160	40	130	66,7	63	13	11	0,3°	5,40

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN2005	IN2010	IN2030	IN2040			
SHLT140508TN-HR	positive geometry R0,8									
SHLT140508TN-HS	non-ferrous geometry R0,8									

● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIO

Insert screw / Vis de serrage  
Vite per inserto / Tornillo plaquita

SM50-108-20



Screw driver / Tournevis  
Cacciavite / Destornillador

DS-T20S

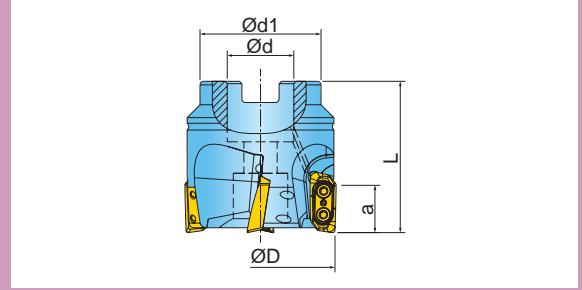


ES14D10

HIPOS QUAD

FR FRAISES À SURFACER DRESSER  
 IT FRESE 90° A MANICOTTO  
 ES FRESA ANGULAR

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
 Articolo / Referencia

D d d1 L a Z



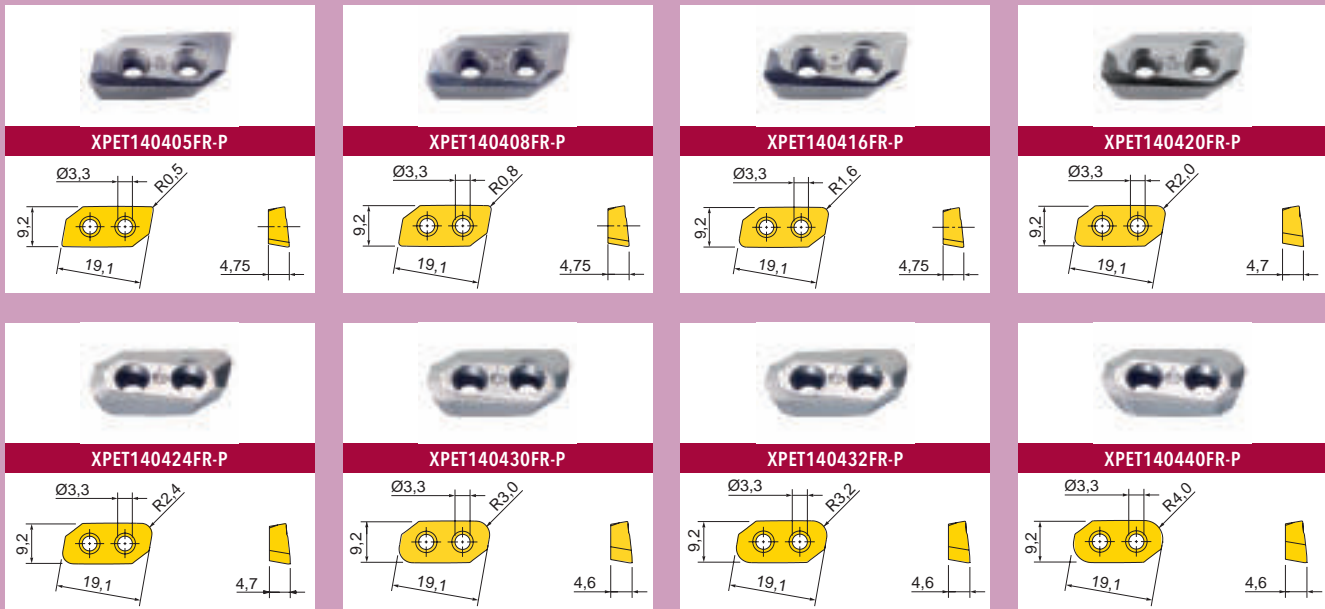
Designation / Réf. de l'article Articolo / Referencia	D	d	d1	L	a	Z		IK	kg
EX.050.002	50	22	40	50	15,5	4	6,2°	✓	0,36
EX.052.002	52	27	40	50	15,5	4	5,9°	✓	0,39
EX.063.002	63	27	50	50	15,5	5	4,7°	✓	0,59
EX.066.002	66	27	50	50	15,5	5	4,4°	✓	0,65
EX.080.002	80	27	60	50	15,5	5	3,5°	✓	1,08

ALUMINATOR EX14D10

ALUMINATOR

# SQUARE SHOULDER CUTTERS

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA





Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN15K							
XPET140405FR-P	non-ferrous geometry, polished R0,5	●								
XPET140408FR-P	non-ferrous geometry, polished R0,8	●								
XPET140416FR-P	non-ferrous geometry, polished R1,6	●								
XPET140420FR-P	non-ferrous geometry, polished R2,0	●								
XPET140424FR-P	non-ferrous geometry, polished R2,4	●								
XPET140430FR-P <sup>1)</sup>	non-ferrous geometry, polished R3,0	●								
XPET140432FR-P <sup>1)</sup>	non-ferrous geometry, polished R3,2	●								
XPET140440FR-P <sup>1)</sup>	non-ferrous geometry, polished R4,0	●								

● = P ● = M ● = K ● = N ● = S ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

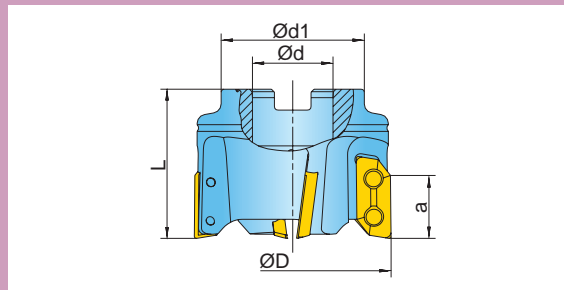
SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM30-065-00 	DS-T09S 		



FR FRAISES À SURFACER DRESSER  
 IT FRESE 90° A MANICOTTO  
 ES FRESA ANGULAR

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
 Articolo / Referencia

D d d1 L a Z



Designation / Réf. de l'article Articolo / Referencia	D	d	d1	L	a	Z		IK	kg
EX.050.001	50	22	40	50	21	3	9,0°	✓	0,32
EX.052.001	52	22	40	50	21	3	9,0°	✓	0,35
EX.063.001	63	27	48	50	21	4	6,0°	✓	0,55
EX.066.001	66	27	48	50	21	4	6,0°	✓	0,60
EX.080.001	80	27	60	50	21	5	5,0°	✓	1,00
EX.100.001	100	32	70	50	21	5	4,0°		1,60
EX.125.001	125	40	90	63	21	6	3,0°		3,20

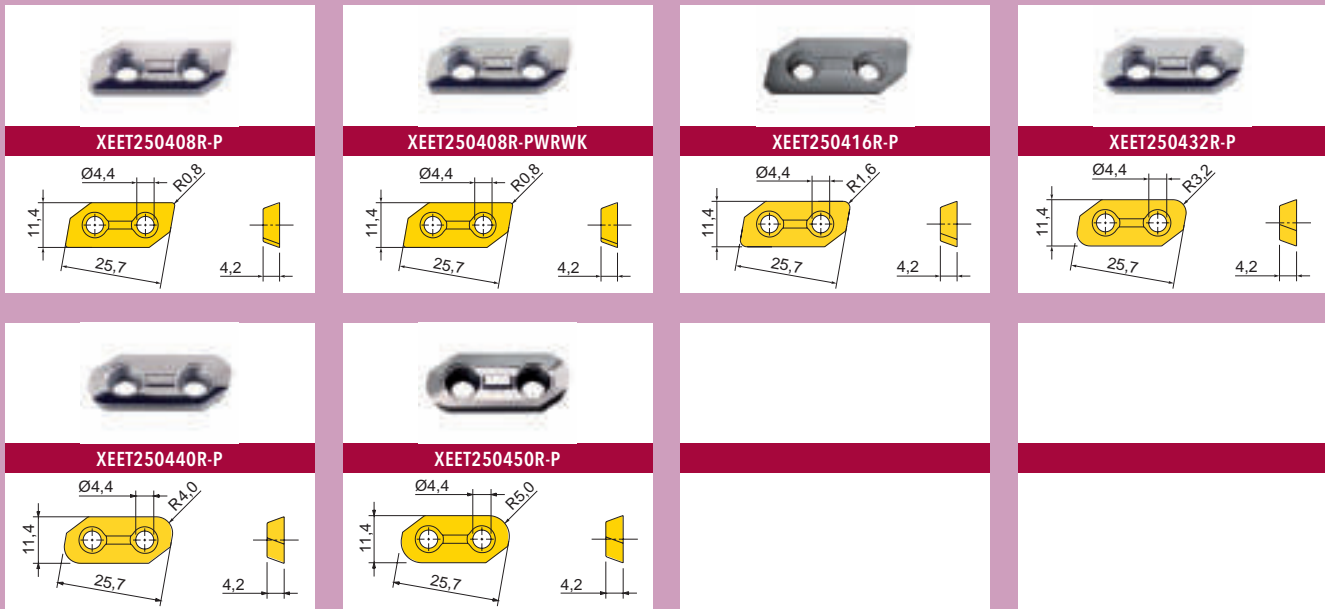
ALUMINATOR EX25D10





# SQUARE SHOULDER CUTTERS

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA





Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN15K								
XEET250408R-P	non-ferrous geometry, polished R0,8		●								
XEET250408R-PWRWK	non-ferrous wiper geometry, polished R0,8		●								
XEET250416R-P	non-ferrous geometry, polished R1,6		●								
XEET250432R-P	non-ferrous geometry, polished R3,2		●								
XEET250440R-P	non-ferrous geometry, polished R4,0		●								
XEET250450R-P <sup>1)</sup>	non-ferrous geometry, polished R5,0		●								

● = P ● = M ● = K ● = N ● = S ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

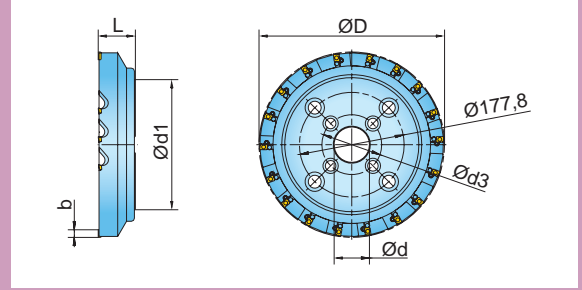
Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM40-090-00 	DS-T15S 		



FR FRAISES À SURFACER DRESSER  
 IT FRESE 90° A MANICOTTO  
 ES FRESA ANGULAR



ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
 Articolo / Referencia

D d d1 d3 L a b Z



Designation / Réf. de l'article Articolo / Referencia	D	d	d1	d3	L	a	b	Z	kg
PY.050.001	50	22	44	-	40	0,5	10	3	0,40
PY.063.001	63	22	48	-	40	0,5	10	3	0,60
PY.080.001	80	27	70	-	50	0,5	10	4	1,50
PY.100.001	100	32	80	-	50	0,5	10	6	2,00
PY.125.001	125	40	100	-	63	0,5	10	6	3,50
PY.160.001	160	40	130	66,7	63	0,5	10	8	5,00
PY.200.001	200	60	160	101,6	63	0,5	10	10	8,00

PYD10

SUPER FINISH

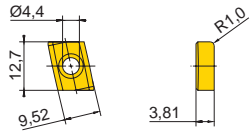


# SQUARE SHOULDER CUTTERS

INSERTS / PLAQUETTES DE COUPE  
 INSERTI / PLAQUITA



YDA322L101




Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado Grado	IN10K	IN0560	IN2040					
--	--	-----------------------------------	-------	--------	--------	--	--	--	--	--

YDA322L101	wiper finishing insert		●	●	●					

● = P   ● = M   ● = K   ● = N   ● = S   ● = H

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita SM40-110-00		Screw driver / Tournevis Cacciavite / Destornillador DS-T15S		Setting screw / Vis de réglage Vite di posizionamento / Tornillo de ajuste SC050-01		Eccentric pin / Pion excentrique Spina eccentrica / Pasador excéntrico PN072-02	
--	--	--	--	---	--	---	--



FR FRAISES À SURFACER  
IT FRESE A SPIANARE  
ES FRESA PARA PLANEAR



WINNO














**FACE MILLS**



**TOOL**



	D	a	Description / Description Modello / Descripción	Code / Série Codici / Serie	Page / Page Pagina / Página
	24,3 - 32	3,4	<del>ROTORHALL</del>	PO05E01	128
	33 - 125	3,4	<del>ROTORHALL</del>	PO05D10	130
	50 - 160	4,8	<del>ROTORHALL</del>	PO07D10	132
	40 - 160	6	<del>ROTORHALL</del>	PP08D10	134
	35 - 42	1,5	<del>ROTORHALL</del>	KP08E01	136
	50 - 160	1,5	<del>ROTORHALL</del>	KP08D10	137
	80 - 315	12	<del>ROTORHALL</del>	PP17D10	138
	20 - 25	4,5	<del>ROTORHALL</del>	PS09D03	140
	32 - 100	4,5	<del>ROTORHALL</del>	PS09D10	141
	50 - 160	7	<del>ROTORHALL</del>	PS14D10	142
	100 - 315	-	<del>ROTORHALL</del>	UFD10	144

Subject to printing error or technical changes / Sous réserve d'erreurs d'impression ou de modifications techniques / Quanto stampato puo' essere  
soggetto ad errori di stampa e variazione tecniche / Queda reservado el derecho sobre eventuales fallos de impresión, errores o modificaciones  
técnicas



# FACE MILLS

**FR** FRAISES À SURFACER

**IT** FRESE A SPIANARE

**ES** FRESA PARA PLANEAR

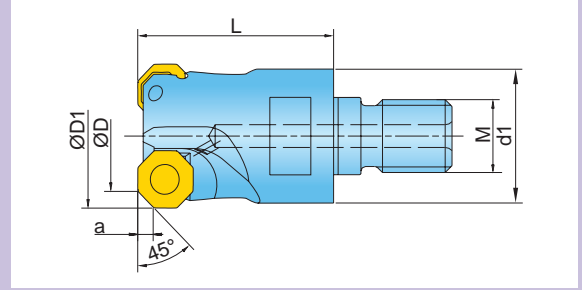
D	a	Description / Description Modello / Descripción	Code / Série Codici / Serie	Page / Page Pagina / Página

Subject to printing error or technical changes / Sous réserve d'erreurs d'impression ou de modifications techniques / Quanto stampato puo' essere soggetto ad errori di stampa e variazione tecniche / Queda reservado el derecho sobre eventuales fallos de impresión, errores o modificaciones técnicas



FR FRAISES À SURFACER  
 IT FRESE A SPIANARE  
 ES FRESA PARA PLANEAR

SCREW-TYPE ADAPTION / ATTACHEMENT FILETÉ  
 ATTACCO FILETTATO / ADAPTACIÓN MEDIANTE ROSCA



Designation / Réf. de l'article  
 Articolo / Referencia

D D1 d1 L a M Z



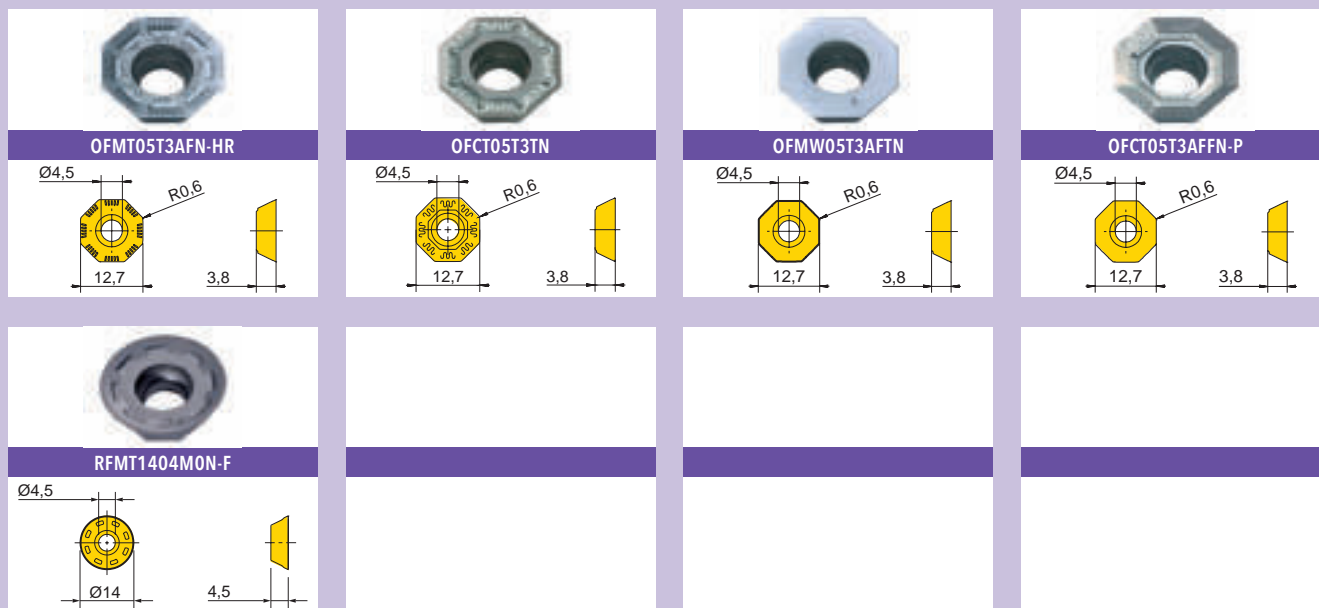
Designation / Réf. de l'article Articolo / Referencia	D	D1	d1	L	a	M	Z		IK	kg
PO.032.002	24,3	32	29	43	3,4	16	2	17,0°	✓	0,19
PO.040.002	32	40	29	43	3,4	16	3	9,0°	✓	0,21

ROBTMILL P005E01



# FACE MILLS



## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN30M	IN1030	IN2005	IN2010	IN2015	IN2030	IN2040	IN2505
OFMT05T3AFN-HR	positive geometry			●	●			●		●
OFCT05T3TN	semi-positive geometry			●	●					●
OFMW05T3AFTN	neutral geometry, K-land			●	●		●			
OFCT05T3AFFN-P	non-ferrous geometry, polished		●	●						
RFMT1404MON-F	positive geometry, K-land			●		●			●	

● = P ● = M ● = K ● = N ● = S ○ = H

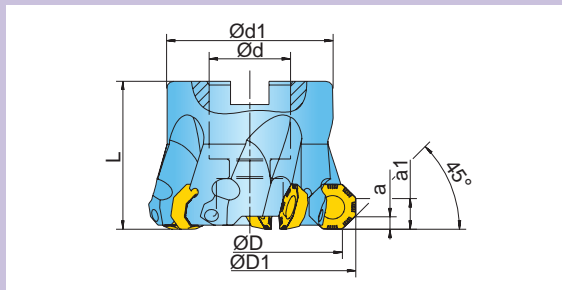
## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM40-080-10 	DS-T155 		



FR FRAISES À SURFACER  
 IT FRESE A SPIANARE  
 ES FRESA PARA PLANEAR

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
 Artículo / Referencia

D D1 d d1 L a a1 Z

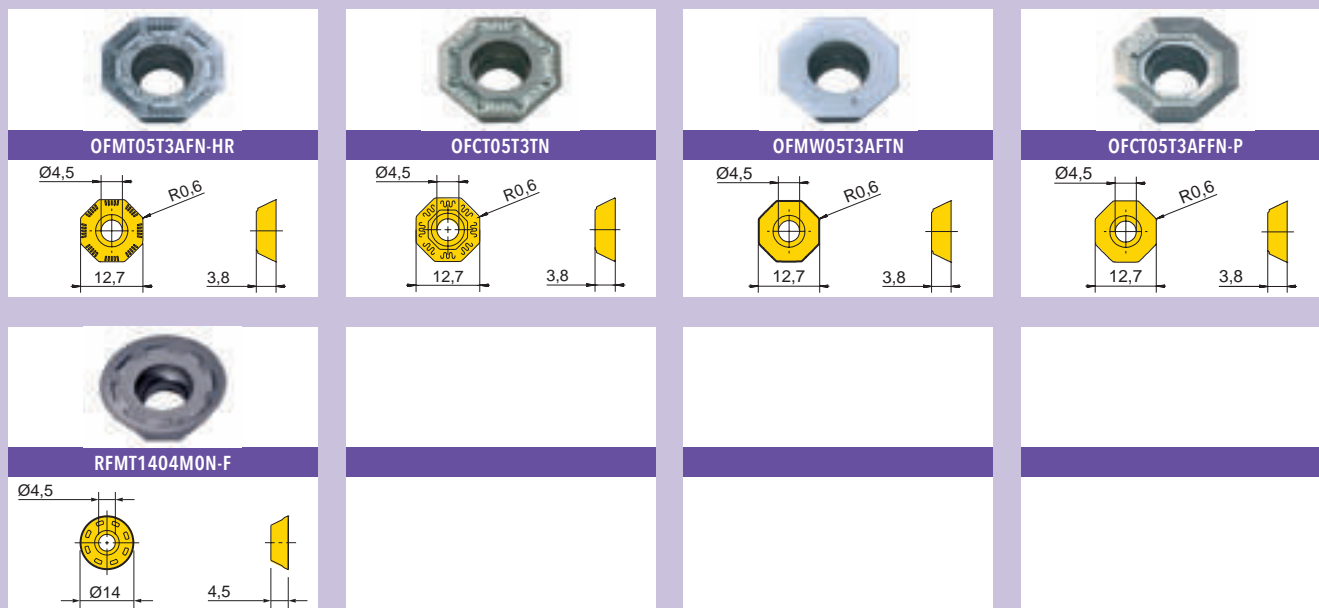


Designation / Réf. de l'article Artículo / Referencia	D	D1	d	d1	L	a	a1	Z			
PO.032.001	33	41,2	16	30	40	3,4	8,3	3	7,8°	✓	0,14
PO.040.001	40	48,1	16	30	40	3,4	8,3	4	5,6°	✓	0,18
PO.042.001	42	50	16	36	40	3,4	8,3	4	5,5°	✓	0,24
PO.050.002	50	58	22	45	40	3,4	8,3	5	4,3°	✓	0,34
PO.055.001	55,1	63	22	45	40	3,4	8,3	5	3,8°	✓	0,40
PO.063.002	63	71	22	55	40	3,4	8,3	6	3,3°	✓	0,57
PO.072.001	72,1	80	22	55	40	3,4	8,3	6	2,9°	✓	0,71
PO.080.002	80	87,9	27	70	50	3,4	8,3	7	2,5°	✓	1,23
PO.092.001	92,1	100	27	70	50	3,4	8,3	7	2,2°		1,49
PO.100.002	100	108	32	85	50	3,4	8,3	8	2,0°		1,91
PO.117.001	117,1	125	32	85	50	3,4	8,3	8	1,7°		2,38
PO.125.002	125	133	40	100	63	3,4	8,3	9	1,5°		3,66

ROBTMILL P005D10

# FACE MILLS



## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN30M	IN1030	IN2005	IN2010	IN2015	IN2030	IN2040	IN2505
OFMT05T3AFN-HR	positive geometry			●	●			●		●
OFCT05T3TN	semi-positive geometry			●	●					●
OFMW05T3AFTN	neutral geometry, K-land			●	●		●			
OFCT05T3AFFN-P	non-ferrous geometry, polished		●	●						
RFMT1404MON-F	positive geometry, K-land			●		●			●	

● = P   ● = M   ● = K   ● = N   ● = S   ○ = H

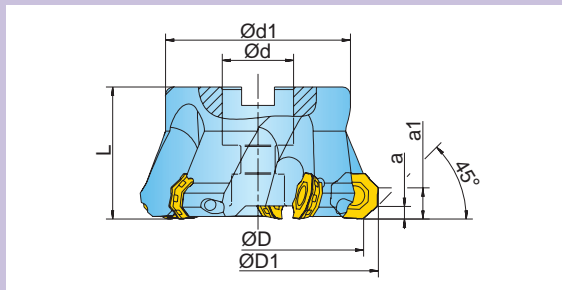
## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM40-093-20 	DS-T155 		



FR FRAISES À SURFACER  
 IT FRESE A SPIANARE  
 ES FRESA PARA PLANEAR

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



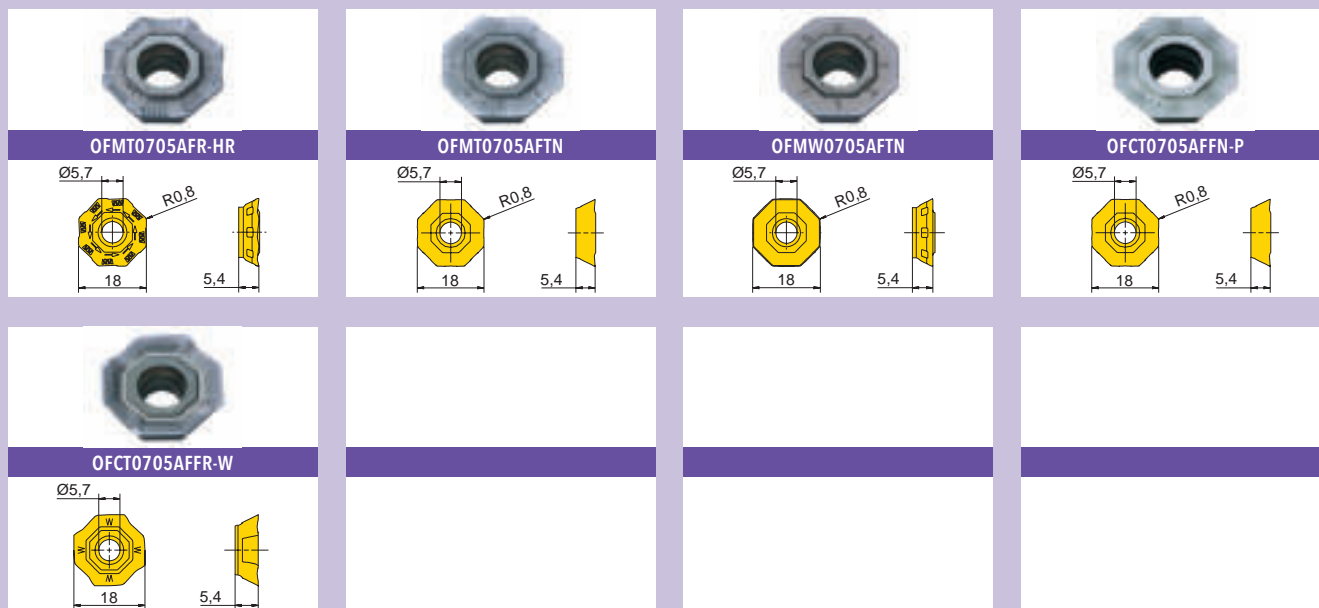
Designation / Réf. de l'article  
 Articolo / Referencia

Designation / Réf. de l'article Articolo / Referencia	D	D1	d	d1	L	a	a1	Z			
PO.050.001	50	62	22	45	50	4,8	11,8	3	5,5°	✓	0,41
PO.051.001	50,9	63	22	45	50	4,8	11,8	3	5,4°	✓	0,42
PO.063.001	63	75	22	55	40	4,8	11,8	4	4,5°	✓	0,51
PO.068.001	67,8	80	27	60	50	4,8	11,8	5	4,2°	✓	0,83
PO.080.001	80	92	27	70	50	4,8	11,8	5	3,5°	✓	1,22
PO.088.001	87,7	100	32	85	50	4,8	11,8	6	3,2°		1,53
PO.100.001	100	112	32	85	50	4,8	11,8	6	2,5°		1,82
PO.113.001	112,7	125	40	90	63	4,8	11,8	7	2,2°		3,12
PO.125.001	125	137	40	90	63	4,8	11,8	8	2,0°		3,58
PO.160.001	160	172	40	90	63	4,8	11,8	10	1,2°		5,28

ROTBEMILL P007D10

# FACE MILLS

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN30M	IN1030	IN2005	IN2015	IN2030			
OFMT0705AFR-HR	positive geometry			●			●			
OFMT0705AFTN	semi-positive geometry			●	●	●				
OFMW0705AFTN	neutral geometry, K-land			●	●	●	●			
OFCT0705AFFN-P	positive non-ferrous geometry, polished		●	●						
OFCT0705AFFR-W	wiper finishing insert			●						

● = P ● = M ● = K ● = N ● = S ○ = H

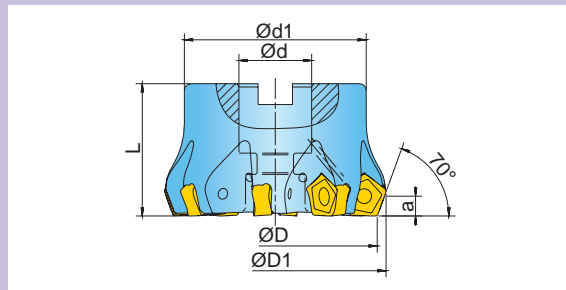
## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM50-120-30 	DS-T20T 		



FR FRAISES À SURFACER  
 IT FRESE A SPIANARE  
 ES FRESA PARA PLANEAR

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
 Artículo / Referencia

D D1 d d1 L a Z



PP.040.001	40	45,4	16	30	40	6	4	✓	0,18
PP.050.002 <sup>1)</sup>	50	55,4	22	45	40	6	6	✓	0,34
PP.050.001	50	55,4	22	45	40	6	4	✓	0,32
PP.063.002 <sup>1)</sup>	63	68,4	22	55	40	6	8	✓	0,58
PP.063.001	63	68,4	22	55	40	6	6	✓	0,58
PP.080.002 <sup>1)</sup>	80	85,4	27	70	50	6	10	✓	1,31
PP.080.001	80	85,4	27	70	50	6	7	✓	1,30
PP.100.002 <sup>1)</sup>	100	105,4	32	85	50	6	12	✓	2,00
PP.100.001	100	105,4	32	85	50	6	8	✓	1,97
PP.125.002 <sup>1)</sup>	125	130,4	40	100	63	6	16	✓	3,84
PP.125.001	125	130,4	40	100	63	6	10	✓	3,82
PP.160.002 <sup>1)2)</sup>	160	165,5	40	110	63	6	20		3,95
PP.160.001 <sup>2)</sup>	160	165,5	40	110	63	6	12		3,82

HIPOS DEKA PP08D10

HIPOS DEKA

<sup>1)</sup> Narrow spacing (only for short chip producing materials) / Pas réduit (pour matières à copeaux courts) / Passo stretto / Paso estrecho; <sup>2)</sup> Additional bolt circle Ø66,7 mm / Trous de fixation supplémentaires sur Ø66,7 mm / Diametro flangia di fissaggio 66,7 mm / Circulo adicional Tornillos (diámetro) 66,7 mm

# FACE MILLS



## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2005	IN2015	IN2030	IN2035	IN2505	INDD15	IN70N
PNCU0805GNTR	positive geometry			●	●	●		●		●
PNCU0805GNFR-HS	high positive geometry					●	●	●		
PNCQ0804GNTN	neutral geometry, K-land			●		●				
PNCU0805GNFR-P	positive non-ferrous geometry, polished		●							
PNCU0805GNR	positive geometry silicon nitride									●
PNCU0805GNTR-W	wiper insert			●		●		●	●	

● = P ● = M ● = K ● = N ● = S ○ = H

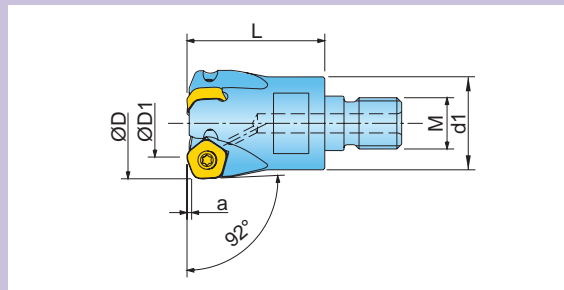
## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM40-100-10 	DS-T15S 		



FR FRAISES À SURFACER  
 IT FRESE A SPIANARE  
 ES FRESA PARA PLANEAR

SCREW-TYPE ADAPTION / ATTACHEMENT FILETÉ  
 ATTACCO FILETTATO / ADAPTACIÓN MEDIANTE ROSCA



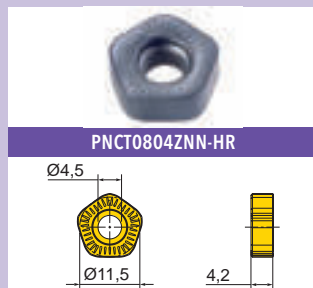
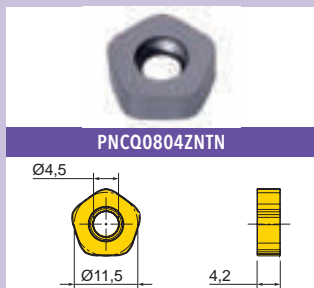
Designation / Réf. de l'article  
 Artículo / Referencia

D D1 d1 L a M Z



Designation / Réf. de l'article Artículo / Referencia	D	D1	d1	L	a	M	Z		
KP.035.001	35	21,5	29	43	1,5	16	3	0,1°	✓ 0,21
KP.042.001	42	28,5	29	43	1,5	16	4	0,2°	✓ 0,24

INSERTS / PLAQUETTES DE COUPE  
 INSERTI / PLAQUITA



Designation / Réf. de l'article Artículo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN2005	IN2030	IN2505				
PNCQ0804ZNTN	neutral geometry, K-land		●	●					
PNCT0804ZNN-HR	positive geometry			●	●				

● = P ● = M ● = K ● = N ● = S ○ = H

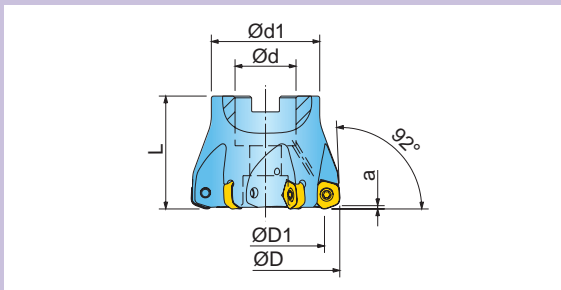
SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS



HIFEED-DEKA KP08E01



ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030

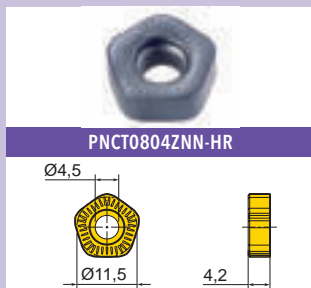
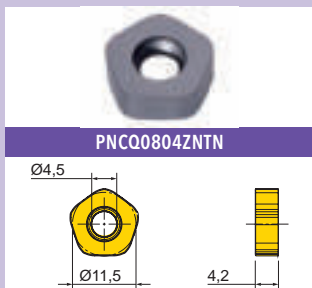


Designation / Réf. de l'article  
Articolo / Referencia

D D1 d d1 L a Z

KP.050.001	50	36,5	22	40	50	1,5	5	0,2°	✓	0,37
KP.052.001	52	38,5	22	40	50	1,5	5	0,6°	✓	0,40
KP.063.001	63	49,4	27	48	50	1,5	6	0,7°	✓	0,58
KP.066.001	66	52,4	27	48	50	1,5	6	0,7°	✓	0,65
KP.080.001	80	66,4	27	60	50	1,5	7	0,7°	✓	1,10
KP.100.001	100	86,4	32	70	55	1,5	8	0,7°	✓	1,75
KP.125.001	125	111,4	40	90	55	1,5	10	0,9°		2,60
KP.160.001	160	146,4	40	110	55	1,5	12	0,7°		3,50

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



Designation / Réf. de l'article  
Articolo / Referencia

Insert Version / Execution  
Tipologia Inserto / Tipo de Plaquita

Grade Nuance Grado IN2005 IN2030 IN2505

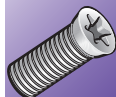
PNCQ0804ZNTN	neutral geometry, K-land	
PNCT0804ZNN-HR	positive geometry	

● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Insert screw / Vis de serrage  
Vite per inserto / Tornillo plaquita

SM40-093-20



Screw driver / Tournevis  
Cacciavite / Destornillador

DS-T15S



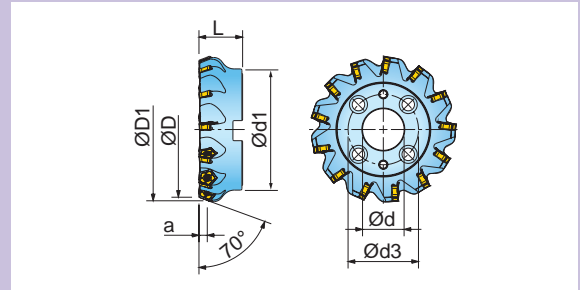
HIFEED-DEKA KP08D10

HIFEED-DEKA



FR FRAISES À SURFACER  
 IT FRESE A SPIANARE  
 ES FRESA PARA PLANEAR

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
 Artículo / Referencia

D D1 d d1 d3 L a Z



Designation / Réf. de l'article Artículo / Referencia	D	D1	d	d1	d3	L	a	Z	IK	kg
PP.080.003	80	91,3	27	70	-	55	12	4	✓	1,30
PP.100.004 <sup>1)</sup>	100	111,3	32	85	-	55	12	7	✓	1,97
PP.100.003	100	111,3	32	85	-	55	12	5	✓	2,03
PP.125.004 <sup>1)</sup>	125	136,4	40	100	-	63	12	8	✓	3,68
PP.125.003	125	136,3	40	100	-	63	12	6	✓	3,72
PP.160.004 <sup>1)</sup>	160	171,4	40	130	66,7	63	12	10		5,01
PP.160.003	160	171,3	40	130	66,7	63	12	8		4,96
PP.200.002 <sup>1)</sup>	200	211,3	60	160	101,6	63	12	13		8,32
PP.200.001	200	211,2	60	160	101,6	63	12	10		8,30
PP.250.002 <sup>1)</sup>	250	261,3	60	190	101,6	63	12	17		15,10
PP.250.001	250	261,2	60	190	101,6	63	12	12		15,14
PP.315.002 <sup>1)2)</sup>	315	326,3	60	225	101,6	80	12	21		25,86
PP.315.001 <sup>2)</sup>	315	326,2	60	225	101,6	80	12	14		25,56

PP17D10

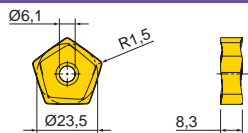
HIPOS DEKA

<sup>1)</sup> Narrow spacing (only for short chip producing materials) / Pas réduit (pour matières à copeaux courts) / Passo stretto / Paso estrecho; <sup>2)</sup> Additional bolt circle Ø177.8 mm / Trous de fixation supplémentaires sur Ø177.8 mm / Diametro flangia di fissaggio Ø 177.8 mm / Círculo adicional Tornillos (diámetro) Ø 177.8 mm

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



PNCU1708GNTR




Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN2005	IN2030	IN2040	INDD15				
--	--	--------------------------	--------	--------	--------	--------	--	--	--	--

PNCU1708GNTR	positive geometry									

● = P   ● = M   ● = K   ● = N   ● = S   ○ = H

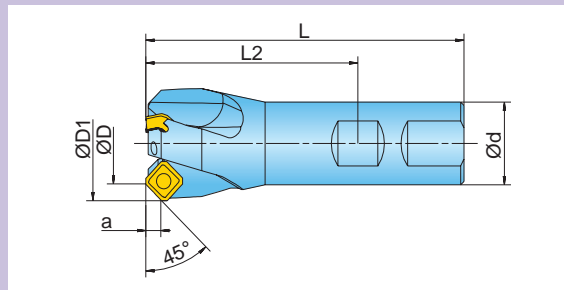
SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIO

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM50-130-R0	DS-T20T		



FR FRAISES À SURFACER  
 IT FRESE A SPIANARE  
 ES FRESA PARA PLANEAR

ADAPTION ACC. TO DIN 1835 B (WELDON) / ATTACHEMENT DIN 1835 B ( WELDON)  
 ATTACCO DIN 1835 B (WELDON) / ADAPTACIÓN SEGÚN DIN 1835 B (WELDON)



Designation / Réf. de l'article  
 Articolo / Referencia

	D	D1	d	L	L2	a	Z		
PS.020.001	20	29,7	20	90	65	4,5	2	17,0°	0,22
PS.025.001	25	34,8	25	96	64	4,5	3	15,0°	0,35

INSERTS / PLAQUETTES DE COUPE  
 INSERTI / PLAQUITA

SEKT09T3AFN	SECT09T3AFFN	SECT09T3AFFN-P	

Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN30M	IN1030	IN2005	IN2030			
SEKT09T3AFN	positive geometry								
SECT09T3AFFN	non-ferrous geometry								
SECT09T3AFFN-P	non-ferrous geometry, polished								

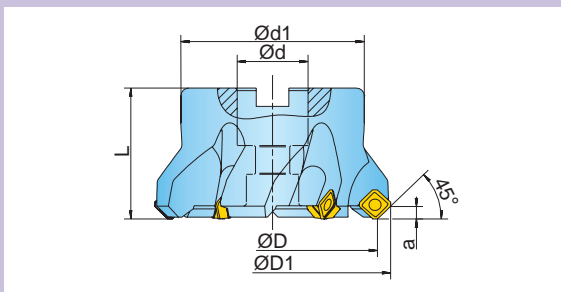
● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIO

<p>Insert screw / Vis de serrage          Vite per inserto / Tornillo plaquita</p> <p>SM30-082-00 </p>	<p>Screw driver / Tournevis          Cacciavite / Destornillador</p> <p>DS-T09S </p>		
--	--	--	--

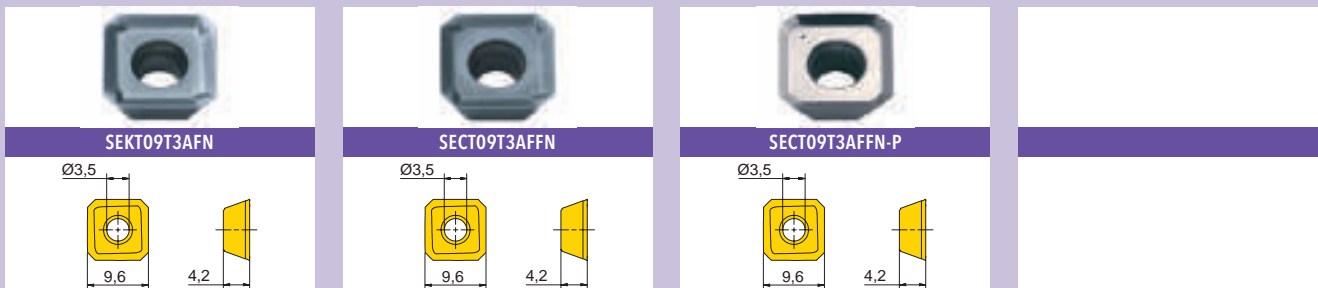
PS09D03  
 HIPER-QUAD

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article Articolo / Referencia	D	D1	d	d1	L	a	Z		
PS.032.001	32	42	16	30	35	4,5	4	10,0°	0,13
PS.040.001	40	50	22	45	40	4,5	4	8,0°	0,29
PS.050.001	50	60,1	22	45	40	4,5	5	6,0°	0,37
PS.063.001	63	73,1	22	55	40	4,5	6	4,5°	0,62
PS.080.001	80	90,2	27	70	50	4,5	7	3,0°	1,26
PS.100.001	100	110,2	32	85	50	4,5	8	2,0°	1,91

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN30M	IN1030	IN2005	IN2030			
SEKT09T3AFN	positive geometry								
SEKT09T3AFFN	non-ferrous geometry								
SEKT09T3AFFN-P	non-ferrous geometry, polished								

● = P ● = M ● = K ● = N ● = S ○ = H

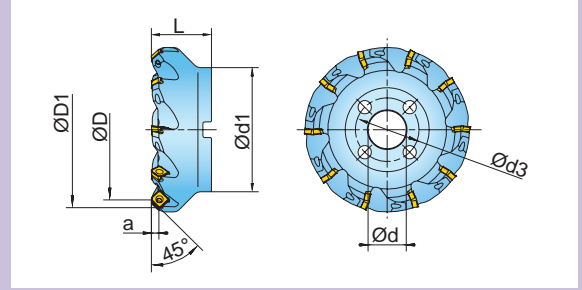
SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM30-082-00	DS-T09S		




FR FRAISES À SURFACER  
 IT FRESE A SPIANARE  
 ES FRESA PARA PLANEAR

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030

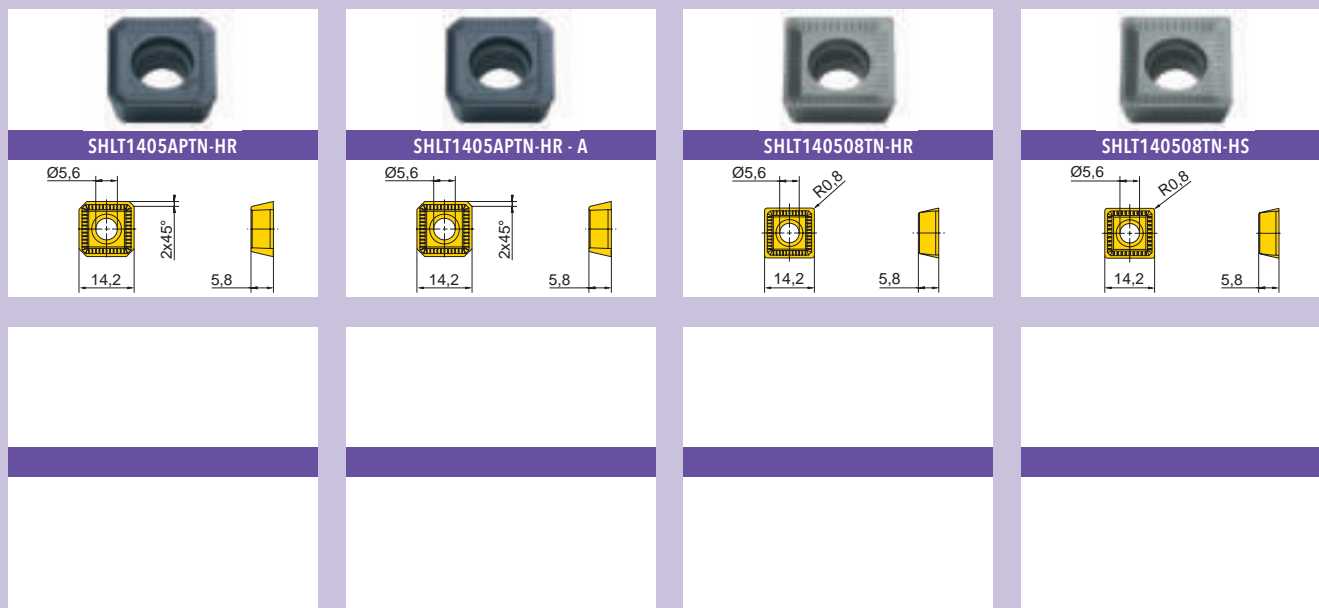


Designation / Réf. de l'article  
 Articolo / Referencia

Designation / Réf. de l'article Articolo / Referencia	D	D1	d	d1	d3	L	a	Z		
PS.050.002	50	64,3	22	50	-	40	7	4	9,7°	0,80
PS.063.002	63	77,3	22	50	-	40	7	5	7,2°	1,00
PS.080.002	80	94,3	27	70	-	50	7	6	5,4°	1,30
PS.100.002	100	114,3	32	90	-	50	7	7	4,2°	2,20
PS.125.001	125	139,3	40	100	-	63	7	8	3,2°	3,40
PS.160.001	160	174,3	40	130	66,7	63	7	10	2,5°	5,40

HIPER-QUAD PS14D10

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN2005	IN2010	IN2015	IN2030	IN2040	IN6530
SHLT1405APTN-HR	positive geometry								
SHLT1405APTN-HR - A	positive steel geometry								
SHLT140508TN-HR	positive geometry R0,8								
SHLT140508TN-HS	non-ferrous geometry R0,8								

● = P ● = M ● = K ● = N ● = S ○ = H

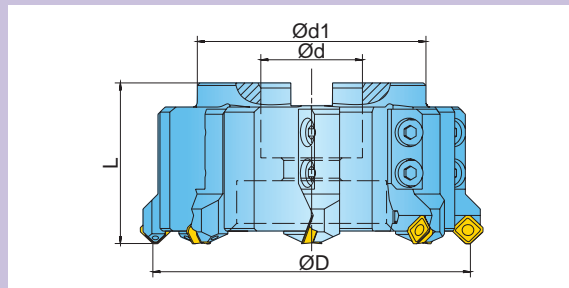
## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador
SM50-108-20	DS-T20S



FR FRAISES À SURFACER  
 IT FRESE A SPIANARE  
 ES FRESA PARA PLANEAR

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
 Articolo / Referencia

D d d1 L Z



UF.100.001	100	32	64	63	6	1,69
UF.125.001	125	40	64	63	8	2,90
UF.125.002 <sup>1)</sup>	125	40	64	63	10	2,59
UF.160.001 <sup>2)</sup>	160	40	90	63	9	4,24
UF.160.002 <sup>1)2)</sup>	160	40	90	63	12	4,04
UF.200.001 <sup>3)</sup>	200	60	130	63	12	7,30
UF.200.002 <sup>1)3)</sup>	200	60	130	63	16	7,01
UF.250.001 <sup>3)</sup>	250	60	130	63	14	11,80
UF.250.002 <sup>1)3)</sup>	250	60	130	63	20	11,40
UF.315.001 <sup>3)</sup>	315	60	225	80	16	23,10
UF.315.002 <sup>1)3)</sup>	315	60	225	80	22	22,40

UFD10

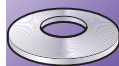
CARTRIDGE CUTTER

<sup>1)</sup> Narrow spacing (only for short chip producing materials) / Pas réduit (pour matières à copeaux courts) / Passo stretto / Paso estrecho; <sup>2)</sup> Bolt circle Ø66,7 mm / Trous de fixation supplémentaires sur Ø66,7 mm / Diametro flangia di fissaggio 66,7 mm / Círculo adicional Tornillos (diámetro) 66,7 mm; <sup>3)</sup> Bolt circle Ø101,6 mm / Trous de fixation supplémentaires sur Ø101,6 mm / Diametro flangia di fissaggio 101,6 mm / Círculo adicional Tornillos (diámetro) 101,6 mm

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Spring washer / disque de support  
 - / Muelle del tornillo

SR062-01



Setting screw / Vis de réglage  
 Vite di posizionamento / Tornillo de ajuste

SC03-28



Wrench / Clef de serrage  
 Chiave / Destornillador

DS-H05T



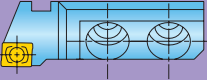
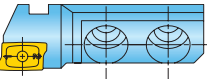
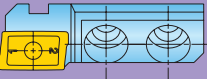
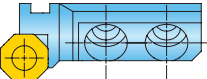
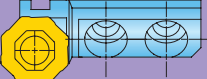
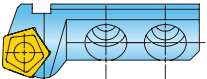
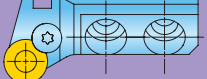

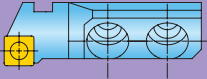
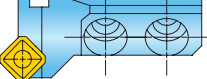
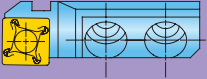
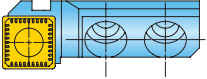
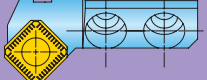

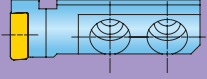
Screw driver / Tournevis  
 Cacciavite / Llave tensora

WS-5002





**CARTRIDGE RANGE / APERÇU DES CARTOUCHES  
GAMMA DELLE CARTUCCE / GAMA DE CARTUCHOS**

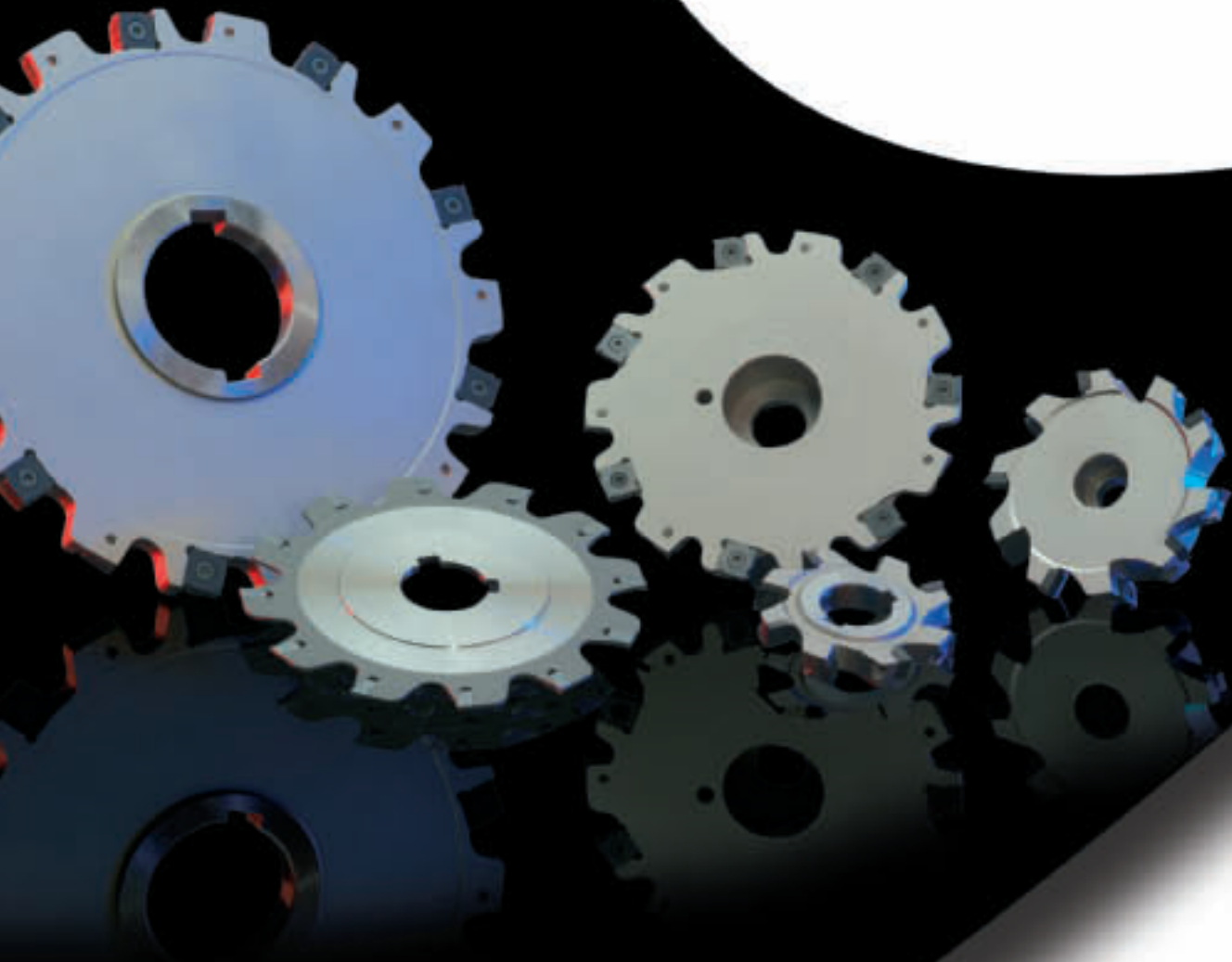
Designation / Réf. de l'article Articolo / Referencia	Cartridge / Cartouches Cartucce / Cartuchos	Inserts / Plaquettes de coupe Inserti / Plaquita	Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita
CA.083.001		APKT080304R	SM25-064-00
CA.113.001		AOMT110304R	SM25-064-00
CA.165.001		AOMT160508R	SM40-093-20
CO.05T.001		OFMT05T3AFN-HR	SM40-078-20
CO.075.001		OFMT0705AFR-HR	SM50-120-30
CP.085.001		PNCU0805GNTR	SM40-100-10
CR.124.001		RHKW1204MOTN	SM40-080-10
CR.165.001		RHKW1605MOTN	SM50-100-10
CS.083.001		SDMT080305N	SM30-065-00
CS.09T.001		SEKT09T3AFN	SM30-082-00
CS.126.001		SDMT120608R	SM40-093-20
CS.145.003		SHLT140508TN-HR	SM50-108-20
CS.145.002		SHLT1405APTn-HR	SM50-108-20
CS.145.001		SHLT140508TN-HR	SM50-108-20
CY.322.001		YDA322L101	SM40-110-00

Cartridges have to be ordered separately / Cartouches non incluses - à commander séparément / Le cartucce devono essere ordinate separatamente / Los cartuchos hay que solicitarlos por separado

**UFD10**

**CARTRIDGE CUTTER**

FRAISES DISQUES  
FRESE A DISCO  
FRESA DE DISCO






MINNO

**SIDE AND FACE CUTTERS**



**TOOL**



	D	b	Description / Description Modello / Descripción	Code / Série Codici / Serie	Page / Page Pagina / Página
	75 - 125	1,6 - 2,2	<del>SLIDE-IN</del>	DFD01	150
	100 - 160	2,4 - 4,1	<del>SLIDE-IN</del>	DFD01A	151
	63 - 200	10 - 14	<del>POWER-QUAD</del>	DS08D01	152
	63 - 200	10 - 14	<del>POWER-QUAD</del>	DS08D10	154
	63 - 100	4 - 10	<del>POWER-SLOT</del>	DTD01	156
	125 - 200	4 - 10	<del>POWER-SLOT</del>	DTD01	158
	63 - 100	4 - 10	<del>POWER-SLOT</del>	DTD10	160
	125 - 160	4 - 10	<del>POWER-SLOT</del>	DTD10	162

Subject to printing error or technical changes / Sous réserve d'erreurs d'impression ou de modifications techniques / Quanto stampato puo' essere  
 soggetto ad errori di stampa e variazione tecniche / Queda reservado el derecho sobre eventuales fallos de impresión, errores o modificaciones  
 técnicas

# SIDE AND FACE CUTTERS

**FR FRAISES DISQUES**

**IT FRESE A DISCO**

**ES FRESA DE DISCO**

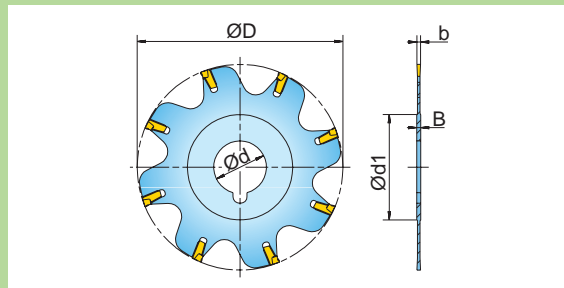
D	b	Description / Description Modello / Descripción	Code / Série Codici / Serie	Page / Page Página / Página

Subject to printing error or technical changes / Sous réserve d'erreurs d'impression ou de modifications techniques / Quanto stampato puo' essere soggetto ad errori de stampa e variazione tecniche / Queda reservado el derecho sobre eventuales fallos de impresión, errores o modificaciones técnicas



**FRAISES DISQUES**  
**FRESE A DISCO**  
**FRESA DE DISCO**

ADAPTION ACC. TO DIN 138 / ATTACHEMENT DIN 138  
 ATTACCO DIN 138 / ADAPTACIÓN SEGÚN DIN 138



Designation / Réf. de l'article Articolo / Referencia	D	d	d1	B	b	n max.	Z	kg	Related Insert
DF.075.1.6B	75	22	39	2,4	1,6	1050	8	0,03	A
DF.075.2.2B	75	22	39	2,4	2,2	1050	8	0,04	B
DF.100.1.6B	100	22	39	2,4	1,6	800	10	0,06	A
DF.100.2.2B	100	22	39	2,4	2,2	800	10	0,08	B
DF.125.1.6B	125	27	64	2,4	1,6	640	12	0,11	A
DF.125.2.2B	125	27	64	2,4	2,2	640	12	0,15	B

INSERTS / PLAQUETTES DE COUPE  
 INSERTI / PLAQUITA

<b>GCFX071601N</b>	<b>GCFX082202N</b>		

Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN1030	IN2005				
GCFX071601N	positive geometry R0,15							
GCFX082202N	positive geometry R0,2							

● = P ● = M ● = K ● = N ● = S ○ = H

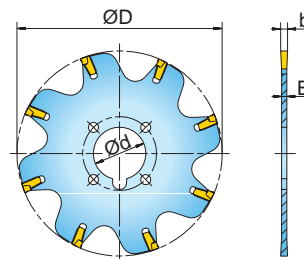
SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Ejector / Extracteur Chiavi / Expulsor			
DR-0032			

**SLOT-IN DFD01**

# SIDE AND FACE CUTTERS

ADAPTION ACC. TO DIN 138 / ATTACHEMENT DIN 138  
ATTACCO DIN 138 / ADAPTACIÓN SEGÚN DIN 138



Designation / Réf. de l'article  
Artículo / Referencia

D d B b n max. Z



Related Insert

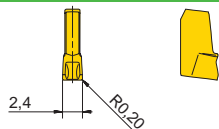
DF.100.2.4F	100	22	1,9	2,4	800	10	0,09	A
DF.100.3.1F	100	22	2,4	3,1	800	6	0,10	B
DF.100.4.1F	100	22	3,2	4,1	800	6	0,12	C
DF.125.2.4F	125	32	1,9	2,4	640	12	0,14	A
DF.125.3.1F	125	32	2,4	3,1	640	8	0,15	B
DF.125.4.1F	125	32	3,2	4,1	640	8	0,20	C
DF.160.2.4F	160	32	1,9	2,4	500	16	0,25	A
DF.160.3.1F	160	40	2,4	3,1	500	10	0,27	B
DF.160.4.1F	160	40	3,2	4,1	500	10	0,35	C

Spigot set (see page Z3) has to be ordered separately / Set d'entraînement non inclus - à commander séparément (voir p. Z3) / La flangia (see page Z3) va ordinata separatamente / Conjunto (ver en la pagina Z3) hay que pedirlo por separado

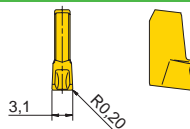
INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



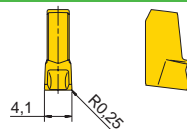
A GCXF092402N



B GCXF113102N



C GCXF114103N



Designation / Réf. de l'article  
Artículo / Referencia

Insert Version / Execution  
Tipologia Inserto / Tipo de Plaquita

Grade

Nuance

Grado

Grado

IN1030

IN2005

GCXF092402N

positive geometry R0,2



GCXF113102N

positive geometry R0,2



GCXF114103N

positive geometry R0,25



● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Cutting Width / Largeurs de coupe  
Spessore tagliente / Ancho de corte

2,4  
3,1 - 4,1

Ejector / Extracteur  
Chiavi / Expulsor

DR-0032  
DR-0031



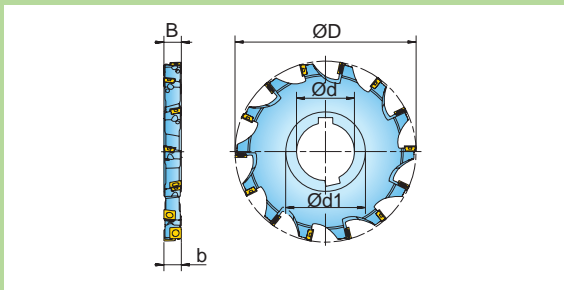
DFD01A

SLOT-IN



FR FRAISES DISQUES  
 IT FRESE A DISCO  
 ES FRESA DE DISCO

ADAPTION ACC. TO DIN 138 / ATTACHEMENT DIN 138  
 ATTACCO DIN 138 / ADAPTACIÓN SEGÚN DIN 138



Designation / Réf. de l'article  
 Artículo / Referencia

D d d1 B b Z Zeff

kg

DS.063.007	63	22	34	10	10	8	4	0,11
DS.063.008	63	22	34	12	12	8	4	0,13
DS.063.009	63	22	34	14	14	8	4	0,16
DS.080.007	80	22	34	10	10	10	5	0,19
DS.080.008	80	22	34	12	12	10	5	0,24
DS.080.009	80	22	34	14	14	10	5	0,29
DS.100.005	100	27	41	10	10	12	6	0,32
DS.100.006	100	27	41	12	12	12	6	0,40
DS.100.007	100	27	41	14	14	12	6	0,48
DS.125.005	125	40	55	10	10	14	7	0,47
DS.125.006	125	40	55	12	12	14	7	0,60
DS.125.007	125	40	55	14	14	14	7	0,72
DS.160.005	160	40	55	10	10	16	8	0,88
DS.160.006	160	40	55	12	12	16	8	1,10
DS.160.007	160	40	55	14	14	16	8	1,33
DS.200.003	200	50	69	10	10	18	9	1,40
DS.200.004	200	50	69	12	12	18	9	1,79
DS.200.005	200	50	69	14	14	18	9	2,16

DS08D01

HIPES QUAD

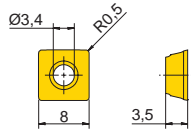


# SIDE AND FACE CUTTERS

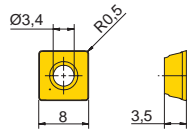
INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



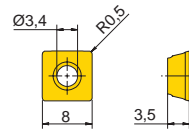
SDMT080305N



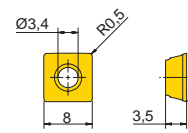
SDMW080305TN



SDCT080305FN



SDCT080305FN-P



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN30M	IN1030	IN2005	IN2015	IN2030	IN2040		
SDMT080305N	positive geometry R0,5			●	●	●	●	●		
SDMW080305TN	neutral geometry, K-land R0,5			●	●	●		●		
SDCT080305FN	non-ferrous geometry R0,5			●						
SDCT080305FN-P	non-ferrous geometry, polished R0,5		●	●						

● = P ● = M ● = K ● = N ● = S ○ = H

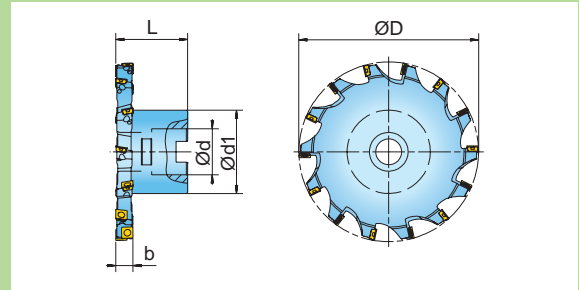
SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM30-065-00	DS-T09S		



**FRAISES DISQUES  
FRESE A DISCO  
FRESA DE DISCO**

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
Artículo / Referencia

D d d1 L b Z Zeff



Designation / Réf. de l'article Artículo / Referencia	D	d	d1	L	b	Z	Zeff	kg
DS.063.010	63	16	30	32	10	8	4	0,20
DS.063.011	63	16	30	32	12	8	4	0,22
DS.063.012	63	16	30	32	14	8	4	0,24
DS.080.010	80	22	40	40	10	10	5	0,41
DS.080.011	80	22	40	40	12	10	5	0,44
DS.080.012	80	22	40	40	14	10	5	0,48
DS.100.012	100	27	45	45	10	12	6	0,68
DS.100.013	100	27	45	45	12	12	6	0,75
DS.100.014	100	27	45	45	14	12	6	0,80
DS.125.012	125	32	58	50	10	14	7	1,21
DS.125.013	125	32	58	50	12	14	7	1,30
DS.125.014	125	32	58	50	14	14	7	1,40
DS.160.008	160	40	70	60	10	16	8	2,10
DS.160.009	160	40	70	60	12	16	8	2,29
DS.160.010	160	40	70	60	14	16	8	2,52
DS.200.006	200	40	70	60	10	18	9	2,70
DS.200.007	200	40	70	60	12	18	9	3,03
DS.200.008	200	40	70	60	14	18	9	3,35

**DS08D10**

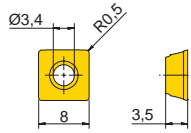
**HIPER-QUAD**

# SIDE AND FACE CUTTERS

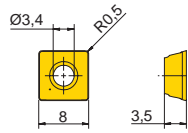
## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



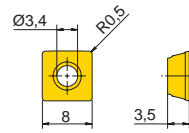
SDMT080305N



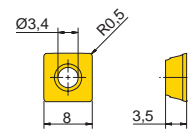
SDMWO80305TN



SDCT080305FN





SDCT080305FN-P



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN30M	IN1030	IN2005	IN2015	IN2030	IN2040		
SDMT080305N	positive geometry R0,5			●	●	●	●	●		
SDMWO80305TN	neutral geometry, K-land R0,5			●	●	●		●		
SDCT080305FN	non-ferrous geometry R0,5			●						
SDCT080305FN-P	non-ferrous geometry, polished R0,5		●	●						

● = P   ● = M   ● = K   ● = N   ● = S   ● = H

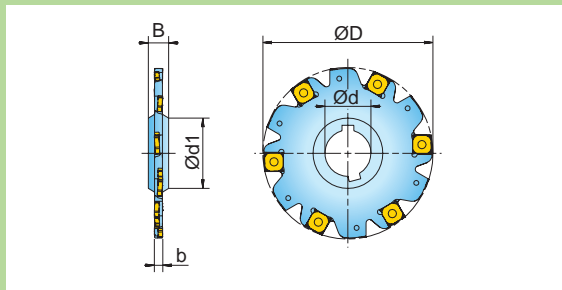
## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM30-065-00 	DS-T09S 		



**FRAISES DISQUES**  
**FRESE A DISCO**  
**FRESA DE DISCO**

ADAPTION ACC. TO DIN 138 / ATTACHEMENT DIN 138  
 ATTACCO DIN 138 / ADAPTACIÓN SEGÚN DIN 138



Designation / Réf. de l'article Articolo / Referencia	D	d	d1	B	b	Z	Zeff	kg	Related Insert
DS.063.001	63	22	34	8	4	8	4	0,06	AB
DS.063.002	63	22	34	8	5	8	4	0,07	CD
DS.063.003	63	22	34	8	6	6	3	0,07	EF
DS.063.013	63	22	34	12	7/8	6	3	0,09	GHIJ
DS.063.015	63	22	34	12	9	6	3	0,10	KL
DS.063.016	63	22	34	12	10	6	3	0,12	KL
DS.080.001	80	22	34	8	4	10	5	0,11	AB
DS.080.002	80	22	34	8	5	10	5	0,13	CD
DS.080.003	80	22	34	8	6	8	4	0,14	EF
DS.080.013	80	22	34	12	7/8	8	4	0,16	GHIJ
DS.080.015	80	22	34	12	9	8	4	0,19	KL
DS.080.016	80	22	34	12	10	8	4	0,22	KL
DS.100.001	100	27	41	12	4	12	6	0,20	AB
DS.100.002	100	27	41	12	5	12	6	0,24	CD
DS.100.003	100	27	41	12	6	10	5	0,25	EF
DS.100.004	100	27	41	12	7/8	10	5	0,28	GHIJ
DS.100.015	100	27	41	12	9	10	5	0,34	KL
DS.100.016	100	27	41	12	10	10	5	0,38	KL

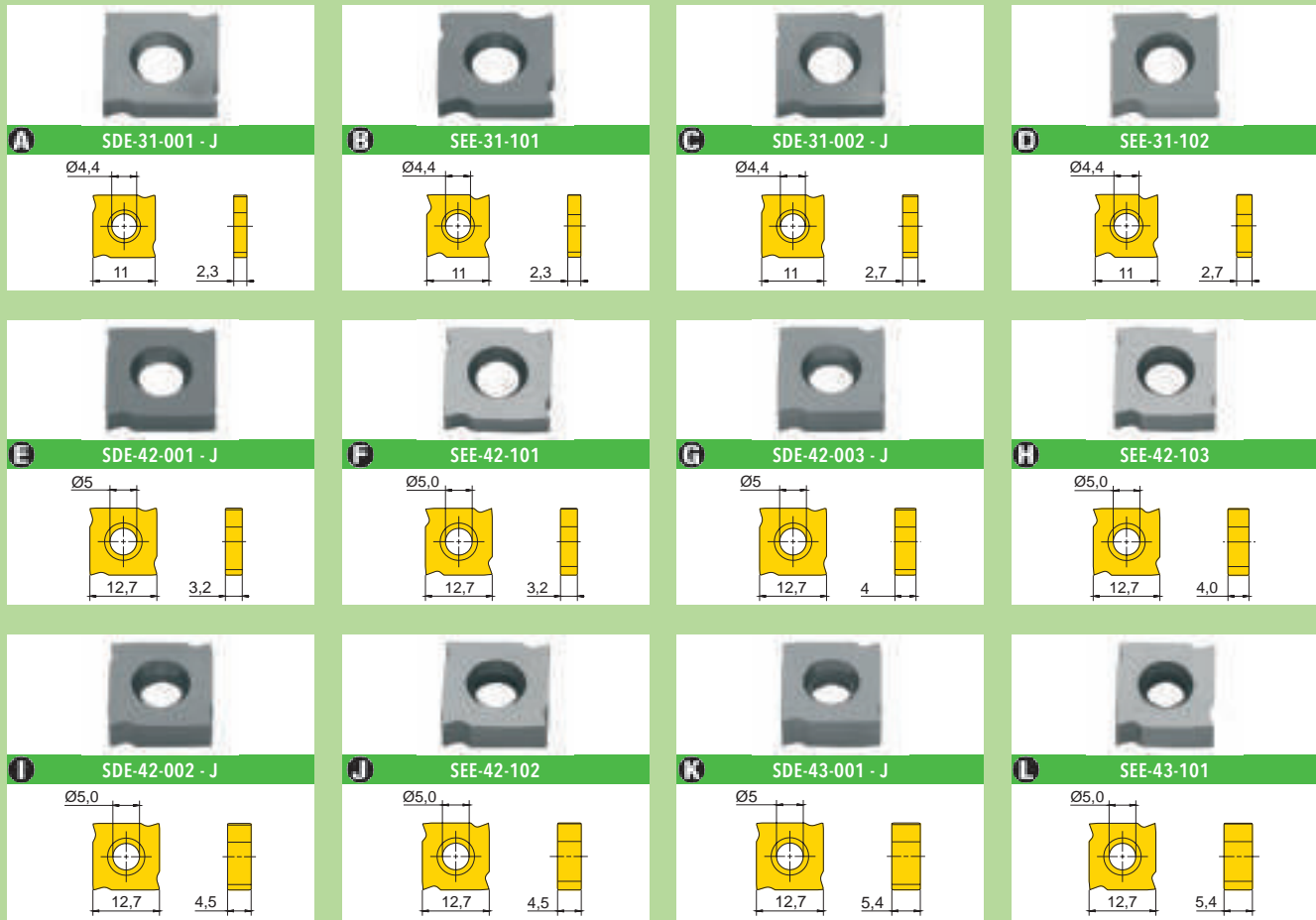
Slot ground inclined about 2° / Fond de rainure incliné à environ 2° / Sede inserto inclinata circa 2° / Ranura inclinada aproximadamente 2°

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Cutting Width / Largeurs de coupe Spessore tagliente / Ancho de corte	Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador
4 5 6	SM35-034-50 SM35-042-50 SM40-050-50	DS-T09S DS-T09S DS-T15S
7/8 9 - 10	SM40-060-50 SM40-080-50	DS-T15S DS-T15S

# SIDE AND FACE CUTTERS

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



Designation / Réf. de l'article Artículo / Referencia	Insert Version / Execution Tipología Inserto / Tipo de Plaquita	Grade Nuance Grado	IN30M	IN1030	IN2030				
--	--	--------------------------	-------	--------	--------	--	--	--	--

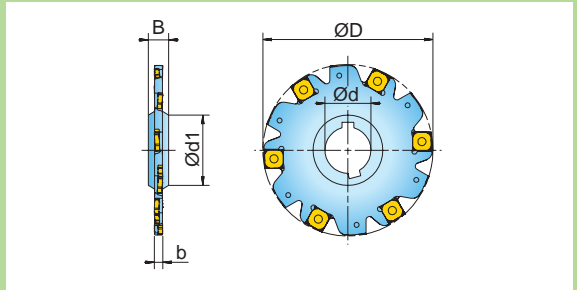
SDE-31-001 - J	positive geometry			●	●				
SEE-31-101	non-ferrous geometry	●							
SDE-31-002 - J	positive geometry			●	●				
SEE-31-102	non-ferrous geometry	●							
SDE-42-001 - J	positive geometry			●	●				
SEE-42-101	non-ferrous geometry	●							
SDE-42-003 - J	positive geometry			●	●				
SEE-42-103	non-ferrous geometry	●							
SDE-42-002 - J	positive geometry			●	●				
SEE-42-102	non-ferrous geometry	●							
SDE-43-001 - J	positive geometry			●	●				
SEE-43-101	non-ferrous geometry	●							

● = P ● = M ● = K ● = N ● = S ○ = H



FR FRAISES DISQUES  
IT FRESE A DISCO  
ES FRESA DE DISCO

ADAPTION ACC. TO DIN 138 / ATTACHEMENT DIN 138  
ATTACCO DIN 138 / ADAPTACIÓN SEGÚN DIN 138



Designation / Réf. de l'article Articolo / Referencia	D	d	d1	B	b	Z	Zeff	kg	Related Insert
DS.125.001	125	40	55	12	4	14	7	0,33	AB
DS.125.002	125	40	55	12	5	14	7	0,38	CD
DS.125.003	125	40	55	12	6	12	6	0,39	EF
DS.125.004	125	40	55	12	7/8	12	6	0,44	GHIJ
DS.125.015	125	40	55	12	9	12	6	0,54	KL
DS.125.016	125	40	55	12	10	12	6	0,60	KL
DS.160.001	160	40	55	12	4	18	9	0,52	AB
DS.160.002	160	40	55	12	5	18	9	0,64	CD
DS.160.003	160	40	55	12	6	16	8	0,65	EF
DS.160.004	160	40	55	12	7/8	16	8	0,75	GHIJ
DS.160.013	160	40	55	12	9	16	8	0,96	KL
DS.160.014	160	40	55	12	10	16	8	1,08	KL
DS.200.001	200	50	69	12	6	18	9	1,05	EF
DS.200.002	200	50	69	12	7/8	18	9	1,23	GHIJ
DS.200.009	200	50	69	12	9	18	9	1,57	KL
DS.200.010	200	50	69	12	10	18	9	1,76	KL

Slot ground inclined about 2° / Fond de rainure incliné à environ 2° / Sede inserto inclinata circa 2° / Ranura inclinada aproximadamente 2°

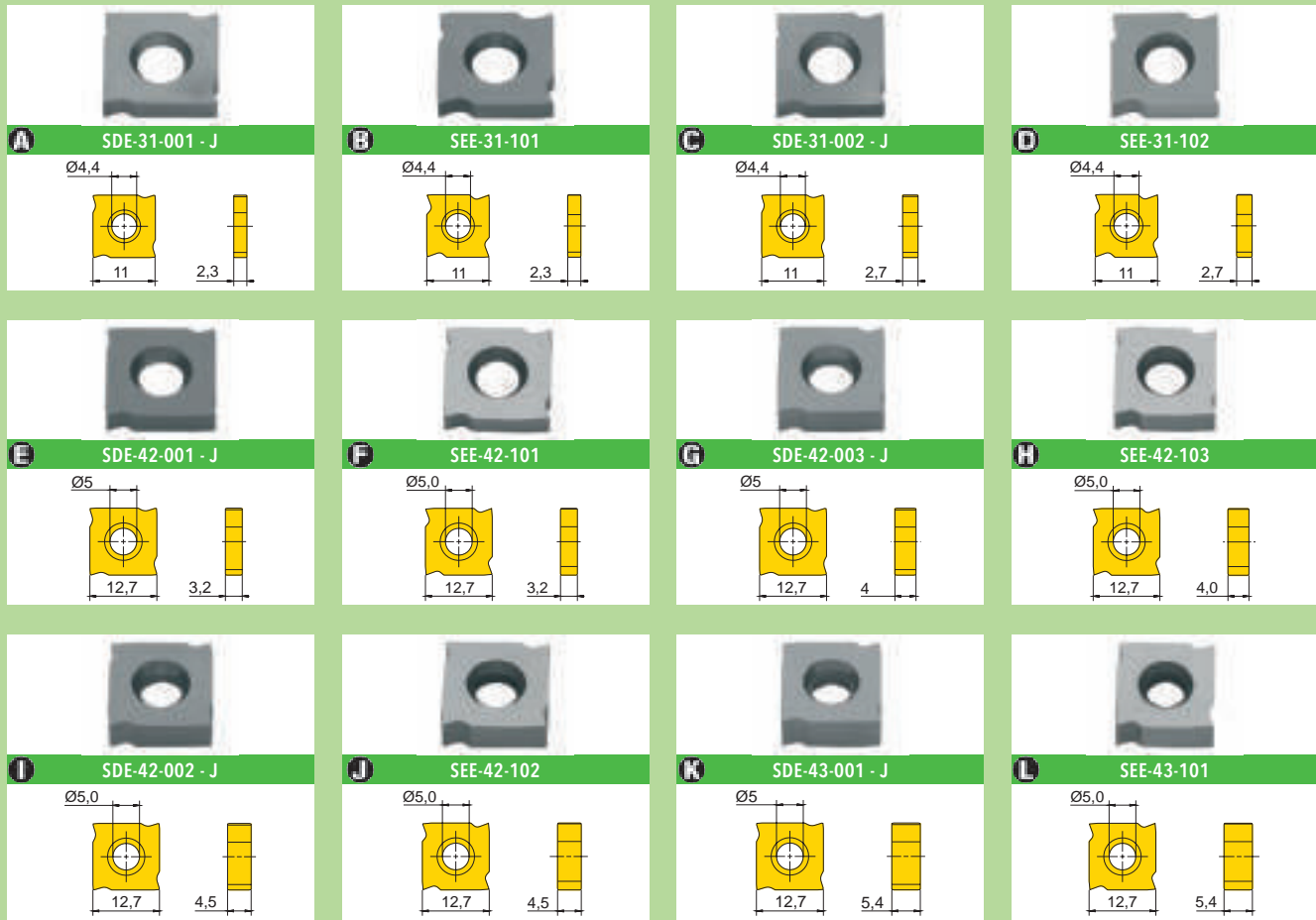
SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Cutting Width / Largeurs de coupe Spessore tagliente / Ancho de corte	Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador
4 5 6	SM35-034-50 SM35-042-50 SM40-050-50	DS-T09S DS-T09S DS-T15S
7/8 9 - 10	SM40-060-50 SM40-080-50	DS-T15S DS-T15S

POWER-SLOT DTD01

# SIDE AND FACE CUTTERS

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



Designation / Réf. de l'article Artículo / Referencia	Insert Version / Execution Tipología Inserto / Tipo de Plaquita	Grade Nuance Grado	IN30M	IN1030	IN2030				
--	--	--------------------------	-------	--------	--------	--	--	--	--

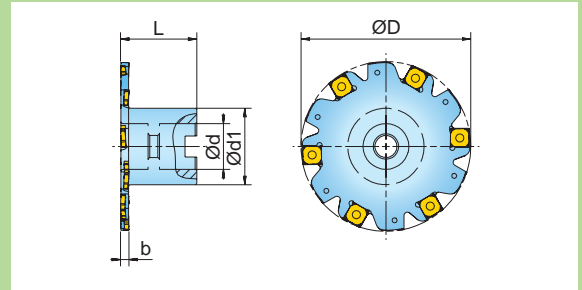
SDE-31-001 - J	positive geometry								
SEE-31-101	non-ferrous geometry								
SDE-31-002 - J	positive geometry								
SEE-31-102	non-ferrous geometry								
SDE-42-001 - J	positive geometry								
SEE-42-101	non-ferrous geometry								
SDE-42-003 - J	positive geometry								
SEE-42-103	non-ferrous geometry								
SDE-42-002 - J	positive geometry								
SEE-42-102	non-ferrous geometry								
SDE-43-001 - J	positive geometry								
SEE-43-101	non-ferrous geometry								

● = P ● = M ● = K ● = N ● = S ○ = H



FR FRAISES DISQUES  
IT FRESE A DISCO  
ES FRESA DE DISCO

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
Articolo / Referencia

	D	d	d1	L	b	Z	Zeff	kg	Related Insert
DS.063.004	63	16	30	32	4	8	4	0,17	AB
DS.063.005	63	16	30	32	5	8	4	0,18	CD
DS.063.006	63	16	30	32	6	6	3	0,18	EF
DS.063.014	63	16	30	32/32,5	7/8	6	3	0,20	GHIJ
DS.063.017	63	16	30	32	9	6	3	0,21	KL
DS.063.018	63	16	30	32	10	6	3	0,22	KL
DS.080.004	80	22	38	40	4	10	5	0,33	AB
DS.080.005	80	22	38	40	5	10	5	0,35	CD
DS.080.006	80	22	38	40	6	8	4	0,36	EF
DS.080.014	80	22	38	40/40,5	7/8	8	4	0,37	GHIJ
DS.080.017	80	22	38	40	9	8	4	0,38	KL
DS.080.018	80	22	38	40	10	8	4	0,40	KL
DS.100.008	100	27	45	45	4	12	6	0,52	AB
DS.100.009	100	27	45	45	5	12	6	0,56	CD
DS.100.010	100	27	45	45	6	10	5	0,57	EF
DS.100.011	100	27	45	45/45,5	7/8	10	5	0,61	GHIJ
DS.100.017	100	27	45	45	9	10	5	0,62	KL
DS.100.018	100	27	45	45	10	10	5	0,66	KL

Slot ground inclined about 2° / Fond de rainure incliné à environ 2° / Sede inserto inclinata circa 2° / Ranura inclinada aproximadamente 2°

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Cutting Width / Largeurs de coupe  
Spessore tagliente / Ancho de corte

4  
5  
6

Insert screw / Vis de serrage  
Vite per inserto / Tornillo plaquita

SM35-034-50  
SM35-042-50  
SM40-050-50



Screw driver / Tournevis  
Cacciavite / Destornillador

DS-T09S  
DS-T09S  
DS-T15S



Cutting Width / Largeurs de coupe  
Spessore tagliente / Ancho de corte

7/8  
9 - 10

Insert screw / Vis de serrage  
Vite per inserto / Tornillo plaquita

SM40-060-50  
SM40-080-50



Screw driver / Tournevis  
Cacciavite / Destornillador

DS-T15S  
DS-T15S

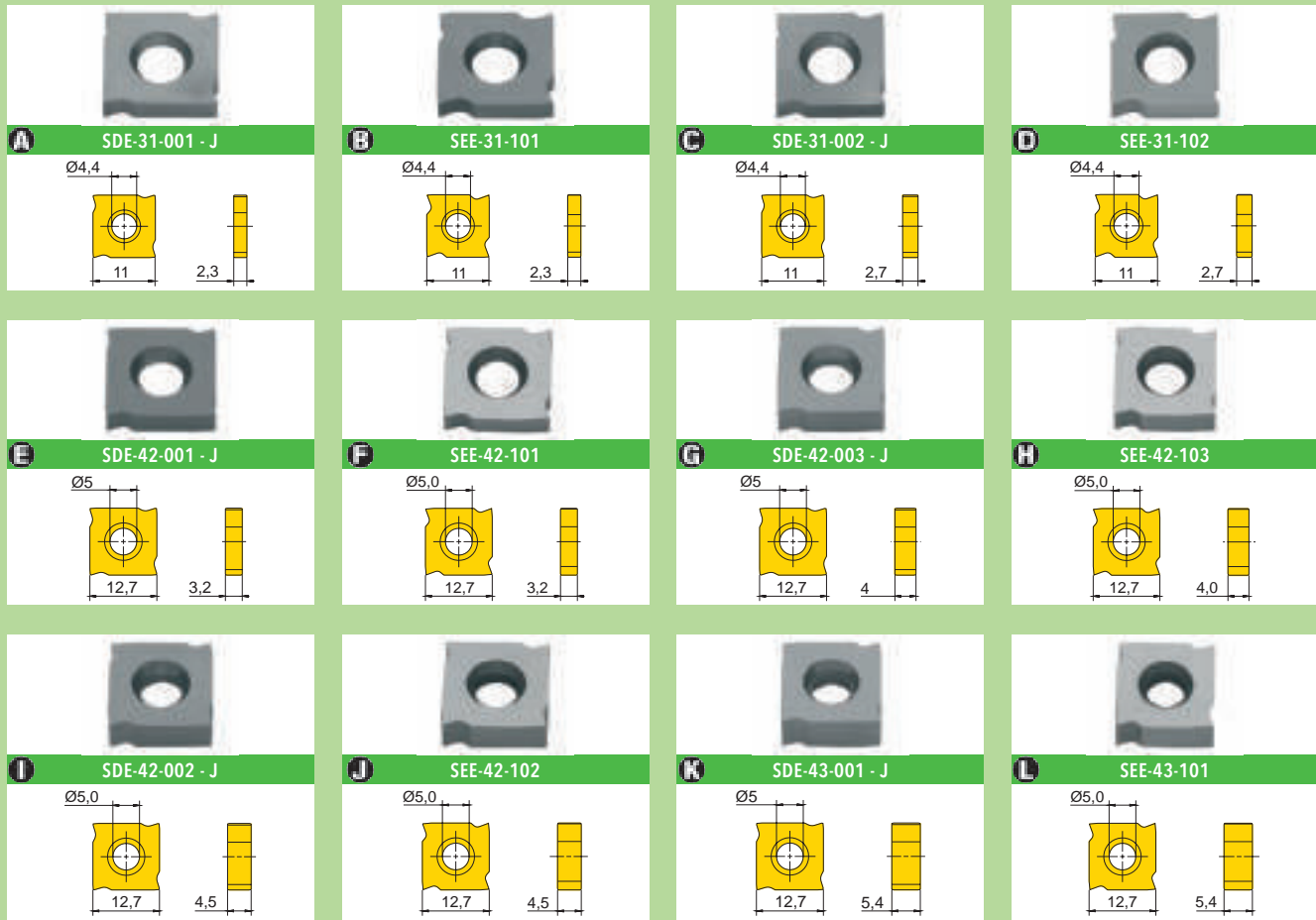


POWER-SLOT DTD10



# SIDE AND FACE CUTTERS

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



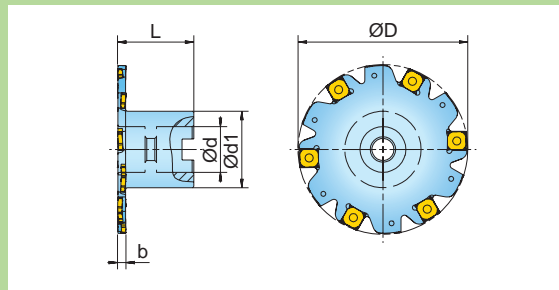
Designation / Réf. de l'article Artículo / Referencia	Insert Version / Execution Tipología Inserto / Tipo de Plaquita	Grade Nuance Grado	IN30M	IN1030	IN2030				
SDE-31-001 - J	positive geometry			●	●				
SEE-31-101	non-ferrous geometry		●						
SDE-31-002 - J	positive geometry			●	●				
SEE-31-102	non-ferrous geometry		●						
SDE-42-001 - J	positive geometry			●	●				
SEE-42-101	non-ferrous geometry		●						
SDE-42-003 - J	positive geometry			●	●				
SEE-42-103	non-ferrous geometry		●						
SDE-42-002 - J	positive geometry			●	●				
SEE-42-102	non-ferrous geometry		●						
SDE-43-001 - J	positive geometry			●	●				
SEE-43-101	non-ferrous geometry		●						

● = P ● = M ● = K ● = N ● = S ○ = H



FR FRAISES DISQUES  
IT FRESE A DISCO  
ES FRESA DE DISCO



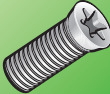

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article Articolo / Referencia	D	d	d1	L	b	Z	Z <sub>eff</sub>	kg	Related Insert
DS.125.008	125	32	58	50	4	14	7	0,99	AB
DS.125.009	125	32	58	50	5	14	7	1,05	CD
DS.125.010	125	32	58	50	6	12	6	1,08	EF
DS.125.011	125	32	58	50/50,5	7/8	12	6	1,13	GHIJ
DS.125.017	125	32	58	50	9	12	6	1,15	KL
DS.125.018	125	32	58	50	10	12	6	1,21	KL
DS.160.011	160	40	70	60	6	16	8	1,89	EF
DS.160.012	160	40	70	60/60,5	7/8	16	8	1,99	GHIJ
DS.160.015	160	40	70	60	9	16	8	2,01	KL
DS.160.016	160	40	70	60	10	16	8	2,12	KL

Slot ground inclined about 2° / Fond de rainure incliné à environ 2° / Sede inserto inclinata circa 2° / Ranura inclinada aproximadamente 2°

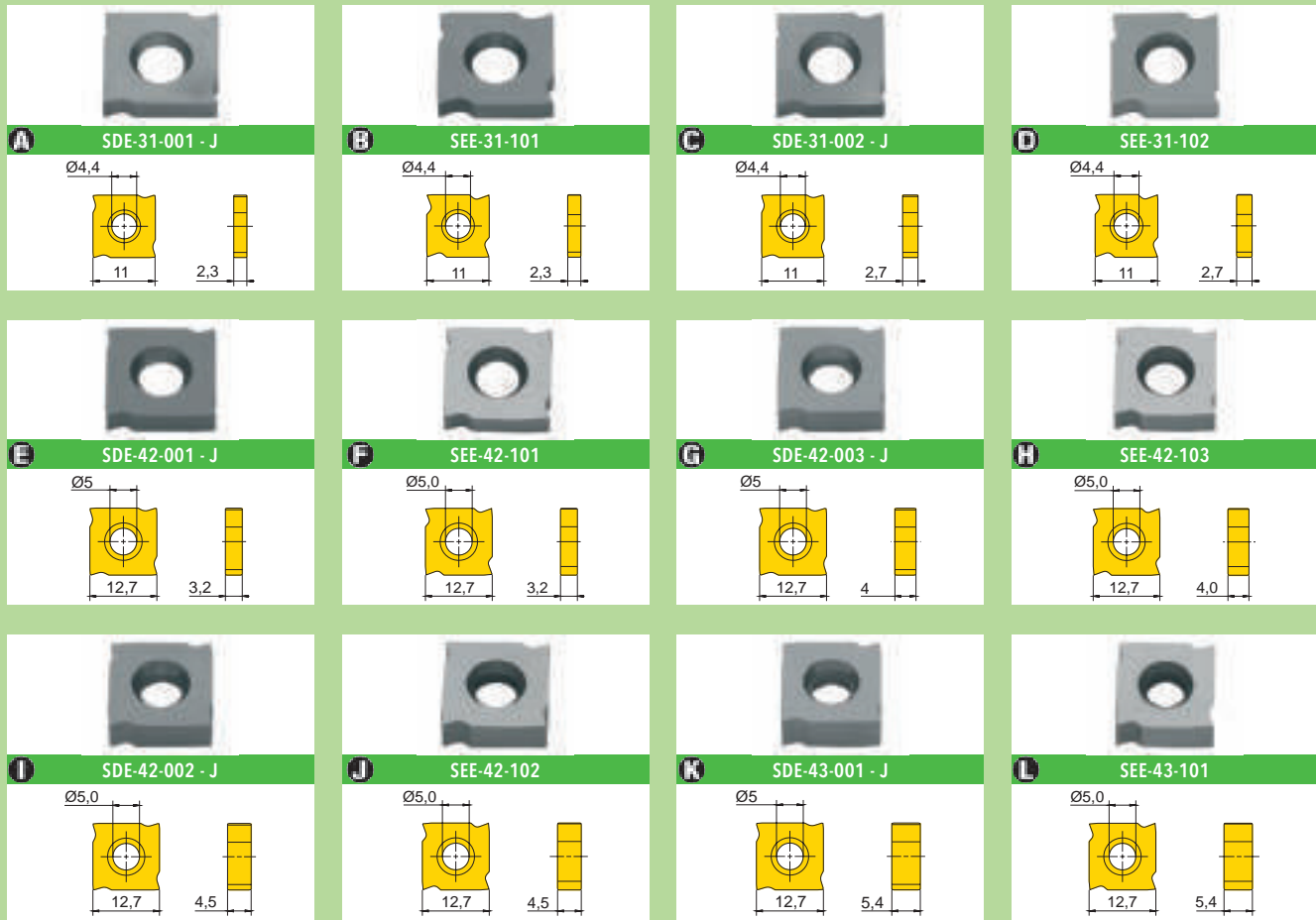
SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Cutting Width / Largeurs de coupe Spessore tagliente / Ancho de corte	Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador
4 5 6	SM35-034-50 SM35-042-50 SM40-050-50 	DS-T09S DS-T09S DS-T15S 
7/8 9 - 10	SM40-060-50 SM40-080-50 	DS-T15S DS-T15S 

POWER-SLOT DTD10

# SIDE AND FACE CUTTERS

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



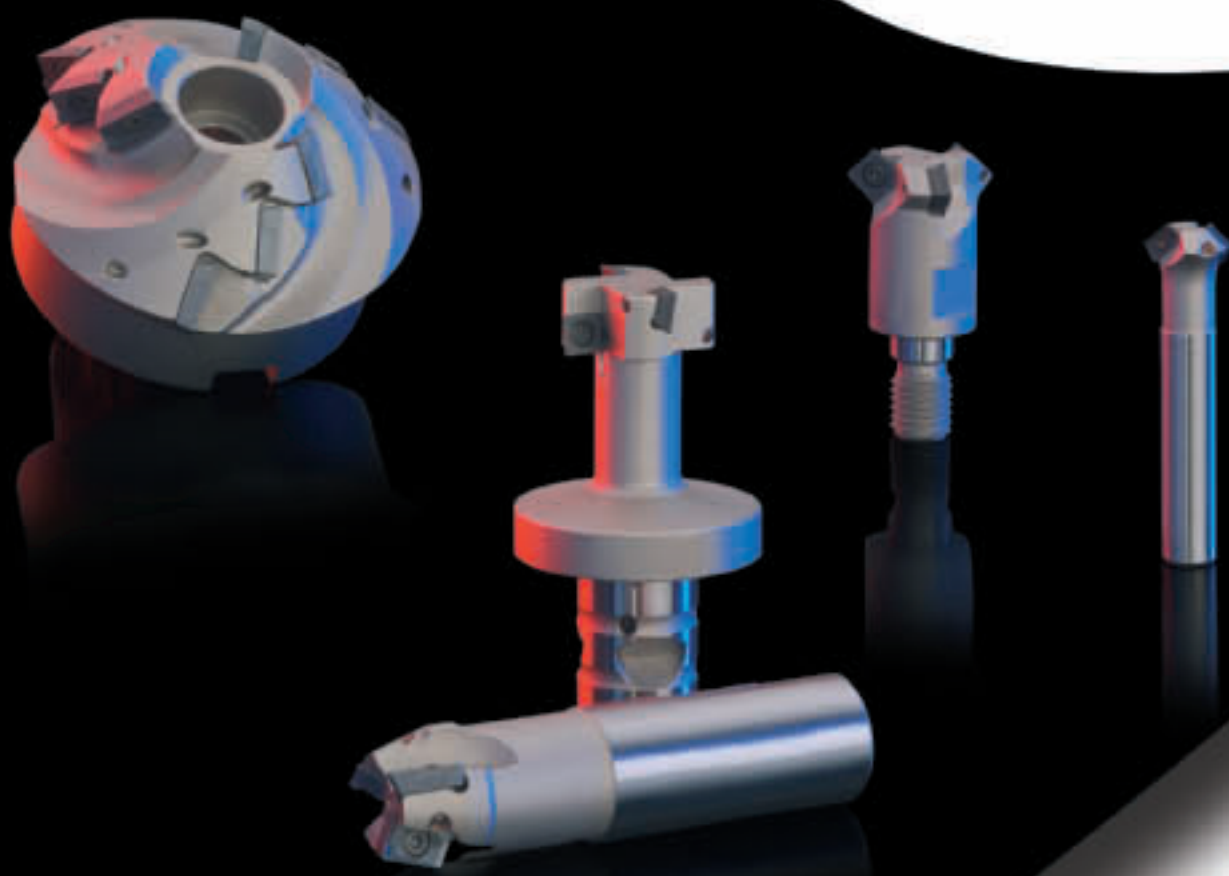
Designation / Réf. de l'article Artículo / Referencia	Insert Version / Execution Tipología Inserto / Tipo de Plaquita	Grade Nuance Grado	IN30M	IN1030	IN2030				
--	--	--------------------------	-------	--------	--------	--	--	--	--

SDE-31-001 - J	positive geometry			●	●				
SEE-31-101	non-ferrous geometry		●						
SDE-31-002 - J	positive geometry			●	●				
SEE-31-102	non-ferrous geometry		●						
SDE-42-001 - J	positive geometry			●	●				
SEE-42-101	non-ferrous geometry		●						
SDE-42-003 - J	positive geometry			●	●				
SEE-42-103	non-ferrous geometry		●						
SDE-42-002 - J	positive geometry			●	●				
SEE-42-102	non-ferrous geometry		●						
SDE-43-001 - J	positive geometry			●	●				
SEE-43-101	non-ferrous geometry		●						

● = P ● = M ● = K ● = N ● = S ○ = H



FR FRAISES DE FORME  
IT FRESE PER SMUSSI E CAVE A T  
ES FRESA PERFILADA



MINNO



# FORM CUTTERS



STOOL



	D	a/b	Description / Description Modello / Descripción	Code / Série Codici / Serie	Page / Page Pagina / Página
	8	2,7 - 4,8	<del>HIPER-HARD</del>	FA06D02	168
	20	2,9 - 11,6	<del>HIPER-PLUS</del>	FB13D03B	170
	35	9,0 - 33,9	<del>HIPER-PLUS</del>	FB13D10B	171
	45	6,4 - 24,4	<del>ALUMINATOR</del>	FB25D10	172
	6 - 16	3,5 - 5,1	<del>HIPER-QUAD</del>	FS08D03	174
	20	5	<del>HIPER-QUAD</del>	FS08E01	175
	25	1 - 6	<del>FAST-BREAK</del>	F__D03	176
	25	1 - 6	<del>FAST-BREAK</del>	F__E01	178
	25 - 50	11 - 21	<del>HIPER-QUAD</del>	TS08D03	180
	25 - 50	11 - 21	<del>HIPER-QUAD</del>	TS08M01	181
	32 - 40	14 - 17	<del>HIPER-QUAD</del>	TS09M01	182

Subject to printing error or technical changes / Sous réserve d'erreurs d'impression ou de modifications techniques / Quanto stampato puo' essere  
soggetto ad errori di stampa e variazione tecniche / Queda reservado el derecho sobre eventuales fallos de impresión, errores o modificaciones  
técnicas

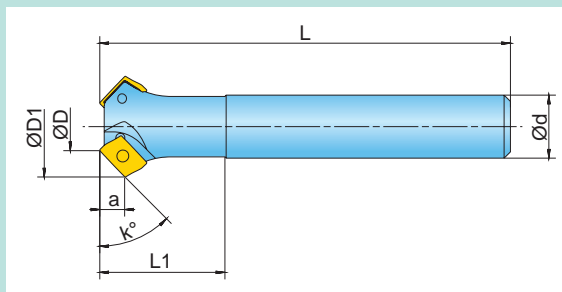




FR FRAISES DE FORME  
 IT FRESE PER SMUSSI E CAVE A T  
 ES FRESA PERFILADA



ADAPTION ACC. TO DIN 1835 A / ATTACHEMENT DIN 1835 A  
 ATTACCO DIN 1835 A / ADAPTACIÓN SEGÚN DIN 1835 A



Designation / Réf. de l'article  
 Artículo / Referencia

	D	D1	d	L	L1	$\kappa$	a	Z	kg
FA.008.001	8	17,7	10	65	20	30	2,7	2	0,04
FA.008.002	8	16,0	10	65	20	45	3,9	2	0,04
FA.008.003	8	13,7	10	65	20	60	4,8	2	0,04

FA06D02

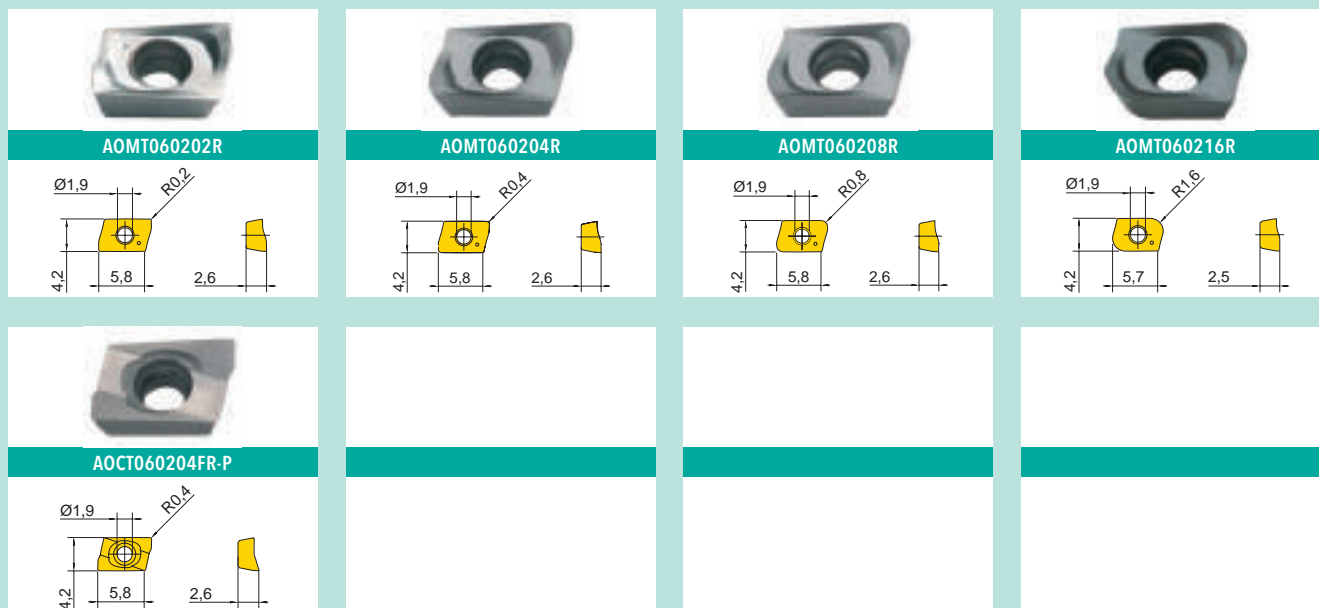
HIPDS-MIGRO





# FORM CUTTERS

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA





Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2005	IN2030	IN2035	IN2505			
AOMT060202R	positive geometry R0,2			●	●	●	●			
AOMT060204R	positive geometry R0,4			●	●		●			
AOMT060208R	positive geometry R0,8			●	●		●			
AOMT060216R <sup>1)</sup>	positive geometry R1,6			●	●					
AOC060204FR-P	non-ferrous geometry, polished R0,4		●							

● = P   ● = M   ● = K   ● = N   ● = S   ○ = H

<sup>1)</sup> Cutter body has to be modified / Modifier le corps de fraise / Il corpo fresa deve essere modificato / El plato debe ser modificado

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

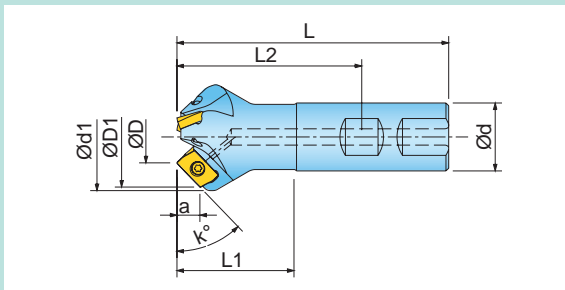
Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM18-041-00 	DS-TP06S (TX-Plus) 		



FR FRAISES DE FORME  
IT FRESE PER SMUSSI E CAVE A T  
ES FRESA PERFILADA



ADAPTION ACC. TO DIN 1835 B (WELDON) / ATTACHEMENT DIN 1835 B ( WELDON)  
ATTACCO DIN 1835 B (WELDON) / ADAPTACIÓN SEGÚN DIN 1835 B (WELDON)



Designation / Réf. de l'article Articolo / Referencia	D	D1	d	d1	L	L1	L2	κ	a	Z	IK	kg
FB.020.006	20	42,1	25	43,2	100	44	68	15	2,9	3	✓	0,38
FB.020.007	20	40,4	25	40,7	100	44	68	30	5,9	3	✓	0,35
FB.020.008	20	36,9	25	39,5	100	44	68	45	8,4	3	✓	0,36
FB.020.009	20	31,9	25	32,2	100	44	68	60	10,3	3	✓	0,33
FB.020.010	20	26,2	25	26,4	100	44	68	75	11,6	3	✓	0,31

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA

<b>BOMT130404R</b>	<b>BOCT130404FR-P</b>		

Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN2005	IN2030	IN2035	IN2505		
BOMT130404R	positive geometry R0,4			●	●	●	●		
BOCT130404FR-P	non-ferrous geometry, polished R0,4		●						

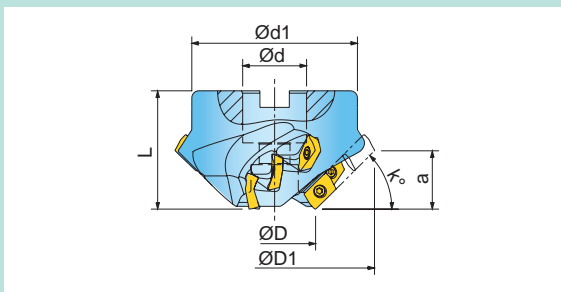
● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM35-088-10	DS-T105		

HIPDS PLUS FB13D03B

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
Artículo / Referencia

D D1 d d1 L κ a Z Zeff

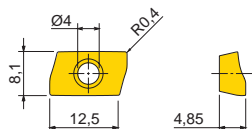


FB.035.006	35	102,5	27	70	50	15	9,0	9	3	1,37
FB.035.007	35	95,5	27	70	50	30	17,4	9	3	1,14
FB.035.008	35	84,5	27	70	50	45	24,6	9	3	0,87
FB.035.009	35	70,0	27	70	50	60	30,3	9	3	0,66
FB.035.010	35	53,2	22	45	50	75	33,9	9	3	0,30

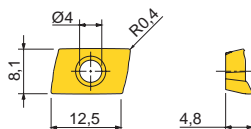
INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



BOMT130404R



BOCT130404FR-P



Designation / Réf. de l'article  
Artículo / Referencia

Insert Version / Execution  
Tipología Inserto / Tipo de Plaquita

Grade  
Nuance  
Grado

IN10K

IN2005

IN2030

IN2035

IN2505

BOMT130404R

positive geometry R0,4



BOCT130404FR-P

non-ferrous geometry, polished R0,4

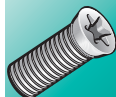


● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Insert screw / Vis de serrage  
Vite per inserto / Tornillo plaquita

SM35-088-10



Screw driver / Tournevis  
Cacciavite / Destornillador

DS-T10S

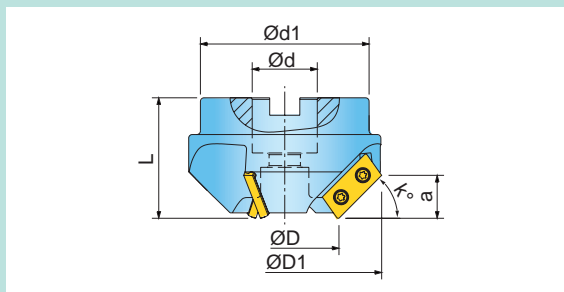






FR FRAISES DE FORME  
 IT FRESE PER SMUSSI E CAVE A T  
 ES FRESA PERFILADA



ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



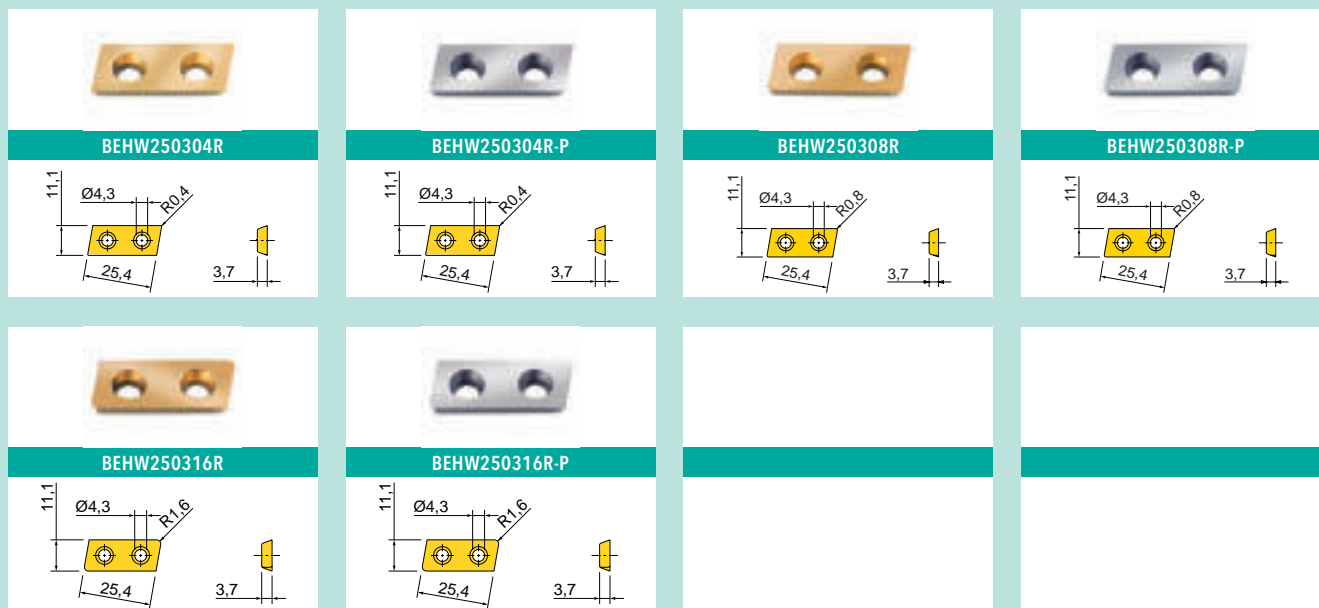
Designation / Réf. de l'article  
 Artículo / Referencia

	D	D1	d	d1	L	κ	a	Z		
FB.045.001	45	93,4	27	70	50	15	6,4	3	✓	1,63
FB.045.002	45	88,5	27	70	50	30	12,4	3	✓	1,38
FB.045.003	45	80,7	27	70	50	45	17,8	3	✓	1,05
FB.045.004	45	70,3	27	70	50	60	21,8	3	✓	0,82
FB.045.005	45	58,1	22	45	50	75	24,4	3	✓	0,43

ALUMINATOR FB25D10

# FORM CUTTERS

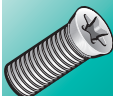

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN15K	IN2540						
BEHW250304R	neutral geometry R0,4			●						
BEHW250304R-P	non-ferrous geometry, polished R0,4	●								
BEHW250308R	neutral geometry R0,8			●						
BEHW250308R-P	non-ferrous geometry, polished R0,8	●								
BEHW250316R	neutral geometry R1,6			●						
BEHW250316R-P	non-ferrous geometry, polished R1,6	●								

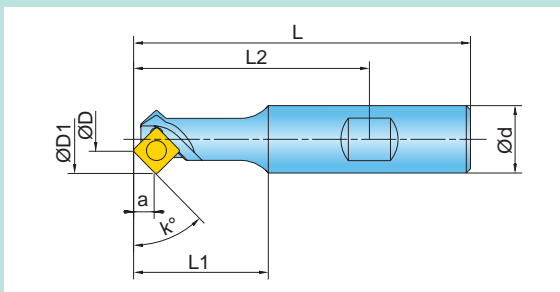
● = P   ● = M   ● = K   ● = N   ● = S   ○ = H

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM35-089-00 	DS-T155 		



ADAPTION ACC. TO DIN 1835 B (WELDON) / ATTACHEMENT DIN 1835 B ( WELDON)  
ATTACCO DIN 1835 B (WELDON) / ADAPTACIÓN SEGÚN DIN 1835 B (WELDON)



Designation / Réf. de l'article Articolo / Referencia	D	D1	d	L	L1	L2	κ	a	Z	kg
FS.006.003	6	18,6	16	80	32	56	30	3,5	1	0,09
FS.006.001	6	16,3	16	80	32	56	45	5,1	1	0,09
FS.006.002	6	13,1	16	80	32	56	60	6,2	1	0,09
FS.016.001	16	26,4	20	85	35	60	45	5,1	2	0,19

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA

<b>SDMT080305N</b>	<b>SDMW080305TN</b>	<b>SDCT080305FN</b>	<b>SDCT080305FN-P</b>

Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado Grado	IN30M	IN1030	IN2005	IN2015	IN2030	IN2040	
SDMT080305N	positive geometry R0,5								
SDMW080305TN	neutral geometry, K-land R0,5								
SDCT080305FN	non-ferrous geometry R0,5								
SDCT080305FN-P	non-ferrous geometry, polished R0,5								

● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

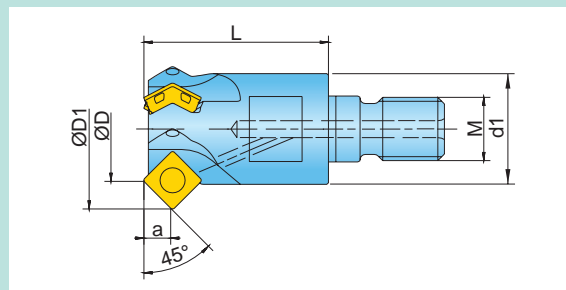
<b>Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita</b>	<b>Screw driver / Tournevis Cacciavite / Destornillador</b>		
SM30-065-00	DS-T09S		

FS08D03

HIPES-QUAD

# FORM CUTTERS

SCREW-TYPE ADAPTION / ATTACHEMENT FILETÉ  
ATTACCO FILETTATO / ADAPTACIÓN MEDIANTE ROSCA



Designation / Réf. de l'article  
Articolo / Referencia

D D1 L a M Z

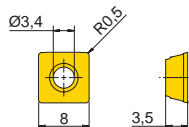


FS.020.001 20 30,4 35 5 12 3 ✓ 0,09

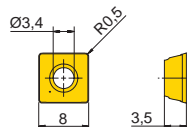
INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



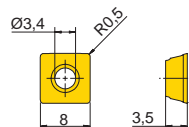
SDMT080305N



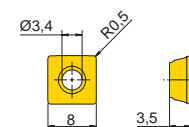
SDMW080305TN



SDCT080305FN



SDCT080305FN-P



Designation / Réf. de l'article  
Articolo / Referencia

Insert Version / Execution  
Tipologia Inserto / Tipo de Plaquita

Grade Nuance Grado IN30M IN1030 IN2005 IN2015 IN2030 IN2040

SDMT080305N	positive geometry R0,5								
SDMW080305TN	neutral geometry, K-land R0,5								
SDCT080305FN	non-ferrous geometry R0,5								
SDCT080305FN-P	non-ferrous geometry, polished R0,5								

● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Insert screw / Vis de serrage  
Vite per inserto / Tornillo plaquita

SM30-065-00



Screw driver / Tournevis  
Cacciavite / Destornillador

DS-T09S



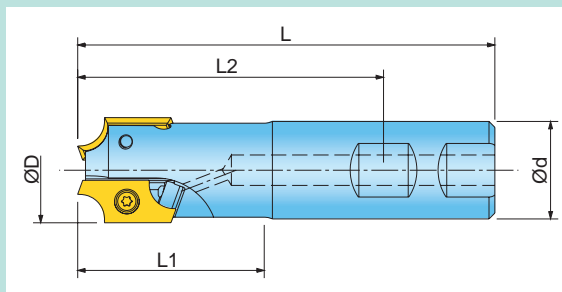
HIPOS QUAD FS08E01



FR FRAISES DE FORME  
 IT FRESE PER SMUSSI E CAVE A T  
 ES FRESA PERFILADA



ADAPTION ACC. TO DIN 1835 B (WELDON) / ATTACHEMENT DIN 1835 B ( WELDON)  
 ATTACCO DIN 1835 B (WELDON) / ADAPTACIÓN SEGÚN DIN 1835 B (WELDON)



Designation / Réf. de l'article Articolo / Referencia	D	d	L	L1	L2	Z	Insert- Type			Related Insert
--	---	---	---	----	----	---	-----------------	--	--	----------------

FB.025.001	25	25	100	40	68	2	BEEW	✓	0,28	
FF.025.001	25	25	100	40	68	2	FEEW	✓	0,34	

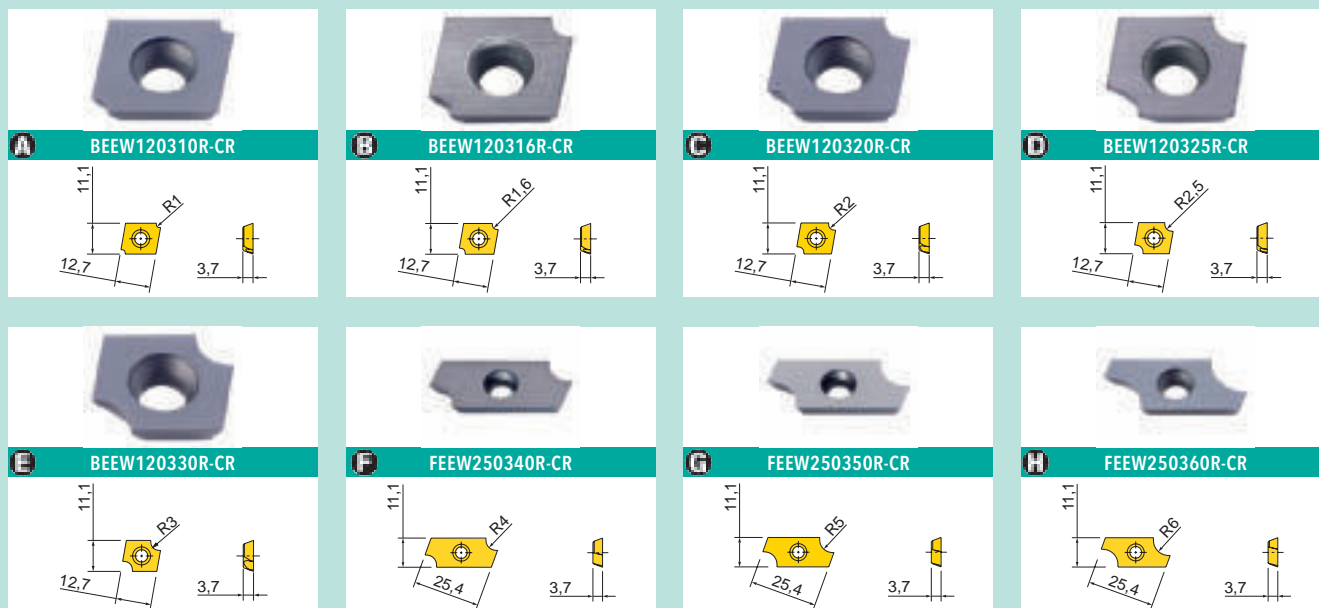


FAST BREAK F \_ \_ \_ D03



# FORM CUTTERS

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN2030							
BEEW120310R-CR	neutral geometry R1,0									
BEEW120316R-CR	neutral geometry R1,6									
BEEW120320R-CR	neutral geometry R2,0									
BEEW120325R-CR	neutral geometry R2,5									
BEEW120330R-CR	neutral geometry R3,0									
FEEW250340R-CR	neutral geometry R4,0									
FEEW250350R-CR	neutral geometry R5,0									
FEEW250360R-CR	neutral geometry R6,0									

● = P ● = M ● = K ● = N ● = S ○ = H

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

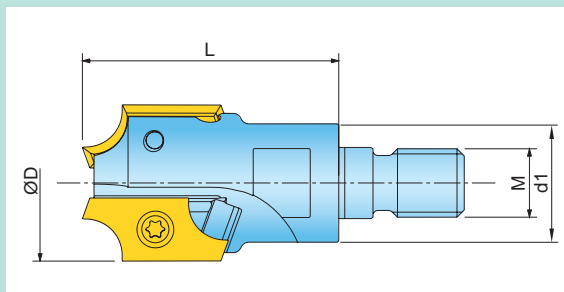
Insert Type / Plaquette de coupe Inserti / Plaquita	Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador
BEEW FEEW	SM35-070-00 SM40-093-20 	DS-T155 DS-T155 



FR FRAISES DE FORME  
 IT FRESE PER SMUSSI E CAVE A T  
 ES FRESA PERFILADA



SCREW-TYPE ADAPTION / ATTACHEMENT FILETÉ  
 ATTACCO FILETTATO / ADAPTACIÓN MEDIANTE ROSCA



Designation / Réf. de l'article  
 Articolo / Referencia

D L M Z Insert-  
 Type



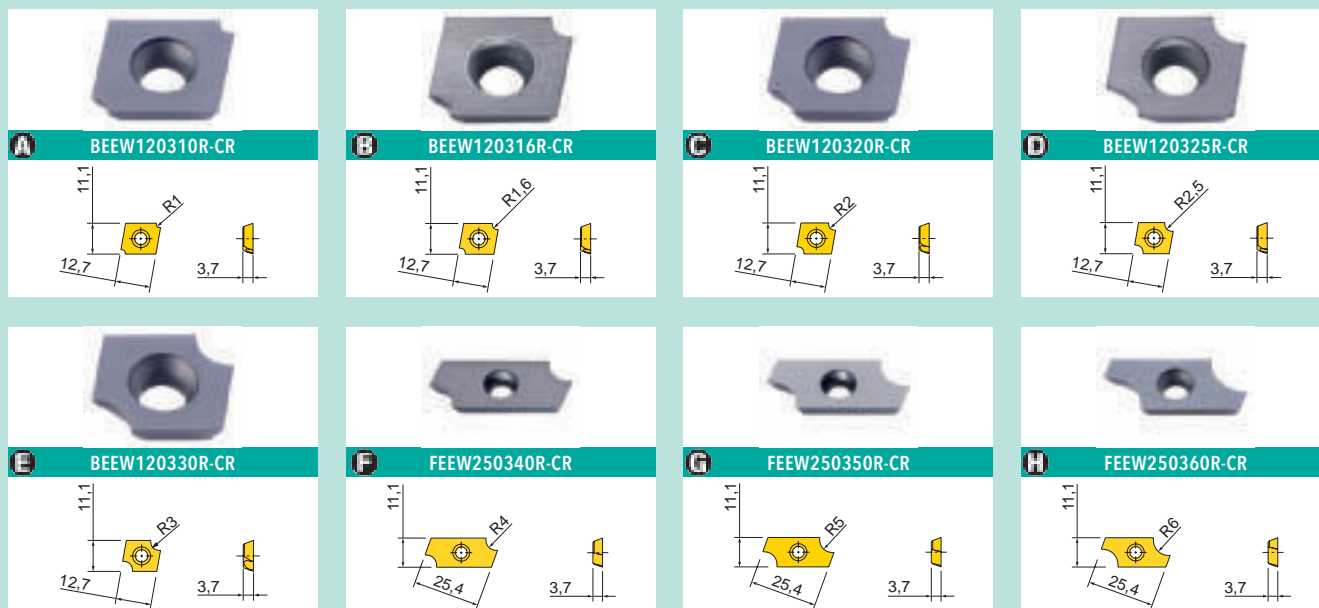
Related Insert

FB.025.002	25	35	12	2	BEEW	✓	0,10	ABCDE
FF.025.002	25	43	12	2	FEEW	✓	0,11	FGH

FAST BREAK F \_ \_ \_ E01

# FORM CUTTERS

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN2030							
BEEW120310R-CR	neutral geometry R1,0									
BEEW120316R-CR	neutral geometry R1,6									
BEEW120320R-CR	neutral geometry R2,0									
BEEW120325R-CR	neutral geometry R2,5									
BEEW120330R-CR	neutral geometry R3,0									
FEEW250340R-CR	neutral geometry R4,0									
FEEW250350R-CR	neutral geometry R5,0									
FEEW250360R-CR	neutral geometry R6,0									

● = P ● = M ● = K ● = N ● = S ○ = H

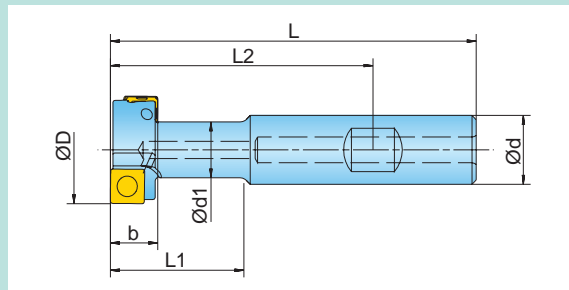
## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert Type / Plaquette de coupe Inserti / Plaquita	Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador
BEEW FEEW	SM35-070-00 SM40-093-20 	DS-T155 DS-T155 



FR FRAISES DE FORME  
 IT FRESE PER SMUSSI E CAVE A T  
 ES FRESA PERFILADA

ADAPTION ACC. TO DIN 1835 B (WELDON) / ATTACHEMENT DIN 1835 B ( WELDON)  
 ATTACCO DIN 1835 B (WELDON) / ADAPTACIÓN SEGÚN DIN 1835 B (WELDON)



Designation / Réf. de l'article Articolo / Referencia	D	d	d1	L	L1	L2	b	Z	Zeff		
TS.025.001	25	16	13	85	31	61	11	2	1	✓	0,11
TS.032.001	32	20	17	100	39	75	14	4	2	✓	0,21
TS.040.001	40	25	21	110	50	78	17	6	2	✓	0,38
TS.050.001	50	32	27	125	60	89	21	6	2	✓	0,72

INSERTS / PLAQUETTES DE COUPE  
 INSERTI / PLAQUITA

<b>SDMT080305N</b>	<b>SDMW080305TN</b>	<b>SDCT080305FN</b>	<b>SDCT080305FN-P</b>

Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado Grado	IN30M	IN1030	IN2005	IN2015	IN2030	IN2040	
SDMT080305N	positive geometry R0,5								
SDMW080305TN	neutral geometry, K-land R0,5								
SDCT080305FN	non-ferrous geometry R0,5								
SDCT080305FN-P	non-ferrous geometry, polished R0,5								

● = P ● = M ● = K ● = N ● = S ○ = H

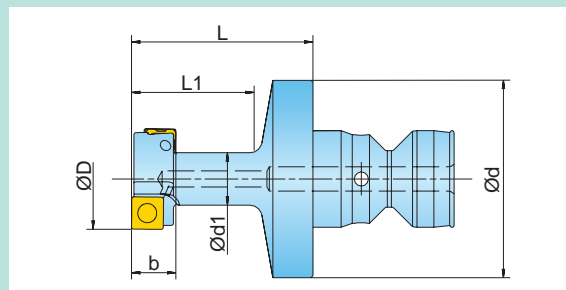
SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

<b>Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita</b>	<b>Screw driver / Tournevis Cacciavite / Destornillador</b>		
SM30-065-00	DS-T09S		

HIPER-QUAD TS08D03

# FORM CUTTERS

MODULAR MILLING ADAPTOR INNO-FIT / ATTACHEMENT MODULAIRE INNO-FIT  
CON ATTACCO MODULARE INNO-FIT / FRESA CON CONEXIÓN MODULAR INNO-FIT



Designation / Réf. de l'article  
Artículo / Referencia

D d d1 L L1 b MOD Z Zeff

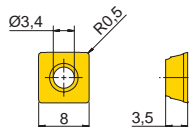


TS.025.002	25	49	13	45	31	11	40	2	1	✓	0,29
TS.032.002	32	49	17	55	39	14	40	4	2	✓	0,34
TS.040.002	40	49	21	65	50	17	40	6	2	✓	0,41
TS.050.002	50	49	27	75	60	21	40	6	2	✓	0,60

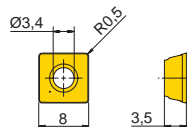
INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



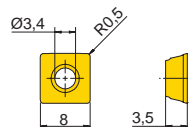
SDMT080305N



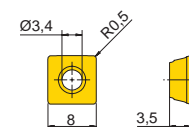
SDMWO80305TN



SDCT080305FN



SDCT080305FN-P



Designation / Réf. de l'article  
Artículo / Referencia

Insert Version / Execution  
Tipología Inserto / Tipo de Plaquita

Grade Nuance Grado IN30M IN1030 IN2005 IN2015 IN2030 IN2040

SDMT080305N	positive geometry R0,5		●●●●	●●●●	●●●●	●●●●	●●●●	●●●●
SDMWO80305TN	neutral geometry, K-land R0,5		●●●●	●●●●	●●●●	●●●●	●●●●	●●●●
SDCT080305FN	non-ferrous geometry R0,5		●●●●	●●●●	●●●●	●●●●	●●●●	●●●●
SDCT080305FN-P	non-ferrous geometry, polished R0,5	●	●●●●	●●●●	●●●●	●●●●	●●●●	●●●●

● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIO

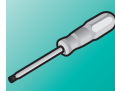
Insert screw / Vis de serrage  
Vite per inserto / Tornillo plaquita

SM30-065-00



Screw driver / Tournevis  
Cacciavite / Destornillador

DS-T09S



TS08M01

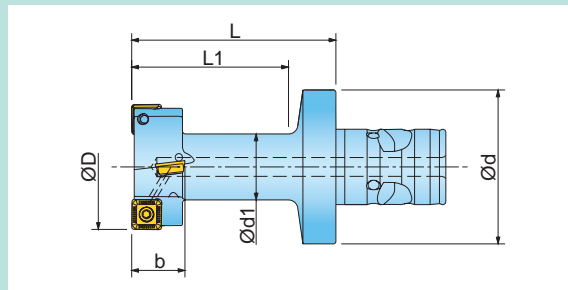
HIPOS QUAD



FR FRAISES DE FORME  
 IT FRESE PER SMUSSI E CAVE A T  
 ES FRESA PERFILADA



MODULAR MILLING ADAPTOR INNO-FIT / ATTACHEMENT MODULAIRE INNO-FIT  
 CON ATTACCO MODULARE INNO-FIT / FRESA CON CONEXIÓN MODULAR INNO-FIT



Designation / Réf. de l'article  
 Articolo / Referencia

D d d1 L L1 b MOD Z Zeff



TS.032.003	32	49	17	55	39	14	40	2	1	✓	0,37
TS.040.003	40	49	21	65	50	17	40	4	2	✓	0,43

INSERTS / PLAQUETTES DE COUPE  
 INSERTI / PLAQUITA

SHLT090308N-HR			

Designation / Réf. de l'article  
 Articolo / Referencia

Insert Version / Execution  
 Tipologia Inserto / Tipo de Plaquita

Grade  
 Nuance  
 Grado

Grado

IN1030

IN2005

SHLT090308N-HR	positive geometry		
----------------	-------------------	--	--

● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIO

Insert screw / Vis de serrage  
 Vite per inserto / Tornillo plaquita

SM30-065-00



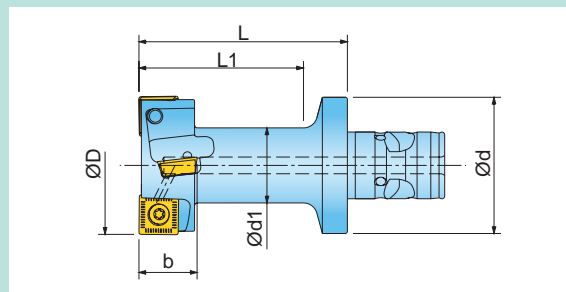
Screw driver / Tournevis  
 Cacciavite / Destornillador

DS-T09S



HIPES-QUAD TS09M01

MODULAR MILLING ADAPTOR INNO-FIT / ATTACHEMENT MODULAIRE INNO-FIT  
CON ATTACCO MODULARE INNO-FIT / FRESA CON CONEXIÓN MODULAR INNO-FIT



Designation / Réf. de l'article  
Articolo / Referencia

D d d1 L L1 b MOD Z Zeff

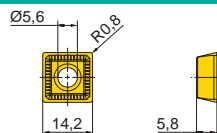


TS.050.003	50	49	27	75	60	21	40	4	2	✓	0,56
TS.050.004	50	78	27	81	58	21	50	4	2	✓	1,20
TS.058.001	58	78	33	95	75	26,5	50	4	2	✓	1,49

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



SHLT140508TN-HR



Designation / Réf. de l'article  
Articolo / Referencia

Insert Version / Execution  
Tipologia Inserto / Tipo de Plaquita

Grade  
Nuance  
Grado

IN2005 IN2010 IN2030 IN2040

SHLT140508TN-HR

positive geometry R0,8



● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIO

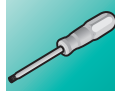
Insert screw / Vis de serrage  
Vite per inserto / Tornillo plaquita

SM50-108-20



Screw driver / Tournevis  
Cacciavite / Destornillador

DS-T20S

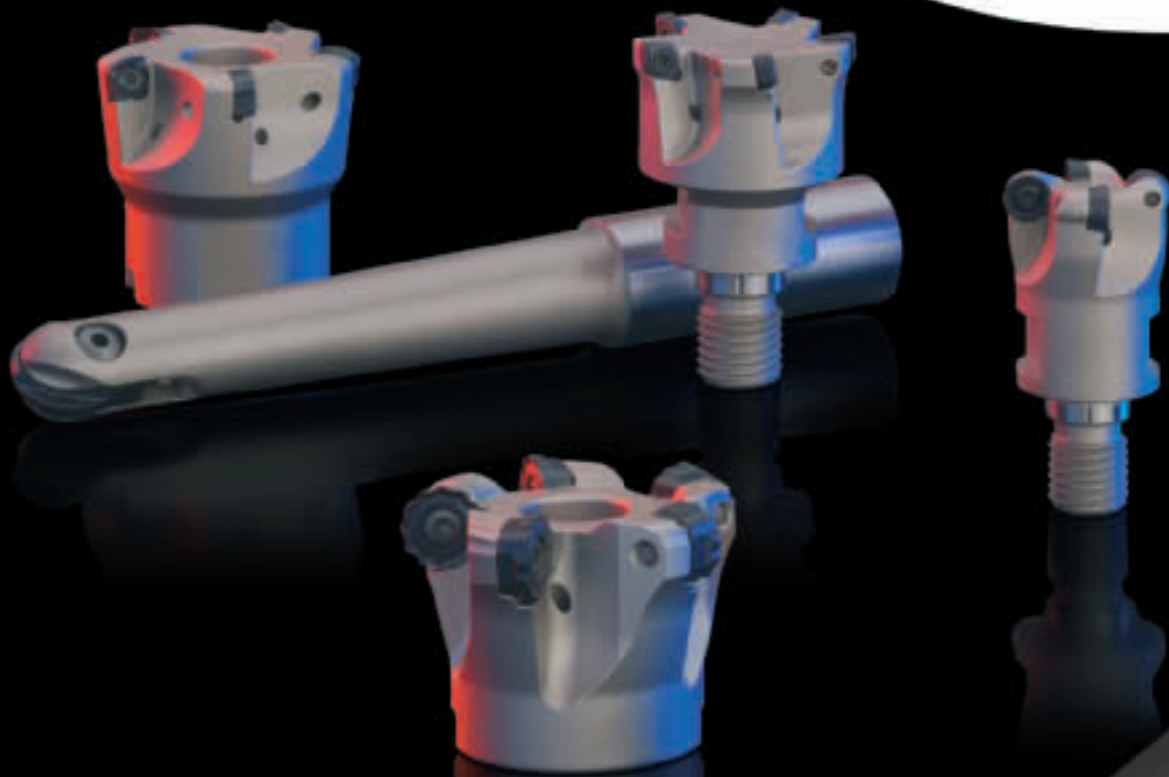


TS14M01

HIPOS QUAD



FR INDUSTRIE DES MOULES ET MATRICES  
IT FRESE PER STAMPI  
ES HERRAMIENTA / MATRICERÍA



MINNO














MOULD AND DIE



STOOL



	D	a	Description / Description Modello / Descripción	Code / Série Codici / Serie	Page / Page Pagina / Página
	12	3	<del>MOULDMAKER</del>	PR06D03N	194
	16 - 20	4 - 5	<del>MOULDMAKER</del>	PR08D03/PR10D03N	196
	12 - 25	3	<del>MOULDMAKER</del>	PR06E01N	198
	16 - 30	4	<del>MOULDMAKER</del>	PR08E01N	199
	20 - 42	5	<del>MOULDMAKER</del>	PR10E01N	200
	24 - 42	6	<del>MOULDMAKER</del>	PR12E01N	202
	32	8	<del>MOULDMAKER</del>	PR16E01N	204
	52 - 66	5	<del>MOULDMAKER</del>	PR10D10N	206
	52 - 80	6	<del>MOULDMAKER</del>	PR12D10N	208
	52 - 160	8	<del>MOULDMAKER</del>	PR16D10N	210
	16	4	<del>MOULDMAKER-PLUS</del>	PR08E01P	212

Subject to printing error or technical changes / Sous réserve d'erreurs d'impression ou de modifications techniques / Quanto stampato puo' essere  
soggetto ad errori di stampa e variazione tecniche / Queda reservado el derecho sobre eventuales fallos de impresión, errores o modificaciones  
técnicas

# MOULD AND DIE

FR INDUSTRIE DES MOULES ET MATRICES IT FRESE PER STAMPI ES HERRAMIENTA/MATRICERÍA

	D	a	Description / Description Modello / Descripción	Code / Série Codici / Serie	Page / Page Pagina / Página
	20 - 42	5	<del>MOULDMAKER-PLUS</del>	PR10E01P	214
	24 - 42	6	<del>MOULDMAKER-PLUS</del>	PR12E01P	216
	32 - 42	8	<del>MOULDMAKER-PLUS</del>	PR16E01P	218
	52	5	<del>MOULDMAKER-PLUS</del>	PR10D10P	220
	52 - 80	6	<del>MOULDMAKER-PLUS</del>	PR12D10P	222
	52 - 160	8	<del>MOULDMAKER-PLUS</del>	PR16D10P	224
	66 - 160	10	<del>MOULDMAKER-PLUS</del>	PR20D10P	226
	20 - 42	1	<del>MOULDMAKER-SPEED</del>	KU08E01	227
	32 - 42	1,5	<del>MOULDMAKER-SPEED</del>	KU13E01	228
	50 - 80	1	<del>MOULDMAKER-SPEED</del>	KU08D10	229
	52 - 100	1,5	<del>MOULDMAKER-SPEED</del>	KU13D10	230

Subject to printing error or technical changes / Sous réserve d'erreurs d'impression ou de modifications techniques / Quanto stampato può essere soggetto ad errori di stampa e variazioni tecniche / Queda reservado el derecho sobre eventuales fallos de impresión, errores o modificaciones técnicas












	D	a	Description / Description Modello / Descripción	Code / Série Codici / Serie	Page / Page Pagina / Página
	24 - 42	6	<del>MOULDMAKER-PRO</del>	PR12E01CC	231
	32 - 42	8	<del>MOULDMAKER-PRO</del>	PR16E01CC	232
	50 - 80	6	<del>MOULDMAKER-PRO</del>	PR12D10CC	234
	50 - 160	8	<del>MOULDMAKER-PRO</del>	PR16D10CC	236
	16 - 42	1	<del>MOULDMAKER-V</del>	KC06E01	238
	25 - 42	2	<del>MOULDMAKER-V</del>	KC11E01	239
	52 - 100	2	<del>MOULDMAKER-V</del>	KC11D10	240
	8 - 25	4 - 12,5	<del>SPEEDBALL-PLUS</del>	KWD03	242
	8 - 25	4 - 12,5	<del>SPEEDBALL-PLUS</del>	KWD02	244
	8 - 25	4 - 12,5	<del>SPEEDBALL-PLUS</del>	KWE01	246
	10 - 32	5 - 16	<del>FINISH-BALL</del>	KND02A	248

Subject to printing error or technical changes / Sous réserve d'erreurs d'impression ou de modifications techniques / Quanto stampato puo' essere soggetto ad errori di stampa e variazione tecniche / Queda reservado el derecho sobre eventuales fallos de impresión, errores o modificaciones técnicas












# MOULD AND DIE

FR INDUSTRIE DES MOULES ET MATRICES IT FRESE PER STAMPI ES HERRAMIENTA/MATRICERÍA

	D	a	Description / Description Modello / Descripción	Code / Série Codici / Serie	Page / Page Pagina / Página
	10 - 30	5 - 15	<del>FINISH-BALL</del>	KND02C	250
	10 - 25	5 - 12,5	<del>FINISH-BALL</del>	KND02B	252
	10 - 32	5 - 16	<del>FINISH-BALL</del>	KNE01	254
	16 - 42	-	<del>PLUNGE-MASTER</del>	BSE01C 90°	256
	16 - 42	-	<del>PLUNGE-MASTER</del>	BSE01B 93,2°	258
	25 - 42	-	<del>PLUNGE-MASTER</del>	BCE01A	260
	50 - 52	-	<del>PLUNGE-MASTER</del>	BCD10A	261
	52 - 100	-	<del>PLUNGE-MASTER</del>	BDD10A	262
	0,4 - 2	0,8 - 6	<del>SOLID-CARBIDE</del>	2 Flute Miniature Ball Nose - Medium Length	263
	6 - 20	16 - 38	<del>SOLID-CARBIDE</del>	3-4 Flute Ball Nose - Rougher	264
	2 - 20	4 - 20	<del>SOLID-CARBIDE</del>	2 Flute Ball Nose - Short Length	265

Subject to printing error or technical changes / Sous réserve d'erreurs d'impression ou de modifications techniques / Quanto stampato può essere soggetto ad errori di stampa e variazioni tecniche / Queda reservado el derecho sobre eventuales fallos de impresión, errores o modificaciones técnicas



	D	a	Description / Description Modello / Descripción	Code / Série Codici / Serie	Page / Page Pagina / Página
	2 - 10	3 - 9	<del>SOLID-CARBIDE</del>	2 Flute Ball Nose - Long Length	266
	3 - 25	8 - 55	<del>SOLID-CARBIDE</del>	2 Flute Ball Nose for Hard Milling	267
	2 - 20	6 - 38	<del>SOLID-CARBIDE</del>	2 Flute Ball Nose for Hard Milling - Long Length	268
	2 - 20	3 - 20	<del>SOLID-CARBIDE</del>	4 Flute Ball Nose - Short Length	269
	3 - 20	8 - 38	<del>SOLID-CARBIDE</del>	4 Flute Ball Nose - Medium Length	270
	4 - 16	12 - 32	<del>SOLID-CARBIDE</del>	4 Flute Ball Nose - Long Length	271
	6 - 20	0,3 - 1	<del>SOLID-CARBIDE</del>	Speed Cutter	272
	2 - 10	2 - 6	<del>SOLID-CARBIDE</del>	2 Flute toric cutter with corner radius	273
	6 - 20	14 - 50	<del>SOLID-CARBIDE</del>	HPC rougher & finisher unequally spaced	274
	5 - 20	5 - 20	<del>SOLID-CARBIDE</del>	4-7 Flute Roughers - 1xD	275
	5 - 20	10 - 40	<del>SOLID-CARBIDE</del>	4-7 Flute Roughers - 2xD	276

Subject to printing error or technical changes / Sous réserve d'erreurs d'impression ou de modifications techniques / Quanto stampato puo' essere  
soggetto ad errori di stampa e variazione tecniche / Queda reservado el derecho sobre eventuales fallos de impresión, errores o modificaciones  
técnicas












# MOULD AND DIE

FR INDUSTRIE DES MOULES ET MATRICES IT FRESE PER STAMPI ES HERRAMIENTA/MATRICERÍA

	D	a	Description / Description Modello / Descripción	Code / Série Codici / Serie	Page / Page Pagina / Página
	6 - 20	12 - 40	<del>SOLID-CARBIDE</del>	4-7 Flute Roughers - 3xD	277
	8 - 16	12 - 24	<del>SOLID-CARBIDE</del>	4-5 Flute Roughers - 4xD	278
	6 - 25	14 - 52	<del>SOLID-CARBIDE</del>	4-6 Flute Roughers for Titanium	279
	6 - 25	14 - 52	<del>SOLID-CARBIDE</del>	4 Flute roughing and finishing	280
	2,8 - 19,7	4 - 20	<del>SOLID-CARBIDE</del>	3 Flute Slot Drill (Undersize) - Short Length	281
	2 - 20	7 - 38	<del>SOLID-CARBIDE</del>	3 Flute Slot Drill DIN 6535HA	282
	6 - 20	16 - 38	<del>SOLID-CARBIDE</del>	3 Flute Slot Drill DIN 6535HB	283
	5 - 16	14 - 32	<del>SOLID-CARBIDE</del>	3 Flute End Mill with Corner radius	284
	2 - 20	7 - 38	<del>SOLID-CARBIDE</del>	4 Flute End Mill DIN 6535HA	285
	8 - 20	20 - 38	<del>SOLID-CARBIDE</del>	4 Flute End Mill DIN 6535HB	286
	6 - 20	16 - 38	<del>SOLID-CARBIDE</del>	4 Flute End Mill with Corner radius	287

Subject to printing error or technical changes / Sous réserve d'erreurs d'impression ou de modifications techniques / Quanto stampato può essere soggetto ad errori di stampa e variazioni tecniche / Queda reservado el derecho sobre eventuales fallos de impresión, errores o modificaciones técnicas



	D	a	Description / Description Modello / Descripción	Code / Série Codici / Serie	Page / Page Pagina / Página
	6 - 20	24 - 60	<del>SOLID-CARBIDE</del>	4-6 Flute End Mill Long Length	288
	10 - 20	60 - 80	<del>SOLID-CARBIDE</del>	4-6 Flute End Mill Extra Long Length	289
	6 - 20	16 - 38	<del>SOLID-CARBIDE</del>	6 Flute End Mill Medium Length (finishing)	290
	6 - 25	26 - 92	<del>SOLID-CARBIDE</del>	6 Flute End Mill Long Length (finishing)	291
	3 - 12	30 - 75	<del>SOLID-CARBIDE</del>	2 Flute Ball Nose Extra Long Length	292
	6 - 20	9 - 17	<del>SOLID-CARBIDE</del>	3 Flute End Mill short length (roughing)	293
	6 - 20	9 - 22	<del>SOLID-CARBIDE</del>	3 Flute End Mill long length (roughing)	294
	4 - 20	12 - 38	<del>SOLID-CARBIDE</del>	2 Flute Aluminium Slot Drill Medium Length	295
	3 - 12	30 - 75	<del>SOLID-CARBIDE</del>	2 Flute Aluminium Slot Drill Extra Long Length	296
	3 - 12	8 - 26	<del>SOLID-CARBIDE</del>	3 Flute End Mill	297
	5 - 20	14 - 38	<del>SOLID-CARBIDE</del>	3 Flute End Mill with Corner radius	298


Subject to printing error or technical changes / Sous réserve d'erreurs d'impression ou de modifications techniques / Quanto stampato puo' essere  
 soggetto ad errori di stampa e variazione tecniche / Queda reservado el derecho sobre eventuales fallos de impresión, errores o modificaciones  
 técnicas





# MOULD AND DIE

FR INDUSTRIE DES MOULES ET MATRICES IT FRESE PER STAMPI ES HERRAMIENTA/MATRICERÍA

	D	a	Description / Description Modello / Descripción	Code / Série Codici / Serie	Page / Page Pagina / Página
	3 - 12	30 - 75	<del>SPIND-DRILL</del>	4 Flute End Mill Extra Long Length	299

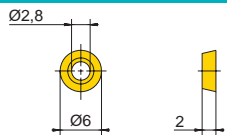
Subject to printing error or technical changes / Sous réserve d'erreurs d'impression ou de modifications techniques / Quanto stampato puo' essere soggetto ad errori de stampa e variazione tecniche / Queda reservado el derecho sobre eventuales fallos de impresión, errores o modificaciones técnicas



INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



RHHW0602M0TN




Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN2004	IN2005	IN2006					
--	--	--------------------------	--------	--------	--------	--	--	--	--	--

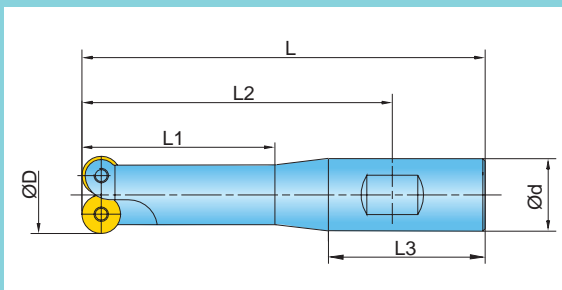
RHHW0602M0TN	neutral geometry, K-land									

● = P   ● = M   ● = K   ● = N   ● = S   ● = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIO

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM25-049-00	DS-T08S		

ADAPTION ACC. TO DIN 1835 B (WELDON) / ATTACHEMENT DIN 1835 B ( WELDON)  
 ATTACCO DIN 1835 B (WELDON) / ADAPTACIÓN SEGÚN DIN 1835 B (WELDON)



Designation / Réf. de l'article Articolo / Referencia	D	d	L	L1	L2	L3	a	Z	Insert Ø	kg	Related Insert
PR.016.003	16	16	89	40	65	50	4	2	8	0,11	A B C D
PR.016.004	16	16	109	40	85	50	4	2	8	0,14	A B C D
PR.016.005	16	20	130	40	105	50	4	2	8	0,23	B H C H I
PR.016.006	16	20	150	40	125	50	4	2	8	0,26	A B C D
PR.016.007	16	25	177	40	145	56	4	2	8	0,44	B H C H I
PR.025.004	25	25	97	40	65	56	4	3	8	0,32	B H C H I
PR.025.005	25	25	117	60	85	56	4	3	8	0,38	A B C D
PR.025.006	25	25	137	80	105	56	4	3	8	0,44	B H C H I
PR.020.003	20	20	90	40	65	50	5	2	10	0,18	E F G H I
PR.020.004	20	20	110	60	85	50	5	2	10	0,21	E F G H I
PR.020.005	20	25	137	60	105	56	5	2	10	0,36	E F G H I
PR.020.006	20	25	157	60	125	56	5	2	10	0,42	E F G H I
PR.020.007	20	25	177	60	145	56	5	2	10	0,48	E F G H I

Neutral design / Exécution neutre / Geometria Neutra / Diseño neutro

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Insert Ø / Plaquette Ø  
 Inserto Ø / Plaquita Ø

8  
10

Insert screw / Vis de serrage  
 Vite per inserto / Tornillo plaquita

SM30-053-00  
 SM40-070-00

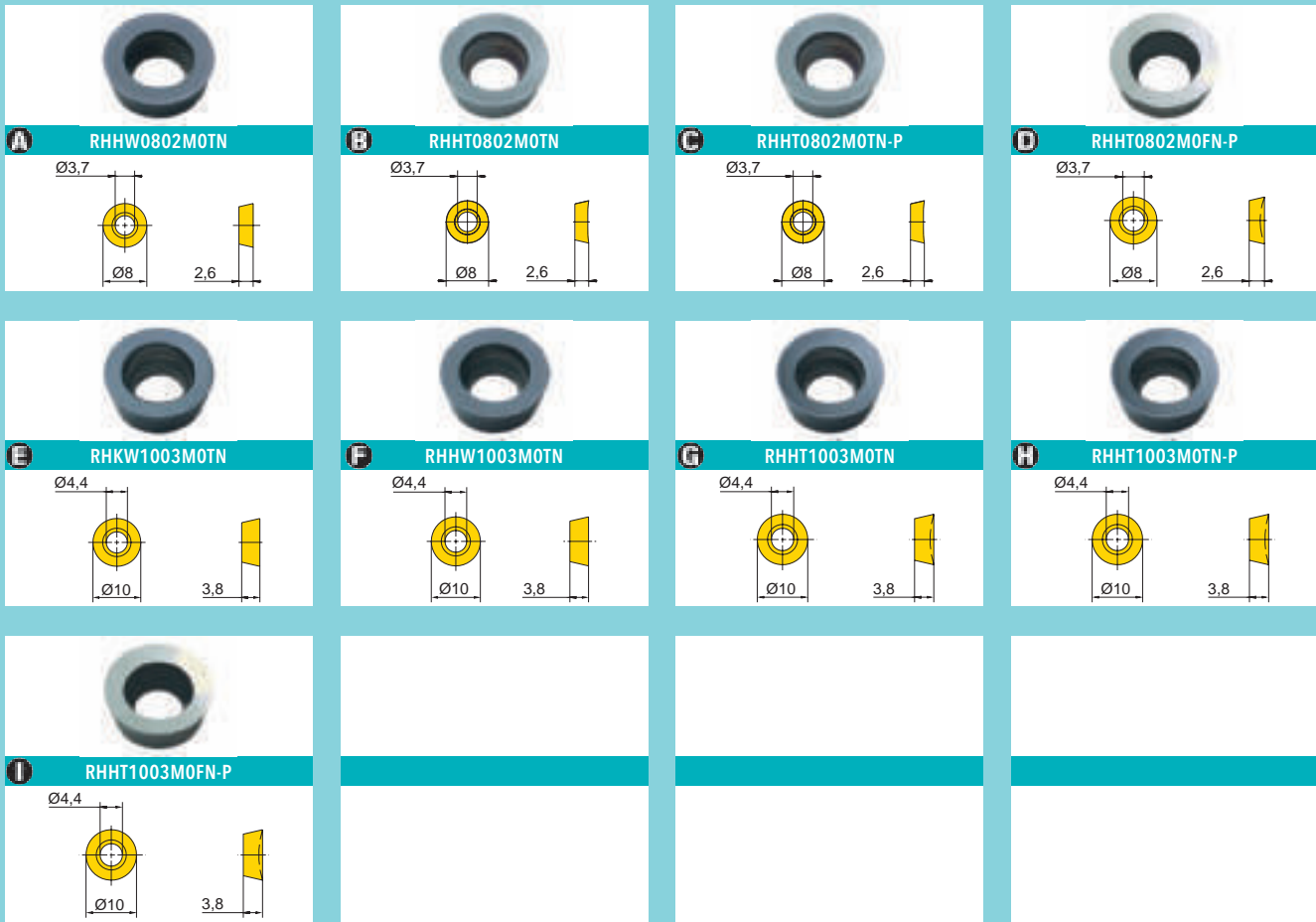


Screw driver / Tournevis  
 Cacciavite / Destornillador

DS-T09S  
 DS-T15S



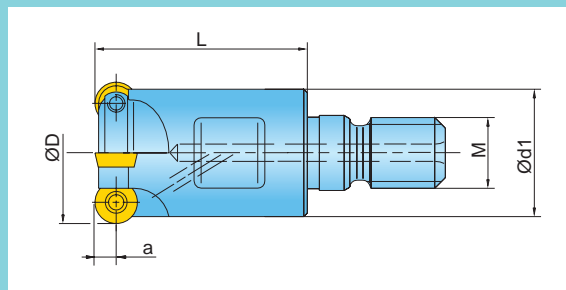
INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



Designation / Réf. de l'article Artículo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2004	IN2005	IN2006	IN2015	IN2035		
RHHW0802MOTN	neutral geometry, K-land			●	●	●				
RHHT0802MOTN	positive geometry, K-land				●			●		
RHHT0802MOTN-P	titanium geometry, polished				●					
RHHT0802MOTN-P	non-ferrous geometry, polished		●							
RHKW1003MOTN	neutral roughing geometry			●	●		●	●		
RHHW1003MOTN	neutral geometry, K-land			●	●	●	●			
RHHT1003MOTN	positive geometry, K-land			●	●			●		
RHHT1003MOTN-P	titanium geometry, polished				●					
RHHT1003MOTN-P	non-ferrous geometry, polished		●							

● = P ● = M ● = K ● = N ● = S ○ = H

SCREW-TYPE ADAPTION / ATTACHEMENT FILETÉ  
 ATTACCO FILETTATO / ADAPTACIÓN MEDIANTE ROSCA



Designation / Réf. de l'article Articolo / Referencia	D	d1	L	a	M	Z	Insert Ø	Icon	IK	kg
--	---	----	---	---	---	---	----------	------	----	----

PR.012.001	12	11,8	28	3	6	2	6	10°	✓	0,02
PR.012.002	12	13	28	3	8	2	6	10°	✓	0,02
PR.016.001	16	13	23	3	8	3	6	5°	✓	0,02
PR.020.001	20	18	30	3	10	4	6	10°	✓	0,06
PR.025.001	25	21	35	3	12	5	6	7°	✓	0,10

Neutral design / Exécution neutre / Geometría Neutra / Diseño neutro

INSERTS / PLAQUETTES DE COUPE  
 INSERTI / PLAQUITA

RHHW0602M0TN			

Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN2004	IN2005	IN2006				
--	--	--------------------------	--------	--------	--------	--	--	--	--

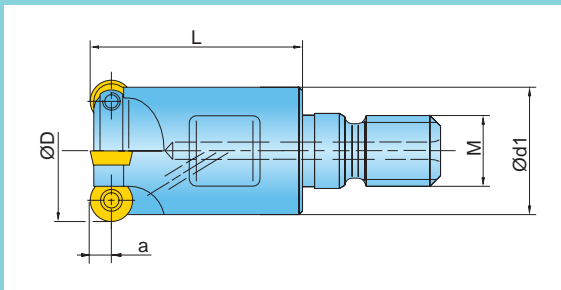
RHHW0602M0TN	neutral geometry, K-land								
--------------	--------------------------	--	--	--	--	--	--	--	--

● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM25-049-00	DS-T08S		

SCREW-TYPE ADAPTION / ATTACHEMENT FILETÉ  
ATTACCO FILETTATO / ADAPTACIÓN MEDIANTE ROSCA



Designation / Réf. de l'article  
Articolo / Referencia

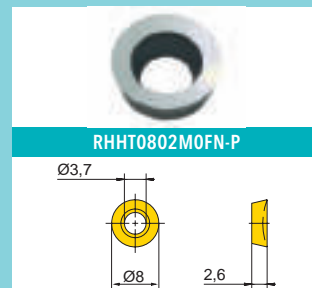
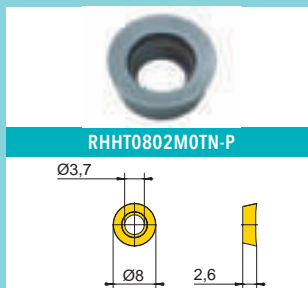
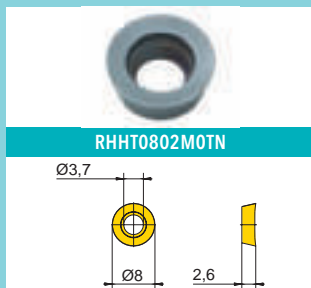
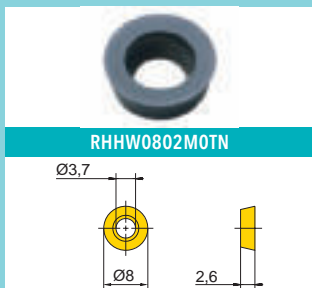
D d1 L a M Z Insert Ø



PR.016.002	16	13	23	4	8	2	8	40°	✓	0,02
PR.030.001	30	29	43	4	16	5	8	8°	✓	0,19

Neutral design / Exécution neutre / Geometria Neutra / Diseño neutro

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2004	IN2005	IN2006	IN2035			
RHHW0802MOTN	neutral geometry, K-land									
RHHT0802MOTN	positive geometry, K-land									
RHHT0802MOTN-P	titanium geometry, polished									
RHHT0802MOTN-P	non-ferrous geometry, polished									

● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Insert screw / Vis de serrage  
Vite per inserto / Tornillo plaquita

SM30-053-00

Screw driver / Tournevis  
Cacciavite / Destornillador

DS-T09S

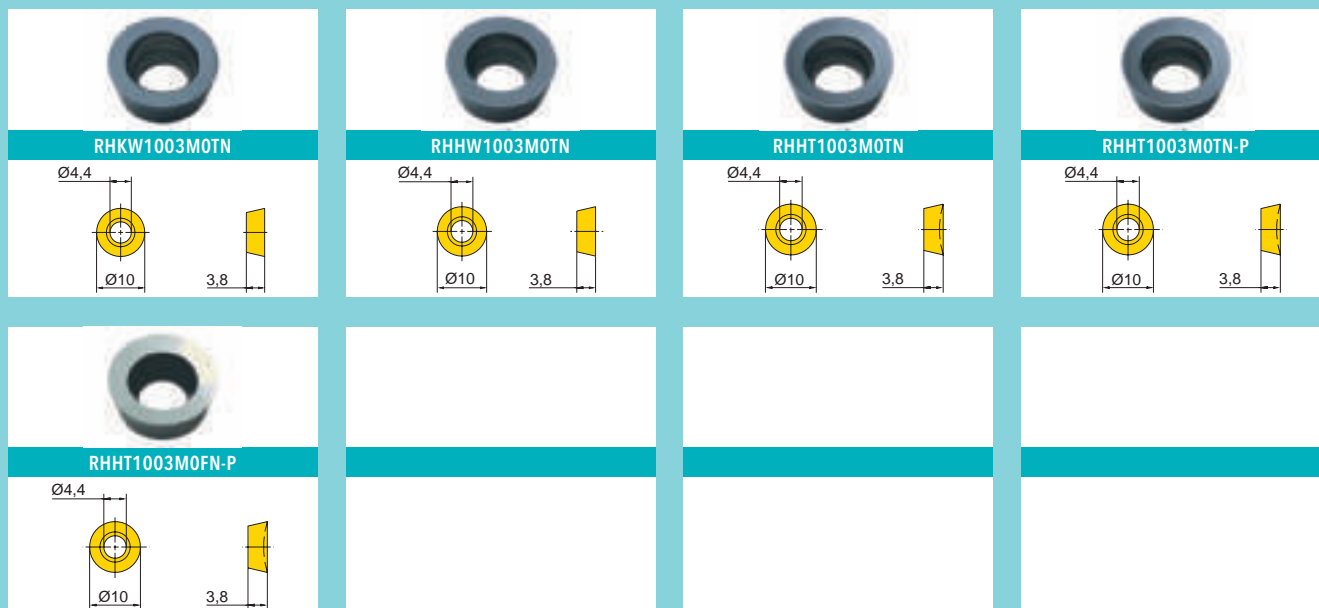
Blank space for spare parts information.

Blank space for spare parts information.





INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



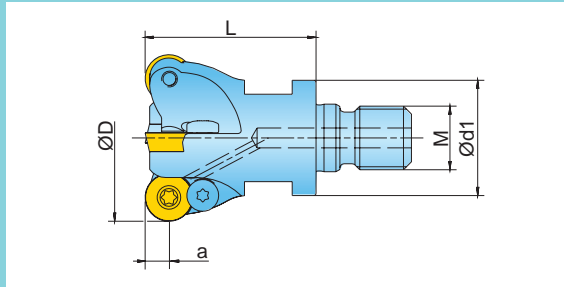
Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2004	IN2005	IN2006	IN2015	IN2035		
RHKW1003M0TN	neutral roughing geometry									
RHHW1003M0TN	neutral geometry, K-land									
RHHT1003M0TN	positive geometry, K-land									
RHHT1003M0TN-P	titanium geometry, polished									
RHHT1003M0FN-P	non-ferrous geometry, polished									

● = P   ● = M   ● = K   ● = N   ● = S   ○ = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM40-080-10	DS-T15S		

SCREW-TYPE ADAPTION / ATTACHEMENT FILETÉ  
 ATTACCO FILETTATO / ADAPTACIÓN MEDIANTE ROSCA



Designation / Réf. de l'article  
 Articolo / Referencia

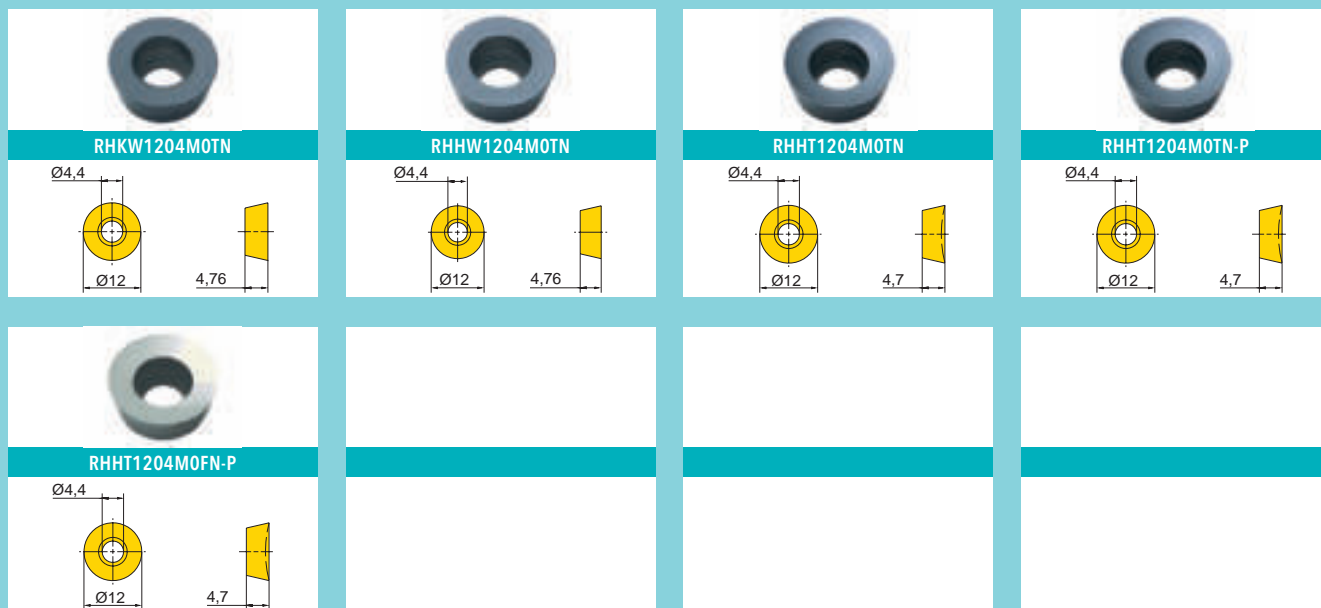
D d1 L a M Z Insert Ø



Designation / Réf. de l'article Articolo / Referencia	D	d1	L	a	M	Z	Insert Ø		
PR.024.001	24	21	35	6	12	2	12	40°	✓ 0,08
PR.032.001	32	29	43	6	16	3	12	14°	✓ 0,18
PR.035.001	35	29	43	6	16	3	12	11°	✓ 0,19
PR.042.001	42	29	43	6	16	4	12	8°	✓ 0,25

Neutral design / Exécution neutre / Geometria Neutra / Diseño neutro

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



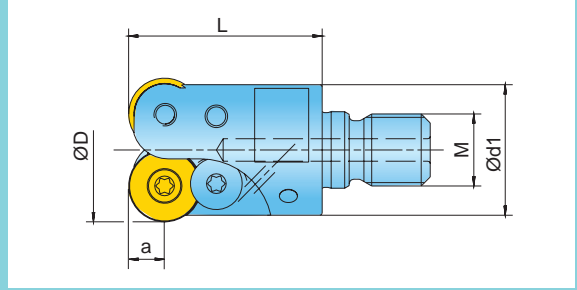
Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2004	IN2005	IN2006	IN2015	IN2035	IN2040
RHKW1204M0TN	neutral roughing geometry								
RHHW1204M0TN	neutral geometry, K-land								
RHHT1204M0TN	positive geometry, K-land								
RHHT1204M0TN-P	titanium geometry, polished								
RHHT1204M0FN-P	non-ferrous geometry, polished								

● = P   ● = M   ● = K   ● = N   ● = S   ○ = H

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador	Clamping screw / Vis de serrage Viti per staffe / Tornillo de apriete
SM40-080-10	DS-T15S	SF035-01

SCREW-TYPE ADAPTION / ATTACHEMENT FILETÉ  
 ATTACCO FILETTATO / ADAPTACIÓN MEDIANTE ROSCA



Designation / Réf. de l'article  
 Articolo / Referencia

D

d1

L

a

M

Z

Insert Ø



PR.032.002

32

29

43

8

16

2

16

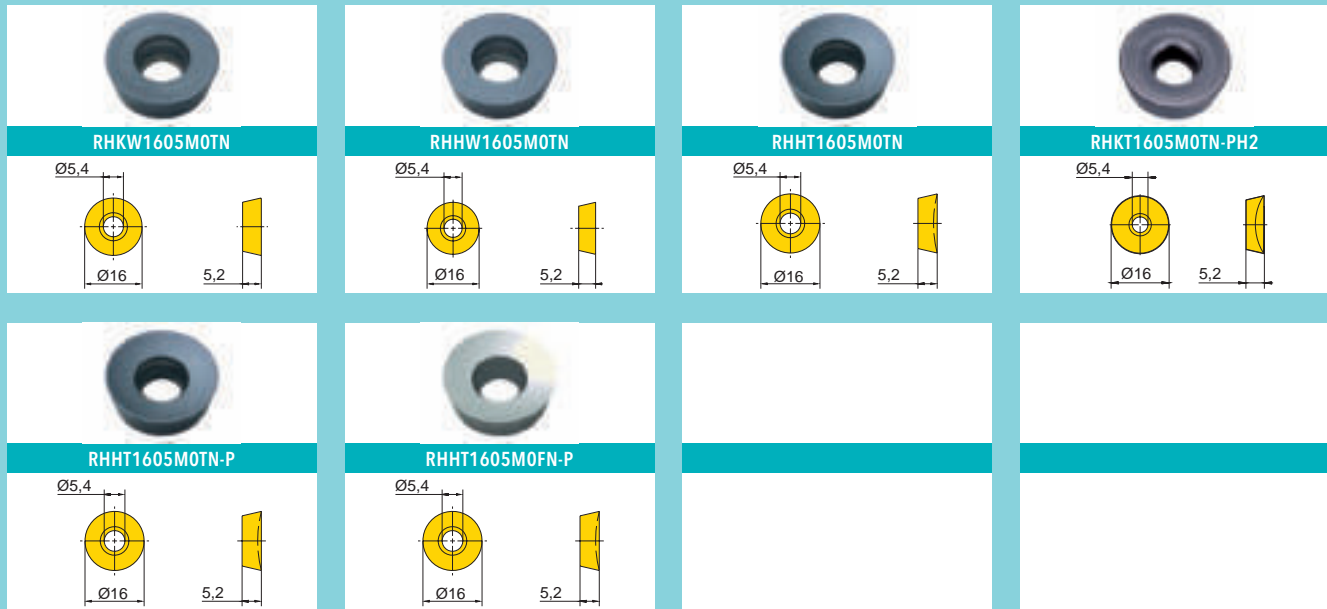
40°

✓

0,16

Neutral design / Version neutre / Geometria Neutra / Diseño neutro




## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2004	IN2005	IN2015	IN2030	IN2035	IN2040
RHKW1605M0TN	neutral roughing geometry			●	●	●	●	●	●
RHHW1605M0TN	neutral geometry, K-land		●	●	●				●
RHHT1605M0TN	positive geometry, K-land		●	●				●	
RHKT1605M0TN-PH2	positive roughing geometry, neg. K-land				●	●	●		●
RHHT1605M0TN-P	titanium geometry, polished				●				
RHHT1605M0FN-P	non-ferrous geometry, polished		●						

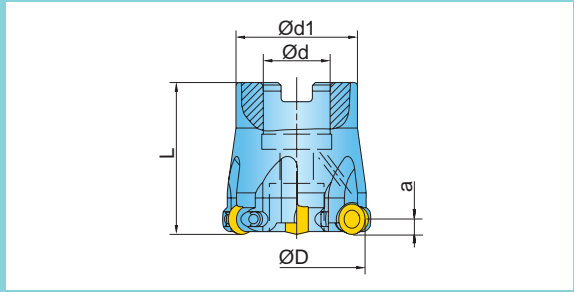
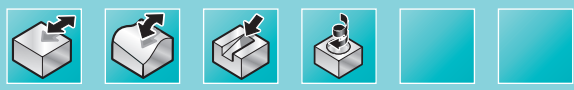
● = P ● = M ● = K ● = N ● = S ○ = H

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador	Clamping disk / Disque de fixation Staffe / Arandela de apriete
SM50-100-10 	DS-T20S 	CL-5000 



ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article    D    d    d1    L    a    Z    Insert  $\varnothing$

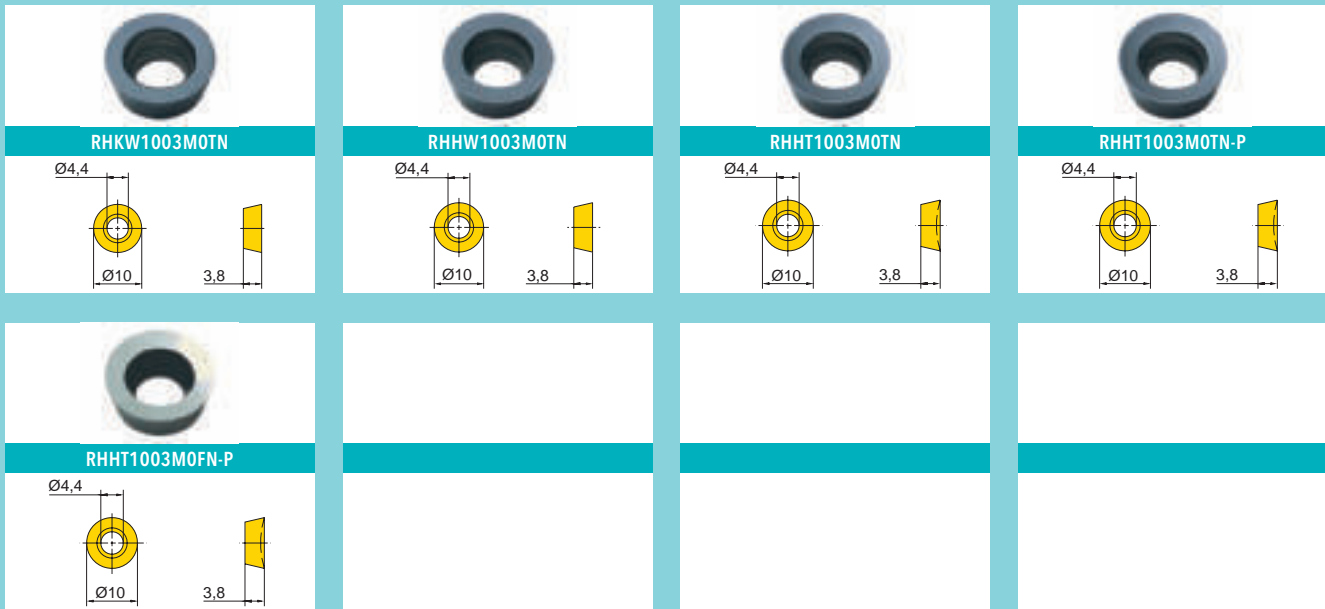
Articolo / Referencia

Designation / Réf. de l'article Articolo / Referencia	D	d	d1	L	a	Z	Insert $\varnothing$		
PR.052.002	52	22	40	50	5	6	10	5°	✓ 0,36
PR.066.001	66	27	48	50	5	7	10	3,5°	✓ 0,60

Neutral design / Exécution neutre / Geometria Neutra / Diseño neutro

[This section contains a large area of horizontal lines, likely a placeholder for additional technical specifications or a list of variants.]

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



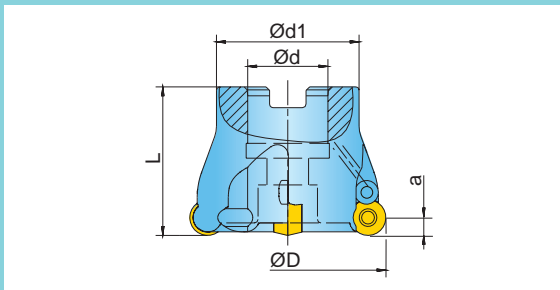
Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2004	IN2005	IN2006	IN2015	IN2035		
RHKW1003M0TN	neutral roughing geometry									
RHHW1003M0TN	neutral geometry, K-land									
RHHT1003M0TN	positive geometry, K-land									
RHHT1003M0TN-P	titanium geometry, polished									
RHHT1003M0FN-P	non-ferrous geometry, polished									

● = P   ● = M   ● = K   ● = N   ● = S   ○ = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM40-080-10	DS-T15S		

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
 Artículo / Referencia

D d d1 L a Z Insert  $\varnothing$

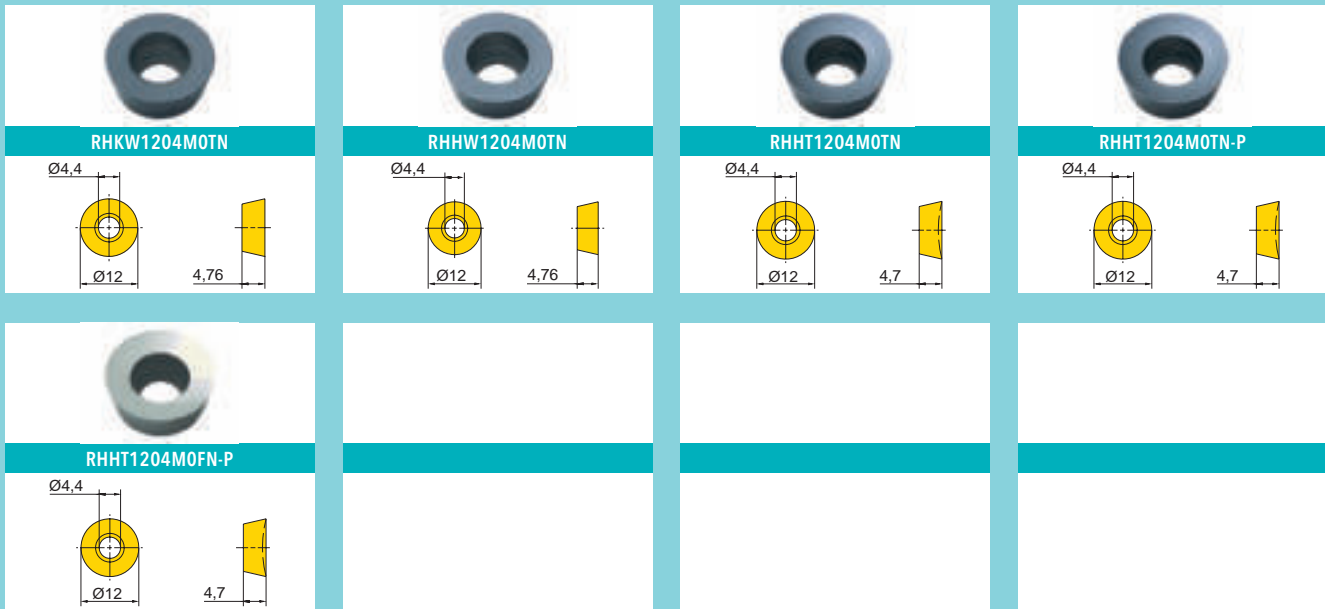


PR.052.003	52	22	40	50	6	5	12	5°	✓	0,32
PR.066.002	66	27	48	50	6	6	12	5°	✓	0,56
PR.080.002	80	27	60	50	6	7	12	3°	✓	0,98

Neutral design / Version neutre / Geometria Neutra / Diseño neutro



## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2004	IN2005	IN2006	IN2015	IN2035	IN2040
RHKW1204M0TN	neutral roughing geometry								
RHHW1204M0TN	neutral geometry, K-land								
RHHT1204M0TN	positive geometry, K-land								
RHHT1204M0TN-P	titanium geometry, polished								
RHHT1204M0FN-P	non-ferrous geometry, polished								

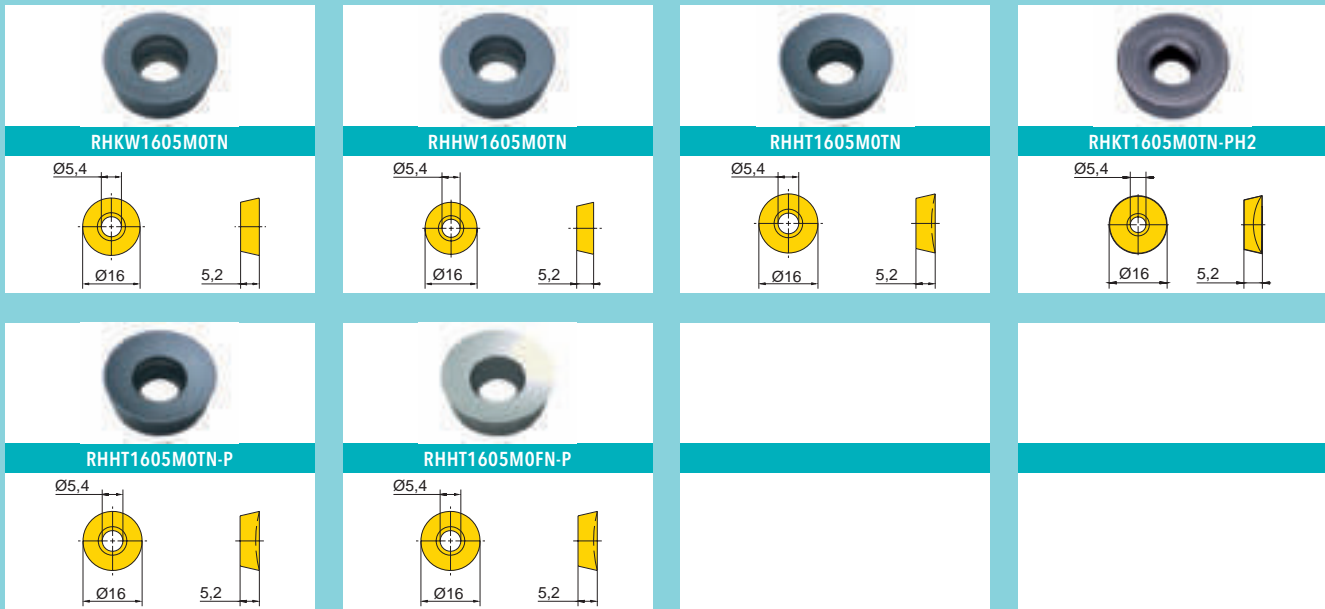
● = P   ● = M   ● = K   ● = N   ● = S   ○ = H

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador	Clamping screw / Vis de serrage Viti per staffe / Tornillo de apriete
SM40-080-10	DS-T15S	SF035-01






## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2004	IN2005	IN2015	IN2030	IN2035	IN2040
RHKW1605M0TN	neutral roughing geometry			●	●	●	●	●	●
RHHW1605M0TN	neutral geometry, K-land		●	●	●				●
RHHT1605M0TN	positive geometry, K-land		●	●				●	
RHKT1605M0TN-PH2	positive roughing geometry, neg. K-land				●	●	●		●
RHHT1605M0TN-P	titanium geometry, polished				●				
RHHT1605M0FN-P	non-ferrous geometry, polished		●						

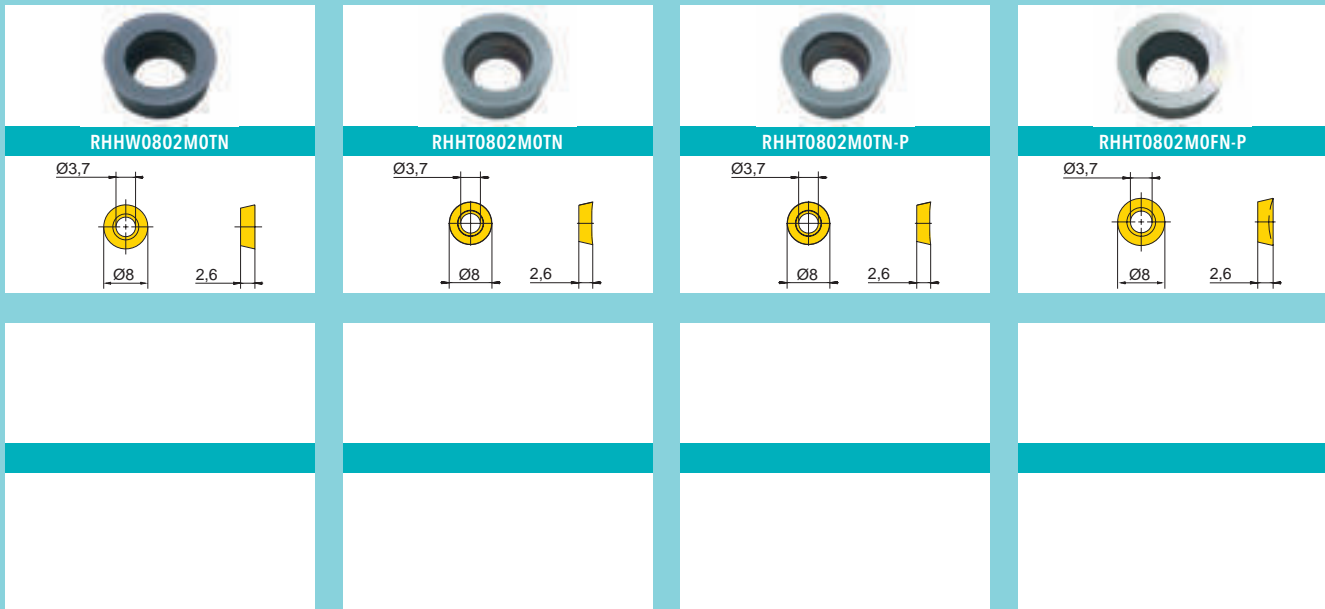
● = P   ● = M   ● = K   ● = N   ● = S   ○ = H

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador	Clamping disk / Disque de fixation Staffe / Arandela de apriete
SM50-100-10 	DS-T20S 	CL-5000 





INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2004	IN2005	IN2006	IN2035			
RHHW0802M0TN	neutral geometry, K-land									
RHHT0802M0TN	positive geometry, K-land									
RHHT0802M0TN-P	titanium geometry, polished									
RHHT0802M0FN-P	non-ferrous geometry, polished									

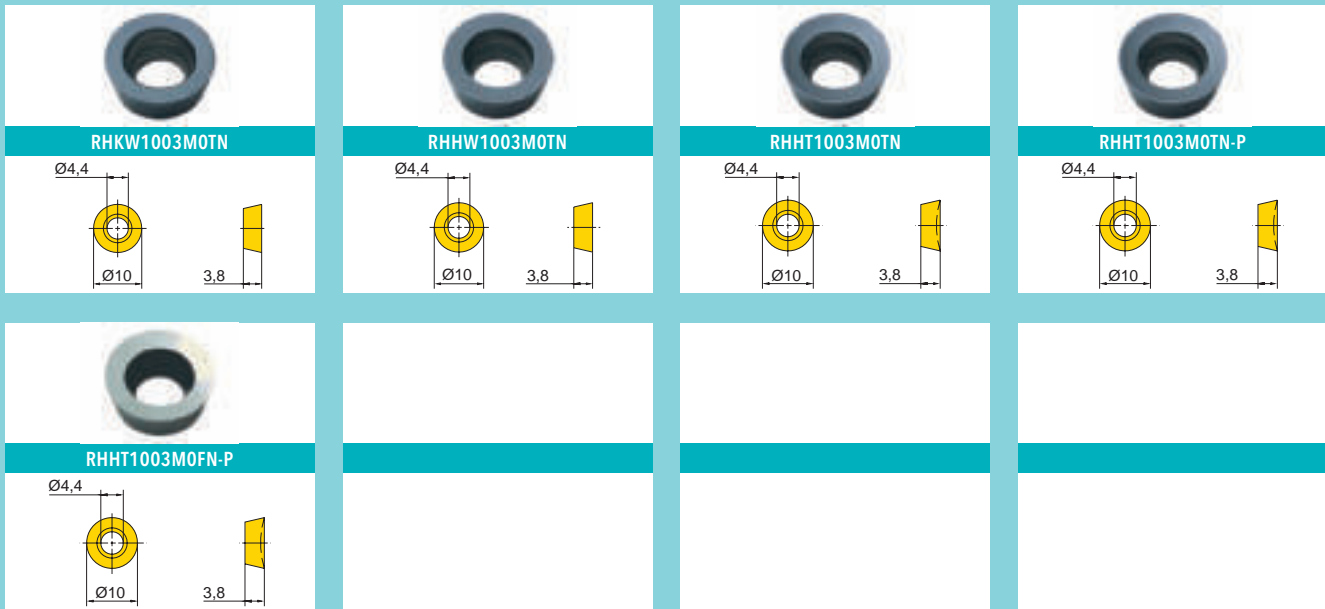
● = P   ● = M   ● = K   ● = N   ● = S   ○ = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM30-053-00 	DS-T09S 		



INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2004	IN2005	IN2006	IN2015	IN2035		
RHKW1003M0TN	neutral roughing geometry									
RHHW1003M0TN	neutral geometry, K-land									
RHHT1003M0TN	positive geometry, K-land									
RHHT1003M0TN-P	titanium geometry, polished									
RHHT1003M0FN-P	non-ferrous geometry, polished									

● = P ● = M ● = K ● = N ● = S ○ = H

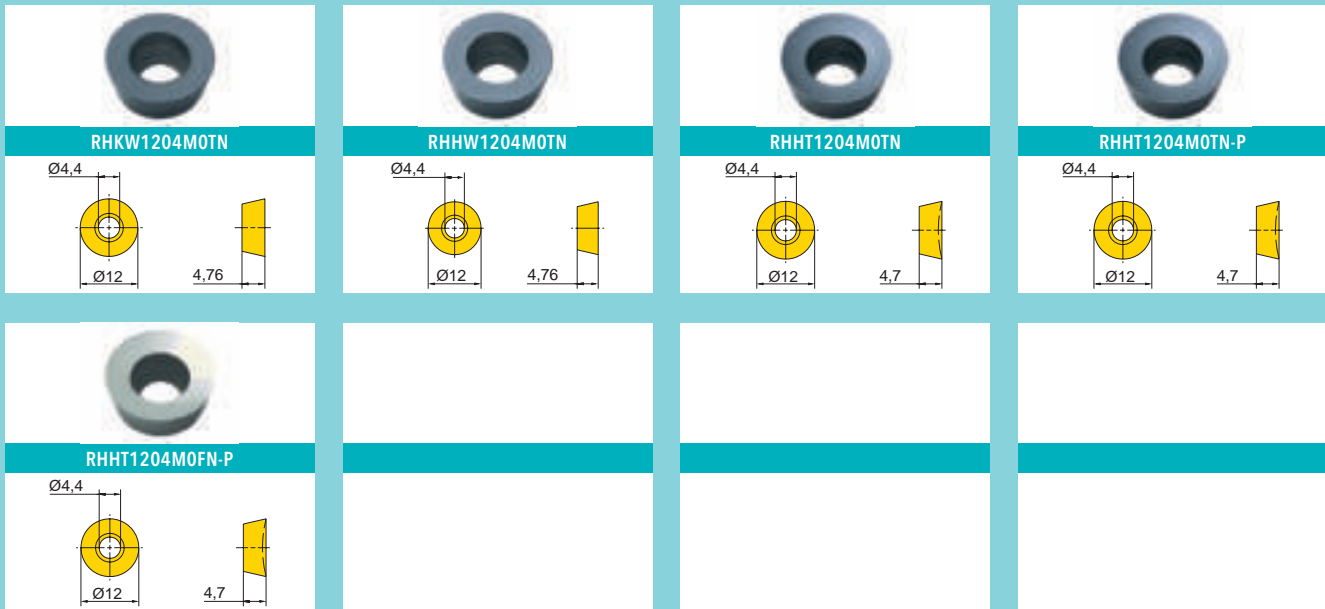
SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM40-080-10	DS-T15S		





INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2004	IN2005	IN2006	IN2015	IN2035	IN2040
RHKW1204M0TN	neutral roughing geometry								
RHHW1204M0TN	neutral geometry, K-land								
RHHT1204M0TN	positive geometry, K-land								
RHHT1204M0TN-P	titanium geometry, polished								
RHHT1204M0FN-P	non-ferrous geometry, polished								

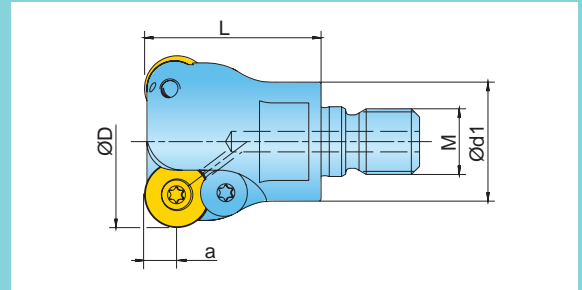
● = P   ● = M   ● = K   ● = N   ● = S   ○ = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador	Clamping screw / Vis de serrage Viti per staffe / Tornillo de apriete
SM40-080-10	DS-T15S	SF035-01



SCREW-TYPE ADAPTION / ATTACHEMENT FILETÉ  
 ATTACCO FILETTATO / ADAPTACIÓN MEDIANTE ROSCA



Designation / Réf. de l'article  
 Articolo / Referencia

D d1 L a M Z Insert Ø



PR.032.004	32	29	43	8	16	2	16	40°	✓	0,16
PR.042.005	42	29	43	8	16	3	16	15°	✓	0,25

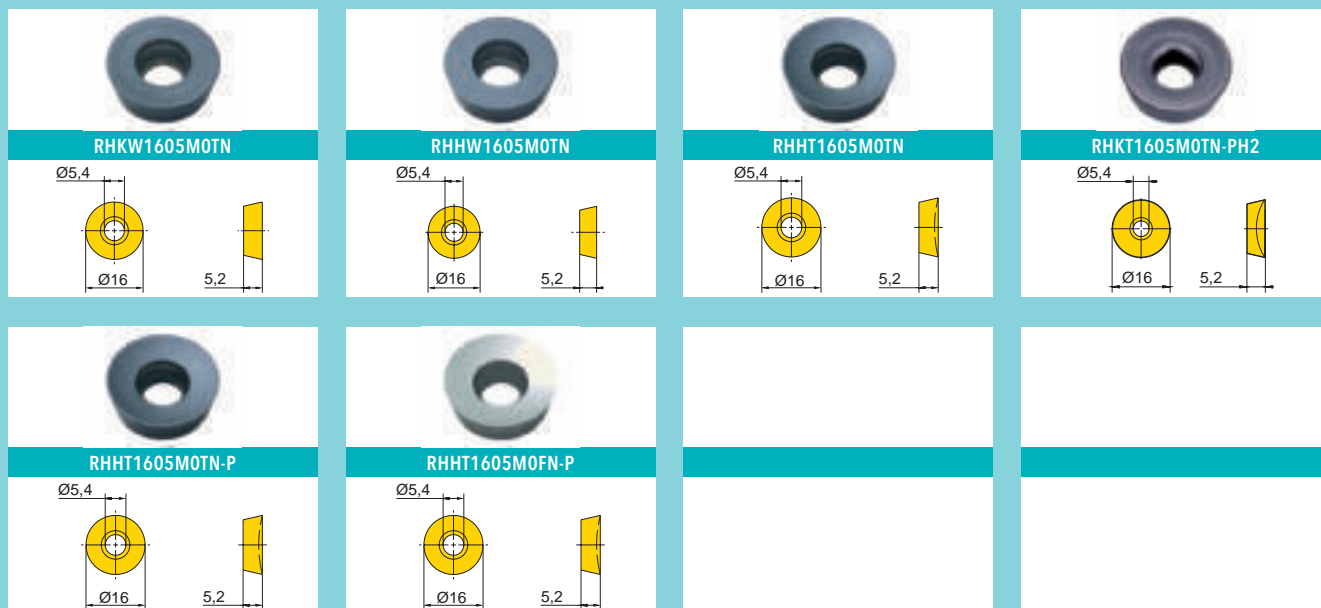
Positive design / Version positive / Geometria Positiva / Diseño Positivo

A series of horizontal lines for additional information or notes.

PR16E01P

MOULDMAKER PLUS




## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



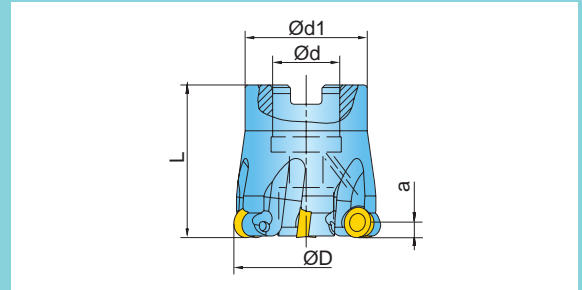
Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2004	IN2005	IN2015	IN2030	IN2035	IN2040
RHKW1605M0TN	neutral roughing geometry			●	●	●	●	●	●
RHHW1605M0TN	neutral geometry, K-land		●	●	●				●
RHHT1605M0TN	positive geometry, K-land		●	●				●	
RHKT1605M0TN-PH2	positive roughing geometry, neg. K-land				●	●	●		●
RHHT1605M0TN-P	titanium geometry, polished				●				
RHHT1605M0FN-P	non-ferrous geometry, polished		●						

● = P ● = M ● = K ● = N ● = S ○ = H

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador	Clamping disk / Disque de fixation Staffe / Arandela de apriete
SM50-100-10 	DS-T20S 	CL-5000 

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
 Articolo / Referencia

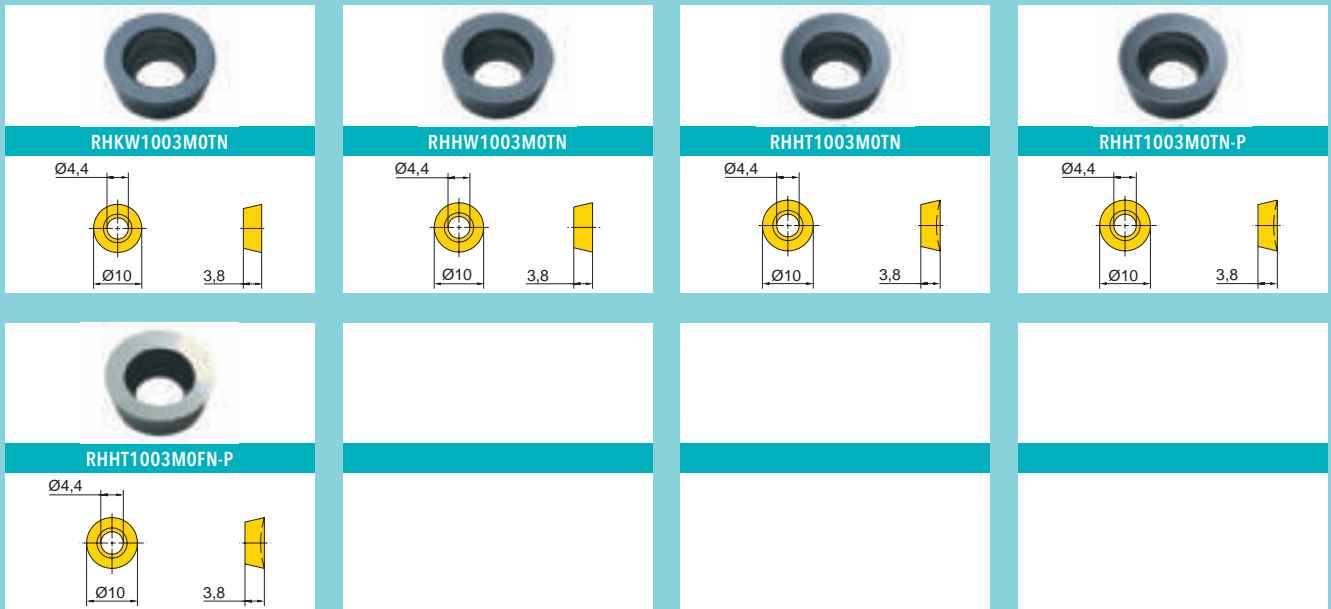
D d d1 L a Z Insert Ø



PR.052.005	52	22	40	50	5	6	10	5°	✓	0,36
------------	----	----	----	----	---	---	----	----	---	------

Positive design / Exécution positive / Geometria Positiva / Diseño positiva

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2004	IN2005	IN2006	IN2015	IN2035		
RHKW1003M0TN	neutral roughing geometry									
RHHW1003M0TN	neutral geometry, K-land									
RHHT1003M0TN	positive geometry, K-land									
RHHT1003M0TN-P	titanium geometry, polished									
RHHT1003M0FN-P	non-ferrous geometry, polished									

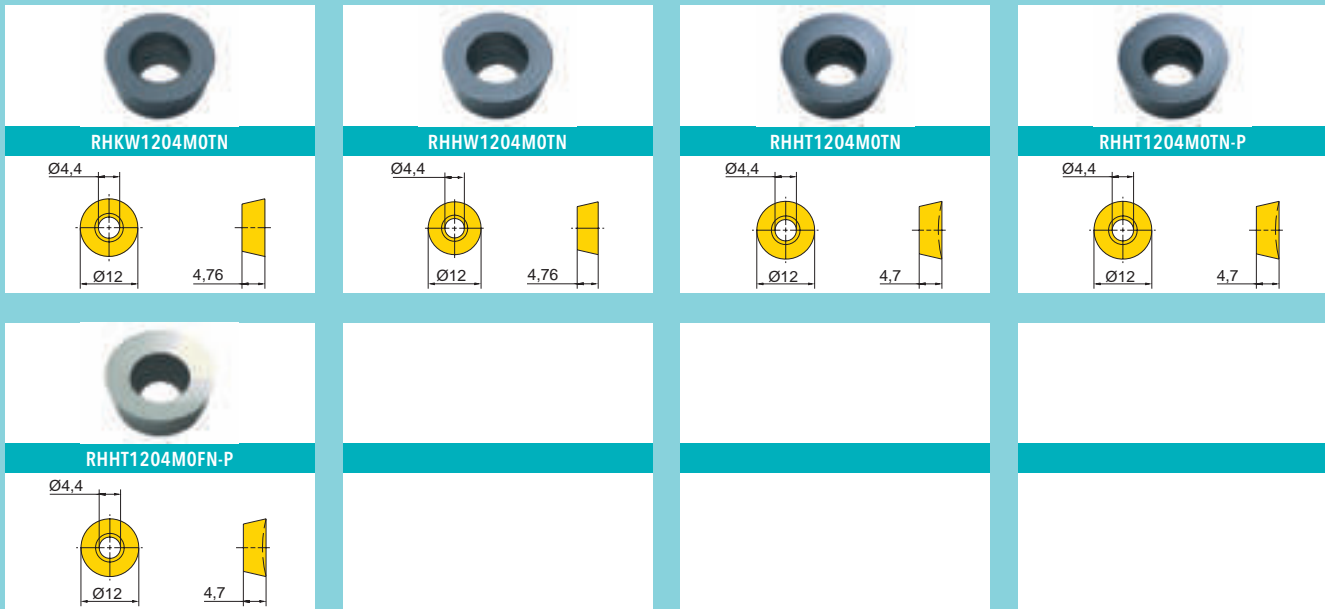
● = P   ● = M   ● = K   ● = N   ● = S   ○ = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM40-080-10	DS-T15S		



INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2004	IN2005	IN2006	IN2015	IN2035	IN2040
RHKW1204M0TN	neutral roughing geometry								
RHHW1204M0TN	neutral geometry, K-land								
RHHT1204M0TN	positive geometry, K-land								
RHHT1204M0TN-P	titanium geometry, polished								
RHHT1204M0FN-P	non-ferrous geometry, polished								

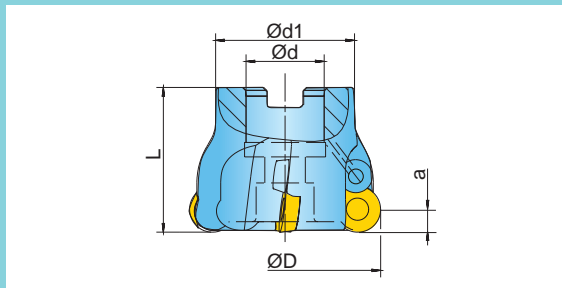
● = P   ● = M   ● = K   ● = N   ● = S   ○ = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador	Clamping screw / Vis de serrage Viti per staffe / Tornillo de apriete
SM40-080-10	DS-T15S	SF035-01



ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
Articolo / Referencia

D d d1 L a Z Insert Ø



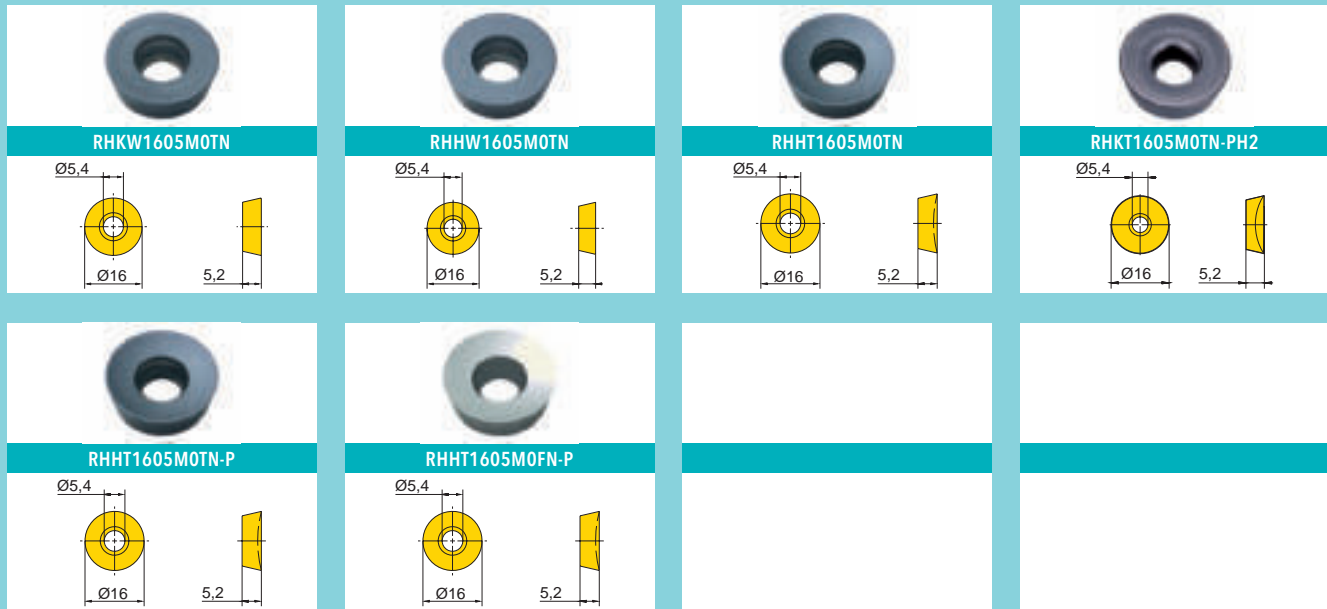
Designation / Réf. de l'article Articolo / Referencia	D	d	d1	L	a	Z	Insert Ø			
PR.052.006	52	22	40	50	8	4	16	8°	✓	0,30
PR.066.005	66	27	48	50	8	5	16	7°	✓	0,51
PR.080.005	80	27	60	50	8	6	16	5°	✓	1,00
PR.100.003	100	32	70	55	8	7	16	4°		1,45
PR.125.003	125	40	90	55	8	8	16	2°		2,45
PR.160.002	160	40	120	55	8	9	16	2°		4,53

Positive design / Ejecución positiva / Geometría Positiva / Diseño positiva

Table with 10 empty rows for additional data entry.






## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



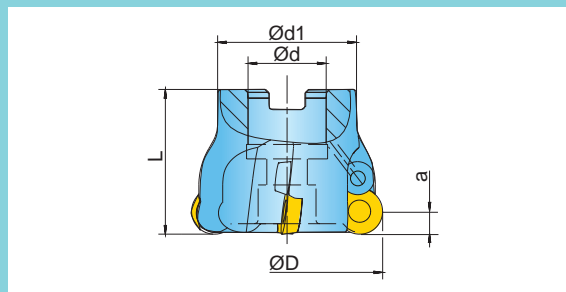
Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2004	IN2005	IN2015	IN2030	IN2035	IN2040
RHKW1605M0TN	neutral roughing geometry			●	●	●	●	●	●
RHHW1605M0TN	neutral geometry, K-land		●	●	●				●
RHHT1605M0TN	positive geometry, K-land		●	●				●	
RHKT1605M0TN-PH2	positive roughing geometry, neg. K-land			●	●	●	●		●
RHHT1605M0TN-P	titanium geometry, polished				●				
RHHT1605M0FN-P	non-ferrous geometry, polished		●						

● = P ● = M ● = K ● = N ● = S ○ = H

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador	Clamping disk / Disque de fixation Staffe / Arandela de apriete
SM50-100-10 	DS-T20S 	CL-5000 

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
Articolo / Referencia

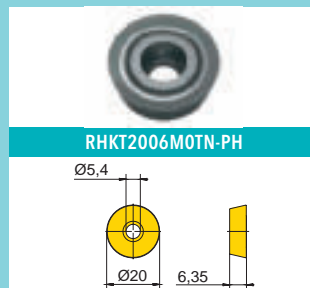
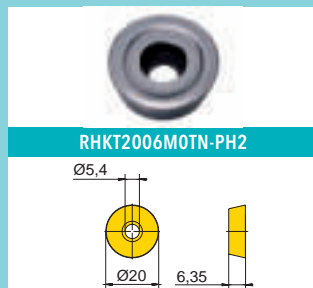
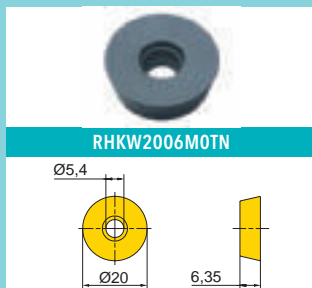
D d d1 L a Z Insert Ø



Designation / Réf. de l'article Articolo / Referencia	D	d	d1	L	a	Z	Insert Ø		
PR.066.006	66	27	48	50	10	5	20	7°	✓ 0,51
PR.080.006	80	27	60	50	10	6	20	5°	✓ 1,00
PR.100.004	100	32	70	55	10	7	20	4°	1,24
PR.125.004	125	40	90	55	10	8	20	2°	2,00
PR.160.003	160	40	120	55	10	9	20	2°	4,80

Positive design / Exécution positive / Geometria Positiva / Diseño positiva

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN2005	IN2015	IN2030	IN2040			
RHW2006M0TN	neutral roughing geometry			●●●	●●●	●●●			
RHKT2006M0TN-PH2	positive roughing geometry, neg. K-land		●●●	●●●	●●●	●●●			
RHKT2006M0TN-PH	positive roughing geometry, K-land		●●●	●●●	●●●	●●●			

● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Insert screw / Vis de serrage  
Vite per inserto / Tornillo plaquita

SM50-100-10

Screw driver / Tournevis  
Cacciavite / Destornillador

DS-T20S

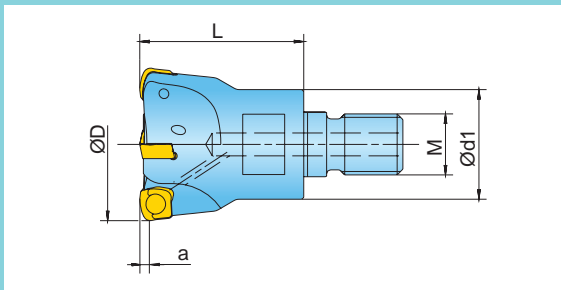
Clamping disk / Disque de fixation  
Staffe / Arandela de apriete

CL-5000

PR20D10P

MOULDMAKER PLUS

SCREW-TYPE ADAPTION / ATTACHEMENT FILETÉ  
ATTACCO FILETTATO / ADAPTACIÓN MEDIANTE ROSCA



Designation / Réf. de l'article  
Articolo / Referencia

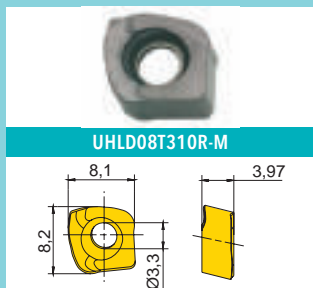
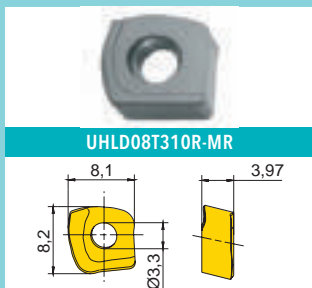
D d1 L a M Z



Designation / Réf. de l'article Articolo / Referencia	D	d1	L	a	M	Z		IK	kg
KU.020.001	20	18	30	1	10	2	5,3°	✓	0,05
KU.025.001	25	21	35	1	12	2	3,5°	✓	0,09
KU.025.002	25	21	35	1	12	3	3,5°	✓	0,09
KU.032.002	32	29	43	1	16	3	2,0°	✓	0,18
KU.035.001	35	29	43	1	16	4	1,9°	✓	0,21
KU.040.001	40	29	43	1	16	4	1,8°	✓	0,24
KU.042.002	42	29	43	1	16	4	1,7°	✓	0,25
KU.042.003	42	29	43	1	16	5	1,7°	✓	0,25

Programming radius 3mm / Programmation - rayon 3mm / Raggio di programmazione 3mm / Radio a programar 3mm

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN2005	IN2035	IN2505	IN2540			
UHLD08T310R-MR	neutral geometry		●			●			
UHLD08T310R-M	positive geometry		●	●	●	●			

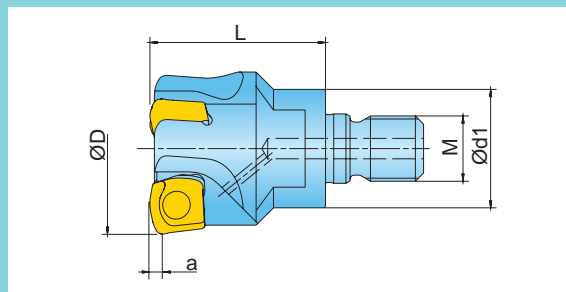
● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS



MOULDMAKER-SPEED KU08E01

SCREW-TYPE ADAPTION / ATTACHEMENT FILETÉ  
 ATTACCO FILETTATO / ADAPTACIÓN MEDIANTE ROSCA

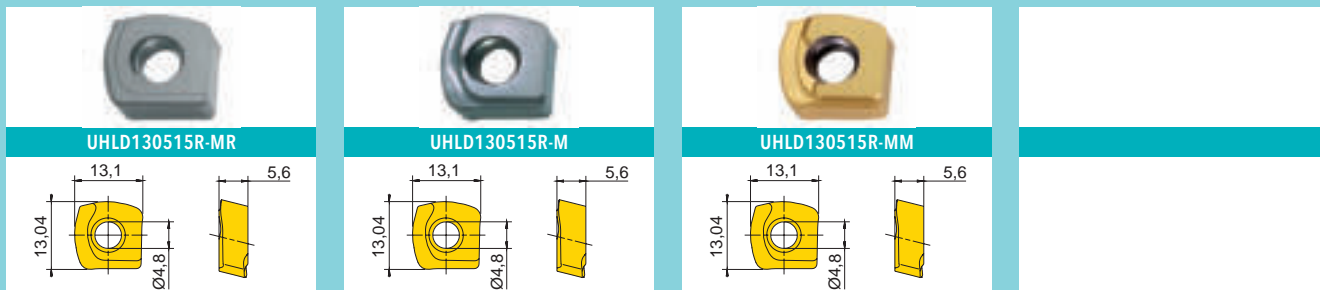


Designation / Réf. de l'article  
 Articolo / Referencia

	D	d1	L	a	M	Z		IK	kg
KU.032.001	32	29	43	1,5	16	2	2,5°	✓	0,16
KU.042.001	42	29	43	1,5	16	3	1,6°	✓	0,25

Programming radius 3mm / Programmation - rayon 3mm / Raggio di programmazione 3mm / Radio a programar 3mm

INSERTS / PLAQUETTES DE COUPE  
 INSERTI / PLAQUITA





Designation / Réf. de l'article  
 Articolo / Referencia

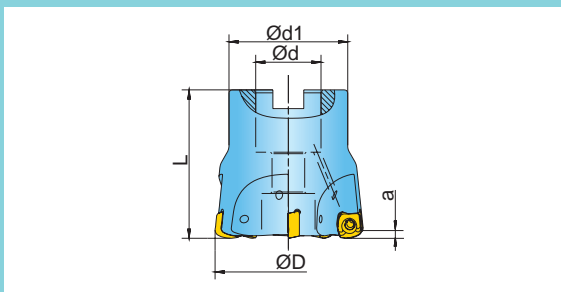
Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN2005	IN2030	IN2505	IN2540				
UHLD130515R-MR	neutral geometry	●	●						
UHLD130515R-M	positive geometry	●							
UHLD130515R-MM	semi positive geometry			●	●				

● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM40-120-20 	DS-T15S 		

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030

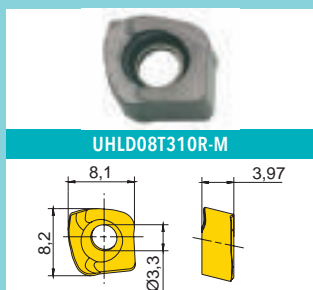
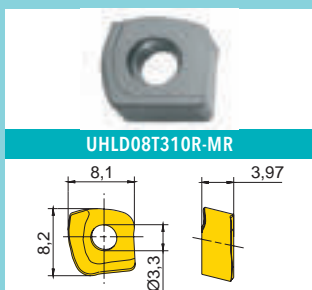


Designation / Réf. de l'article / Artículo / Referencia    D    d    d1    L    a    Z         

KU.050.001	50	22	40	50	1	5	1°	✓	0,30
KU.052.002	52	22	40	50	1	5	0,9°	✓	0,33
KU.063.001	63	27	48	50	1	6	0,9°	✓	0,53
KU.066.002	66	27	48	50	1	6	0,7°	✓	0,56
KU.080.002	80	27	60	50	1	7	0,6°	✓	1,00

Programming radius 3mm / Programmation - rayon 3mm / Raggio di programmazione 3mm / Radio a programar 3mm

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



Designation / Réf. de l'article / Artículo / Referencia    Insert Version / Execution / Tipología Inserto / Tipo de Plaquita    Grade / Nuance / Grado    IN2005    IN2035    IN2505    IN2540

UHLD08T310R-MR	neutral geometry						
UHLD08T310R-M	positive geometry						

= P    = M    = K    = N    = S    = H

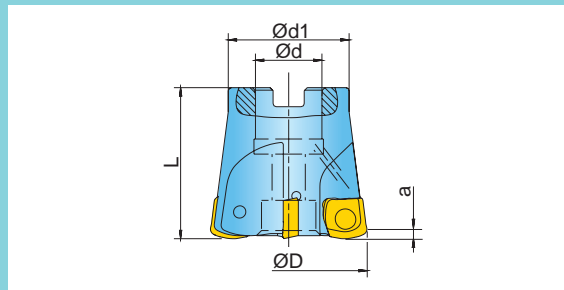
SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS



MOULDMAKER SPEED KU08D10

MOULDMAKER SPEED

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



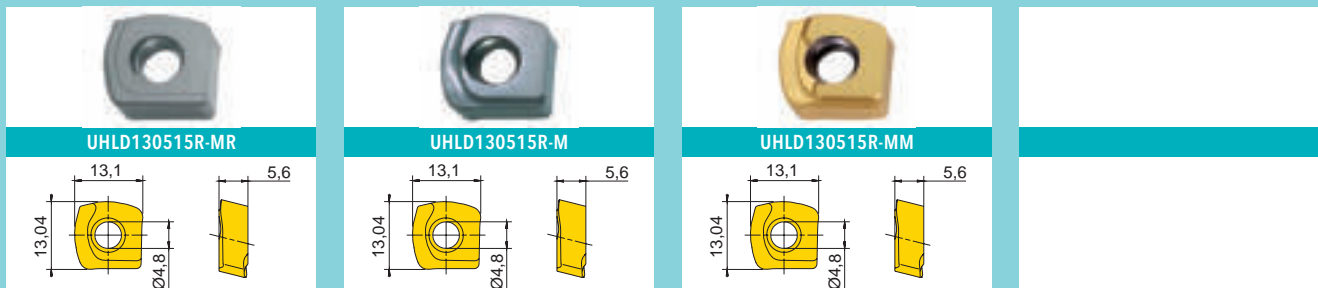
Designation / Réf. de l'article  
 Artículo / Referencia






D d d1 L a Z   

KU.052.001	52	22	40	50	1,5	4	1,2°	✓	0,30
KU.066.001	66	27	48	50	1,5	4	0,7°	✓	0,51
KU.080.001	80	27	60	50	1,5	5	0,5°	✓	1,00
KU.100.001	100	32	70	55	1,5	6	0,5°		1,24

Programming radius 3mm / Programmation - rayon 3mm / Raggio di programmazione 3mm / Radio a programar 3mm



INSERTS / PLAQUETTES DE COUPE  
 INSERTI / PLAQUITA



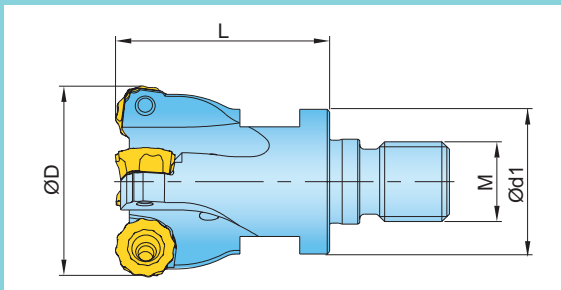
Designation / Réf. de l'article Artículo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN2005	IN2030	IN2505	IN2540			
UHLD130515R-MR	neutral geometry								
UHLD130515R-M	positive geometry								
UHLD130515R-MM	semi positive geometry								

● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM40-120-20 	DS-T15S 		

SCREW-TYPE ADAPTION / ATTACHEMENT FILETÉ  
ATTACCO FILETTATO / ADAPTACIÓN MEDIANTE ROSCA



Designation / Réf. de l'article  
Articolo / Referencia

D d1 L a M Z

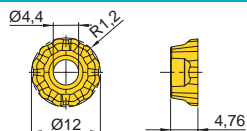


PR.024.003	24	21	35	6	12	2	45°	✓	0,08
PR.032.006	32	29	43	6	16	3	10°	✓	0,18
PR.035.005	35	29	43	6	16	3	9°	✓	0,19
PR.040.003	40	29	43	6	16	4	7°	✓	0,24
PR.042.007	42	29	43	6	16	4	6°	✓	0,25

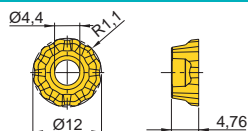
INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



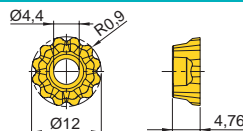
RCLT1204M0N-CC1



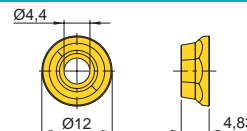
RCLT1204M0N-CC2



RCLT1204M0N-CP



RCLT1204M0TN-PH2



Designation / Réf. de l'article  
Articolo / Referencia

Insert Version / Execution  
Tipologia Inserto / Tipo de Plaquita

Grade Nuance Grado IN05S IN2005 IN2015 IN2030 IN2035 IN2040

RCLT1204M0N-CC1	positive geometry R1,2							
RCLT1204M0N-CC2	positive geometry R1,1 K-land							
RCLT1204M0N-CP	non-ferrous geometry R0,9							
RCLT1204M0TN-PH2	positive geometry, K-land							

● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIO

Insert screw / Vis de serrage  
Vite per inserto / Tornillo plaquita

SM40-090-00



Screw driver / Tournevis  
Cacciavite / Destornillador

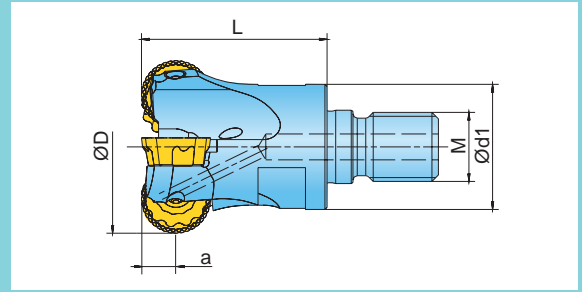
DS-T15S



PR12E01CC

MOULDMAKER PRO

SCREW-TYPE ADAPTION / ATTACHEMENT FILETÉ  
 ATTACCO FILETTATO / ADAPTACIÓN MEDIANTE ROSCA

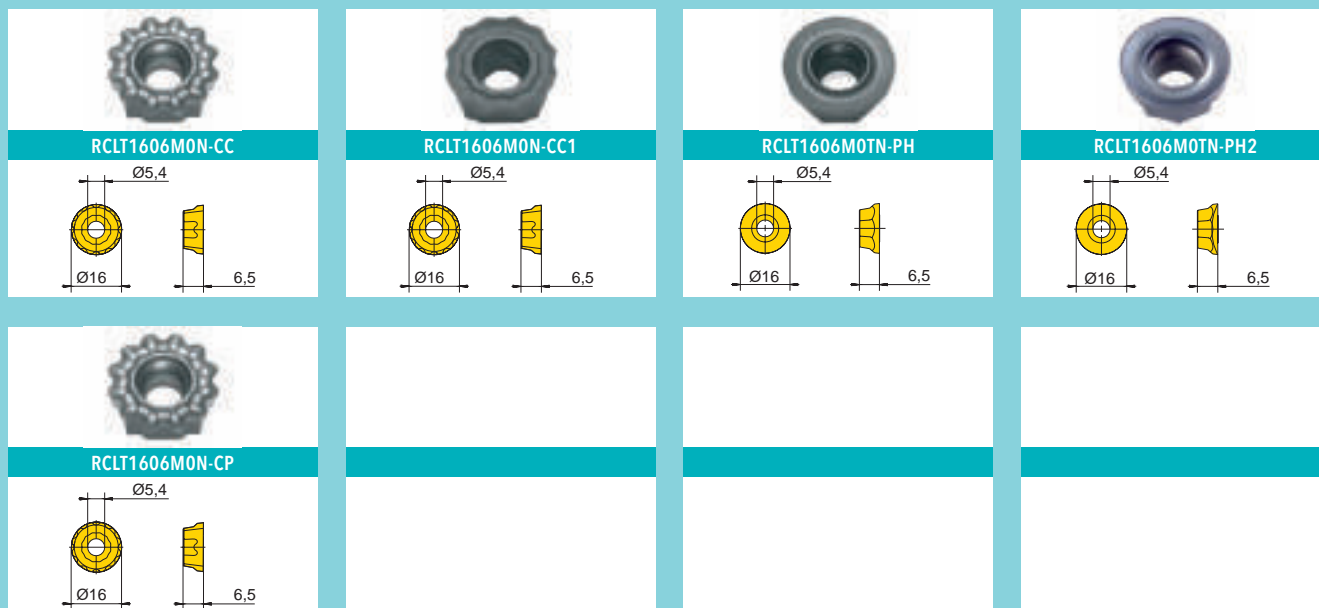


Designation / Réf. de l'article  
 Articolo / Referencia

	D	d1	L	a	M	Z			
PR.032.005	32	29	43	8	16	2	24°	✓	0,16
PR.040.002	40	29	43	8	16	3	16°	✓	0,23
PR.042.006	42	29	43	8	16	3	14°	✓	0,25





## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2005	IN2015	IN2030	IN2040			
RCLT1606MON-CC	positive steel geometry R1,2			●	●	●				
RCLT1606MON-CC1	positive steel geometry R1,6			●	●	●				
RCLT1606MOTN-PH	positive steel geometry			●	●	●				
RCLT1606MOTN-PH2	positive geometry, neg. K-land			●	●		●			
RCLT1606MON-CP	positive non-ferrous geometry		●							

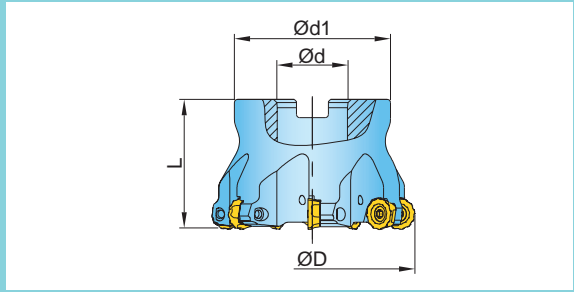
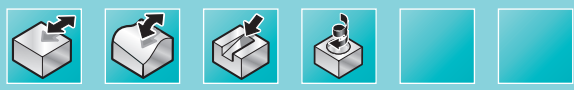
● = P   ● = M   ● = K   ● = N   ● = S   ○ = H

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM50-105-10 	DS-T20S 		



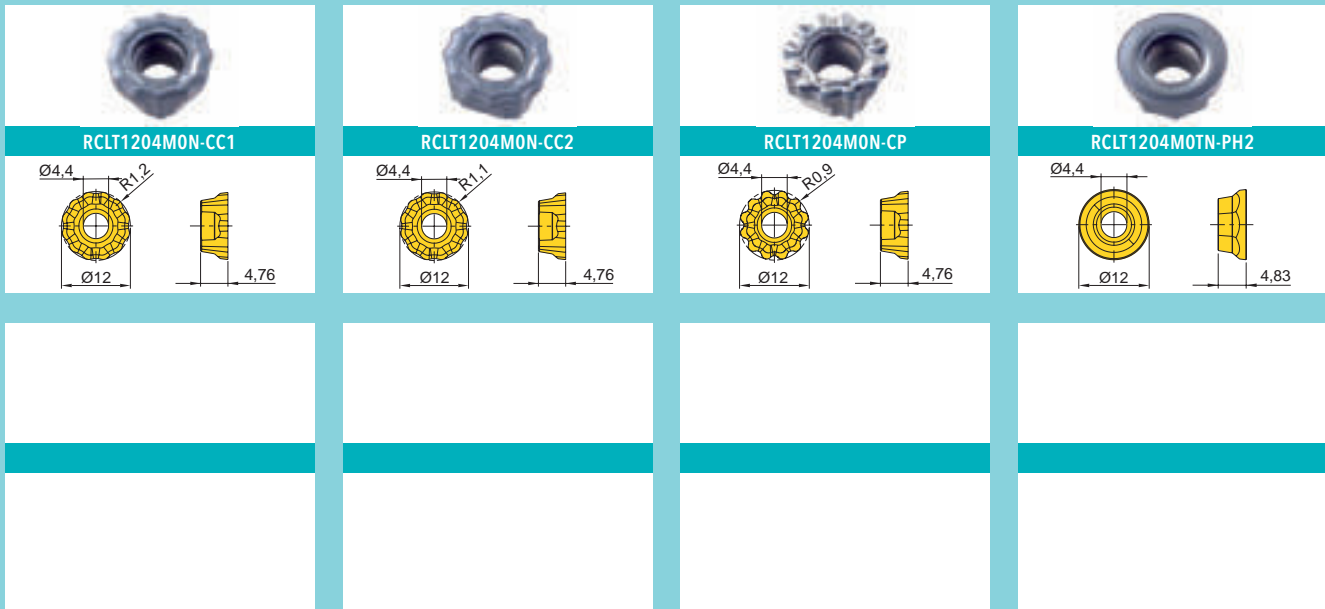
ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
 Artículo / Referencia

	D	d	d1	L	a	Z			
PR.050.003	50	22	40	50	6	5	5,5°	✓	0,31
PR.052.008	52	22	40	50	6	5	5°	✓	0,32
PR.063.003	63	27	48	50	6	6	3,5°	✓	0,55
PR.066.008	66	27	48	50	6	6	3°	✓	0,56
PR.080.008	80	27	60	50	6	7	2,5°	✓	0,98



INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2005	IN2015	IN2030	IN2035	IN2040		
RCLT1204M0N-CC1	positive geometry R1,2			●	●	●	●			
RCLT1204M0N-CC2	positive geometry R1,1 K-land			●	●	●				
RCLT1204M0N-CP	non-ferrous geometry R0,9		●							
RCLT1204M0TN-PH2	positive geometry, K-land			●	●	●		●		

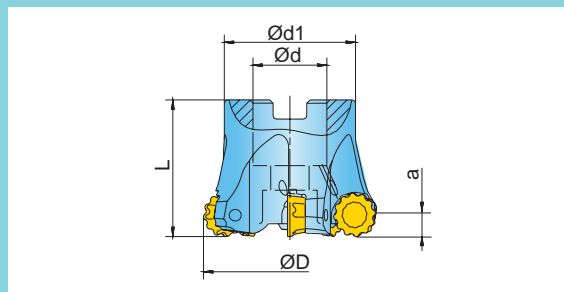
● = P   ● = M   ● = K   ● = N   ● = S   ○ = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM40-090-00 	DS-T15S 		



ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
 Articolo / Referencia

D d d1 L a Z

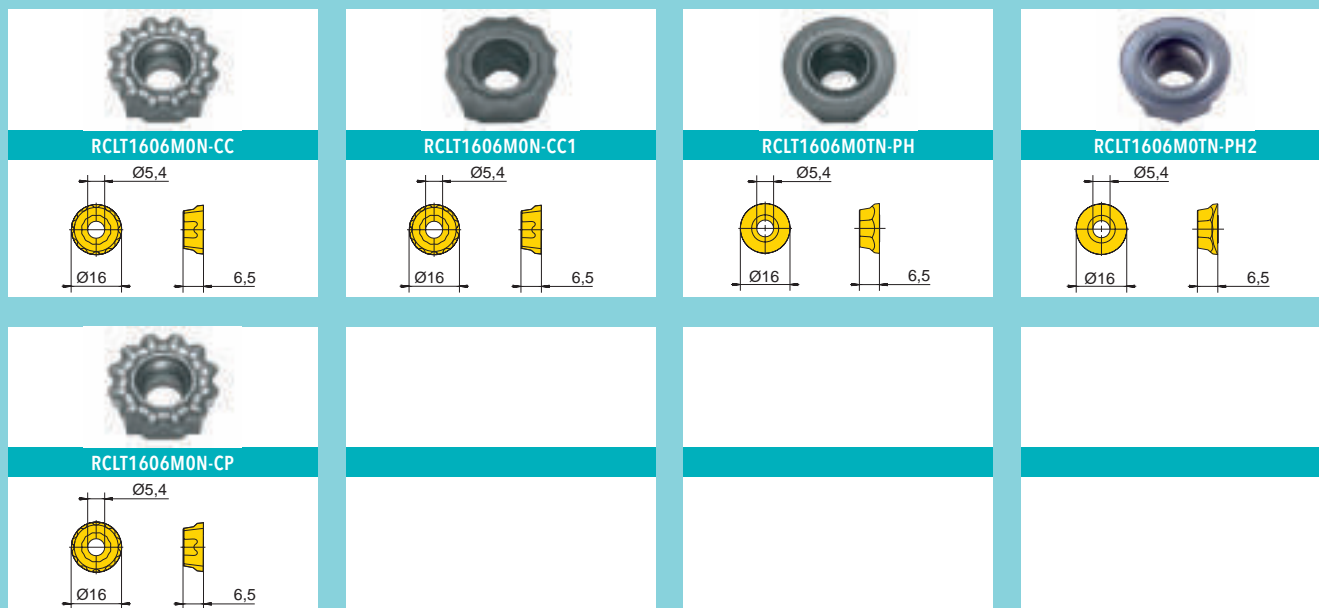


Designation / Réf. de l'article Articolo / Referencia	D	d	d1	L	a	Z		IK	kg
PR.050.002	50	22	40	50	8	4	9,5°	✓	0,36
PR.052.007	52	22	40	50	8	4	9°	✓	0,36
PR.063.002	63	27	48	50	8	5	6,5°	✓	0,56
PR.066.007	66	27	48	50	8	5	6°	✓	0,56
PR.080.007	80	27	60	50	8	6	4,5°	✓	1,00
PR.100.005	100	32	70	55	8	7	3°		1,38
PR.125.005	125	40	90	55	8	8	2,5°		2,44
PR.160.004	160	40	120	55	8	9	2°		4,67

PR16D10CC

MOULDMAKER PRO



## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



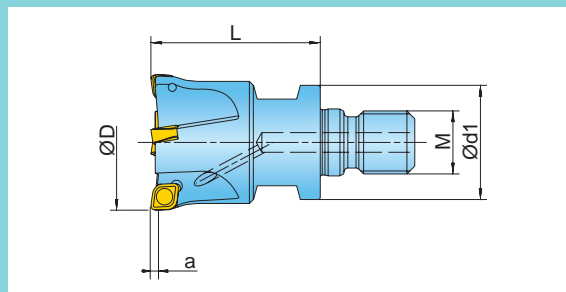
Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2005	IN2015	IN2030	IN2040			
RCLT1606MON-CC	positive steel geometry R1,2			●	●	●				
RCLT1606MON-CC1	positive steel geometry R1,6			●	●	●				
RCLT1606MOTN-PH	positive steel geometry			●	●	●				
RCLT1606MOTN-PH2	positive geometry, neg. K-land			●	●		●			
RCLT1606MON-CP	positive non-ferrous geometry		●							

● = P   ● = M   ● = K   ● = N   ● = S   ● = H

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM50-120-10 	DS-T20S 		

SCREW-TYPE ADAPTION / ATTACHEMENT FILETÉ  
 ATTACCO FILETTATO / ADAPTACIÓN MEDIANTE ROSCA



Designation / Réf. de l'article Articolo / Referencia	D	d1	L	a	M	Z			
KC.016.001	16	13	23	1	8	2	5°	✓	0,02
KC.020.001	20	18	30	1	10	3	4°	✓	0,05
KC.025.001	25	21	35	1	12	3	2°	✓	0,10
KC.035.001	35	29	43	1	16	4	1,5°	✓	0,21
KC.042.001	42	29	43	1	16	5	1°	✓	0,23

INSERTS / PLAQUETTES DE COUPE  
 INSERTI / PLAQUITA

CNHU060310N	CNHU060315N		

Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2005	IN2006				
CNHU060310N <sup>1)</sup>	positive geometry R1,0								
CNHU060315N <sup>1)</sup>	positive geometry R1,5								

<sup>1)</sup> upon request in IN3005 (diamond coating) / revêtement diamant IN3005 sur demande / rivestiment diamante IN3005 su richiesta / revestimiento de diamante IN3005 a petición ● = P ● = M ● = K ● = N ● = S ● = H

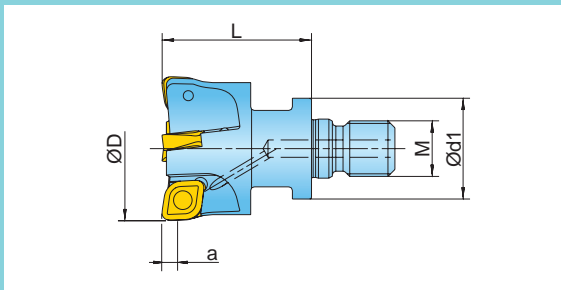
SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIO

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM25-075-20	DS-T08S		

KC06E01

MBULDMAKER-V

SCREW-TYPE ADAPTION / ATTACHEMENT FILETÉ  
ATTACCO FILETTATO / ADAPTACIÓN MEDIANTE ROSCA



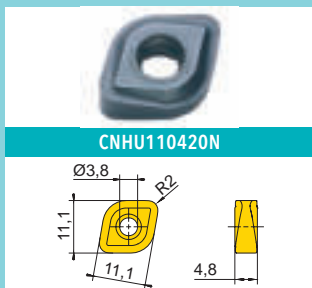
Designation / Réf. de l'article  
Articolo / Referencia

D d1 L a M Z



Designation / Réf. de l'article Articolo / Referencia	D	d1	L	a	M	Z		IK	kg
KC.025.002	25	21	35	2	12	2	3°	✓	0,10
KC.035.002	35	29	43	2	16	3	2°	✓	0,21
KC.042.002	42	29	43	2	16	4	1,5°	✓	0,23

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



CNHU110420N

Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2005	IN2006				
CNHU110420N	positive geometry R2,0								

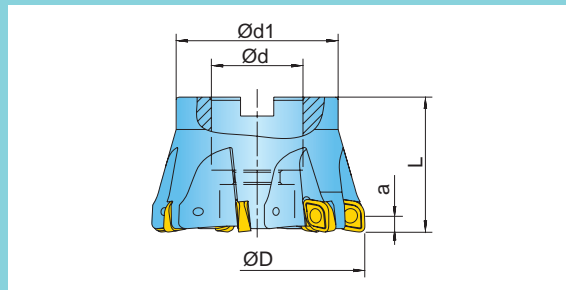
● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM35-088-10	DS-T10S		



ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
 Articolo / Referencia

D d d1 L a Z



Designation / Réf. de l'article Articolo / Referencia	D	d	d1	L	a	Z			
KC.052.001	52	22	40	50	2	5	1°	✓	0,32
KC.066.001	66	27	48	50	2	6	0,8°	✓	0,56
KC.080.001	80	27	60	50	2	7	0,6°	✓	0,58
KC.100.001	100	32	70	55	2	8	0,5°	✓	1,38

MBULDMAKER V KC11D10

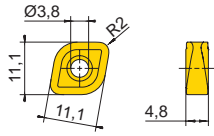




INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



CNHU110420N




Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2005	IN2006				
--	--	--------------------------	-------	--------	--------	--	--	--	--

CNHU110420N	positive geometry R2,0								

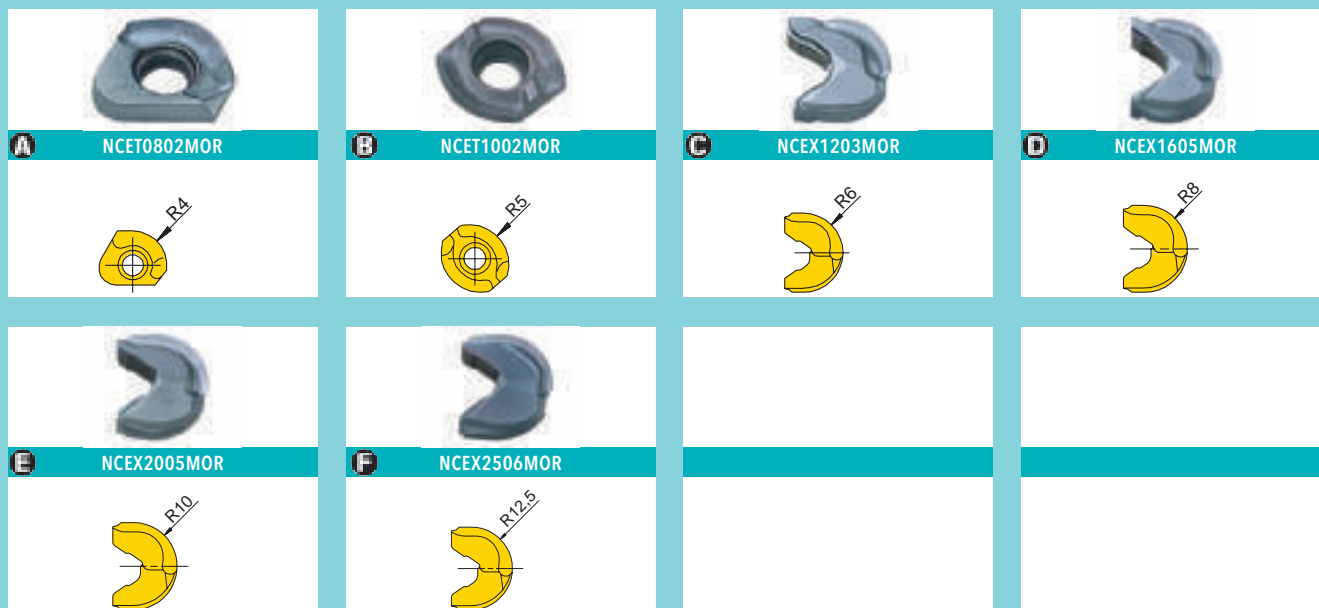
● = P   ● = M   ● = K   ● = N   ● = S   ● = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIO

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM35-088-10	DS-T10S		



## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN1030							
NCET0802MOR	positive geometry R4									
NCET1002MOR	positive geometry R5									
NCEX1203MOR	positive geometry R6									
NCEX1605MOR	positive geometry R8									
NCEX2005MOR	positive geometry R10									
NCEX2506MOR	positive geometry R12,5									

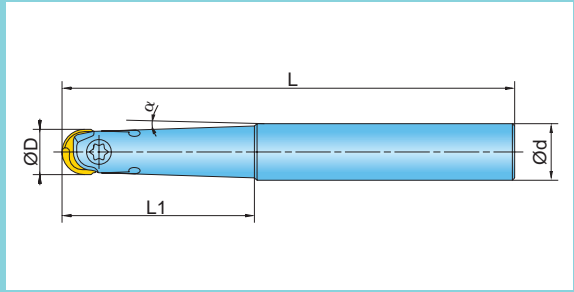
● = P ● = M ● = K ● = N ● = S ○ = H

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Diameter Range / Diamètres Campo diametri / Rango de diámetros	Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador	Ring / Bague Anello / Anillo
8 10 12	SM22-046-00 SM25-055-10 SF050-01	DS-T07S DS-T08S DS-T15T	--- --- RR03-01
16 20 25	SF060-01 SF080-01 SF080-02	DS-T20T DS-T25T DS-T25T	RR03-02 RR04-01 RR04-01



ADAPTION ACC. TO DIN 1835 A / ATTACHEMENT DIN 1835 A  
 ATTACCO DIN 1835 A / ADAPTACIÓN SEGÚN DIN 1835 A



Designation / Réf. de l'article Artículo / Referencia	D	d	L	L1	$\alpha$	a	Z	Zeff	kg	Related Insert
KR.008.002	8	12	120	45	3°	4	1	1	0,09	A
KR.010.002	10	16	150	50	3°	5	1	1	0,20	B
KR.012.002	12	16	160	60	2°	6	1	2	0,22	C
KR.016.002	16	20	160	65	2°	8	1	2	0,33	D
KR.020.002	20	25	200	85	1,8°	10	1	2	0,64	E
KR.025.002	25	32	250	125	1,7°	12,5	1	2	1,27	F

Conical type / Execution conique / Tipo conico / Tipo cónica

Blank area for notes or additional specifications, consisting of multiple horizontal lines.

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN1030							
NCET0802MOR	positive geometry R4									
NCET1002MOR	positive geometry R5									
NCEX1203MOR	positive geometry R6									
NCEX1605MOR	positive geometry R8									
NCEX2005MOR	positive geometry R10									
NCEX2506MOR	positive geometry R12,5									

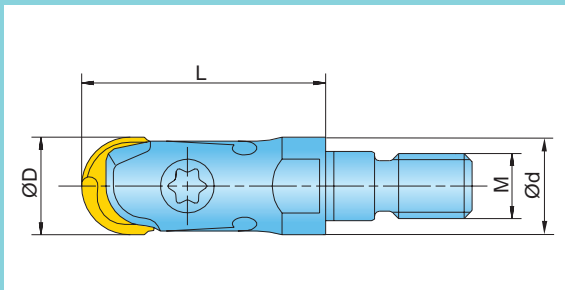
● = P ● = M ● = K ● = N ● = S ○ = H

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Diameter Range / Diamètres Campo diametri / Rango de diámetros	Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador	Ring / Bague Anello / Anillo
8 10 12	SM22-046-00 SM25-055-10 SF050-01	DS-T07S DS-T08S DS-T15T	--- --- RR03-01
16 20 25	SF060-01 SF080-01 SF080-02	DS-T20T DS-T25T DS-T25T	RR03-02 RR04-01 RR04-01



SCREW-TYPE ADAPTION / ATTACHEMENT FILETÉ  
 ATTACCO FILETTATO / ADAPTACIÓN MEDIANTE ROSCA



Designation / Réf. de l'article  
 Articolo / Referencia

D d1 L a M Z Zeff



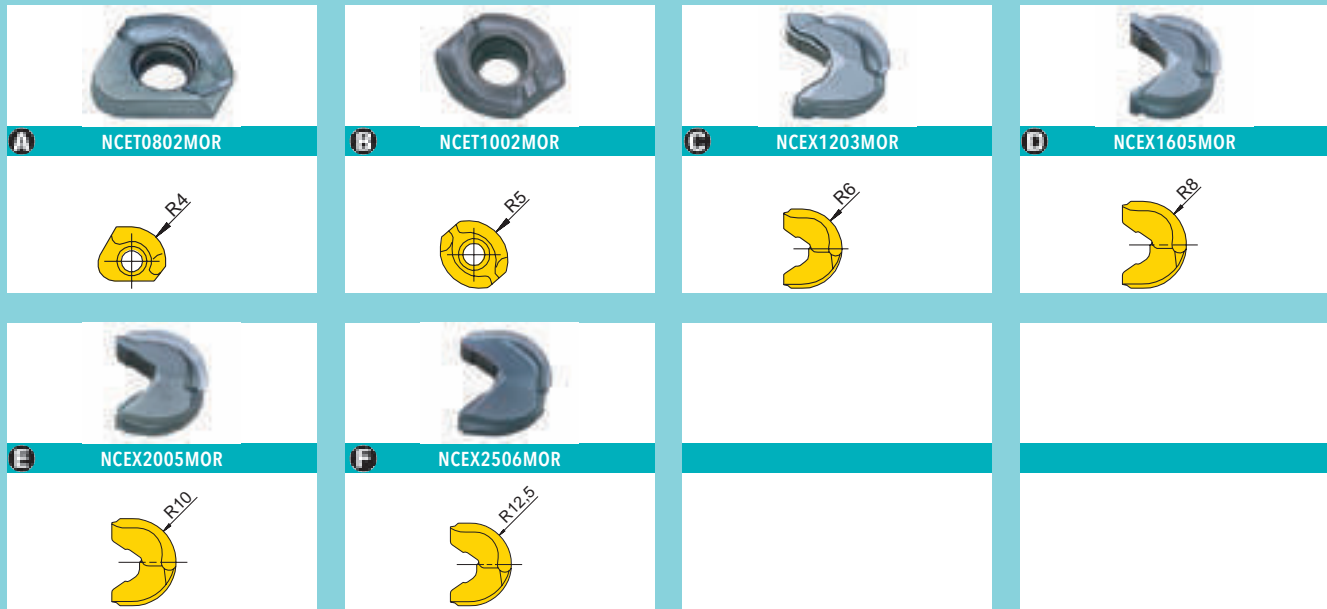
Related Insert

KR.008.003	8	9,5	23	4	6	1	1	0,01	<b>A</b>
KR.010.003	10	13	30	5	8	1	1	0,02	<b>B</b>
KR.012.003	12	13	30	6	8	1	2	0,02	<b>C</b>
KR.016.003	16	13	32,5	8	8	1	2	0,03	<b>D</b>
KR.020.003	20	18	40	10	10	1	2	0,06	<b>E</b>
KR.025.003	25	21	60	12,5	12	1	2	0,15	<b>F</b>

KWE01

SPEEDBALL PLUS

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN1030							
NCET0802MOR	positive geometry R4									
NCET1002MOR	positive geometry R5									
NCEX1203MOR	positive geometry R6									
NCEX1605MOR	positive geometry R8									
NCEX2005MOR	positive geometry R10									
NCEX2506MOR	positive geometry R12,5									

● = P ● = M ● = K ● = N ● = S ○ = H

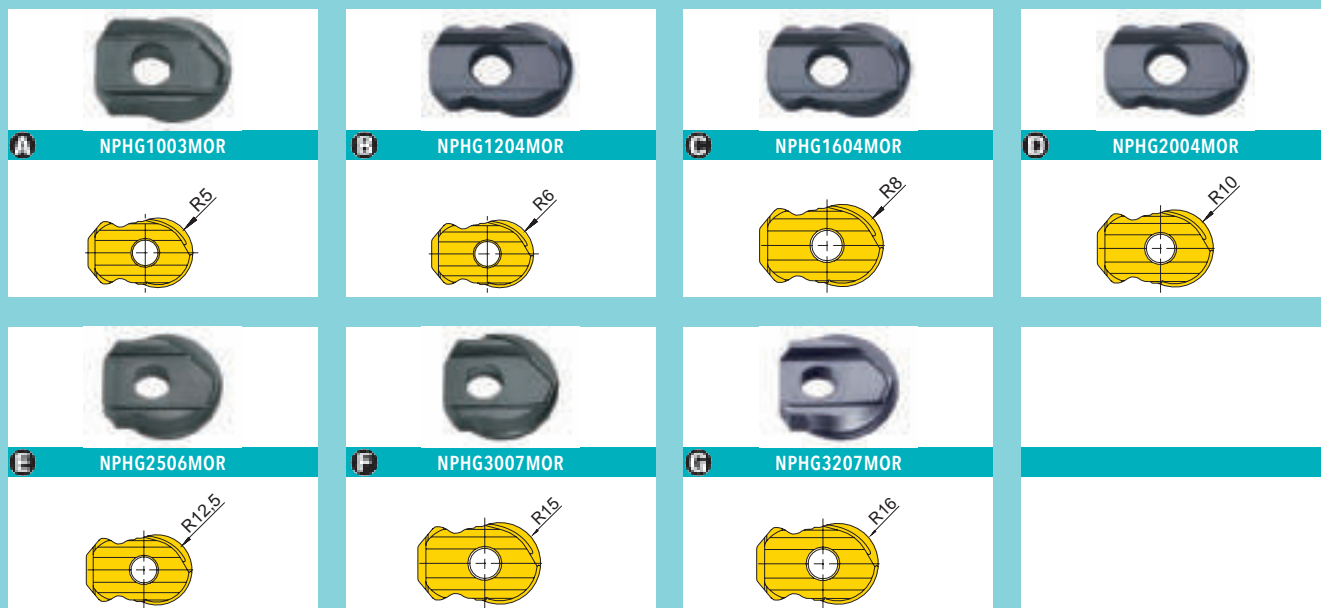
## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Diameter Range / Diamètres Campo diametri / Rango de diámetros	Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador	Ring / Bague Anello / Anillo
8 10 12	SM22-046-00 SM25-055-10 SF050-01	DS-T07S DS-T08S DS-T15T	--- --- RR03-01
16 20 25	SF060-01 SF080-01 SF080-02	DS-T20T DS-T25T DS-T25T	RR03-02 RR04-01 RR04-01









## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



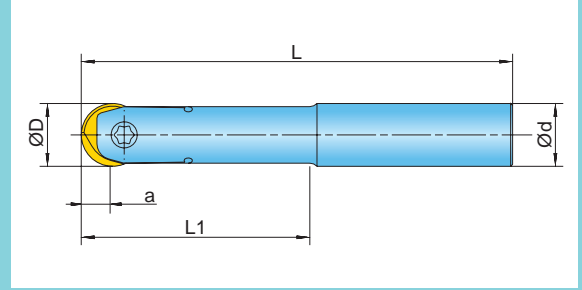
Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2005	IN2006	IN2030				
NPHG1003MOR	positive geometry R5	●	●	●	●					
NPHG1204MOR	positive geometry R6	●	●	●	●					
NPHG1604MOR	positive geometry R8	●	●	●	●					
NPHG2004MOR	positive geometry R10	●	●	●	●					
NPHG2506MOR	positive geometry R12,5	●	●	●	●					
NPHG3007MOR	positive geometry R15	●	●	●	●					
NPHG3207MOR	neutral geometry R16	●	●	●						

● = P ● = M ● = K ● = N ● = S ○ = H

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

<b>Diameter Range / Diamètres</b> <b>Campo diametri / Rango de diámetros</b> 10 12 16	<b>Insert screw / Vis de serrage</b> <b>Vite per inserto / Tornillo plaquita</b> SM30-082-B0 SM40-106-B0 SM50-138-B0 	<b>Screw driver / Tournevis</b> <b>Cacciavite / Destornillador</b> DS-T10S DS-T15S WS-0060 	
<b>Diameter Range / Diamètres</b> <b>Campo diametri / Rango de diámetros</b> 20 25 30 - 32	<b>Insert screw / Vis de serrage</b> <b>Vite per inserto / Tornillo plaquita</b> SM60-165-B0 SM70-210-B0 SM80-250-B0 	<b>Wrench / Clé de serrage</b> <b>Cacciavite / Llave tensora</b> WS-0060 WS-0062 WS-0062 	

ADAPTION ACC. TO DIN 1835 A / ATTACHEMENT DIN 1835 A  
 ATTACCO DIN 1835 A / ADAPTACIÓN SEGÚN DIN 1835 A

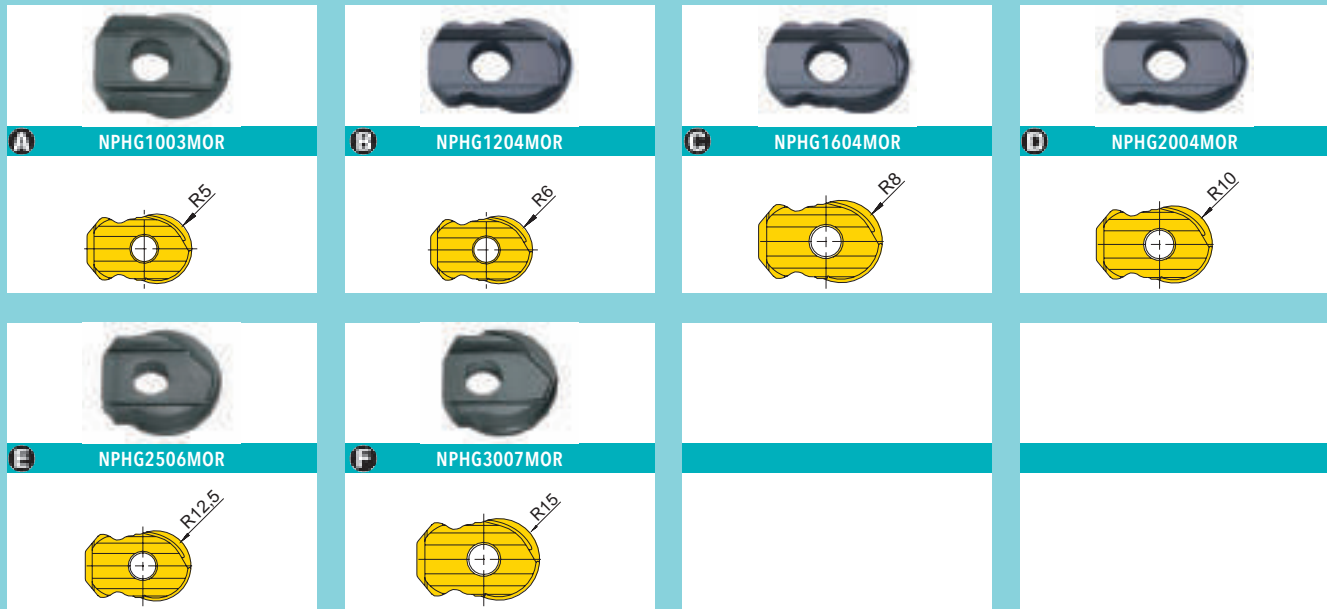


Designation / Réf. de l'article  
 Artículo / Referencia

Designation / Réf. de l'article Artículo / Referencia	D	d	L	L1	a	Z	Zeff	Related Insert
KN.010.005	10	10	100	25	5	1	2	A
KN.010.006	10	10	140	50	5	1	2	A
KN.012.010	12	12	120	35	6	1	2	B
KN.012.011	12	12	160	60	6	1	2	B
KN.016.014	16	16	160	45	8	1	2	C
KN.016.008	16	16	220	70	8	1	2	C
KN.020.008	20	20	220	55	10	1	2	D
KN.020.009	20	20	280	80	10	1	2	D
KN.025.006	25	25	250	65	12,5	1	2	E
KN.025.007	25	25	300	200	12,5	1	2	E
KN.030.006	30	32	250	100	15	1	2	F
KN.030.007	30	32	350	230	15	1	2	F

Solid Carbide Shank / Queue en carbure monobloc / Metallo duro gambo / Vástago de carburo sólido





## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2005	IN2006	IN2030				
NPHG1003MOR	positive geometry R5	●	●	●	●					
NPHG1204MOR	positive geometry R6	●	●	●	●					
NPHG1604MOR	positive geometry R8	●	●	●	●					
NPHG2004MOR	positive geometry R10	●	●	●	●					
NPHG2506MOR	positive geometry R12,5	●	●	●	●					
NPHG3007MOR	positive geometry R15	●	●	●	●					

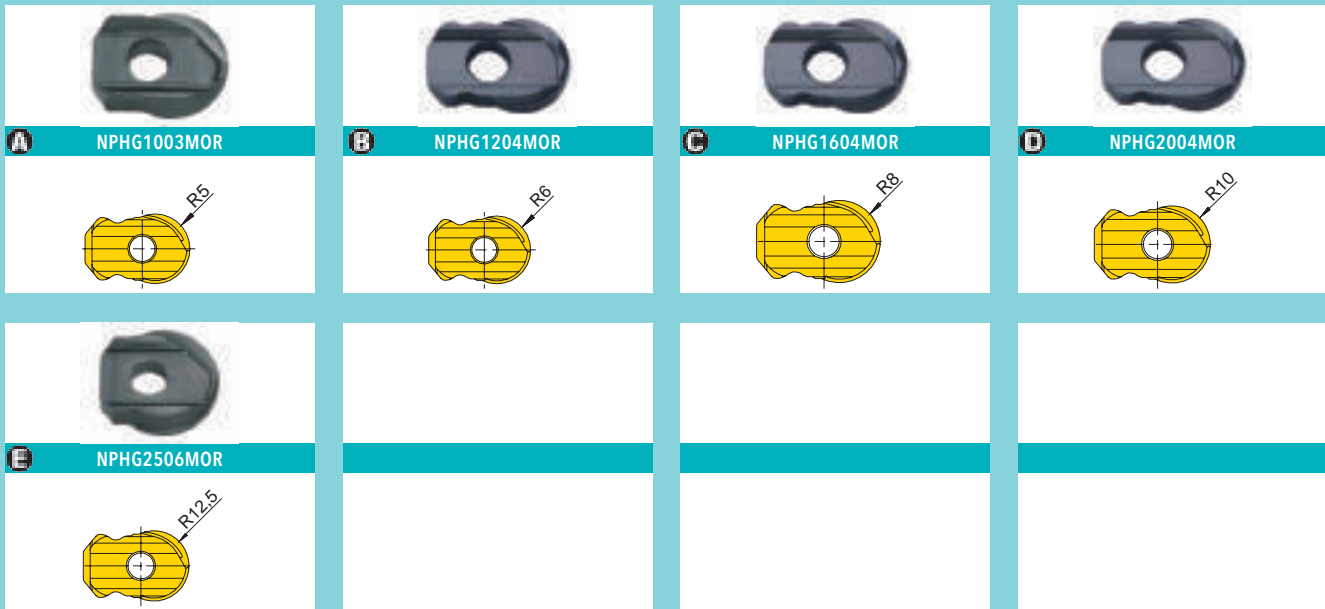
● = P ● = M ● = K ● = N ● = S ○ = H

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Diameter Range / Diamètres Campo diametri / Rango de diámetros	Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador
10 12 16	SM30-082-B0 SM40-106-B0 SM50-138-B0 	DS-T155 DS-T155 WS-0060 
20 25 30	SM60-165-B0 SM70-210-B0 SM80-250-B0 	WS-0060 WS-0062 WS-0062 







## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2005	IN2006	IN2030				
NPHG1003MOR	positive geometry R5	●	●	●	●					
NPHG1204MOR	positive geometry R6	●	●	●	●					
NPHG1604MOR	positive geometry R8	●	●	●	●					
NPHG2004MOR	positive geometry R10	●	●	●	●					
NPHG2506MOR	positive geometry R12,5	●	●	●	●					

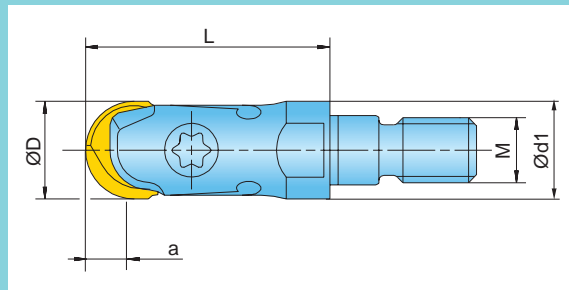
● = P ● = M ● = K ● = N ● = S ○ = H

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Diameter Range / Diamètres Campo diâmetri / Rango de diâmetros	Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador
10 12 16	SM30-082-B0 SM40-106-B0 SM50-138-B0 	DS-T10S DS-T15S WS-0060 
20 25	SM60-165-B0 SM70-210-B0 	WS-0060 WS-0062 



SCREW-TYPE ADAPTION / ATTACHEMENT FILETÉ  
 ATTACCO FILETTATO / ADAPTACIÓN MEDIANTE ROSCA



Designation / Réf. de l'article  
 Articolo / Referencia

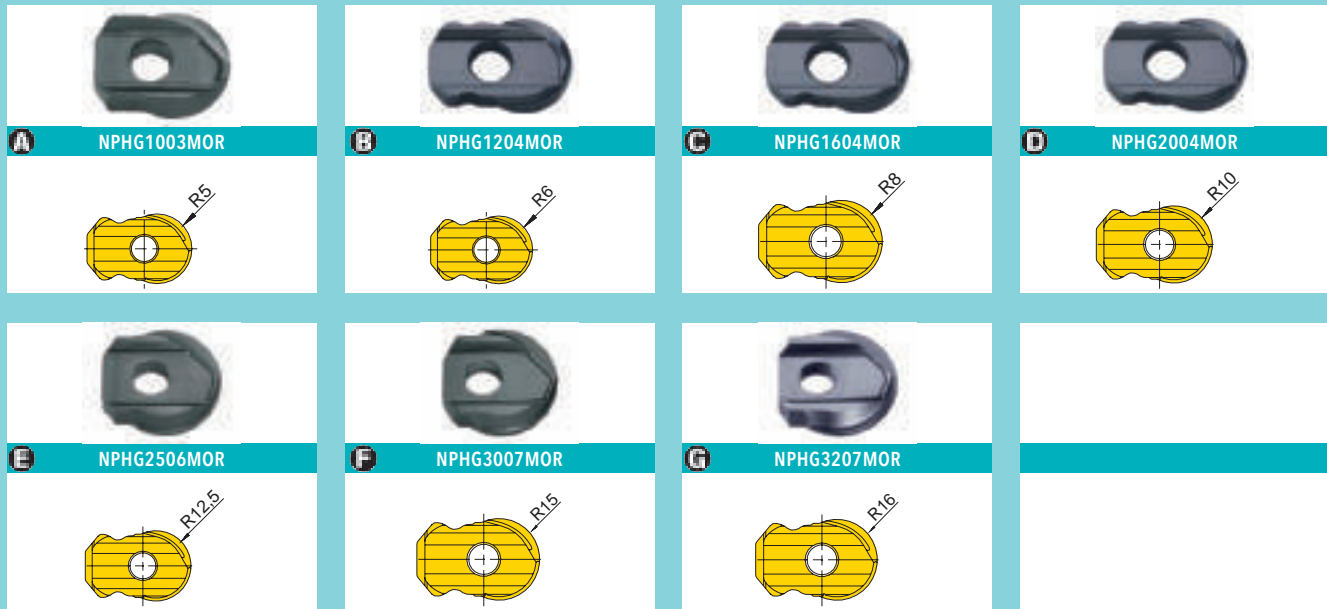
D d1 L a M Z Zeff



Related Insert

Designation / Réf. de l'article Articolo / Referencia	D	d1	L	a	M	Z	Zeff	kg	Related Insert
KN.010.004	10	9,6	23	5	6	1	2	0,01	
KN.012.008	12	11,8	30	6	6	1	2	0,02	
KN.012.009	12	13	30	6	8	1	2	0,02	
KN.016.007	16	15,5	35	8	8	1	2	0,03	
KN.020.007	20	19,5	43	10	10	1	2	0,06	
KN.025.005	25	22,6	48	12,5	12	1	2	0,15	
KN.030.005	30	29	55	15	16	1	2	0,25	
KN.032.002	32	31,5	55	16	16	1	2	0,27	





## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



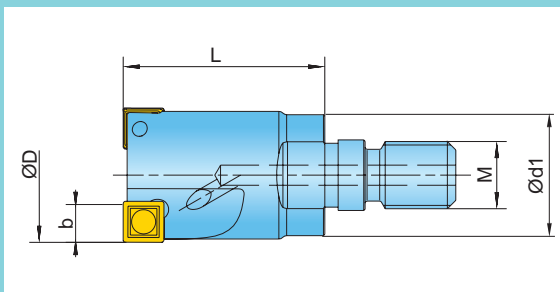
Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2005	IN2006	IN2030				
NPHG1003MOR	positive geometry R5	●	●	●	●					
NPHG1204MOR	positive geometry R6	●	●	●	●					
NPHG1604MOR	positive geometry R8	●	●	●	●					
NPHG2004MOR	positive geometry R10	●	●	●	●					
NPHG2506MOR	positive geometry R12,5	●	●	●	●					
NPHG3007MOR	positive geometry R15	●	●	●	●					
NPHG3207MOR	neutral geometry R16	●	●	●						

● = P ● = M ● = K ● = N ● = S ○ = H

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

<b>Diameter Range / Diamètres</b> <b>Campo diametri / Rango de diámetros</b> 10 12 16	<b>Insert screw / Vis de serrage</b> <b>Vite per inserto / Tornillo plaquita</b> SM30-082-B0 SM40-100-B0 SM50-138-B0 	<b>Screw driver / Tournevis</b> <b>Cacciavite / Destornillador</b> DS-T10S DS-T15S WS-0060 	
<b>Diameter Range / Diamètres</b> <b>Campo diametri / Rango de diámetros</b> 20 25 30 - 32	<b>Insert screw / Vis de serrage</b> <b>Vite per inserto / Tornillo plaquita</b> SM60-165-B0 SM70-210-B0 SM80-250-B0 	<b>Wrench / Clé de serrage</b> <b>Cacciavite / Llave tensora</b> WS-0060 WS-0062 WS-0062 	

SCREW-TYPE ADAPTION / ATTACHEMENT FILETÉ  
 ATTACCO FILETTATO / ADAPTACIÓN MEDIANTE ROSCA



Designation / Réf. de l'article / Artículo / Referencia    D    d1    L    b    M    Z       Related Insert

Designation / Réf. de l'article / Artículo / Referencia	D	d1	L	b	M	Z			Related Insert
BS.016.013	16	13	23	5	8	2	✓	0,02	
BS.020.015	20	18	30	7	10	2	✓	0,05	
BS.025.017	25	21	35	8	12	2	✓	0,11	
BS.032.013	32	29	43	8	16	3	✓	0,21	
BS.042.011	42	29	43	8	16	4	✓	0,23	

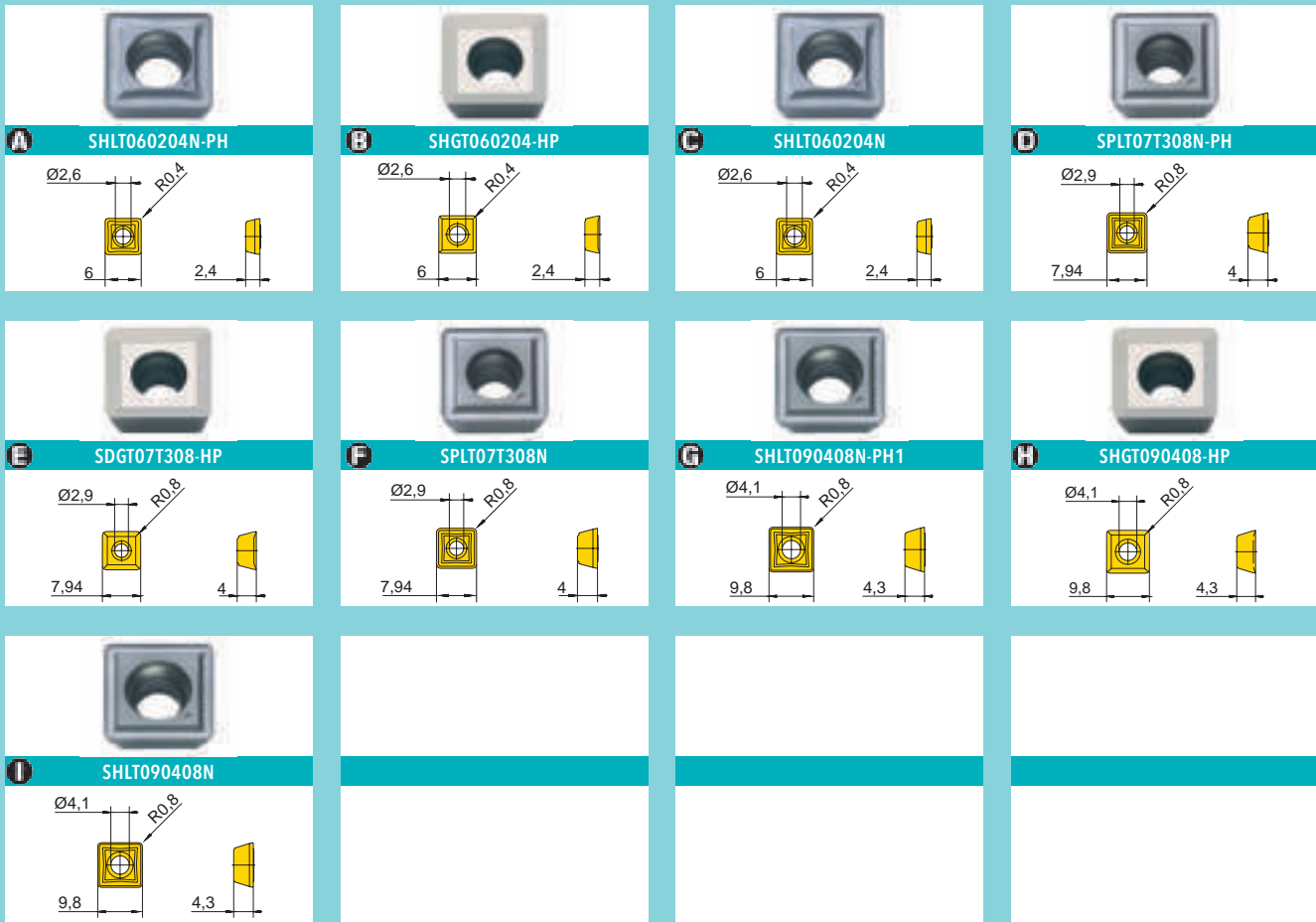
PLUNGE MASTER BSE01C 90°

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Diameter Range / Diamètres Campo diometri / Rango de diámetros	Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador
16 20 25 - 42	SM22-052-00 SM25-064-00 SM35-088-60 	DS-T07S DS-T08S DS-T10S 



## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA

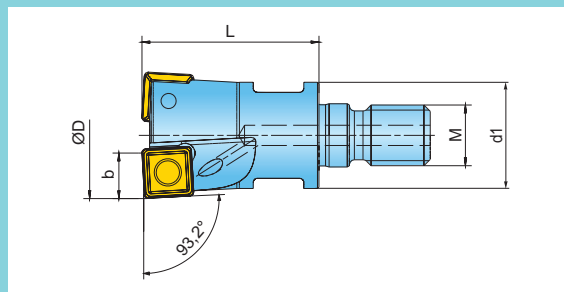


Designation / Réf. de l'article Artículo / Referencia	Insert Version / Execution Tipología Inserto / Tipo de Plaquita	Grade Nuance Grado	Material				Application			
			IN10K	IN1030	IN2005	IN2010				
SHLT060204N-PH	positive geometry R0,4			●	●					
SHGT060204-HP	non-ferrous geometry, polished R0,4	●								
SHLT060204N	cast iron geometry R0,4					●				
SPLT07T308N-PH	positive geometry R0,8			●	●					
SDGT07T308-HP	non-ferrous geometry, polished R0,8	●								
SPLT07T308N	cast iron geometry R0,8						●			
SHLT090408N-PH1	positive geometry R0,8			●	●					
SHGT090408-HP	non-ferrous geometry, polished R0,8	●								
SHLT090408N	cast iron geometry R0,8						●			

● = P ● = M ● = K ● = N ● = S ○ = H



SCREW-TYPE ADAPTION / ATTACHEMENT FILETÉ  
 ATTACCO FILETTATO / ADAPTACIÓN MEDIANTE ROSCA



Designation / Réf. de l'article Articolo / Referencia	D	d1	L	b	M	Z			Related Insert
--	---	----	---	---	---	---	--	--	----------------

BS.016.012	16	13	23	5	8	2	✓	0,02	
BS.020.014	20	18	30	7	10	2	✓	0,05	
BS.025.016	25	21	35	8	12	2	✓	0,11	
BS.032.012	32	29	43	8	16	3	✓	0,21	
BS.042.010	42	29	43	8	16	4	✓	0,23	

Backdraft 93,2° / Dépouillée de 93,2° / Backdraft 93,2° / Destalonado 93,2°

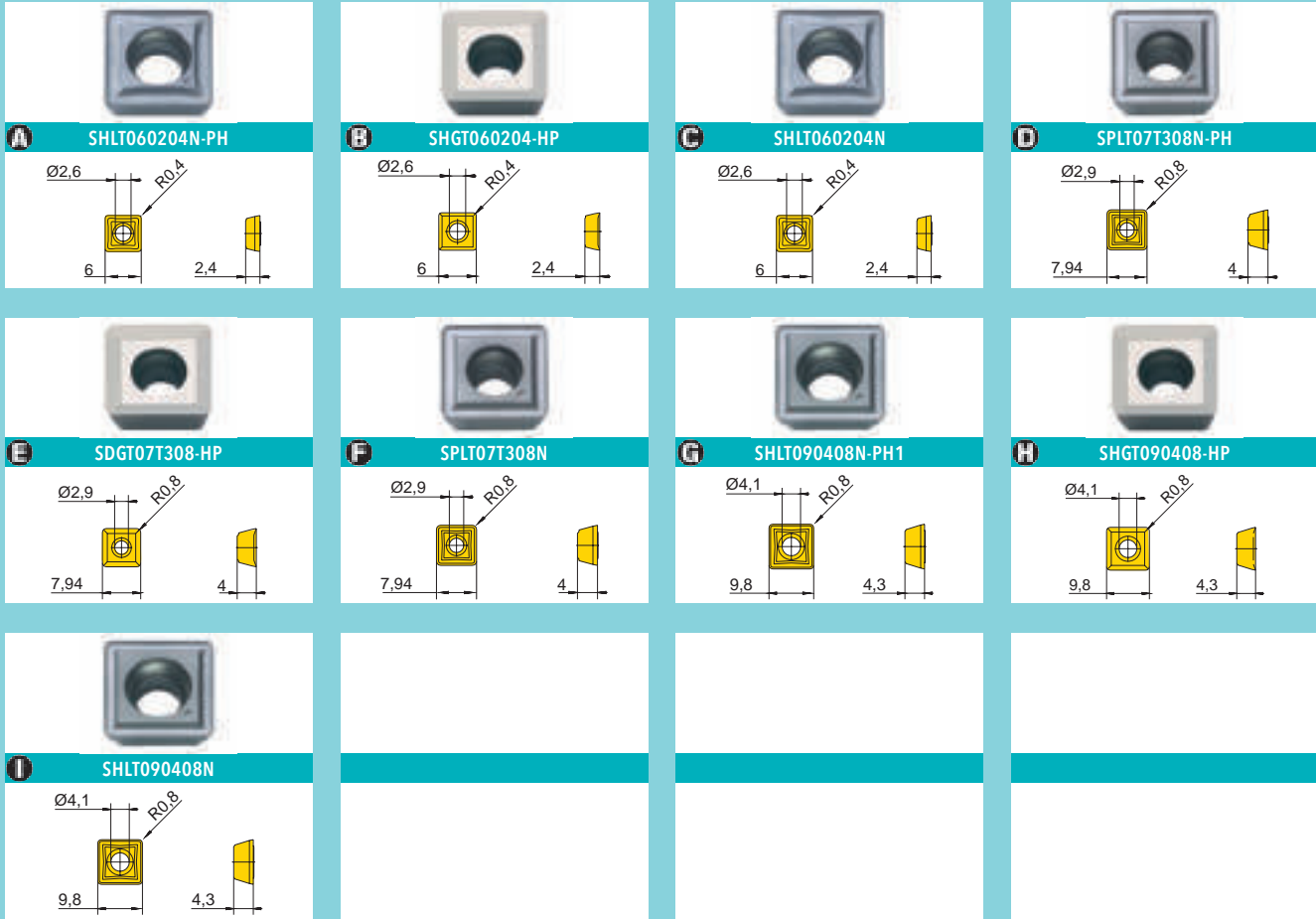


SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Diameter Range / Diamètres Campo diametri / Rango de diámetros	Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador
16 20 25 - 42	SM22-052-00 SM25-064-00 SM35-088-60 	DS-T07S DS-T08S DS-T10S 

PLUNGE MASTER BSE01B 93,2°

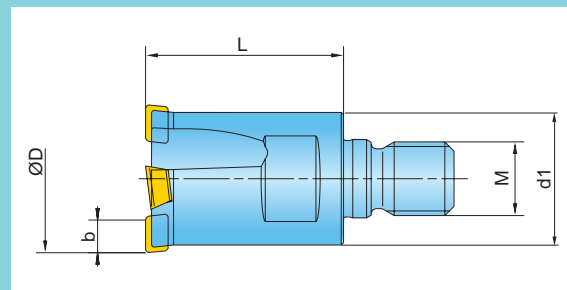
INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN1030	IN2005	IN2010				
SHLT060204N-PH	positive geometry R0,4			●	●					
SHGT060204-HP	non-ferrous geometry, polished R0,4	●								
SHLT060204N	cast iron geometry R0,4					●				
SPLT07T308N-PH	positive geometry R0,8			●	●					
SDGT07T308-HP	non-ferrous geometry, polished R0,8	●								
SPLT07T308N	cast iron geometry R0,8					●				
SHLT090408N-PH1	positive geometry R0,8			●	●					
SHGT090408-HP	non-ferrous geometry, polished R0,8	●								
SHLT090408N	cast iron geometry R0,8					●				

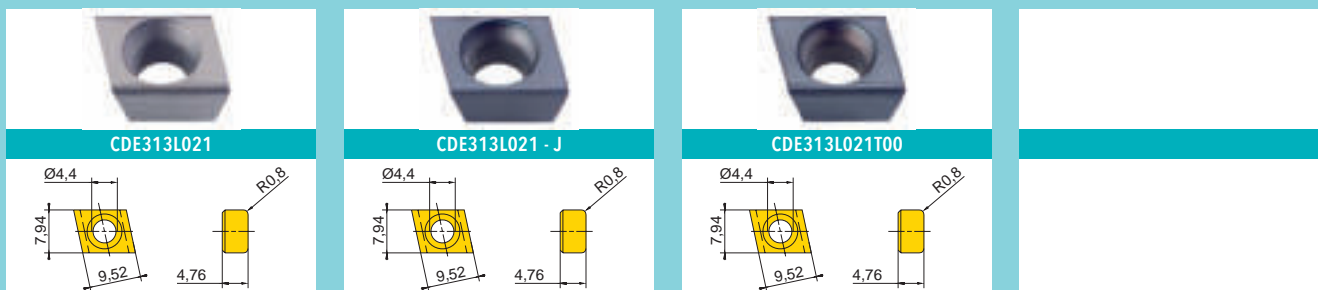
● = P ● = M ● = K ● = N ● = S ○ = H

SCREW-TYPE ADAPTION / ATTACHEMENT FILETÉ  
 ATTACCO FILETTATO / ADAPTACIÓN MEDIANTE ROSCA



Designation / Réf. de l'article Articolo / Referencia	D	d1	L	b	M	Z		kg
BC.025.001	25	21,0	35	7	12	2		0,10
BC.025.002	25	21,0	35	7	12	2	✓	0,10
BC.030.001	30	29,4	43	7	16	3		0,20
BC.032.001	32	28,8	43	7	16	3		0,20
BC.032.002	32	28,8	43	7	16	3	✓	0,20
BC.040.001	40	29,4	43	7	16	4		0,30
BC.042.001	42	29,0	43	7	16	4		0,30
BC.042.002	42	29,0	43	7	16	4	✓	0,30



INSERTS / PLAQUETTES DE COUPE  
 INSERTI / PLAQUITA



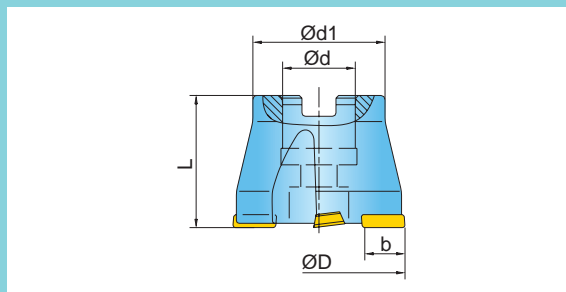
Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN05S	IN2005	IN2015				
CDE313L021	positive geometry R0,8		●						
CDE313L021 - J	positive steel geometry R0,8			●					
CDE313L021T00	positive geometry R0,8			●					

● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM40-090-00 	DS-T15S 		

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
Articolo / Referencia

D d d1 L b z

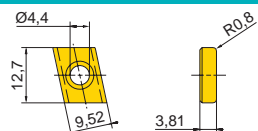


BC.050.001	50	22	40	40	10	5		0,42
BC.052.001	52	22	40	40	10	5		0,44
BC.052.002	52	22	40	40	10	5	✓	0,44

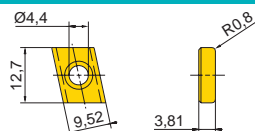
INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



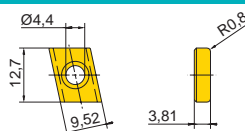
CDE322L005



CDE322L005 - J



CDE322L005T00



Designation / Réf. de l'article  
Articolo / Referencia

Insert Version / Execution  
Tipologia Inserto / Tipo de Plaquita

Grade  
Nuance  
Grado

IN05S

IN2005

IN2015

CDE322L005

positive geometry R0,8



CDE322L005 - J

positive steel geometry R0,8



CDE322L005T00

positive geometry R0,8



● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Insert screw / Vis de serrage  
Vite per inserto / Tornillo plaquita

SM40-090-00



Screw driver / Tournevis  
Cacciavite / Destornillador

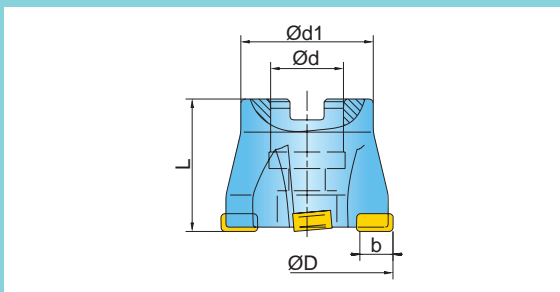
DS-T15S



BCD10A

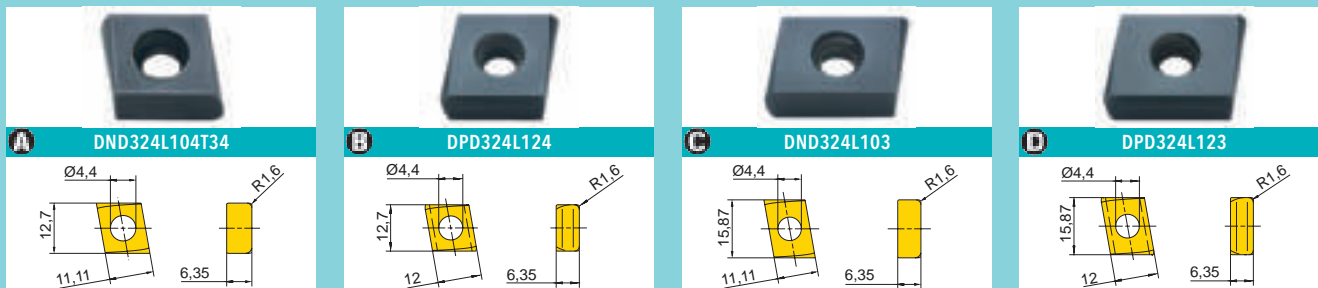
PLUNGE MASTER

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article Articolo / Referencia	D	d	d1	L	b	Z	IK	kg	Related Insert
BD.052.001	52	22	40	40	11	4		0,30	Ⓐ Ⓑ
BD.052.002	52	22	40	40	11	4	✓	0,30	Ⓐ Ⓑ
BD.066.003	66	27	48	50	14	5		0,60	Ⓒ Ⓓ
BD.066.004	66	27	48	50	14	5	✓	0,60	Ⓒ Ⓓ
BD.080.003	80	27	60	50	14	6		1,00	Ⓒ Ⓓ
BD.080.004	80	27	60	50	14	6	✓	1,00	Ⓒ Ⓓ
BD.100.003	100	32	70	50	14	7		1,50	Ⓖ Ⓗ
BD.100.004	100	32	70	50	14	7	✓	1,50	Ⓖ Ⓗ

INSERTS / PLAQUETTES DE COUPE  
 INSERTI / PLAQUITA



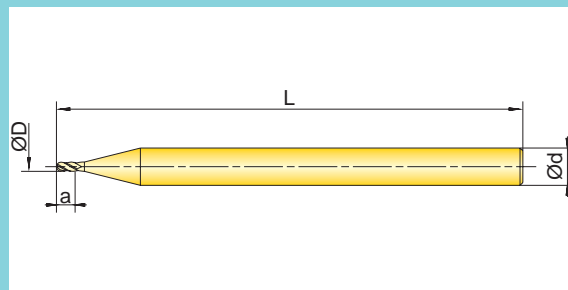
Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN2015	IN2040					
DND324L104T34 - J	neutral geometry R1,6			●					
DPD324L124 - A	positive steel geometry R1,6		●						
DND324L103 - J	neutral geometry R1,6			●					
DPD324L123 - A	positive steel geometry R1,6		●						

● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador		
SM40-110-00	DS-T155		

ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado

IN2005

P M K N<sub>(K)</sub> S<sub>(M)</sub> H<sub>(PK)</sub>

+ + + + + ○



h8



h6



30°



≤44 HRC



+ preferred choice / préconisé / molto adatto / muy adecuada ○ second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article  
Articolo / Referencia

D d L a Z

45B00401T9RB380	0,4	3	38	0,8	2
45B00501T9RB380	0,5	3	38	1	2
45B00601T9RB380	0,6	3	38	1,2	2
45B00701T9RB380	0,7	3	38	1,4	2
45B00802T9RB380	0,8	3	38	1,6	2
45B01003U0RB500	1	4	50	2,5	2
45B01103U0RB500	1,1	4	50	2,5	2
45B01203U0RB500	1,2	4	50	3	2
45B01604U0RB500	1,6	4	50	4	2
45B02006U0RB500	2	4	50	6	2

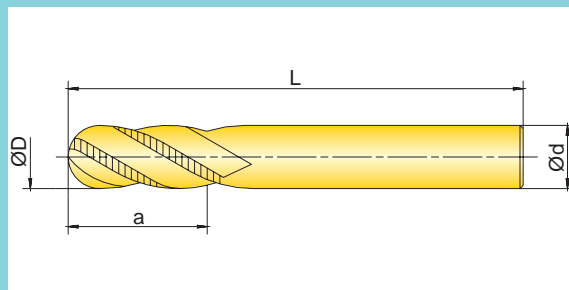
2 Flute Miniature Ball Nose 30° Helix - Medium Length / mini fraise hémisphérique /

Fresa sferiche 2 taglienti, Mini, 30°, Media / 2 Labios, Mini-Fresa esférica 30° Helice Longitud Media

SOLID CARBIDE 2 FLUTE MINIATURE BALL NOSE - MEDIUM LENGTH

SOLID CARBIDE

ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
 ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado
IN2006

P	M	K	N <sub>(K)</sub>	S <sub>(M)</sub>	H <sub>(PK)</sub>
+	+	+		+	○

	h10
	h6



+ preferred choice / préconisé / molto adatto / muy adecuada    ○ second choice / solution alternative / paco adatto / no muy adecuada

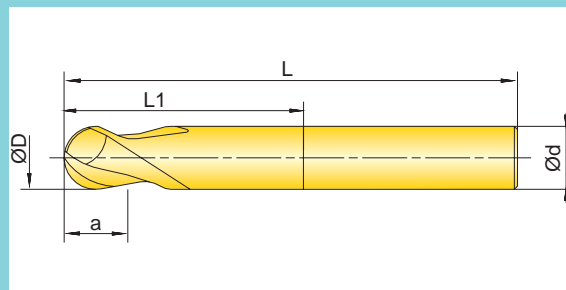
Designation / Réf. de l'article  
 Artículo / Referencia

	D	d	L	a	Z
46B06016T7RA570	6	6	57	16	3
46B08016TORA630	8	8	63	16	3
47B10022T1RA720	10	10	72	22	4
47B12026T2RA830	12	12	83	26	4
47B14026U8RA830	14	14	83	26	4
47B16032T3RA920	16	16	92	32	4
47B18032U2RA920	18	18	92	32	4
47B20038T4RA100	20	20	104	38	4

3-4 Flute Ball Nose 30° Helix - Rougher / fraise hémisphérique ébauche / Frese sferiche 3-4 taglienti, 30°, a sgrossare / 3-4 Labios bola 30° Hélice Desbaste



ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado

IN2005

P M K N<sub>(K)</sub> S<sub>(M)</sub> H<sub>(PK)</sub>

+ + + + O



e8



h6



+ preferred choice / préconisé / molto adatto / muy adecuada    O second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article Artículo / Referencia	D	d	L	L1	a	Z
45B02004T9RB380 <sup>1)</sup>	2	3	38	10	4	2
45B02004T7RB500 <sup>1)</sup>	2	6	50	15	4	2
45B03005T9RB380	3	3	38	-	5	2
45B03005T7RB570 <sup>1)</sup>	3	6	57	12	5	2
45B04007U0RB500	4	4	50	-	7	2
45B04008T7RB540 <sup>1)</sup>	4	6	54	16	8	2
45B04007T7RB570 <sup>1)</sup>	4	6	57	13	7	2
45B05008U1RB500	5	5	50	-	8	2
45B05009T7RB540 <sup>1)</sup>	5	6	54	17	9	2
45B05008T7RB570 <sup>1)</sup>	5	6	57	12	8	2
45B06010T7RB540	6	6	54	-	10	2
45B06008T7RB570	6	6	57	-	8	2
45B08012T0RB580	8	8	58	-	12	2
45B08011T0RB630	8	8	63	-	11	2
45B10014T1RB670	10	10	67	-	14	2
45B10013T1RB720	10	10	72	-	13	2
45B12014T2RB830	12	12	83	-	14	2
45B16016T3RB930	16	16	93	-	16	2
45B20020T4RB100	20	20	104	-	20	2

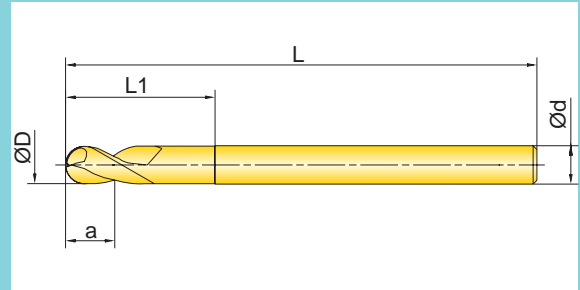
2 Flute Ball Nose 30° Helix - Short Length / fraise hémisphérique Z2 série courte / Frese sferiche 2 taglienti, 30°, Corte / 2 Labios esférica Hélice 30° serie Corta

<sup>1)</sup> Conical type / Type conique / Tipo di forma conica / Tipo cónico

2 FLUTE BALL NOSE - SHORT LENGTH

SOLID CARBIDE

ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
 ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado
IN2005

P	M	K	N <sub>(K)</sub>	S <sub>(M)</sub>	H <sub>(PK)</sub>
+	+	+		+	○

	e8
	h6



+ preferred choice / préconisé / molto adatto / muy adecuada    ○ second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article  
 Artículo / Referencia

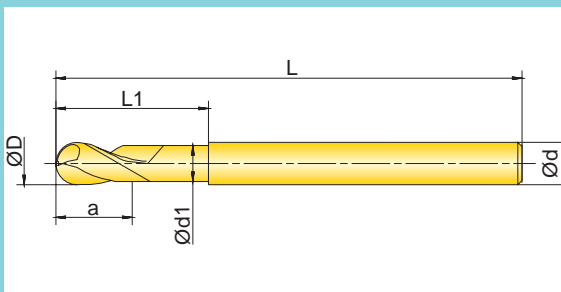
	D	d	L	L1	a	Z
45B02003T7RB800 <sup>1)</sup>	2	6	80	8	3	2
45B03004T7RB800 <sup>1)</sup>	3	6	80	12	4	2
45B04005T7RB800 <sup>1)</sup>	4	6	80	16	5	2
45B06006T7RB800	6	6	80	40	6	2
45B06006TORB100 <sup>1)</sup>	6	8	100	25	6	2
45B08007TORB100	8	8	100	32	7	2
45B08007T1RB120 <sup>1)</sup>	8	10	120	32	7	2
45B10009T1RB120	10	10	120	40	9	2
45B10009T2RB160 <sup>1)</sup>	10	12	160	40	9	2

2 Flute Ball Nose 30° Helix - Long Length / fraise hémisphérique Z2 série longue / Frese sferiche 2 taglienti, 30°, Lunghe / 2 Labios esférica - Hélice 30° -serie larga

SOLID BARBIDE 2 FLUTE BALL NOSE - LONG LENGTH

<sup>1)</sup> Conical type / Type conique / Tipo di forma conica / Tipo cónico

ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado

IN2006

P	M	K	N <sub>(K)</sub>	S <sub>(M)</sub>	H <sub>(PK)</sub>
+	+	+		+	+

	e8
	h6



30°



63 HRC



⊕ preferred choice / préconisé / molto adatto / muy adecuada    ○ second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article  
Artículo / Referencia

D   d   d1   L   L1   a   Z

45B03008T7RB700 <sup>1)</sup>	3	6	-	70	-	8	2
45B04008T7RB700 <sup>1)</sup>	4	6	-	70	-	8	2
45B05012T7RB800 <sup>1)</sup>	5	6	-	80	-	12	2
45B06012T7RB800	6	6	5,8	80	22	12	2
45B07014T0RB900 <sup>1)</sup>	7	8	-	90	-	14	2
45B08014T0RB900	8	8	7,8	90	27	14	2
45B10018T1RB100	10	10	9,8	100	31	18	2
45B12022T2RB110	12	12	11,8	110	35	22	2
45B14026T2RB120	14	12	-	120	-	26	2
45B16030T3RB140	16	16	15,8	140	50	30	2
45B18034T3RB140	18	16	-	140	-	34	2
45B20038T4RB160	20	20	19,8	160	58	38	2
45B25055T5RB180	25	25	24,8	180	75	55	2

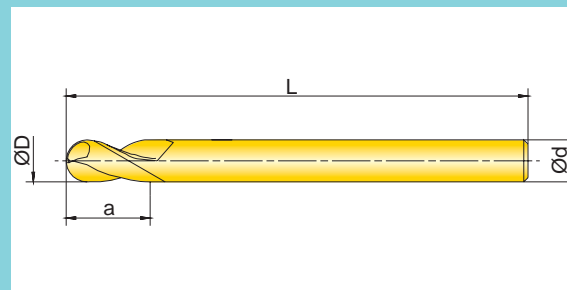
2 Flute Ball Nose for Hard Milling / Fraise hémisphérique Z2 pour fraisage dur /

Fresa esférica 2 tanglienti per difficile fresatura / 2 labios esférica para fresado duro

<sup>1)</sup> Conical type / Type conique / Tipo di forma conica / Tipo cónico



ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
 ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado

IN2006

P M K N<sub>(K)</sub> S<sub>(M)</sub> H<sub>(PK)</sub>

+ + + + +

e8

h6

λ = 30°

≤ 63 HRC



+ preferred choice / préconisé / molto adatto / muy adecuada    ○ second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article  
 Artículo / Referencia

	D	d	L	a	Z
45B02006T9RB800 <sup>1)</sup>	2	3	80	6	2
45B03008T9RB100	3	3	100	8	2
45B04008U0RB100	4	4	100	8	2
45B05010T7RB120 <sup>1)</sup>	5	6	120	10	2
45B06010T7RB120	6	6	120	10	2
45B08014T0RB140	8	8	140	14	2
45B10018T1RB180	10	10	180	18	2
45B12022T2RB200	12	12	200	22	2
45B16030T3RB250	16	16	250	30	2
45B20038T4RB250	20	20	250	38	2

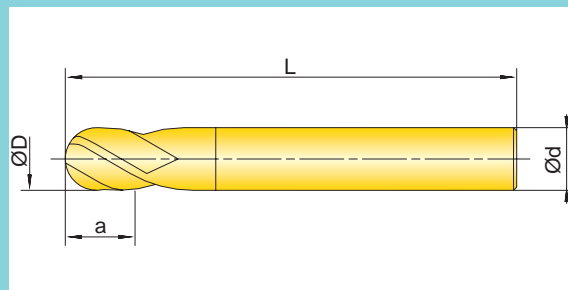
2 Flute Ball Nose for Hard Milling - Long Length / Fraise hémisphérique Z2 pour fraisage dur, série longue /

Frese sferiche 2 tangenti per difficile fresatura, lunghe / 2 labios esférica para fresado duro, serie larga



<sup>1)</sup> Conical type / Type conique / Tipo di forma conica / Tipo cónico

ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado

IN2005

P M K N<sub>(K)</sub> S<sub>(M)</sub> H<sub>(PK)</sub>

+ + + + O



e8

h6



+ preferred choice / préconisé / molto adatto / muy adecuada    O second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article  
Artículo / Referencia

D d L a Z

47B02003T9RB380 <sup>1)</sup>	2	3	38	3	4
47B03005T7RB570 <sup>1)</sup>	3	6	57	5	4
47B03005T9RB380	3	3	38	5	4
47B04007T7RB570 <sup>1)</sup>	4	6	57	7	4
47B04007U0RB500	4	4	50	7	4
47B05008T7RB570 <sup>1)</sup>	5	6	57	8	4
47B06008T7RB570	6	6	57	8	4
47B08011TORB630	8	8	63	11	4
47B10013T1RB720	10	10	72	13	4
47B12014T2RB830	12	12	83	14	4
47B16016T3RB920	16	16	92	16	4
47B20020T4RB100	20	20	104	20	4

4 Flute Ball Nose 30° Helix - Short Length / fraise hémisphérique Z4 série courte / Frese sferiche 4 taglienti, 30°, Corte / 4 Labios esférica Hélice 30° serie Corta

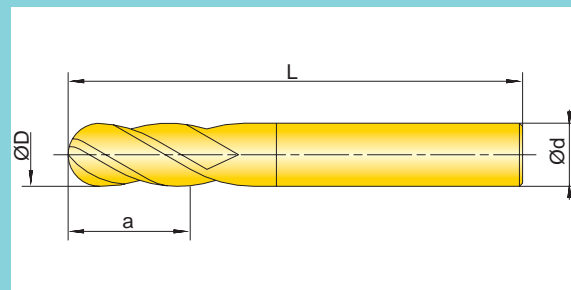
SOLID CARBIDE 4 FLUTE BALL NOSE - SHORT LENGTH

SOLID CARBIDE

<sup>1)</sup> Conical type / Type conique / Tipo di forma conica / Tipo cónico





ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
 ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado
IN2005

P	M	K	N <sub>(K)</sub>	S <sub>(M)</sub>	H <sub>(PK)</sub>
+	+	+		+	O

	e8
	h6



⊕ preferred choice / préconisé / molto adatto / muy adecuada    ○ second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article  
 Artículo / Referencia

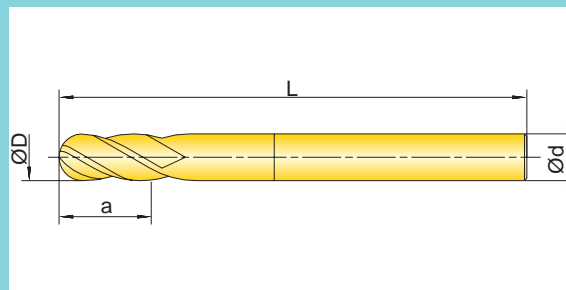
D	d	L	a	Z	
47B03008U0RB500 <sup>1)</sup>	3	4	50	8	4
47B04012U0RB500	4	4	50	12	4
47B05014U1RB500	5	5	50	14	4
47B06016T7RB570	6	6	57	16	4
47B08020TORB630	8	8	63	20	4
47B10022T1RB720	10	10	72	22	4
47B12025T2RB830	12	12	83	25	4
47B16032T3RB920	16	16	92	32	4
47B20038T4RB100	20	20	104	38	4

4 Flute Ball Nose 30° Helix - Medium Length / fraise hémisphérique Z4 série normal /  
 Frese sferiche 4 taglianti, 30°, Medie / 4 Labios esférica - Hélice 30° - Longitud Media

SOLID BARBIDE 4 FLUTE BALL NOSE - MEDIUM LENGTH

<sup>1)</sup> Conical type / Type conique / Tipo di forma conica / Tipo cónico

ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado

IN2005

P M K N<sub>(K)</sub> S<sub>(M)</sub> H<sub>(PK)</sub>

+ + + + O



e8



h6



+ preferred choice / préconisé / molto adatto / muy adecuada    ○ second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article  
Artículo / Referencia

D d L a Z

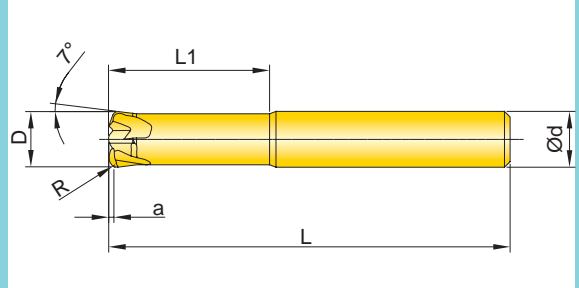
47B04012U0RB800	4	4	80	12	4
47B06016T7RB100	6	6	100	16	4
47B07016UARB100	7	7	100	16	4
47B08020TORB100	8	8	100	20	4
47B09020U9RB100	9	9	100	20	4
47B10022T1RB100	10	10	100	22	4
47B12025T2RB100	12	12	100	25	4
47B16032T3RB130	16	16	125	32	4

4 Flute Ball Nose 30° Helix - Long Length / fraise hémisphérique Z4 série longue / Frese sferiche 4 taglienti, 30°, Lunghe / 4 Labios esférica - Hélice 30° -serie larga

SOLID CARBIDE 4 FLUTE BALL NOSE - LONG LENGTH

SOLID CARBIDE

ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
 ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado
IN2005

P	M	K	N <sub>(K)</sub>	S <sub>(M)</sub>	H <sub>(PK)</sub>
+	+	+		+	○

	e8
	h6



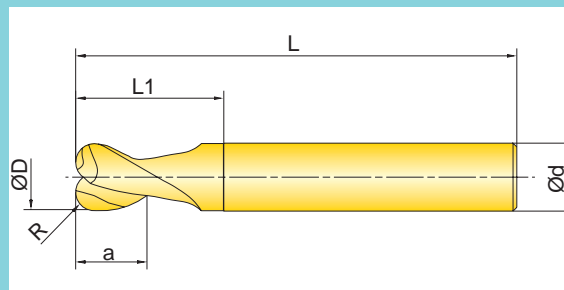
+ preferred choice / préconisé / molto adatto / muy adecuada    ○ second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article Artículo / Referencia	D	d	L	L1	a	R	Z
47A06003T7RA010	6	6	57	20	0,3	1	4
47A08004TORA013	8	8	63	26	0,4	1,3	4
47A10005T1RA016	10	10	72	30	0,5	1,6	4
47A12006T2RA020	12	12	83	34	0,6	2	4
47A16008T3RA026	16	16	92	42	0,8	2,6	4
47A20010T4RA032	20	20	104	46	1	3,2	4
R (Programing radius) / Programmation - rayon / Raggio di programmazione / Radio a programar							

SOLID CARBIDE SPEED CUTTER



ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado  
IN2005

P M K N<sub>(K)</sub> S<sub>(M)</sub> H<sub>(PK)</sub>  
+ + + + O

e8  
 h6

$\lambda = 30^\circ$

$\leq 54$  HRC



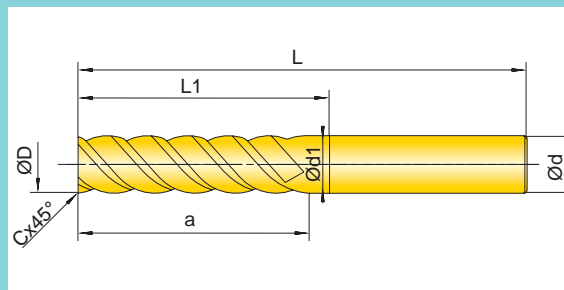
+ preferred choice / préconisé / molto adatto / muy adecuada    O second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article Artículo / Referencia	D	d	L	L1	a	R	Z
45U02002T7RB050 <sup>1)</sup>	2	6	80	8	2	0,5	2
45U03002T7RB050 <sup>1)</sup>	3	6	80	12	2	0,5	2
45U04003T7RB100 <sup>1)</sup>	4	6	80	16	3	1	2
45U06004T7RB200	6	6	80	25	4	2	2
45U06004T0RB200 <sup>1)</sup>	6	8	100	25	4	2	2
45U08004T0RB200	8	8	100	32	4	2	2
45U08004T1RB200 <sup>1)</sup>	8	10	120	32	4	2	2
45U10006T1RB300	10	10	120	40	6	3	2
45U10006T2RB300 <sup>1)</sup>	10	12	160	40	6	3	2

2 Flute toric cutter with corner radius / fraise torique rayonné / Frese 2 taglienti con raggio torico / 2 Labios Fresa Tórica

<sup>1)</sup> Conical type / Type conique / Tipo di forma conica / Tipo cónico

ADAPTION ACC. TO DIN 6535 HA/ 6535 HB / ATTACHEMENT DIN 6535 HA/ 6535 HB  
ATTACCO DIN 6535 HA/ 6535 HB / ADAPTACIÓN SEGÚN DIN 6535 HA/ 6535 HB



Grade / Nuance / Grado / Grado  
IN2005

P M K N<sub>(K)</sub> S<sub>(M)</sub> H<sub>(PK)</sub>  
+ + + + O

e8  
h6



+ preferred choice / préconisé / molto adatto / muy adecuada    O second choice / solution alternative / paco adatto / no muy adecuada

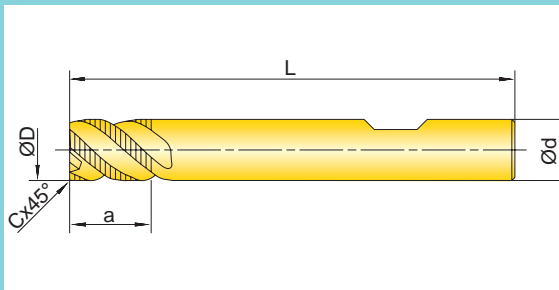
Designation / Réf. de l'article  
Articolo / Referencia

	D	d	d1	L	L1	C	a	Z
47C06014T7RQ020 <sup>1)</sup>	6	6	5,8	57	20	0,25x45°	14	4
47C06014WERQ020 <sup>2)</sup>	6	6	5,8	57	20	0,25x45°	14	4
47C08018TORQ030 <sup>1)</sup>	8	8	7,8	63	26	0,3x45°	18	4
47C08018WORQ030 <sup>2)</sup>	8	8	7,8	63	26	0,3x45°	18	4
47C10022T1RQ040 <sup>1)</sup>	10	10	9,8	72	32	0,4x45°	22	4
47C10022W1RQ040 <sup>2)</sup>	10	10	9,8	72	32	0,4x45°	22	4
47C12026T2RQ050 <sup>1)</sup>	12	12	11,7	83	38	0,5x45°	26	4
47C12026W2RQ050 <sup>2)</sup>	12	12	11,7	83	38	0,5x45°	26	4
47C16034T3RQ060 <sup>1)</sup>	16	16	15,7	100	50	0,6x45°	34	4
47C16034W3RQ060 <sup>2)</sup>	16	16	15,7	100	50	0,6x45°	34	4
47C20042T4RQ060 <sup>1)</sup>	20	20	19,7	110	60	0,6x45°	42	4
47C20042W4RQ060 <sup>2)</sup>	20	20	19,7	110	60	0,6x45°	42	4
47C06015T7RQ021 <sup>1)</sup>	6	6	-	57	-	0,2x45°	15	5
47C06015WERQ021 <sup>2)</sup>	6	6	-	57	-	0,2x45°	15	5
47C08020TORQ021 <sup>1)</sup>	8	8	-	63	-	0,25x45°	20	5
47C08020WORQ021 <sup>2)</sup>	8	8	-	63	-	0,25x45°	20	5
47C10025T1RQ031 <sup>1)</sup>	10	10	-	72	-	0,3x45°	25	5
47C10025W1RQ031 <sup>2)</sup>	10	10	-	72	-	0,3x45°	25	5
47C12030T2RQ041 <sup>1)</sup>	12	12	-	83	-	0,4x45°	30	5
47C12030W2RQ041 <sup>2)</sup>	12	12	-	83	-	0,4x45°	30	5
47C16040T3RQ051 <sup>1)</sup>	16	16	-	100	-	0,5x45°	40	5
47C16040W3RQ051 <sup>2)</sup>	16	16	-	100	-	0,5x45°	40	5
47C20050T4RQ051 <sup>1)</sup>	20	20	-	125	-	0,5x45°	50	5
47C20050W4RQ051 <sup>2)</sup>	20	20	-	125	-	0,5x45°	50	5

HPC rougher & finisher unequally spaced / HPC géometrie semi finition / Frese sgrossature e finitura / HPC Desbaste/Acabado

<sup>1)</sup> DIN 6535 HA; <sup>2)</sup> DIN 6535 HB

ADAPTION ACC. TO DIN 6535 HB / ATTACHEMENT DIN 6535 HB  
ATTACCO DIN 6535 HB / ADAPTACIÓN SEGÚN DIN 6535 HB



Grade / Nuance / Grado / Grado  
IN2005

P M K N<sub>(K)</sub> S<sub>(M)</sub> H<sub>(PK)</sub>  
+ + + + ○

△ e9  
□ h6



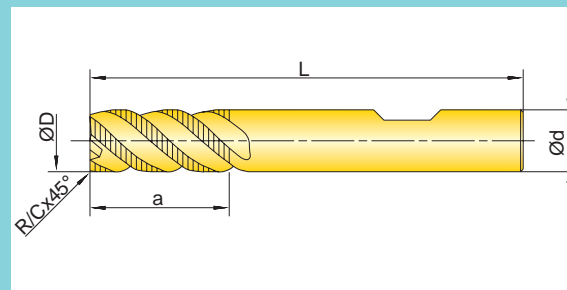
+ preferred choice / préconisé / molto adatto / muy adecuada ○ second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article Articolo / Referencia	D	d	L	C	a	Z
47C05005WERN020	5	6	57	0,2x45°	5	4
47C06006WERN030	6	6	57	0,25x45°	6	4
47C08008WORN030	8	8	63	0,3x45°	8	4
47C10010W1RN030	10	10	72	0,35x45°	10	4
47C12012W2RN030	12	12	83	0,35x45°	12	4
47C16016W3RN030 <sup>1)</sup>	16	16	92	0,35x45°	16	5
48C20020W4RN030 <sup>1)</sup>	20	20	104	0,35x45°	20	7

4-7 Flute Roughers - 45° Helix - 1xD / fraise ébauche / Frese a grossare 4-7 taglienti, 45° - 1xD / 4-7 Labios, Gran Desbaste - Hélice 45° - 1xD

<sup>1)</sup>No center cutting / Pas de centre de découpe / Nessun centro di taglio / Ningún centro de corte

ADAPTION ACC. TO DIN 6535 HB / ATTACHEMENT DIN 6535 HB  
 ATTACCO DIN 6535 HB / ADAPTACIÓN SEGÚN DIN 6535 HB



Grade / Nuance / Grado / Grado

IN2005

P M K N<sub>(K)</sub> S<sub>(M)</sub> H<sub>(PK)</sub>

+ + + + ○

e9

h6

λ = 45°

≤ 44 HRC

✗

□

□

⊗

+ preferred choice / préconisé / molto adatto / muy adecuada ○ second choice / solution alternative / paco adatto / no muy adecuada

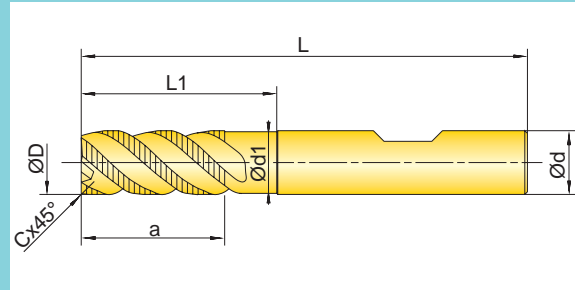
Designation / Réf. de l'article  
 Artículo / Referencia

	D	d	L	C	R	a	Z
47C05010WERN020	5	6	57	0,2x45°	-	10	4
47C06012WERN020	6	6	57	0,25x45°	-	12	4
47C08016WORN030	8	8	63	0,3x45°	-	16	4
47C10020W1RN030	10	10	72	0,35x45°	-	20	4
47D10020W1RN100	10	10	72	-	1	20	4
47C12024W2RN030	12	12	83	0,35x45°	-	24	4
47D12024W2RN120	12	12	83	-	1,2	24	4
47C16032W3RN030 <sup>1)</sup>	16	16	92	0,35x45°	-	32	5
47D16032W3RN160 <sup>1)</sup>	16	16	92	-	1,6	32	5
48C20040W4RN030 <sup>1)</sup>	20	20	104	0,35x45°	-	40	7

4-7 Flute Roughers - 45° Helix - 2xD / fraise ébauche / Frese a sgrossare 4-7 taglienti, 45° - 2xD / 4-7 Labios, Gran Desbaste - Hélice 45° - 2xD

<sup>1)</sup>No center cutting / Pas de centre de découpe / Nessun centro di taglio / Ningún centro de corte

ADAPTION ACC. TO DIN 6535 HB / ATTACHEMENT DIN 6535 HB  
ATTACCO DIN 6535 HB / ADAPTACIÓN SEGÚN DIN 6535 HB



Grade / Nuance / Grado / Grado  
IN2005

P	M	K	N <sub>(K)</sub>	S <sub>(M)</sub>	H <sub>(PK)</sub>
+	+	+		+	○

e9  
 h6

λ = 45°

≤ 44 HRC



+ preferred choice / préconisé / molto adatto / muy adecuada    ○ second choice / solution alternative / poco adatto / no muy adecuada

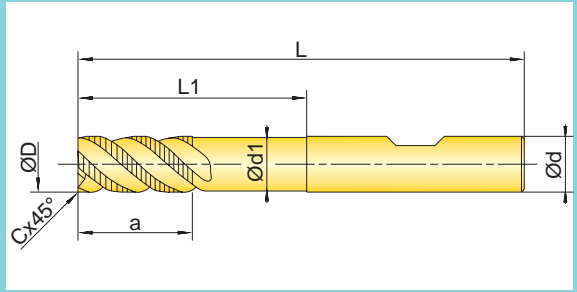
Designation / Réf. de l'article Articolo / Referencia	D	d	d1	L	L1	C	a	Z
47C06012WERN021	6	6	5,9	57	18	0,25x45°	12	4
47C08016WORN031	8	8	7,8	63	24	0,3x45°	16	4
47C10020W1RN031	10	10	9,8	72	30	0,35x45°	20	4
47C12024W2RN031	12	12	11,7	83	36	0,35x45°	24	4
47C16032W3RN031 <sup>1)</sup>	16	16	15,7	100	48	0,35x45°	32	5
48C20040W4RN031 <sup>1)</sup>	20	20	19,7	110	60	0,35x45°	40	7

4-7 Flute Roughers - 45° Helix - 3xD / fraise ébauche / Frese a sgrossare 4-7 taglienti, 45° - 3xD / 4-7 Labios, Gran Desbaste - Hélice 45° - 3xD

<sup>1)</sup>No center cutting / Pas de centre de découpe / Nessun centro di taglio / Ningún centro de corte



ADAPTION ACC. TO DIN 6535 HB / ATTACHEMENT DIN 6535 HB  
ATTACCO DIN 6535 HB / ADAPTACIÓN SEGÚN DIN 6535 HB



Grade / Nuance / Grado / Grado  
IN2005

P	M	K	N <sub>(K)</sub>	S <sub>(M)</sub>	H <sub>(PK)</sub>
+	+	+		+	O

e9  
 h6



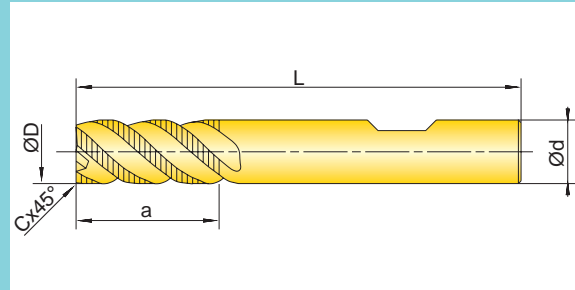
+ preferred choice / préconisé / molto adatto / muy adecuada    O second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article Artículo / Referencia	D	d	d1	L	L1	C	a	Z
47C08012W0RN030	8	8	7,8	68	32	0,3x45°	12	4
47C10015W1RN030	10	10	9,8	80	40	0,35x45°	15	4
47C12018W2RN030	12	12	11,7	100	48	0,35x45°	18	4
47C16024W3RN030 <sup>1)</sup>	16	16	15,7	115	56	0,35x45°	24	5
4-5 Flute Roughers - 45° Helix - 4xD / fraise ébauche / Frese a sgrossare 4-5 taglienti, 45° - 4xD / 4-5 Labios, Gran Desbaste - Hélice 45° - 4xD								

<sup>1)</sup>No center cutting / Pas de centre de découpe / Nessun centro di taglio / Ningún centro de corte

SOLID CARBIDE 4-5 FLUTE ROUGHERS - 4XD

ADAPTION ACC. TO DIN 6535 HA/ 6535 HB / ATTACHEMENT DIN 6535 HA/ 6535 HB  
ATTACCO DIN 6535 HA/ 6535 HB / ADAPTACIÓN SEGÚN DIN 6535 HA/ 6535 HB



Grade / Nuance / Grado / Grado  
IN2005

P M K N<sub>(K)</sub> S<sub>(M)</sub> H<sub>(PK)</sub>  
+ + O + +

e9  
 h6

= 45°

≤ 63 HRC



+ preferred choice / préconisé / molto adatto / muy adecuada    ○ second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article  
Artículo / Referencia

	D	d	L	C	a	Z
47C06014T7RN020 <sup>1)</sup>	6	6	57	0,25x45°	14	4
47C06014WRRN020 <sup>2)</sup>	6	6	57	0,25x45°	14	4
47C08018TORN030 <sup>1)</sup>	8	8	63	0,3x45°	18	4
47C08018WSRN030 <sup>2)</sup>	8	8	63	0,3x45°	18	4
47C10022T1RN030 <sup>1)</sup>	10	10	72	0,3x45°	22	4
47C10022WTRN030 <sup>2)</sup>	10	10	72	0,3x45°	22	4
47C12026T2RN040 <sup>1)</sup>	12	12	83	0,4x45°	26	4
47C12026WURN040 <sup>2)</sup>	12	12	83	0,4x45°	26	4
47C14030U8RN040 <sup>1)</sup>	14	14	83	0,4x45°	30	4
47C14030WFRN040 <sup>2)</sup>	14	14	83	0,4x45°	30	4
48C16034T3RN050 <sup>1)</sup>	16	16	92	0,5x45°	34	6
48C16034WVRN050 <sup>2)</sup>	16	16	92	0,5x45°	34	6
48C20042T4RN070 <sup>1)</sup>	20	20	104	0,7x45°	42	6
48C20042WVRN070 <sup>2)</sup>	20	20	104	0,7x45°	42	6
48C25052T5RN090 <sup>1)</sup>	25	25	121	0,9x45°	52	6
48C25052W5RN090 <sup>2)</sup>	25	25	121	0,9x45°	52	6

4-6 Flute Roughers - 45° Helix for titanium / Fraise ébauche pour titanium /

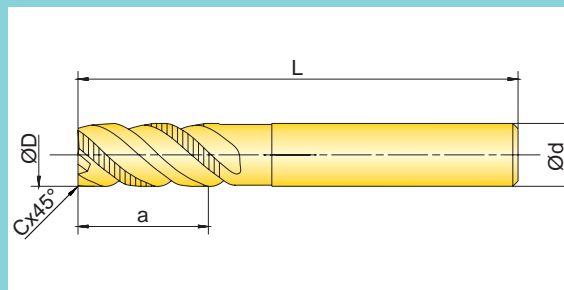
Frese asgrassare 4-6 taglienti, 45° per titanium / 4-6 labios, gran depaste - hélice 45° para de titanio

SOLID CARBIDE 4-6 FLUTE ROUGHERS FOR TITANIUM

SOLID CARBIDE

<sup>1)</sup> DIN 6535 HA; <sup>2)</sup> DIN 6535 HB

ADAPTION ACC. TO DIN 6535 HA/ 6535 HB / ATTACHEMENT DIN 6535 HA/ 6535 HB  
ATTACCO DIN 6535 HA/ 6535 HB / ADAPTACIÓN SEGÚN DIN 6535 HA/ 6535 HB



Grade / Nuance / Grado / Grado

IN2005

P M K N<sub>(K)</sub> S<sub>(M)</sub> H<sub>(PK)</sub>

+ + + + O

e9

h6

$\lambda = 45^\circ$

≤ 44 HRC

+ preferred choice / préconisé / molto adatto / muy adecuada    O second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article  
Artículo / Referencia

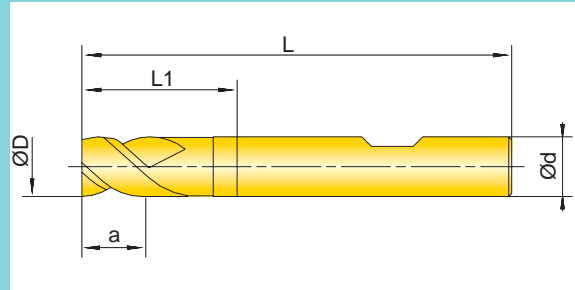
	D	d	L	C	a	Z	Zs
47J06014T7RU570 <sup>1)</sup>	6	6	57	0,25x45°	14	4	2
47J06014WERU570 <sup>2)</sup>	6	6	57	0,25x45°	14	4	2
47J08018TORU630 <sup>1)</sup>	8	8	63	0,3x45°	18	4	2
47J08018WORU630 <sup>2)</sup>	8	8	63	0,3x45°	18	4	2
47J10022T1RU720 <sup>1)</sup>	10	10	72	0,3x45°	22	4	2
47J10022W1RU720 <sup>2)</sup>	10	10	72	0,3x45°	22	4	2
47J12026T2RU830 <sup>1)</sup>	12	12	83	0,4x45°	26	4	2
47J12026W2RU830 <sup>2)</sup>	12	12	83	0,4x45°	26	4	2
47J14030U8RU830 <sup>1)</sup>	14	14	83	0,4x45°	30	4	2
47J14030WFRU830 <sup>2)</sup>	14	14	83	0,4x45°	30	4	2
47J16034T3RU920 <sup>1)</sup>	16	16	92	0,6x45°	34	4	2
47J16034W3RU920 <sup>2)</sup>	16	16	92	0,6x45°	34	4	2
47J20042T4RU040 <sup>1)</sup>	20	20	104	0,6x45°	42	4	2
47J20042W4RU040 <sup>2)</sup>	20	20	104	0,6x45°	42	4	2
47J25052T5RU210 <sup>1)</sup>	25	25	121	0,6x45°	52	4	2
47J25052W5RU210 <sup>2)</sup>	25	25	121	0,6x45°	52	4	2

4 Flute roughing and finishing - 45 Helix / Géometrie semi finition / Frese sgrossatura e finitura 4 taglienti, 45° / Desbaste/ Acabado 4 lobois - Hélice 45°

<sup>1)</sup> DIN 6535 HA; <sup>2)</sup> DIN 6535 HB



ADAPTION ACC. TO DIN 6535 HB / ATTACHEMENT DIN 6535 HB  
 ATTACCO DIN 6535 HB / ADAPTACIÓN SEGÚN DIN 6535 HB



Grade / Nuance / Grado / Grado  
 IN2005

P	M	K	N <sub>(K)</sub>	S <sub>(M)</sub>	H <sub>(PK)</sub>
+	+	+		+	○

e8  
 h6



+ preferred choice / préconisé / molto adatto / muy adecuada    ○ second choice / solution alternative / poco adatto / no muy adecuada

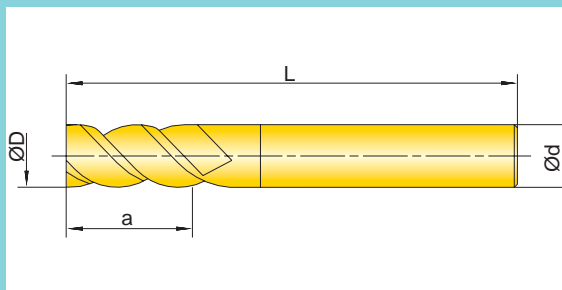
Designation / Réf. de l'article Artículo / Referencia	D	d	L	L1	a	Z
46J02804WERC570	2,8	6	57	6	4	3
46J03805WERC570	3,8	6	57	8	5	3
46J04806WERC570	4,8	6	57	9	6	3
46J05707WERC570	5,7	6	57	10	7	3
46J06708WORC630	6,7	8	63	11	8	3
46J07709WORC630	7,7	8	63	12	9	3
46J09711W1RC720	9,7	10	72	13	11	3
46J11712W2RC730	11,7	12	73	15	12	3
46J13714WFRC830	13,7	14	83	19	14	3
46J15716W3RC820	15,7	16	82	20	16	3
46J17718WGRC920	17,7	18	92	21	18	3
46J19720W4RC920	19,7	20	104	23	20	3

3 Flute Slot Drill (Undersize) 38° Helix - Short Length / fraise sous-coté / Frese per nervature 3 taglienti, 38°, Corte / 3 Labios (Chaveteros), Hélice 38° - Serie Corta

3 FLUTE SLOT DRILL (UNDERSIZE) - SHORT LENGTH

SOLID CARBIDE

ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
 ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado
IN2005

P	M	K	N <sub>(K)</sub>	S <sub>(M)</sub>	H <sub>(PK)</sub>
+	+	+		+	○

	e8
	h6



+ preferred choice / préconisé / molto adatto / muy adecuada    ○ second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article  
 Artículo / Referencia

	D	d	L	a	Z
46J02007T9RD380	2	3	38	7	3
46J02007T7RD500	2	6	50	7	3
46J03010T9RD380	3	3	38	10	3
46J03010T7RD500	3	6	50	10	3
46J04012U0RD500	4	4	50	12	3
46J04012T7RD500	4	6	50	12	3
46J05014U1RD500	5	5	50	14	3
46J05014T7RD500	5	6	50	14	3
46J06016T7RD500	6	6	50	16	3
46J07016UARD600	7	7	60	16	3
46J08020TORD630	8	8	63	20	3
46J09020U9RD670	9	9	67	20	3
46J10022T1RD720	10	10	72	22	3
46J12025T2RD730	12	12	73	25	3
46J14025U8RD750	14	14	75	25	3
46J16032T3RD820	16	16	82	32	3
46J18032U2RD920	18	18	92	32	3
46J20038T4RD920	20	20	92	38	3

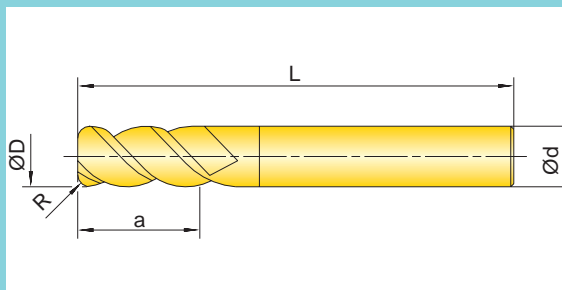
3 Flute Slot Drill 45° Helix - DIN 6535HA / fraise sous-coté DIN 6535HA /

Frese per nervature 3 taglienti, 45°, DIN 6535HA / 3 Labios (Chaveteros), Hélice 45° - DIN 6535HA

SOLID BARBIDE  
 3 FLUTE SLOT DRILL DIN 6535HA



ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado  
IN2005

P M K N<sub>(K)</sub> S<sub>(M)</sub> H<sub>(PK)</sub>  
+ + + + O

e8  
h6



+ preferred choice / préconisé / molto adatto / muy adecuada    ○ second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article / Artículo / Referencia    D    d    L    a    R    Z

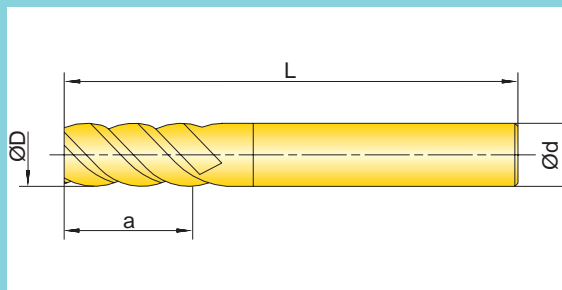
46D05014T7RD050	5	6	57	14	0,5	3
46D06013T7RD050	6	6	57	13	0,5	3
46D06013T7RD100	6	6	57	13	1	3
46D08020T0RD050	8	8	63	20	0,5	3
46D08020T0RD100	8	8	63	20	1	3
46D08020T0RD150	8	8	63	20	1,5	3
46D08020T0RD200	8	8	63	20	2	3
46D10022T1RD050	10	10	72	22	0,5	3
46D10022T1RD100	10	10	72	22	1	3
46D10022T1RD150	10	10	72	22	1,5	3
46D10022T1RD200	10	10	72	22	2	3
46D10022T1RD300	10	10	72	22	3	3
46D12025T2RD050	12	12	83	25	0,5	3
46D12025T2RD100	12	12	83	25	1	3
46D12025T2RD150	12	12	83	25	1,5	3
46D12025T2RD200	12	12	83	25	2	3
46D12025T2RD300	12	12	83	25	3	3
46D16032T3RD050	16	16	92	32	0,5	3
46D16032T3RD100	16	16	92	32	1	3
46D16032T3RD200	16	16	92	32	2	3
46D16032T3RD300	16	16	92	32	3	3

3 Flute End Mill with Corner radius - 45° Helix / fraise 3 tailles Z3 rayonné / Frese per nervature 3 taglienti, toriche, 45° / 3 Labios Tórica - Hélice 45°

SOLID BARBIDE 3 FLUTE END MILL WITH CORNER RADIUS

SOLID BARBIDE

ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado  
IN2005

P	M	K	N <sub>(K)</sub>	S <sub>(M)</sub>	H <sub>(PK)</sub>
+	+	+		+	○

e8  
 h6

= 45°  
 ≤ 54 HRC

+ preferred choice / préconisé / molto adatto / muy adecuada    ○ second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article  
Artículo / Referencia

	D	d	L	a	Z
47J02007T9RD380	2	3	38	7	4
47J02007T7RD500	2	6	50	7	4
47J03010T9RD380	3	3	38	10	4
47J03010T7RD500	3	6	50	10	4
47J04012U0RD500	4	4	50	12	4
47J04012T7RD500	4	6	50	12	4
47J05014U1RD500	5	5	50	14	4
47J05014T7RD500	5	6	50	14	4
47J06016T7RD500	6	6	50	16	4
47J07016UARD600	7	7	60	16	4
47J08020TOR630	8	8	63	20	4
47J09020U9RD670	9	9	67	20	4
47J10022T1RD720	10	10	72	22	4
47J12025T2RD730	12	12	73	25	4
47J14025U8RD750	14	14	75	25	4
47J16032T3RD820	16	16	82	32	4
47J18032U2RD920	18	18	92	32	4
47J20038T4RD920	20	20	92	38	4

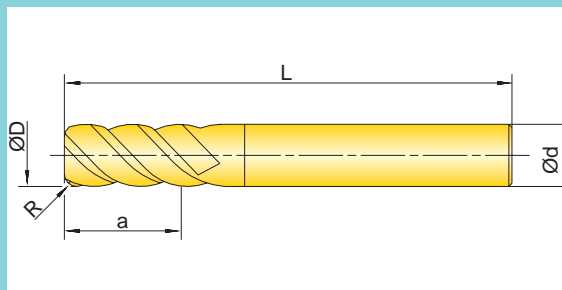
4 Flute End Mill 45° Helix - DIN 6535HA / fraise 2 tailles DIN 6535HA / Frese 4 taglianti, 45°, DIN 6535HA / 4 Labios - Hélice 45° - DIN 6535HA

SOLID CARBIDE 4 FLUTE END MILL DIN 6535HA

SOLID CARBIDE



ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado

IN2005

P M K N<sub>(K)</sub> S<sub>(M)</sub> H<sub>(PK)</sub>

+ + + + O



e8



h6



+ preferred choice / préconisé / molto adatto / muy adecuada    O second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article  
Artículo / Referencia

D d L a R Z

47D06016T7RD050	6	6	57	16	0,5	4
47D06016T7RD100	6	6	57	16	1	4
47D08020T0RD050	8	8	63	20	0,5	4
47D08020T0RD100	8	8	63	20	1	4
47D08020T0RD150	8	8	63	20	1,5	4
47D08020T0RD200	8	8	63	20	2	4
47D10022T1RD050	10	10	72	22	0,5	4
47D10022T1RD100	10	10	72	22	1	4
47D10022T1RD150	10	10	72	22	1,5	4
47D10022T1RD200	10	10	72	22	2	4
47D10022T1RD300	10	10	72	22	3	4
47D12025T2RD050	12	12	83	25	0,5	4
47D12025T2RD100	12	12	83	25	1	4
47D12025T2RD150	12	12	83	25	1,5	4
47D12025T2RD200	12	12	83	25	2	4
47D12025T2RD300	12	12	83	25	3	4
47D16032T3RD050	16	16	92	32	0,5	4
47D16032T3RD100	16	16	92	32	1	4
47D16032T3RD150	16	16	92	32	1,5	4
47D16032T3RD200	16	16	92	32	2	4
47D16032T3RD250	16	16	92	32	2,5	4
47D16032T3RD300	16	16	92	32	3	4
47D20038T4RD050	20	20	104	38	0,5	4
47D20038T4RD100	20	20	104	38	1	4
47D20038T4RD200	20	20	104	38	2	4
47D20038T4RD300	20	20	104	38	3	4
47D20038T4RD400	20	20	104	38	4	4

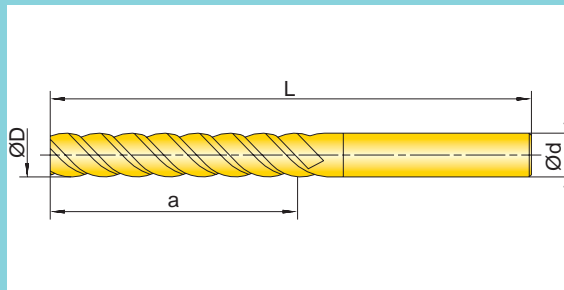
4 Flute End Mill with Corner radius - 45° Helix / fraise tailles Z4 rayonné / Frese per nervature 4 taglienti, toriche, 45° / 4 Labios Tórica - Hélice 45°

SOLID CARBIDE 4 FLUTE END MILL WITH CORNER RADIUS





ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado  
IN2005

P	M	K	N <sub>(K)</sub>	S <sub>(M)</sub>	H <sub>(PK)</sub>
+	+	+		+	○

e8  
 h6

λ = 45°

≤ 54 HRC



+ preferred choice / préconisé / molto adatto / muy adecuada    ○ second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article  
Articolo / Referencia

D    d    L    a    Z

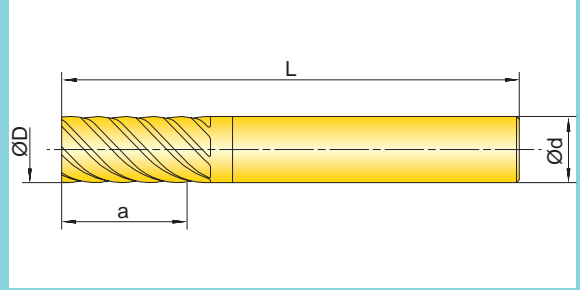
47J10060T1RD110	10	10	110	60	4
47J12072T2RD150	12	12	150	72	4
48J16080T3RD150 <sup>1)</sup>	16	16	150	80	6
48J20080T4RD150 <sup>1)</sup>	20	20	150	80	6









4-6 Flute End Mill 45° Helix - Extra Long Length / fraise 2 tailles extra longue / Frese 4-6 taglienti, 45°, Extra lunghe / 4-6 Labios - Hélice 45° - Serie Extra-larga

SOLID CARBIDE 4-6 FLUTE END MILL EXTRA LONG LENGTH

<sup>1)</sup> No center cutting / Pas de centre de découpe / Nessun centro di taglio / Ningún centro de corte

ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



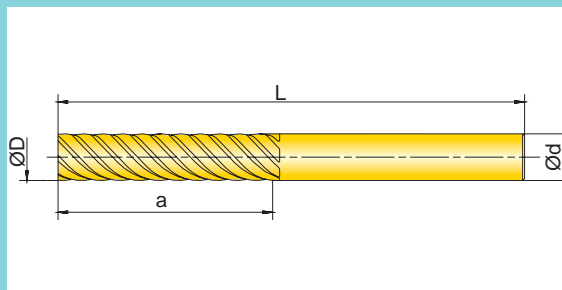
Grade / Nuance / Grado / Grado IN2005	P +	M +	K +	N <sub>(K)</sub> +	S <sub>(M)</sub> +	H <sub>(PK)</sub> O	 e8  h6	 λ = 45°	 ≤ 54 HRC				
--	--------	--------	--------	-----------------------	-----------------------	------------------------	--	--	--	---	---	---	---

+ preferred choice / préconisé / molto adatto / muy adecuada    ○ second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article Artículo / Referencia	D	d	L	a	Z
48J06016T7RD570	6	6	57	16	6
48J08020T0RD630	8	8	63	20	6
48J10022T1RD720	10	10	72	22	6
48J12025T2RD830	12	12	83	25	6
48J16032T3RD920	16	16	92	32	6
48J20038T4RD100	20	20	104	38	6
6 Flute End Mill - 45° Helix - Medium Length (finishing) / fraise 2 tailles série normal /					
Frese 6 taglianti, 45°, Media / 6 Labios - Hélice 45° - Serie Longitud Media (acabado)					

SOLID CARBIDE 6 FLUTE END MILL MEDIUM LENGTH (FINISHING)

ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado

IN2006

P	M	K	N <sub>(K)</sub>	S <sub>(M)</sub>	H <sub>(PK)</sub>
+	+	+		+	+

	e8
	h6



+ preferred choice / préconisé / molto adatto / muy adecuada    ○ second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article  
Artículo / Referencia

D    d    L    a    Z

48J06026T7RD700	6	6	70	26	6
48J08036T0RD900	8	8	90	36	6
48J10046T1RD100	10	10	100	46	6
48J12056T2RD110	12	12	110	56	6
48J16066T3RD130	16	16	130	66	6
48J20076T4RD140	20	20	140	76	6
48J25092T5RD180	25	25	180	92	6

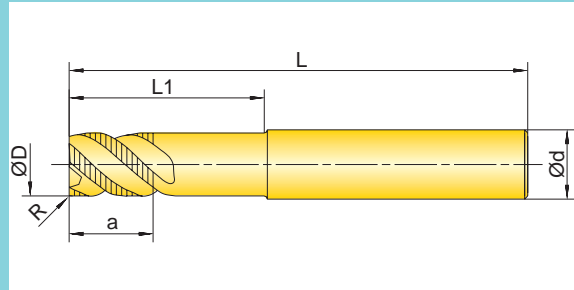
6 Flute End Mill - 45° Helix - Long Length (finishing) / fraise 2 tailles série longue / Frese 6 taglienti, 45°, Lunghe / 6 Labios - Hélice 45° - Serie larga

SOLID CARBIDE 6 FLUTE END MILL LONG LENGTH (FINISHING)

SOLID CARBIDE



ADAPTION ACC. TO DIN 6535 HA/ 6535 HB / ATTACHEMENT DIN 6535 HA/ 6535 HB  
 ATTACCO DIN 6535 HA/ 6535 HB / ADAPTACIÓN SEGÚN DIN 6535 HA/ 6535 HB



Grade / Nuance / Grado / Grado  
 IN055

P	M	K	N <sub>(K)</sub>	S <sub>(M)</sub>	H <sub>(PK)</sub>
			+		

	h6
	h6



+ preferred choice / préconisé / molto adatto / muy adecuada      ○ second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article Artículo / Referencia	D	d	L	L1	a	R	Z
--	---	---	---	----	---	---	---

46D06009T7RN020 <sup>1)</sup>	6	6	57	21	9	0,2	3
46D06009WERN020 <sup>2)</sup>	6	6	57	21	9	0,2	3
46D08012TORN020 <sup>1)</sup>	8	8	63	27	12	0,2	3
46D08012WORN020 <sup>2)</sup>	8	8	63	27	12	0,2	3
46D10012T1RN020 <sup>1)</sup>	10	10	72	31	12	0,2	3
46D10012W1RN020 <sup>2)</sup>	10	10	72	31	12	0,2	3
46D12012T2RN020 <sup>1)</sup>	12	12	83	37	12	0,2	3
46D12012W2RN020 <sup>2)</sup>	12	12	83	37	12	0,2	3
46D16014T3RN020 <sup>1)</sup>	16	16	92	43	14	0,2	3
46D16014W3RN020 <sup>2)</sup>	16	16	92	43	14	0,2	3
46D20017T4RN020 <sup>1)</sup>	20	20	104	53	17	0,2	3
46D20017W4RN020 <sup>2)</sup>	20	20	104	53	17	0,2	3

3 Flute End Mill 45° Helix short length (roughing) - on request with diamond coating IN3005

Fraise hémisphérique Z3 série courte (ébauche) - IN3005 revêtement diamant sur demande

Frese sferiche 3 taglienti, 45°, Corte (sgrossatura) - Su richiesta con rivestimento diamante IN3005

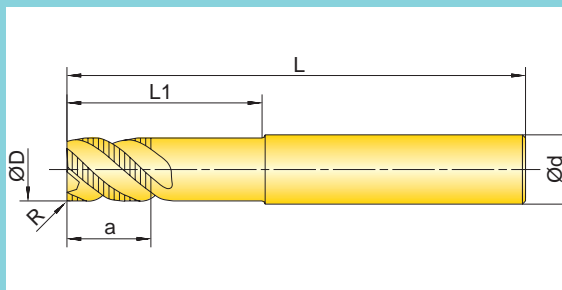
3 Cabios bola 45° Hélice Serie Corta (Desbaste) - bajo petición con recubrimiento de diamante IN3005

**3 FLUTE END MILL SHORT LENGTH (ROUGHING)**

**SOLID-CARBIDE**

<sup>1)</sup> DIN 6535HA; <sup>2)</sup> DIN 6535 HB

ADAPTION ACC. TO DIN 6535 HA/ 6535 HB / ATTACHEMENT DIN 6535 HA/ 6535 HB  
 ATTACCO DIN 6535 HA/ 6535 HB / ADAPTACIÓN SEGÚN DIN 6535 HA/ 6535 HB



Grade / Nuance / Grado / Grado  
 IN05S

P M K N<sub>(K)</sub> S<sub>(M)</sub> H<sub>(PK)</sub>  
 +

h6  
 h6



+ preferred choice / préconisé / molto adatto / muy adecuada    ○ second choice / solution alternative / paco adatto / no muy adecuada

Designation / Réf. de l'article  
 Artículo / Referencia

	D	d	L	L1	a	R	Z
46D06009T7RN021 <sup>1)</sup>	6	6	65	30	9	0,2	3
46D06009WERN021 <sup>2)</sup>	6	6	65	30	9	0,2	3
46D08012TORN021 <sup>1)</sup>	8	8	78	40	12	0,2	3
46D08012WORN021 <sup>2)</sup>	8	8	78	40	12	0,2	3
46D10012T1RN021 <sup>1)</sup>	10	10	100	50	12	0,2	3
46D10012W1RN021 <sup>2)</sup>	10	10	100	50	12	0,2	3
46D12014T2RN021 <sup>1)</sup>	12	12	100	55	14	0,2	3
46D12014W2RN021 <sup>2)</sup>	12	12	100	55	14	0,2	3
46D16018T3RN021 <sup>1)</sup>	16	16	150	80	18	0,2	3
46D16018W3RN021 <sup>2)</sup>	16	16	150	80	18	0,2	3
46D20022T4RN021 <sup>1)</sup>	20	20	150	80	22	0,2	3
46D20022W4RN021 <sup>2)</sup>	20	20	150	80	22	0,2	3

3 Flute End Mill 45° Helix long length (roughing) - on request with diamond coating IN3005

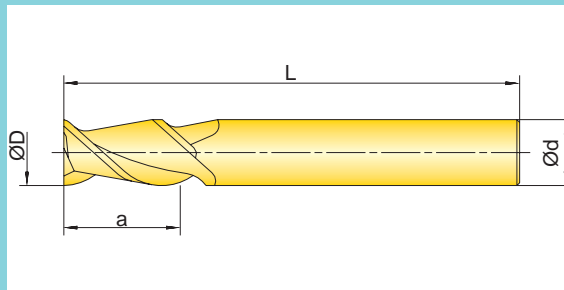
Fraise hémisphérique Z3 série longue (ébauche) - IN3005 revêtement diamant sur demande

Frese sferiche 3 taglianti, 45°, lunghe (sgrossatura) - Su richiesta con rivestimento diamante IN3005

3 Labios bola 45° Hélice, serie larga (Desbaste) - bajo petición con recubrimiento de diamante IN3005

<sup>1)</sup> DIN 6535HA; <sup>2)</sup> DIN 6535HB

ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado  
IN05S

P M K N<sub>(K)</sub> S<sub>(M)</sub> H<sub>(PK)</sub>  
+

△ h6  
□ h6



+ preferred choice / préconisé / molto adatto / muy adecuada    ○ second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article  
Articolo / Referencia

	D	d	L	a	Z
45J04012T7RD570	4	6	57	12	2
45J05014T7RD570	5	6	57	14	2
45J06016T7RD570	6	6	57	16	2
45J08020T0RD630	8	8	63	20	2
45J10022T1RD720	10	10	72	22	2
45J12025T2RD830	12	12	83	25	2
45J16032T3RD920	16	16	92	32	2
45J20038T4RD100	20	20	104	38	2

2 Flute Slot Drill - 45° Helix - Medium Length - on request with diamond coating IN 3005

Fraise 2 tailles Z2 géométrie aluminium - IN3005 revêtement diamant sur demande

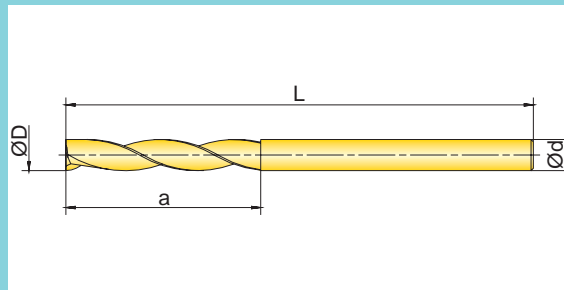
Punte 2 taglienti per Alluminio - 45°, Medie - Su richiesta con rivestimento diamante IN3005

2 Labios para ranurado de Aluminio 45° Hélice - Longitud Media - bajo petición con recubrimiento de diamante IN3005

2 FLUTE ALUMINIUM SLOT DRILL MEDIUM LENGTH

SOLID CARBIDE

ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
 ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado  
 IN05S

P M K N<sub>(K)</sub> S<sub>(M)</sub> H<sub>(PK)</sub>  
 +

h10  
 h6



+ preferred choice / préconisé / molto adatto / muy adecuada    ○ second choice / solution alternative / paco adatto / no muy adecuada

Designation / Réf. de l'article  
 Artículo / Referencia

	D	d	L	a	Z
45J03030T9RB750	3	3	75	30	2
45J04030U0RB750	4	4	75	30	2
45J05040U1RB100	5	5	100	40	2
45J06050T7RB150	6	6	150	50	2
45J08050T0RB150	8	8	150	50	2
45J10060T1RB150	10	10	150	60	2
45J12075T2RB150	12	12	150	75	2

2 Flute Slot Drill - 30° Helix - Extra Long Length - on request with diamond coating IN3005

Fraise 2 tailles Z2 géométrie aluminium extra longue - IN3005 revêtement diamant sur demande

Punte 2 taglianti per Alluminio - 30°, Extra lunghe - Su richiesta con rivestimento diamante IN3005

2 Labios para ranurado de Aluminio 30° Hélice - Serie Extra-larga - bajo petición con recubrimiento de diamante IN3005

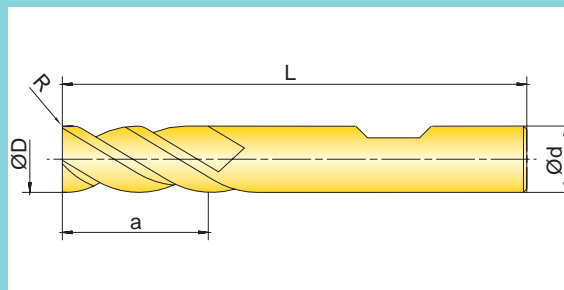
SOLID BARBIDE 2 FLUTE ALUMINIUM SLOT DRILL EXTRA LONG LENGTH

SOLID BARBIDE





ADAPTION ACC. TO DIN 6535 HA/ 6535 HB / ATTACHEMENT DIN 6535 HA/ 6535 HB  
ATTACCO DIN 6535 HA/ 6535 HB / ADAPTACIÓN SEGÚN DIN 6535 HA/ 6535 HB



Grade / Nuance / Grado / Grado  
IN05S

P M K N<sub>(K)</sub> S<sub>(M)</sub> H<sub>(PK)</sub>  
+

h6  
h6



+ preferred choice / préconisé / molto adatto / muy adecuada ○ second choice / solution alternative / paco adatto / no muy adecuada

Designation / Réf. de l'article  
Articolo / Referencia

	D	d	L	a	R	Z
46D05014T7RD020 <sup>1)</sup>	5	6	57	14	0,2	3
46D05014WERD020 <sup>2)</sup>	5	6	57	14	0,2	3
46D06016T7RD020 <sup>1)</sup>	6	6	57	16	0,2	3
46D06016WERD020 <sup>2)</sup>	6	6	57	16	0,2	3
46D08020T0RD020 <sup>1)</sup>	8	8	63	20	0,2	3
46D08020W0RD020 <sup>2)</sup>	8	8	63	20	0,2	3
46D10022T1RD020 <sup>1)</sup>	10	10	72	22	0,2	3
46D10022W1RD020 <sup>2)</sup>	10	10	72	22	0,2	3
46D12025T2RD020 <sup>1)</sup>	12	12	83	25	0,2	3
46D12025W2RD020 <sup>2)</sup>	12	12	83	25	0,2	3
46D14030U8RD020 <sup>1)</sup>	14	14	83	30	0,2	3
46D14030WFRD020 <sup>2)</sup>	14	14	83	30	0,2	3
46D16032T3RD020 <sup>1)</sup>	16	16	92	32	0,2	3
46D16032W3RD020 <sup>2)</sup>	16	16	92	32	0,2	3
46D20038T4RD020 <sup>1)</sup>	20	20	104	38	0,2	3
46D20038W4RD020 <sup>2)</sup>	20	20	104	38	0,2	3

3 Flute End Mill 45° Helix with corner radius - on request with diamond coating IN3005

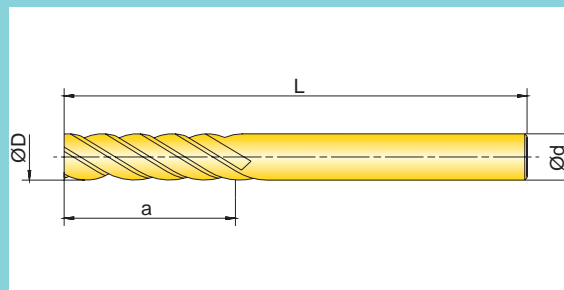
Fraise rayonné - IN3005 revêtement diamant sur demande

Frese 3 tagliente con raggio - Su richiesta con rivestimento diamante IN3005

3 Labios Frese con radio - bajo petición con recubrimiento de diamante IN3005

<sup>1)</sup> DIN 6535 HA; <sup>2)</sup> DIN 6535 HB

ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado

IN05S

P M K N<sub>(K)</sub> S<sub>(M)</sub> H<sub>(PK)</sub>

+



h10

h6



λ = 30°



ALU



DRILL



+ preferred choice / préconisé / molto adatto / muy adecuada    ○ second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article  
Articolo / Referencia

D d L a Z

47J03030T9RB750	3	3	75	30	4
47J04030U0RB750	4	4	75	30	4
47J05040U1RB100	5	5	100	40	4
47J06050T7RB150	6	6	150	50	4
47J08050T0RB150	8	8	150	50	4
47J10060T1RB150	10	10	150	60	4
47J12075T2RB150	12	12	150	75	4

4 Flute End Mill - 30° Helix - Extra Long Length - on request with diamond coating IN3005

Fraise 2 tailles extra longue - IN3005 revêtement diamant sur demande

Frese 4 taglienti, 30°, Extra lunghe - Su richiesta con rivestimento diamante IN3005

4 Labios - Hélice 30° - Serie Extra-larga - bajo petición con recubrimiento de diamante IN3005

SOLID-CARBIDE 4 FLUTE END MILL EXTRA LONG LENGTH



**FR FORETS À PLAQUETTES / FILETAGE ROUTEUR**  
**IT PUNTE AD INSERTI / FILO FRESATURA**  
**ES HERRAMIENTAS PARA TALADRAR / HILO FRESADO**



**WINNO**

DRILLS/THREADING



TOOL














	D	LxD	Description / Description Modello / Descripción	Code / Série Codici / Serie	Page / Page Pagina / Página
	16 - 40	1xD	<del>QUAD-DRILL-PLUS</del>	BSD03A	308
	10 - 48	1xD	<del>QUAD-DRILL-PLUS</del>	BSD03B	310
	15 - 48	1xD	<del>QUAD-DRILL-PLUS</del>	BSE01A	312
	13 - 29	2xD	<del>QUAD-DRILL-PLUS</del>	2D Ø13 - Ø29	314
	30 - 50	2xD	<del>QUAD-DRILL-PLUS</del>	2D Ø30 - Ø50	316
	12,5 - 27,5	3xD	<del>QUAD-DRILL-PLUS</del>	3D Ø12,5 - Ø27,5	318
	28 - 50,5	3xD	<del>QUAD-DRILL-PLUS</del>	3D Ø28 - Ø50,5	320
	51 - 60	3xD	<del>QUAD-DRILL-PLUS</del>	3D Ø51 - Ø60	322
	13 - 29	4xD	<del>QUAD-DRILL-PLUS</del>	4D Ø13 - Ø29	324
	30 - 50	4xD	<del>QUAD-DRILL-PLUS</del>	4D Ø30 - Ø50	326
	13 - 27	5xD	<del>QUAD-DRILL-PLUS</del>	5D Ø13 - Ø27	328

Subject to printing error or technical changes / Sous réserve d'erreurs d'impression ou de modifications techniques / Quanto stampato puo' essere  
soggetto ad errori di stampa e variazione tecniche / Queda reservado el derecho sobre eventuales fallos de impresión, errores o modificaciones  
técnicas

# DRILLS/THREADING

FR FORETS À PLAQUETTES / FILETAGE ROUTEUR IT PUNTE AD INSERTI / FILO FRESATURA  
ES HERRAMIENTAS PARA TALADRAR / HILO FRESADO

	D	LxD/a	Description / Description Modello / Descripción	Code / Série Codici / Serie	Page / Page Pagina / Página
	28 - 50	5xD	<del>QUAD-DRILL-PLUS</del>	5D Ø28 - Ø50	330
	51 - 80	2,5xD	<del>QUAD-DRILL-PLUS</del>	2,5D Ø51 - Ø80	332
	51 - 80	3,5xD	<del>QUAD-DRILL-PLUS</del>	3,5D Ø51 - Ø80	336
	9,5 - 9,9	12	<del>RAPID-THREAD</del>	End Mill Weldon Shank (a=12mm)	340
	9,9	12	<del>RAPID-THREAD</del>	End Mill Carbide Shank (a=12mm)	342
	12 - 20	14	<del>RAPID-THREAD</del>	End Mill Weldon Shank (a=14mm)	344
	13,2 - 15,2	14	<del>RAPID-THREAD</del>	End Mill Carbide Shank (a=14mm)	346
	18 - 30	21	<del>RAPID-THREAD</del>	End Mill Weldon Shank (a=21mm)	348
	21	21	<del>RAPID-THREAD</del>	End Mill Carbide Shank (a=21mm)	350
	63	21	<del>RAPID-THREAD</del>	Shell Mill (a=21mm)	352
	29 - 40	30	<del>RAPID-THREAD</del>	End Mill Weldon Shank (a=30mm)	354

Subject to printing error or technical changes / Sous réserve d'erreurs d'impression ou de modifications techniques / Quanto stampato puo' essere soggetto ad errori di stampa e variazione tecniche / Queda reservado el derecho sobre eventuales fallos de impresión, errores o modificaciones técnicas














	D	a	Description / Description Modello / Descripción	Code / Série Codici / Serie	Page / Page Pagina / Página
	27	30	<del>RAPID-THREAD</del>	End Mill Carbide Shank (a=30mm)	356
	63 - 100	30	<del>RAPID-THREAD</del>	Shell Mill (a=30mm)	358
	48 - 50	40	<del>RAPID-THREAD</del>	End Mill Weldon Shank (a=40mm)	360
	80 - 100	40	<del>RAPID-THREAD</del>	Shell Mill (a=40mm)	362
	23	23	<del>RAPID-THREAD</del>	End Mill Weldon Shank (a=23mm)	364
	32	32	<del>RAPID-THREAD</del>	End Mill Weldon Shank (a=32mm)	366
	45	37	<del>RAPID-THREAD</del>	End Mill Weldon Shank (a=37mm)	368
	63	38	<del>RAPID-THREAD</del>	Shell Mill (a=38mm)	370
	3,8 - 20	10,3 - 43,5	<del>RAPID-THREAD</del>	SC ISO-Threading with central internal Coolant	372
	3,2 - 20	6,8 - 45,3	<del>RAPID-THREAD</del>	SC UN-Threading with central internal Coolant	373
	7,8 - 20	14,1 - 47,3	<del>RAPID-THREAD</del>	SC BSP-Threading with central internal Coolant	374

Subject to printing error or technical changes / Sous réserve d'erreurs d'impression ou de modifications techniques / Quanto stampato puo' essere  
soggetto ad errori di stampa e variazione tecniche / Queda reservado el derecho sobre eventuales fallos de impresión, errores o modificaciones  
técnicas












# DRILLS/THREADING

FR FORETS À PLAQUETTES / FILETAGE ROUTEUR IT PUNTE AD INSERTI / FILO FRESATURA  
 ES HERRAMIENTAS PARA TALADRAR / HILO FRESADO

	D	a	Description / Description Modello / Descripción	Code / Série Codici / Serie	Page / Page Pagina / Página
	7,8 - 16	14,1 - 28,9	<del>RAPID-THREAD</del>	SC BSPT-Threading with central internal Coolant	375
	7,6 - 20	10,8 - 39,7	<del>RAPID-THREAD</del>	SC NPT-Threading with central internal Coolant	376
	7,6 - 20	10,8 - 39,7	<del>RAPID-THREAD</del>	SC NPTF-Threading with central internal Coolant	377
	4,8 - 15	10,5 - 33,8	<del>RAPID-THREAD</del>	SC ISO-Threading with internal Coolant in the flutes	378
	5 - 14,4	11,3 - 34,3	<del>RAPID-THREAD</del>	SC UN-Threading with internal Coolant in the flutes	379
	7,8 - 16	14,1 - 38,1	<del>RAPID-THREAD</del>	SC BSP-Threading with internal Coolant in the flutes	380
	7,8 - 16	14,1 - 28,9	<del>RAPID-THREAD</del>	SC BSPT-Threading with internal Coolant in the flutes	381
	7,6 - 15,5	10,8 - 22,7	<del>RAPID-THREAD</del>	SC NPT-Threading with internal Coolant in the flutes	382
	7,6 - 15,5	10,8 - 22,7	<del>RAPID-THREAD</del>	SC NPTF-Threading with internal Coolant in the flutes	383
	2,2 - 20	5,3 - 43,5	<del>RAPID-THREAD</del>	SC ISO-Threading internal	384
	10 - 12	16,5 - 21	<del>RAPID-THREAD</del>	SC ISO-Threading external	385

Subject to printing error or technical changes / Sous réserve d'erreurs d'impression ou de modifica-  
 tions techniques / Quanto stampato puo' essere soggetto ad errori di stampa e variazione tecniche /  
 Queda reservado el derecho sobre eventuales fallos de impresión, errores o modificaciones técnicas

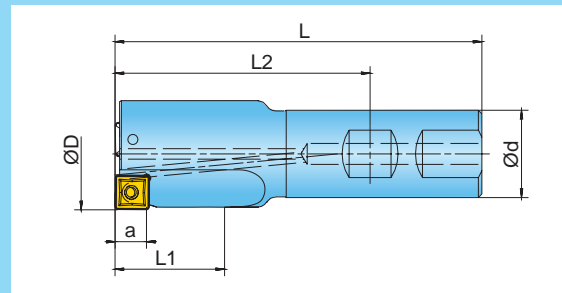


	D	a	Description / Description Modello / Descripción	Code / Série Codici / Serie	Page / Page Pagina / Página
	2,5 - 20	6 - 45,3	<del>RAPID-THREAD</del>	SC UN-Threading internal	386
	6 - 20	9,5 - 47,3	<del>RAPID-THREAD</del>	SC BSP-Threading internal & external	387
	6 - 16	9,5 - 28,9	<del>RAPID-THREAD</del>	SC BSPT-Threading internal & external	388
	6 - 20	9,9 - 39,7	<del>RAPID-THREAD</del>	SC NPT-Threading internal & external	389
	6 - 20	9,9 - 39,7	<del>RAPID-THREAD</del>	SC NPTF-Threading internal & external	390
	1,05 - 15	-	<del>RAPID-THREAD</del>	SC ISO-Threading short internal (right version)	391
	1,15 - 14,4	-	<del>RAPID-THREAD</del>	SC UN-Threading short internal (right version)	392
	1,55 - 9	-	<del>RAPID-THREAD</del>	SC ISO-Threading short internal (left version)	393
	1,15 - 9,2	-	<del>RAPID-THREAD</del>	SC UN-Threading short internal (left version)	394

Subject to printing error or technical changes / Sous réserve d'erreurs d'impression ou de modifications techniques / Quanto stampato puo' essere  
soggetto ad errori di stampa e variazione tecniche / Queda reservado el derecho sobre eventuales fallos de impresión, errores o modificaciones  
técnicas



ADAPTION ACC. TO DIN 1835 B (WELDON) / ATTACHEMENT DIN 1835 B ( WELDON)  
 ATTACCO DIN 1835 B (WELDON) / ADAPTACIÓN SEGÚN DIN 1835 B (WELDON)



Designation / Réf. de l'article  
 Articolo / Referencia

D d L L1 L2 a Z Zeff



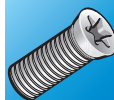
Related Insert

BS.016.008	16	20	75	16	50	5,4	2	1	✓	0,14	ABC
BS.020.011	20	20	85	20	60	5,4	2	1	✓	0,16	ABC
BS.025.010	25	25	95	25	63	7,0	2	1	✓	0,28	DEF
BS.030.009	30	25	105	30	73	8,9	2	1	✓	0,35	GHI
BS.032.008	32	25	105	32	73	8,9	2	1	✓	0,37	GHI
BS.040.009	40	32	120	40	84	13,0	2	1	✓	0,68	JKL

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Diameter Range / Diamètres Campo diametri / Rango de diámetros
16 - 20 25 30 - 32

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita
SM22-052-00 SM25-064-00 SM35-088-60



Screw driver / Tournevis Cacciavite / Destornillador
DS-T07S DS-T08S DS-T10S



Diameter Range / Diamètres Campo diametri / Rango de diámetros
40

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita
SM50-122-50

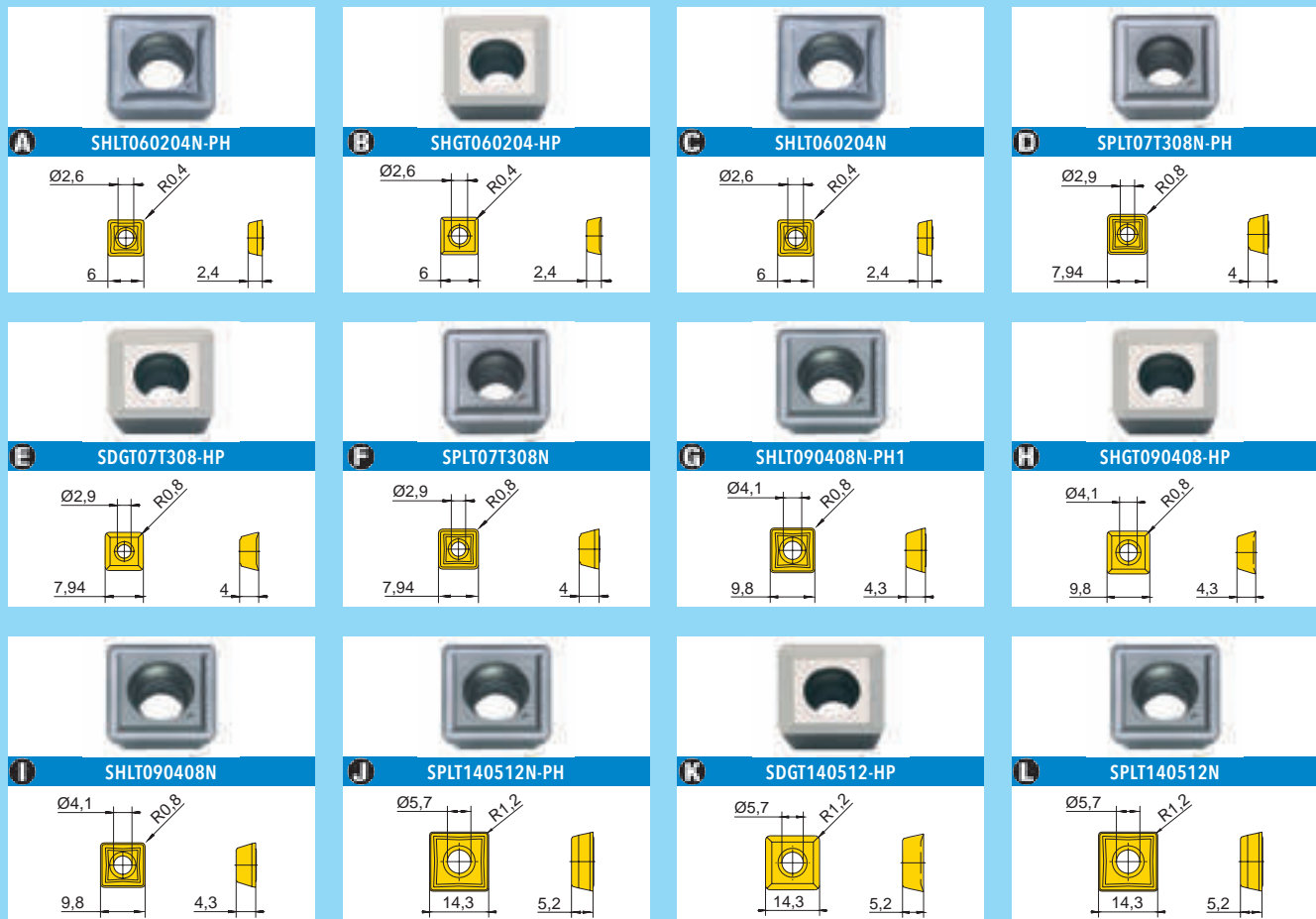


Screw driver / Tournevis Cacciavite / Destornillador
DS-T20S



# DRILLS / THREADING

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



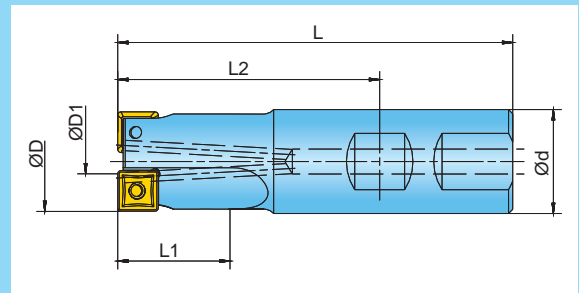
Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN1030	IN2005	IN2010	IN6520			
SHLT060204N-PH <sup>1)</sup>	positive geometry R0,4			●	●		●			
SHGT060204-HP	non-ferrous geometry, polished R0,4	●								
SHLT060204N	cast iron geometry R0,4					●				
SPLT07T308N-PH <sup>1)</sup>	positive geometry R0,8			●	●		●			
SDGT07T308-HP	non-ferrous geometry, polished R0,8	●								
SPLT07T308N	cast iron geometry R0,8					●				
SHLT090408N-PH1 <sup>1)</sup>	positive geometry R0,8			●	●		●			
SHGT090408-HP	non-ferrous geometry, polished R0,8	●								
SHLT090408N	cast iron geometry R0,8					●				
SPLT140512N-PH <sup>1)</sup>	positive geometry R1,2			●	●		●			
SDGT140512-HP	non-ferrous geometry, polished R1,2	●								
SPLT140512N	cast iron geometry R1,2					●				

<sup>1)</sup> Use IN6520 grade only for peripheral inserts / Le revêtement IN6520 est uniquement pour les plaquettes extérieures / Utilizzare il grado IN6520 solo sugli inserti laterali / Usar la calidad IN6520 solo para las plaquitas montadas en la parte exterior.

● = P ● = M ● = K ● = N ● = S ○ = H







ADAPTION ACC. TO DIN 1835 B (WELDON) / ATTACHEMENT DIN 1835 B ( WELDON)  
 ATTACCO DIN 1835 B (WELDON) / ADAPTACIÓN SEGÚN DIN 1835 B (WELDON)



Designation / Réf. de l'article Articolo / Referencia	D	D1	d	L	L1	L2	a	Z	IK	kg	Related Insert
BS.010.001	10	4,5	12	70	10	47,5	4,5	1	✓	0,10	ABC
BS.011.001	11	4,5	12	70	11	47,5	4,5	1	✓	0,10	ABC
BS.013.007	13	4,5	16	75	13	51	4,5	2	✓	0,11	ABC
BS.015.002	15	4,5	20	75	15	50	5,4	2	✓	0,13	DEF
BS.018.008	18	7,5	20	75	18	50	5,4	2	✓	0,14	DEF
BS.020.010	20	9,5	20	85	20	60	5,4	2	✓	0,16	DEF
BS.024.007	24	6,5	25	95	24	63	7,0	2	✓	0,27	GHI
BS.026.007	26	5,0	25	100	26	68	10,5	2	✓	0,29	GHI
BS.030.008	30	9,0	25	105	30	73	10,5	2	✓	0,35	GHI
BS.033.007	33	12,0	25	105	33	73	10,5	2	✓	0,38	GHI
BS.036.007	36	15,0	32	110	36	74	10,5	3	✓	0,56	GHI
BS.040.008	40	14,5	32	120	40	84	13	3	✓	0,62	JKL
BS.048.007	48	22,0	40	130	48	90	13	3	✓	1,10	JKL

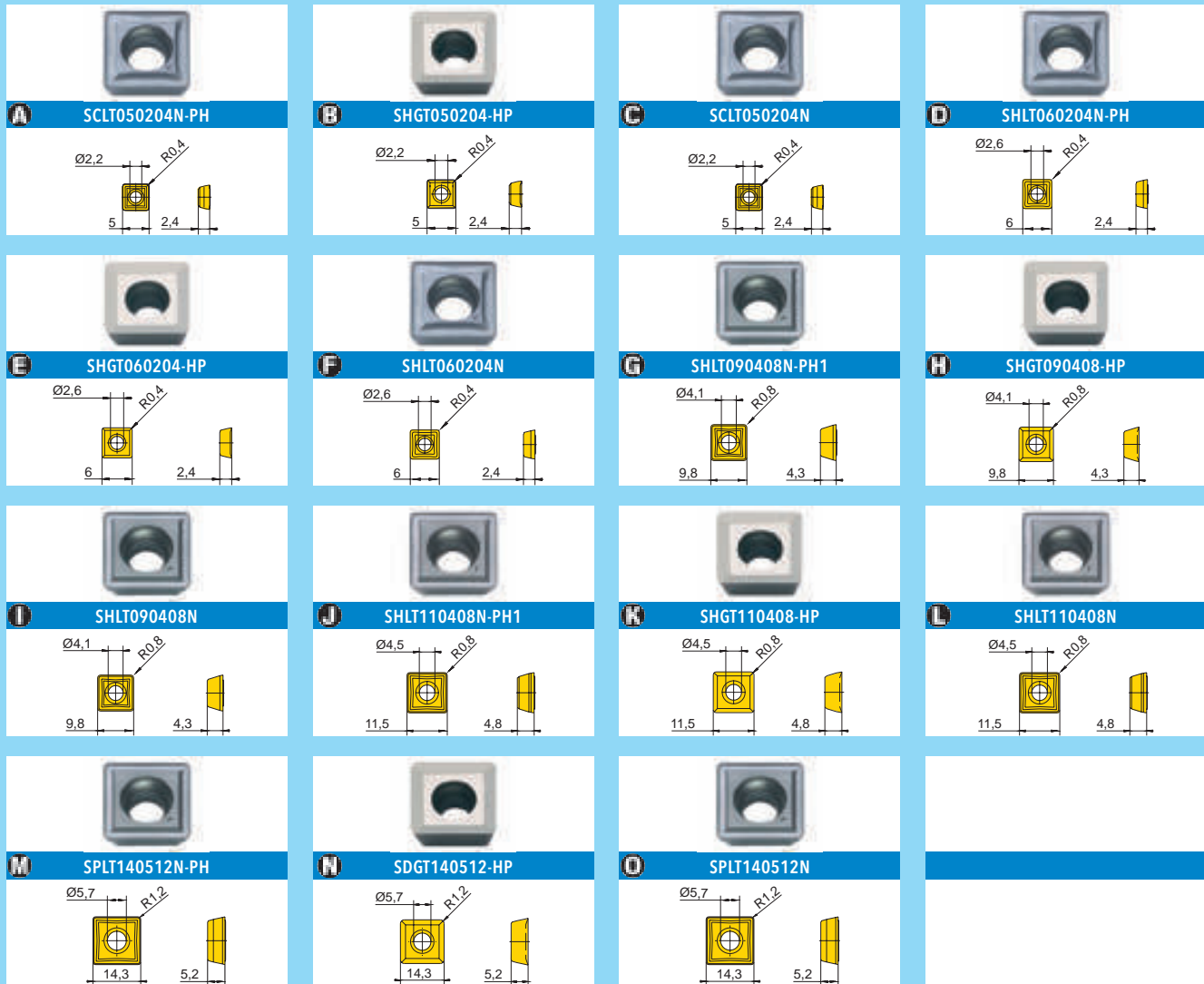
Diameter D1 corresponds with the minimum diameter of the through hole / D1 représente le diamètre minimal du trou de passage /  
 Il diametro D1 corrisponde al diametro minimo dal foro passante / Diámetro D1 corresponde al mínimo diámetro para agujero pasante

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Diameter Range / Diamètres Campo diometri / Rango de diámetros	Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador
10 - 13 15 - 20 24	SM20-043-00 SM22-052-00 SM35-088-60 	DS-TP06S (TX-Plus) DS-T07S DS-T10S 
26 - 36 40 - 48	SM40-093-20 SM50-122-50 	DS-T15S DS-T20S 

# DRILLS/THREADING

INSERTS / PLAQUETTES DE COUPE  
 INSERTI / PLAQUITA

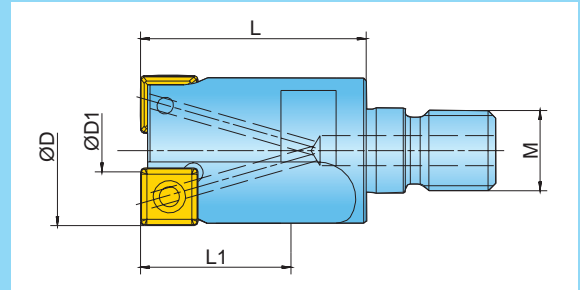


Designation / Réf. de l'article Artículo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN1030	IN2005	IN2010	IN6520			
SCLT050204N-PH <sup>1)</sup>	positive geometry R0,4			●	●		●			
SHGT050204-HP	non-ferrous geometry, polished R0,4		●							
SCLT050204N	cast iron geometry R0,4					●				
SHLT060204N-PH <sup>1)</sup>	positive geometry R0,4			●	●		●			
SHGT060204-HP	non-ferrous geometry, polished R0,4		●							
SHLT060204N	cast iron geometry R0,4					●				
SHLT090408N-PH1 <sup>1)</sup>	positive geometry R0,8			●	●		●			
SHGT090408-HP	non-ferrous geometry, polished R0,8		●							
SHLT090408N	cast iron geometry R0,8					●				
SHLT110408N-PH1 <sup>1)</sup>	positive geometry R0,8			●	●		●			
SHGT110408-HP	non-ferrous geometry, polished R0,8		●							
SHLT110408N	cast iron geometry R0,8					●				
SPLT140512N-PH <sup>1)</sup>	positive geometry R1,2			●	●		●			
SDGT140512-HP	non-ferrous geometry, polished R1,2		●							
SPLT140512N	cast iron geometry R1,2					●				

<sup>1)</sup> Use IN6520 grade only for peripheral inserts / Le revêtement IN6520 est uniquement pour les plaquettes extérieures / Utilizzare il grado IN6520 solo sugli inserti laterali / Usar la calidad IN6520 solo para las plaquitas montadas en la parte exterior.

● = P ● = M ● = K ● = N ● = S ○ = H

SCREW-TYPE ADAPTION / ATTACHEMENT FILETÉ  
 ATTACCO FILETTATO / ADAPTACIÓN MEDIANTE ROSCA




Designation / Réf. de l'article Articolo / Referencia	D	D1	d1	L	L1	M	Z	IK	kg	Related Insert
BS.015.009	15	4,5	13	30	15	8	2	✓	0,03	ABC
BS.018.010	18	7,5	13	30	18	8	2	✓	0,04	ABC
BS.020.013	20	9,5	18	35	20	10	2	✓	0,06	ABC
BS.024.013	24	6,5	21	35	24	12	2	✓	0,07	DEF
BS.026.011	26	5,0	21	40	26	12	2	✓	0,08	DEF
BS.030.014	30	9,0	29	45	30	16	2	✓	0,15	DEF
BS.033.011	33	12,0	29	50	33	16	2	✓	0,20	DEF
BS.036.011	36	15,0	29	50	36	16	2	✓	0,24	DEF
BS.040.012	40	14,5	29	60	40	16	2	✓	0,30	DEF
BS.048.008	48	22,0	29	70	48	16	2	✓	0,50	DEF

Diameter D1 corresponds with the minimum diameter of the through hole / D1 représente le diamètre minimal du trou de passage /

Il diametro D1 corrisponde al diametro minimo dal foro passante / Diámetro D1 corresponde al mínimo diámetro para agujero pasante

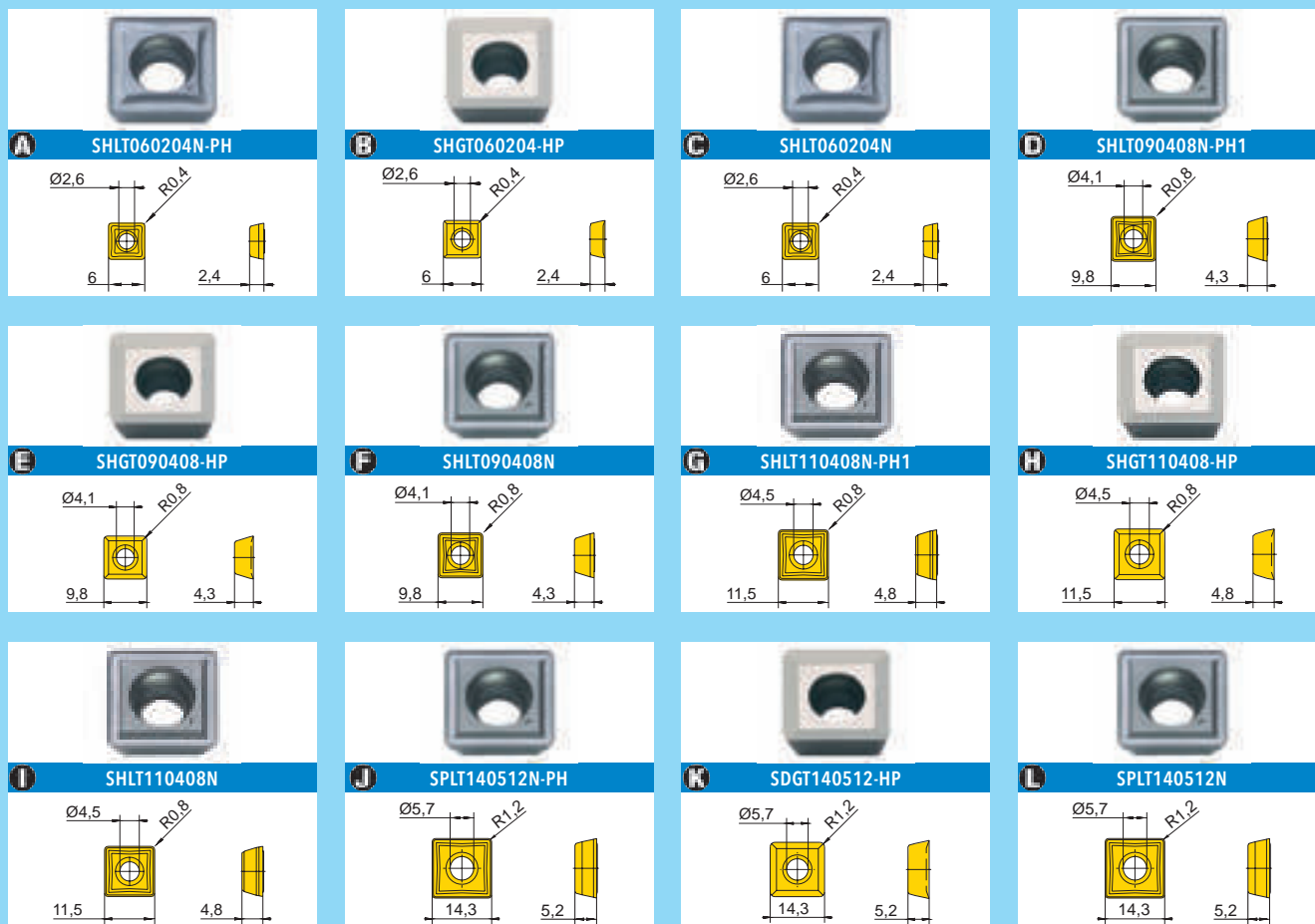
SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Diameter Range / Diamètres Campo diometri / Rango de diámetros	Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador
15 - 20 24 26 - 36	SM22-052-00 SM35-088-60 SM40-093-20 	DS-T07S DS-T10S DS-T15S 
40 - 48	SM50-122-50 	DS-T20S 



# DRILLS / THREADING

INSERTS / PLAQUETTES DE COUPE  
 INSERTI / PLAQUITA

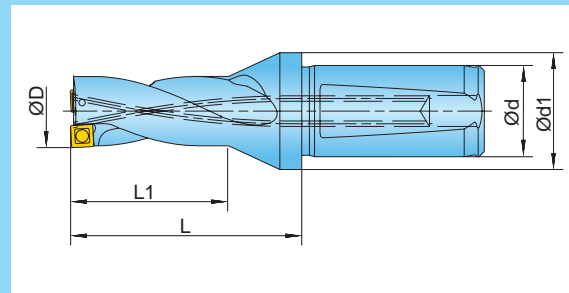


Designation / Réf. de l'article Artículo / Referencia	Insert Version / Execution Tipología Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN1030	IN2005	IN2010	IN6520			
SHLT060204N-PH <sup>1)</sup>	positive geometry R0,4			●	●		●			
SHGT060204-HP	non-ferrous geometry, polished R0,4		●							
SHLT060204N	cast iron geometry R0,4					●				
SHLT090408N-PH1 <sup>1)</sup>	positive geometry R0,8			●	●		●			
SHGT090408-HP	non-ferrous geometry, polished R0,8		●							
SHLT090408N	cast iron geometry R0,8					●				
SHLT110408N-PH1 <sup>1)</sup>	positive geometry R0,8			●	●		●			
SHGT110408-HP	non-ferrous geometry, polished R0,8		●							
SHLT110408N	cast iron geometry R0,8					●				
SPLT140512N-PH <sup>1)</sup>	positive geometry R1,2			●	●		●			
SDGT140512-HP	non-ferrous geometry, polished R1,2		●							
SPLT140512N	cast iron geometry R1,2					●				

<sup>1)</sup> Use IN6520 grade only for peripheral inserts / Le revêtement IN6520 est uniquement pour les plaquettes extérieures /  
 Utilizzare il grado IN6520 solo sugli inserti laterali / Usar la calidad IN6520 solo para las plaquitas montadas en la parte exterior.

● = P ● = M ● = K ● = N ● = S ○ = H

ADAPTION ACC. TO DIN 1835 E / ATTACHEMENT COMPATIBLE DIN 1835 E  
 ATTACCO DIN 1835 E / ADAPTACIÓN SEGÚN DIN 1835 E



Designation / Réf. de l'article  
 Artículo / Referencia

D d d1 L L1 Z Zeff



Related Insert

BS.013.002	13	20	25	44	26	2	1	✓	0,15	ABC
BS.014.002	14	20	25	46	28	2	1	✓	0,16	ABC
BS.015.004	15	20	25	49	30	2	1	✓	0,16	ABC
BS.016.005	16	25	32	52	32	2	1	✓	0,26	DEF
BS.017.003	17	25	32	54	34	2	1	✓	0,26	DEF
BS.018.005	18	25	32	57	36	2	1	✓	0,26	DEF
BS.019.004	19	25	32	59	38	2	1	✓	0,27	DEF
BS.020.007	20	25	32	63	40	2	1	✓	0,29	DEF
BS.021.003	21	25	32	65	42	2	1	✓	0,33	DEF
BS.022.007	22	25	32	67	44	2	1	✓	0,33	DEF
BS.023.008	23	25	45	71	46	2	1	✓	0,42	DEF
BS.024.009	24	25	45	74	48	2	1	✓	0,44	DEF
BS.025.012	25	25	45	77	50	2	1	✓	0,45	DEF
BS.026.008	26	25	45	79	52	2	1	✓	0,46	DEF
BS.027.008	27	25	45	81	54	2	1	✓	0,47	DEF
BS.028.006	28	25	45	84	56	2	1	✓	0,49	DEF
BS.029.007	29	32	45	86	58	2	1	✓	0,66	DEF

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Diameter Range / Diamètres Campo diámetro / Rango de diámetros
13 - 15 16 - 21 22 - 27

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita
SM20-043-00 SM22-052-00 SM25-064-00



Screw driver / Tournevis Cacciavite / Destornillador
DS-TP06S (TX-Plus) DS-T07S DS-T08S



Diameter Range / Diamètres Campo diámetro / Rango de diámetros
28 - 29

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita
SM35-088-60

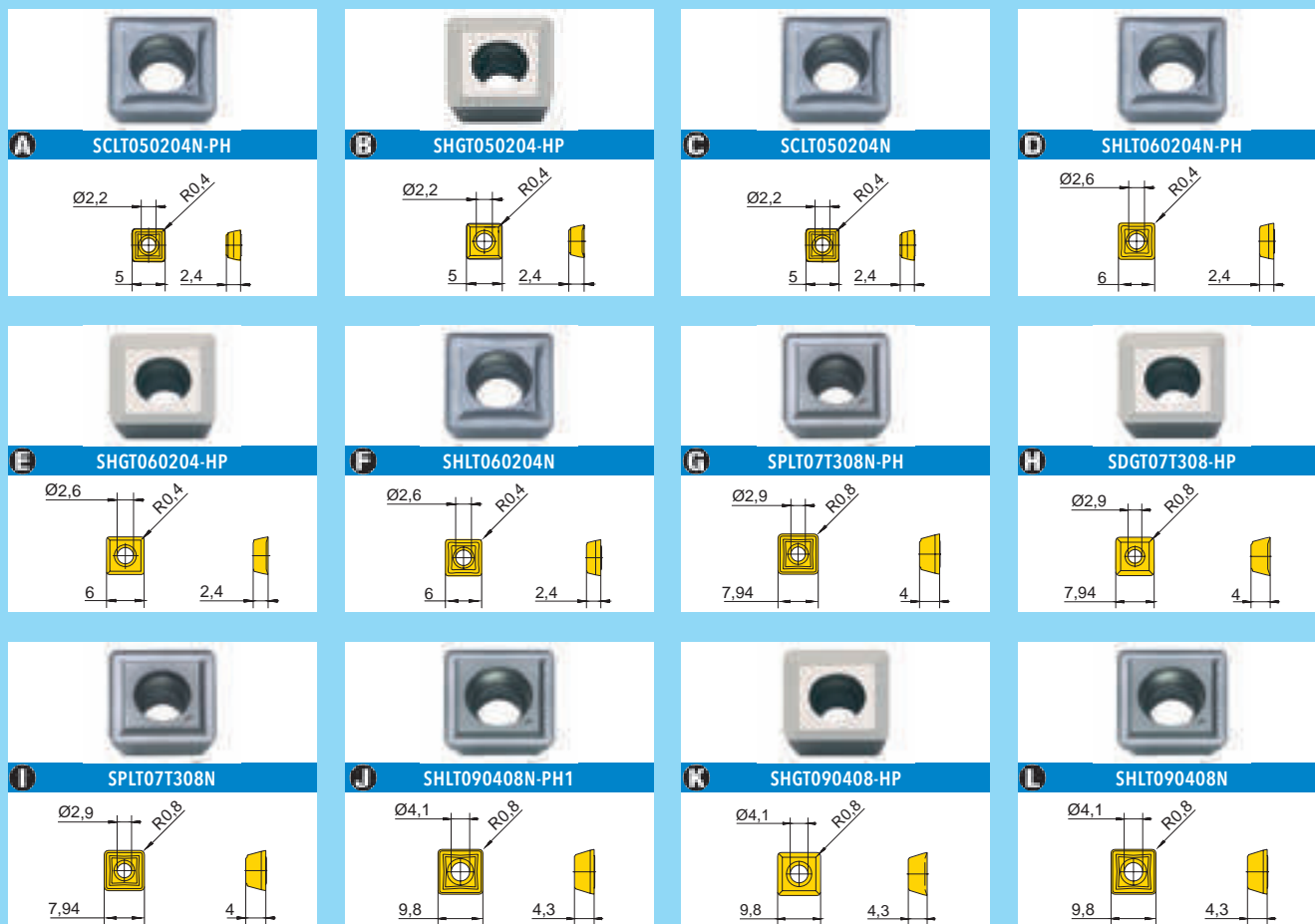


Screw driver / Tournevis Cacciavite / Destornillador
DS-T10S



# DRILLS/THREADING

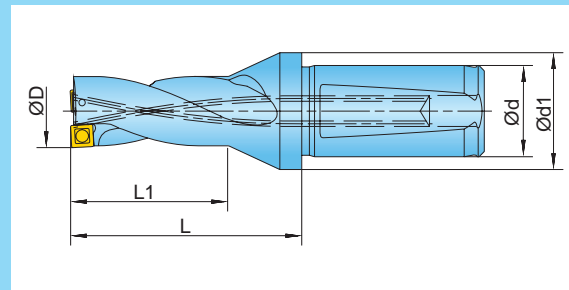
## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA



<sup>1)</sup> Use IN6520 grade only for peripheral inserts / Le revêtement IN6520 est uniquement pour les plaquettes extérieures / Utilizzare il grado IN6520 solo sugli inserti laterali / Usar la calidad IN6520 solo para las plaquitas montadas en la parte exterior.

● = P ● = M ● = K ● = N ● = S ○ = H

ADAPTION ACC. TO DIN 1835 E / ATTACHEMENT COMPATIBLE DIN 1835 E  
 ATTACCO DIN 1835 E / ADAPTACIÓN SEGÚN DIN 1835 E



Designation / Réf. de l'article  
 Artículo / Referencia

D d d1 L L1 Z Zeff



Related Insert

BS.030.010	30	32	55	91	60	2	1	✓	0,78	ABC
BS.031.006	31	32	55	94	62	2	1	✓	0,81	ABC
BS.032.009	32	32	55	96	64	2	1	✓	0,84	DEF
BS.033.008	33	32	55	99	66	2	1	✓	0,87	ABC
BS.034.006	34	32	55	101	68	2	1	✓	0,89	DEF
BS.035.006	35	32	55	104	70	2	1	✓	0,92	DEF
BS.036.008	36	32	55	107	72	2	1	✓	0,96	DEF
BS.037.006	37	32	55	110	74	2	1	✓	0,97	DEF
BS.038.006	38	32	55	113	76	2	1	✓	1,00	DEF
BS.039.006	39	32	55	115	78	2	1	✓	1,05	DEF
BS.040.013	40	32	60	118	80	2	1	✓	1,10	DEF
BS.041.003	41	40	60	121	82	2	1	✓	1,48	DEF
BS.042.007	42	40	60	123	84	2	1	✓	1,50	DEF
BS.043.006	43	40	60	126	86	2	1	✓	1,55	DEF
BS.044.003	44	40	60	128	88	2	1	✓	1,60	DEF
BS.045.003	45	40	60	132	90	2	1	✓	1,66	DEF
BS.046.003	46	40	60	135	92	2	1	✓	1,71	DEF
BS.047.003	47	40	60	137	94	2	1	✓	1,76	DEF
BS.048.004	48	40	60	140	96	2	1	✓	1,84	DEF
BS.049.003	49	40	60	142	98	2	1	✓	1,86	DEF
BS.050.003	50	40	60	145	100	2	1	✓	1,93	DEF

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Diameter Range / Diamètres  
 Campo diametri / Rango de diámetros

30 - 33  
 34 - 41  
 42 - 50

Insert screw / Vis de serrage  
 Vite per inserto / Tornillo plaquita

SM35-088-60  
 SM40-093-20  
 SM50-122-50



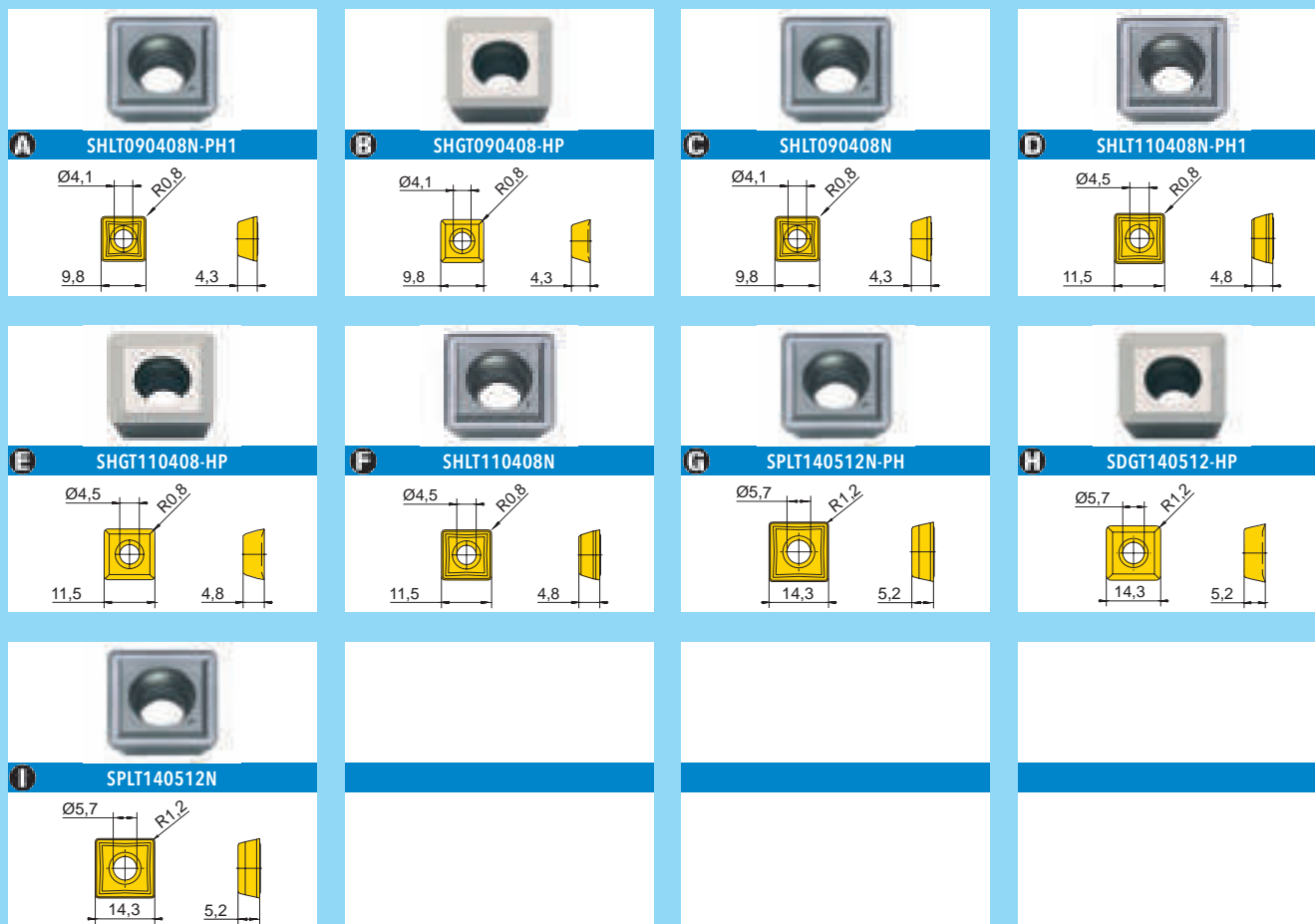
Screw driver / Tournevis  
 Cacciavite / Destornillador

DS-T10S  
 DS-T15S  
 DS-T20S



# DRILLS / THREADING

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA

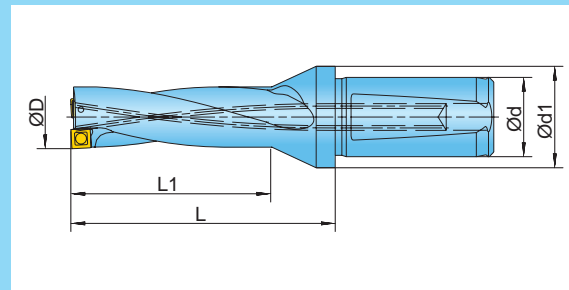


Designation / Réf. de l'article Artículo / Referencia	Insert Version / Execution Tipología Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN1030	IN2005	IN2010	IN6520			
SHLT090408N-PH1 <sup>1)</sup>	positive geometry R0,8			●	●		●			
SHGT090408-HP	non-ferrous geometry, polished R0,8		●							
SHLT090408N	cast iron geometry R0,8					●				
SHLT110408N-PH1 <sup>1)</sup>	positive geometry R0,8			●	●		●			
SHGT110408-HP	non-ferrous geometry, polished R0,8		●							
SHLT110408N	cast iron geometry R0,8					●				
SPLT140512N-PH <sup>1)</sup>	positive geometry R1,2			●	●		●			
SDGT140512-HP	non-ferrous geometry, polished R1,2		●							
SPLT140512N	cast iron geometry R1,2					●				

<sup>1)</sup> Use IN6520 grade only for peripheral inserts / Le revêtement IN6520 est uniquement pour les plaquettes extérieures / Utilizzare il grado IN6520 solo sugli inserti laterali / Usar la calidad IN6520 solo para las plaquitas montadas en la parte exterior.

● = P ● = M ● = K ● = N ● = S ○ = H

ADAPTION ACC. TO DIN 1835 E / ATTACHEMENT COMPATIBLE DIN 1835 E  
 ATTACCO DIN 1835 E / ADAPTACIÓN SEGÚN DIN 1835 E



Designation / Réf. de l'article  
 Artículo / Referencia

D d d1 L L1 Z Zeff



Related Insert

BS.013.003	12,5	20	25	57	38	2	1	✓	0,16	ABC
BS.013.004	13	20	25	57	39	2	1	✓	0,16	ABC
BS.014.003	13,5	20	25	60	41	2	1	✓	0,16	ABC
BS.014.004	14	20	25	60	42	2	1	✓	0,17	ABC
BS.015.005	14,5	20	25	64	44	2	1	✓	0,17	ABC
BS.015.006	15	20	25	64	45	2	1	✓	0,17	ABC
BS.016.010	15,5	25	32	68	47	2	1	✓	0,29	DEF
BS.016.006	16	25	32	68	48	2	1	✓	0,30	DEF
BS.017.006	16,5	25	32	71	50	2	1	✓	0,30	DEF
BS.017.004	17	25	32	71	51	2	1	✓	0,30	DEF
BS.018.009	17,5	25	32	75	53	2	1	✓	0,31	DEF
BS.018.006	18	25	32	75	54	2	1	✓	0,32	DEF
BS.019.007	18,5	25	32	78	55	2	1	✓	0,32	DEF
BS.019.005	19	25	32	78	57	2	1	✓	0,32	DEF
BS.020.012	19,5	25	32	83	59	2	1	✓	0,33	DEF
BS.020.008	20	25	32	83	60	2	1	✓	0,34	DEF
BS.021.006	20,5	25	32	86	61	2	1	✓	0,35	DEF
BS.021.004	21	25	32	86	63	2	1	✓	0,36	DEF
BS.022.006	21,5	25	32	89	64	2	1	✓	0,37	DEF
BS.022.008	22	25	32	89	66	2	1	✓	0,37	DEF
BS.023.007	22,5	25	45	94	67	2	1	✓	0,42	DEF
BS.023.009	23	25	45	94	69	2	1	✓	0,45	DEF
BS.024.010	23,5	25	45	98	70	2	1	✓	0,47	DEF
BS.024.011	24	25	45	98	72	2	1	✓	0,48	DEF
BS.025.013	24,5	25	45	102	74	2	1	✓	0,49	DEF
BS.025.014	25	25	45	102	75	2	1	✓	0,50	DEF
BS.026.013	25,5	25	45	105	78	2	1	✓	0,51	DEF
BS.026.009	26	25	45	105	78	2	1	✓	0,52	DEF
BS.027.009	26,5	25	45	108	79	2	1	✓	0,52	DEF
BS.027.010	27	25	45	108	81	2	1	✓	0,53	DEF
BS.028.009	27,5	25	45	112	84	2	1	✓	0,54	DEF

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Diameter Range / Diamètres  
 Campo diametri / Rango de diámetros

12,5 - 15  
 15,5 - 21,5  
 22 - 27,5

Insert screw / Vis de serrage  
 Vite per inserto / Tornillo plaquita

SM20-043-00  
 SM22-052-00  
 SM25-064-00



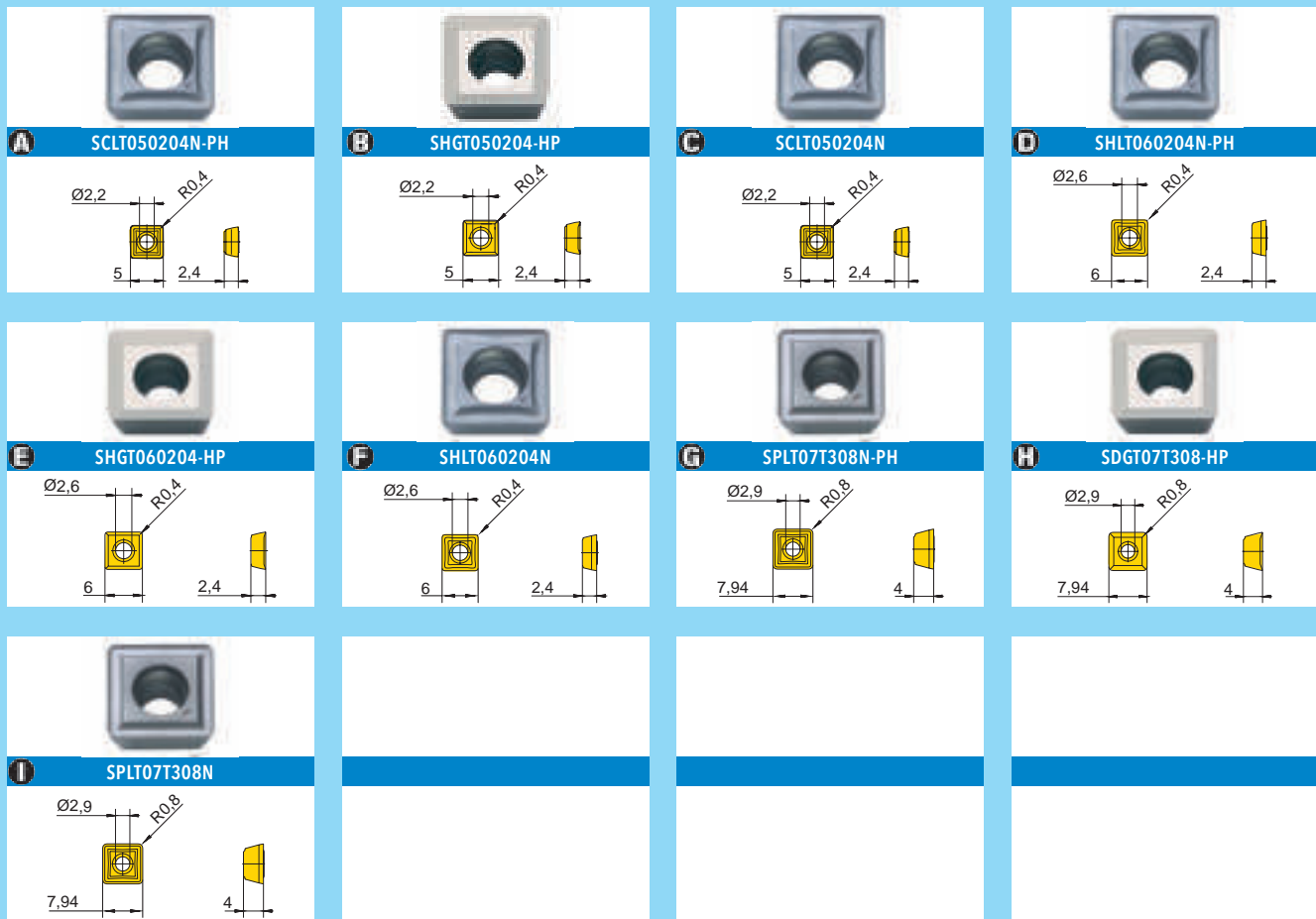
Screw driver / Tournevis  
 Cacciavite / Destornillador

DS-TP06S (TX-Plus)  
 DS-T07S  
 DS-T08S



# DRILLS / THREADING

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA

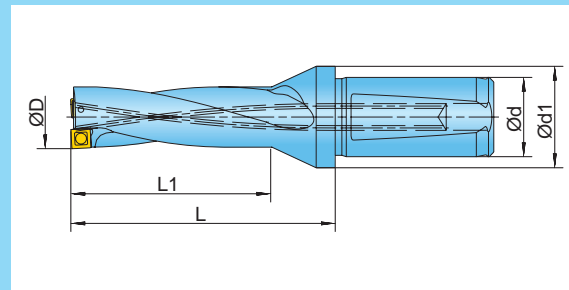


Designation / Réf. de l'article Artículo / Referencia	Insert Version / Execution Tipología Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN1030	IN2005	IN2010	IN6520			
SCLT050204N-PH <sup>1)</sup>	positive geometry R0,4			●	●		●			
SHGT050204-HP	non-ferrous geometry, polished R0,4	●								
SCLT050204N	cast iron geometry R0,4					●				
SHLT060204N-PH <sup>1)</sup>	positive geometry R0,4			●	●		●			
SHGT060204-HP	non-ferrous geometry, polished R0,4	●								
SHLT060204N	cast iron geometry R0,4					●				
SPLT07T308N-PH <sup>1)</sup>	positive geometry R0,8			●	●		●			
SDGT07T308-HP	non-ferrous geometry, polished R0,8	●								
SPLT07T308N	cast iron geometry R0,8					●				

<sup>1)</sup> Use IN6520 grade only for peripheral inserts / Le revêtement IN6520 est uniquement pour les plaquettes extérieures / Utilizzare il grado IN6520 solo sugli inserti laterali / Usar la calidad IN6520 solo para las plaquitas montadas en la parte exterior.

● = P ● = M ● = K ● = N ● = S ○ = H

ADAPTION ACC. TO DIN 1835 E / ATTACHEMENT COMPATIBLE DIN 1835 E  
 ATTACCO DIN 1835 E / ADAPTACIÓN SEGÚN DIN 1835 E



Designation / Réf. de l'article  
 Artículo / Referencia

D d d1 L L1 Z Zeff



Related Insert

BS.028.007	28	25	45	112	84	2	1	✓	0,56	ABC
BS.029.008	28,5	32	45	115	85	2	1	✓	0,72	ABC
BS.029.009	29	32	45	115	87	2	1	✓	0,75	ABC
BS.030.013	29,5	32	55	121	88	2	1	✓	0,84	ABC
BS.030.011	30	32	55	121	90	2	1	✓	0,87	ABC
BS.031.007	31	32	55	125	93	2	1	✓	0,90	ABC
BS.032.010	32	32	55	128	96	2	1	✓	0,93	ABC
BS.033.009	33	32	55	132	99	2	1	✓	0,97	ABC
BS.034.007	34	32	55	135	102	2	1	✓	1,01	ABC
BS.035.010	34,5	32	55	139	104	2	1	✓	1,04	ABC
BS.035.007	35	32	55	139	105	2	1	✓	1,05	ABC
BS.036.009	36	32	55	143	108	2	1	✓	1,10	ABC
BS.037.007	37	32	55	147	111	2	1	✓	1,11	ABC
BS.038.010	37,5	32	55	151	113	2	1	✓	1,14	ABC
BS.038.007	38	32	55	151	114	2	1	✓	1,17	ABC
BS.039.007	39	32	55	154	117	2	1	✓	1,23	ABC
BS.040.010	40	32	60	158	120	2	1	✓	1,31	ABC
BS.041.007	40,5	32	60	162	122	2	1	✓	1,39	ABC
BS.041.004	41	40	60	162	123	2	1	✓	1,48	ABC
BS.042.008	42	40	60	165	126	2	1	✓	1,62	ABC
BS.043.007	43	40	60	169	129	2	1	✓	1,78	ABC
BS.044.004	44	40	60	172	132	2	1	✓	1,83	ABC
BS.045.004	45	40	60	177	135	2	1	✓	1,92	ABC
BS.046.004	46	40	60	181	138	2	1	✓	1,99	ABC
BS.047.006	46,5	40	60	184	140	2	1	✓	1,96	ABC
BS.047.004	47	40	60	184	141	2	1	✓	2,05	ABC
BS.048.005	48	40	60	188	144	2	1	✓	2,11	ABC
BS.049.004	49	40	60	191	147	2	1	✓	2,16	ABC
BS.050.004	50	40	60	195	150	2	1	✓	2,26	ABC
BS.051.003	50,5	40	60	198	152	2	1	✓	2,31	ABC

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Diameter Range / Diamètres  
 Campo diametri / Rango de diámetros

28 - 33  
 34 - 41  
 42 - 50,5

Insert screw / Vis de serrage  
 Vite per inserto / Tornillo plaquita

SM35-088-60  
 SM40-093-20  
 SM50-122-50



Screw driver / Tournevis  
 Cacciavite / Destornillador

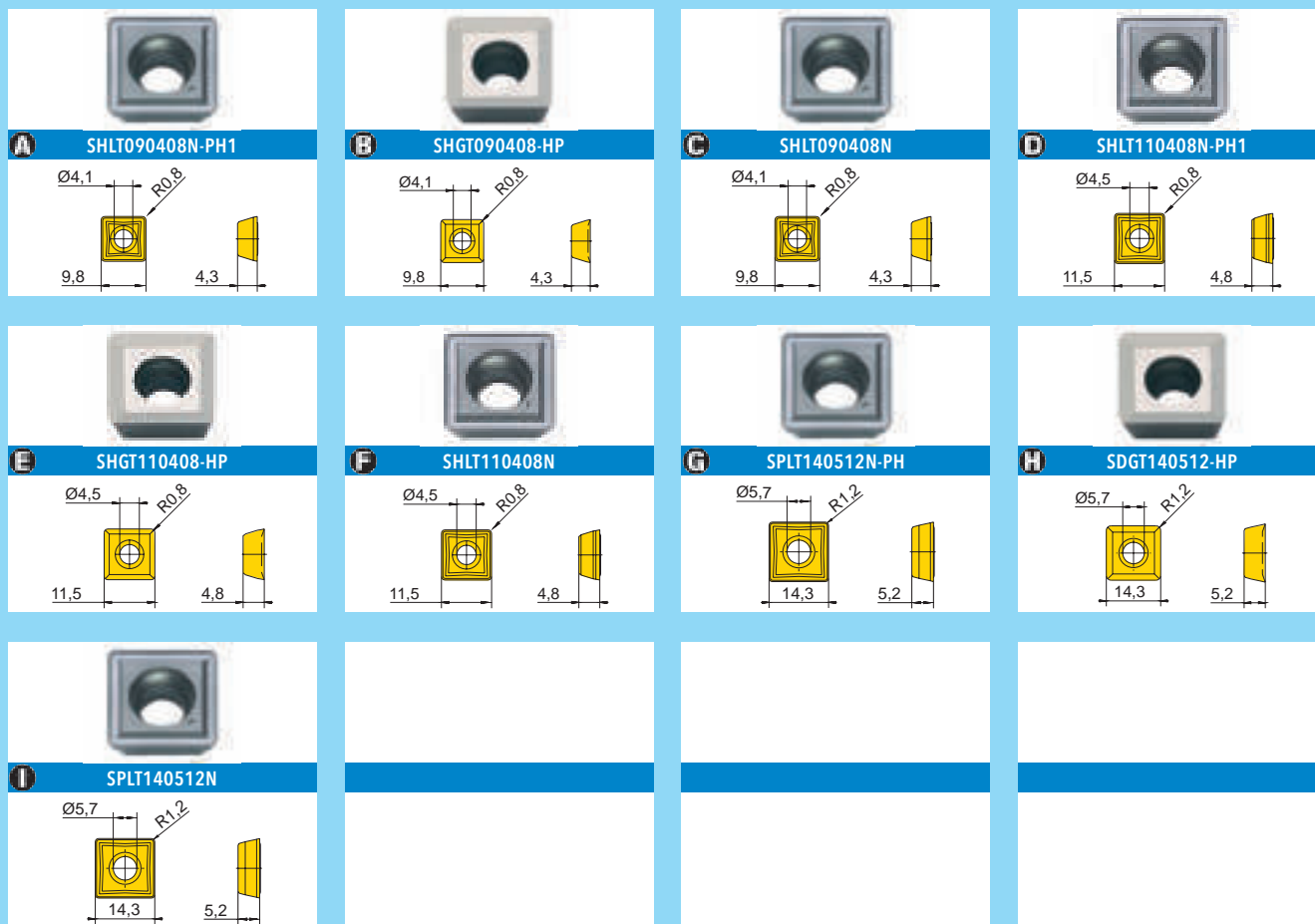
DS-T10S  
 DS-T15S  
 DS-T20S





# DRILLS / THREADING

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



Designation / Réf. de l'article Artículo / Referencia	Insert Version / Execution Tipología Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN1030	IN2005	IN2010	IN6520			
SHLT090408N-PH1 <sup>1)</sup>	positive geometry R0,8			●	●		●			
SHGT090408-HP	non-ferrous geometry, polished R0,8		●							
SHLT090408N	cast iron geometry R0,8					●				
SHLT110408N-PH1 <sup>1)</sup>	positive geometry R0,8			●	●		●			
SHGT110408-HP	non-ferrous geometry, polished R0,8		●							
SHLT110408N	cast iron geometry R0,8					●				
SPLT140512N-PH <sup>1)</sup>	positive geometry R1,2			●	●		●			
SDGT140512-HP	non-ferrous geometry, polished R1,2		●							
SPLT140512N	cast iron geometry R1,2					●				

<sup>1)</sup> Use IN6520 grade only for peripheral inserts / Le revêtement IN6520 est uniquement pour les plaquettes extérieures / Utilizzare il grado IN6520 solo sugli inserti laterali / Usar la calidad IN6520 solo para las plaquitas montadas en la parte exterior.

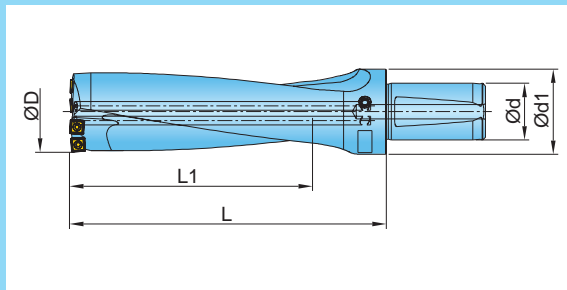
● = P ● = M ● = K ● = N ● = S ○ = H















**FR FORETS À PLAQUETTES / FILETAGE ROUTEUR**  
**IT PUNTE AD INSERTI / FILO FRESATURA**  
**ES HERRAMIENTAS PARA TALADRAR / HILO FRESADO**



ADAPTION ACC. TO DIN 1835 E / ATTACHEMENT COMPATIBLE DIN 1835 E  
 ATTACCO DIN 1835 E / ADAPTACIÓN SEGÚN DIN 1835 E



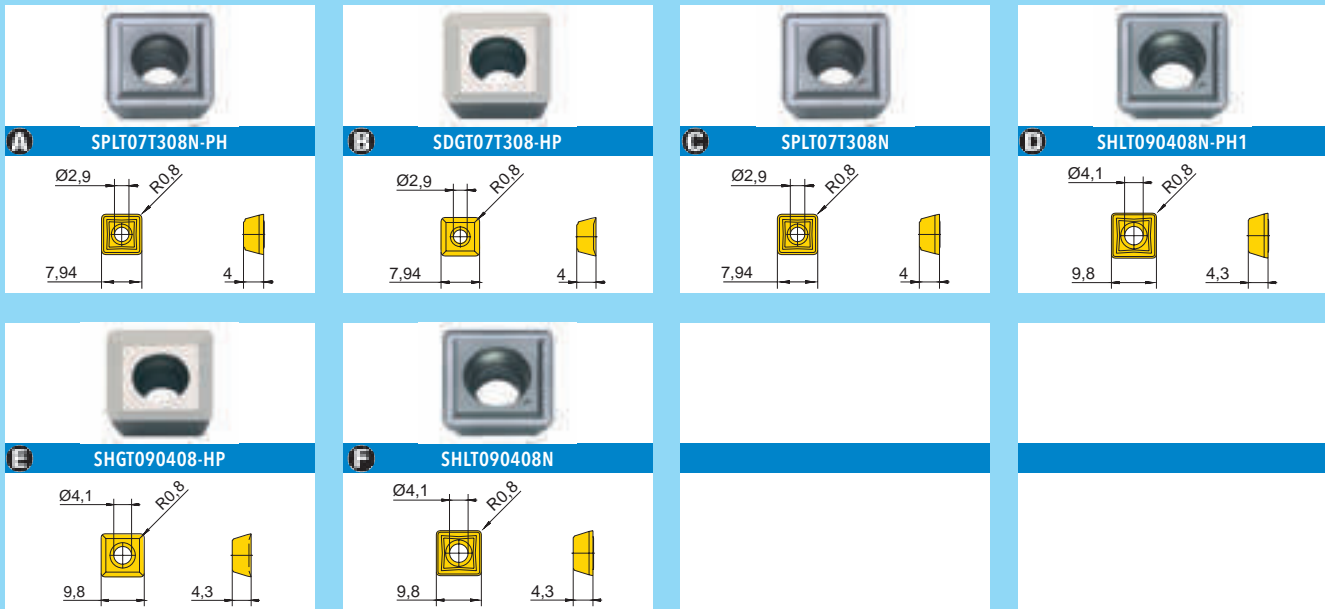
Designation / Réf. de l'article Articolo / Referencia	D	d	d1	L	L1	Z	Zeff			Related Insert
--	---	---	----	---	----	---	------	---	---	----------------

BS.051.002	51	40	75	199	153	4	1	✓	2,25	
BS.052.001	52	40	75	203	156	4	1	✓	2,35	
BS.053.001	53	40	75	206	159	4	1	✓	2,45	
BS.054.002	54	40	75	208	162	4	1	✓	2,55	
BS.055.001	55	40	75	211	165	4	1	✓	2,65	
BS.056.001	56	40	75	215	168	4	1	✓	2,75	
BS.057.002	57	40	75	220	171	4	1	✓	2,85	
BS.058.001	58	40	75	224	174	4	1	✓	2,95	
BS.059.001	59	40	75	227	177	4	1	✓	3,07	
BS.060.001	60	40	75	231	180	4	1	✓	3,15	

**QUAD DRILL PLUS 3D Ø51 - Ø60**

# DRILLS / THREADING

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA

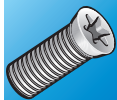



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN1030	IN2005	IN2010	IN6520			
SPLT07T308N-PH <sup>1)</sup>	positive geometry R0,8									
SDGT07T308-HP	non-ferrous geometry, polished R0,8									
SPLT07T308N	cast iron geometry R0,8									
SHLT090408N-PH1 <sup>1)</sup>	positive geometry R0,8									
SHGT090408-HP	non-ferrous geometry, polished R0,8									
SHLT090408N	cast iron geometry R0,8									

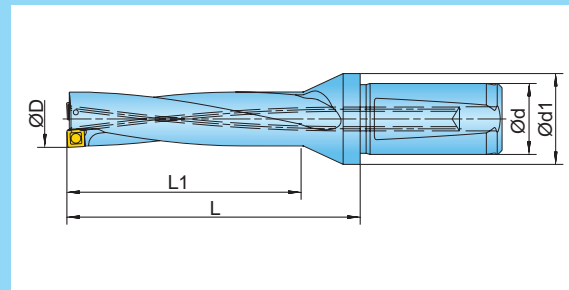
<sup>1)</sup> Use IN6520 grade only for peripheral inserts / Le revêtement IN6520 est uniquement pour les plaquettes extérieures / Utilizzare il grado IN6520 solo sugli inserti laterali / Usar la calidad IN6520 solo para las plaquitas montadas en la parte exterior.

● = P ● = M ● = K ● = N ● = S ● = H

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

Diameter Range / Diamètres Campo diâmetros / Rango de diâmetros	Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador
51 - 55 56 - 60	SM25-064-00 SM35-088-60 	DS-T08S DS-T10S 

ADAPTION ACC. TO DIN 1835 E / ATTACHEMENT COMPATIBLE DIN 1835 E  
 ATTACCO DIN 1835 E / ADAPTACIÓN SEGÚN DIN 1835 E



Designation / Réf. de l'article  
 Artículo / Referencia

D d d1 L L1 Z Zeff



Related Insert

BS.013.006	13	20	25	70	52	2	1	✓	0,17	ABC
BS.014.006	14	20	25	74	56	2	1	✓	0,18	ABC
BS.015.008	15	20	25	79	60	2	1	✓	0,18	ABC
BS.016.007	16	25	32	84	64	2	1	✓	0,28	DEF
BS.017.005	17	25	32	88	68	2	1	✓	0,32	DEF
BS.018.007	18	25	32	93	72	2	1	✓	0,34	DEF
BS.019.006	19	25	32	97	76	2	1	✓	0,35	DEF
BS.020.009	20	25	32	103	80	2	1	✓	0,37	DEF
BS.021.005	21	25	32	107	84	2	1	✓	0,39	DEF
BS.022.009	22	25	32	111	88	2	1	✓	0,40	DEF
BS.023.010	23	25	45	117	92	2	1	✓	0,48	DEF
BS.024.012	24	25	45	122	96	2	1	✓	0,52	DEF
BS.025.015	25	25	45	127	100	2	1	✓	0,54	DEF
BS.026.010	26	25	45	131	104	2	1	✓	0,57	DEF
BS.027.011	27	25	45	135	108	2	1	✓	0,59	DEF
BS.028.008	28	25	45	140	112	2	1	✓	0,62	DEF
BS.029.010	29	32	45	144	116	2	1	✓	0,80	DEF

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Diameter Range / Diamètres Campo diámetro / Rango de diámetros
13 - 15 16 - 21 22 - 27

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita
SM20-043-00 SM22-052-00 SM25-064-00



Screw driver / Tournevis Cacciavite / Destornillador
DS-TP06S (TX-Plus) DS-T07S DS-T08S



Diameter Range / Diamètres Campo diámetro / Rango de diámetros
28 - 29

Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita
SM35-088-60

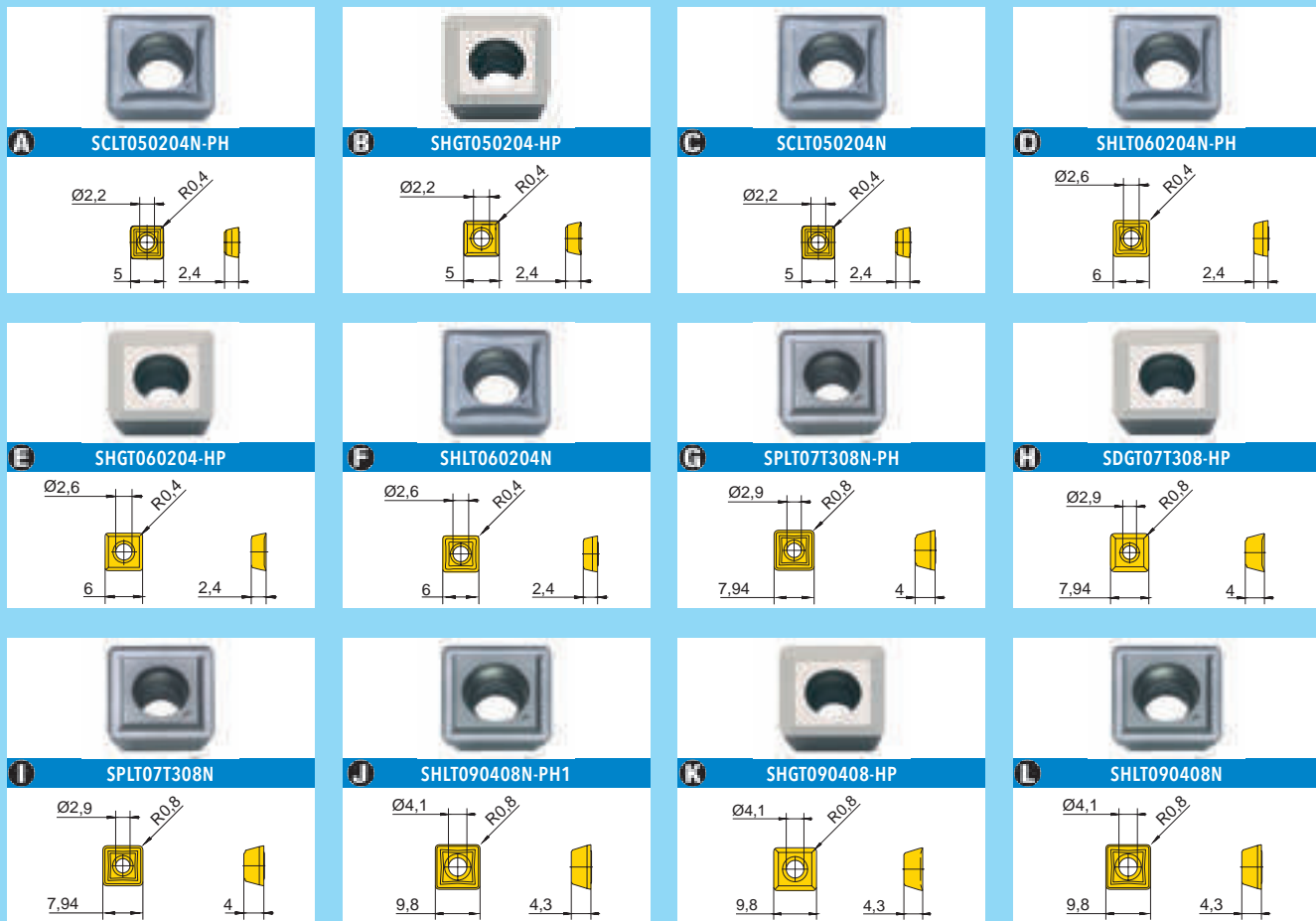


Screw driver / Tournevis Cacciavite / Destornillador
DS-T10S



# DRILLS / THREADING

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA

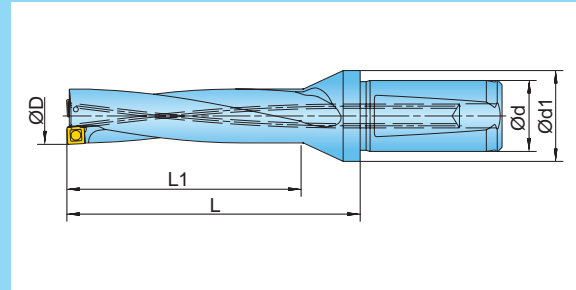


Designation / Réf. de l'article Artículo / Referencia	Insert Version / Execution Tipología Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN1030	IN2005	IN2010	IN6520			
SCLT050204N-PH <sup>1)</sup>	positive geometry R0,4			●	●		●			
SHGT050204-HP	non-ferrous geometry, polished R0,4	●								
SCLT050204N	cast iron geometry R0,4					●				
SHLT060204N-PH <sup>1)</sup>	positive geometry R0,4			●	●		●			
SHGT060204-HP	non-ferrous geometry, polished R0,4	●								
SHLT060204N	cast iron geometry R0,4					●				
SPLT07T308N-PH <sup>1)</sup>	positive geometry R0,8			●	●		●			
SDGT07T308-HP	non-ferrous geometry, polished R0,8	●								
SPLT07T308N	cast iron geometry R0,8					●				
SHLT090408N-PH1 <sup>1)</sup>	positive geometry R0,8			●	●		●			
SHGT090408-HP	non-ferrous geometry, polished R0,8	●								
SHLT090408N	cast iron geometry R0,8					●				

<sup>1)</sup> Use IN6520 grade only for peripheral inserts / Le revêtement IN6520 est uniquement pour les plaquettes extérieures / Utilizzare il grado IN6520 solo sugli inserti laterali / Usar la calidad IN6520 solo para las plaquitas montadas en la parte exterior.

● = P ● = M ● = K ● = N ● = S ○ = H

ADAPTION ACC. TO DIN 1835 E / ATTACHEMENT COMPATIBLE DIN 1835 E  
 ATTACCO DIN 1835 E / ADAPTACIÓN SEGÚN DIN 1835 E



Designation / Réf. de l'article  
 Artículo / Referencia

D d d1 L L1 Z Zeff



Related Insert

BS.030.012	30	32	55	151	120	2	1	✓	0,94	ABC
BS.031.008	31	32	55	156	124	2	1	✓	0,97	ABC
BS.032.011	32	32	55	160	128	2	1	✓	1,04	BCF
BS.033.010	33	32	55	165	132	2	1	✓	1,09	ABC
BS.034.008	34	32	55	169	136	2	1	✓	1,13	BCF
BS.035.008	35	32	55	174	140	2	1	✓	1,17	BCF
BS.036.010	36	32	55	179	144	2	1	✓	1,23	BCF
BS.037.008	37	32	55	184	148	2	1	✓	1,29	BCF
BS.038.008	38	32	55	189	152	2	1	✓	1,34	BCF
BS.039.008	39	32	55	193	156	2	1	✓	1,41	BCF
BS.040.011	40	32	60	198	160	2	1	✓	1,50	BCF
BS.041.005	41	40	60	203	164	2	1	✓	1,86	BCF
BS.042.009	42	40	60	207	168	2	1	✓	1,94	BCF
BS.043.008	43	40	60	212	172	2	1	✓	2,02	BCF
BS.044.005	44	40	60	216	176	2	1	✓	2,10	BCF
BS.045.005	45	40	60	222	180	2	1	✓	2,19	BCF
BS.046.005	46	40	60	227	184	2	1	✓	2,30	BCF
BS.047.005	47	40	60	231	188	2	1	✓	2,37	BCF
BS.048.006	48	40	60	236	192	2	1	✓	2,47	BCF
BS.049.005	49	40	60	240	196	2	1	✓	2,59	BCF
BS.050.005	50	40	60	245	200	2	1	✓	2,64	BCF

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Diameter Range / Diamètres  
 Campo diametri / Rango de diámetros

30 - 33  
 34 - 41  
 42 - 50

Insert screw / Vis de serrage  
 Vite per inserto / Tornillo plaquita

SM35-088-60  
 SM40-093-20  
 SM50-122-50



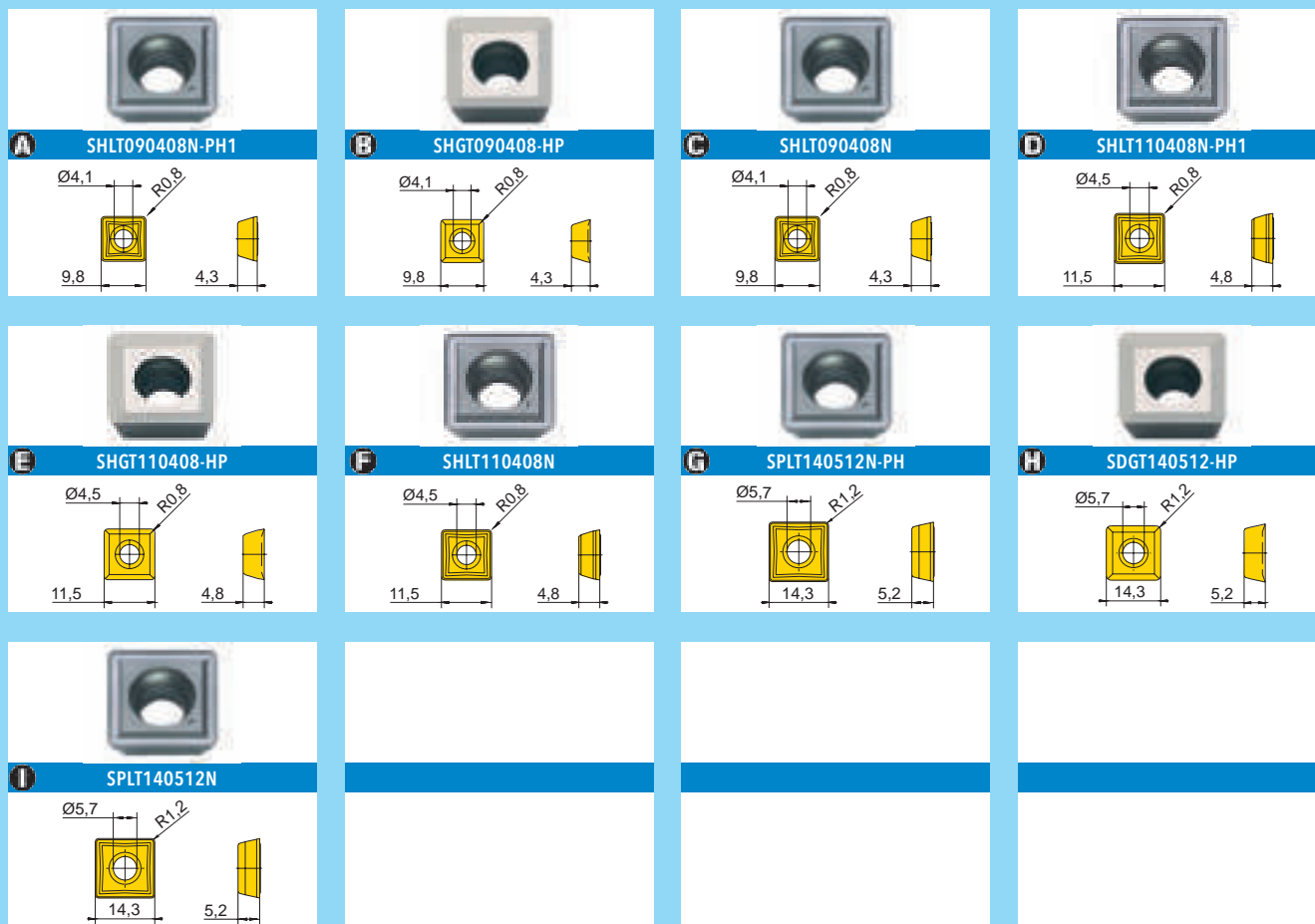
Screw driver / Tournevis  
 Cacciavite / Destornillador

DS-T10S  
 DS-T15S  
 DS-T20S



# DRILLS / THREADING

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA

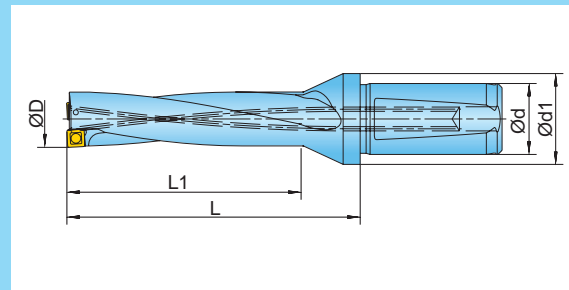


Designation / Réf. de l'article Artículo / Referencia	Insert Version / Execution Tipología Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN1030	IN2005	IN2010	IN6520			
SHLT090408N-PH1 <sup>1)</sup>	positive geometry R0,8			●	●		●			
SHGT090408-HP	non-ferrous geometry, polished R0,8		●							
SHLT090408N	cast iron geometry R0,8					●				
SHLT110408N-PH1 <sup>1)</sup>	positive geometry R0,8			●	●		●			
SHGT110408-HP	non-ferrous geometry, polished R0,8		●							
SHLT110408N	cast iron geometry R0,8					●				
SPLT140512N-PH <sup>1)</sup>	positive geometry R1,2			●	●		●			
SDGT140512-HP	non-ferrous geometry, polished R1,2		●							
SPLT140512N	cast iron geometry R1,2					●				

<sup>1)</sup> Use IN6520 grade only for peripheral inserts / Le revêtement IN6520 est uniquement pour les plaquettes extérieures / Utilizzare il grado IN6520 solo sugli inserti laterali / Usar la calidad IN6520 solo para las plaquitas montadas en la parte exterior.

● = P ● = M ● = K ● = N ● = S ○ = H

ADAPTION ACC. TO DIN 1835 E / ATTACHEMENT COMPATIBLE DIN 1835 E  
 ATTACCO DIN 1835 E / ADAPTACIÓN SEGÚN DIN 1835 E



Designation / Réf. de l'article  
 Artículo / Referencia

D d d1 L L1 Z Zeff



Related Insert

Designation / Réf. de l'article Artículo / Referencia	D	d	d1	L	L1	Z	Zeff	IK	kg	Related Insert
BS.013.008	13	20	25	83	65	2	1	✓	0,26	ABC
BS.014.007	14	20	25	88	70	2	1	✓	0,28	ABC
BS.015.010	15	20	25	94	75	2	1	✓	0,30	ABC
BS.016.014	16	25	32	100	80	2	1	✓	0,32	DEF
BS.017.007	17	25	32	105	85	2	1	✓	0,34	DEF
BS.018.011	18	25	32	111	90	2	1	✓	0,36	DEF
BS.019.008	19	25	32	116	95	2	1	✓	0,38	DEF
BS.020.016	20	25	32	123	100	2	1	✓	0,40	DEF
BS.021.007	21	25	32	128	105	2	1	✓	0,42	DEF
BS.022.010	22	25	32	133	110	2	1	✓	0,44	DEF
BS.023.011	23	25	45	140	115	2	1	✓	0,51	DEF
BS.024.014	24	25	45	146	120	2	1	✓	0,56	DEF
BS.025.018	25	25	45	152	125	2	1	✓	0,59	DEF
BS.026.012	26	25	45	157	130	2	1	✓	0,62	DEF
BS.027.012	27	25	45	162	135	2	1	✓	0,65	DEF

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Diameter Range / Diamètres  
 Campo diametri / Rango de diámetros

13 - 15  
 16 - 21  
 22 - 27

Insert screw / Vis de serrage  
 Vite per inserto / Tornillo plaquita

SM20-043-00  
 SM22-052-00  
 SM25-064-00



Screw driver / Tournevis  
 Cacciavite / Destornillador

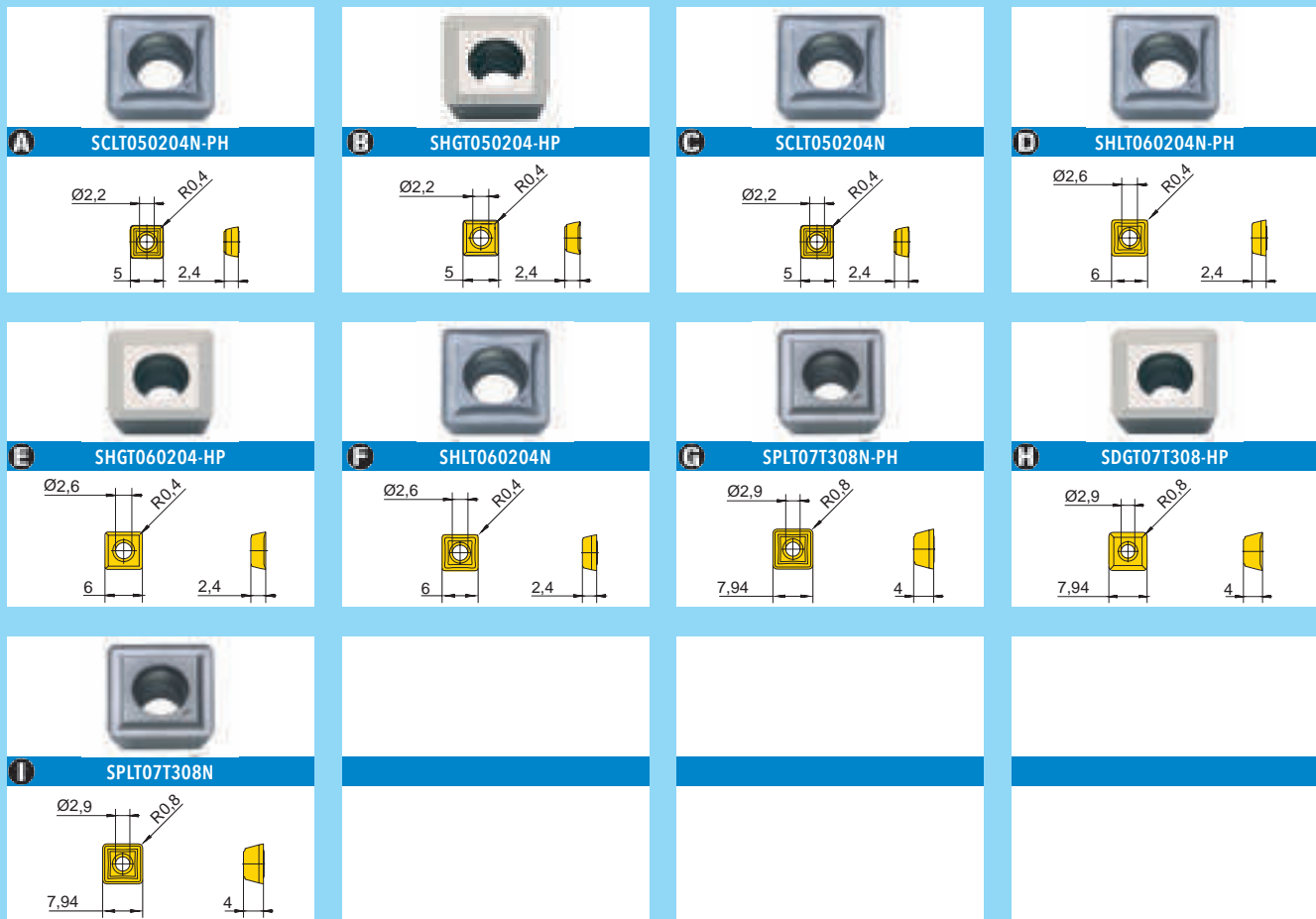
DS-TP06S (TX-Plus)  
 DS-T07S  
 DS-T08S





# DRILLS / THREADING

INSERTS / PLAQUETTES DE COUPE  
 INSERTI / PLAQUITA



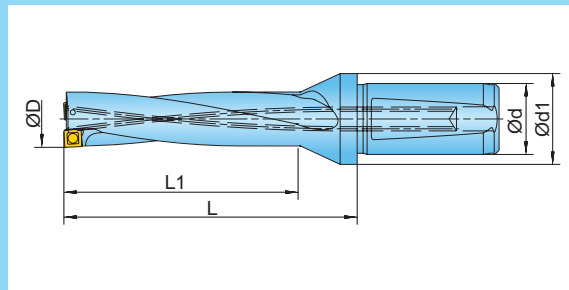
Designation / Réf. de l'article Artículo / Referencia	Insert Version / Execution Tipología Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN1030	IN2005	IN2010	IN6520			
SCLT050204N-PH <sup>1)</sup>	positive geometry R0,4			●	●		●			
SHGT050204-HP	non-ferrous geometry, polished R0,4	●								
SCLT050204N	cast iron geometry R0,4					●				
SHLT060204N-PH <sup>1)</sup>	positive geometry R0,4			●	●		●			
SHGT060204-HP	non-ferrous geometry, polished R0,4	●								
SHLT060204N	cast iron geometry R0,4					●				
SPLT07T308N-PH <sup>1)</sup>	positive geometry R0,8			●	●		●			
SDGT07T308-HP	non-ferrous geometry, polished R0,8	●								
SPLT07T308N	cast iron geometry R0,8					●				

<sup>1)</sup> Use IN6520 grade only for peripheral inserts / Le revêtement IN6520 est uniquement pour les plaquettes extérieures / Utilizzare il grado IN6520 solo sugli inserti laterali / Usar la calidad IN6520 solo para las plaquitas montadas en la parte exterior.

● = P ● = M ● = K ● = N ● = S ○ = H



ADAPTION ACC. TO DIN 1835 E / ATTACHEMENT COMPATIBLE DIN 1835 E  
 ATTACCO DIN 1835 E / ADAPTACIÓN SEGÚN DIN 1835 E



Designation / Réf. de l'article Articolo / Referencia	D	d	d1	L	L1	Z	Zeff		Related Insert
--	---	---	----	---	----	---	------	--	----------------

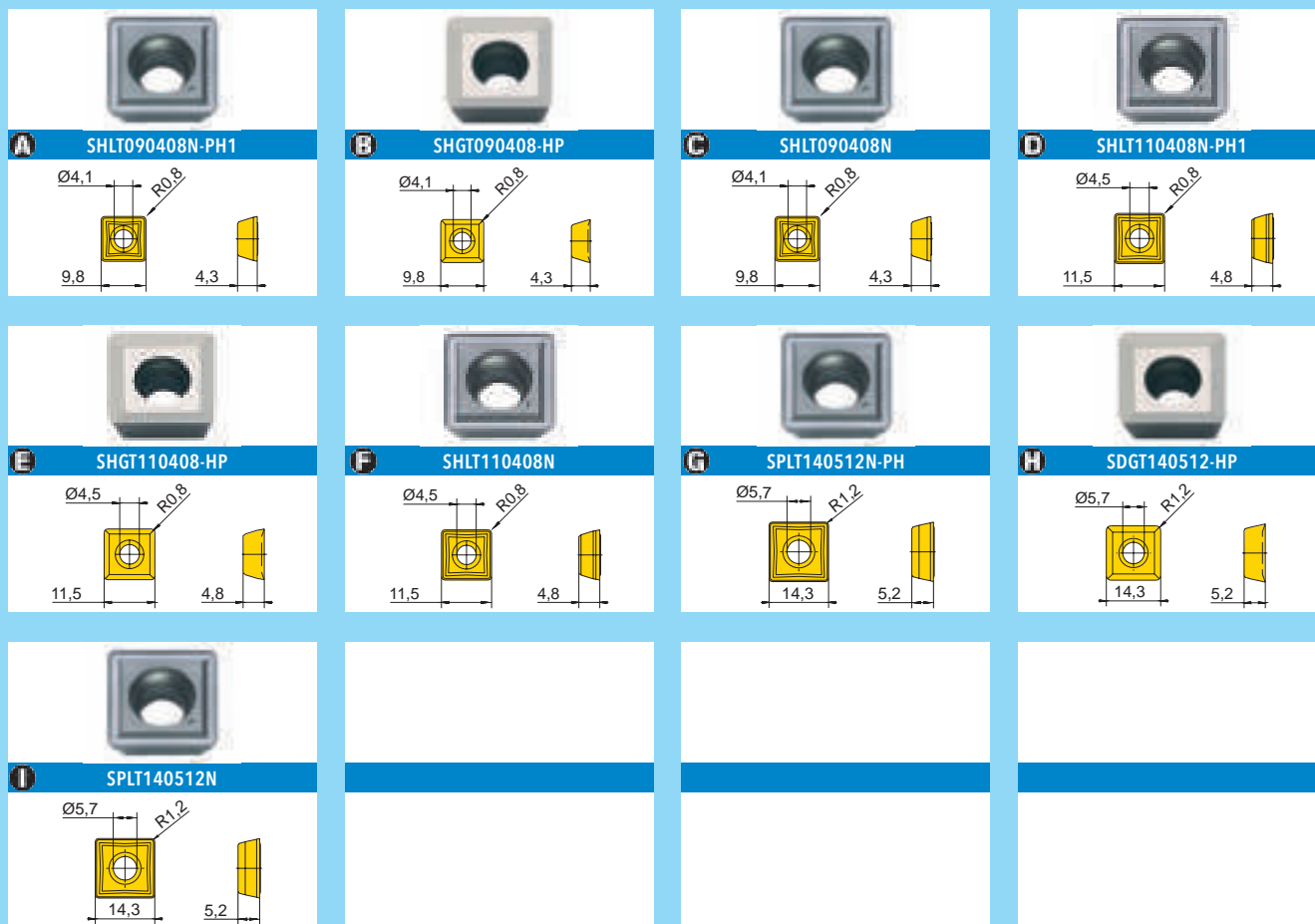
BS.028.010	28	25	45	168	140	2	1	✓	
BS.029.011	29	32	45	173	145	2	1	✓	
BS.030.015	30	32	55	181	150	2	1	✓	
BS.031.009	31	32	55	187	155	2	1	✓	
BS.032.014	32	32	55	192	160	2	1	✓	
BS.033.012	33	32	55	198	165	2	1	✓	
BS.034.009	34	32	55	203	170	2	1	✓	
BS.035.009	35	32	55	209	175	2	1	✓	
BS.036.012	36	32	55	215	180	2	1	✓	
BS.037.009	37	32	55	221	185	2	1	✓	
BS.038.009	38	32	55	227	190	2	1	✓	
BS.039.009	39	32	55	232	195	2	1	✓	
BS.040.014	40	32	60	238	200	2	1	✓	
BS.041.006	41	40	60	244	205	2	1	✓	
BS.050.006	50	50	75	297	250	2	1	✓	

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Diameter Range / Diamètres Campo diametri / Rango de diámetros	Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador
28 - 33 34 - 41 50	SM35-088-60 SM40-093-20 SM50-122-50 	DS-T10S DS-T15S DS-T20S 

# DRILLS / THREADING

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA

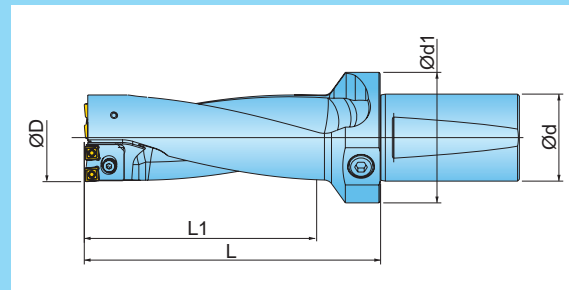


Designation / Réf. de l'article Artículo / Referencia	Insert Version / Execution Tipología Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN1030	IN2005	IN2010	IN6520			
SHLT090408N-PH1 <sup>1)</sup>	positive geometry R0,8			●	●		●			
SHGT090408-HP	non-ferrous geometry, polished R0,8		●							
SHLT090408N	cast iron geometry R0,8					●				
SHLT110408N-PH1 <sup>1)</sup>	positive geometry R0,8			●	●		●			
SHGT110408-HP	non-ferrous geometry, polished R0,8		●							
SHLT110408N	cast iron geometry R0,8					●				
SPLT140512N-PH <sup>1)</sup>	positive geometry R1,2			●	●		●			
SDGT140512-HP	non-ferrous geometry, polished R1,2		●							
SPLT140512N	cast iron geometry R1,2					●				

<sup>1)</sup> Use IN6520 grade only for peripheral inserts / Le revêtement IN6520 est uniquement pour les plaquettes extérieures / Utilizzare il grado IN6520 solo sugli inserti laterali / Usar la calidad IN6520 solo para las plaquitas montadas en la parte exterior.

● = P ● = M ● = K ● = N ● = S ○ = H

ADAPTION ACC. TO DIN 1835 E / ATTACHEMENT COMPATIBLE DIN 1835 E  
 ATTACCO DIN 1835 E / ADAPTACIÓN SEGÚN DIN 1835 E



Designation / Réf. de l'article  
 Articolo / Referencia

D d d1 L L1 Z Zeff Plate



Related Insert

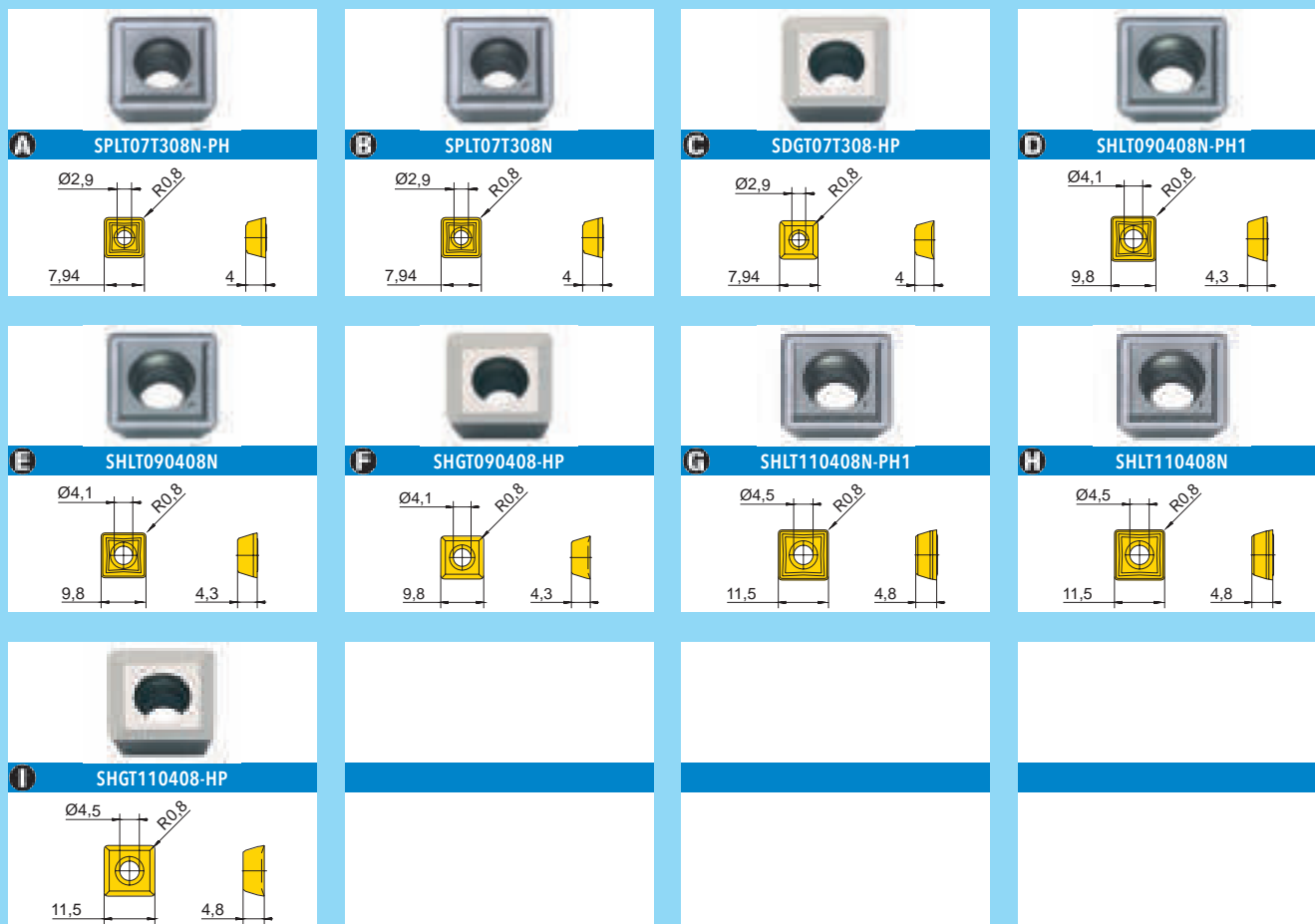
BS.051.004	51	50	75	170	133	4	1	-	✓	2,89	ABC
BS.051.004	52	50	75	170	133	4	1	PA-5108	✓	2,89	ABC
BS.051.004	53	50	75	170	133	4	1	PA-5109	✓	2,89	ABC
BS.054.003	54	50	75	180	140	4	1	-	✓	3,20	ABC
BS.054.003	55	50	75	180	140	4	1	PA-5108	✓	3,20	ABC
BS.054.003	56	50	75	180	140	4	1	PA-5109	✓	3,20	ABC
BS.057.003	57	50	75	201	155	4	1	-	✓	3,51	DEF
BS.057.003	58	50	75	201	155	4	1	PA-5110	✓	3,51	DEF
BS.057.003	59	50	75	201	155	4	1	PA-5111	✓	3,51	DEF
BS.057.003	60	50	75	201	155	4	1	PA-5112	✓	3,51	DEF
BS.057.003	61	50	75	201	155	4	1	PA-5113	✓	3,51	DEF
BS.057.003	62	50	75	201	155	4	1	PA-5114	✓	3,51	DEF
BS.063.002	63	50	75	215	165	4	1	-	✓	4,17	DEF
BS.063.002	64	50	75	215	165	4	1	PA-5110	✓	4,17	DEF
BS.063.002	65	50	75	215	165	4	1	PA-5111	✓	4,17	DEF
BS.063.002	66	50	75	215	165	4	1	PA-5112	✓	4,17	DEF
BS.067.002	67	50	75	240	183	4	1	-	✓	4,90	GHI
BS.067.002	68	50	75	240	183	4	1	PA-5115	✓	4,90	GHI
BS.067.002	69	50	75	240	183	4	1	PA-5116	✓	4,90	GHI
BS.067.002	70	50	75	240	183	4	1	PA-5117	✓	4,90	GHI
BS.067.002	71	50	75	240	183	4	1	PA-5118	✓	4,90	GHI
BS.067.002	72	50	75	240	183	4	1	PA-5119	✓	4,90	GHI
BS.067.002	73	50	75	240	183	4	1	PA-5120	✓	4,90	GHI

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

D	Peripheral cartridge / Cassette exterieur / Periferiche cartucce / Periféricas cartucho	Center cartridge / Cassette du centre / Cartucce centro / Cartucho centro	Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador
51 - 53 54 - 56 57 - 62	55E212R01 55E223R01 55F243R02	55E192R01 55E213R01 55F233R01	SM25-064-00 SM25-064-00 SM35-088-60	DS-T08S DS-T08S DS-T10S
63 - 66 67 - 73	55F263R01 55G294R01	55F243R03 55G264R01	SM35-088-60 SM40-093-20	DS-T10S DS-T15S

# DRILLS / THREADING

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA

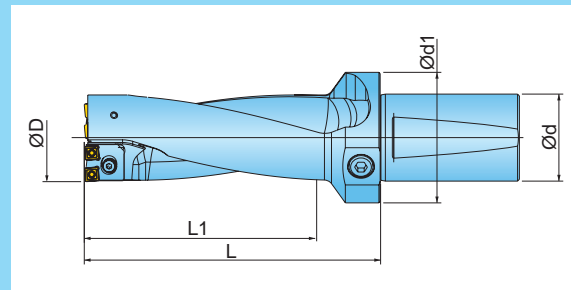


Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN1030	IN2005	IN2010	IN6520			
SPLT07T308N-PH <sup>1)</sup>	positive geometry R0,8			●	●		●			
SPLT07T308N	cast iron geometry R0,8					●				
SDGT07T308-HP	non-ferrous geometry, polished R0,8		●							
SHLT090408N-PH1 <sup>1)</sup>	positive geometry R0,8			●	●		●			
SHLT090408N	cast iron geometry R0,8					●				
SHGT090408-HP	non-ferrous geometry, polished R0,8		●							
SHLT110408N-PH1 <sup>1)</sup>	positive geometry R0,8			●	●		●			
SHLT110408N	cast iron geometry R0,8					●				
SHGT110408-HP	non-ferrous geometry, polished R0,8		●							

<sup>1)</sup> Use IN6520 grade only for peripheral inserts / Le revêtement IN6520 est uniquement pour les plaquettes extérieures / Utilizzare il grado IN6520 solo sugli inserti laterali / Usar la calidad IN6520 solo para las plaquitas montadas en la parte exterior.

● = P ● = M ● = K ● = N ● = S ○ = H

ADAPTION ACC. TO DIN 1835 E / ATTACHEMENT COMPATIBLE DIN 1835 E  
 ATTACCO DIN 1835 E / ADAPTACIÓN SEGÚN DIN 1835 E



Designation / Réf. de l'article  
 Articolo / Referencia



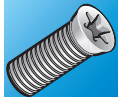

D d d1 L L1 Z Zeff Plate



Related Insert

Designation / Réf. de l'article Articolo / Referencia	D	d	d1	L	L1	Z	Zeff	Plate	IK	kg	Related Insert
BS.074.001	74	50	75	250	200	4	1	-	✓	5,87	●
BS.074.001	75	50	75	250	200	4	1	PA-5115	✓	5,87	●
BS.074.001	76	50	75	250	200	4	1	PA-5116	✓	5,87	●
BS.074.001	77	50	75	250	200	4	1	PA-5117	✓	5,87	●
BS.074.001	78	50	75	250	200	4	1	PA-5118	✓	5,87	●
BS.074.001	79	50	75	250	200	4	1	PA-5119	✓	5,87	●
BS.074.001	80	50	75	250	200	4	1	PA-5120	✓	5,87	●

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

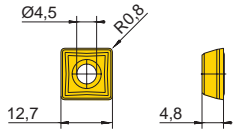
D	Peripheral cartridge / Cassette extérieure / Periferiche cartucce / Periféricas cartucho	Center cartridge / Cassette du centre / Cartucce centro / Cartucho centro	Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador
74 - 80	55H314R00 	55H294R00 	SM40-093-20 	DS-T15S 

# DRILLS / THREADING

INSERTS / PLAQUETTES DE COUPE  
 INSERTI / PLAQUITA



SPLT120408N-PH

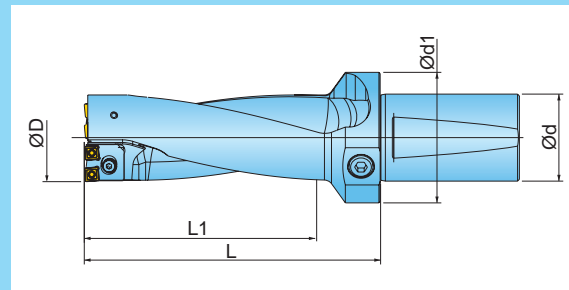



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN1030	IN2005	IN2010	IN6520			
--	--	--------------------------	-------	--------	--------	--------	--------	--	--	--

SPLT120408N-PH	positive geometry R0,8									

● = P   ● = M   ● = K   ● = N   ● = S   ○ = H

ADAPTION ACC. TO DIN 1835 E / ATTACHEMENT COMPATIBLE DIN 1835 E  
 ATTACCO DIN 1835 E / ADAPTACIÓN SEGÚN DIN 1835 E



Designation / Réf. de l'article  
 Articolo / Referencia

D d d1 L L1 Z Zeff Plate



Related Insert

BS.051.005	51	50	75	223	186	4	1	-	✓	ABC
BS.051.005	52	50	75	223	186	4	1	PA-5108	✓	ABC
BS.051.005	53	50	75	223	186	4	1	PA-5109	✓	ABC
BS.054.004	54	50	75	236	196	4	1	-	✓	ABC
BS.054.004	55	50	75	236	196	4	1	PA-5108	✓	ABC
BS.054.004	56	50	75	236	196	4	1	PA-5109	✓	ABC
BS.057.004	57	50	75	263	217	4	1	-	✓	DEF
BS.057.004	58	50	75	263	217	4	1	PA-5110	✓	DEF
BS.057.004	59	50	75	263	217	4	1	PA-5111	✓	DEF
BS.057.004	60	50	75	263	217	4	1	PA-5112	✓	DEF
BS.057.004	61	50	75	263	217	4	1	PA-5113	✓	DEF
BS.057.004	62	50	75	263	217	4	1	PA-5114	✓	DEF
BS.063.003	63	50	75	281	231	4	1	-	✓	DEF
BS.063.003	64	50	75	281	231	4	1	PA-5110	✓	DEF
BS.063.003	65	50	75	281	231	4	1	PA-5111	✓	DEF
BS.063.003	66	50	75	281	231	4	1	PA-5112	✓	DEF
BS.067.003	67	50	75	313	256	4	1	-	✓	GHI
BS.067.003	68	50	75	313	256	4	1	PA-5115	✓	GHI
BS.067.003	69	50	75	313	256	4	1	PA-5116	✓	GHI
BS.067.003	70	50	75	313	256	4	1	PA-5117	✓	GHI
BS.067.003	71	50	75	313	256	4	1	PA-5118	✓	GHI
BS.067.003	72	50	75	313	256	4	1	PA-5119	✓	GHI
BS.067.003	73	50	75	313	256	4	1	PA-5120	✓	GHI

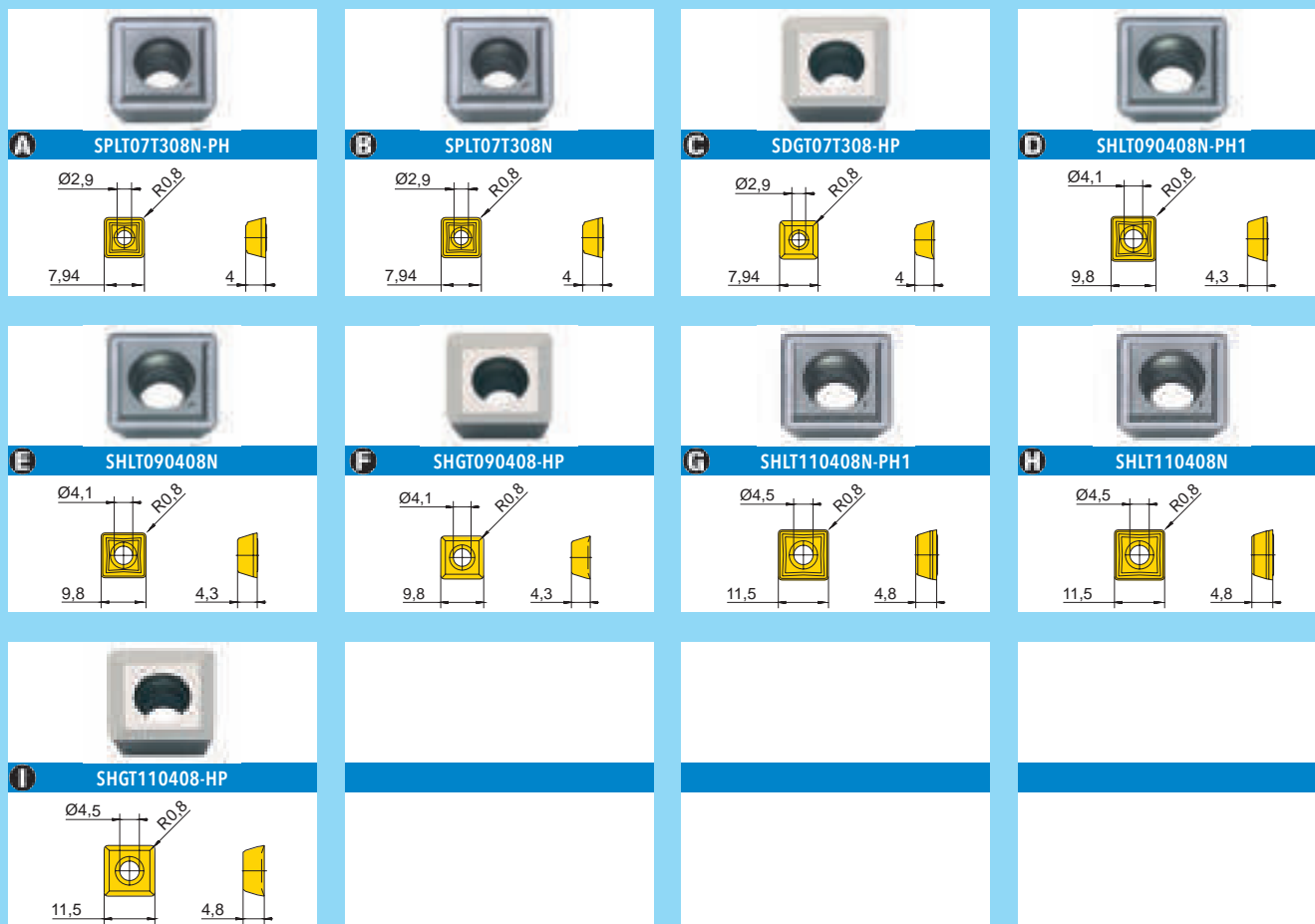
SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

D	Peripheral cartridge / Cassette extérieure / Periferiche cartucce / Periféricas cartucho	Center cartridge / Cassette du centre / Cartucce centro / Cartucho centro	Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador
51 - 56 57 - 66 67 - 73	55E212R01 55F243R02 55G294R01	55E192R01 55F233R01 55G264R01	SM25-064-00 SM35-088-60 SM40-093-20	DS-T08S DS-T10S DS-T15S



# DRILLS / THREADING

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



Designation / Réf. de l'article Articolo / Referencia	Insert Version / Execution Tipologia Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN1030	IN2005	IN2010	IN6520			
SPLT07T308N-PH <sup>1)</sup>	positive geometry R0,8			●	●		●			
SPLT07T308N	cast iron geometry R0,8					●				
SDGT07T308-HP	non-ferrous geometry, polished R0,8		●							
SHLT090408N-PH1 <sup>1)</sup>	positive geometry R0,8			●	●		●			
SHLT090408N	cast iron geometry R0,8					●				
SHGT090408-HP	non-ferrous geometry, polished R0,8		●							
SHLT110408N-PH1 <sup>1)</sup>	positive geometry R0,8			●	●		●			
SHLT110408N	cast iron geometry R0,8					●				
SHGT110408-HP	non-ferrous geometry, polished R0,8		●							

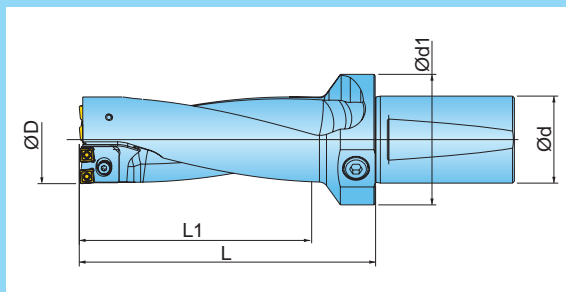
<sup>1)</sup> Use IN6520 grade only for peripheral inserts / Le revêtement IN6520 est uniquement pour les plaquettes extérieures / Utilizzare il grado IN6520 solo sugli inserti laterali / Usar la calidad IN6520 solo para las plaquitas montadas en la parte exterior.

● = P ● = M ● = K ● = N ● = S ○ = H



FR FORETS À PLAQUETTES / FILETAGE ROUTEUR  
 IT PUNTE AD INSERTI / FILO FRESATURA  
 ES HERRAMIENTAS PARA TALADRAR / HILO FRESADO



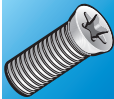

ADAPTION ACC. TO DIN 1835 E / ATTACHEMENT COMPATIBLE DIN 1835 E  
 ATTACCO DIN 1835 E / ADAPTACIÓN SEGÚN DIN 1835 E



Designation / Réf. de l'article Articolo / Referencia	D	d	d1	L	L1	Z	Zeff	Plate	IK	Related Insert
BS.074.002	74	50	75	330	280	4	1	-	✓	●
BS.074.002	75	50	75	330	280	4	1	PA-5115	✓	●
BS.074.002	76	50	75	330	280	4	1	PA-5116	✓	●
BS.074.002	77	50	75	330	280	4	1	PA-5117	✓	●
BS.074.002	78	50	75	330	280	4	1	PA-5118	✓	●
BS.074.002	79	50	75	330	280	4	1	PA-5119	✓	●
BS.074.002	80	50	75	330	280	4	1	PA-5120	✓	●

QUAD DRILL PLUS 3,5D Ø74 - Ø80

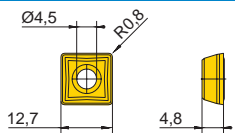
SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

D	Peripheral cartridge / Cassette extérieure / Periferiche cartucce / Periféricas cartucho	Center cartridge / Cassette du centre / Cartucce centro / Cartucho centro	Insert screw / Vis de serrage Vite per inserto / Tornillo plaquita	Screw driver / Tournevis Cacciavite / Destornillador
74 - 80	55H314R00 	55H294R00 	SM40-093-20 	DS-T15S 

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA



SPLT120408N-PH




Designation / Réf. de l'article Artículo / Referencia	Insert Version / Execution Tipología Inserto / Tipo de Plaquita	Grade Nuance Grado	IN10K	IN1030	IN2005	IN2010	IN6520			
--	--	--------------------------	-------	--------	--------	--------	--------	--	--	--

SPLT120408N-PH	positive geometry R0,8									

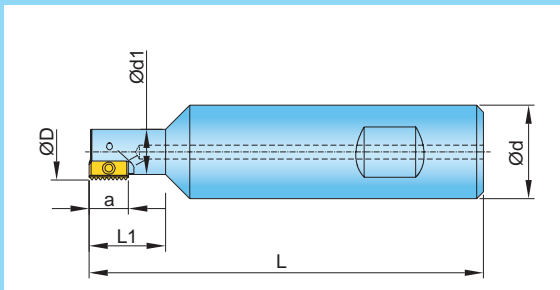
● = P   ● = M   ● = K   ● = N   ● = S   ○ = H



**FR FORETS À PLAQUETTES / FILETAGE ROUTEUR**  
**IT PUNTE AD INSERTI / FILO FRESATURA**  
**ES HERRAMIENTAS PARA TALADRAR / HILO FRESADO**



ADAPTION ACC. TO DIN 1835 B (WELDON) / ATTACHEMENT DIN 1835 B ( WELDON)  
 ATTACCO DIN 1835 B (WELDON) / ADAPTACIÓN SEGÚN DIN 1835 B (WELDON)



Designation / Réf. de l'article  
 Articolo / Referencia

D d d1 L L1 a Z



12Y1H009035W4R00	9,5	20	7,5	85	14	12	1	✓
12Y1H010035W4R00	9,9	20	7,2	85	16	12	1	✓

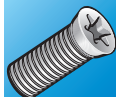
**END MILL WELDON SHANK (A=12MM)**

**RAPID THREAD**

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIO

Insert screw / Vis de serrage  
 Vite per inserto / Tornillo plaquita

IS12



Screw driver / Tournevis  
 Cacciavite / Destornillador

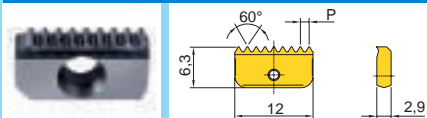
IK12



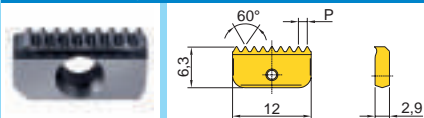
# DRILLS / THREADING

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA

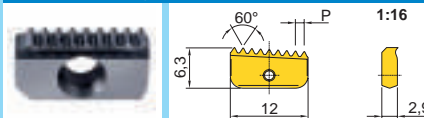
## ISO-threading (internal)



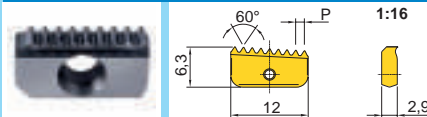
## UN-threading (internal)



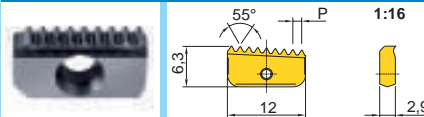
## NPT-threading (internal & external)



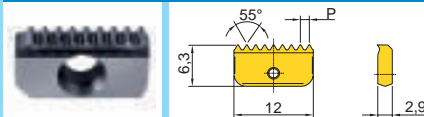
## NPTF-threading (internal & external)



## BSPT-threading (internal & external)



## BSP-threading (internal & external)



Designation / Réf. de l'article Artículo / Referencia	pitch / pas paso / paso rosca	Grade Nuance Grado	IN1030	IN2030
--	----------------------------------	--------------------------	--------	--------

Designation / Réf. de l'article Artículo / Referencia	pitch / pas paso / paso rosca	Grade Nuance Grado	IN1030	IN2030
--	----------------------------------	--------------------------	--------	--------

### ISO-threading (internal)

LYEU12050IS	0,5	A		
LYEU12075IS	0,75	A		
LYEU12100IS	1	A		
LYEU12125IS	1,25	A		
LYEU12150IS	1,5	A		

### UN-threading (internal)

LYEU12320UN	32	H		
LYEU12280UN	28	H		
LYEU12240UN	24	H		
LYEU12200UN	20	H		
LYEU12180UN	18	H		
LYEU12160UN	16	H		

### NPT-threading (internal & external)

LYEU12180NT	18	C		
-------------	----	---	--	--

### NPTF-threading (internal & external)

LYEU12180NF	18	D		
-------------	----	---	--	--

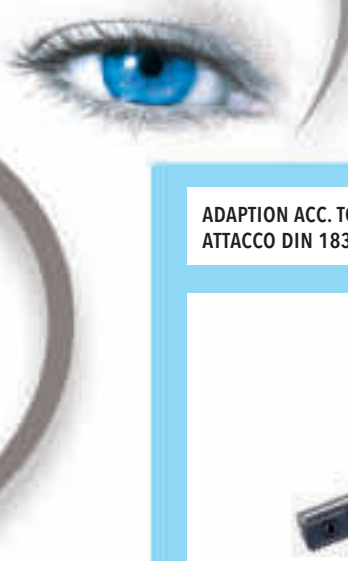
### BSPT-threading (internal & external)

LYEU12190BT	19	E		
-------------	----	---	--	--

### BSP-threading (internal & external)

LYEU12190BW	19	F		
-------------	----	---	--	--

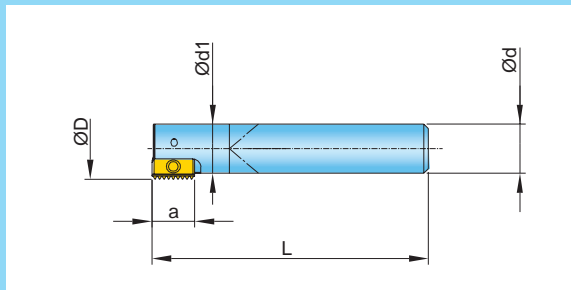
● = P ● = M ● = K ● = N ● = S ○ = H



FR FORETS À PLAQUETTES / FILETAGE ROUTEUR  
 IT PUNTE AD INSERTI / FILO FRESATURA  
 ES HERRAMIENTAS PARA TALADRAR / HILO FRESADO



ADAPTION ACC. TO DIN 1835 A / ATTACHEMENT DIN 1835 A  
 ATTACCO DIN 1835 A / ADAPTACIÓN SEGÚN DIN 1835 A



Designation / Réf. de l'article  
 Articolo / Referencia

D	d	d1	L	a	Z	
12Y5H009089TOR00	9,9	8	8	125	12	1

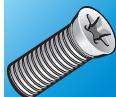
END MILL CARBIDE SHANK (A=12MM)

RAPID THREAD

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIO

Insert screw / Vis de serrage  
 Vite per inserto / Tornillo plaquita

IS12



Screw driver / Tournevis  
 Cacciavite / Destornillador

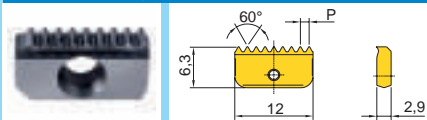
IK12



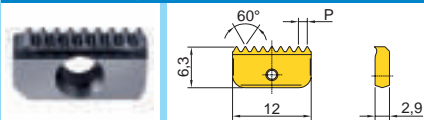
# DRILLS / THREADING

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA

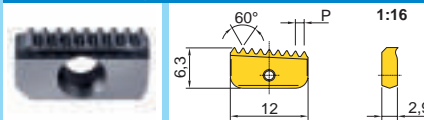
## ISO-threading (internal)



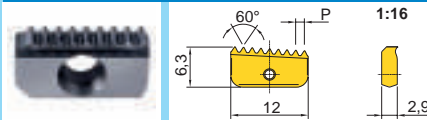
## UN-threading (internal)



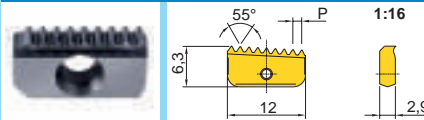
## NPT-threading (internal & external)



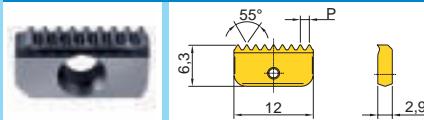
## NPTF-threading (internal & external)



## BSPT-threading (internal & external)



## BSP-threading (internal & external)



Designation / Réf. de l'article Articolo / Referencia	pitch / pas passo / paso rosca	Grade Nuance Grado	IN1030	IN2030
--	-----------------------------------	--------------------------	--------	--------

Designation / Réf. de l'article Articolo / Referencia	pitch / pas passo / paso rosca	Grade Nuance Grado	IN1030	IN2030
--	-----------------------------------	--------------------------	--------	--------

### ISO-threading (internal)

LYEU12050IS	0,5	A		
LYEU12075IS	0,75	A		
LYEU12100IS	1	A		
LYEU12125IS	1,25	A		
LYEU12150IS	1,5	A		

### UN-threading (internal)

LYEU12320UN	32	H		
LYEU12280UN	28	H		
LYEU12240UN	24	H		
LYEU12200UN	20	H		
LYEU12180UN	18	H		
LYEU12160UN	16	H		

### NPT-threading (internal & external)

LYEU12180NT	18	C		
-------------	----	---	--	--

### NPTF-threading (internal & external)

LYEU12180NF	18	D		
-------------	----	---	--	--

### BSPT-threading (internal & external)

LYEU12190BT	19	E		
-------------	----	---	--	--

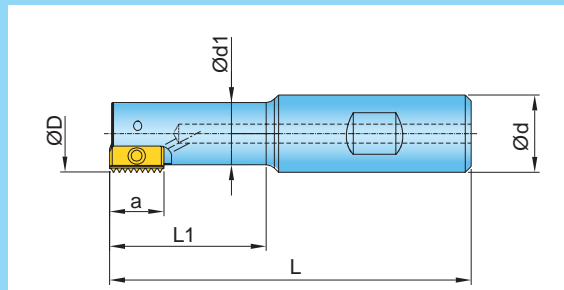
### BSP-threading (internal & external)

LYEU12190BW	19	F		
-------------	----	---	--	--

● = P ● = M ● = K ● = N ● = S ○ = H



ADAPTION ACC. TO DIN 1835 B (WELDON) / ATTACHEMENT DIN 1835 B ( WELDON)  
 ATTACCO DIN 1835 B (WELDON) / ADAPTACIÓN SEGÚN DIN 1835 B (WELDON)



Designation / Réf. de l'article  
 Articolo / Referencia

D d d1 L L1 a Z



12Y1J012025W4R00	12	20	8,9	75	20	14	1	✓
12Y1J014035W4R00	14,5	20	11,2	85	25	14	1	✓
12Y1J017035W4R00	17	20	13,4	85	30	14	1	✓
12Y1J020043W4R00	20	20	16	93	41	14	2	✓

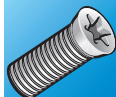
**END MILL WELDON SHANK (A=14MM)**

**RAPID THREAD**

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Insert screw / Vis de serrage  
 Vite per inserto / Tornillo plaquita

IS14



Screw driver / Tournevis  
 Cacciavite / Destornillador

IK14

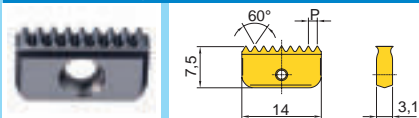




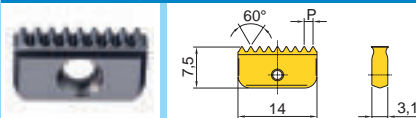
# DRILLS / THREADING

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA

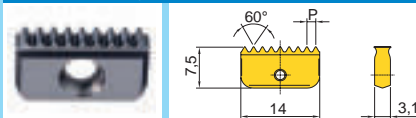
## ISO-threading (internal)



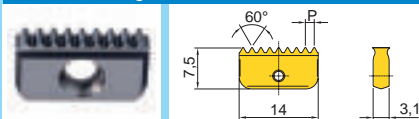
## ISO-threading (external)



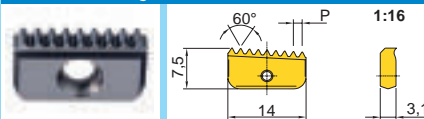
## UN-threading (internal)



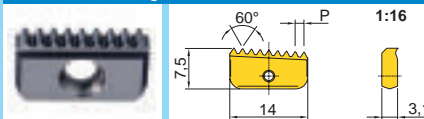
## UN-threading (external)



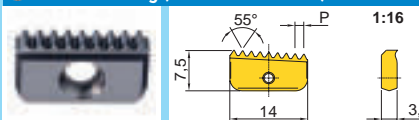
## NPT-threading (internal & external)



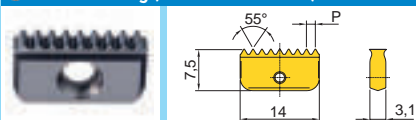
## NPFT-threading (internal & external)



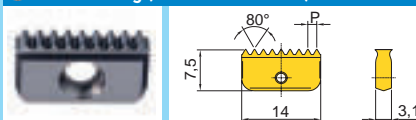
## BSPT-threading (internal & external)



## BSP-threading (internal & external)



## PG-threading (internal & external)



Designation / Réf. de l'article Artículo / Referencia	pitch / pas paso / paso rosca	Grade Nuance Grado	IN1030	IN2030
--	----------------------------------	--------------------------	--------	--------

Designation / Réf. de l'article Artículo / Referencia	pitch / pas paso / paso rosca	Grade Nuance Grado	IN1030	IN2030
--	----------------------------------	--------------------------	--------	--------

### ISO-threading (internal)

LYEU14050IS	0,5	A		
LYEU14075IS	0,75	A		
LYEU14100IS	1	A		
LYEU14125IS	1,25	A		
LYEU14150IS	1,5	A		
LYEU14175IS	1,75	A		
LYEU14200IS	2	B		
LYEU14250IS	2,5	B		

### ISO-threading (external)

LYEU14075IS-X	0,75	B		
LYEU14100IS-X	1	B		
LYEU14125IS-X	1,25	B		
LYEU14150IS-X	1,5	B		
LYEU14175IS-X	1,75	B		
LYEU14200IS-X	2	B		
LYEU14250IS-X	2,5	B		

### UN-threading (internal)

LYEU14320UN	32	H		
LYEU14280UN	28	H		
LYEU14270UN	27	H		
LYEU14240UN	24	H		
LYEU14200UN	20	H		
LYEU14180UN	18	H		
LYEU14160UN	16	H		
LYEU14140UN	14	H		
LYEU14120UN	12	H		
LYEU14100UN	10	H		

### UN-threading (external)

LYEU14320UN-X	32	D		
LYEU14280UN-X	28	D		
LYEU14240UN-X	24	D		
LYEU14200UN-X	20	D		
LYEU14180UN-X	18	D		
LYEU14160UN-X	16	D		
LYEU14140UN-X	14	D		
LYEU14120UN-X	12	D		

### NPT-threading (internal & external)

LYEU14180NT	18	E		
LYEU14140NT	14	E		

### NPFT-threading (internal & external)

LYEU14180NF	18	F		
LYEU14140NF	14	F		

### BSPT-threading (internal & external)

LYEU14190BT	19	G		
LYEU14140BT	14	G		

### BSP-threading (internal & external)

LYEU14240BW	24	H		
LYEU14200BW	20	H		
LYEU14190BW	19	H		
LYEU14160BW	16	H		
LYEU14140BW	14	H		

### PG-threading (internal & external)

LYEU14180PG	18	I		
-------------	----	---	--	--

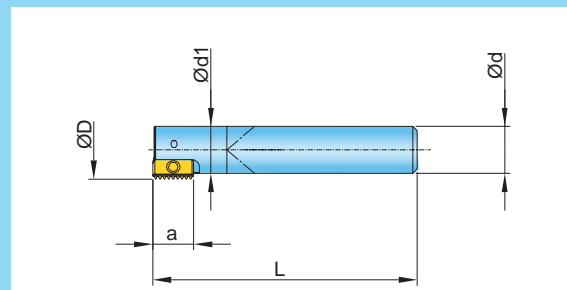
● = P ● = M ● = K ● = N ● = S ○ = H



**FR FORETS À PLAQUETTES / FILETAGE ROUTEUR**  
**IT PUNTE AD INSERTI / FILO FRESATURA**  
**ES HERRAMIENTAS PARA TALADRAR / HILO FRESADO**



ADAPTION ACC. TO DIN 1835 A / ATTACHEMENT DIN 1835 A  
 ATTACCO DIN 1835 A / ADAPTACIÓN SEGÚN DIN 1835 A



Designation / Réf. de l'article  
 Artículo / Referencia

D d d1 L a Z



12Y5J013070T1R00	13,2	10	10	110	14	1	✓
12Y5J013110T1R00	13,2	10	10	150	14	1	✓
12Y5J015130T2R00	15,2	12	12	175	14	1	✓

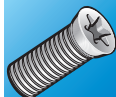
**END MILL CARBIDE SHANK (A=14MM)**

**RAPID THREAD**

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIO

Insert screw / Vis de serrage  
 Vite per inserto / Tornillo plaquita

IS14



Screw driver / Tournevis  
 Cacciavite / Destornillador

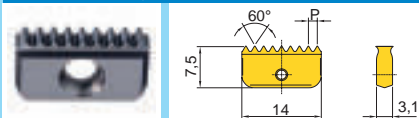
IK14



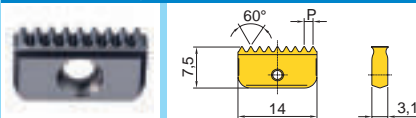
# DRILLS / THREADING

INSERTS / PLAQUETTES DE COUPE  
 INSERTI / PLAQUITA

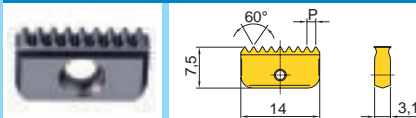
## ISO-threading (internal)



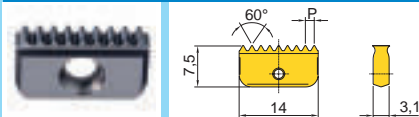
## ISO-threading (external)



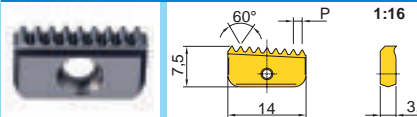
## UN-threading (internal)



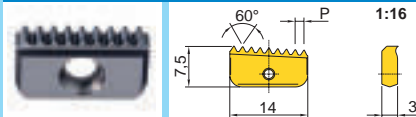
## UN-threading (external)



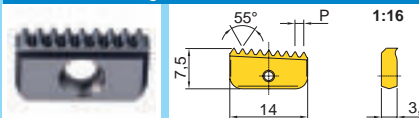
## NPT-threading (internal & external)



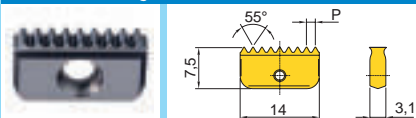
## NPFT-threading (internal & external)



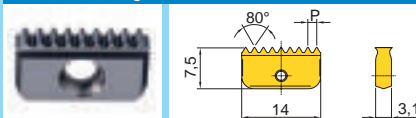
## BSPT-threading (internal & external)



## BSP-threading (internal & external)



## PG-threading (internal & external)



Designation / Réf. de l'article Artículo / Referencia	pitch / pas passo / paso rosca	Grade Nuance Grado	IN1030	IN2030
--	-----------------------------------	--------------------------	--------	--------

Designation / Réf. de l'article Artículo / Referencia	pitch / pas passo / paso rosca	Grade Nuance Grado	IN1030	IN2030
--	-----------------------------------	--------------------------	--------	--------

### ISO-threading (internal)

LYEU14050IS	0,5	A	●	●
LYEU14075IS	0,75	A	●	●
LYEU14100IS	1	A	●	●
LYEU14125IS	1,25	A	●	●
LYEU14150IS	1,5	A	●	●
LYEU14175IS	1,75	A	●	●
LYEU14200IS	2	B	●	●
LYEU14250IS	2,5	B	●	●

### ISO-threading (external)

LYEU14075IS-X	0,75	B	●	●
LYEU14100IS-X	1	B	●	●
LYEU14125IS-X	1,25	B	●	●
LYEU14150IS-X	1,5	B	●	●
LYEU14175IS-X	1,75	B	●	●
LYEU14200IS-X	2	B	●	●
LYEU14250IS-X	2,5	B	●	●

### UN-threading (internal)

LYEU14320UN	32	C	●	●
LYEU14280UN	28	C	●	●
LYEU14270UN	27	C	●	●
LYEU14240UN	24	C	●	●
LYEU14200UN	20	C	●	●
LYEU14180UN	18	C	●	●
LYEU14160UN	16	C	●	●
LYEU14140UN	14	C	●	●
LYEU14120UN	12	C	●	●
LYEU14100UN	10	C	●	●

### UN-threading (external)

LYEU14320UN-X	32	D	●	●
LYEU14280UN-X	28	D	●	●
LYEU14240UN-X	24	D	●	●
LYEU14200UN-X	20	D	●	●
LYEU14180UN-X	18	D	●	●
LYEU14160UN-X	16	D	●	●
LYEU14140UN-X	14	D	●	●
LYEU14120UN-X	12	D	●	●

### NPT-threading (internal & external)

LYEU14180NT	18	E	●	●
LYEU14140NT	14	E	●	●

### NPFT-threading (internal & external)

LYEU14180NF	18	F	●	●
LYEU14140NF	14	F	●	●

### BSPT-threading (internal & external)

LYEU14190BT	19	G	●	●
LYEU14140BT	14	G	●	●

### BSP-threading (internal & external)

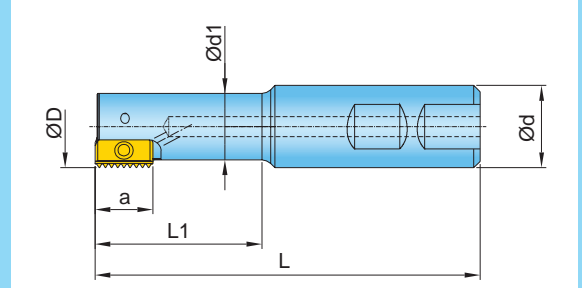
LYEU14240BW	24	H	●	●
LYEU14200BW	20	H	●	●
LYEU14190BW	19	H	●	●
LYEU14160BW	16	H	●	●
LYEU14140BW	14	H	●	●

### PG-threading (internal & external)

LYEU14180PG	18	I	●	●
-------------	----	---	---	---

● = P ● = M ● = K ● = N ● = S ○ = H

ADAPTION ACC. TO DIN 1835 B (WELDON) / ATTACHEMENT DIN 1835 B ( WELDON)  
 ATTACCO DIN 1835 B (WELDON) / ADAPTACIÓN SEGÚN DIN 1835 B (WELDON)



Designation / Réf. de l'article  
 Articolo / Referencia

D d d1 L L1 a Z



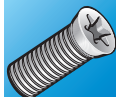
12Y1N018035W4R00 <sup>1)</sup>	18	20	14,4	85	30	21	1	✓
12Y1N021044W4R00	21	20	16,5	94	40	21	1	✓
12Y1N025075W4R00	25	20	-	125	-	21	1	✓
12Y1N030052W5R00	30	25	24	108	52	21	2	✓

<sup>1)</sup> not with Insert LYEU21350IS / pas avec plaquette LYEU21350IS / non con inserto LYEU2130IS / no con placa LYEU2130IS

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Insert screw / Vis de serrage  
 Vite per inserto / Tornillo plaquita

IS21



Screw driver / Tournevis  
 Cacciavite / Destornillador

IK21



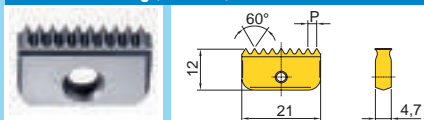
END MILL WELDON SHANK (A=21MM)

RAPID THREAD

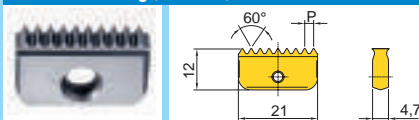
# DRILLS / THREADING

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA

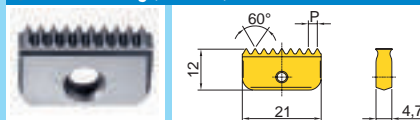
## ISO-threading (internal)



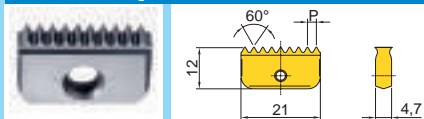
## ISO-threading (external)



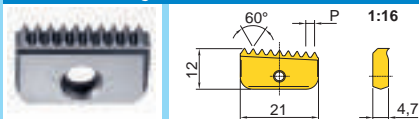
## UN-threading (internal)



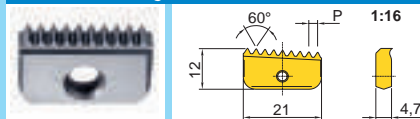
## UN-threading (external)



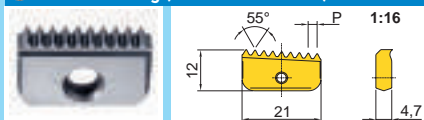
## NPT-threading (internal & external)



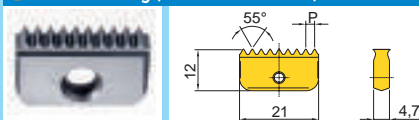
## NPTF-threading (internal & external)



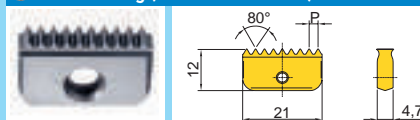
## BSPT-threading (internal & external)



## BSP-threading (internal & external)



## PG-threading (internal & external)



Designation / Réf. de l'article Artículo / Referencia	pitch / pas paso / paso rosca	Grade Nuance Grado	IN1030	IN2030
--	----------------------------------	--------------------------	--------	--------

Designation / Réf. de l'article Artículo / Referencia	pitch / pas paso / paso rosca	Grade Nuance Grado	IN1030	IN2030
--	----------------------------------	--------------------------	--------	--------

ISO-threading (internal)				
LYEU21100IS	1	A	●	●
LYEU21150IS	1,5	A	●	●
LYEU21175IS	1,75	A	●	●
LYEU21200IS	2	A	●	●
LYEU21250IS	2,5	A	●	●
LYEU21300IS	3	A	●	●
LYEU21350IS	3,5	A	●	●
ISO-threading (external)				
LYEU21100IS-X	1	H	●	●
LYEU21150IS-X	1,5	H	●	●
LYEU21200IS-X	2	H	●	●
LYEU21250IS-X	2,5	H	●	●
LYEU21300IS-X	3	H	●	●
UN-threading (internal)				
LYEU21240UN	24	D	●	●
LYEU21200UN	20	D	●	●
LYEU21180UN	18	D	●	●
LYEU21160UN	16	D	●	●
LYEU21140UN	14	D	●	●
LYEU21120UN	12	D	●	●
LYEU21100UN	10	D	●	●
LYEU21080UN	8	D	●	●
LYEU21070UN	7	D	●	●

UN-threading (external)				
LYEU21240UN-X	24	D	●	●
LYEU21200UN-X	20	D	●	●
LYEU21180UN-X	18	D	●	●
LYEU21160UN-X	16	D	●	●
LYEU21140UN-X	14	D	●	●
LYEU21120UN-X	12	D	●	●
LYEU21100UN-X	10	D	●	●
NPT-threading (internal & external)				
LYEU21140NT	14	H	●	●
LYEU21115NT	11,5	H	●	●
NPTF-threading (internal & external)				
LYEU21140NF	14	F	●	●
LYEU21115NF	11,5	F	●	●
BSPT-threading (internal & external)				
LYEU21140BT	14	H	●	●
LYEU21110BT	11	H	●	●
BSP-threading (internal & external)				
LYEU21200BW	20	H	●	●
LYEU21190BW	19	H	●	●
LYEU21160BW	16	H	●	●
LYEU21140BW	14	H	●	●
LYEU21110BW	11	H	●	●
PG-threading (internal & external)				
LYEU21180PG	18	I	●	●
LYEU21160PG	16	I	●	●

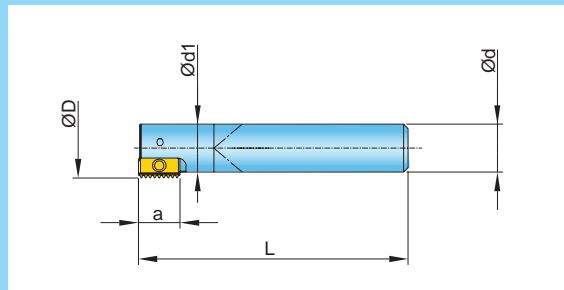
● = P ● = M ● = K ● = N ● = S ○ = H



**FR FORETS À PLAQUETTES / FILETAGE ROUTEUR**  
**IT PUNTE AD INSERTI / FILO FRESATURA**  
**ES HERRAMIENTAS PARA TALADRAR / HILO FRESADO**



ADAPTION ACC. TO DIN 1835 A / ATTACHEMENT DIN 1835 A  
 ATTACCO DIN 1835 A / ADAPTACIÓN SEGÚN DIN 1835 A



Designation / Réf. de l'article  
 Articolo / Referencia

D d d1 L a Z



12Y5N021082T3R00	21	16	16	130	21	1	✓
12Y5N021152T3R00	21	16	16	200	21	1	✓

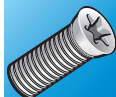
**END MILL CARBIDE SHANK (A=21MM)**

**RAPID THREAD**

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIO

Insert screw / Vis de serrage  
 Vite per inserto / Tornillo plaquita

IS21



Screw driver / Tournevis  
 Cacciavite / Destornillador

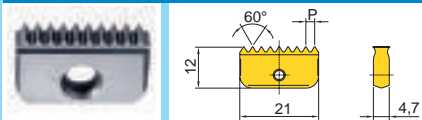
IK21



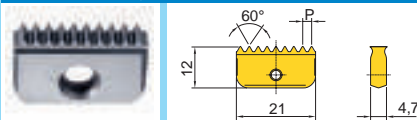
# DRILLS / THREADING

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA

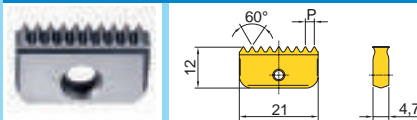
## ISO-threading (internal)



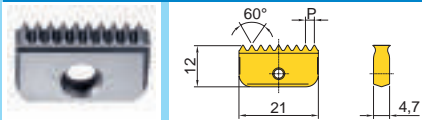
## ISO-threading (external)



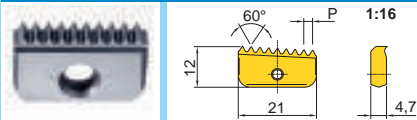
## UN-threading (internal)



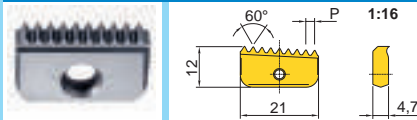
## UN-threading (external)



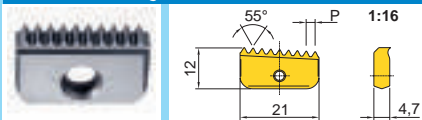
## NPT-threading (internal & external)



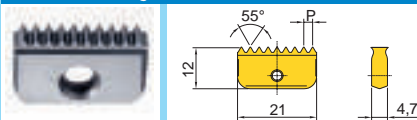
## NPTF-threading (internal & external)



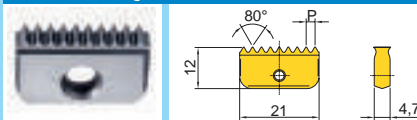
## BSPT-threading (internal & external)



## BSP-threading (internal & external)



## PG-threading (internal & external)



Designation / Réf. de l'article Artículo / Referencia	pitch / pas paso / paso rosca	Grade Nuance Grado	IN1030	IN2030
--	----------------------------------	--------------------------	--------	--------

Designation / Réf. de l'article Artículo / Referencia	pitch / pas paso / paso rosca	Grade Nuance Grado	IN1030	IN2030
--	----------------------------------	--------------------------	--------	--------

### ISO-threading (internal)

LYEU21100IS	1	A	●	●
LYEU21150IS	1,5	A	●	●
LYEU21175IS	1,75	A	●	●
LYEU21200IS	2	A	●	●
LYEU21250IS	2,5	A	●	●
LYEU21300IS	3	A	●	●
LYEU21350IS	3,5	H	●	●

### ISO-threading (external)

LYEU21100IS-X	1	H	●	●
LYEU21150IS-X	1,5	H	●	●
LYEU21200IS-X	2	H	●	●
LYEU21250IS-X	2,5	B	●	●
LYEU21300IS-X	3	B	●	●

### UN-threading (internal)

LYEU21240UN	24	C	●	●
LYEU21200UN	20	C	●	●
LYEU21180UN	18	C	●	●
LYEU21160UN	16	H	●	●
LYEU21140UN	14	H	●	●
LYEU21120UN	12	H	●	●
LYEU21100UN	10	H	●	●
LYEU21080UN	8	H	●	●
LYEU21070UN	7	C	●	●

### UN-threading (external)

LYEU21240UN-X	24	D	●	●
LYEU21200UN-X	20	D	●	●
LYEU21180UN-X	18	D	●	●
LYEU21160UN-X	16	D	●	●
LYEU21140UN-X	14	D	●	●
LYEU21120UN-X	12	D	●	●
LYEU21100UN-X	10	H	●	●

### NPT-threading (internal & external)

LYEU21140NT	14	H	●	●
LYEU21115NT	11,5	H	●	●

### NPTF-threading (internal & external)

LYEU21140NF	14	F	●	●
LYEU21115NF	11,5	F	●	●

### BSPT-threading (internal & external)

LYEU21140BT	14	H	●	●
LYEU21110BT	11	H	●	●

### BSP-threading (internal & external)

LYEU21200BW	20	H	●	●
LYEU21190BW	19	H	●	●
LYEU21160BW	16	H	●	●
LYEU21140BW	14	H	●	●
LYEU21110BW	11	H	●	●

### PG-threading (internal & external)

LYEU21180PG	18	I	●	●
LYEU21160PG	16	I	●	●

● = P ● = M ● = K ● = N ● = S ○ = H

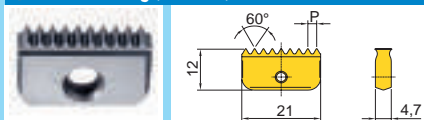




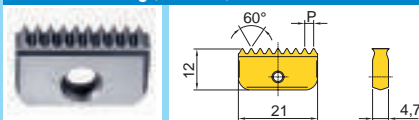
# DRILLS / THREADING

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA

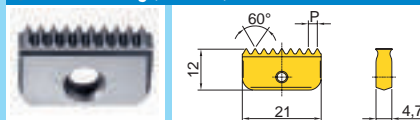
## ISO-threading (internal)



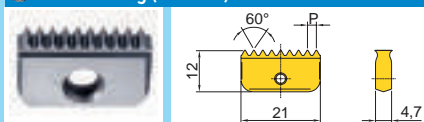
## ISO-threading (external)



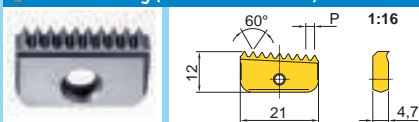
## UN-threading (internal)



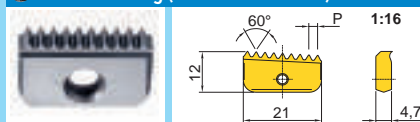
## UN-threading (external)



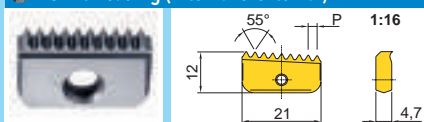
## NPT-threading (internal & external)



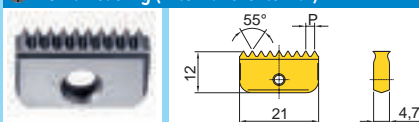
## NPTF-threading (internal & external)



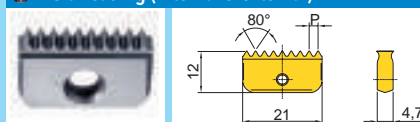
## BSPT-threading (internal & external)



## BSP-threading (internal & external)



## PG-threading (internal & external)



Designation / Réf. de l'article Artículo / Referencia	pitch / pas paso / paso rosca	Grade Nuance Grado	IN1030	IN2030
--	----------------------------------	--------------------------	--------	--------

Designation / Réf. de l'article Artículo / Referencia	pitch / pas paso / paso rosca	Grade Nuance Grado	IN1030	IN2030
--	----------------------------------	--------------------------	--------	--------

### ISO-threading (internal)

LYEU21100IS	1	A	●	●
LYEU21150IS	1,5	A	●	●
LYEU21175IS	1,75	A	●	●
LYEU21200IS	2	A	●	●
LYEU21250IS	2,5	A	●	●
LYEU21300IS	3	A	●	●
LYEU21350IS	3,5	H	●	●

### ISO-threading (external)

LYEU21100IS-X	1	H	●	●
LYEU21150IS-X	1,5	H	●	●
LYEU21200IS-X	2	H	●	●
LYEU21250IS-X	2,5	H	●	●
LYEU21300IS-X	3	H	●	●

### UN-threading (internal)

LYEU21240UN	24	H	●	●
LYEU21200UN	20	H	●	●
LYEU21180UN	18	H	●	●
LYEU21160UN	16	H	●	●
LYEU21140UN	14	H	●	●
LYEU21120UN	12	H	●	●
LYEU21100UN	10	H	●	●
LYEU21080UN	8	H	●	●
LYEU21070UN	7	H	●	●

### UN-threading (external)

LYEU21240UN-X	24	H	●	●
LYEU21200UN-X	20	H	●	●
LYEU21180UN-X	18	H	●	●
LYEU21160UN-X	16	H	●	●
LYEU21140UN-X	14	H	●	●
LYEU21120UN-X	12	H	●	●
LYEU21100UN-X	10	H	●	●

### NPT-threading (internal & external)

LYEU21140NT	14	H	●	●
LYEU21115NT	11,5	H	●	●

### NPTF-threading (internal & external)

LYEU21140NF	14	H	●	●
LYEU21115NF	11,5	H	●	●

### BSPT-threading (internal & external)

LYEU21140BT	14	H	●	●
LYEU21110BT	11	H	●	●

### BSP-threading (internal & external)

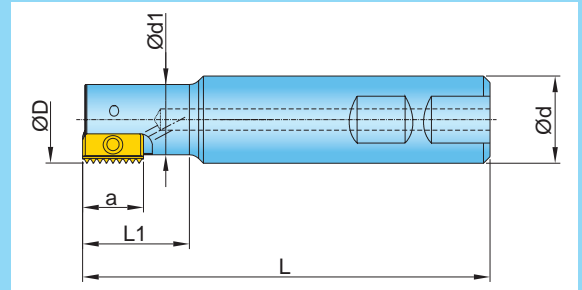
LYEU21200BW	20	H	●	●
LYEU21190BW	19	H	●	●
LYEU21160BW	16	H	●	●
LYEU21140BW	14	H	●	●
LYEU21110BW	11	H	●	●

### PG-threading (internal & external)

LYEU21180PG	18	H	●	●
LYEU21160PG	16	H	●	●

● = P ● = M ● = K ● = N ● = S ○ = H

ADAPTION ACC. TO DIN 1835 B (WELDON) / ATTACHEMENT DIN 1835 B ( WELDON)  
 ATTACCO DIN 1835 B (WELDON) / ADAPTACIÓN SEGÚN DIN 1835 B (WELDON)



Designation / Réf. de l'article  
 Articolo / Referencia

D d d1 L L1 a Z



12Y1S029054W5R00	29	25	23	110	50	30	1	✓
12Y1S031094W5R00	31	25	-	150	-	30	1	✓
12Y1S038090W6R00	38	32	-	150	-	30	1	✓
12Y1S040070W6R00	40	32	30	130	70	30	2	✓

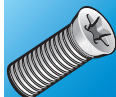
END MILL WELDON SHANK (A=30MM)

RAPID THREAD

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Insert screw / Vis de serrage  
 Vite per inserto / Tornillo plaquita

IS30



Screw driver / Tournevis  
 Cacciavite / Destornillador

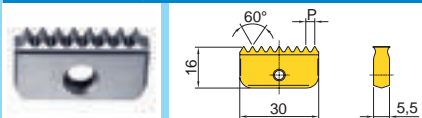
IK30



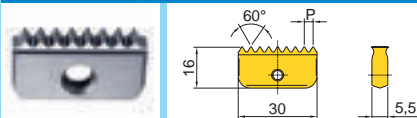
# DRILLS / THREADING

INSERTS / PLAQUETTES DE COUPE  
 INSERTI / PLAQUITA

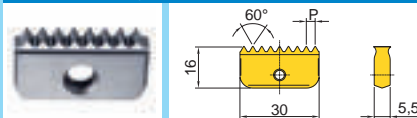
## ISO-threading (internal)



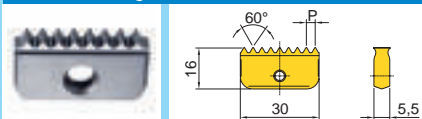
## ISO-threading (external)



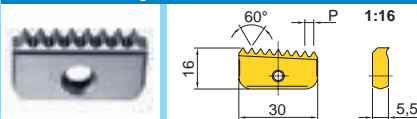
## UN-threading (internal)



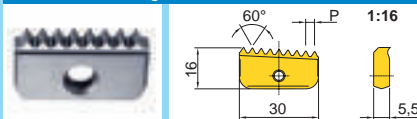
## UN-threading (external)



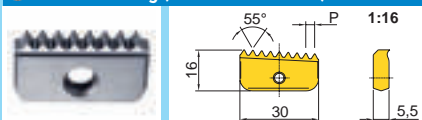
## NPT-threading (internal & external)



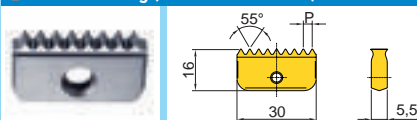
## NPTF-threading (internal & external)



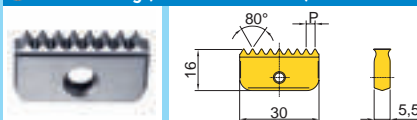
## BSPT-threading (internal & external)



## BSP-threading (internal & external)



## PG-threading (internal & external)



Designation / Réf. de l'article Artículo / Referencia	pitch / pas paso / paso rosca	Grade Nuance Grado	IN1030	IN2030
--	----------------------------------	--------------------------	--------	--------

Designation / Réf. de l'article Artículo / Referencia	pitch / pas paso / paso rosca	Grade Nuance Grado	IN1030	IN2030
--	----------------------------------	--------------------------	--------	--------

### ISO-threading (internal)

LYEU30150IS	1,5	A	●	●
LYEU30200IS	2	A	●	●
LYEU30300IS	3	A	●	●
LYEU30350IS	3,5	A	●	●
LYEU30400IS	4	A	●	●
LYEU30450IS	4,5	A	●	●
LYEU30500IS	5	H	●	●

### ISO-threading (external)

LYEU30150IS-X	1,5	H	●	●
LYEU30200IS-X	2	H	●	●
LYEU30300IS-X	3	H	●	●
LYEU30350IS-X	3,5	H	●	●
LYEU30400IS-X	4	H	●	●

### UN-threading (internal)

LYEU30200UN	20	D	●	●
LYEU30180UN	18	D	●	●
LYEU30160UN	16	D	●	●
LYEU30140UN	14	D	●	●
LYEU30120UN	12	D	●	●
LYEU30100UN	10	D	●	●
LYEU30080UN	8	D	●	●
LYEU30060UN	6	D	●	●

### UN-threading (external)

LYEU30200UN-X	20	D	●	●
LYEU30180UN-X	18	D	●	●
LYEU30160UN-X	16	D	●	●
LYEU30140UN-X	14	D	●	●
LYEU30120UN-X	12	D	●	●
LYEU30100UN-X	10	D	●	●
LYEU30080UN-X	8	D	●	●
LYEU30060UN-X	6	D	●	●

### NPT-threading (internal & external)

LYEU30115NT	11,5	H	●	●
LYEU30080NT	8	H	●	●

### NPTF-threading (internal & external)

LYEU30115NF	11,5	F	●	●
LYEU30080NF	8	F	●	●

### BSPT-threading (internal & external)

LYEU30110BT	11	H	●	●
-------------	----	---	---	---

### BSP-threading (internal & external)

LYEU30160BW	16	H	●	●
LYEU30140BW	14	H	●	●
LYEU30110BW	11	H	●	●

### PG-threading (internal & external)

LYEU30160PG	16	I	●	●
-------------	----	---	---	---

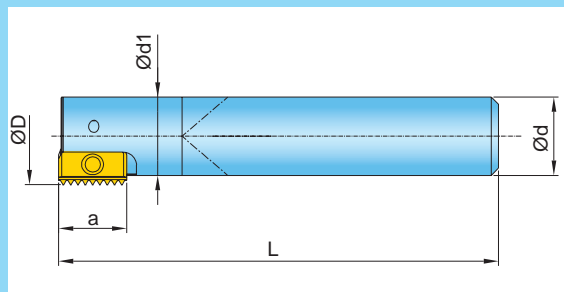
● = P ● = M ● = K ● = N ● = S ○ = H



**FR FORETS À PLAQUETTES / FILETAGE ROUTEUR**  
**IT PUNTE AD INSERTI / FILO FRESATURA**  
**ES HERRAMIENTAS PARA TALADRAR / HILO FRESADO**



ADAPTION ACC. TO DIN 1835 A / ATTACHEMENT DIN 1835 A  
 ATTACCO DIN 1835 A / ADAPTACIÓN SEGÚN DIN 1835 A



Designation / Réf. de l'article  
 Artículo / Referencia

D d d1 L a Z



12Y5S027220T4R00 27 20 20 270 30 1 ✓

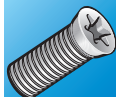
**END MILL CARBIDE SHANK (A=30MM)**

**RAPID THREAD**

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Insert screw / Vis de serrage  
 Vite per inserto / Tornillo plaquita

IS30



Screw driver / Tournevis  
 Cacciavite / Destornillador

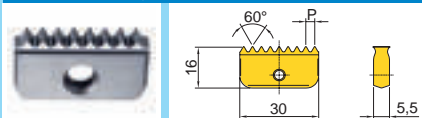
IK30



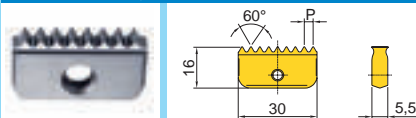
# DRILLS / THREADING

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA

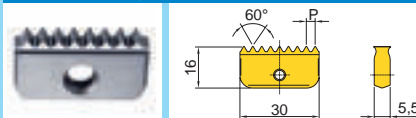
## ISO-threading (internal)



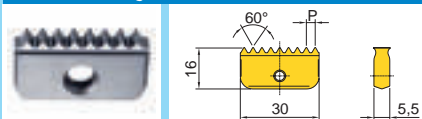
## ISO-threading (external)



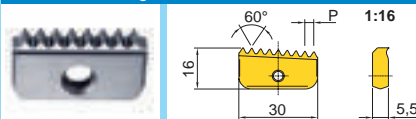
## UN-threading (internal)



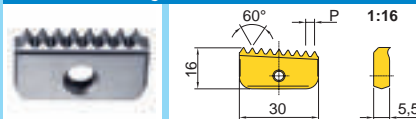
## UN-threading (external)



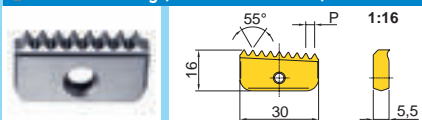
## NPT-threading (internal & external)



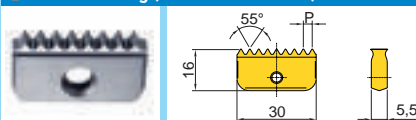
## NPTF-threading (internal & external)



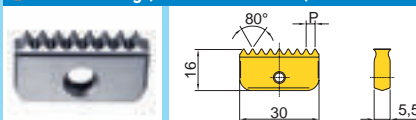
## BSPT-threading (internal & external)



## BSP-threading (internal & external)



## PG-threading (internal & external)



Designation / Réf. de l'article Artículo / Referencia	pitch / pas passo / paso rosca	Grade Nuance Grado	IN1030	IN2030
--	-----------------------------------	--------------------------	--------	--------

Designation / Réf. de l'article Artículo / Referencia	pitch / pas passo / paso rosca	Grade Nuance Grado	IN1030	IN2030
--	-----------------------------------	--------------------------	--------	--------

### ISO-threading (internal)

LYEU30150IS	1,5	A	●	●
LYEU30200IS	2	A	●	●
LYEU30300IS	3	A	●	●
LYEU30350IS	3,5	A	●	●
LYEU30400IS	4	A	●	●
LYEU30450IS	4,5	A	●	●
LYEU30500IS	5	H	●	●

### ISO-threading (external)

LYEU30150IS-X	1,5	H	●	●
LYEU30200IS-X	2	H	●	●
LYEU30300IS-X	3	H	●	●
LYEU30350IS-X	3,5	H	●	●
LYEU30400IS-X	4	H	●	●

### UN-threading (internal)

LYEU30200UN	20	D	●	●
LYEU30180UN	18	D	●	●
LYEU30160UN	16	D	●	●
LYEU30140UN	14	D	●	●
LYEU30120UN	12	D	●	●
LYEU30100UN	10	D	●	●
LYEU30080UN	8	D	●	●
LYEU30060UN	6	D	●	●

### UN-threading (external)

LYEU30200UN-X	20	D	●	●
LYEU30180UN-X	18	D	●	●
LYEU30160UN-X	16	D	●	●
LYEU30140UN-X	14	D	●	●
LYEU30120UN-X	12	D	●	●
LYEU30100UN-X	10	D	●	●
LYEU30080UN-X	8	D	●	●
LYEU30060UN-X	6	D	●	●

### NPT-threading (internal & external)

LYEU30115NT	11,5	H	●	●
LYEU30080NT	8	H	●	●

### NPTF-threading (internal & external)

LYEU30115NF	11,5	F	●	●
LYEU30080NF	8	F	●	●

### BSPT-threading (internal & external)

LYEU30110BT	11	H	●	●
-------------	----	---	---	---

### BSP-threading (internal & external)

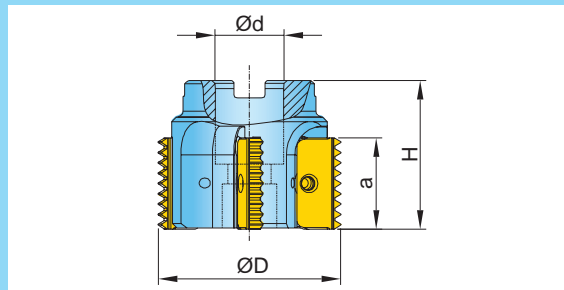
LYEU30160BW	16	H	●	●
LYEU30140BW	14	H	●	●
LYEU30110BW	11	H	●	●

### PG-threading (internal & external)

LYEU30160PG	16	I	●	●
-------------	----	---	---	---

● = P ● = M ● = K ● = N ● = S ○ = H

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



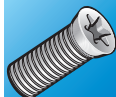
Designation / Réf. de l'article  
 Articolo / Referencia

	D	d	H	a	Z
12Y1S063050F1R00	63	22	50	30	4
12Y1S080055F2R00	80	27	55	30	4
12Y1S100060F3R00	100	32	60	30	4

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Insert screw / Vis de serrage  
 Vite per inserto / Tornillo plaquita

IS30



Screw driver / Tournevis  
 Cacciavite / Destornillador

IK30



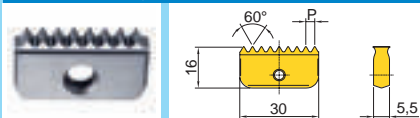
SHELL MILL (A=30MM)

RAPID THREAD

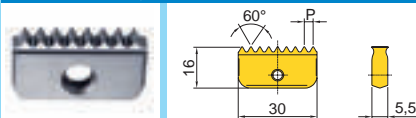
# DRILLS / THREADING

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA

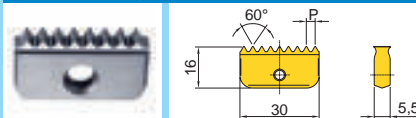
## ISO-threading (internal)



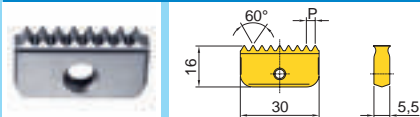
## ISO-threading (external)



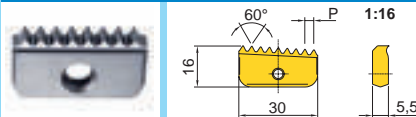
## UN-threading (internal)



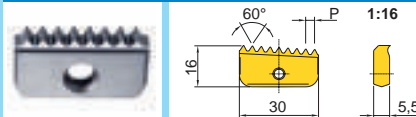
## UN-threading (external)



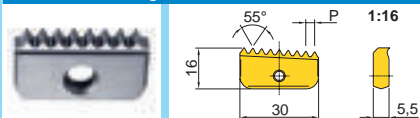
## NPT-threading (internal & external)



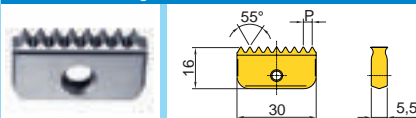
## NPTF-threading (internal & external)



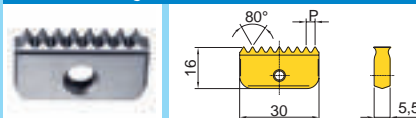
## BSPT-threading (internal & external)



## BSP-threading (internal & external)



## PG-threading (internal & external)



Designation / Réf. de l'article Artículo / Referencia	pitch / pas passo / paso rosca	Grade Nuance Grado	IN1030	IN2030
--	-----------------------------------	--------------------------	--------	--------

Designation / Réf. de l'article Artículo / Referencia	pitch / pas passo / paso rosca	Grade Nuance Grado	IN1030	IN2030
--	-----------------------------------	--------------------------	--------	--------

### ISO-threading (internal)

LYEU30150IS	1,5	A	●	●
LYEU30200IS	2	A	●	●
LYEU30300IS	3	A	●	●
LYEU30350IS	3,5	A	●	●
LYEU30400IS	4	A	●	●
LYEU30450IS	4,5	A	●	●
LYEU30500IS	5	H	●	●

### ISO-threading (external)

LYEU30150IS-X	1,5	H	●	●
LYEU30200IS-X	2	H	●	●
LYEU30300IS-X	3	H	●	●
LYEU30350IS-X	3,5	H	●	●
LYEU30400IS-X	4	H	●	●

### UN-threading (internal)

LYEU30200UN	20	D	●	●
LYEU30180UN	18	D	●	●
LYEU30160UN	16	D	●	●
LYEU30140UN	14	D	●	●
LYEU30120UN	12	D	●	●
LYEU30100UN	10	D	●	●
LYEU30080UN	8	D	●	●
LYEU30060UN	6	D	●	●

### UN-threading (external)

LYEU30200UN-X	20	D	●	●
LYEU30180UN-X	18	D	●	●
LYEU30160UN-X	16	D	●	●
LYEU30140UN-X	14	D	●	●
LYEU30120UN-X	12	D	●	●
LYEU30100UN-X	10	D	●	●
LYEU30080UN-X	8	D	●	●
LYEU30060UN-X	6	D	●	●

### NPT-threading (internal & external)

LYEU30115NT	11,5	H	●	●
LYEU30080NT	8	H	●	●

### NPTF-threading (internal & external)

LYEU30115NF	11,5	F	●	●
LYEU30080NF	8	F	●	●

### BSPT-threading (internal & external)

LYEU30110BT	11	H	●	●
-------------	----	---	---	---

### BSP-threading (internal & external)

LYEU30160BW	16	H	●	●
LYEU30140BW	14	H	●	●
LYEU30110BW	11	H	●	●

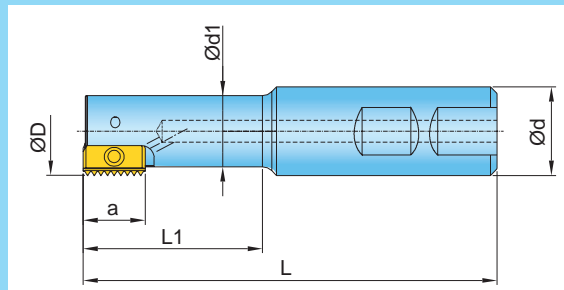
### PG-threading (internal & external)

LYEU30160PG	16	I	●	●
-------------	----	---	---	---

● = P ● = M ● = K ● = N ● = S ○ = H



ADAPTION ACC. TO DIN 1835 B (WELDON) / ATTACHEMENT DIN 1835 B ( WELDON)  
 ATTACCO DIN 1835 B (WELDON) / ADAPTACIÓN SEGÚN DIN 1835 B (WELDON)



Designation / Réf. de l'article  
 Articolo / Referencia

D d d1 L L1 a Z



12Y1U048083W7R00	48	40	35	153	78	40	1	✓
12Y1U050083W7R00	50	40	38	153	78	40	2	✓

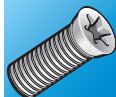
END MILL WELDON SHANK (A=40MM)

RAPID THREAD

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Insert screw / Vis de serrage  
 Vite per inserto / Tornillo plaquita

IS40



Screw driver / Tournevis  
 Cacciavite / Destornillador

IK40

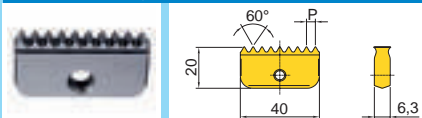




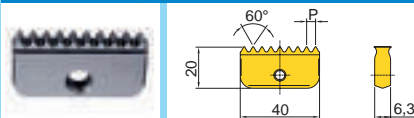
# DRILLS / THREADING

INSERTS / PLAQUETTES DE COUPE  
 INSERTI / PLAQUITA

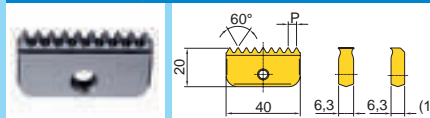
## ISO-threading (internal)



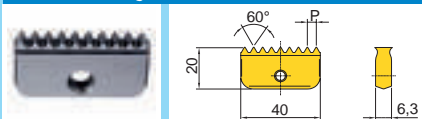
## ISO-threading (external)



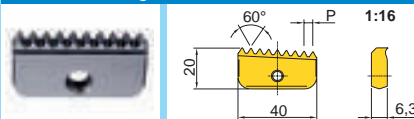
## UN-threading (internal)



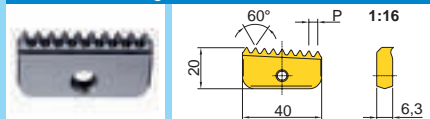
## UN-threading (external)



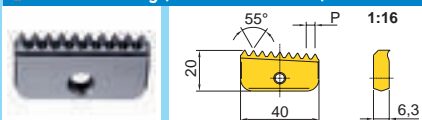
## NPT-threading (internal & external)



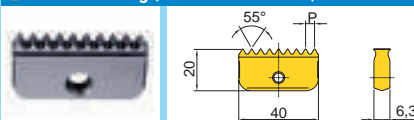
## NPTF-threading (internal & external)



## BSPT-threading (internal & external)



## BSP-threading (internal & external)



Designation / Réf. de l'article Artículo / Referencia	pitch / pas paso / paso rosca	Grade Nuance Grado	IN1030	IN2030
--	----------------------------------	--------------------------	--------	--------

Designation / Réf. de l'article Artículo / Referencia	pitch / pas paso / paso rosca	Grade Nuance Grado	IN1030	IN2030
--	----------------------------------	--------------------------	--------	--------

### ISO-threading (internal)

LYEU40150IS	1,5	A	●	●
LYEU40200IS	2	A	●	●
LYEU40300IS	3	A	●	●
LYEU40350IS	3,5	A	●	●
LYEU40400IS	4	A	●	●
LYEU40450IS	4,5	A	●	●
LYEU40500IS	5	B	●	●
LYEU40550IS	5,5	B	●	●
LYEU40600IS	6	B	●	●

### ISO-threading (external)

LYEU40150IS-X	1,5	B	●	●
LYEU40200IS-X	2	B	●	●
LYEU40300IS-X	3	B	●	●
LYEU40400IS-X	4	B	●	●
LYEU40500IS-X	5	B	●	●
LYEU40600IS-X	6	B	●	●

### UN-threading (internal)

LYEU40160UN	16	C	●	●
LYEU40140UN	14	C	●	●
LYEU40120UN	12	C	●	●
LYEU40100UN	10	C	●	●
LYEU40080UN	8	C	●	●
LYEU40060UN	6	C	●	●
LYEU40045UN	4,5	C	●	●
LYEU40040UN	4	C	●	●

### UN-threading (external)

LYEU40160UN-X	16	D	●	●
LYEU40140UN-X	14	D	●	●
LYEU40120UN-X	12	D	●	●
LYEU40100UN-X	10	D	●	●
LYEU40080UN-X	8	D	●	●
LYEU40060UN-X	6	D	●	●

### NPT-threading (internal & external)

LYEU40115NT	11,5	E	●	●
LYEU40080NT	8	E	●	●

### NPTF-threading (internal & external)

LYEU40115NF	11,5	F	●	●
LYEU40080NF	8	F	●	●

### BSPT-threading (internal & external)

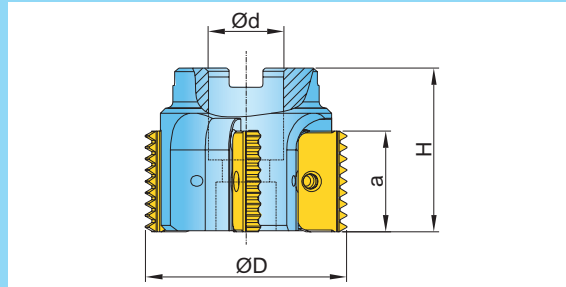
LYEU40110BT	11	G	●	●
-------------	----	---	---	---

### BSP-threading (internal & external)

LYEU40110BW	11	H	●	●
LYEU40080BW	8	H	●	●

● = P ● = M ● = K ● = N ● = S ○ = H

ADAPTION ACC. TO DIN 8030 / ATTACHEMENT DIN 8030  
 ATTACCO DIN 8030 / ADAPTACIÓN SEGÚN DIN 8030



Designation / Réf. de l'article  
 Articolo / Referencia

	D	d	H	a	Z
12Y1U080065F2R00	80	27	65	40	4
12Y1U100070F3R00	100	32	70	40	4

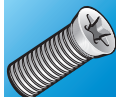
**SHELL MILL (A=40MM)**

**RAPID THREAD**

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Insert screw / Vis de serrage  
 Vite per inserto / Tornillo plaquita

IS40



Screw driver / Tournevis  
 Cacciavite / Destornillador

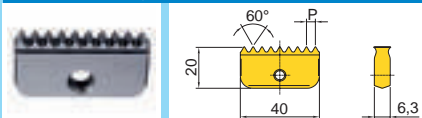
IK40



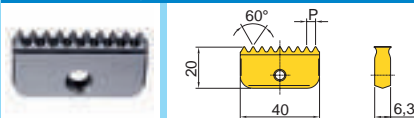
# DRILLS / THREADING

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA

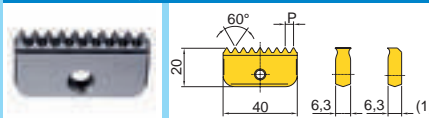
## ISO-threading (internal)



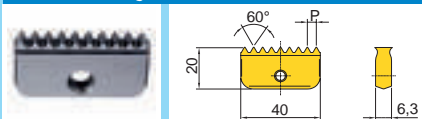
## ISO-threading (external)



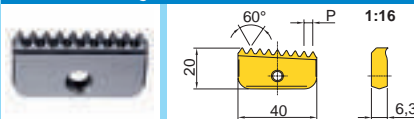
## UN-threading (internal)



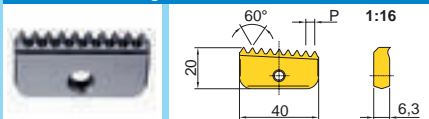
## UN-threading (external)



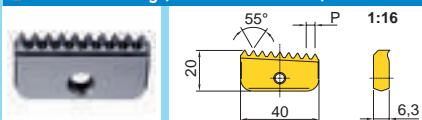
## NPT-threading (internal & external)



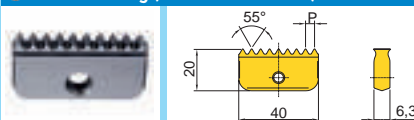
## NPTF-threading (internal & external)



## BSPT-threading (internal & external)



## BSP-threading (internal & external)



Designation / Réf. de l'article Artículo / Referencia	pitch / pas paso / paso rosca	Grade Nuance Grado	IN1030	IN2030
--	----------------------------------	--------------------------	--------	--------

Designation / Réf. de l'article Artículo / Referencia	pitch / pas paso / paso rosca	Grade Nuance Grado	IN1030	IN2030
--	----------------------------------	--------------------------	--------	--------

ISO-threading (internal)				
LYEU40150IS	1,5	A	●	●
LYEU40200IS	2	A	●	●
LYEU40300IS	3	A	●	●
LYEU40350IS	3,5	A	●	●
LYEU40400IS	4	A	●	●
LYEU40450IS	4,5	A	●	●
LYEU40500IS	5	B	●	●
LYEU40550IS	5,5	B	●	●
LYEU40600IS	6	B	●	●
ISO-threading (external)				
LYEU40150IS-X	1,5	B	●	●
LYEU40200IS-X	2	B	●	●
LYEU40300IS-X	3	B	●	●
LYEU40400IS-X	4	B	●	●
LYEU40500IS-X	5	B	●	●
LYEU40600IS-X	6	B	●	●
UN-threading (internal)				
LYEU40160UN	16	C	●	●
LYEU40140UN	14	C	●	●
LYEU40120UN	12	C	●	●
LYEU40100UN	10	C	●	●
LYEU40080UN	8	C	●	●
LYEU40060UN	6	C	●	●
LYEU40045UN	4,5	C	●	●
LYEU40040UN	4	C	●	●

UN-threading (external)				
LYEU40160UN-X	16	D	●	●
LYEU40140UN-X	14	D	●	●
LYEU40120UN-X	12	D	●	●
LYEU40100UN-X	10	D	●	●
LYEU40080UN-X	8	D	●	●
LYEU40060UN-X	6	D	●	●
NPT-threading (internal & external)				
LYEU40115NT	11,5	E	●	●
LYEU40080NT	8	E	●	●
NPTF-threading (internal & external)				
LYEU40115NF	11,5	F	●	●
LYEU40080NF	8	F	●	●
BSPT-threading (internal & external)				
LYEU40110BT	11	G	●	●
BSP-threading (internal & external)				
LYEU40110BW	11	H	●	●
LYEU40080BW	8	H	●	●

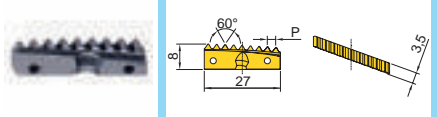
● = P ● = M ● = K ● = N ● = S ○ = H



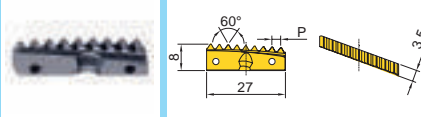
# DRILLS / THREADING

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA

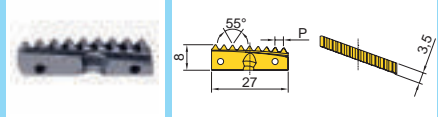
### ISO-threading (internal)



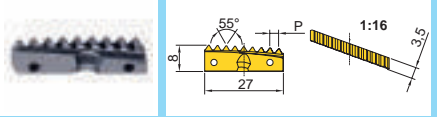
### UN/UNC/UNF/UNEF/UNS-threading (internal)



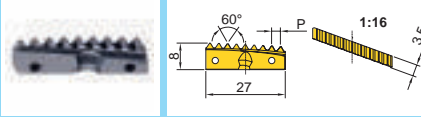
### BSP/BSW/BSF/BSP-threading (internal & external)



### BSPT-threading (internal & external)



### NPT-threading (internal & external)



Designation / Réf. de l'article Artículo / Referencia	pitch / pas paso / paso rosca	Grade Nuance Grado	IN2030
--	----------------------------------	--------------------------	--------

Designation / Réf. de l'article Artículo / Referencia	pitch / pas paso / paso rosca	Grade Nuance Grado	IN2030
--	----------------------------------	--------------------------	--------

#### ISO-threading (internal)

LYER27100IS	1	A	●●●●
LYER27150IS	1,5	A	●●●●
LYER27200IS	2	A	●●●●
LYER27300IS	3	A	●●●●

#### UN/UNC/UNF/UNEF/UNS-threading (internal)

LYER27240UN	24	H	●●●●
LYER27160UN	16	H	●●●●
LYER27120UN	12	H	●●●●
LYER27080UN	8	H	●●●●

#### BSP/BSW/BSF/BSP-threading (internal & external)

LYER27110BW	11	H	●●●●
-------------	----	---	------

#### BSPT-threading (internal & external)

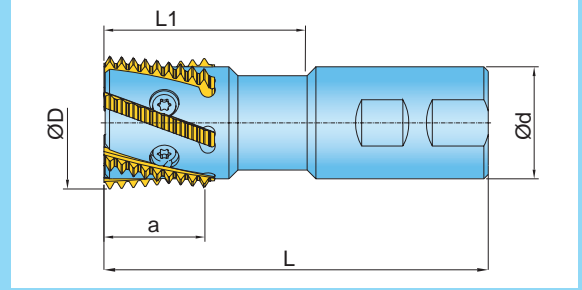
LYER27110BT	11	D	●●●●
-------------	----	---	------

#### NPT-threading (internal & external)

LYER27115NT	11,5	E	●●●●
-------------	------	---	------

● = P ● = M ● = K ● = N ● = S ○ = H

ADAPTION ACC. TO DIN 1835 B (WELDON) / ATTACHEMENT DIN 1835 B ( WELDON)  
 ATTACCO DIN 1835 B (WELDON) / ADAPTACIÓN SEGÚN DIN 1835 B (WELDON)



Designation / Réf. de l'article  
 Articolo / Referencia

	D	d	L	L1	a	Z
22Y3R032070W6R00	32	32	130	60	32	5

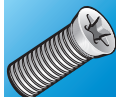
**END MILL WELDON SHANK (A=32MM)**

**RAPID THREAD**

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Insert screw / Vis de serrage  
 Vite per inserto / Tornillo plaquita

IS32



Screw driver / Tournevis  
 Cacciavite / Destornillador

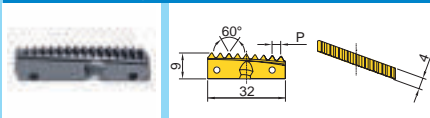
IK22



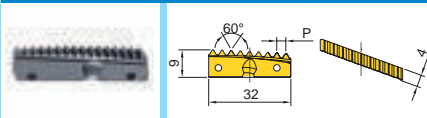
# DRILLS / THREADING

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA

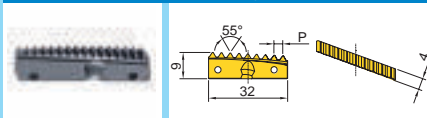
## ISO-threading (internal)



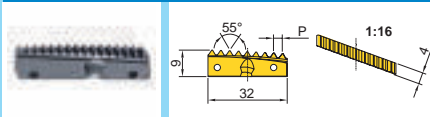
## UN/UNC/UNF/UNEF/UNS-threading (internal)



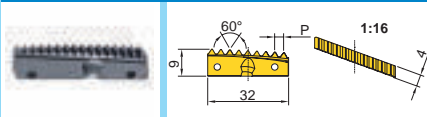
## BSP/BSW/BSF/BSP-threading (internal & external)



## BSPT-threading (internal & external)



## NPT-threading (internal & external)



Designation / Réf. de l'article Articolo / Referencia	pitch / pas passo / paso rosca	Grade Nuance Grado	IN2030
--	-----------------------------------	--------------------------	--------

Designation / Réf. de l'article Articolo / Referencia	pitch / pas passo / paso rosca	Grade Nuance Grado	IN2030
--	-----------------------------------	--------------------------	--------

### ISO-threading (internal)

LYER32150IS	1,5	A	●●●●
LYER32200IS	2	A	●●●●
LYER32300IS	3	A	●●●●
LYER32400IS	4	A	●●●●

### UN/UNC/UNF/UNEF/UNS-threading (internal)

LYER32160UN	16	H	●●●●
LYER32120UN	12	H	●●●●
LYER32080UN	8	H	●●●●
LYER32060UN	6	H	●●●●

### BSP/BSW/BSF/BSP-threading (internal & external)

LYER32110BW	11	H	●●●●
-------------	----	---	------

### BSPT-threading (internal & external)

LYER32110BT	11	D	●●●●
-------------	----	---	------

### NPT-threading (internal & external)

LYER32115NT	11,5	E	●●●●
-------------	------	---	------

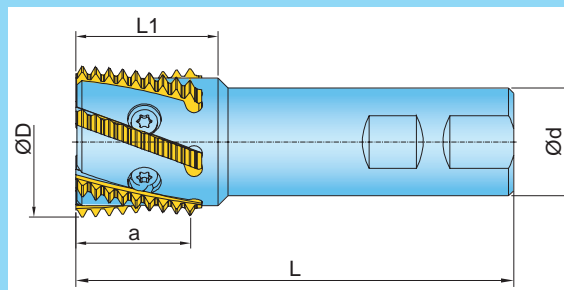
● = P ● = M ● = K ● = N ● = S ○ = H



FR FORETS À PLAQUETTES / FILETAGE ROUTEUR  
 IT PUNTE AD INSERTI / FILO FRESATURA  
 ES HERRAMIENTAS PARA TALADRAR / HILO FRESADO



ADAPTION ACC. TO DIN 1835 B (WELDON) / ATTACHEMENT DIN 1835 B ( WELDON)  
 ATTACCO DIN 1835 B (WELDON) / ADAPTACIÓN SEGÚN DIN 1835 B (WELDON)



Designation / Réf. de l'article  
 Articolo / Referencia

	D	d	L	L1	a	Z
22Y3S045070W6R00	45	32	130	40	37	6

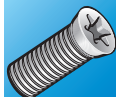
END MILL WELDON SHANK (A=37MM)

RAPID THREAD

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Insert screw / Vis de serrage  
 Vite per inserto / Tornillo plaquita

IS45



Screw driver / Tournevis  
 Cacciavite / Destornillador

IK40

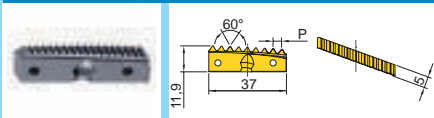




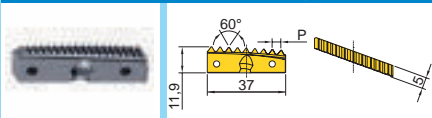
# DRILLS / THREADING

INSERTS / PLAQUETTES DE COUPE  
INSERTI / PLAQUITA

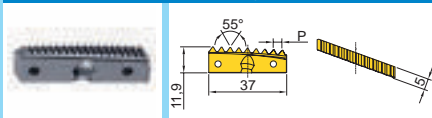
## ISO-threading (internal)



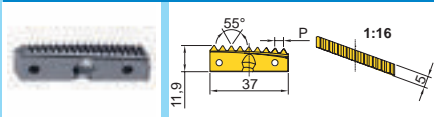
## UN/UNC/UNF/UNEF/UNS-threading (internal)



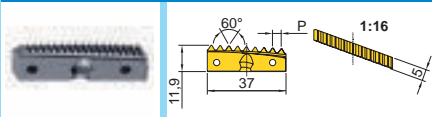
## BSP/BSW/BSF/BSP-threading (internal & external)



## BSPT-threading (internal & external)



## NPT-threading (internal & external)



Designation / Réf. de l'article Artículo / Referencia	pitch / pas paso / paso rosca	Grade Nuance Grado	IN2030
--	----------------------------------	--------------------------	--------

Designation / Réf. de l'article Artículo / Referencia	pitch / pas paso / paso rosca	Grade Nuance Grado	IN2030
--	----------------------------------	--------------------------	--------

### ISO-threading (internal)

LYER37150IS	1,5	A	●●
LYER37200IS	2	A	●●
LYER37300IS	3	A	●●
LYER37400IS	4	A	●●

### UN/UNC/UNF/UNEF/UNS-threading (internal)

LYER37160UN	16	H	●●
LYER37120UN	12	H	●●
LYER37080UN	8	H	●●
LYER37060UN	6	H	●●

### BSP/BSW/BSF/BSP-threading (internal & external)

LYER37110BW	11	H	●●
-------------	----	---	----

### BSPT-threading (internal & external)

LYER37110BT	11	D	●●
-------------	----	---	----

### NPT-threading (internal & external)

LYER37115NT	11,5	E	●●
-------------	------	---	----

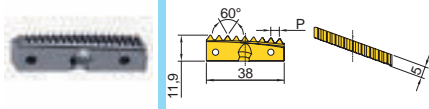
● = P ● = M ● = K ● = N ● = S ○ = H



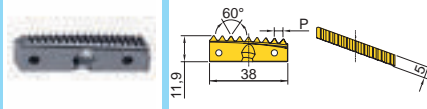
# DRILLS / THREADING

## INSERTS / PLAQUETTES DE COUPE INSERTI / PLAQUITA

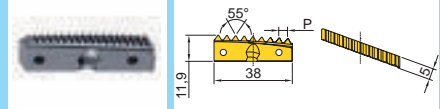
### ISO-threading (internal)



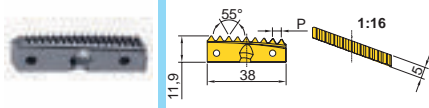
### UN/UNC/UNF/UNEF/UNS-threading (internal)



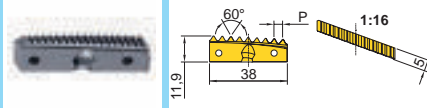
### BSP/BSW/BSF/BSP-threading (internal & external)



### BSPT-threading (internal & external)



### NPT-threading (internal & external)



Designation / Réf. de l'article Artículo / Referencia	pitch / pas paso / paso rosca	Grade Nuance Grado	IN2030
--	----------------------------------	--------------------------	--------

Designation / Réf. de l'article Artículo / Referencia	pitch / pas paso / paso rosca	Grade Nuance Grado	IN2030
--	----------------------------------	--------------------------	--------

#### ISO-threading (internal)

LYER38150IS	1,5	Ⓐ	
LYER38200IS	2	Ⓐ	
LYER38300IS	3	Ⓐ	
LYER38400IS	4	Ⓐ	

#### UN/UNC/UNF/UNEF/UNS-threading (internal)

LYER38160UN	16	Ⓘ	
LYER38120UN	12	Ⓘ	
LYER38080UN	8	Ⓘ	
LYER38060UN	6	Ⓘ	

#### BSP/BSW/BSF/BSP-threading (internal & external)

LYER38110BT	11	Ⓙ	
-------------	----	---	--

#### BSPT-threading (internal & external)

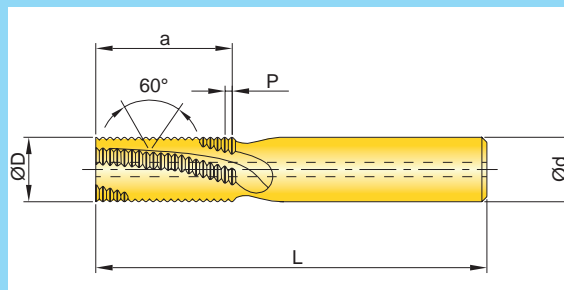
LYER38110BW	11	Ⓙ	
-------------	----	---	--

#### NPT-threading (internal & external)

LYER38115NT	11,5	Ⓚ	
-------------	------	---	--

● = P   ● = M   ● = K   ● = N   ● = S   ○ = H

ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
 ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado

IN2005

P M K N<sub>(S)</sub> S<sub>(M)</sub> H<sub>(PK)</sub>

+ + + ○ +



h6



+ preferred choice / préconisé / molto adatto / muy adecuada ○ second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article  
 Artículo / Referencia

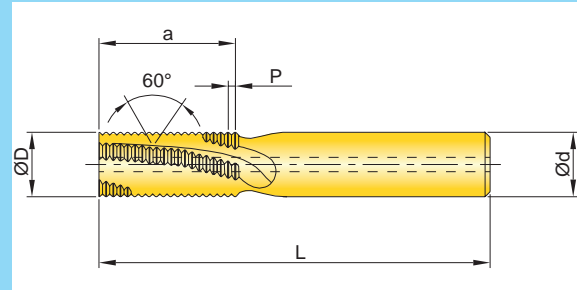
D d L a P ISO thread Fine thread Ø Z



46Y050IST7RB100	3,8	6	58	10,3	0,5	-	≥ 5	3	✓
46Y070IST7RB070	3,1	6	58	7,4	0,7	M4	≥ 5	3	✓
46Y075IST7RB100	4,5	6	58	10,1	0,75	-	≥ 6	3	✓
46Y080IST7RB090	3,8	6	58	9,2	0,8	M5	≥ 6	3	✓
46Y100IST7RB110	4,6	6	58	10,5	1	M6	≥ 7	3	✓
46Y100IST7RB150	4,6	6	58	14,5	1	M6	≥ 7	3	✓
46Y100IST7RB130	6	6	58	12,5	1	-	≥ 9	3	✓
47Y100IST1RB240	10	10	73	24,5	1	-	≥ 12	4	✓
47Y100IST0RB170	8	8	64	16,5	1	-	≥ 10	4	✓
46Y125IST7RB140	6	6	58	14,4	1,25	M8	≥ 10	3	✓
46Y125IST7RB190	6	6	58	19,4	1,25	M8	≥ 10	3	✓
46Y150IST0RB170	7,8	8	64	17	1,5	M10	≥ 12	3	✓
46Y150IST0RB250	7,8	8	64	24,8	1,5	M10	≥ 12	3	✓
47Y150IST1RB220	10	10	73	21,8	1,5	-	≥ 14	4	✓
47Y150IST2RB260	12	12	84	26,3	1,5	-	≥ 16	4	✓
48Y150IST3RB340	16	16	105	33,8	1,5	-	≥ 20	6	✓
46Y175IST1RB200	9	10	73	20,1	1,75	M12	≥ 12	3	✓
46Y175IST1RB290	9	10	73	28,9	1,75	M12	≥ 12	3	✓
46Y200IST1RB270	10	10	73	27	2	M14	≥ 15	3	✓
47Y200IST2RB270	11,8	12	84	27	2	M16	≥ 17	4	✓
47Y200IST2RB390	11,8	12	84	39	2	M16	≥ 17	4	✓
48Y200IST4RB410	20	20	105	41	2	-	≥ 26	6	✓
47Y250IST3RB340	15	16	105	33,8	2,5	M20	≥ 22	5	✓
47Y250IST3RB490	15	16	105	48,8	2,5	M20	≥ 22	5	✓
47Y300IST4RB410	18	20	105	40,5	3	M24	≥ 25	4	✓
47Y300IST4RB590	18	20	120	58,5	3	M24	≥ 25	4	✓
47Y300IST4RB440	20	20	105	43,5	3	M27	≥ 27	4	✓

# DRILLS / THREADING

ADAPTION ACC. TO DIN 1835 A / ATTACHEMENT DIN 1835 A  
ATTACCO DIN 1835 A / ADAPTACIÓN SEGÚN DIN 1835 A



Grade / Nuance / Grado / Grado

IN2005

P	M	K	N <sub>(K)</sub>	S <sub>(M)</sub>	H <sub>(PK)</sub>
+	+	+	○	+	



h6



+ preferred choice / préconisé / molto adatto / muy adecuada    ○ second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article  
Artículo / Referencia

D d L a P UNC UNF UNEF Z

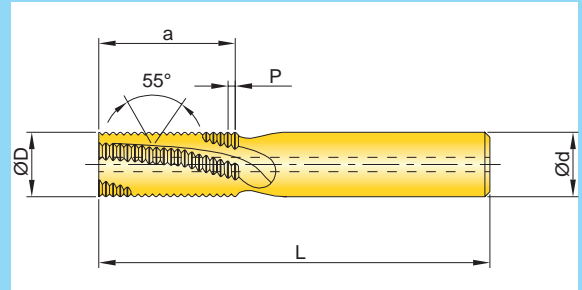


46Y-32UNT7RB070	3,2	6	58	6,8	32	8	10	12	3	✓
47Y-31UNT0RB190	8	8	64	18,7	32	-	-	3/8	4	✓
46Y-32UNT7RB140	6	6	58	14,7	32	-	-	5/16	3	✓
46Y-28UNT7RB110	5	6	58	11,3	28	-	1/4	-	3	✓
46Y-28UNT7RB140	6	6	58	14,1	28	-	-	7/16 - 1/2	3	✓
46Y-24UNT0RB140	6,6	8	64	14,3	24	-	5/16	-	3	✓
46Y-24UNT0RB210	8	8	64	20,6	24	-	3/8	9/16 - 5/8	4	✓
46Y-20UNT7RB120	4,7	6	58	12,1	20	1/4	-	-	3	✓
46Y-20UNT0RB210	8	8	64	21	20	-	7/16	-	3	✓
47Y-20UNT1RB220	10	10	73	22,3	20	-	1/2	-	4	✓
47Y-20UNT2RB270	12	12	84	27,3	20	-	-	3/4 - 1	5	✓
46Y-18UNT7RB150	5,6	6	58	14,8	18	5/16	-	-	3	✓
47Y-18UNT2RB260	11,3	12	84	26,1	18	-	9/16 - 5/8	1/8 - 1 5/8	4	✓
46Y-16UNT0RB170	6,7	8	64	16,7	16	3/8	-	-	3	✓
47Y-16UNT2RB310	12	12	84	31	16	-	3/4	-	4	✓
46Y-14UNT0RB210	7,7	8	64	20,9	14	7/16	-	-	3	✓
47Y-14UNT3RB370	16	16	105	37,2	14	-	7/8	-	5	✓
46Y-13UNT1RB230	9,2	10	73	22,5	13	1/2	-	-	3	✓
46Y-26UNT2RB270	10,5	12	84	26,5	12	9/16	-	-	3	✓
47Y-12UNT3RB410	16	16	105	41,3	12	-	1 - 1 1/2	-	5	✓
46Y-11UNT2RB290	11,4	12	84	28,9	11	5/8	-	-	3	✓
47Y-10UNT3RB340	14,4	16	105	34,3	10	3/4	-	-	4	✓
46Y-09UNT3RB380	16	16	105	38,1	9	7/8	-	-	3	✓
47Y-08UNT4RB430	19,5	20	105	42,9	8	1	-	-	4	✓
47Y-07UNT4RB450	20	20	105	45,3	7	1 1/8 - 1 1/4	-	-	4	✓

SC UN-THREADING WITH CENTRAL INTERNAL COOLANT

RAPID THREAD

ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
 ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado  
 IN2005

P	M	K	N <sub>(K)</sub>	S <sub>(M)</sub>	H <sub>(PK)</sub>
+	+	+	○	+	

h6



+ preferred choice / préconisé / molto adatto / muy adecuada    ○ second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article  
 Artículo / Referencia

D    d    L    a    P    BSP    Z



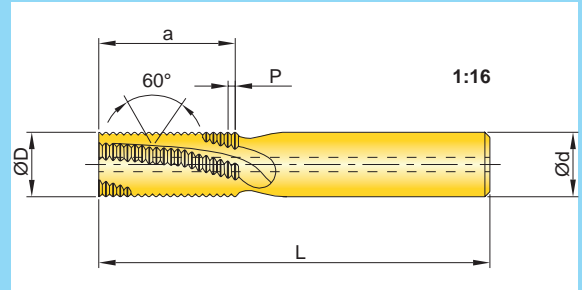
46Y-28BWT0RB140	7,8	8	64	14,1	28	G1/8	3	✓
47Y-19BWT1RB170	10	10	73	16,7	19	G1/4 - 3/8	4	✓
47Y-14BWT3RB260	16	16	105	26,3	14	G1/2 - 7/8	4	✓
47Y-11BWT3RB380	16	16	105	38,1	11	G ≥ 1	4	✓
47Y-11BWT4RB470	20	20	105	47,3	11	G ≥ 1	5	✓

RAPID THREAD

RAPID THREAD



ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
 ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado  
 IN2005

P	M	K	N <sub>(K)</sub>	S <sub>(M)</sub>	H <sub>(PK)</sub>
+	+	+	○	+	

h6



+ preferred choice / préconisé / molto adatto / muy adecuada    ○ second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article  
 Artículo / Referencia

D    d    L    a    P    NPT    Z

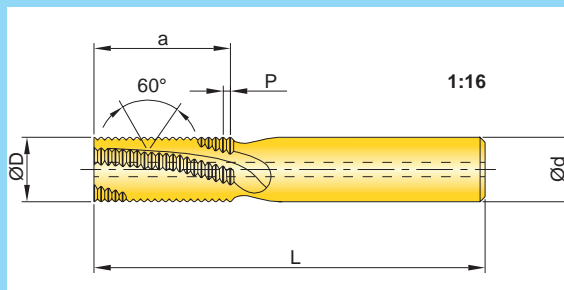


46Y-27NTT0RB110	7,6	8	64	10,8	27	1/8	3	✓
47Y-18NTT1RB160	10	10	73	16,2	18	1/4 - 3/8	4	✓
47Y-14NTT3RB230	15,5	16	105	22,7	14	1/2 - 3/4	4	✓
47Y-11NTT4RB300	20	20	105	29,8	11,5	1 - 2	4	✓
47Y-08NTT4RB400	20	20	105	39,7	8	≥ 2 1/2	4	✓



# DRILLS / THREADING

ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado

IN2005

P M K N<sub>(K)</sub> S<sub>(M)</sub> H<sub>(PK)</sub>

+ + + ○ +



h6

+ preferred choice / préconisé / molto adatto / muy adecuada ○ second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article  
Artículo / Referencia

D d L a P NPTF Z



46Y-27NFT0RB110	7,6	8	64	10,8	27	1/8	3	✓
47Y-18NFT1RB160	10	10	73	16,2	18	1/4 - 3/8	4	✓
47Y-14NFT3RB230	15,5	16	105	22,7	14	1/2 - 3/4	4	✓
47Y-11NFT3RB300	20	20	105	29,8	11,5	1 - 2	4	✓
47Y-08NFT4RB400	20	20	105	39,7	8	≥ 2 1/2	4	✓

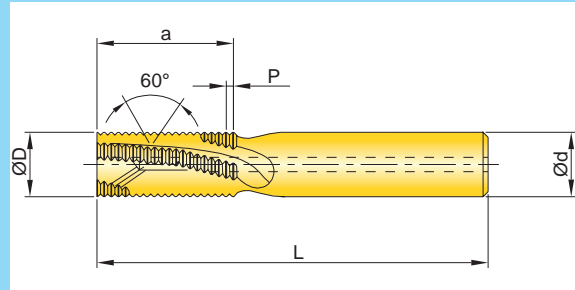
SC NPTF-THREADING WITH CENTRAL INTERNAL COOLANT

RAPID THREAD



# DRILLS / THREADING

ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado

IN2005

P M K N<sub>(K)</sub> S<sub>(M)</sub> H<sub>(PK)</sub>

+ + + ○ +



h6



+ preferred choice / préconisé / molto adatto / muy adecuada ○ second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article  
Artículo / Referencia

D d L a P UNC UNF UNEF Z



46Y-28UNT7RC110	5	6	58	11,3	28	-	1/4	-	3	✓
46Y-28UNT7RC140	6	6	58	14,1	28	-	-	7/16 - 1/2	3	✓
46Y-24UNT0RC140	6,6	8	64	14,3	24	-	5/6	-	3	✓
47Y-24UNT0RC210	8	8	64	20,6	24	-	3/8	9/16 - 5/8	4	✓
46Y-20UNT0RC210	8	8	64	21	20	-	7/16	-	3	✓
47Y-20UNT1RC220	10	10	73	22,3	20	-	1/2	-	4	✓
47Y-20UNT2RC270	12	12	84	27,3	20	-	-	3/4 - 1	5	✓
46Y-18UNT7RC150	5,6	6	58	14,8	18	5/16	-	-	3	✓
47Y-18UNT2RC260	11,3	12	84	26,1	18	-	9/16 - 5/8	1 1/8 - 1 5/8	4	✓
46Y-16UNT0RC170	6,7	8	64	16,7	16	3/8	-	-	3	✓
47Y-16UNT2RC310	12	12	84	31	16	-	3/4	-	4	✓
46Y-14UNT0RC210	7,7	8	64	20,9	14	7/16	-	-	3	✓
47Y-14UNT3RC370	16	16	101	37,2	14	-	7/8	-	5	✓
46Y-13UNT1RC230	9,2	10	73	22,5	13	1/2	-	-	3	✓
46Y-12UNT2RC270	10,5	12	84	26,5	12	9/16	-	-	3	✓
46Y-11UNT2RC290	11,4	12	84	28,9	11	5/8	-	-	3	✓
47Y-10UNT3RC340	14,4	16	101	34,3	10	3/4	-	-	4	✓

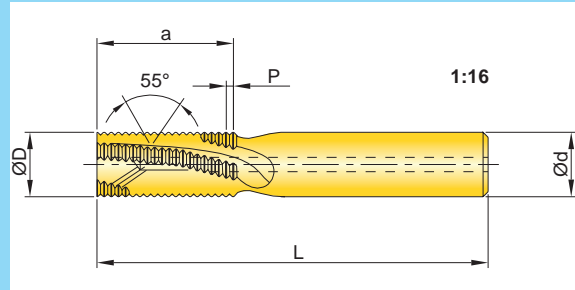
SC UN-THREADING WITH INTERNAL COOLANT IN THE FLUTES

RAPID THREAD



# DRILLS / THREADING

ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado

IN2005

P	M	K	N <sub>(K)</sub>	S <sub>(M)</sub>	H <sub>(PK)</sub>
+	+	+	○	+	



h6



+ preferred choice / préconisé / molto adatto / muy adecuada    ○ second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article  
Artículo / Referencia

D    d    L    a    P    BSPT    Z



46Y-28BT0RC140	7,8	8	64	14,1	28	RC1/8	3	✓
47Y-19BT1RC170	10	10	73	16,7	19	RC1/4 - 3/8	4	✓
47Y-14BT3RC260	16	16	101	26,3	14	RC1/2 - 7/8	5	✓
47Y-11BT3RC290	16	16	101	28,9	11	RC1 - 2	4	✓

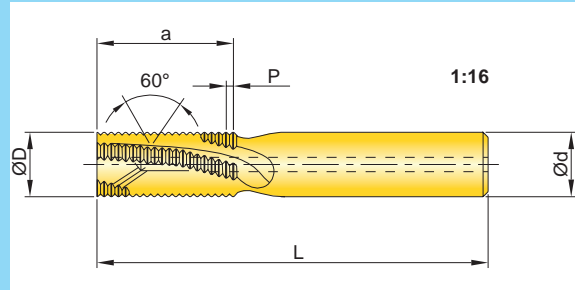
SC BSPT-THREADING WITH INTERNAL COOLANT IN THE FLUTES

RAPID THREAD



# DRILLS / THREADING

ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado

IN2005

P	M	K	N <sub>(K)</sub>	S <sub>(M)</sub>	H <sub>(PK)</sub>
+	+	+	○	+	



h6



+ preferred choice / préconisé / molto adatto / muy adecuada    ○ second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article  
Articolo / Referencia

D    d    L    a    P    NPTF    Z

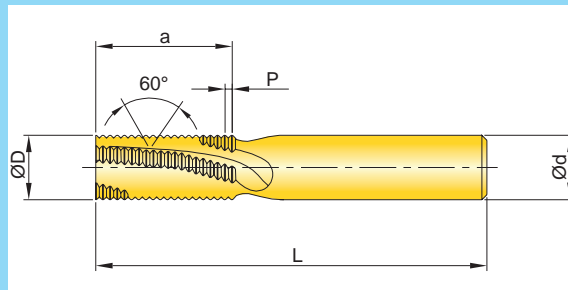
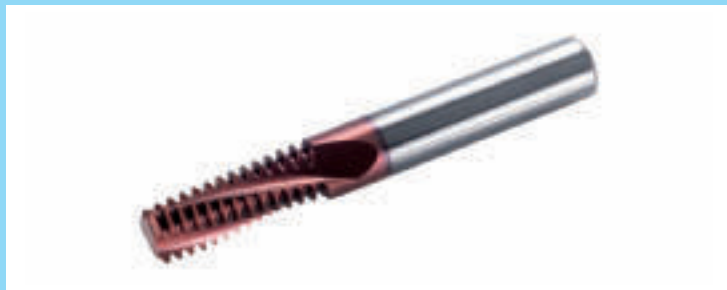


46Y-27NFT0RC110	7,6	8	64	10,8	27	1/8	3	✓
47Y-18NFT1RC160	10	10	73	16,2	18	1/4 - 3/8	4	✓
47Y-14NFT3RC230	15,5	16	101	22,7	14	1/2 - 3/4	4	✓

SC NPTF-THREADING WITH INTERNAL COOLANT IN THE FLUTES

RAPID THREAD

ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado

IN2005

P	M	K	N <sub>(K)</sub>	S <sub>(M)</sub>	H <sub>(PK)</sub>
+	+	+	○	+	



h6



+ preferred choice / préconisé / molto adatto / muy adecuada    ○ second choice / solution alternative / paco adatto / no muy adecuada

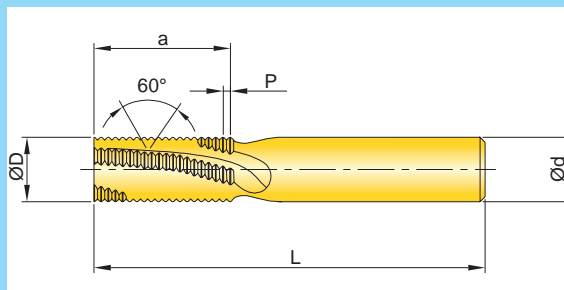
Designation / Réf. de l'article  
Articolo / Referencia

Designation / Réf. de l'article Articolo / Referencia	D	d	L	a	P	ISO thread	Fine thread Ø	Z
46Y050IST7RA050	2,2	6	58	5,3	0,5	M3	≥ 4	3
46Y050IST7RA100	3,8	6	58	10,3	0,5	-	≥ 5	3
46Y070IST7RA070	3,1	6	58	7,4	0,7	M4	≥ 5	3
46Y075IST7RA100	4,5	6	58	10,1	0,75	-	≥ 6	3
46Y080IST7RA090	3,6	6	58	9,2	0,8	M5	≥ 6	3
46Y100IST7RA110	4	6	58	10,5	1	M6	≥ 7	3
46Y100IST7RA150	4	6	58	14,5	1	M6	≥ 7	3
46Y100IST7RA130	6	6	58	12,5	1	-	≥ 9	3
47Y100IST0RA170	8	8	64	16,5	1	-	≥ 10	4
46Y125IST7RA140	5	6	58	14,4	1,25	M8	≥ 10	3
46Y125IST7RA190	5	6	58	19,4	1,25	M8	≥ 10	3
46Y150IST0RA170	7	8	64	17,3	1,5	M10	≥ 12	3
46Y150IST0RA250	7	8	76	24,8	1,5	M10	≥ 12	3
47Y150IST1RA220	10	10	73	21,8	1,5	-	≥ 14	4
48Y150IST3RA340	16	16	105	33,8	1,5	-	≥ 20	6
46Y175IST0RA200	8	8	64	20,1	1,75	M12	≥ 14	3
46Y175IST0RA290	8	8	76	28,9	1,75	M12	≥ 14	3
46Y200IST1RA270	10	10	73	27	2	M16	≥ 17	3
46Y200IST1RA390	10	10	105	39	2	M16	≥ 17	3
47Y200IST2RA270	12	12	84	27	2	-	≥ 18	4
48Y200IST4RA410	20	20	105	41	2	-	≥ 26	6
47Y250ISU8RA340	14	14	84	33,8	2,5	M20	≥ 22	4
47Y250ISU8RA490	14	14	105	48,8	2,5	M20	≥ 22	4
46Y300IST3RA410	16	16	105	40,5	3	M24	≥ 25	3
46Y300IST3RA590	16	16	120	58,5	3	M24	≥ 25	3
47Y300IST4RA440	20	20	105	43,5	3	M27	≥ 28	4



# DRILLS / THREADING

ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado

IN2005

P M K N<sub>(K)</sub> S<sub>(M)</sub> H<sub>(PK)</sub>

+ + + ○ +



h6



+ preferred choice / préconisé / molto adatto / muy adecuada ○ second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article  
Artículo / Referencia

D d L a P Z

47Y100IST1RA170	10	10	73	16,5	1	4
47Y100IST2RA210	12	12	84	20,5	1	5
47Y150IST1RA160	10	10	73	15,8	1,5	4
47Y150IST2RA200	12	12	84	20,3	1,5	4
47Y175IST2RA200	12	12	84	20,1	1,75	4
46Y200IST1RA170	10	10	73	17	2	3
47Y200IST2RA210	12	12	84	21	2	4

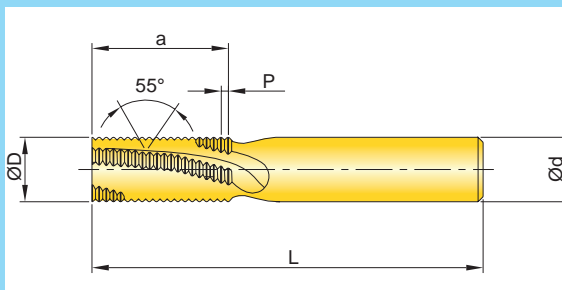
SC ISO-THREADING EXTERNAL

RAPID THREAD



# DRILLS / THREADING

ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado

IN2005

P M K N<sub>(K)</sub> S<sub>(M)</sub> H<sub>(PK)</sub>

+ + + ○ +



h6



+ preferred choice / préconisé / molto adatto / muy adecuada ○ second choice / solution alternative / poco adatto / no muy adecuada

Designation / Réf. de l'article  
Artículo / Referencia

D d L a P BSP Z

46Y-28BWT7RA100	6	6	58	9,5	28	G1/8	3
46Y-19BWT0RA140	8	8	64	14	19	G1/4 - 3/8	3
47Y-14BWT2RA190	12	12	84	19	14	G1/2 - 7/8	4
47Y-14BWT2RA260	12	12	84	26,3	14	G1/2 - 7/8	4
46Y-11BWT2RA240	12	12	84	24,2	11	G1-1 1/2	3
47Y-11BWT3RA380	16	16	105	38,1	11	G1-3	4
47Y-11BWT4RA470	20	20	105	47,3	11	G ≥ 1	5

SC BSP-THREADING INTERNAL & EXTERNAL

RAPID THREAD

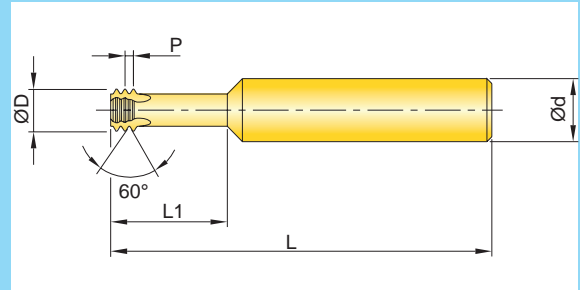








ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
 ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado
IN2005

P	M	K	N <sub>(K)</sub>	S <sub>(M)</sub>	H <sub>(PK)</sub>
+	+	+	○	+	

h6



+ preferred choice / préconisé / molto adatto / muy adecuada    ○ second choice / solution alternative / paco adatto / no muy adecuada

Designation / Réf. de l'article Articolo / Referencia	D	d	L	L1	P	UNC	UNF	Z
46Y-80UNT7RM040	1,15	6	58	4	80	-	0	3
46Y-72UNT7RM040	1,45	6	58	3,7	72	-	1	3
46Y-64UNT7RM040	1,4	6	58	3,8	64	1	2	3
46Y-56UNT7RM040	1,65	6	58	4,4	56	2	3	3
46Y-48UNT7RM050	1,9	6	58	5,2	48	3	4	3
46Y-40UNT7RM060	2,1	6	58	6,3	40	4	-	3
46Y-40UNT7RM070	2,45	6	58	7	40	5	6	3
46Y-40UNT7RM100	2,45	6	58	9,6	40	5	6	3
46Y-36UNT7RM090	3,3	6	58	9	36	-	8	3
46Y-32UNT7RM070	2,55	6	58	7,1	32	6	-	3
46Y-32UNT7RM100	3,2	6	58	9,5	32	8	-	3
46Y-32UNT7RM130	3,2	6	58	12,5	32	8	-	3
46Y-32UNT7RM110	3,7	6	58	10,5	32	-	10	3
46Y-32UNT7RM150	3,7	6	58	15	32	-	10	3
46Y-28UNT7RM150	5	6	58	14,5	28	-	1/4	3
46Y-28UNT7RM190	5	6	58	19	28	-	1/4	3
46Y-24UNT7RM110	3,5	6	58	10,6	24	10 12	-	3
46Y-24UNT0RM170	6,6	8	64	17	24	-	5/16 3/8	3
46Y-24UNT0RM240	6,6	8	64	24	24	-	5/16 3/8	3
46Y-20UNT7RM140	4,75	6	58	14	20	1/4	-	3
46Y-20UNT0RM250	8	8	64	25	20	-	7/16	3
46Y-20UNT7RM190	4,75	6	58	19	20	1/4	-	3
46Y-18UNT7RM170	6	6	58	17	18	5/16	-	3
47Y-18UNT2RM350	12	12	84	35	18	-	5/8	4
46Y-18UNT7RM230	6	6	58	23	18	5/16	-	3
46Y-16UNT0RM220	6,7	8	64	22	16	3/8	-	3
46Y-14UNT0RM250	7,7	8	64	25	14	7/16	-	3
46Y-13UNT1RM280	9,2	10	73	27,5	13	1/2	-	3
46Y-12UNT2RM320	10,5	12	84	31,5	12	9/16	-	3
46Y-11UNT2RM350	11,4	12	84	34,5	11	5/8	-	3
47Y-10UNT3RM420	14,4	16	105	41,5	10	3/4	-	4

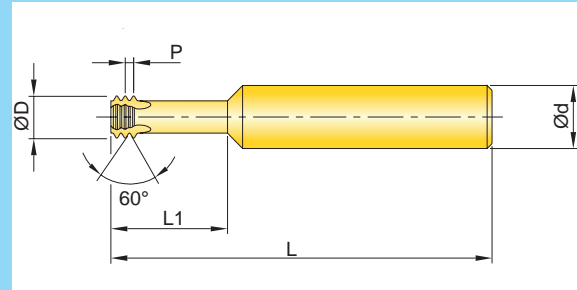
RAPID THREAD SC UN-THREADING SHORT INTERNAL (RIGHT VERSION)

RAPID THREAD



# DRILLS / THREADING

ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado  
IN2006

P	M	K	N <sub>(K)</sub>	S <sub>(M)</sub>	H <sub>(PK)</sub>
+	+	+		+	+



h6



+ preferred choice / préconisé / molto adatto / muy adecuada    ○ second choice / solution alternative / poco adatto / no muy adecuada

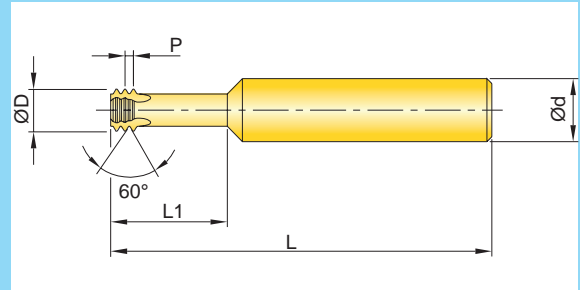
Designation / Réf. de l'article Artículo / Referencia	D	d	L	L1	P	ISO thread	Z
46Y040IST7LM050	1,55	6	58	4,5	0,4	M2	3
46Y045IST7LM050	1,65	6	58	5	0,45	M2,2	3
46Y045IST7LM060	1,95	6	58	5,5	0,45	M2,5	3
46Y045IST7LM080	1,95	6	58	7,5	0,45	M2,5	3
46Y050IST7LM070	2,35	6	58	6,5	0,5	M3	3
46Y050IST7LM100	2,35	6	58	9,5	0,5	M3	3
46Y060IST7LM080	2,75	6	58	7,5	0,6	M3,5	3
46Y070IST7LM090	3,1	6	58	9	0,7	M4	3
46Y070IST7LM130	3,1	6	58	12,5	0,7	M4	3
46Y080IST7LM130	3,8	6	58	12,5	0,8	M5	3
46Y080IST7LM160	3,8	6	58	16	0,8	M5	3
46Y100IST7LM140	4,65	6	58	14	1	M6	3
46Y100IST7LM200	4,65	6	58	20	1	M6	3
46Y125IST7LM180	5,95	6	58	18	1,25	M8	3
46Y125IST7LM240	5,95	6	58	24	1,25	M8	3
46Y150IST0LM230	7,8	8	64	23	1,5	M10	3
46Y175IST1LM260	9	10	73	26	1,75	M12	3

for hardmilling / pour fraisage dur / per difficile fresatura / para fresado duro

SC ISO-THREADING SHORT INTERNAL (LEFT VERSION)

RAPID THREAD

ADAPTION ACC. TO DIN 6535 HA / ATTACHEMENT DIN 6535 HA  
 ATTACCO DIN 6535 HA / ADAPTACIÓN SEGÚN DIN 6535 HA



Grade / Nuance / Grado / Grado
IN2006

P	M	K	N <sub>(K)</sub>	S <sub>(M)</sub>	H <sub>(PK)</sub>
+	+	+		+	+

h6



+ preferred choice / préconisé / molto adatto / muy adecuada    ○ second choice / solution alternative / paco adatto / no muy adecuada

Designation / Réf. de l'article Artículo / Referencia	D	d	L	L1	P	UNC	UNF	Z
46Y-80UNT7LM040	1,15	6	58	4	80	-	0	3
46Y-72UNT7LM040	1,45	6	58	3,7	72	-	1	3
46Y-64UNT7LM040	1,4	6	58	3,8	64	1	2	3
46Y-56UNT7LM040	1,65	6	58	4,4	56	2	3	3
46Y-48UNT7LM050	1,9	6	58	5,2	48	3	4	3
46Y-40UNT7LM060	2,1	6	58	6,3	40	4	-	3
46Y-40UNT7LM070	2,45	6	58	7	40	5	6	3
46Y-40UNT7LM100	2,45	6	58	9,6	40	5	6	3
46Y-36UNT7LM090	3,3	6	58	9	36	-	8	3
46Y-32UNT7LM070	2,55	6	58	7,1	32	6	-	3
46Y-32UNT7LM100	3,2	6	58	9,5	32	8	-	3
46Y-32UNT7LM130	3,2	6	58	12,5	32	8	-	3
46Y-32UNT7LM110	3,7	6	58	10,5	32	-	10	3
46Y-32UNT7LM150	3,7	6	58	15	32	-	10	3
46Y-28UNT7LM110	4,2	6	58	11	28	-	12	3
46Y-28UNT7LM150	5	6	58	14,5	28	-	1/4	3
46Y-28UNT7LM190	5	6	58	19	28	-	1/4	3
46Y-24UNT7LM110	3,5	6	58	10,6	24	10	12	3
46Y-24UNT0LM170	6,6	8	64	17	24	-	5/16	3
46Y-24UNT0LM240	6,6	8	64	24	24	-	5/16	3
46Y-20UNT7LM140	4,75	6	58	14	20	1/4	-	3
46Y-20UNT7LM190	4,75	6	58	19	20	1/4	-	3
46Y-18UNT7LM170	6	6	58	17	18	5/16	-	3
47Y-18UNT2LM350	12	12	84	35	18	-	5/8	4
46Y-18UNT7LM230	6	6	58	23	18	5/16	-	3
46Y-16UNT0LM220	6,7	8	64	22	16	3/8	-	3
46Y-14UNT0LM250	7,7	8	64	25	14	7/16	-	3
46Y-13UNT1LM280	9,2	10	73	27,5	13	1/2	-	3

for hardmilling / pour fraisage dur / per difficile fresatura / para fresado duro

SC UN-THREADING SHORT INTERNAL (LEFT VERSION)

RAPID THREAD

NOTES / NOTES  
NOTES / NOTES

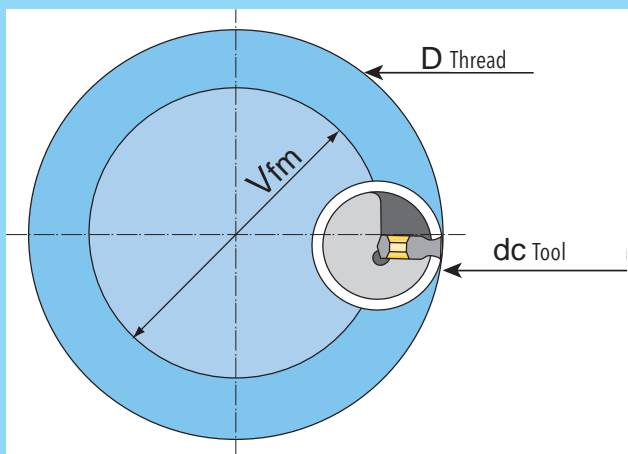


MACHINING DATA FOR INDEXABLE INSERT THREADING TOOLS

ISO	Material	Condition	Tensile Strength [N/mm <sup>2</sup> ]	Hardness HB	Material No.	
<b>P</b>	Non-alloy steel and cast steel, free cutting steel	< 0.25 %C	Annealed	420	125	1
		>= 0.25 %C	Annealed	650	190	2
		< 0.55 %C	Quenched and tempered	850	250	3
		>= 0.55 %C	Annealed	750	220	4
			Quenched and tempered	1000	300	5
	Low alloy steel and cast steel (less than 5 % all elements)	Annealed		600	200	6
				930	275	7
		Quenched and tempered		1000	300	8
				1200	350	9
	High alloy steel, cast steel and tool steel	Annealed		680	200	10
		Quenched and tempered		1100	325	11
<b>M</b>	Stainless steel and cast steel	Ferritic/martensitic		680	200	12
		Martensitic		820	240	13
		Austenitic		600	180	14
<b>K</b>	Cast iron nodular (GGG)	Ferritic/pearlitic		180	17	
		Pearlitic		260	18	
	Grey cast iron (GG)	Ferritic		160	15	
		Pearlitic		250	16	
	Malleable cast iron	Ferritic		130	19	
		Pearlitic		230	20	
<b>N</b>	Aluminum-wrought alloy	Not cureable		60	21	
		Cured		100	22	
	Aluminum cast, alloyed	<=12% Si	Not cureable		75	23
			Cured		90	24
		>12% Si	High temperature		130	25
	Copper alloys	Free cutting >1% Pb			110	26
		Brass			90	27
		Electrolitic copper			100	28
	Non-metallic	Duroplastics, fiber plastics				29
		Hard rubber				30
<b>S</b>	High temp. alloys	Fe-Basis	Annealed		200	31
			Cured		280	32
		Ni or Co Basis	Annealed		250	33
			Cured		350	34
			Cast		320	35
	Titanium and Ti-alloys			RM 400		36
		Alpha + Beta alloys, cured		RM 1050		37
<b>H</b>	Hardened steel	Hardened		55 HRc	38	
		Hardened		60 HRc	39	
	Chilled cast iron	Cast		400	40	
	Cast iron	Hardened		55 HRc	41	

## MACHINING DATA FOR INDEXABLE INSERT THREADING TOOLS

IN1030	IN2030
Cutting Speed (m/min)	
140-180	170-220
125-150	160-190
80-100	100-120
70-90	90-110
60-80	70-100
120-160	150-200
90-140	110-170
80-120	100-150
70-100	90-120
60-80	70-100
55-70	70-90
130-220	160-270
80-200	100-250
100-130	120-160
70-140	90-170
60-120	70-150
130-240	160-300
110-200	140-250
180-330	220-410
160-290	200-360
150-300	180-340
150-300	180-340
150-300	180-340
150-300	180-340
150-300	180-340
150-300	180-340
150-300	180-340
150-300	180-340
150-300	180-340
150-300	180-340
30-40	40-50
25-35	30-40
25-35	30-40
25-35	30-40
40-80	50-100
40-80	50-100
40-80	50-100



$$\text{Feed rate } V_{fm} = f_z \times \frac{(D-dc)}{D} \times n \times Z$$

- fz: feed per tooth
- D: diameter of thread
- dc: diameter of tool
- Vfm: feed rate of centerway of tool
- n: RPM
- Z: no. of teeth

fz = 0,05 mm - 0,15 mm  
 max. tool dia. ≤ 2/3 thread size

Example:  
 M30 ⇒ tool dia.: max. 20 mm

MACHINING DATA FOR SOLID CARBIDE TOOLS

ISO	Material	Condition	Tensile Strength [N/mm <sup>2</sup> ]	Hardness HB	Material No.		
P	Non-alloy steel and cast steel, free cutting steel	< 0.25 %C	Annealed	420	125	1	
		>= 0.25 %C	Annealed	650	190	2	
		< 0.55 %C	Quenched and tempered	850	250	3	
		>= 0.55 %C	Annealed	750	220	4	
			Quenched and tempered	1000	300	5	
	Low alloy steel and cast steel (less than 5 % all elements)	Annealed		600	200	6	
				930	275	7	
		Quenched and tempered		1000	300	8	
				1200	350	9	
	High alloy steel, cast steel and tool steel	Annealed		680	200	10	
		Quenched and tempered		1100	325	11	
M	Stainless steel and cast steel	Ferritic/martensitic		680	200	12	
		Martensitic		820	240	13	
		Austenitic		600	180	14	
K	Cast iron nodular (GGG)	Ferritic/pearlitic			180	17	
		Pearlitic			260	18	
	Grey cast iron (GG)	Ferritic			160	15	
		Pearlitic			250	16	
	Malleable cast iron	Ferritic			130	19	
		Pearlitic			230	20	
N	Aluminum-wrought alloy	Not cureable			60	21	
		Not cureable			100	22	
	Aluminum-cast, alloyed	<=12% Si	Unbehandelt			75	23
			Cured			90	24
		>12% Si	High temperature			130	25
	Copper alloys	Free cutting >1% Pb				110	26
						90	27
						100	28
	Non-metallic	Duroplastics, fiber plastics					29
		Hard rubber					30
S	High temp. alloys	Fe based	Annealed			200	31
			Cured			280	32
		Ni or Co based	Annealed			250	33
			Cured			350	34
			Cast			320	35
	Titanium and Ti alloys			RM 400			36
		Alpha + Beta alloys, cured		RM 1050			37
H	Hardened steel	Hardened			55 HRc	38	
		Hardened			60 HRc	39	
	Chilled cast iron	Cast			400	40	
	Cast iron	Hardened			55 HRc	41	

# DRILLS / THREADING

## MACHINING DATA FOR SOLID CARBIDE TOOLS

Cutting Speed (m/min)	Cutting Diameter											
	Feed (mm/tooth)											
IN2005	Ø2	Ø3	Ø4	Ø6	Ø8	Ø10	Ø12	Ø14	Ø16	Ø20	Ø25	Ø30
100-250	0.03	0.04	0.04	0.06	0.07	0.08	0.09	0.11	0.12	0.15	0.18	0.21
80-210	0.03	0.04	0.04	0.06	0.07	0.08	0.09	0.11	0.12	0.15	0.18	0.21
65-170	0.03	0.04	0.04	0.06	0.07	0.08	0.09	0.11	0.12	0.15	0.18	0.21
110-180	0.02	0.03	0.03	0.05	0.06	0.07	0.08	0.09	0.1	0.12	0.15	0.18
95-160	0.02	0.03	0.03	0.05	0.06	0.07	0.08	0.09	0.1	0.12	0.15	0.18
90-160	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.1	0.11
65-200	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.1	0.11
70-210	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.1	0.11
95-160	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.1	0.11
130-170	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.1	0.11
75-100	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.1	0.11
110-170	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.1	0.11
70-155	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.1	0.11
85-100	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.1	0.11
70-150	0.03	0.04	0.04	0.06	0.07	0.08	0.09	0.11	0.12	0.15	0.18	0.21
110-140	0.03	0.04	0.04	0.06	0.07	0.08	0.09	0.11	0.12	0.15	0.18	0.21
120-160	0.03	0.04	0.04	0.06	0.07	0.08	0.09	0.11	0.12	0.15	0.18	0.21
75-160	0.03	0.04	0.04	0.06	0.07	0.08	0.09	0.11	0.12	0.15	0.18	0.21
120-160	0.03	0.04	0.04	0.06	0.07	0.08	0.09	0.11	0.12	0.15	0.18	0.21
110-140	0.03	0.04	0.04	0.06	0.07	0.08	0.09	0.11	0.21	0.15	0.18	0.21
160-300	0.03	0.04	0.04	0.06	0.07	0.08	0.09	0.11	0.12	0.15	0.18	0.21
100-400	0.05	0.06	0.07	0.09	0.1	0.11	0.12	0.13	0.15	0.18	0.22	0.25
20-80	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.05
20-80	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.05
55-65	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.05
45-55	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.05
90-105	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.05
55-65	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.05

For cutters with long cutting flute reduce feed rate by 40%.

MACHINING DATA FOR SOLID CARBIDE TOOLS 46Y\_RM/LM

ISO	Materials	Cutting speed m/min	Feed mm/tooth												
			Ø1.5	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	Ø9	Ø10	Ø12	Ø14	Ø15
<b>P</b>	C15	60-120	0.05	0.05	0.07	0.09	0.11	0.13	0.14	0.15	0.16	0.16	0.17	0.18	0.18
	C45, 60	60-90	0.04	0.05	0.06	0.08	0.09	0.1	0.12	0.13	0.14	0.14	0.16	0.17	0.18
	alloy steels, treated steels,	50-80	0.04	0.04	0.05	0.05	0.06	0.07	0.07	0.08	0.09	0.1	0.12	0.13	0.14
	cast steels	70-90	0.04	0.04	0.05	0.05	0.06	0.07	0.07	0.08	0.09	0.1	0.12	0.13	0.14
<b>M</b>	stainless steel	60-90	0.03	0.03	0.04	0.05	0.06	0.06	0.07	0.08	0.09	0.1	0.11	0.12	0.13
<b>S</b>	nickel alloys, titanium alloys	20-40	0.03	0.03	0.04	0.04	0.05	0.06	0.06	0.06	0.07	0.07	0.07	0.08	0.08
<b>K</b>	cast iron	40-80	0.05	0.05	0.07	0.09	0.11	0.13	0.14	0.15	0.16	0.16	0.17	0.18	0.18
<b>N</b>	aluminum, synthetics,	80-150	0.05	0.05	0.07	0.09	0.11	0.13	0.14	0.15	0.16	0.16	0.17	0.18	0.18
	duroplastics, thermoplastics,	50-200	0.1	0.11	0.12	0.14	0.16	0.18	0.19	0.19	0.19	0.19	0.19	0.2	0.2
<b>H</b>	hardened steel	40-60	0.02	0.02	0.03	0.09	0.04	0.05	0.05	0.05	0.06	0.06	0.06	0.07	0.07



NOTES / NOTES  
NOTES / NOTES





FR ATTACHEMENTS OUTILS  
IT ATTACCHI  
ES SOPORTE DE LAS HERRAMIENTAS



MINNO

**TOOL HOLDERS AND ADAPTORS**

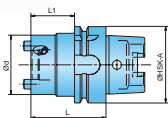


TOOL



Type / Type  
Type / Modelo

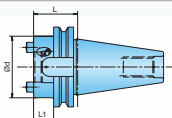
Page / Page  
Pagina / Página



~~INNOFIT~~

HSKA50...A100-Modular 40/50

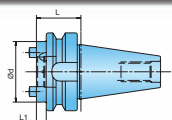
412



~~INNOFIT~~

DIN69871 A40...A50-Modular 40/50

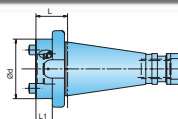
413



~~INNOFIT~~

MAS-BT40...50-Modular 40/50

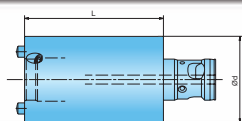
414



~~INNOFIT~~

DIN2080 A40...A50-Modular 40/50

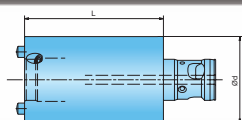
415



~~INNOFIT~~

Modular 40 (Extension)

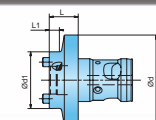
416



~~INNOFIT~~

Modular 50 (Extension)

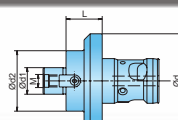
417



~~INNOFIT~~

Modular 50 (Reducer)

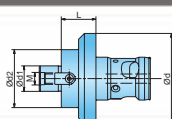
418



~~INNOFIT~~

Modular 40 Shell Typ

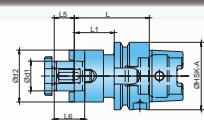
419



~~INNOFIT~~

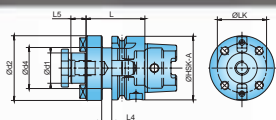
Modular 50 Shell Typ

420



HSK-A50/63/100 Combi Shell Type

421



HSK-A50/63/100 Shell Type - Big Collar

422

# TOOL ADAPTIONS

FR ATTACHEMENTS OUTILS

IT ATTACCHI

ES SOPORTE DE LAS HERRAMIENTAS

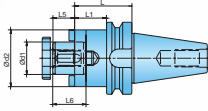
Holder / Attachements Holder / Soporte	Type / Type Type / Modelo	Page / Page Pagina /Página
	HSK-A63/100 Shell Type - Long Version	423
	HSK-A63 Screw Type	424
	HSK-A100 Screw Type	425
	HSK-E40/50/63 Screw Type	426
	DIN 69871-A40/50 Combi Shell Type	427
	DIN 69871-A40/50 Shell Type - Big Collar	428
	DIN 69871-A40/50 Shell Type	429
	DIN 69871-A40/50 Shell Type - Long Version	430
	DIN 69871-A50/60 Centering Pin	431
	DIN 69871-A40 Screw Type	432
	DIN 69871-A50 Screw Type	433

Subject to printing error or technical changes / Sous réserve d'erreurs d'impression ou de modifications techniques / Quanto stampato può essere soggetto ad errori di stampa e variazioni tecniche / Queda reservado el derecho sobre eventuales fallos de impresión, errores o modificaciones técnicas



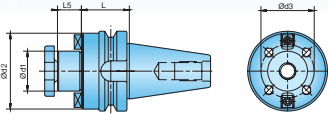
Type / Type  
Type / Modelo

Page / Page  
Pagina / Página



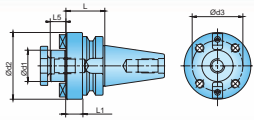
MAS BT40/50 Combi Shell Type

434



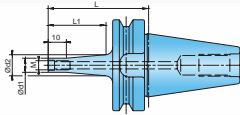
MAS BT 50 Shell Type

435



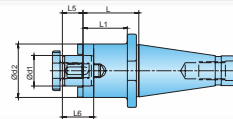
MAS BT40/50 Shell Type

436



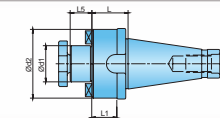
MAS BT40/BT50 Screw Type

437



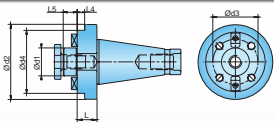
DIN 2080-A40/50 Combi Shell Type

438



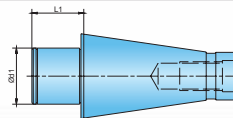
DIN 2080-A40/50 Shell Type

439



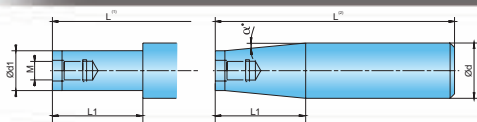
DIN 2080-A40/50 Shell Type

440



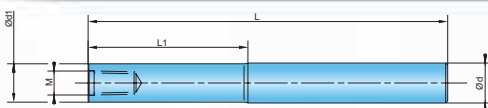
DIN 2080-A40/50 Centering Pin

441



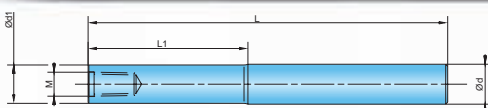
Steel Extension Cylindrical/Conical (Screw Type)

442



Heavy Metall Extension - Cylindrical (Screw Type)

443



Carbide Extension - Cylindrical (Screw Type)

444

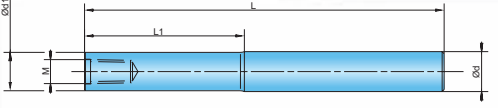
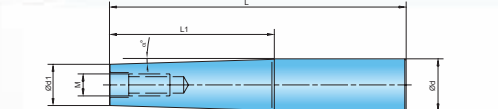
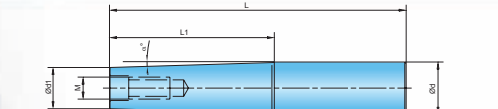
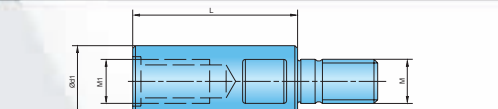
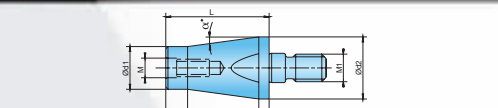
Subject to printing error or technical changes / Sous réserve d'erreurs d'impression ou de modifications techniques / Quanto stampato puo' essere soggetto ad errori di stampa e variazione tecniche / Queda reservado el derecho sobre eventuales fallos de impresión, errores o modificaciones técnicas

# TOOL ADAPTIONS

FR ATTACHEMENTS OUTILS

IT ATTACCHI

ES SOPORTE DE LAS HERRAMIENTAS

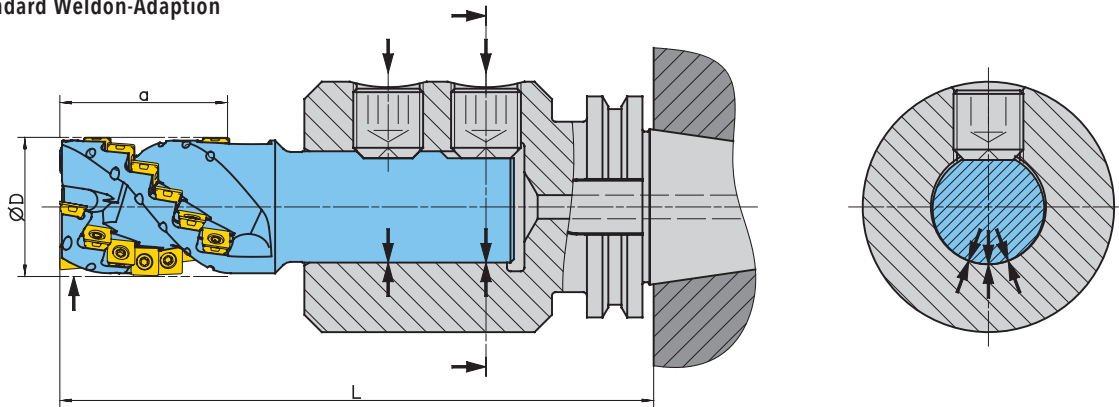
Holder / Attachements Holder / Soporte	Type / Type Type / Modelo	Page / Page Pagina /Página
	Extension with vibration Damping (Screw Type)	445
	Heavy Metall Extension - Conical	446
	Carbide Extension - Conical (Screw Type)	447
	Extension (Screw Type)	448
	Reducer (Screw Type)	449

Subject to printing error or technical changes / Sous réserve d'erreurs d'impression ou de modifications techniques / Quanto stampato puo' essere soggetto ad errori di stampa e variazione tecniche / Queda reservado el derecho sobre eventuales fallos de impresión, errores o modificaciones técnicas

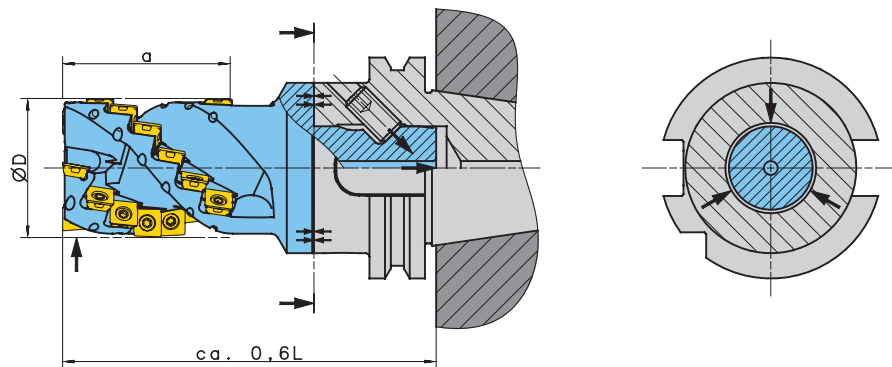


ADVANTAGES

Standard Weldon-Adaption



Modular Milling Adaption



The Modular Milling Adaption offers the following advantages compared to a standard DIN-Adaption:

- ✓ Due to the approx. 40 % shorter overhang, the arbor loading is reduced by approx. 50 %.
- ✓ Three clamping screws ensure a central clamping of the tool in the adaption.
- ✓ A larger mounting face supports the tool in an optimum way against the radial cutting forces.
- ✓ Several cutter dimensions can be clamped by means of one adaption.
- ✓ Easy extension possible.

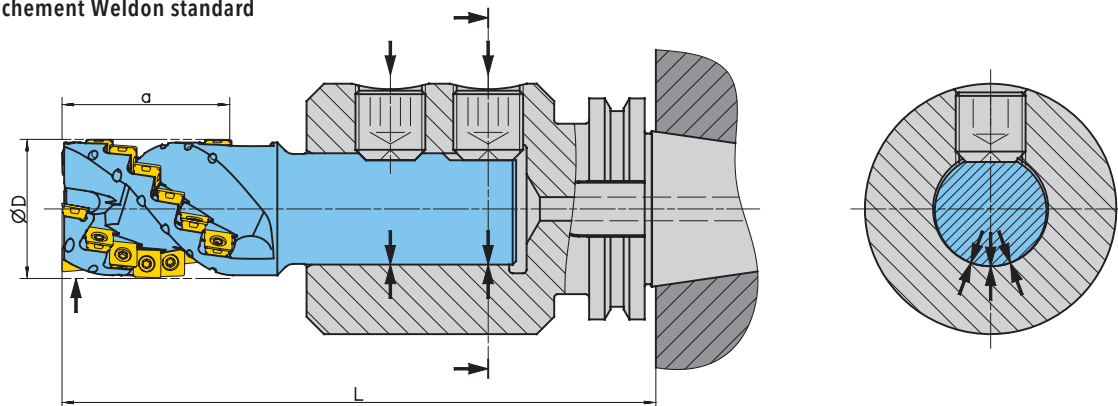
Your increase in value:

- ✓ Longer tool life because of reduced vibration.
- ✓ Due to the rigid adaption usually considerably higher cutting depths and feeds can be realized.
- ✓ Reduction of costs by economic milling.

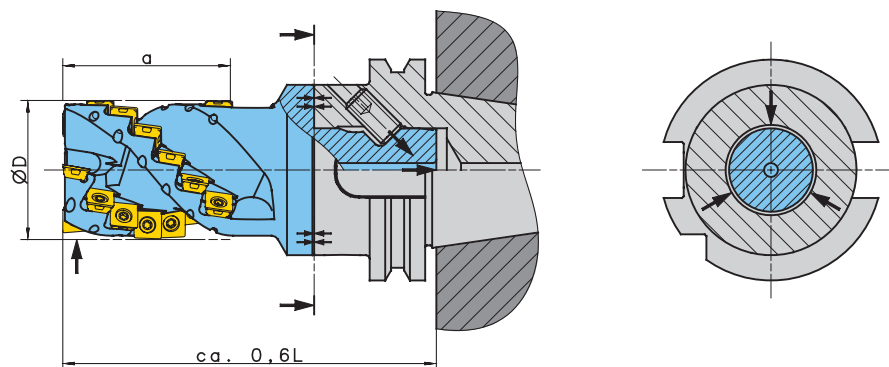


## AVANTAGES

### Attachement Weldon standard



### Attachement porte-fraise modulaire



L'attachement porte-fraise modulaire offre de nombreux avantages par rapport à un attachement DIN standard:

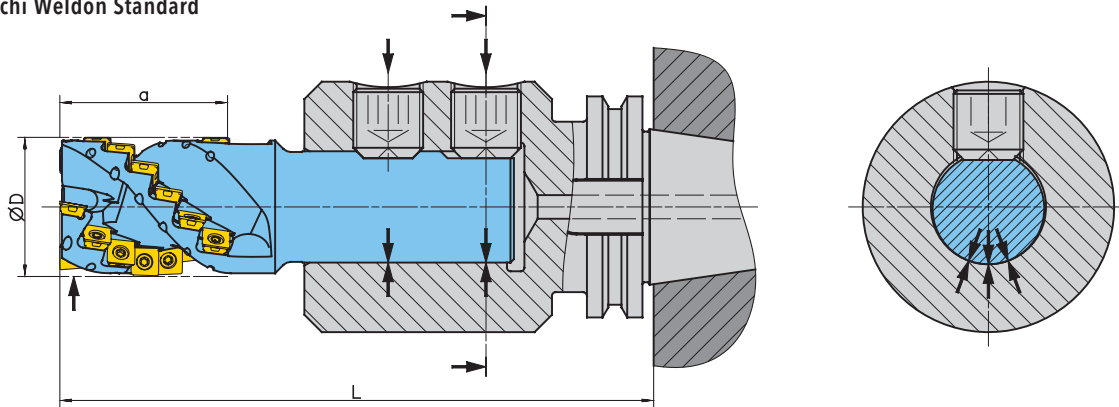
- ✓ La dimension du porte-à-faux diminuée de 40 % permet de réduire le couple d'environ 50 %.
- ✓ 3 vis de fixation garantissent le maintien de l'outil au centre de l'attachement.
- ✓ L'augmentation de la surface d'appui fraise-cone permet d'optimiser les charges radiales à l'outil.
- ✓ Un seul type d'attachement pour plusieurs diamètres de fraises.
- ✓ Modularité extrême pour les extensions et réductions.

#### Vos gains:

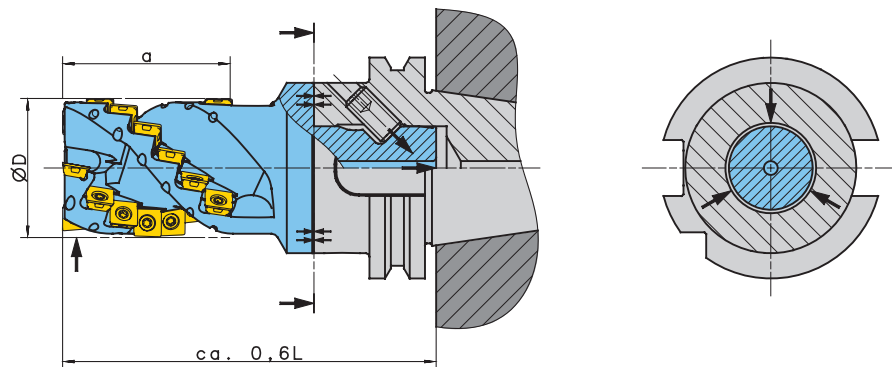
- ✓ Augmentation de la durée de vie de l'outil en raison de la diminution des vibrations.
- ✓ Du fait de son extrême rigidité, vous pouvez dans la majorité des cas augmenter vos conditions de coupe et vos profondeurs de passe.
- ✓ Réduction des coûts grâce à un fraisage plus économique.

VANTAGGI

Attacchi Weldon Standard



Attacchi per frese modular



Paragonati agli attacchi DIN standard gli attacchi modular offrono i seguenti vantaggi:

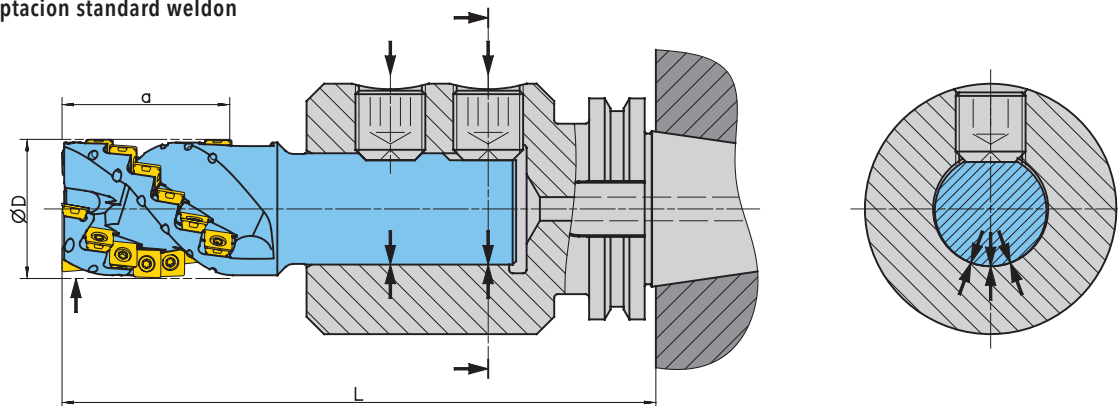
- ✓ Con la parte sporgente ridotta del 40 % circa, anche lo sforzo dell'attacco ridotto del 50 % circa.
- ✓ Tre viti di fissaggio assicurano un fissaggio centrale dell'utensile nell'attacco.
- ✓ Una base di appoggio maggiore aiuta l'utensile a resistere alle forze radiali.
- ✓ Con un solo attacco si possono montare diverse misure di utensili.
- ✓ Si possono applicare facilmente delle prolunghie.

I vostri vantaggi:

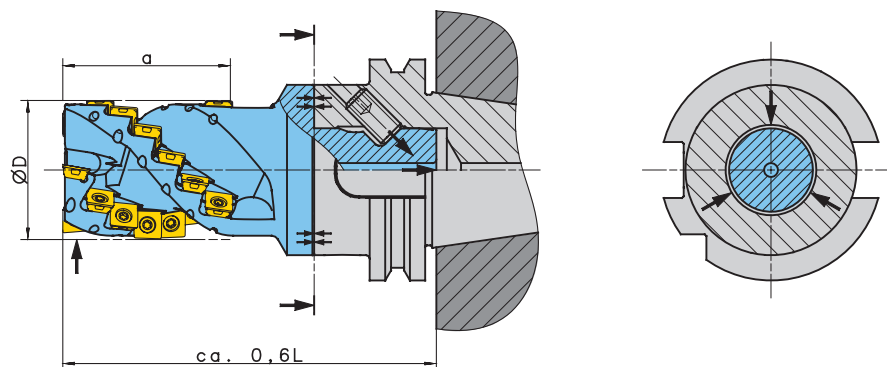
- ✓ Maggiore durata dell'utensile grazie a minori vibrazioni.
- ✓ Grazie alle rigidità dell'attacco si possono realizzare passate più profonde e avanzamenti maggiori.
- ✓ Riduzione dei costi per fresature economiche.

## VENTAJAS

### Adaptacion standard weldon



### Adaptacion modular

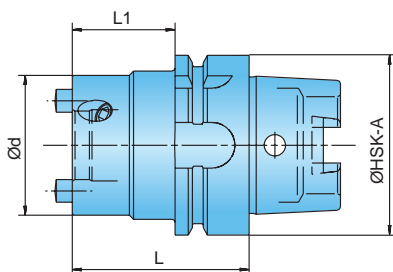


La adaptación de fresas modulares presenta las siguientes ventajas frente a la adaptación estándar en DIN:

- ✓ Debido a la reducción es aproximadamente el 40% de la longitud del prolongador (cabeceo), el peso de la fresa disminuye un 50% aproximadamente.
- ✓ Hay tres tornillos de sujeción que aseguran la sujeción a nivel central de la herramienta a la adaptación.
- ✓ Una mayor superficie de fijación sujeta la herramienta de forma óptima con respecto a las fuerzas radiales.
- ✓ Permite fijar una gran gama de herramientas de distintas dimensiones en una sola adaptación.
- ✓ La extensión de la adaptación es posible y fácil.

Usted incrementará en valor:

- ✓ Una mayor vida de la herramienta a causa de la reducción de la vibración.
- ✓ Debido a la adaptación más rígida, las profundidades de corte aumentan considerablemente y los avances pueden realizarse sin dificultad.
- ✓ Los costes se ven claramente reducidos mediante el fresado económico.



modular

DIN 69893

Designation / Réf. de l'article  
 Articolo / Referencia

MOD1 d L L1 HSK-A



AH.050.001	40	49	60	34	50	✓	0,67
AH.063.001	40	49	62	35	63	✓	1,04
AH.080.001	40	49	68	42	80	✓	1,54
AH.080.002	50	78	80	54	80	✓	2,41
AH.100.016	40	49	80	42	100	✓	3,11
AH.100.001	50	78	80	50	100	✓	3,38

HSKA50..A100-MODULAR 40/50

INNOFIT

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Coolant tube / Tube de lubrification  
 Tubetti di refrigerazione / Tubo refrigerante

Z2



Socket wrench / Clé de fixation / Chiave  
 per tubetto di refrigerazione / Llave

Z2



Screw / Vis de serrage  
 Grano / Tornillo

Z10

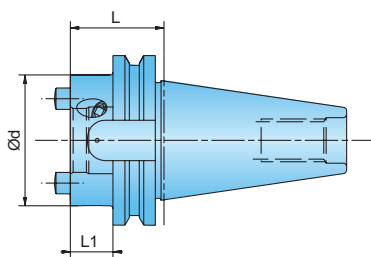


Wrench / Clé de serrage  
 Giravite / Destornillador forma T

Z10



# TOOL HOLDERS AND ADAPTIIONS



modular

DIN 69871

Designation / Réf. de l'article Articolo / Referencia	MOD1	d	L	L1	SK		
--	------	---	---	----	----	--	--

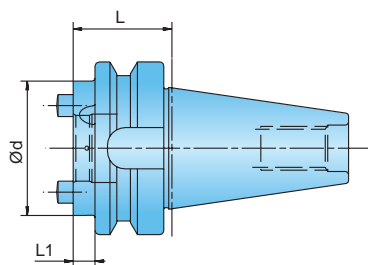
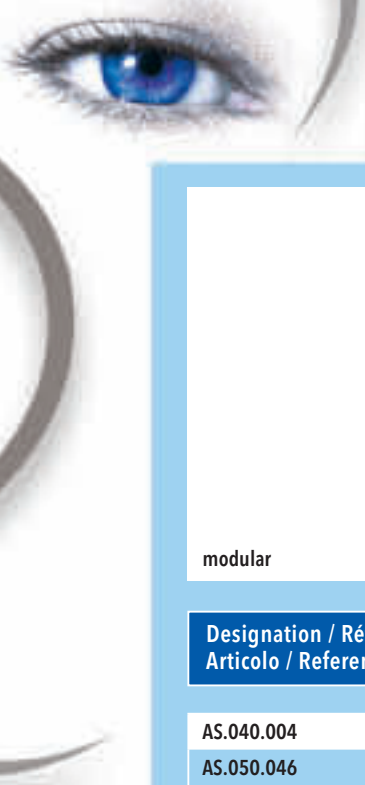
AS.040.001	40	49	35	15	40	✓	0,90
AS.050.022	40	49	35	13	50	✓	2,71
AS.050.001	50	78	35	15	50	✓	2,71

DIN69871 A40...A50-MODULAR 40/50

INNEFIT



SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

<p>Draw bolt / Tirette Tiranti / Tirantes de amarre</p> <p>Z1 </p>	<p>Screw / Vis de serrage Grano / Tornillo</p> <p>Z10 </p>	<p>Wrench / Clé de serrage Giravite / Destornillador forma T</p> <p>Z10 </p>	
--	--	--	--



modular

JIS-B 6339

Designation / Réf. de l'article Articolo / Referencia	MOD1	d	L	L1	BT		
--	------	---	---	----	----	---	---

AS.040.004	40	49	35	7	40	✓	0,95
AS.050.046	40	49	45	6	50	✓	3,57
AS.050.004	50	78	45	6	50	✓	3,42

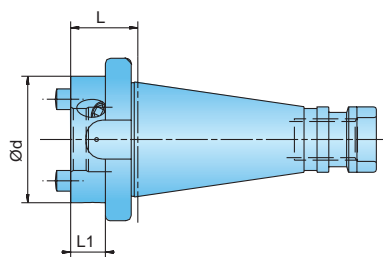
MAS-BT40...50-MODULAR 40/50

INNOFIT

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS



Draw bolt / Tirette Tiranti / Tirantes de amarre 	Screw / Vis de serrage Grano / Tornillo 	Wrench / Clé de serrage Giravite / Destornillador forma T 	
Z1	Z10	Z10	

# TOOL HOLDERS AND ADAPTIONS



modular

DIN 2080




Designation / Réf. de l'article Articolo / Referencia	MOD1	d	L	L1	SK		
--	------	---	---	----	----	---	---

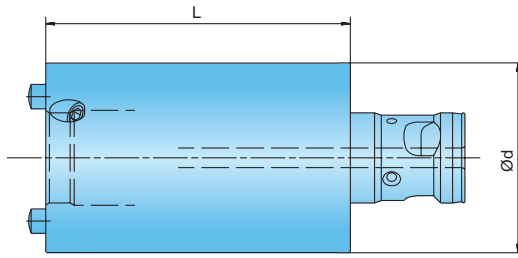
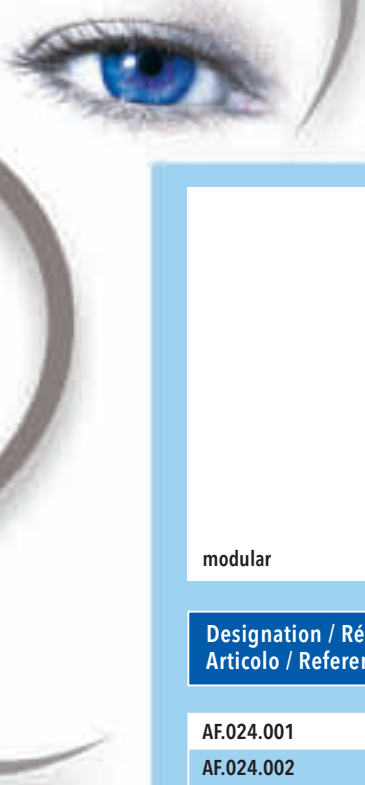
AS.040.003	40	49	25	12	40	✓	0,77
AS.050.045	40	49	35	19	50	✓	2,78
AS.050.003	50	78	35	19	50	✓	2,91

DIN2080 A40...A50-MODULAR 40/50

INNEFIT

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

<p>Draw bolt / Tirette Tiranti / Tirantes de amarre</p> <p>Z1 </p>	<p>Screw / Vis de serrage Grano / Tornillo</p> <p>Z10 </p>	<p>Wrench / Clé de serrage Giravite / Destornillador forma T</p> <p>Z10 </p>	
---	---	---	--



modular

modular

Designation / Réf. de l'article Articolo / Referencia	MOD1	d	L	MOD		
--	------	---	---	-----	---	---

AF.024.001	40	49	50	40	✓	0,68
AF.024.002	40	49	75	40	✓	1,04
AF.024.003	40	49	100	40	✓	1,39

**MODULAR 40 (EXTENSION)**

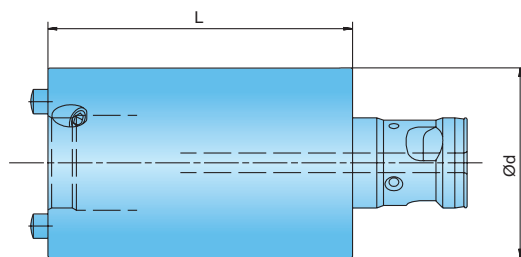


SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Screw / Vis de serrage Grano / Tornillo 	Wrench / Clé de serrage Giravite / Destornillador forma T 		
Z10	Z10		



# TOOL HOLDERS AND ADAPTIIONS



modular

modular

Designation / Réf. de l'article  
Articolo / Referencia

MOD1 d L MOD



Designation / Réf. de l'article Articolo / Referencia	MOD1	d	L	MOD	IK	kg
AF.037.005	50	78	75	50	✓	2,65
AF.037.006	50	78	100	50	✓	3,48
AF.037.007	50	78	125	50	✓	4,29

INNOFIT MODULAR 50 (EXTENSION)



SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIO

Screw / Vis de serrage  
Grano / Tornillo

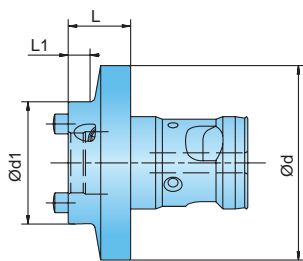
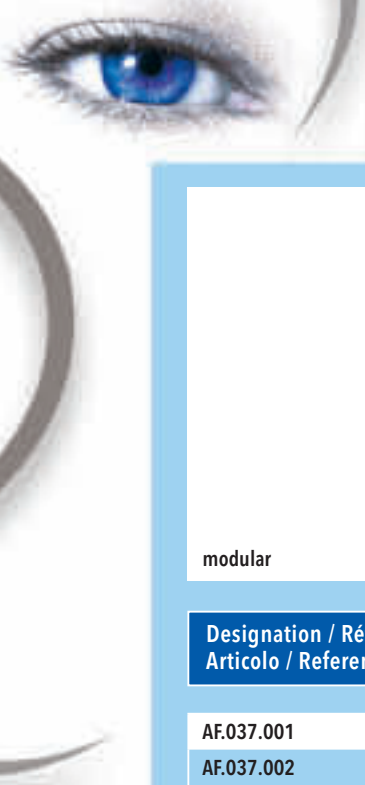
Z10



Wrench / Clé de serrage  
Giravite / Destornillador forma T

Z10





modular

modular

Designation / Réf. de l'article Artículo / Referencia	MOD1	d	d1	L	L1	MOD		
--	------	---	----	---	----	-----	---	---

AF.037.001	40	78	49	25	9	50	✓	0,85
AF.037.002	40	78	49	50	34	50	✓	1,20
AF.037.003	40	78	49	75	59	50	✓	1,55
AF.037.004	40	78	49	100	84	50	✓	1,88

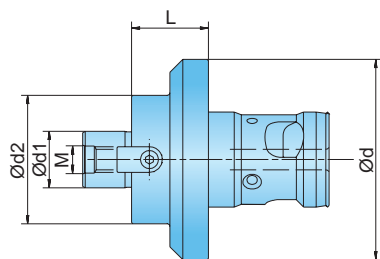
MODULAR 50/40 (REDUCER)

INNOFIT

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Screw / Vis de serrage Grano / Tornillo	Wrench / Clé de serrage Giravite / Destornillador forma T		
Z10 	Z10 		

# TOOL HOLDERS AND ADAPTIIONS



modular

Designation / Réf. de l'article Articolo / Referencia	d	d1	d2	L	M	MOD		
--	---	----	----	---	---	-----	--	--

AF.024.004	49	16	36	23	8	40	✓	0,36
AF.024.005	49	22	49	16	10	40	✓	0,38
AF.024.006	49	27	60	20	12	40	✓	0,60

MODULAR 40 SHELL TYP

INNOFIT

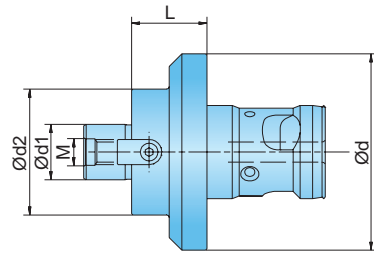
SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Cutter retaining screws / Vis de serrage pour fraise /  
Vite per attacchi frontali / Tornillo de amarre

Z3

Wrench / Clé de fixation  
Chiave / Llave

Z3



modular

Designation / Réf. de l'article Articolo / Referencia	d	d1	d2	L	M	MOD		
--	---	----	----	---	---	-----	---	---

AF.037.008	78	22	50	30	10	50	✓	1,14
AF.037.009	78	27	60	30	12	50	✓	1,26
AF.037.010	78	32	78	30	16	50	✓	1,57
AF.037.011	78	40	88	30	20	50	✓	1,94

MODULAR 50 SHELL TYP


INNOFIT

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS


Cutter retaining screws / Vis de serrage pour fraise  
 Vite per attacchi frontali / Tornillo de amarre

Z3 

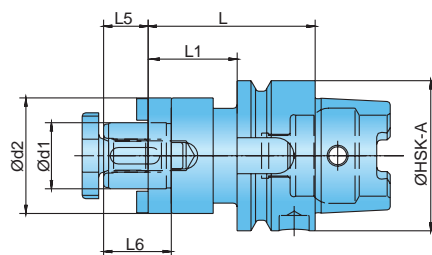
Wrench / Clé de fixation  
 Chiave / Llave

Z3 





# TOOL HOLDERS AND ADAPTIIONS



DIN 6358

DIN 69893 A

Designation / Réf. de l'article  
Articolo / Referencia

d1 d2 L L1 L5 L6 HSK-A



HSKA50SEMC16X50	16	32	50	24	17	27	50	0,90
HSKA50SEMC22X60	22	40	60	34	19	31	50	1,00
HSKA50SEMC27X65	27	48	65	39	21	33	50	1,20
HSKA50SEMC32X65	32	58	65	39	24	38	50	1,50
HSKA63SEMC16X60	16	32	60	34	17	27	63	1,00
HSKA63SEMC22X60	22	40	60	34	19	31	63	1,10
HSKA63SEMC27X60	27	48	60	34	21	33	63	1,40
HSKA63SEMC32X60	32	58	60	34	24	38	63	1,60
HSKA63SEMC40X70	40	70	70	44	27	41	63	2,00
HSKA100SEMC16X60	16	32	60	31	17	27	100	2,30
HSKA100SEMC22X60	22	40	60	31	19	31	100	2,50
HSKA100SEMC27X60	27	48	60	31	21	33	100	2,60
HSKA100SEMC32X60	32	58	60	31	24	38	100	2,80
HSKA100SEMC40X70	40	70	70	41	27	41	100	3,40
HSKA100SEMC50X80	50	90	80	51	30	46	100	4,00

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Coolant tube / Tube de lubrification  
Tubetti di refrigerazione / Tubo refrigerante

Z2



Socket wrench / Clé de fixation / Chiave  
per tubetto di refrigerazione / Llave

Z2



Cutter retaining screws / Vis de serrage pour fraise  
Vite per attacchi frontali / Tornillo de amarre

Z3



Wrench / Clé de fixation  
Chiave / Llave

Z3



Driving collar / Clavette  
Anello di trascinamento / Collar adapter

Z6



Feather key / Bague d'entraînement  
Chiavetta / Chaveta fijación

Z6

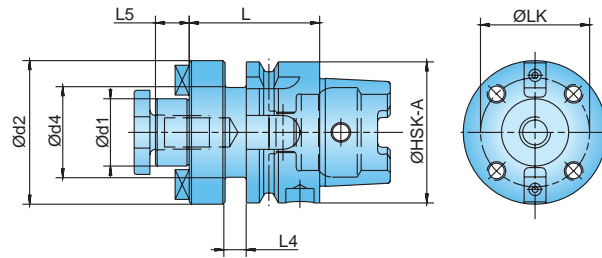


Washer / Rondelle  
Distanziale / Arandela

Z6



HSK-A50/63/100 COMBI SHELL TYPE



DIN 3937

DIN 69893 A

Designation / Réf. de l'article  
 Articolo / Referencia

d1 d2 d4 L L4 L5 LK HSK-A



HSKA50SM16SA60	16	38	-	60	-	17	-	50	✓	1,00
HSKA50SM22SA60	22	48	42	60	16	19	-	50	✓	1,00
HSKA50SM22SA100	22	48	42	100	16	19	-	50		1,60
HSKA50SM27SA60	27	78	42	60	16	21	-	50		1,20
HSKA50SM27SA100	27	78	42	100	16	21	-	50		2,10
HSKA50SM32SA60	32	78	42	60	16	24	-	50		1,50
HSKA50SM32SA100	32	78	42	100	16	24	-	50		3,00
HSKA63SM16SA50	16	38	-	50	-	17	-	63	✓	1,00
HSKA63SM22SA50	22	48	53	50	16	19	-	63	✓	1,10
HSKA63SM22SA100	22	48	53	100	16	19	-	63	✓	1,80
HSKA63SM27SA60	27	78	53	60	16	21	-	63		1,40
HSKA63SM27SA60-02	27	60	53	60	16	21	-	63	✓	1,30
HSKA63SM27SA100	27	78	53	100	16	21	-	63	✓	2,30
HSKA63SM32SA60	32	78	53	60	16	24	-	63	✓	1,70
HSKA63SM32SA100	32	78	53	100	16	24	-	63	✓	3,20
HSKA63FM40SA60	40	89	53	60	16	27	66,7	63	✓	2,00
HSKA63FM40SA100	40	89	53	100	16	27	66,7	63	✓	4,00
HSKA100SM22SA50	22	48	-	50	-	19	-	100	✓	2,50
HSKA100SM22SA100	22	48	-	100	-	19	-	100		3,30
HSKA100SM22SA160	22	48	-	160	-	19	-	100		4,20
HSKA100SM27SA50	27	78	-	50	-	21	-	100		2,60
HSKA100SM27SA50-01	27	60	-	50	-	21	-	100	✓	2,60
HSKA100SM27SA100	27	78	-	100	-	21	-	100		3,70
HSKA100SM27SA160	27	78	-	160	-	21	-	100		5,10
HSKA100SM32SA50	32	78	-	50	-	24	-	100	✓	2,80
HSKA100SM32SA100	32	78	-	100	-	24	-	100		4,60
HSKA100SM32SA160	32	78	-	160	-	24	-	100		6,90
HSKA100FM40SA60	40	89	85	60	16	27	66,7	100	✓	3,40
HSKA100FM40SA100	40	89	85	100	16	27	66,7	100		5,40
HSKA100FM40SA160	40	89	85	160	16	27	66,7	100		8,30
HSKA100FM60SA75	60	128	85	75	16	40	101,6	100		5,80
HSKA100FM60SA160	60	128	85	160	16	40	101,6	100		14,00

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Coolant tube / Tube de lubrification  
 Tubetti di refrigerazione / Tubo refrigerante

Z2



Socket wrench / Clé de fixation / Chiave  
 per tubetto di refrigerazione / Llave

Z2



Cutter retaining screws / Vis de serrage pour fraise  
 Vite per attacchi frontali / Tornillo de amarre

Z3

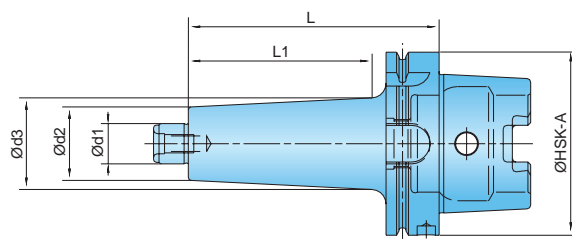


Wrench / Clé de fixation  
 Chiave / Llave

Z3



# TOOL HOLDERS AND ADAPTIONS



DIN 69893 A

Designation / Réf. de l'article Articolo / Referencia	d1	d2	d3	L	L1	HSK-A		
HSKA63SM22SK084	22	40	50	84	50	63	✓	1,80
HSKA63SM22SK134	22	40	50	134	100	63	✓	3,00
HSKA63SM22SK184	22	40	50	184	150	63	✓	4,00
HSKA63SM22SK234	22	40	50	234	200	63	✓	5,20
HSKA63SM27SA084	27	60	60	84	50	63	✓	2,00
HSKA63SM27SA134	27	60	60	134	100	63	✓	3,20
HSKA63SM27SA184	27	60	60	184	150	63	✓	4,30
HSKA63SM27SA234	27	60	60	234	200	63	✓	5,50
HSKA63SM27SA284	27	60	60	284	250	63	✓	7,50
HSKA63SM27SA334	27	60	60	334	300	63	✓	9,00
HSKA100SM22SK087	22	40	50	87	50	100	✓	3,70
HSKA100SM22SK137	22	40	55	137	100	100	✓	4,70
HSKA100SM22SK187	22	40	62	187	150	100	✓	6,50
HSKA100SM22SK237	22	40	65	237	200	100	✓	7,40
HSKA100SM27SK087	27	60	65	87	50	100	✓	4,00
HSKA100SM27SK137	27	60	65	137	100	100	✓	5,00
HSKA100SM27SK187	27	60	65	187	150	100	✓	6,70
HSKA100SM27SK237	27	60	65	237	200	100	✓	7,50
HSKA100SM27SK287	27	60	78	287	250	100	✓	10,00
HSKA100SM27SK337	27	60	78	337	300	100	✓	11,50

HSK-A63/100 SHELL TYP - LONG VERSION

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Coolant tube / Tube de lubrification  
Tubetti di refrigerazione / Tubo refrigerante

Z2

Socket wrench / Clé de fixation / Chiave  
per tubetto di refrigerazione / Llave

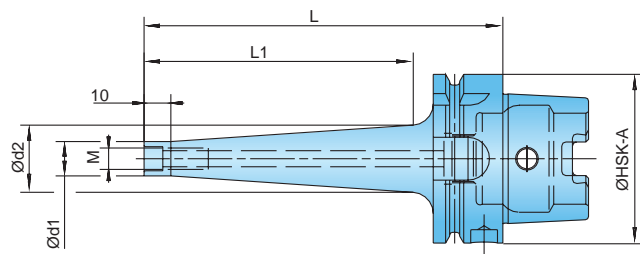
Z2

Cutter retaining screws / Vis de serrage pour fraise  
Vite per attacchi frontali / Tornillo de amarre

Z3

Wrench / Clé de fixation  
Chiave / Llave

Z3



DIN 69893 A

Designation / Réf. de l'article  
 Articolo / Referencia

d1 d2 L L1 M HSK-A



HSKA63ODP6X59	9,7	10	59	25	6	63	✓	0,80
HSKA63ODP6X109	9,8	23	109	75	6	63	✓	0,80
HSKA63ODP8X59	13	15	59	25	8	63	✓	0,80
HSKA63ODP8x84	13	20	84	50	8	63	✓	0,80
HSKA63ODP8X109	13	23	109	75	8	63	✓	0,80
HSKA63ODP8X134	13	25	134	100	8	63	✓	0,90
HSKA63ODP8X184	13	25	184	150	8	63	✓	1,00
HSKA63ODP10X59	18	20	59	25	10	63	✓	0,80
HSKA63ODP10x84	18	24	84	50	10	63	✓	0,90
HSKA63ODP10X109	18	28	109	75	10	63	✓	0,90
HSKA63ODP10X134	18	32	134	100	10	63	✓	1,00
HSKA63ODP10X184	18	32	184	150	10	63	✓	1,10
HSKA63ODP12X59	21	24	59	25	12	63	✓	0,80
HSKA63ODP12x84	21	24	84	50	12	63	✓	0,90
HSKA63ODP12X109	21	31	109	75	12	63	✓	1,00
HSKA63ODP12X134	21	36	134	100	12	63	✓	1,10
HSKA63ODP12X184	21	36	184	150	12	63	✓	1,30
HSKA63ODP16X59	29	34	59	25	16	63	✓	0,90
HSKA63ODP16x84	29	34	84	50	16	63	✓	1,00
HSKA63ODP16X109	29	34	109	75	16	63	✓	1,10
HSKA63ODP16X134	29	41	134	100	16	63	✓	1,30
HSKA63ODP16X184	29	41	184	150	16	63	✓	1,50

HSK-A63 SCREW TYPE

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Coolant tube / Tube de lubrification  
 Tubetti di refrigerazione / Tubo refrigerante

Z2



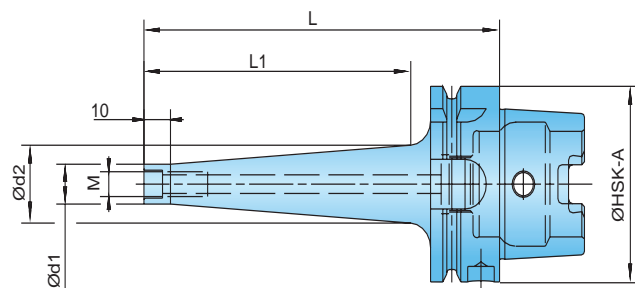
Socket wrench / Clé de fixation / Chiave  
 per tubetto di refrigerazione / Llave

Z2





# TOOL HOLDERS AND ADAPTIIONS




DIN 69893 A


Designation / Réf. de l'article Articolo / Referencia	d1	d2	L	L1	M	HSK-A	IK	kg
HSKA1000DP10X57	18	20	57	20	10	100	✓	1,80
HSKA1000DP10x87	18	25	87	50	10	100	✓	2,00
HSKA1000DP10X112	18	28	112	75	10	100	✓	2,30
HSKA1000DP10X137	18	30	137	100	10	100	✓	2,60
HSKA1000DP12X57	21	23,5	57	20	12	100	✓	2,00
HSKA1000DP12X87	23	30	87	50	12	100	✓	2,20
HSKA1000DP12X137	23	30	137	100	12	100	✓	2,50
HSKA1000DP12X187	23	40	187	150	12	100	✓	2,70
HSKA1000DP12X237	23	46	237	200	12	100	✓	3,00
HSKA1000DP16X57	29	31,5	57	20	16	100	✓	2,20
HSKA1000DP16X87	29	31,5	87	50	16	100	✓	2,40
HSKA1000DP16X137	29	41,5	137	100	16	100	✓	2,80
HSKA1000DP16X187	29	55	187	150	16	100	✓	3,10
HSKA1000DP16X237	29	55	237	200	16	100	✓	3,50

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Coolant tube / Tube de lubrification  
Tubetti di refrigerazione / Tubo refrigerante

Z2 

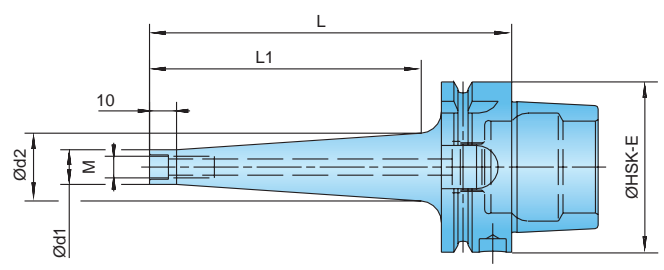
Socket wrench / Clé de fixation / Chiave  
per tubetto di refrigerazione / Llave

Z2 





HSK-A100 SCREW TYPE



DIN 69893 E

Designation / Réf. de l'article Articolo / Referencia	d1	d2	L	L1	M	HSK-E		
--	----	----	---	----	---	-------	--	--

HSKE400DP10X53	18	20	53	25	10	40	✓	0,30
HSKE400DP10X103	18	28	103	75	10	40	✓	0,50
HSKE400DP12X53	21	24	53	25	12	40	✓	0,30
HSKE400DP12X103	21	31	103	75	12	40	✓	0,50
HSKE500DP10X59	18	20	59	25	10	50	✓	0,40
HSKE500DP10X109	18	28	109	75	10	50	✓	0,60
HSKE500DP12X59	21	24	59	25	12	50	✓	0,50
HSKE500DP12X109	21	31	109	75	12	50	✓	0,60
HSKE500DP16X59	29	34	59	25	16	50	✓	0,50
HSKE500DP16X109	29	34	109	75	16	50	✓	0,60
HSKE630DP10X59	18	20	59	25	10	63	✓	0,70
HSKE630DP10X109	18	28	109	75	10	63	✓	0,80
HSKE630DP12X59	21	24	59	25	12	63	✓	0,80
HSKE630DP12X109	21	31	109	75	12	63	✓	0,90
HSKE630DP16X59	29	34	59	25	16	63	✓	0,80
HSKE630DP16X109	29	34	109	75	16	63	✓	1,00

■ HSK-E40/50/63 SCREW TYPE

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

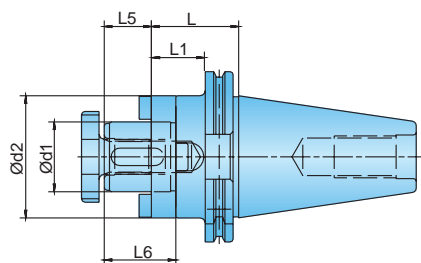
Coolant tube / Tube de lubrification  
 Tubetti di refrigerazione / Tubo refrigerante

Z2

Socket wrench / Clé de fixation / Chiave  
 per tubetto di refrigerazione / Llave


Z2

# TOOL HOLDERS AND ADAPTIONS









DIN 6358

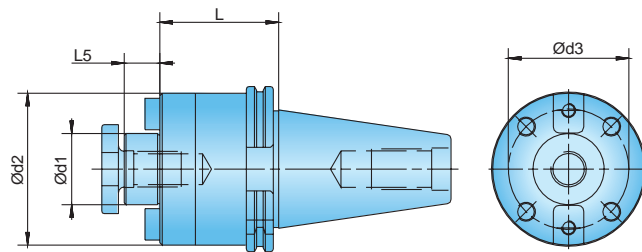
DIN 69871 A

Designation / Réf. de l'article Articolo / Referencia	d1	d2	L	L1	L5	L6	SK	
DIN6987140SEMC16X55	16	32	55	35,9	17	27	40	1,20
DIN6987140SEMC16X100	16	32	100	80,9	17	27	40	1,30
DIN6987140SEMC22X55	22	40	55	35,9	19	31	40	1,30
DIN6987140SEMC22X100	22	40	100	80,9	19	31	40	1,80
DIN6987140SEMC27X55	27	48	55	35,9	21	33	40	1,50
DIN6987140SEMC27X100	27	48	100	80,9	21	33	40	2,20
DIN6987140SEMC32X60	32	58	60	45,9	24	38	40	1,80
DIN6987140SEMC32X100	32	58	100	80,9	24	38	40	2,70
DIN6987140SEMC40X60	40	70	60	40,9	27	41	40	2,20
DIN6987150SEMC16X55	16	32	55	35,9	17	27	50	3,00
DIN6987150SEMC16X100	16	32	100	80,9	17	27	50	3,60
DIN6987150SEMC22X55	22	40	55	35,9	19	31	50	3,20
DIN6987150SEMC22X100	22	40	100	80,9	19	31	50	3,90
DIN6987150SEMC27X55	27	48	55	35,9	21	33	50	3,50
DIN6987150SEMC27X100	27	48	100	80,9	21	33	50	4,30
DIN6987150SEMC32X55	32	58	55	35,9	24	38	50	3,70
DIN6987150SEMC32X100	32	58	100	80,9	24	38	50	5,00
DIN6987150SEMC40X55	40	70	55	35,9	27	41	50	4,20
DIN6987150SEMC40X100	40	70	100	80,9	27	41	50	5,60
DIN6987150SEMC50X70	50	90	70	50,9	30	46	50	6,00
DIN6987150SEMC60X80	60	110	80	60,9	50	66	50	7,50

## SPARE PARTS / ACCESSOIRE RICAMBI / RECAMBIOS

<b>Draw bolt / Tirette</b> Tiranti / Tirantes de amarre Z1 	<b>Cutter retaining screws / Vis de serrage pour fraise</b> Vite per attacchi frontali / Tornillo de amarre Z3 	<b>Wrench / Clé de fixation</b> Chiave / Llave Z3 	<b>Feather key / Bague d'entraînement</b> Chiavetta / Chaveta fijación Z6 
<b>Driving collar / Clavette</b> Anello di trascinamento / Collar adapter Z6 	<b>Washer / Rondelle</b> Distanziale / Arandela Z6 		

DIN 69871-A40/50 COMBI SHELL TYPE



DIN 69871 A

Designation / Réf. de l'article  
 Articolo / Referencia

d1 d2 L L5 d3 SK



69871A40SM16SA35	16	38	35	17	-	40	✓	1,50
69871A40SM22SA35	22	48	35	19	-	40	✓	1,60
69871A40SM27SA35	27	50	35	21	-	40	✓	1,70
69871A40SM32SA50	32	78	50	21	-	40	✓	1,90
69871A40FM40SA50	40	89	50	27	66,7	40	✓	2,10
69871A50SM16SA35	16	38	35	17	-	50	✓	3,00
69871A50SM22SA35	22	48	35	19	-	50	✓	3,10
69871A50SM22SA50	22	48	50	19	-	50		3,30
69871A50SM22SA75	22	48	75	19	-	50		3,70
69871A50SM22SA100	22	48	100	19	-	50		4,00
69871A50SM22SA200	22	48	200	19	-	50	✓	6,00
69871A50SM22SA300	22	61	300	19	-	50	✓	8,00
69871A50SM27SA35	27	78	35	21	-	50	✓	3,50
69871A50SM27SA50	27	78	50	21	-	50		4,10
69871A50SM27SA75	27	78	75	21	-	50		5,00
69871A50SM27SA100	27	78	100	21	-	50		5,90
69871A50SM27SA160	27	78	160	21	-	50		8,20
69871A50SM27SA300	27	61	300	21	-	50	✓	10,00
69871A50SM32SA35	32	78	35	24	-	50	✓	3,50
69871A50SM32SA50	32	78	50	24	-	50		4,10
69871A50SM32SA75	32	78	75	24	-	50		5,00
69871A50SM32SA100	32	78	100	24	-	50		6,00
69871A50SM32SA160	32	78	160	24	-	50		8,20
69871A50SM32SA370	32	78	370	24	-	50	✓	14,00
69871A50FM40SA35	40	97,5	35	27	66,7	50	✓	3,70
69871A50FM40SA50	40	97,5	50	27	66,7	50		4,60
69871A50FM40SA75	40	97,5	75	27	66,7	50		6,00
69871A50FM40SA100	40	97,5	100	27	66,7	50		7,50
69871A50FM40SA160	40	97,5	160	27	66,7	50		11,00

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Draw bolt / Tirette  
 Tiranti / Tirantes de amarre

Z1



Cutter retaining screws / Vis de serrage pour fraise  
 Vite per attacchi frontali / Tornillo de amarre

Z3

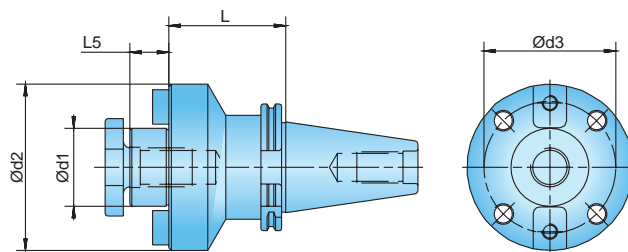


Wrench / Clé de fixation  
 Chiave / Llave

Z3



# TOOL HOLDERS AND ADAPTIIONS



DIN 3937

DIN 69871 A

Designation / Réf. de l'article  
Articolo / Referencia

d1 d2 L L5 d3 SK



DIN6987140FM40X60	40	88	60	27	66,7	40	2,70
DIN6987150FM40X70	40	88	70	27	66,7	50	5,30
DIN6987150FM60X70	60	128	70	40	101,6	50	7,80

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Draw bolt / Tirette  
Tiranti / Tirantes de amarre

Z1



Cutter retaining screws / Vis de serrage pour fraise  
Vite per attacchi frontali / Tornillo de amarre

Z3

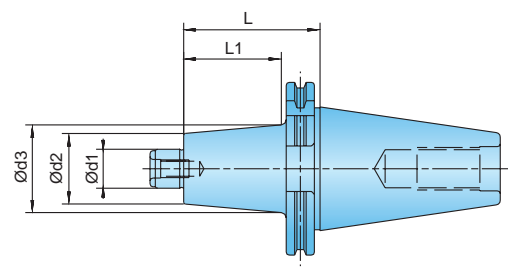


Wrench / Clé de fixation  
Chiave / Llave

Z3



DIN 69871-A40/50 SHELL TYPE



DIN 69871 AD+B

Designation / Réf. de l'article Articolo / Referencia	d1	d2	d3	L	L1	SK		
--	----	----	----	---	----	----	--	--

69871A40SM22SK052	22	40	45	52	25	40	✓	1,30
69871A40SM22SK077	22	40	45	77	50	40	✓	1,50
69871A40SM22SK102	22	40	50	102	75	40	✓	2,00
69871A40SM22SK127	22	40	50	127	100	40	✓	2,20
69871A50SM22SK077	22	40	50	77	50	50	✓	3,60
69871A50SM22SK127	22	40	50	127	100	50	✓	4,40
69871A50SM22SK177	22	40	62	177	150	50	✓	5,50
69871A50SM27SA047	27	60	60	47	20	50	✓	4,30
69871A50SM27SK077	27	60	65	77	50	50	✓	4,30
69871A50SM27SK127	27	60	65	127	100	50	✓	6,50
69871A50SM27SK177	27	60	78	177	150	50	✓	8,20
69871A50SM32SK077	32	70	95	77	50	50	✓	5,30
69871A50SM32SK127	32	70	95	127	100	50	✓	6,80
69871A50SM40SA077	40	95	95	77	50	50	✓	6,10
69871A50SM40SA127	40	95	95	127	100	50	✓	8,50

DIN 69871-A40/50 SHELL TYPE - LONG VERSION

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Draw bolt / Tirette  
 Tiranti / Tirantes de amarre

Z1

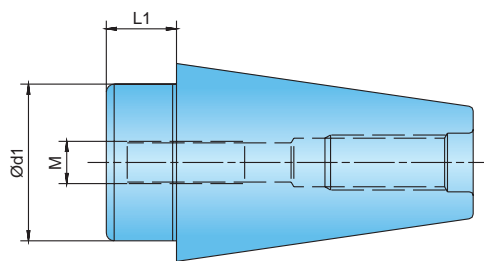
Cutter retaining screws / Vis de serrage pour fraise  
 Vite per attacchi frontali / Tornillo de amarre

Z3


Wrench / Clé de fixation  
 Chiave / Llave

Z3

# TOOL HOLDERS AND ADAPTIONS



DIN 69871 A

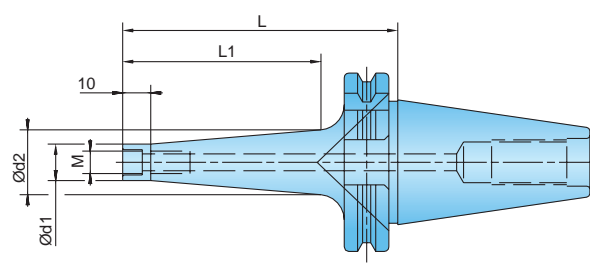
Designation / Réf. de l'article Articolo / Referencia	d1	L1	M	SK	
--	----	----	---	----	---

69871A50CP40SA25	40	25	20	50	1,90
69871A50CP60SA25	60	25	20	50	2,10
69871A60CP40SA25	40	25	20	60	7,20
69871A60CP60SA25	60	25	20	60	7,50

DIN 69871-A50/60 CENTERING PIN



SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Draw bolt / Tirette Tiranti / Tirantes de amarre				
Z1 				



DIN 69871 AD+B

Designation / Réf. de l'article  
 Artículo / Referencia

	d1	d2	L	L1	M	SK		
DIN69871400DP6x58	9,8	13	58	32	6	40	✓	1,00
DIN69871400DP6x98	9,8	23	98	74	6	40	✓	1,10
DIN69871400DP8x38	13	13	38	10	8	40	✓	1,00
DIN69871400DP8x58	13	15	58	32	8	40	✓	1,00
DIN69871400DP8x78	13	23	78	50	8	40	✓	1,10
DIN69871400DP8x98	13	23	98	74	8	40	✓	1,20
DIN69871400DP10x38	18	18	38	10	10	40	✓	1,00
DIN69871400DP10x58	18	20	58	32	10	40	✓	1,00
DIN69871400DP10x78	18	25	78	50	10	40	✓	1,10
DIN69871400DP10x98	18	28	98	74	10	40	✓	1,20
DIN69871400DP12x38	21	21	38	10	12	40	✓	1,00
DIN69871400DP12x58	21	24	58	34	12	40	✓	1,10
DIN69871400DP12x78	21	24	78	50	12	40	✓	1,20
DIN69871400DP12x98	21	31	98	75	12	40	✓	1,30
DIN69871400DP12x118	21	31	118	90	12	40	✓	1,40
DIN69871400DP16x38	29	29	38	10	16	40	✓	1,00
DIN69871400DP16x58	29	29	58	33	16	40	✓	1,10
DIN69871400DP16x78	29	34	78	50	16	40	✓	1,20
DIN69871400DP16x98	29	34	98	75	16	40	✓	1,40

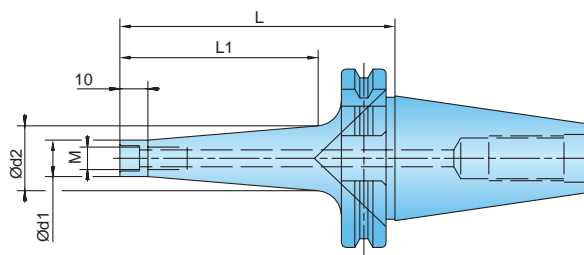
DIN 69871-A40 SCREW TYPE

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Draw bolt / Tirette Tiranti / Tirantes de amarre			
Z1 			



# TOOL HOLDERS AND ADAPTIIONS



DIN 69871 AD+B

Designation / Réf. de l'article Articolo / Referencia	d1	d2	L	L1	M	SK	IK	kg
DIN69871500DP8X78	13	13	78	50	8	50	✓	2,80
DIN69871500DP8X128	13	25	128	100	8	50	✓	3,00
DIN69871500DP8X178	13	25	178	150	8	50	✓	3,10
DIN69871500DP8X228	13	35	228	200	8	50	✓	3,70
DIN69871500DP10X78	18	18	78	50	10	50	✓	2,90
DIN69871500DP10X128	18	32	128	100	10	50	✓	3,00
DIN69871500DP10X178	18	45	178	150	10	50	✓	3,80
DIN69871500DP10X228	18	50	228	200	10	50	✓	4,10
DIN69871500DP12X78	23	30	78	50	12	50	✓	2,90
DIN69871500DP12X128	23	40	128	100	12	50	✓	3,30
DIN69871500DP12X178	23	40	178	150	12	50	✓	4,00
DIN69871500DP12X228	23	46	228	200	12	50	✓	4,40
DIN69871500DP16x38	29	30	38	10	16	40	✓	3,00
DIN69871500DP16X78	29	34	78	50	16	50	✓	3,10
DIN69871500DP16X128	29	40	128	100	16	50	✓	3,50
DIN69871500DP16X178	29	55	178	150	16	50	✓	4,40
DIN69871500DP16X228	29	55	228	200	16	50	✓	4,90

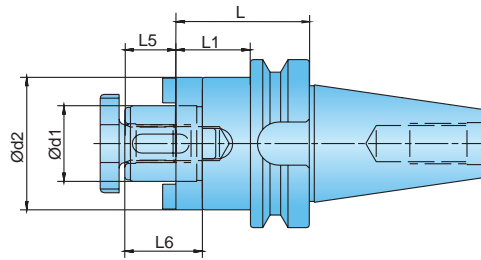
DIN 69871-A50 SCREW TYPE

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Draw bolt / Tirette  
Tiranti / Tirantes de amarre

Z1





DIN 6358

JIS-B 6339

Designation / Réf. de l'article  
 Articolo / Referencia

d1 d2 L L1 L5 L6 BT



BT40SEMC16X50	16	32	50	23	17	27	40	1,20
BT40SEMC16X100	16	32	100	73	17	27	40	1,60
BT40SEMC22X53	22	40	53	26	19	31	40	1,40
BT40SEMC22X100	22	40	100	73	19	31	40	1,90
BT40SEMC27X55	27	48	55	28	21	33	40	1,50
BT40SEMC27X100	27	48	100	73	21	33	40	2,20
BT40SEMC32X60	32	58	60	33	24	38	40	1,90
BT40SEMC32X100	32	58	100	73	24	38	40	2,80
BT40SEMC40X80	40	70	80	53	27	41	40	2,90
BT50SEMC16X65	16	32	65	27	17	27	50	4,00
BT50SEMC16X100	16	32	100	62	17	27	50	4,30
BT50SEMC16X150	16	32	150	112	17	27	50	4,70
BT50SEMC22X68	22	40	68	30	19	31	50	4,20
BT50SEMC22X100	22	40	100	62	19	31	50	4,90
BT50SEMC22X150	22	40	150	112	19	31	50	5,40
BT50SEMC27X78	27	48	78	40	21	33	50	4,50
BT50SEMC27X100	27	48	100	62	21	33	50	4,80
BT50SEMC27X150	27	48	150	112	21	33	50	6,10
BT50SEMC32X78	32	58	78	40	24	38	50	4,80
BT50SEMC32X100	32	58	100	62	24	38	50	5,30
BT50SEMC32X150	32	58	150	112	24	38	50	6,70
BT50SEMC40X78	40	70	78	40	27	41	50	5,30
BT50SEMC40X100	40	70	100	62	27	41	50	7,10
BT50SEMC40X150	40	70	150	112	27	41	50	8,60
BT50SEMC50X79	50	90	79	41	30	46	50	6,40
BT50SEMC50X100	50	90	100	62	30	46	50	8,00
BT50SEMC50X150	50	90	150	112	30	46	50	10,00

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Draw bolt / Tirette  
 Tiranti / Tirantes de amarre

Z1

Cutter retaining screws / Vis de serrage pour fraise  
 Vite per attacchi frontali / Tornillo de amarre

Z3

Wrench / Clé de fixation  
 Chiave / Llave

Z3

Feather key / Bague d'entraînement  
 Chivavette / Chaveta fijación

Z6

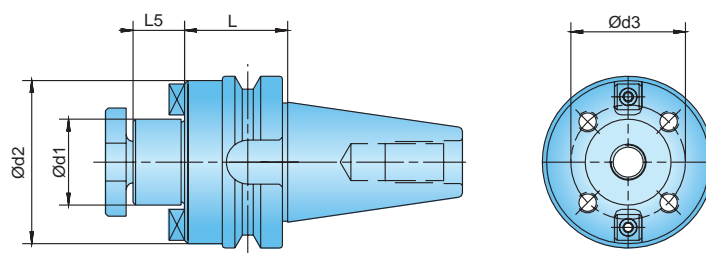
Driving collar / Clavette  
 Anello di trascinamento / Collar adapter

Z6

Washer / Rondelle  
 Distanziale / Arandela

Z6

# TOOL HOLDERS AND ADAPTIONS




JIS-B 6339

Designation / Réf. de l'article Articolo / Referencia	d1	d2	L	L5	LK	BT	kg
BT50SM22SA50	22	48	50	19	-	50	4,20
BT50SM22SA75	22	48	75	19	-	50	4,50
BT50SM22SA100	22	48	100	19	-	50	4,90
BT50SM22SA220	22	48	220	19	-	50	6,50
BT50SM22SA320	22	61	320	19	-	50	8,50
BT50SM27SA50	27	78	50	21	-	50	4,50
BT50SM27SA75	27	78	75	21	-	50	5,40
BT50SM27SA100	27	78	100	21	-	50	6,40
BT50SM27SA160	27	78	160	21	-	50	8,60
BT50SM27SA320	27	61	320	21	-	50	13,00
BT50SM32SA50	32	78	50	24	-	50	4,60
BT50SM32SA75	32	78	75	24	-	50	5,50
BT50SM32SA100	32	78	100	24	-	50	6,40
BT50SM32SA160	32	78	160	24	-	50	8,70
BT50SM32SA390	32	78	390	24	-	50	16,00
BT50SM40SA50	40	100	50	27	66,7	50	5,00
BT50SM40SA75	40	100	75	27	66,7	50	6,50
BT50SM40SA100	40	100	100	27	66,7	50	8,10
BT50SM40SA160	40	100	160	27	66,7	50	11,80

MAS BT 50 SHELL TYPE

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Draw bolt / Tirette  
Tiranti / Tirantes de amarre

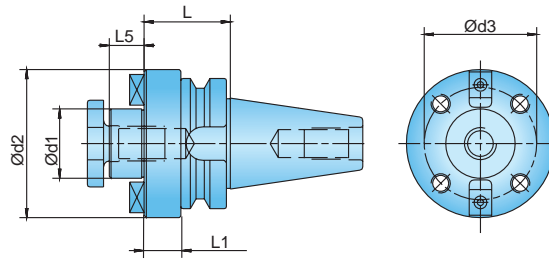
Z1 

Cutter retaining screws / Vis de serrage pour fraise  
Vite per attacchi frontali / Tornillo de amarre

Z3 

Wrench / Clé de fixation  
Chiave / Llave

Z3 



DIN 6357

JIS-B 6339

Designation / Réf. de l'article  
 Articolo / Referencia

d1 d2 L L1 L5 d3 BT



BT40FM40	40	88	22	60	27	66,7	40	2,50
BT50FM40	40	88	12	50	27	66,7	50	4,60
BT50FM60	60	128	40	88	38	101,6	50	9,10

MAS BT40/50 SHELL TYPE

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Draw bolt / Tirette  
 Tiranti / Tirantes de amarre

Z1



Cutter retaining screws / Vis de serrage pour fraise  
 Vite per attacchi frontali / Tornillo de amarre

Z3

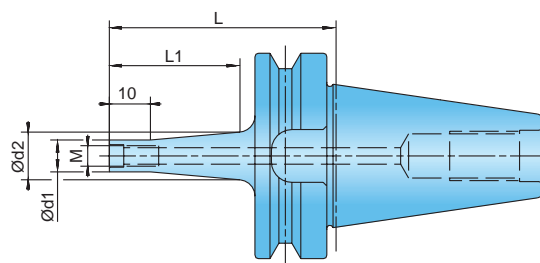


Wrench / Clé de fixation  
 Chiave / Llave

Z3



# TOOL HOLDERS AND ADAPTIIONS



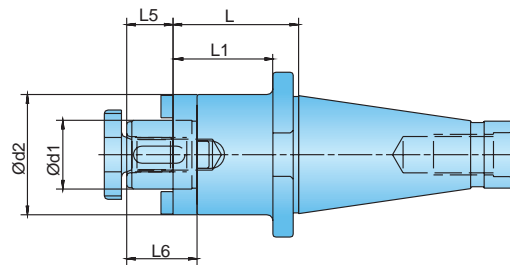
JIS-B 6339

Designation / Réf. de l'article Articolo / Referencia	d1	d2	L	L1	M	BT	IK	kg
BT400DP6X66	9,8	13	66	30	6	40	✓	1,00
BT400DP6X106	9,8	23	106	70	6	40	✓	1,10
BT400DP8X66	13	15	66	30	8	40	✓	1,00
BT400DP8X106	13	23	106	70	8	40	✓	1,20
BT400DP10X66	18	20	66	30	10	40	✓	1,10
BT400DP10X106	18	28	106	70	10	40	✓	1,20
BT400DP12X66	21	24	66	30	12	40	✓	1,10
BT400DP12X106	21	31	106	70	12	40	✓	1,30
BT400DP16X66	29	28	66	30	16	40	✓	1,10
BT400DP16X106	29	34	106	70	16	40	✓	1,40
BT500DP12X94	23	30	94	50	12	50	✓	3,00
BT500DP12X144	23	40	144	100	12	50	✓	3,50
BT500DP12X194	23	40	194	150	12	50	✓	4,00
BT500DP12X244	23	46	244	200	12	50	✓	4,50
BT500DP16X94	29	34	94	50	16	50	✓	3,20
BT500DP16X144	29	40	144	100	16	50	✓	3,70
BT500DP16X194	29	55	194	150	16	50	✓	4,20
BT500DP16X244	29	60	244	200	16	50	✓	4,70

MAS BT40 / BT50 SCREW TYPE

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Draw bolt / Tirette Tiranti / Tirantes de amarre			
Z1 			



DIN 6358

DIN 2080

Designation / Réf. de l'article Articolo / Referencia	d1	d2	L	L1	L5	L6	SK	
--	----	----	---	----	----	----	----	--

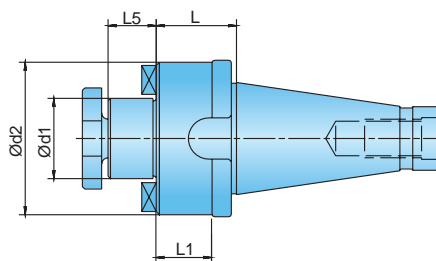
DIN208040SEMC16X52	16	32	52	40,4	17	27	40	1,10
DIN208040SEMC22X52	22	40	52	40,4	19	31	40	1,30
DIN208040SEMC27X52	27	48	52	40,4	21	33	40	1,50
DIN208040SEMC32X52	32	58	52	40,4	24	38	40	1,80
DIN208040SEMC40X52	40	70	52	40,4	27	41	40	2,40
DIN208050SEMC16X55	16	32	55	39,8	17	27	50	3,10
DIN208050SEMC22X55	22	40	55	39,8	19	31	50	3,30
DIN208050SEMC27X55	27	48	55	39,8	21	33	50	3,50
DIN208050SEMC32X55	32	58	55	39,8	24	38	50	3,80
DIN208050SEMC40X55	40	70	55	39,8	27	41	50	4,30
DIN208050SEMC50X55	50	90	55	39,8	30	46	50	5,30

DIN 2080-A40/50 COMBI SHELL TYPE

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS


<b>Draw bolt / Tirette</b> Tiranti / Tirantes de amarre Z1	<b>Cutter retaining screws / Vis de serrage pour fraise</b> Vite per attacchi frontali / Tornillo de amarre Z3	<b>Wrench / Clé de fixation</b> Chiave / Llave Z3	<b>Feather key / Bague d'entraînement</b> Chiavetta / Chaveta fijación Z6
<b>Driving collar / Clavette</b> Anello di trascinamento / Collar adapter Z6	<b>Washer / Rondelle</b> Distanziale / Arandela Z6		

# TOOL HOLDERS AND ADAPTIIONS



DIN 3937


DIN 2080

Designation / Réf. de l'article Articolo / Referencia	d1	d2	L	L1	L5	SK	
DIN208040SEM16X28	16	38	28	16,4	17	40	1,00
DIN208040SEM22X27	22	47	27	15,4	19	40	1,10
DIN208040SEM27X26	27	58	26	14,4	21	40	1,20
DIN208040SEM32X23	32	66	23	11,4	24	40	1,30
DIN208040SEM40X34	40	82	34	22,4	27	40	2,20
DIN208050SEM16X38	16	38	38	22,8	17	50	3,00
DIN208050SEM22X38	22	47	38	22,8	19	50	3,20
DIN208050SEM27X38	27	58	38	22,8	21	50	3,40
DIN208050SEM32X36	32	66	36	20,8	24	50	3,60
DIN208050SEM40X40	40	82	40	24,8	27	50	4,20

DIN 2080-A40/50 SHELL TYPE

SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Draw bolt / Tirette  
Tiranti / Tirantes de amarre

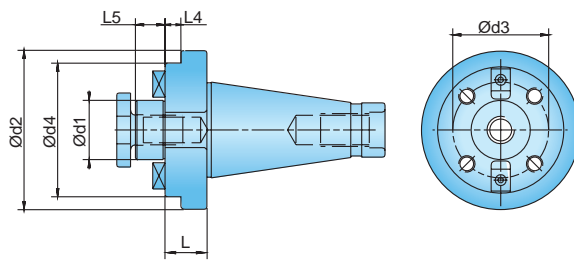
Z1 

Cutter retaining screws / Vis de serrage pour fraise  
Vite per attacchi frontali / Tornillo de amarre

Z3 

Wrench / Clé de fixation  
Chiave / Llave

Z3 



DIN 6357

DIN 2080

Designation / Réf. de l'article  
 Articolo / Referencia

d1 d2 d4 L L4 L5 d3 SK



DIN208040FM40	40	88	-	20	-	27	66,7	40	2,00
DIN208050FM40	40	97,5	88	36	20,8	27	66,7	50	4,00
DIN208050FM60	60	128	-	36	-	40	101,6	50	6,00

DIN 2080-A40/50 SHELL TYPE

SPARE PARTS / ACCESSOIRE  
 RICAMBI / RECAMBIOS

Draw bolt / Tirette  
 Tiranti / Tirantes de amarre

Z1



Cutter retaining screws / Vis de serrage pour fraise  
 Vite per attacchi frontali / Tornillo de amarre

Z3



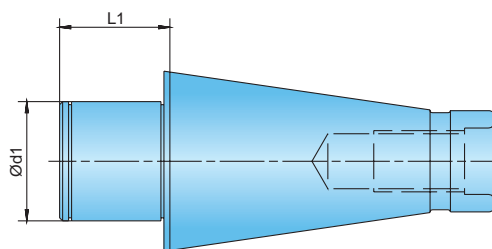
Wrench / Clé de fixation  
 Chiave / Llave

Z3





# TOOL HOLDERS AND ADAPPTIONS



DIN 6356

DIN 2080

Designation / Réf. de l'article  
Articolo / Referencia

d1 L1 SK



DIN208040CP40	40	29	40	1,10
DIN208050CP40	40	29	50	1,90
DIN208050CP50	50	29	50	2,00
DIN208050CP60	60	39	50	2,10

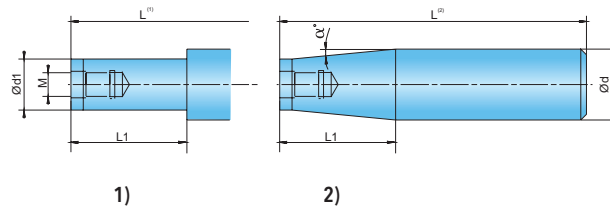
SPARE PARTS / ACCESSOIRE  
RICAMBI / RECAMBIOS

Draw bolt / Tirette  
Tiranti / Tirantes de amarre

Z1



DIN 2080-A40/50 CENTERING PIN



screw in type connection

cylindrical shank

Designation / Réf. de l'article  
 Articolo / Referencia

d d1 L L1  $\alpha$  M



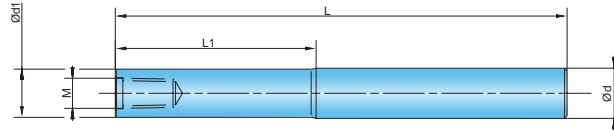
SM06-L60-C10 <sup>1)</sup>	10	9,8	60	20	-	6	✓	0,05
SM06-L105-C12 <sup>2)</sup>	12	9,8	105	60	1,2°	6	✓	0,09
SM06-L125-C16 <sup>2)</sup>	16	9,8	125	60	3,3°	6	✓	0,10
SM08-L73-C16 <sup>1)</sup>	16	13	73	25	-	8	✓	0,11
SM08-L128-C16 <sup>2)</sup>	16	13	128	80	0,9°	8	✓	0,18
SM08-L170-C20 <sup>2)</sup>	20	13	170	67	3,3°	8	✓	0,35
SM10-L80-C20 <sup>1)</sup>	20	18	80	30	-	10	✓	0,18
SM10-L130-C20 <sup>2)</sup>	20	18	130	80	0,6°	10	✓	0,27
SM10-L200-C25 <sup>2)</sup>	25	19	200	57	3,3°	10	✓	0,45
SM12-L86-C25 <sup>2)</sup>	25	21	86	30	5,1°	12	✓	0,20
SM12-L200-C32 <sup>2)</sup>	32	21	200	78	4,4°	12	✓	0,60
SM16-L95-C32 <sup>2)</sup>	32	29	95	35	1,7°	16	✓	0,54
SM16-L230-C32 <sup>2)</sup>	32	29	230	50	1,8°	16	✓	0,60

with internal coolant / a l'interne liquide de refroidissement / con interno refrigerante / con interior refrigerante

STEEL EXTENSION CYLINDRICAL/CONICAL (SCREW TYPE)

<sup>1)</sup> DIN6535 HA; <sup>2)</sup> DIN6535 HB

# TOOL HOLDERS AND ADAPTIONS



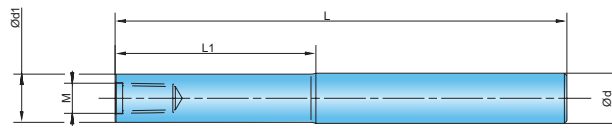
screw in type connection

cylindrical shank

Designation / Réf. de l'article  
Articolo / Referencia


	d	d1	L	L1	M
S016MOD08HA040	16	13	88	40	8
S016MOD08HA060	16	13	108	60	8
S016MOD08HA080	16	13	128	80	8
S016MOD08HA100	16	13	148	100	8

HEAVY METALL EXTENSION - CYLINDRICAL (SCREW TYPE)



screw in type connection

cylindrical shank

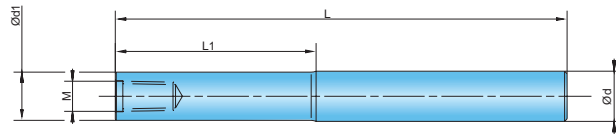
Designation / Réf. de l'article Articolo / Referencia	d	d1	L	L1	M	
--	---	----	---	----	---	---

S010MOD06CA024	10	-	80	-	6	✓
S010MOD06CA031	10	9,8	80	31	6	✓
S010MOD06CA100	10	9,8	150	100	6	✓
S012MOD06CA030	12	-	80	-	6	✓
S012MOD06CA031	12	11	80	31	6	✓
S012MOD06CA100-03	12	11	150	100	6	✓
S012MOD06CA040	12	11,8	88	40	6	✓
S012MOD06CA060	12	11,8	108	60	6	✓
S012MOD06CA080	12	11,8	128	80	6	✓
S012MOD06CA100	12	11,8	148	100	6	✓
S014MOD08CA024	14	-	80	-	8	✓
S016MOD08CA055	16	14,4	120	55	8	✓
S016MOD08CA135	16	14,4	200	135	8	✓
S018MOD10CA040	18	-	200	-	10	✓
S019MOD10CA135	19	18	200	135	10	✓
S020MOD10CA055	20	18	120	55	10	✓
S020MOD10CA135	20	18	200	135	10	✓
S025MOD12CA060	25	22,5	125	60	12	✓
S025MOD12CA080	25	22,5	145	80	12	✓
S025MOD12CA100	25	22,5	165	100	12	✓
S025MOD12CA157	25	22,5	250	157	12	✓
S025MOD12CA207	25	22,5	300	207	12	✓
S032MOD16CA207	32	28,6	300	207	16	✓

with internal coolant / a l'interne liquide de refroidissement / con interno refrigerante / con interior refrigerante

CARBIDE EXTENSION - CYLINDRICAL (SCREW TYPE)

# TOOL HOLDERS AND ADAPTIONS



screw in type connection

cylindrical shank

Designation / Réf. de l'article  
Articolo / Referencia

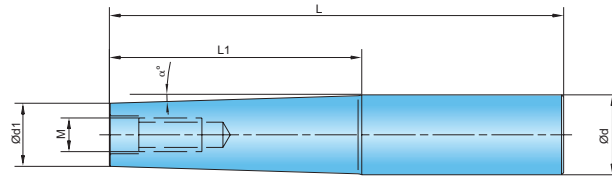
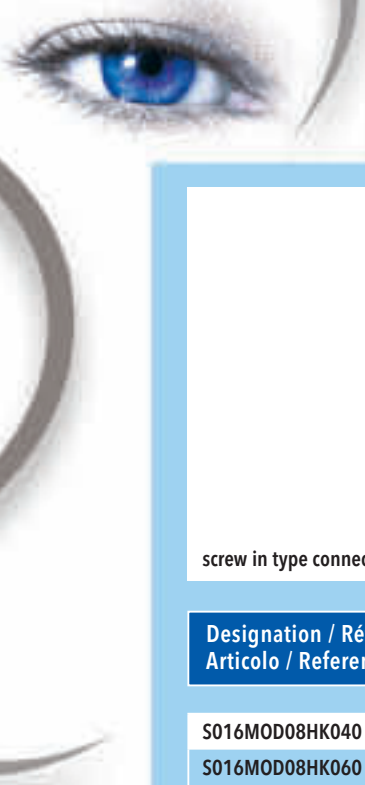
d d1 L L1 M



S012MOD06VA020	12	11	70	20	6	✓
S012MOD06VA070	12	11	120	70	6	✓
S016MOD08VA006	16	14,5	70	6	8	✓
S016MOD08VA056	16	14,5	120	56	8	✓
S020MOD10VA006	20	18	64	6	10	✓
S020MOD10VA024	20	18	89	24	10	✓
S020MOD10VA070	20	18	130	70	10	✓
S020MOD10VA125	20	18	180	125	10	✓
S025MOD12VA015	25	22,6	81	15	12	✓
S025MOD12VA045	25	22,6	111	45	12	✓
S025MOD12VA110	25	22,6	180	110	12	✓
S025MOD12VA155	25	22,6	220	155	12	✓
S032MOD16VA014	32	29,4	103	14	16	✓
S032MOD16VA090	32	29,4	160	90	16	✓
S032MOD16VA108	32	29,4	200	108	16	✓
S032MOD16VA159	32	29,4	250	159	16	✓
S032MOD16VA207	32	30	300	207	16	✓

with internal coolant / a l'interne liquide de refroidissement / con interno refrigerante / con interior refrigerante

EXTENSION WITH VIBRATION DAMPING (SREW TYPE)



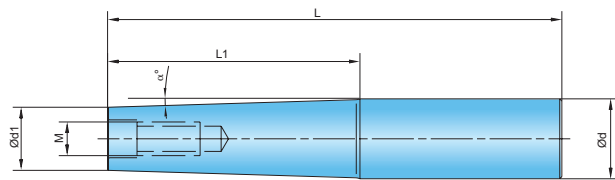
screw in type connection

cylindrical shank

Designation / Réf. de l'article  
 Articolo / Referencia

Designation / Réf. de l'article Articolo / Referencia	d	d1	L	L1	$\alpha$	M
S016MOD08HK040	16	13	88	40	2°	8
S016MOD08HK060	16	13	108	60	1,4°	8
S016MOD08HK080	16	13	128	80	1°	8
S016MOD08HK100	16	13	148	100	0,9°	8
S016MOD08HK120	16	13	168	120	0,7°	8
S020MOD10HK040	20	18	90	40	1,4°	10
S020MOD10HK060	20	18	110	60	1°	10
S020MOD10HK080	20	18	130	80	0,7°	10
S020MOD10HK100	20	18	150	100	0,6°	10
S020MOD10HK120	20	18	170	120	0,5°	10

# TOOL HOLDERS AND ADAPTIONS



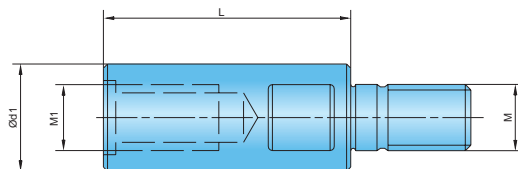
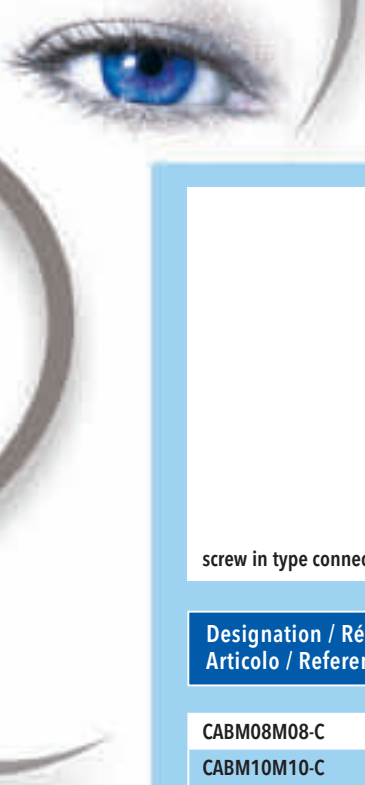
screw in type connection

cylindrical shank

Designation / Réf. de l'article Articolo / Referencia	d	d1	L	L1	$\alpha$	M	IK
S016MOD08CK040	16	13	88	40	0,4°	8	✓
S016MOD08CK060	16	13	108	60	0,3°	8	✓
S016MOD08CK080	16	13	128	80	0,2°	8	✓
S016MOD08CK100	16	13	148	100	0,2°	8	✓
S016MOD08CK120	16	13	168	120	0,15°	8	✓
S020MOD10CK040	20	18	90	40	1,4°	10	✓
S020MOD10CK060	20	18	110	60	1°	10	✓
S020MOD10CK080	20	18	130	80	0,7°	10	✓
S020MOD10CK100	20	18	150	100	0,6°	10	✓
S020MOD10CK120	20	18	170	120	0,5°	10	✓

with internal coolant / a l'interne liquide de refroidissement / con interno refrigerante / con interior refrigerante

**CARBIDE EXTENSION - CONICAL (SCREW TYPE)**



screw in type connection

screw in type connection

Designation / Réf. de l'article  
 Articolo / Referencia

d1 L M M1



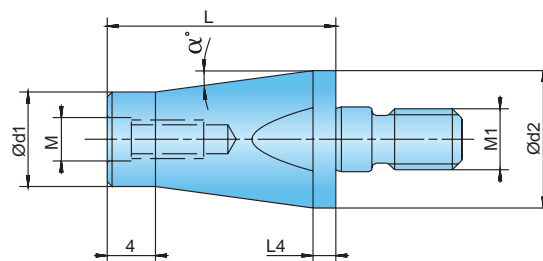
CABM08M08-C	13	30	8	8	✓
CABM10M10-C	18	35	10	10	✓
CABM12M12-C	21	40	12	12	✓
CABM16M16-C	29	40	16	16	✓

with internal coolant / a l'interne liquide de refroidissement / con interno refrigerante / con interior refrigerante

■ EXTENSION (SCREW TYPE)



# TOOL HOLDERS AND ADAPTIONS



screw in type connection

screw in type connection

Designation / Réf. de l'article  
Articolo / Referencia

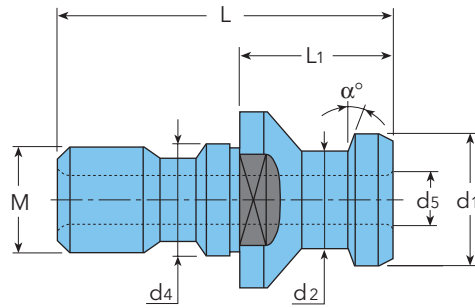
d1 d2 L L4  $\alpha$  M M1



CABM06M08	9,7	13	30	4	5,7	6	8	✓	0,08
CABM08M10	13	18	40	5	5,2	8	10	✓	0,08
CABM10M12	18	21	45	7	2,5	10	12	✓	0,10
CABM12M16	21	29	50	6	6,3	12	16	✓	0,20

with internal coolant / a l'interne liquide de refroidissement / con interno refrigerante / con interior refrigerante

REDUCER (SCREW TYPE)



Designation / Réf. de l'article Artículo / Referencia	M	d1	d2	d4	d5	L	L1	a°
--	---	----	----	----	----	---	----	----

PS SK40 15 M16 DIN	16	19	14	17	-	54	26	15
PS SK40 15 M16 DIN B <sup>1)</sup>	16	19	14	17	7	54	26	15
PS SK 40 15 M16 DIN O <sup>3)</sup>	16	19	14	17	-	54	26	15
PS SK 40 15 M16 DIN O B <sup>2)</sup>	16	19	14	17	7	54	26	15
PS SK50 15 M24 DIN	24	28	21	25	-	74	34	15
PS SK50 15 M24 DIN B <sup>1)</sup>	24	28	21	25	11,5	74	34	15
PS SK50 15 M24 DIN O <sup>3)</sup>	24	28	21	25	-	74	34	15
PS CAT30 45 M12 ISO B <sup>1)</sup>	12	13,35	9,3	13	4,8	34	11,8	45
PS CAT40 45 M16 ISO B <sup>1)</sup>	16	18,95	12,95	17	7,4	44,5	16,4	45
PS CAT50 45 M24 ISO B <sup>1)</sup>	24	29,1	19,6	25	8	65,5	25,55	45

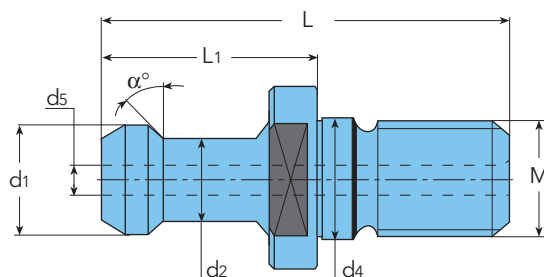
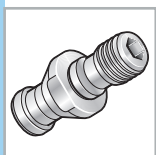
EN: <sup>1)</sup> with internal coolant supply <sup>2)</sup> O-ring outside <sup>3)</sup> O-ring inside and outside

FR: <sup>1)</sup> avec lubrification par le centre <sup>2)</sup> joint torique extérieur <sup>3)</sup> joint torique extérieur et intérieur

IT: <sup>1)</sup> con refrigerante interno <sup>2)</sup> OR esterno <sup>3)</sup> OR esterno ed interno

ES: <sup>1)</sup> con refrigeración interior <sup>2)</sup> O-anillo exterior <sup>3)</sup> O-anillo exterior y interior

# TOOL HOLDERS AND ADAPTIIONS



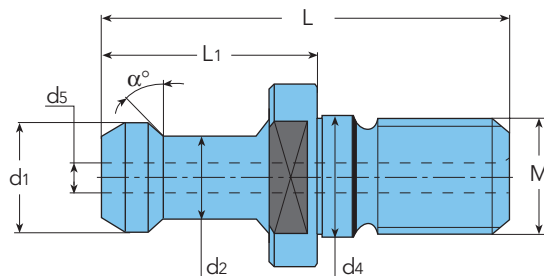
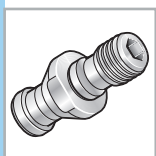
PULL STUDS MAS BT

PULL STUDS BT-JIS / MAZAK

Designation / Réf. de l'article  
Artículo / Referencia

	M	d1	d2	d4	d5	L	L1	a°
PS BT40 45° M16 MAS1	16	15	10	17	-	60	35	45
PS BT40 45° M16 MAS1 B <sup>1)</sup>	16	15	10	17	5,5	60	35	45
PS BT40 60° M16 MAS2	16	15	10	17	-	60	35	60
PS BT40 60° M16 MAS2 B <sup>1)</sup>	16	15	10	17	5,5	60	35	60
PS BT40 90° M16 MAS3	16	15	10	17	-	60	35	90
PS BT40 90° M16 MAS3 B <sup>1)</sup>	16	15	10	17	5,5	60	35	90
PS BT50 45° M24 MAS1	24	23	17	25	-	85	45	45
PS BT50 45° M24 MAS1 B <sup>1)</sup>	24	23	17	25	6	85	45	45
PS BT50 60° M24 MAS2	24	23	17	25	-	85	45	60
PS BT50 60° M24 MAS2 B <sup>1)</sup>	24	23	17	25	6	85	45	60
PS BT50 90° M24 MAS3	24	23	17	25	-	85	45	90
PS BT50 90° M24 MAS3 B <sup>1)</sup>	24	23	17	25	6	85	45	90

<sup>1)</sup> with internal coolant supply / <sup>1)</sup> avec lubrification par le centre / <sup>1)</sup> con refrigerante interno / <sup>1)</sup> con refrigeración interior



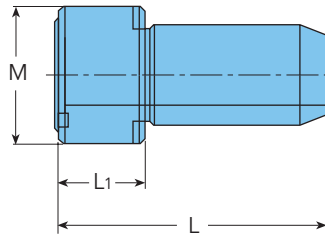
Designation / Réf. de l'article  
Artículo / Referencia

	M	d1	d2	d4	d5	L	L1	a°
PS BT40 15° M16 JIS B <sup>1)</sup>	16	19	14	17	5,5	54	29	15
PS BT50 15° M24 JIS B <sup>1)</sup>	24	28	21	25	8	74	34	15
PS BT40 45° M16 MAZAK B <sup>1)</sup>	16	18,79	12,45	17	7	44,1	19,1	45
PS BT50 45° M24 MAZAK B <sup>1)</sup>	24	28,95	20,83	25	8	65,2	25,2	45

<sup>1)</sup> with internal coolant supply / <sup>1)</sup> avec lubrification par le centre / <sup>1)</sup> con refrigerante interno / <sup>1)</sup> con refrigeración interior

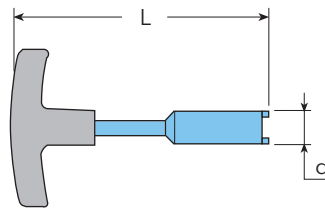


COOLING TUBES



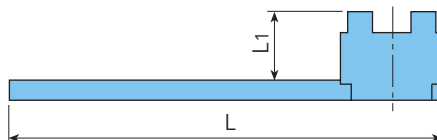
Designation / Réf. de l'article Artículo / Referencia	HSK-A	L	L1	M
COOLING TUBE HSK A 40	40	29,1	7,5	12X1
COOLING TUBE HSK A 50	50	32,7	9,5	16X1
COOLING TUBE HSK A 63	63	36	11,5	18X1
COOLING TUBE HSK A 80	80	36,6	13,5	20X1,5
COOLING TUBE HSK A 100	100	43,6	15,5	24X1,5

WRENCH COOL TUBE



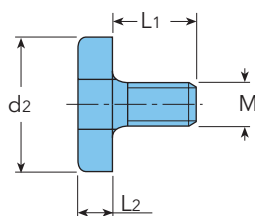
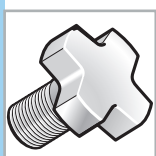
Designation / Réf. de l'article Artículo / Referencia	HSK-A	d	L
WRENCH COOL TUBE HSK 40	40	11	120
WRENCH COOL TUBE HSK 50	50	15	120
WRENCH COOL TUBE HSK 63	63	17	122
WRENCH COOL TUBE HSK 80	80	18,5	186
WRENCH COOL TUBE HSK 100	100	22	141

# TOOL HOLDERS AND ADAPTIIONS



DIN 6368

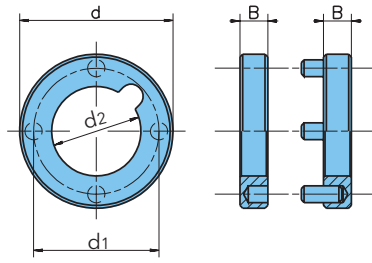
Designation / Réf. de l'article Articolo / Referencia	for journal dia.	for screws	L1	L
WRENCH M8 SEMC 16	16	M8	20	180
WRENCH M10 SEMC 22	22	M10	25	200
WRENCH M12 SEMC 27	27	M12	32	225
WRENCH M16 SEMC 32	32	M16	36	250
WRENCH M20 SEMC 40	40	M20	40	280
WRENCH M24 SEMC 50	50	M24	50	315



DIN 6367

Designation / Réf. de l'article Articolo / Referencia	for journal dia.	M	d2	L1	L2
M 8 CLAMP SCREW SEM 16	16	8	20	16	6
M 10 CLAMP SCREW SEM 22	22	10	28	18	7
M 12 CLAMP SCREW SEM 27	27	12	35	22	8
M 16 CLAMP SCREW SEM 32	32	16	42	26	9
M 20 CLAMP SCREW SEM 40	40	20	52	30	10
M 24 CLAMP SCREW SEM 50	50	24	63	36	12

WRENCH DIN 6368  
CUTTER RETAINING SCREW DIN 6367



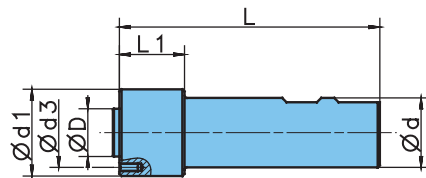
Designation / Réf. de l'article  
 Artículo / Referencia

	d	d1	d2	B
--	---	----	----	---

FL-0005	46	32	22	10
FL-0006	55	45	32	10
FL-0007	80	63	40	12

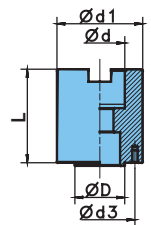
SPIGOT SET FOR **SLOT-IN** DFD01A SIDE AND FACE CUTTER

# TOOL HOLDERS AND ADAPTIONS



Designation / Réf. de l'article Articolo / Referencia	D	d	d1	d3	L	L1
--	---	---	----	----	---	----

WB32CP22SA030	22	32	40	32	120	30



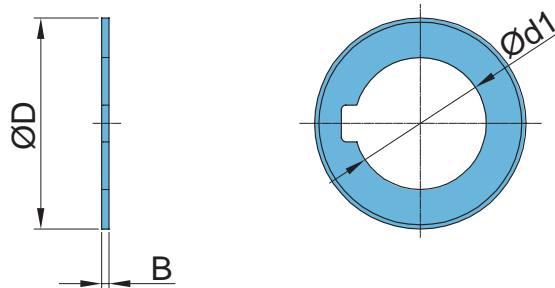
Designation / Réf. de l'article Articolo / Referencia	D	d	d1	d3	L
--	---	---	----	----	---

FBD32CP32SA060	32	32	55	45	60
FBD40CP32SA060	40	40	80	63	60

WELDON ADAPTION

ADAPTION ACC. TO DIN 8030



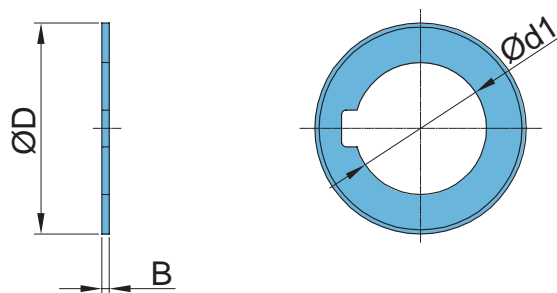


Designation / Réf. de l'article  
 Artículo / Referencia

	d1	D	B
DIN2084A13X003	13	21	0,03
DIN2084A13X004	13	21	0,04
DIN2084A13X005	13	21	0,05
DIN2084A13X01	13	21	0,1
DIN2084A13X02	13	21	0,2
DIN2084A13X03	13	21	0,3
DIN2084A13X05	13	21	0,5
DIN2084A13X06	13	21	0,6
DIN2084A13X1	13	21	1,0
DIN2084A16X003	16	25	0,03
DIN2084A16X004	16	25	0,04
DIN2084A16X005	16	25	0,05
DIN2084A16X01	16	25	0,1
DIN2084A16X02	16	25	0,2
DIN2084A16X03	16	25	0,3
DIN2084A16X05	16	25	0,5
DIN2084A16X06	16	25	0,6
DIN2084A16X1	16	25	1,0
DIN2084A16X1.5	16	25	1,5
DIN2084A22X003	22	33	0,03
DIN2084A22X004	22	33	0,04
DIN2084A22X005	22	33	0,05
DIN2084A22X01	22	33	0,1
DIN2084A22X02	22	33	0,2
DIN2084A22X03	22	33	0,3
DIN2084A22X05	22	33	0,5
DIN2084A22X06	22	33	0,6
DIN2084A22X1	22	33	1,0
DIN2084A22X1.5	22	33	1,5
DIN2084A27X003	27	39	0,03
DIN2084A27X004	27	39	0,04
DIN2084A27X005	27	39	0,05
DIN2084A27X01	27	39	0,1
DIN2084A27X02	27	39	0,2
DIN2084A27X03	27	39	0,3
DIN2084A27X05	27	39	0,5
DIN2084A27X06	27	39	0,6
DIN2084A27X1	27	39	1,0



# TOOL HOLDERS AND ADAPTIIONS



Designation / Réf. de l'article  
Articolo / Referencia

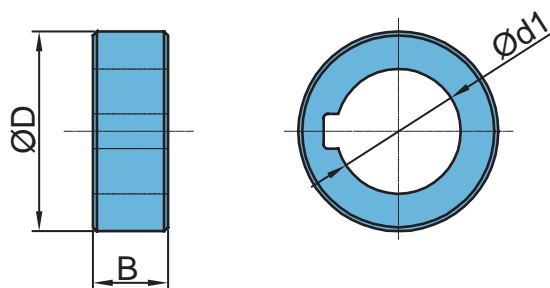
d1

D

B

DIN2084A27X1.5	27	39	1,5
DIN2084A32X003	32	45	0,03
DIN2084A32X004	32	45	0,04
DIN2084A32X005	32	45	0,05
DIN2084A32X01	32	45	0,1
DIN2084A32X02	32	45	0,2
DIN2084A32X03	32	45	0,3
DIN2084A32X05	32	45	0,5
DIN2084A32X06	32	45	0,6
DIN2084A32X1	32	45	1,0
DIN2084A32X1.5	32	45	1,5
DIN2084A40X003	40	54	0,03
DIN2084A40X004	40	54	0,04
DIN2084A40X005	40	54	0,05
DIN2084A40X01	40	54	0,1
DIN2084A40X02	40	54	0,2
DIN2084A40X03	40	54	0,3
DIN2084A40X05	40	54	0,5
DIN2084A40X06	40	54	0,6
DIN2084A40X1	40	54	1,0
DIN2084A40X1.5	40	54	1,5
DIN2084A50X005	50	67	0,05
DIN2084A50X01	50	67	0,1
DIN2084A50X02	50	67	0,2
DIN2084A50X03	50	67	0,3
DIN2084A50X05	50	67	0,5
DIN2084A50X06	50	67	0,6
DIN2084A50X1	50	67	1,0
DIN2084A50X1.5	50	67	1,5
DIN2084A60X005	60	79	0,05
DIN2084A60X01	60	79	0,1
DIN2084A60X02	60	79	0,2
DIN2084A60X03	60	79	0,3
DIN2084A60X05	60	79	0,5
DIN2084A60X06	60	79	0,6
DIN2084A60X1	60	79	1,0

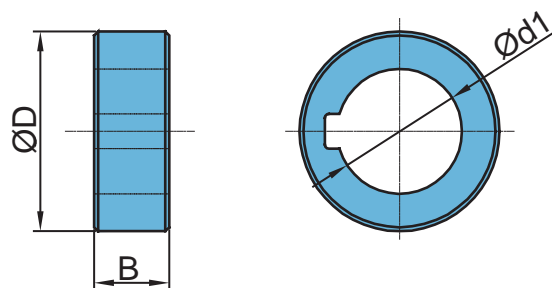
SPACERS DIN 2084 / FORM A



Designation / Réf. de l'article  
 Artículo / Referencia

	d1	D	B
DIN2084B13X2	13	22	2
DIN2084B13X3	13	22	3
DIN2084B13X4	13	22	4
DIN2084B13X5	13	22	5
DIN2084B13X6	13	22	6
DIN2084B13X10	13	22	10
DIN2084B13X20	13	22	20
DIN2084B13X30	13	22	30
DIN2084B16X2	16	27	2
DIN2084B16X3	16	27	3
DIN2084B16X4	16	27	4
DIN2084B16X5	16	27	5
DIN2084B16X6	16	27	6
DIN2084B16X10	16	27	10
DIN2084B16X20	16	27	20
DIN2084B16X30	16	27	30
DIN2084B16X60	16	27	60
DIN2084B22X2	22	34	2
DIN2084B22X3	22	34	3
DIN2084B22X4	22	34	4
DIN2084B22X5	22	34	5
DIN2084B22X6	22	34	6
DIN2084B22X10	22	34	10
DIN2084B22X20	22	34	20
DIN2084B22X30	22	34	30
DIN2084B22X60	22	34	60
DIN2084B22X100	22	34	100
DIN2084B27X2	27	41	2
DIN2084B27X3	27	41	3
DIN2084B27X4	27	41	4
DIN2084B27X5	27	41	5
DIN2084B27X6	27	41	6
DIN2084B27X10	27	41	10
DIN2084B27X20	27	41	20
DIN2084B27X30	27	41	30
DIN2084B27X60	27	41	60
DIN2084B27X100	27	41	100

# TOOL HOLDERS AND ADAPTIIONS



Designation / Réf. de l'article  
Artículo / Referencia

d1

D

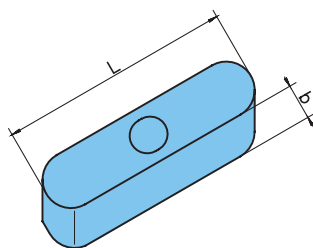
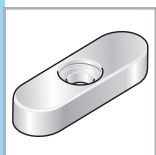
B

DIN2084B32X2	32	47	2
DIN2084B32X3	32	47	3
DIN2084B32X4	32	47	4
DIN2084B32X5	32	47	5
DIN2084B32X6	32	47	6
DIN2084B32X10	32	47	10
DIN2084B32X20	32	47	20
DIN2084B32X30	32	47	30
DIN2084B32X60	32	47	60
DIN2084B32X100	32	47	100
DIN2084B40X2	40	55	2
DIN2084B40X3	40	55	3
DIN2084B40X4	40	55	4
DIN2084B40X5	40	55	5
DIN2084B40X6	40	55	6
DIN2084B40X10	40	55	10
DIN2084B40X20	40	55	20
DIN2084B40X30	40	55	30
DIN2084B40X60	40	55	60
DIN2084B40X100	40	55	100
DIN2084B50X2	50	69	2
DIN2084B50X3	50	69	3
DIN2084B50X4	50	69	4
DIN2084B50X5	50	69	5
DIN2084B50X6	50	69	6
DIN2084B50X10	50	69	10
DIN2084B50X20	50	69	20
DIN2084B50X30	50	69	30
DIN2084B50X60	50	69	60
DIN2084B50X100	50	69	100
DIN2084B60X6	60	84	6
DIN2084B60X10	60	84	10
DIN2084B60X20	60	84	20
DIN2084B60X30	60	84	30
DIN2084B60X60	60	84	60
DIN2084B60X100	60	84	100

SPACERS DIN 2084 / FORM B



# TOOL HOLDERS AND ADAPTIONS



Designation / Réf. de l'article  
Articolo / Referencia

for journal  
dia.

b

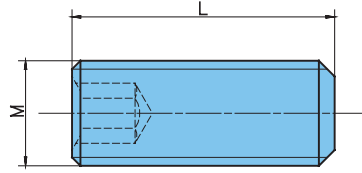
L

PASSFEDER A4x4x20	16	4	20
PASSFEDER A6x6x25	22	6	25
PASSFEDER A7x7x25	27	7	25
PASSFEDER A8x7x28	32	8	28
PASSFEDER A10x8x32	40	10	32
PASSFEDER A12x8x36	50	12	36

■ FEATHER KEY FOR COMBI ARBORS



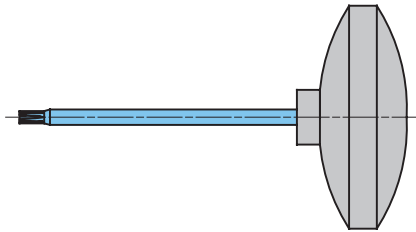
INNEFIT -ADAPTION  
 SCREW FOR



DIN 913

Designation / Réf. de l'article Articolo / Referencia	For MOD	M	L
--	---------	---	---

SA080-21	40	8X1	16
SA100-45	50	10X1	25



Designation / Réf. de l'article Articolo / Referencia	For MOD
--	---------

DS-H04T	40
DS-H05T	50

WRENCH

# TOOL HOLDERS AND ADAPTIONS

NOTES / NOTES  
NOTES / NOTES



EN	464 - 485
FR	486 - 507
IT	508 - 529
ES	530 - 551

- Survey of Indexable Inserts within their Application Range 466 - 481
- ISO-Designation of Indexable Inserts 482 - 483
  - Cutting Materials - Coatings 484 - 485

WIPAC



**GENERAL TECHNICAL INFORMATION**



**TOOL**

## SURVEY OF INDEXABLE INSERTS WITHIN APPLICATION RANGE

Designation	Insert Version	Feed per tooth		Code
		fz min (hm)	fz max	
	double-edged, positive, polished and sharp-edged geometry for non-ferrous materials with R0,4	0,05	0,12	SA06D02, SA06D03, SA06M01, SA06E01, IA06D03, IA06M01, EA06D10, FA06D02
	double-edged, positive, polished and sharp-edged geometry for non-ferrous materials with R0,4	0,05	0,20	SA11D03, SA11M01, SA11E01, IA11D03, IA11D10, IA11M01, EA11D10
	double-edged, positive, polished and sharp-edged geometry for non-ferrous materials with R0,8	0,05	0,20	SA11D03, SA11M01, SA11E01, IA11D03, IA11D10, IA11M01, EA11D10
	double-edged, positive geometry with R0,2	0,06	0,12	SA06D02, SA06D03, SA06M01, SA06E01, IA06D03, IA06M01, EA06D10, FA06D02
	single-edged, positive insert with short PCD tip with R0,2	0,05	0,12	SA06D02, SA06D03, SA06M01, SA06E01, EA06D10
	double-edged, positive geometry with R0,4	0,06	0,12	SA06D02, SA06D03, SA06M01, SA06E01, IA06D03, IA06M01, EA06D10, FA06D02
	double-edged, positive geometry with R0,8	0,06	0,12	SA06D02, SA06D03, SA06M01, SA06E01, IA06D03, IA06M01, EA06D10, FA06D02
	double-edged, positive geometry with R1,6	0,06	0,12	SA06D02, SA06D03, SA06M01, SA06E01, IA06D03, IA06M01, EA06D10, FA06D02
	double-edged, positive geometry with R0,4	0,11	0,15	SA11D03, SA11M01, SA11E01, IA11D03, IA11D10, IA11M01, EA11D10
	double-edged, positive geometry with R0,8	0,11	0,15	SA11D03, SA11M01, SA11E01, IA11D03, IA11D10, IA11M01, EA11D10
	double-edged, positive geometry with R1,6	0,11	0,15	SA11D03, SA11M01, SA11E01, IA11D03, IA11D10, IA11M01, EA11D10
	double-edged, positive geometry with R3,2	0,11	0,15	SA11D03, SA11M01, SA11E01, IA11D03, IA11D10, IA11M01, EA11D10
	double-edged, positive geometry with R0,8	0,16	0,30	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10
	double-edged, positive titanium geometry with R0,8	0,10	0,25	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10

# GENERAL TECHNICAL INFORMATION

## SURVEY OF INDEXABLE INSERTS WITHIN APPLICATION RANGE

	Designation	Insert Version	Feed per tooth		Code
			fz min (hm)	fz max	
	AOMT160516R	double-edged, positive geometry with R1,6	0,16	0,30	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10
	AOMT160524R	double-edged, positive geometry with R2,4	0,16	0,30	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10
	AOMT160532R	double-edged, positive geometry with R3,2	0,16	0,30	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10
	AOMT160540R	double-edged, positive geometry with R4,0	0,16	0,30	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10
	AOMT160550R	double-edged, positive geometry with R5,0	0,16	0,30	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10
	AOMT160564R	double-edged, positive geometry with R6,4	0,16	0,30	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10
	APKT080304R-DT1	single-edged, positive insert with short PCD tip with R0,4	0,05	0,20	EA08D10A
	APKT080304R-DT2	single-edged, positive insert with long PCD-tip with R0,4	0,05	0,20	EA08D10A
	BEEW120310R-CR	double-edged, neutral geometry R1,0	0,08	0,20	F___D03, F___E01
	BEEW120316R-CR	double-edged, neutral geometry R1,6	0,08	0,20	F___D03, F___E01
	BEEW120320R-CR	double-edged, neutral geometry R2,0	0,08	0,20	F___D03, F___E01
	BEEW120325R-CR	double-edged, neutral geometry R2,5	0,08	0,20	F___D03, F___E01
	BEEW120330R-CR	double-edged, neutral geometry R3,0	0,08	0,20	F___D03, F___E01
	BEHW250304R	double-edged, neutral geometry R0,4	0,08	0,20	FB25D10

Subject to technical changes

## SURVEY OF INDEXABLE INSERTS WITHIN APPLICATION RANGE

	Designation	Insert Version	Feed per tooth		Code
			fz min (hm)	fz max	
	BEHW250304R-P	double-edged, polished and sharp-edged geometry for non-ferrous materials	0,05	0,20	FB25D10
	BEHW250308R	double-edged, neutral geometry R0,8	0,08	0,20	FB25D10
	BEHW250308R-P	double-edged, polished and sharp-edged geometry for non-ferrous materials with R0,8	0,05	0,20	FB25D10
	BEHW250316R	double-edged, neutral geometry R1,6	0,08	0,20	FB25D10
	BEHW250316R-P	double-edged, polished and sharp-edged geometry for non-ferrous materials with R1,6	0,05	0,20	FB25D10
	BOCT090304FR-P	double-edged, positive, polished and sharp-edged geometry for non-ferrous materials with R0,4	0,05	0,20	SB09D03, SB09M01, SB09E01, IB09D03, IB09M01, EB09D10
	BOCT090308FR-P	double-edged, positive, polished and sharp-edged geometry for non-ferrous materials with R0,8	0,05	0,20	SB09D03, SB09M01, SB09E01, IB09D03, IB09M01, EB09D10
	BOCT130404FR-P	double-edged, positive, polished and sharp-edged geometry for non-ferrous materials with R0,4	0,05	0,25	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B, FB13D03B, FB13D10B
	BOCT130408FR-P	double-edged, positive, polished and sharp-edged geometry for non-ferrous materials with R0,8	0,05	0,25	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B
	BOMT09T304R	double-edged, positive geometry with R0,4	0,10	0,15	SB09D03, SB09M01, SB09E01, IB09D03, IB09M01, EB09D10
	BOMT09T308R	double-edged, positive geometry with R0,8	0,10	0,15	SB09D03, SB09M01, SB09E01, IB09D03, IB09M01, EB09D10
	BOMT09T316R	double-edged, positive geometry with R1,6	0,10	0,15	SB09D03, SB09M01, SB09E01, IB09D03, IB09M01, EB09D10
	BOMT130404R	double-edged, positive geometry with R0,4	0,12	0,20	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B, FB13D03B, FB13D10B
	BOMT130408R	double-edged, positive geometry with R0,8	0,12	0,20	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B

# GENERAL TECHNICAL INFORMATION

## SURVEY OF INDEXABLE INSERTS WITHIN APPLICATION RANGE

	Designation	Insert Version	Feed per tooth		Code
			fz min (hm)	fz max	
	BOMT130416R	double-edged, positive geometry with R1,6	0,12	0,20	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B
	BOMT130420R	double-edged, positive geometry with R2,0	0,12	0,20	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B
	BOMT130424R	double-edged, positive geometry with R2,4	0,12	0,20	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B
	BOMT130431R	double-edged, positive geometry with R3,1	0,12	0,20	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B
	BOMT130440R	double-edged, positive geometry with R4,0	0,12	0,20	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B
	CDE313L021	double-edged, positive, rhombic with R0,8	0,10	0,25	BCE01A
	CDE313L021 - J	double-edged, positive, rhombic with R0,8	0,10	0,25	BCE01A
	CDE313L021T00	double-edged, positive geometry with K-Land with R0,8	0,10	0,20	BCE01A
	CDE322L005	double-edged, positive, rhombic with R0,8	0,10	0,25	BCD10A
	CDE322L005 - J	double-edged, positive, rhombic with R0,8	0,10	0,25	BCD10A
	CDE322L005T00	double-edged, positive geometry with K-Land with R0,8	0,10	0,20	BCD10A
	CNHU060310N	four-edged, positive geometry with R1,0	0,10	0,30	KC06E01
	CNHU060315N	four-edged, positive geometry with R1,5	0,10	0,30	KC06E01
	CNHU110420N	four-edged, positive geometry with R2,0	0,10	0,40	KC11E01, KC11D10

Subject to technical changes

## SURVEY OF INDEXABLE INSERTS WITHIN APPLICATION RANGE

	Designation	Insert Version	Feed per tooth		Code
			fz min (hm)	fz max	
	DND324L103 - J	double-edged, neutral geometry with K-Land for plunge milling with R1,6	0,10	0,30	BDD10A
	DND324L104T34 - J	double-edged, neutral geometry with K-Land for plunge milling with R1,6	0,10	0,30	BDD10A
	DPD324L123 - A	double-edged, positive geometry with K-Land for plunge milling with R1,6	0,10	0,25	BDD10A
	DPD324L124 - A	double-edged, positive geometry with K-Land for plunge milling with R1,6	0,10	0,25	BDD10A
	FEEW250340R-CR	double-edged, neutral geometry R4,0	0,08	0,20	F___D03, F___E01
	FEEW250350R-CR	double-edged, neutral geometry R5,0	0,08	0,20	F___D03, F___E01
	FEEW250360R-CR	double-edged, neutral geometry R6,0	0,08	0,20	F___D03, F___E01
	GCXF071601N	single-edged, positive geometry with R0,15	0,08	0,15	DFD01
	GCXF082202N	single-edged, positive geometry with R0,2	0,08	0,15	DFD01
	GCXF092402N	single-edged, positive geometry with R0,2	0,08	0,15	DFD01A
	GCXF113102N	single-edged, positive geometry with R0,2	0,08	0,15	DFD01A
	GCXF114103N	single-edged, positive geometry with R0,25	0,08	0,15	DFD01A
	NCET0802MOR	single-edged, positive geometry with R4	0,08	0,15	KWD03, KWD02, KWE01
	NCET1002MOR	single-edged, positive geometry with R5	0,08	0,15	KWD03, KWD02, KWE01

# GENERAL TECHNICAL INFORMATION

## SURVEY OF INDEXABLE INSERTS WITHIN APPLICATION RANGE

	Designation	Insert Version	Feed per tooth		Code
			fz min (hm)	fz max	
	NCEX1203MOR	single-edged, positive geometry with R6	0,10	0,20	KWD03, KWD02, KWE01
	NCEX1605MOR	single-edged, positive geometry with R8	0,10	0,20	KWD03, KWD02, KWE01
	NCEX2005MOR	single-edged, positive geometry with R10	0,10	0,25	KWD03, KWD02, KWE01
	NCEX2506MOR	single-edged, positive geometry with R12,5	0,10	0,25	KWD03, KWD02, KWE01
	NPHG1003MOR	single-edged, positive geometry with R5	0,10	0,20	KND02A, KND02C, KND02B, KNE01
	NPHG1204MOR	single-edged, positive geometry with R6	0,10	0,20	KND02A, KND02C, KND02B, KNE01
	NPHG1604MOR	single-edged, positive geometry with R8	0,10	0,25	KND02A, KND02C, KND02B, KNE01
	NPHG2004MOR	single-edged, positive geometry with R10	0,10	0,25	KND02A, KND02C, KND02B, KNE01
	NPHG2506MOR	single-edged, positive geometry with R12,5	0,10	0,30	KND02A, KND02C, KND02B, KNE01
	NPHG3007MOR	single-edged, positive geometry with R15	0,10	0,30	KND02A, KND02C, KNE01
	NPHG3207MOR	single-edged, neutral geometry with R16	0,10	0,30	KND02A, KNE01
	OFCT05T3AFFN-P	eight-edged, positive, polished and sharp-edged geometry for non-ferrous materials	0,05	0,30	PO05E01, PO05D10
	OFCT05T3TN	eight-edged, positive geometry with reinforced cutting edge	0,12	0,30	PO05E01, PO05D10
	OFCT0705AFFN-P	eight-edged, positive, polished and sharp-edged geometry for non-ferrous materials	0,05	0,30	PO07D10

Subject to technical changes















## SURVEY OF INDEXABLE INSERTS WITHIN APPLICATION RANGE

	Designation	Insert Version	Feed per tooth		Code
			fz min (hm)	fz max	
	OFCT0705AFFR-W	four-edged wiper finishing inserts	0,15	0,30	PO07D10
	OFMT05T3AFN-HR	eight-edged, positive geometry	0,12	0,25	PO05E01, PO05D10
	OFMT0705AFR-HR	eight-edged, positive geometry	0,15	0,30	PO07D10
	OFMT0705AFTN	eight-edged, positive geometry with reinforced cutting edge	0,15	0,30	PO07D10
	OFMW05T3AFTN	eight-edged, neutral geometry with K-Land for heavy-duty cuts	0,20	0,40	PO05E01, PO05D10
	OFMW0705AFTN	eight-edged, neutral geometry with K-Land for heavy-duty cuts	0,25	0,50	PO07D10
	PNCQ0804GNTN	ten-edged, neutral geometry, K-land	0,21	0,40	PP08D10
	PNCQ0804ZNTN	neutral geometry, K-land	0,50	2,50	KP08E01, KP08D10
	PNCT0804ZNN-HR	five-edged, positive geometry	0,22	1,50	KP08E01, KP08D10
	PNCU0805GNFR-HS	ten-edged, high positive geometry	0,08	0,30	PP08D10
	PNCU0805GNFR-P	ten-edged, positive, polished and sharp-edged geometry for non-ferrous materials	0,05	0,40	PP08D10
	PNCU0805GNR	ten-edged, positive geometry SiN	0,10	0,18	PP08D10
	PNCU0805GNTR	ten-edged, positive geometry	0,22	0,40	PP08D10
	PNCU0805GNTR-W	wiper insert	0,22	0,40	PP08D10



# GENERAL TECHNICAL INFORMATION

## SURVEY OF INDEXABLE INSERTS WITHIN APPLICATION RANGE

	Designation	Insert Version	Feed per tooth		Code
			fz min (hm)	fz max	
	PNCU1708GNTR	ten-edged, positive geometry	0,30	0,50	PP17D10
	RCLT1204M0N-CC1	four-edged, positive steel geometry with R1,2	0,10	0,25	PR12E01CC, PR12D10CC
	RCLT1204M0N-CC2	four-edged, positive steel geometry with K-land and R1,2	0,15	0,30	PR12E01CC, PR12D10CC
	RCLT1204M0N-CP	four-edged, positive, polished and sharp-edged geometry for non-ferrous materials	0,10	0,25	PR12E01CC, PR12D10CC
	RCLT1204M0TN-PH2	eight-edged, positive steel geometry with K-land	0,20	0,70	PR12E01CC, PR12D10CC
	RCLT1606M0N-CC	four-edged, positive steel geometry with R1,2	0,10	0,25	PR16E01CC, PR16D10CC
	RCLT1606M0N-CC1	four-edged, positive steel geometry R1,6	0,10	0,30	PR16E01CC, PR16D10CC
	RCLT1606M0N-CP	four-edged, positive non-ferrous geometry	0,10	0,25	PR16E01CC, PR16D10CC
	RCLT1606M0TN-PH	min. four-edged, positive steel geometry	0,10	0,50	PR16E01CC, PR16D10CC
	RCLT1606M0TN-PH2	eight-edged, negative steel geometry with K-land	0,20	0,80	PR16E01CC, PR16D10CC
	RFMT1404M0N-F	eight-edged, positive geometry with K-land	0,15	0,30	PO05E01, PO05D10
	RHHT0802M0FN-P	min. four-edged, positive, sharp-edged and polished geometry	0,10	0,30	PR08D03/PR10D03N, PR08E01N, PR08E01P
	RHHT0802M0TN	min. four-edged, positive geometry with K-Land	0,10	0,20	PR08D03/PR10D03N, PR08E01N, PR08E01P
	RHHT0802M0TN-P	min. four-edged, titanium geometry, polished	0,10	0,20	PR08D03/PR10D03N, PR08E01N, PR08E01P

Subject to technical changes

## SURVEY OF INDEXABLE INSERTS WITHIN APPLICATION RANGE

	Designation	Insert Version	Feed per tooth		Code
			fz min (hm)	fz max	
	RHHT1003M0FN-P	min. four-edged, positive, sharp-edged and polished geometry for non-ferrous materials	0,15	0,30	PR08D03/PR10D03N, PR10E01N, PR10D10N, PR10E01P, PR10D10P
	RHHT1003M0TN	min. four-edged, positive geometry with K-Land	0,15	0,40	PR08D03/PR10D03N, PR10E01N, PR10D10N, PR10E01P, PR10D10P
	RHHT1003M0TN-P	min. four-edged, titanium geometry, polished	0,10	0,20	PR08D03/PR10D03N, PR10E01N, PR10D10N, PR10E01P, PR10D10P
	RHHT1204M0FN-P	min. four-edged, positive, sharp-edged and polished geometry for non-ferrous materials	0,15	0,30	PR12E01N, PR12D10N, PR12E01P, PR12D10P
	RHHT1204M0TN	min. four-edged, positive geometry with K-Land	0,25	0,50	PR12E01N, PR12D10N, PR12E01P, PR12D10P
	RHHT1204M0TN-P	min. four-edged, titanium geometry, polished	0,10	0,25	PR12E01N, PR12D10N, PR12E01P, PR12D10P
	RHHT1605M0FN-P	min. four-edged, positive, sharp-edged and polished geometry for non-ferrous materials	0,15	0,30	PR16E01N, PR16D10N, PR16E01P, PR16D10P
	RHHT1605M0TN	min. four-edged, positive, geometry with K-Land	0,25	0,50	PR16E01N, PR16D10N, PR16E01P, PR16D10P
	RHHT1605M0TN-P	min. four-edged, positive and polished geometry for titanium	0,10	0,25	PR16E01N, PR16D10N, PR16E01P, PR16D10P
	RHHW0602M0TN	min. four-edged, neutral geometry with K-Land	0,20	0,30	PR06D03N, PR06E01N
	RHHW0802M0TN	min. four-edged, neutral geometry with K-Land	0,20	0,40	PR08D03/PR10D03N, PR08E01N, PR08E01P
	RHHW1003M0TN	min. four-edged, neutral geometry with K-Land	0,25	0,50	PR08D03/PR10D03N, PR10E01N, PR10D10N, PR10E01P, PR10D10P
	RHHW1204M0TN	min. four-edged, neutral geometry with K-Land	0,25	0,45	PR12E01N, PR12D10N, PR12E01P, PR12D10P
	RHHW1605M0TN	min. four-edged, neutral geometry with K-Land	0,30	0,60	PR16E01N, PR16D10N, PR16E01P, PR16D10P

# GENERAL TECHNICAL INFORMATION

## SURVEY OF INDEXABLE INSERTS WITHIN APPLICATION RANGE

	Designation	Insert Version	Feed per tooth		Code
			fz min (hm)	fz max	
	RHKT1605MOTN-PH2	min. four-edged, positive roughing geometry, neg. K-land	0,50	1,50	PR16E01N, PR16D10N, PR16E01P, PR16D10P
	RHKT2006MOTN-PH	min. four-edged, positive geometry with K-Land	0,25	0,50	PR20D10P
	RHKT2006MOTN-PH2	min. four-edged, positive roughing geometry, neg. K-land	0,50	1,50	PR20D10P
	RHKW1003MOTN	min. four-edged, neutral geometry with K-land for roughing	0,25	0,60	PR08D03/PR10D03N, PR10E01N, PR10D10N, PR10E01P, PR10D10P
	RHKW1204MOTN	min. four-edged, neutral geometry with K-land for roughing	0,25	0,60	PR12E01N, PR12D10N, PR12E01P, PR12D10P
	RHKW1605MOTN	min. four-edged, neutral geometry, with K-land for roughing	0,30	0,76	PR16E01N, PR16D10N, PR16E01P, PR16D10P
	RHKW2006MOTN	min. four-edged, neutral geometry, with K-land for roughing	0,40	1,00	PR20D10P
	SCLT050204N	four-edged, cast iron geometry R0,4	0,05	0,12	BSD03B, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27,5, 4D Ø13 - Ø29, 5D Ø13 - Ø27
	SCLT050204N-PH	four-edged, positive geometry with R0,4	0,05	0,12	BSD03B, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27,5, 4D Ø13 - Ø29, 5D Ø13 - Ø27
	SDCT080305FN	four-edged, positive and sharp-edged geometry for non-ferrous materials R0,5	0,05	0,20	ES08D10, DS08D01, DS08D10, FS08D03, FS08E01, TS08D03, TS08M01
	SDCT080305FN-P	four-edged, positive, sharp-edged and polished geometry for non-ferrous materials R0,5	0,05	0,20	SS08D03, SS08M01, IS08D03, IS08D10, IS08M01, ES08D10, DS08D01, DS08D10, FS08D03, FS08E01, TS08D03, TS08M01
	SDE-31-001 - J	four-edged, positive geometry with K-land	0,15	0,20	DTD01, DTD10
	SDE-31-002 - J	four-edged, positive geometry with K-land	0,15	0,20	DTD01, DTD10
	SDE-42-001 - J	four-edged, positive geometry with K-land	0,15	0,20	DTD01, DTD10

Subject to technical changes

## SURVEY OF INDEXABLE INSERTS WITHIN APPLICATION RANGE

Designation	Insert Version	Feed per tooth		Code
		fz min (hm)	fz max	
	four-edged, positive geometry with K-land	0,15	0,20	DTD01, DTD10
	four-edged, positive geometry with K-land	0,15	0,20	DTD01, DTD10
	four-edged, positive geometry with K-land	0,15	0,20	DTD01, DTD10
	four-edged, positive and sharp-edged geometry for non-ferrous materials with R0,8	0,08	0,15	BSE01C 90°, BSE01B 93,2°, BSD03A, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27,5, 3D Ø51 - Ø60, 4D Ø13 - Ø29, 5D Ø13 - Ø27, 2,5D Ø51 - Ø80
	four-edged, positive and sharp-edged geometry for non-ferrous materials with R1,2	0,15	0,26	BSD03A, BSD03B, BSE01A, 2D Ø30 - Ø50, 3D Ø28 - Ø50,5, 4D Ø30 - Ø50, 5D Ø28 - Ø50
	four-edged and positive geometry with R0,5	0,13	0,17	SS08D03, SS08M01, IS08D03, IS08D10, IS08M01, ES08D10, DS08D01, DS08D10, FS08D03, FS08E01, TS08D03, TS08M01
	four-edged and positive geometry with R0,8	0,16	0,25	IS12D10, IS12M01, ES12D10
	four-edged, positive titanium geometry with R0,8	0,11	0,20	IS12D10, IS12M01, ES12D10
	four-edged, neutral geometry for K-land and heavy-duty cuts with R0,5	0,13	0,20	SS08D03, SS08M01, IS08D03, IS08D10, IS08M01, ES08D10, DS08D01, DS08D10, FS08D03, FS08E01, TS08D03, TS08M01
	four-edged rough-finish geometry with R0,5	0,13	0,20	ES08D10
	four-edged, positive and sharp-edged geometry for non-ferrous materials	0,05	0,20	PS09D03, PS09D10
	four-edged, positive, polished and sharp-edged geometry for non-ferrous materials	0,05	0,20	PS09D03, PS09D10
	four-edged geometry for non-ferrous materials	0,05	0,20	DTD01, DTD10
	four-edged geometry for non-ferrous materials	0,05	0,20	DTD01, DTD10

# GENERAL TECHNICAL INFORMATION

## SURVEY OF INDEXABLE INSERTS WITHIN APPLICATION RANGE

Designation	Insert Version	Feed per tooth		Code	
		fz min (hm)	fz max		
	SEE-42-101	four-edged geometry for non-ferrous materials	0,05	0,20	DTD01, DTD10
	SEE-42-102	four-edged geometry for non-ferrous materials	0,05	0,20	DTD01, DTD10
	SEE-42-103	four-edged geometry for non-ferrous materials	0,05	0,20	DTD01, DTD10
	SEE-43-101	four-edged geometry for non-ferrous materials	0,05	0,20	DTD01, DTD10
	SEKT09T3AFN	four-edged, positive geometry	0,13	0,20	PS09D03, PS09D10
	SHET110502FR-P	four-edged, positive, polished and sharp-edged geometry for non-ferrous materials with R0,2	0,05	0,30	SS11E01, ES11D10
	SHET110505FR-P	four-edged, positive, polished and sharp-edged geometry for non-ferrous materials with R0,5	0,05	0,30	SS11E01, ES11D10
	SHET110508FR-P	four-edged, positive, polished and sharp-edged geometry for non-ferrous materials with R0,8	0,05	0,30	SS11E01, ES11D10
	SHET110516FR-P	four-edged, positive, polished and sharp-edged geometry for non-ferrous materials with R1,6	0,05	0,30	SS11E01, ES11D10
	SHET110524FN-P	four-edged, positive, polished and sharp-edged geometry for non-ferrous materials with R2,4	0,05	0,30	SS11E01, ES11D10
	SHET110532FN-P	four-edged, positive, polished and sharp-edged geometry for non-ferrous materials with R3,2	0,05	0,30	SS11E01, ES11D10
	SHET110540FN-P	four-edged, positive, polished and sharp-edged geometry for non-ferrous materials with R4	0,05	0,30	SS11E01, ES11D10
	SHGT050204-HP	four-edged, positive, sharp-edged geometry for non-ferrous materials with R0,4	0,05	0,12	BSD03B, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27,5, 4D Ø13 - Ø29, 5D Ø13 - Ø27
	SHGT060204-HP	four-edged, positive, sharp-edged geometry for non-ferrous materials with R0,4	0,08	0,15	BSE01C 90°, BSE01B 93,2°, BSD03A, BSD03B, BSE01A, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27,5, 4D Ø13 - Ø29, 5D Ø13 - Ø27

Subject to technical changes

## SURVEY OF INDEXABLE INSERTS WITHIN APPLICATION RANGE

	Designation	Insert Version	Feed per tooth		Code
			fz min (hm)	fz max	
	SHGT090408-HP	four-edged, positive, sharp-edged geometry for non-ferrous materials with R0,8	0,10	0,20	BSE01C 90°, BSE01B 93,2°, BSD03A, BSD03B, BSE01A, 2D Ø13 - Ø29, 2D Ø30 - Ø50, 3D Ø28 - Ø50, 5, 3D Ø51 - Ø60, 4D Ø13 - Ø29, 4D Ø30 - Ø50, 5D Ø28 - Ø50, 2,5D Ø51 - Ø80
	SHGT110408-HP	four-edged, positive, sharp-edged geometry for non-ferrous materials with R0,8	0,14	0,23	BSD03B, BSE01A, 2D Ø30 - Ø50, 3D Ø28 - Ø50, 5, 4D Ø30 - Ø50, 5D Ø28 - Ø50, 2,5D Ø51 - Ø80
	SHLT060204N	four-edged, cast iron geometry R0,4	0,08	0,25	BSE01C 90°, BSE01B 93,2°, BSD03A, BSD03B, BSE01A, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27, 5, 4D Ø13 - Ø29, 5D Ø13 - Ø27
	SHLT060204N-PH	four-edged, positive geometry with R0,4	0,06	0,20	BSE01C 90°, BSE01B 93,2°, BSD03A, BSD03B, BSE01A, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27, 5, 4D Ø13 - Ø29, 5D Ø13 - Ø27
	SHLT090308N-HR	four-edged and positive geometry	0,12	0,20	ES09D10, TS09M01
	SHLT090408N	four-edged, cast iron geometry R0,8	0,12	0,25	BSE01C 90°, BSE01B 93,2°, BSD03A, BSD03B, BSE01A, 2D Ø13 - Ø29, 2D Ø30 - Ø50, 3D Ø28 - Ø50, 5, 3D Ø51 - Ø60, 4D Ø13 - Ø29, 4D Ø30 - Ø50, 5D Ø28 - Ø50, 2,5D Ø51 - Ø80
	SHLT090408N-PH1	four-edged, positive geometry with R0,8	0,07	0,22	BSE01C 90°, BSE01B 93,2°, BSD03A, BSD03B, BSE01A, 2D Ø13 - Ø29, 2D Ø30 - Ø50, 3D Ø28 - Ø50, 5, 3D Ø51 - Ø60, 4D Ø13 - Ø29, 4D Ø30 - Ø50, 5D Ø28 - Ø50, 2,5D Ø51 - Ø80
	SHLT110408N	four-edged, cast iron geometry R0,8	0,16	0,28	BSD03B, BSE01A, 2D Ø30 - Ø50, 3D Ø28 - Ø50, 5, 4D Ø30 - Ø50, 5D Ø28 - Ø50, 2,5D Ø51 - Ø80
	SHLT110408N-PH1	four-edged, positive geometry with R0,8	0,08	0,23	BSD03B, BSE01A, 2D Ø30 - Ø50, 3D Ø28 - Ø50, 5, 4D Ø30 - Ø50, 5D Ø28 - Ø50, 2,5D Ø51 - Ø80
	SHLT110408TN-HR	four-edged, positive geometry with R0,8	0,12	0,25	ES11D10
	SHLT140508TN-HR	four-edged, positive geometry with R0,8	0,15	0,30	IS14D10, ES14D10, PS14D10, TS14M01
	SHLT140508TN-HS	four-edged, positive geometry, for non-ferrous materials with R0,8	0,12	0,30	IS14D10, ES14D10, PS14D10
	SHLT1405APTN-HR	four-edged, positive geometry, with wiper	0,15	0,40	PS14D10
	SHLT1405APTN-HR - A	four-edged, positive geometry, with wiper	0,15	0,40	PS14D10

# GENERAL TECHNICAL INFORMATION

## SURVEY OF INDEXABLE INSERTS WITHIN APPLICATION RANGE

Designation	Insert Version	Feed per tooth		Code	
		fz min (hm)	fz max		
	SPLT07T308N	four-edged, cast iron geometry R0,8	0,10	0,25	BSE01C 90°, BSE01B 93,2°, BSD03A, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27,5, 3D Ø51 - Ø60, 4D Ø13 - Ø29, 5D Ø13 - Ø27, 2,5D Ø51 - Ø80
	SPLT07T308N-PH	four-edged, positive geometry with R0,8	0,06	0,20	BSE01C 90°, BSE01B 93,2°, BSD03A, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27,5, 3D Ø51 - Ø60, 4D Ø13 - Ø29, 5D Ø13 - Ø27, 2,5D Ø51 - Ø80
	SPLT120408N-PH	four-edged, positive geometry with R0,8	0,08	0,28	2,5D Ø51 - Ø80
	SPLT140512N	four-edged, cast iron geometry R1,2	0,18	0,30	BSD03A, BSD03B, BSE01A, 2D Ø30 - Ø50, 3D Ø28 - Ø50,5, 4D Ø30 - Ø50, 5D Ø28 - Ø50
	SPLT140512N-PH	four-edged, positive geometry with R1,2	0,06	0,26	BSD03A, BSD03B, BSE01A, 2D Ø30 - Ø50, 3D Ø28 - Ø50,5, 4D Ø30 - Ø50, 5D Ø28 - Ø50
	UHLD08T310R-M	double-edged, positive geometry	0,80	2,00	KU08E01, KU08D10
	UHLD08T310R-MR	double-edged, neutral geometry	1,00	2,50	KU08E01, KU08D10
	UHLD130515R-M	double-edged, positive geometry	1,00	2,50	KU13E01, KU13D10
	UHLD130515R-MM	double-edged, semi positive geometry with R0,4	1,00	2,50	KU13E01, KU13D10
	UHLD130515R-MR	double-edged, neutral geometry	1,00	3,00	KU13E01, KU13D10
	UOMT0602TR	double-edged, high speed geometry	0,30	0,80	SA06D02, SA06D03, SA06M01, SA06E01, EA06D10
	XEET250408R-P	double-edged, positive, sharp-edged and polished geometry for non-ferrous materials with R0,8	0,05	0,35	EX25E01, EX25D10
	XEET250408R-PWRWK	double-edged wiper facette for non-ferrous materials with R0,8	0,05	0,35	EX25E01, EX25D10
	XEET250416R-P	non-ferrous geometry, polished with R1,6	0,05	0,35	EX25E01, EX25D10

Subject to technical changes

## SURVEY OF INDEXABLE INSERTS WITHIN APPLICATION RANGE

	Designation	Insert Version	Feed per tooth		Code
			fz min (hm)	fz max	
	XEET250432R-P	double-edged, positive, sharp-edged and polished geometry for non-ferrous materials with R3,2	0,05	0,35	EX25E01, EX25D10
	XEET250440R-P	non-ferrous geometry, polished with R4,0	0,05	0,35	EX25E01, EX25D10
	XEET250450R-P	non-ferrous geometry, polished with R5,0	0,05	0,35	EX25E01, EX25D10
	XFEB330504R-P	non-ferrous geometry, polished with R0,4	0,05	0,40	EX33D08
	XFEB330508R-P	non-ferrous geometry, polished with R0,8	0,05	0,40	EX33D08
	XFEB330508R-PW	Wiper non-ferrous geometry, polished with R0,8	0,05	0,40	EX33D08
	XFEB330516R-P	non-ferrous geometry, polished with R1,6	0,05	0,40	EX33D08
	XFEB330532R-P	non-ferrous geometry, polished with R3,2	0,05	0,40	EX33D08
	XFEB330540R-P	non-ferrous geometry, polished with R4,0	0,05	0,40	EX33D08
	XFEB330550R-P	non-ferrous geometry, polished with R5,0	0,05	0,40	EX33D08
	XFEB330564R-P	non-ferrous geometry, polished with R6,4	0,05	0,40	EX33D08
	XPET140405FR-P	non-ferrous geometry, polished with R0,5	0,05	0,30	EX14E01, EX14D08A, EX14D08B, EX14D08C, EX14D10
	XPET140408FR-P	non-ferrous geometry, polished with R0,8	0,05	0,30	EX14E01, EX14D08A, EX14D08B, EX14D08C, EX14D10
	XPET140416FR-P	non-ferrous geometry, polished with R1,6	0,05	0,30	EX14E01, EX14D08A, EX14D08B, EX14D08C, EX14D10



# GENERAL TECHNICAL INFORMATION

## SURVEY OF INDEXABLE INSERTS WITHIN APPLICATION RANGE

	Designation	Insert Version	Feed per tooth		Code
			fz min (hm)	fz max	
	XPET140420FR-P	non-ferrous geometry, polished with R2,0	0,05	0,30	EX14E01, EX14D08A, EX14D08B, EX14D08C, EX14D10
	XPET140424FR-P	non-ferrous geometry, polished with R2,4	0,05	0,30	EX14E01, EX14D08A, EX14D08B, EX14D08C, EX14D10
	XPET140430FR-P	non-ferrous geometry, polished with R3,0	0,05	0,30	EX14E01, EX14D08A, EX14D08B, EX14D08C, EX14D10
	XPET140432FR-P	non-ferrous geometry, polished with R3,2	0,05	0,30	EX14E01, EX14D08A, EX14D08B, EX14D08C, EX14D10
	XPET140440FR-P	non-ferrous geometry, polished with R4,0	0,05	0,30	EX14E01, EX14D08A, EX14D08B, EX14D08C, EX14D10
	YDA322L101	double-edged, rhombic, wiper finishing insert	depending on application	depending on application	PYD10

Subject to technical changes



A  
1
P  
2
C  
3
T  
4

1

2

3

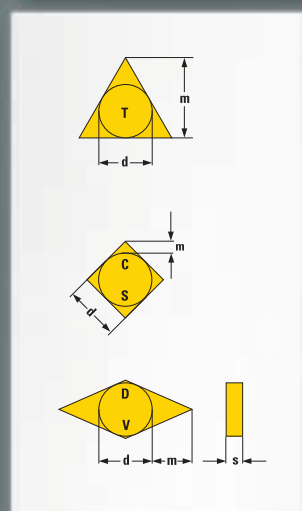
4

**INSERT SHAPE**

**CLEARANCE ANGLE**

o = others

**TOLERANCES**



**Tolerance in mm**

	d	m	s
A	± 0,025	± 0,005	± 0,025
C	± 0,025	± 0,013	± 0,025
E	± 0,025	± 0,025	± 0,025
F	± 0,013	± 0,005	± 0,025
G	± 0,025	± 0,025	± 0,05-0,13
H	± 0,013	± 0,013	± 0,025
J <sup>1</sup>	± 0,05-0,15 <sup>2</sup>	± 0,005	± 0,025
K	± 0,05-0,15 <sup>2</sup>	± 0,013	± 0,025
L <sup>1</sup>	± 0,05-0,15 <sup>2</sup>	± 0,013	± 0,025
M	± 0,05-0,15 <sup>2</sup>	± 0,08-0,20 <sup>2</sup>	± 0,013
N	± 0,05-0,15 <sup>2</sup>	± 0,08-0,20 <sup>2</sup>	± 0,025
U	± 0,05-0,25 <sup>2</sup>	± 0,13-0,38 <sup>2</sup>	± 0,05-0,13

<sup>1</sup> Inserts with ground wipers  
<sup>2</sup> depending on insert size (see ISO-standard 1832)

**INSERT TYPE**

**x**  
Special design (description required)

# GENERAL TECHNICAL INFORMATION

08 5	03 6	04 7	F 8	R 9	P 10
5	6	7	8	9	10
LENGTH OF CUTTING EDGE	INSERT THICKNESS	CORNER RADIUS	CUTTING EDGE CONDITION	CUTTING DIRECTION	INTERNAL DESIGNATIONS
	<p>01 s = 1,59 T1 s = 1,98 02 s = 2,38 T2 s = 2,78 03 s = 3,18 T3 s = 3,97 04 s = 4,76 05 s = 5,56 06 s = 6,35 07 s = 7,94 09 s = 9,52</p>	<p>02 r = 0,2 04 r = 0,4 08 r = 0,8 12 r = 1,2 16 r = 1,6 24 r = 2,4</p> <p>R 00 for dia. with inch measure converted to mm. MO for dia. in metric measure.</p> <p>1 Lead angle <math>\chi_i</math> A = 45° D = 60° E = 75° F = 85° P = 90° Z = for other angles</p> <p>2 Clearance angle on wiper A = 3° B = 5° C = 7° D = 15° E = 20° F = 25° G = 30° N = 0° P = 11° Z = for other angles</p>	<p>E rounded</p> <p>F sharp-edged</p> <p>T with K-land</p> <p>S with K-land &amp; rounded</p>		<p>for example:</p> <p>P = polished</p> <p>W = with wiper finishing edge/facette</p>

Subject to technical changes

## CUTTING MATERIALS - COATINGS

### UNCOATED

IN04S	<b>K10 - K20</b>	Micro grain carbide grade for machining aluminum with a higher silicon content also at higher cutting speed rates as well as for light- and medium duty machining of grey cast iron.
IN05S	<b>M10 - M20</b>	Micro-grain carbide grade, well suitable for machining titanium and super alloys of the ISO material group S. Also applied successfully for non-ferrous metals as well as for light-duty milling in grey cast iron.
IN10K	<b>K10 - K25</b>	Wear resistant carbide grade for roughing and finishing cast iron, aluminum alloys, copper and copper alloys as well as plastics. To be applied with lower tooth load at higher cutting speed rates.
IN15K	<b>K20 - K40</b>	Universal grade for machining grey cast iron materials, aluminum alloys and various non-ferrous materials. Preferably applied for medium-range cutting data.
IN30M	<b>M20 - M40</b> <b>K20 - K50</b>	Very resistant to chipping and break-outs. This grade is applied for machining non-ferrous metals as well as cast iron materials.

### COATED CARBIDES

IN054S	<b>P30 - P50</b>	Special PVD-coated grade for thread milling. Strong cutting edges provide excellent tool life when machining steel, stainless steel and cast iron materials.
IN1030	<b>P20 - P40</b> <b>M20 - M40</b> <b>K15 - K30</b>	Universal grade for all steels. Wet milling of stainless steel at medium cutting speed. Very tough and resistant to chipping.
IN2004	<b>P10 - P20</b> <b>K10 - K25</b>	PVD-coated high-performance multi-range grade with high wear resistance and high toughness for milling alloyed steels as well as cast iron materials - especially CGI. Applied for medium up to higher cutting speeds, for finishing to medium rough milling under mainly stable application conditions.
IN2005	<b>P15 - P30</b> <b>M15 - M35</b> <b>K20 - K40</b>	Coated micro-grain carbide grade with good toughness and excellent wear resistance for machining steels with increased tenacity, stainless steels, titanium as well as grey cast iron and nodular cast iron.
IN2006	<b>P05 - P20</b> <b>M10 - M20</b>	Coated micro-grain carbide grade with good toughness and excellent wear resistance for machining hardened steels up to 62 HRC.
IN2010	<b>K10 - K25</b>	TiAlN-coated grade with good wear resistance for machining grey cast iron materials at medium up to high cutting speeds. This grade is especially suitable when positive cutting geometries are applied under unfavourable cutting conditions.
IN2015	<b>P20 - P35</b> <b>K20 - K40</b> <b>M20 - M40</b>	TiAlN-coated multi-range grade, combining excellent wear resistance with good toughness for machining grey cast iron, nodular cast iron and steels with higher tenacity as well as austenitic steel. Applied at medium cutting speeds and tooth loads.
IN2030	<b>P20 - P40</b> <b>M20 - M40</b> <b>K20 - K40</b>	TiAlN-coated grade, combining good wear resistance with high toughness for machining steel, stainless and austenitic steel, high-temperature alloys as well as grey cast iron materials at medium up to higher cutting speeds.

# GENERAL TECHNICAL INFORMATION

## CUTTING MATERIALS - COATINGS

IN2035	P20-P40	TiAlN-coated grade, combining good wear resistance with high toughness, especially for the machining of super alloys (ISO material group S).
	M20-M40	
	K20-K40	
IN2040	P20-P40	TiAlN-coated grade with excellent wear resistance and a broad application range in machining steel. Especially suitable for dry milling unalloyed steels and tempering steel at medium up to high cutting speeds.
IN2505	P15-P35	TiAlN + TiN-coated submicron carbide grade with good toughness and excellent wear resistance. Suitable for the medium rough milling of steels with higher tensile strength as well as stainless steels.
	M10-M30	
	K10-K30	
IN2540	P10-P40	TiAlN + TiN-coated grade with excellent wear resistance and thermal stability. Suitable for medium rough milling of unalloyed steels as well as heat treated steels.
IN6515	K20-K40	MT-CVD coated carbide grade combining excellent wear resistance with high toughness for machining at medium up to high cutting speeds and medium-size chip cross-sections. Well suitable for machining cast iron materials like grey cast iron and nodular cast iron, also under unfavourable cutting conditions.
IN6520	P10-P35	MT-CVD coated grade, combining good wear resistance with high toughness for drilling steel, stainless and austenitic steel, HSS, high temperature alloys as well as grey cast iron materials at medium up to high cutting speeds. This grade is applied for wear problems on the peripheral insert.
	M10-M35	
	K10-K30	
IN6530	P25-P45	Multilayer MT-CVD coated grade, combining good wear resistance with high toughness for milling steel, stainless and austenitic steel, HSS, high temperature alloys as well as grey cast iron materials at lower to medium cutting speeds. Especially suitable for milling operations on unalloyed steels at medium up to heavy-duty machining.
	M25-M40	
	K20-K50	
INDD15	K20-K40	Multilayer MT-CVD plus PVD-coated carbide, combining excellent wear resistance and toughness for milling at medium up to high cutting speeds. Recommended for milling cast iron materials like grey cast iron and nodular grey cast iron.
<b>CERMET</b>		
IN60C	P10-P30	Cermet grade with high wear resistance at high cutting speed rates. Built-up edge resistance. Semi-finish milling.
IN0560	P05-P15	Coated cermet grade for finish milling steel at high cutting speeds. Recommended for machining stainless and austenitic steels.
	M05-M15	
<b>SiN</b>		
IN70N	K10-K20	Silicon-nitride (ceramic) cutting material for machining grey cast iron materials at extremely high cutting speeds.
<b>PCD</b>		
IN90D	K01-K10	Polycrystalline diamond (PCD) for machining aluminum, plastics and graphite.
	K01-K15	

Subject to technical changes



- **Aperçu des plaquettes et plages d'application 488 - 503**
- **Systeme de désignation ISO-Plaquettes 504 - 505**
  - **Revêtements - Nuances 506 - 507**

**MINNO**



# ANNEXE TECHNIQUE



STOOL

## APERÇU DES PLAQUETTES STANDARDS




	Références	Version plaquettes	Plage d'avance standard		Type d'outils
			fz min (hm)	fz max	
	AOCT060204FR-P	2 arêtes de coupe, positive, polie et arêtes vives pour matériaux non-ferreux, R0,4	0,05	0,12	SA06D02, SA06D03, SA06M01, SA06E01, IA06D03, IA06M01, EA06D10, FA06D02
	AOCT110304FR-P	2 arêtes de coupe, positive, polie et arêtes vives pour matériaux non-ferreux, R0,4	0,05	0,20	SA11D03, SA11M01, SA11E01, IA11D03, IA11D10, IA11M01, EA11D10
	AOCT110308FR-P	4 arêtes de coupe, positive, polie et arêtes vives pour matériaux non-ferreux, R0,8	0,05	0,20	SA11D03, SA11M01, SA11E01, IA11D03, IA11D10, IA11M01, EA11D10
	AOMT060202R	2 arêtes de coupe, positive, R0,2	0,06	0,12	SA06D02, SA06D03, SA06M01, SA06E01, IA06D03, IA06M01, EA06D10, FA06D02
	AOMT060202R-DT1	1 arête de coupe, positive avec insert court PCD, R0,2	0,05	0,12	SA06D02, SA06D03, SA06M01, SA06E01, EA06D10
	AOMT060204R	2 arêtes de coupe, positive, R0,4	0,06	0,12	SA06D02, SA06D03, SA06M01, SA06E01, IA06D03, IA06M01, EA06D10, FA06D02
	AOMT060208R	2 arêtes de coupe, positive, R0,8	0,06	0,12	SA06D02, SA06D03, SA06M01, SA06E01, IA06D03, IA06M01, EA06D10, FA06D02
	AOMT060216R	2 arêtes de coupe, positive, R1,6	0,06	0,12	SA06D02, SA06D03, SA06M01, SA06E01, IA06D03, IA06M01, EA06D10, FA06D02
	AOMT110304R	2 arêtes de coupe, positive, R0,4	0,11	0,15	SA11D03, SA11M01, SA11E01, IA11D03, IA11D10, IA11M01, EA11D10
	AOMT110308R	2 arêtes de coupe, positive, R0,8	0,11	0,15	SA11D03, SA11M01, SA11E01, IA11D03, IA11D10, IA11M01, EA11D10
	AOMT110316R	2 arêtes de coupe, positive, R1,6	0,11	0,15	SA11D03, SA11M01, SA11E01, IA11D03, IA11D10, IA11M01, EA11D10
	AOMT110332R	2 arêtes de coupe, positive, R3,2	0,11	0,15	SA11D03, SA11M01, SA11E01, IA11D03, IA11D10, IA11M01, EA11D10
	AOMT160508R	2 arêtes de coupe, positive, R0,8	0,16	0,30	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10
	AOMT160508R-HS	2 arêtes de coupe, positive géométrie pour titane, R0,8	0,10	0,25	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10



## APERÇU DES PLAQUETTES STANDARDS

	Références	Version plaquettes	Plage d'avance standard		Type d'outils
			fz min (hm)	fz max	
	AOMT160516R	2 arêtes de coupe, positive, R1,6	0,16	0,30	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10
	AOMT160524R	2 arêtes de coupe, positive, R2,4	0,16	0,30	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10
	AOMT160532R	2 arêtes de coupe, positive, R3,2	0,16	0,30	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10
	AOMT160540R	2 arêtes de coupe, positive, R4,0	0,16	0,30	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10
	AOMT160550R	2 arêtes de coupe, positive, R5,0	0,16	0,30	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10
	AOMT160564R	2 arêtes de coupe, positive, R6,4	0,16	0,30	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10
	APKT080304R-DT1	1 arête de coupe, positive avec insert court PCD, R0,4	0,05	0,20	EA08D10A
	APKT080304R-DT2	1 arête de coupe, positive, avec insert long PCD, R0,4	0,05	0,20	EA08D10A
	BEEW120310R-CR	2 arêtes de coupe, neutre R1,0	0,08	0,20	F___D03, F___E01
	BEEW120316R-CR	2 arêtes de coupe, neutre R1,6	0,08	0,20	F___D03, F___E01
	BEEW120320R-CR	2 arêtes de coupe, neutre R2,0	0,08	0,20	F___D03, F___E01
	BEEW120325R-CR	2 arêtes de coupe, neutre R2,5	0,08	0,20	F___D03, F___E01
	BEEW120330R-CR	2 arêtes de coupe, neutre R3,0	0,08	0,20	F___D03, F___E01
	BEHW250304R	2 arêtes de coupe, neutre R0,4	0,08	0,20	FB25D10

## APERÇU DES PLAQUETTES STANDARDS

	Références	Version plaquettes	Plage d'avance standard		Type d'outils
			fz min (hm)	fz max	
	BEHW250304R-P	Géométrie pour matériaux non-ferreux, polie R0,4	0,05	0,20	FB25D10
	BEHW250308R	2 arêtes de coupe, neutre R0,8	0,08	0,20	FB25D10
	BEHW250308R-P	Géométrie pour matériaux non-ferreux, polie R0,8	0,05	0,20	FB25D10
	BEHW250316R	2 arêtes de coupe, neutre R1,6	0,08	0,20	FB25D10
	BEHW250316R-P	Géométrie pour matériaux non-ferreux, polie R1,6	0,05	0,20	FB25D10
	BOCT090304FR-P	2 arêtes de coupe, positive, polie et arêtes vives pour matériaux non-ferreux, R0,4	0,05	0,20	SB09D03, SB09M01, SB09E01, IB09D03, IB09M01, EB09D10
	BOCT090308FR-P	2 arêtes de coupe, positive, polie et arêtes vives pour matériaux non-ferreux, R0,8	0,05	0,20	SB09D03, SB09M01, SB09E01, IB09D03, IB09M01, EB09D10
	BOCT130404FR-P	2 arêtes de coupe, positive, polie et arêtes vives pour matériaux non-ferreux, R0,4	0,05	0,25	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B, FB13D03B, FB13D10B
	BOCT130408FR-P	2 arêtes de coupe, positive, polie et arêtes vives pour matériaux non-ferreux, R0,8	0,05	0,25	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B
	BOMT09T304R	Géométrie positive R 0,4	0,10	0,15	SB09D03, SB09M01, SB09E01, IB09D03, IB09M01, EB09D10
	BOMT09T308R	Géométrie positive R 0,8	0,10	0,15	SB09D03, SB09M01, SB09E01, IB09D03, IB09M01, EB09D10
	BOMT09T316R	Géométrie positive R 1,6	0,10	0,15	SB09D03, SB09M01, SB09E01, IB09D03, IB09M01, EB09D10
	BOMT130404R	Géométrie positive R 0,4	0,12	0,20	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B, FB13D03B, FB13D10B
	BOMT130408R	Géométrie positive R 0,8	0,12	0,20	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B

## APERÇU DES PLAQUETTES STANDARDS

	Références	Version plaquettes	Plage d'avance standard		Type d'outils
			fz min (hm)	fz max	
	BOMT130416R	Géométrie positive R 1,6	0,12	0,20	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B
	BOMT130420R	Géométrie positive R 2,0	0,12	0,20	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B
	BOMT130424R	Géométrie positive R 2,4	0,12	0,20	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B
	BOMT130431R	Géométrie positive R 3,1	0,12	0,20	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B
	BOMT130440R	Géométrie positive R 4,0	0,12	0,20	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B
	CDE313L021	2 arêtes de coupe, positive, rombi-que, R0,8	0,10	0,25	BCE01A
	CDE313L021 - J	2 arêtes de coupe, positive, rombi-que, R0,8	0,10	0,25	BCE01A
	CDE313L021T00	2 arêtes de coupe, positive, avec chanfrein d'arête, R0,8	0,10	0,20	BCE01A
	CDE322L005	2 arêtes de coupe, positive, rombi-que, R0,8	0,10	0,25	BCD10A
	CDE322L005 - J	2 arêtes de coupe, positive, rombi-que, R0,8	0,10	0,25	BCD10A
	CDE322L005T00	2 arêtes de coupe, positive, avec chanfrein d'arête, R0,8	0,10	0,20	BCD10A
	CNHU060310N	4 arêtes de coupe, positive, R1,0	0,10	0,30	KC06E01
	CNHU060315N	4 arêtes de coupe, positive, R1,5	0,10	0,30	KC06E01
	CNHU110420N	4 arêtes de coupe, positive, R2,0	0,10	0,40	KC11E01, KC11D10

Sous réserve de modifications technique





## APERÇU DES PLAQUETTES STANDARDS

	Références	Version plaquettes	Plage d'avance standard		Type d'outils
			fz min (hm)	fz max	
	DND324L103 - J	2 arêtes de coupe, neutre, avec chanfrein d'arête pour treilage R1,6	0,10	0,30	BDD10A
	DND324L104T34 - J	2 arêtes de coupe, neutre, avec chanfrein d'arête pour treilage R1,6	0,10	0,30	BDD10A
	DPD324L123 - A	2 arêtes de coupe, positive, avec chanfrein d'arête pour treilage, R1,6	0,10	0,25	BDD10A
	DPD324L124 - A	2 arêtes de coupe, positive, avec chanfrein d'arête pour treilage, R1,6	0,10	0,25	BDD10A
	FEEW250340R-CR	2 arêtes de coupe, neutre R4,0	0,08	0,20	F___D03, F___E01
	FEEW250350R-CR	2 arêtes de coupe, neutre R5,0	0,08	0,20	F___D03, F___E01
	FEEW250360R-CR	2 arêtes de coupe, neutre R6,0	0,08	0,20	F___D03, F___E01
	GCXF071601N	1 arête de coupe, positive, R0,15	0,08	0,15	DFD01
	GCXF082202N	1 arête de coupe, positive, R0,2	0,08	0,15	DFD01
	GCXF092402N	1 arête de coupe, positive, R0,2	0,08	0,15	DFD01A
	GCXF113102N	1 arête de coupe, positive, R0,2	0,08	0,15	DFD01A
	GCXF114103N	1 arête de coupe, positive, R0,25	0,08	0,15	DFD01A
	NCET0802MOR	1 arête de coupe, positive, R4	0,08	0,15	KWD03, KWD02, KWE01
	NCET1002MOR	1 arête de coupe, positive, R5	0,08	0,15	KWD03, KWD02, KWE01

## APERÇU DES PLAQUETTES STANDARDS

	Références	Version plaquettes	Plage d'avance standard		Type d'outils
			fz min (hm)	fz max	
	NCEX1203MOR	1 arête de coupe, positive, R6	0,10	0,20	KWD03, KWD02, KWE01
	NCEX1605MOR	1 arête de coupe, positive, R8	0,10	0,20	KWD03, KWD02, KWE01
	NCEX2005MOR	1 arête de coupe, positive, R10	0,10	0,25	KWD03, KWD02, KWE01
	NCEX2506MOR	1 arête de coupe, positive, R12,5	0,10	0,25	KWD03, KWD02, KWE01
	NPHG1003MOR	1 arête de coupe, neutrale, R5	0,10	0,20	KND02A, KND02C, KND02B, KNE01
	NPHG1204MOR	1 arête de coupe, neutrale, R6	0,10	0,20	KND02A, KND02C, KND02B, KNE01
	NPHG1604MOR	1 arête de coupe, neutrale, R8	0,10	0,25	KND02A, KND02C, KND02B, KNE01
	NPHG2004MOR	1 arête de coupe, neutrale, R10	0,10	0,25	KND02A, KND02C, KND02B, KNE01
	NPHG2506MOR	1 arête de coupe, neutrale, R12,5	0,10	0,30	KND02A, KND02C, KND02B, KNE01
	NPHG3007MOR	1 arête de coupe, neutrale, R15	0,10	0,30	KND02A, KND02C, KNE01
	NPHG3207MOR	1 arête de coupe, neutrale, R16	0,10	0,30	KND02A, KNE01
	OFCT05T3AFFN-P	8 arêtes de coupe, positive, polie et arêtes vives pour matériaux non-ferreux	0,05	0,30	PO05E01, PO05D10
	OFCT05T3TN	8 arêtes de coupe, positive, avec arêtes renforcées	0,12	0,30	PO05E01, PO05D10
	OFCT0705AFFN-P	8 arêtes de coupe, positive, polie et arêtes vives pour matériaux non-ferreux	0,05	0,30	PO07D10

## APERÇU DES PLAQUETTES STANDARDS

	Références	Version plaquettes	Plage d'avance standard		Type d'outils
			fz min (hm)	fz max	
	OFCT0705AFFR-W	4 arêtes de coupe, avec arête de planage	0,15	0,30	P007D10
	OFMT05T3AFN-HR	8 arêtes de coupe, positive	0,12	0,25	P005E01, P005D10
	OFMT0705AFR-HR	8 arêtes de coupe, positive	0,15	0,30	P007D10
	OFMT0705AFTN	8 arêtes de coupe, positive, avec arêtes renforcées	0,15	0,30	P007D10
	OFMW05T3AFTN	8 arêtes de coupe, neutre, avec arêtes renforcées pour applications difficiles	0,20	0,40	P005E01, P005D10
	OFMW0705AFTN	8 arêtes de coupe, neutre, avec arêtes renforcées pour applications difficiles	0,25	0,50	P007D10
	PNCQ0804GNTN	10 arêtes de coupe, neutre chanfrein d'arête pour applications difficiles	0,21	0,40	PP08D10
	PNCQ0804ZNTN	neutre, K-land	0,50	2,50	KP08E01, KP08D10
	PNCT0804ZNN-HR	5 arêtes de coupe, positive	0,22	1,50	KP08E01, KP08D10
	PNCU0805GNFR-HS	10 arêtes de coupe, maxi positive	0,08	0,30	PP08D10
	PNCU0805GNFR-P	10 arêtes de coupe, positive, polie et arêtes vives pour matériaux non-ferreux	0,05	0,40	PP08D10
	PNCU0805GNR	10 arêtes de coupe, positive, SiN	0,10	0,18	PP08D10
	PNCU0805GNTR	10 arêtes de coupe, positive	0,22	0,40	PP08D10
	PNCU0805GNTR-W	Plaquette racleuse	0,22	0,40	PP08D10

## APERÇU DES PLAQUETTES STANDARDS

	Références	Version plaquettes	Plage d'avance standard		Type d'outils
			fz min (hm)	fz max	
	PNCU1708GNTR	10 arêtes de coupe, positive	0,30	0,50	PP17D10
	RCLT1204M0N-CC1	4 arêtes de coupe, positive, géométrie acier R1,2	0,10	0,25	PR12E01CC, PR12D10CC
	RCLT1204M0N-CC2	4 arêtes de coupe, positive, R1,1 chanfrein d'arête négatif	0,15	0,30	PR12E01CC, PR12D10CC
	RCLT1204M0N-CP	4 arêtes de coupe, positive, géométrie alu	0,10	0,25	PR12E01CC, PR12D10CC
	RCLT1204M0TN-PH2	8 arêtes de coupe, chanfrein d'arête	0,20	0,70	PR12E01CC, PR12D10CC
	RCLT1606M0N-CC	4 arêtes de coupe, positive, géométrie acier, R1,2	0,10	0,25	PR16E01CC, PR16D10CC
	RCLT1606M0N-CC1	4 arêtes de coupe, positive, géométrie acier R1,6	0,10	0,30	PR16E01CC, PR16D10CC
	RCLT1606M0N-CP	4 arêtes de coupe, positive, géométrie aluminium	0,10	0,25	PR16E01CC, PR16D10CC
	RCLT1606M0TN-PH	> à 4 arêtes de coupe, positive, géométrie acier	0,10	0,50	PR16E01CC, PR16D10CC
	RCLT1606M0TN-PH2	8 arêtes de coupe, positive, géométrie acier par K-land	0,20	0,80	PR16E01CC, PR16D10CC
	RFMT1404M0N-F	8 arêtes de coupe, positive, géométrie par K-land	0,15	0,30	PO05E01, PO05D10
	RHHT0802M0FN-P	> à 4 arêtes de coupe, positive, polie et arêtes vives pour matériaux non-ferreux	0,10	0,30	PR08D03/PR10D03N, PR08E01N, PR08E01P
	RHHT0802M0TN	> à 4 arêtes de coupe, positive, avec chanfrein d'arête	0,10	0,20	PR08D03/PR10D03N, PR08E01N, PR08E01P
	RHHT0802M0TN-P	> à 4 arêtes de coupe, géométrie Titane, polie	0,10	0,20	PR08D03/PR10D03N, PR08E01N, PR08E01P

Sous réserve de modifications technique

## APERÇU DES PLAQUETTES STANDARDS

	Références	Version plaquettes	Plage d'avance standard		Type d'outils
			fz min (hm)	fz max	
	RHHT1003M0FN-P	> à 4 arêtes de coupe, positive, polie et arêtes vives pour matériaux non-ferreux	0,15	0,30	PR08D03/PR10D03N, PR10E01N, PR10D10N, PR10E01P, PR10D10P
	RHHT1003M0TN	> à 4 arêtes de coupe, positive, avec chanfrein d'arête	0,15	0,40	PR08D03/PR10D03N, PR10E01N, PR10D10N, PR10E01P, PR10D10P
	RHHT1003M0TN-P	> à 4 arêtes de coupe, géométrie Titane, polie	0,10	0,20	PR08D03/PR10D03N, PR10E01N, PR10D10N, PR10E01P, PR10D10P
	RHHT1204M0FN-P	> à 4 arêtes de coupe, positive, polie et arêtes vives pour matériaux non-ferreux	0,15	0,30	PR12E01N, PR12D10N, PR12E01P, PR12D10P
	RHHT1204M0TN	> à 4 arêtes de coupe, positive, avec chanfrein d'arête	0,25	0,50	PR12E01N, PR12D10N, PR12E01P, PR12D10P
	RHHT1204M0TN-P	> à 4 arêtes de coupe, géométrie Titane, polie	0,10	0,25	PR12E01N, PR12D10N, PR12E01P, PR12D10P
	RHHT1605M0FN-P	> à 4 arêtes de coupe, positive, polie et arêtes vives pour matériaux non-ferreux	0,15	0,30	PR16E01N, PR16D10N, PR16E01P, PR16D10P
	RHHT1605M0TN	> à 4 arêtes de coupe, positive, avec chanfrein d'arête	0,25	0,50	PR16E01N, PR16D10N, PR16E01P, PR16D10P
	RHHT1605M0TN-P	> à 4 arêtes de coupe, positive, géométrie Titane, polie	0,10	0,25	PR16E01N, PR16D10N, PR16E01P, PR16D10P
	RHHW0602M0TN	> à 4 arêtes de coupe, neutre, avec chanfrein d'arête	0,20	0,30	PR06D03N, PR06E01N
	RHHW0802M0TN	> à 4 arêtes de coupe, neutre, avec chanfrein d'arête	0,20	0,40	PR08D03/PR10D03N, PR08E01N, PR08E01P
	RHHW1003M0TN	> à 4 arêtes de coupe, neutre, avec chanfrein d'arête	0,25	0,50	PR08D03/PR10D03N, PR10E01N, PR10D10N, PR10E01P, PR10D10P
	RHHW1204M0TN	> à 4 arêtes de coupe, neutre, avec chanfrein d'arête	0,25	0,45	PR12E01N, PR12D10N, PR12E01P, PR12D10P
	RHHW1605M0TN	> à 4 arêtes de coupe, neutre, avec chanfrein d'arête	0,30	0,60	PR16E01N, PR16D10N, PR16E01P, PR16D10P



## APERÇU DES PLAQUETTES STANDARDS

	Références	Version plaquettes	Plage d'avance standard		Type d'outils
			fz min (hm)	fz max	
	RHKT1605MOTN-PH2	Géo. positive ébauche, chan. d'arête nég.	0,50	1,50	PR16E01N, PR16D10N, PR16E01P, PR16D10P
	RHKT2006MOTN-PH	> à 4 arêtes de coupe, positive, avec chanfrein d'arête	0,25	0,50	PR20D10P
	RHKT2006MOTN-PH2	> à 4 arêtes de coupe, positive, avec chanfrein d'arête nég.	0,50	1,50	PR20D10P
	RHKW1003MOTN	> à 4 arêtes de coupe, neutre, avec chanfrein d'arête pour l'ébauche	0,25	0,60	PR08D03/PR10D03N, PR10E01N, PR10D10N, PR10E01P, PR10D10P
	RHKW1204MOTN	> à 4 arêtes de coupe, neutre, avec chanfrein d'arête pour l'ébauche	0,25	0,60	PR12E01N, PR12D10N, PR12E01P, PR12D10P
	RHKW1605MOTN	> à 4 arêtes de coupe, neutre, avec chanfrein d'arête pour l'ébauche	0,30	0,76	PR16E01N, PR16D10N, PR16E01P, PR16D10P
	RHKW2006MOTN	> à 4 arêtes de coupe, neutre, avec chanfrein d'arête pour l'ébauche	0,40	1,00	PR20D10P
	SCLT050204N	Géométrie fonte R 0,4	0,05	0,12	BSD03B, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27,5, 4D Ø13 - Ø29, 5D Ø13 - Ø27
	SCLT050204N-PH	4 arêtes de coupe, positive, R0,4	0,05	0,12	BSD03B, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27,5, 4D Ø13 - Ø29, 5D Ø13 - Ø27
	SDCT080305FN	4 arêtes de coupe, positive, arêtes vives pour matériaux non-ferreux, R0,5	0,05	0,20	ES08D10, DS08D01, DS08D10, FS08D03, FS08E01, TS08D03, TS08M01
	SDCT080305FN-P	4 arêtes de coupe, positive, polie et arêtes vives pour matériaux non-ferreux, R0,5	0,05	0,20	SS08D03, SS08M01, IS08D03, IS08D10, IS08M01, ES08D10, DS08D01, DS08D10, FS08D03, FS08E01, TS08D03, TS08M01
	SDE-31-001 - J	4 arêtes de coupe, positive, avec chanfrein d'arête	0,15	0,20	DTD01, DTD10
	SDE-31-002 - J	4 arêtes de coupe, positive, avec chanfrein d'arête	0,15	0,20	DTD01, DTD10
	SDE-42-001 - J	4 arêtes de coupe, positive, avec chanfrein d'arête	0,15	0,20	DTD01, DTD10

Sous réserve de modifications technique

## APERÇU DES PLAQUETTES STANDARDS

	Références	Version plaquettes	Plage d'avance standard		Type d'outils
			fz min (hm)	fz max	
	SDE-42-002 - J	4 arêtes de coupe, positive, avec chanfrein d'arête	0,15	0,20	DTD01, DTD10
	SDE-42-003 - J	4 arêtes de coupe, positive, avec chanfrein d'arête	0,15	0,20	DTD01, DTD10
	SDE-43-001 - J	4 arêtes de coupe, positive, avec chanfrein d'arête	0,15	0,20	DTD01, DTD10
	SDGT07T308-HP	4 arêtes de coupe, positive, arêtes vives pour matériaux non-ferreux, R0,8	0,08	0,15	BSE01C 90°, BSE01B 93,2°, BSD03A, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27,5, 3D Ø51 - Ø60, 4D Ø13 - Ø29, 5D Ø13 - Ø27, 2,5D Ø51 - Ø80
	SDGT140512-HP	4 arêtes de coupe, positive, arêtes vives pour matériaux non-ferreux, R1,2	0,15	0,26	BSD03A, BSD03B, BSE01A, 2D Ø30 - Ø50, 3D Ø28 - Ø50,5, 4D Ø30 - Ø50, 5D Ø28 - Ø50
	SDMT080305N	4 arêtes de coupe, positive, R0,5	0,13	0,17	SS08D03, SS08M01, IS08D03, IS08D10, IS08M01, ES08D10, DS08D01, DS08D10, FS08D03, FS08E01, TS08D03, TS08M01
	SDMT120608R	4 arêtes de coupe, positive, R0,8	0,16	0,25	IS12D10, IS12M01, ES12D10
	SDMT120608R-HS	4 arêtes de coupe, positive géométrie pour titane, R0,8	0,11	0,20	IS12D10, IS12M01, ES12D10
	SDMW080305TN	4 arêtes de coupe, neutre, avec arêtes renforcées pour applications difficiles, R0,5	0,13	0,20	SS08D03, SS08M01, IS08D03, IS08D10, IS08M01, ES08D10, DS08D01, DS08D10, FS08D03, FS08E01, TS08D03, TS08M01
	SDMW080305TN-W	4 arêtes de coupe, géométrie ébauche et finition, R0,5	0,13	0,20	ES08D10
	SECT09T3AFFN	4 arêtes de coupe, positive, arêtes vives pour matériaux non-ferreux	0,05	0,20	PS09D03, PS09D10
	SECT09T3AFFN-P	4 arêtes de coupe, positive, polie et arêtes vives pour matériaux non-ferreux	0,05	0,20	PS09D03, PS09D10
	SEE-31-101	4 arêtes de coupe, géométrie matériaux non-ferreux	0,05	0,20	DTD01, DTD10
	SEE-31-102	4 arêtes de coupe, géométrie matériaux non-ferreux	0,05	0,20	DTD01, DTD10

## APERÇU DES PLAQUETTES STANDARDS

	Références	Version plaquettes	Plage d'avance standard		Type d'outils
			fz min (hm)	fz max	
	SEE-42-101	4 arêtes de coupe, géométrie matériaux non-ferreux	0,05	0,20	DTD01, DTD10
	SEE-42-102	4 arêtes de coupe, géométrie matériaux non-ferreux	0,05	0,20	DTD01, DTD10
	SEE-42-103	4 arêtes de coupe, géométrie matériaux non-ferreux	0,05	0,20	DTD01, DTD10
	SEE-43-101	4 arêtes de coupe, géométrie matériaux non-ferreux	0,05	0,20	DTD01, DTD10
	SEKT09T3AFN	4 arêtes de coupe, positive	0,13	0,20	PS09D03, PS09D10
	SHET110502FR-P	4 arêtes de coupe, positive, polie et arêtes vives pour matériaux non-ferreux, R0,2	0,05	0,30	SS11E01, ES11D10
	SHET110505FR-P	4 arêtes de coupe, positive, polie et arêtes vives pour matériaux non-ferreux, R0,5	0,05	0,30	SS11E01, ES11D10
	SHET110508FR-P	4 arêtes de coupe, positive, polie et arêtes vives pour matériaux non-ferreux, R0,8	0,05	0,30	SS11E01, ES11D10
	SHET110516FR-P	4 arêtes de coupe, positive, polie et arêtes vives pour matériaux non-ferreux, R1,6	0,05	0,30	SS11E01, ES11D10
	SHET110524FN-P	4 arêtes de coupe, positive, polie et arêtes vives pour matériaux non-ferreux, R2,4	0,05	0,30	SS11E01, ES11D10
	SHET110532FN-P	4 arêtes de coupe, positive, polie et arêtes vives pour matériaux non-ferreux, R3,2	0,05	0,30	SS11E01, ES11D10
	SHET110540FN-P	4 arêtes de coupe, positive, polie et arêtes vives pour matériaux non-ferreux, R4,0	0,05	0,30	SS11E01, ES11D10
	SHGT050204-HP	4 arêtes de coupe, positive, arêtes vives pour matériaux non-ferreux, R0,4	0,05	0,12	BSD03B, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27,5, 4D Ø13 - Ø29, 5D Ø13 - Ø27
	SHGT060204-HP	4 arêtes de coupe, positive, arêtes vives pour matériaux non-ferreux, R0,4	0,08	0,15	BSE01C 90°, BSE01B 93,2°, BSD03A, BSD03B, BSE01A, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27,5, 4D Ø13 - Ø29, 5D Ø13 - Ø27

Sous réserve de modifications technique

## APERÇU DES PLAQUETTES STANDARDS

	Références	Version plaquettes	Plage d'avance standard		Type d'outils
			fz min (hm)	fz max	
	SHGT090408-HP	4 arêtes de coupe, positive, arêtes vives pour matériaux non-ferreux, R0,8	0,10	0,20	BSE01C 90°, BSE01B 93,2°, BSD03A, BSD03B, BSE01A, 2D Ø13 - Ø29, 2D Ø30 - Ø50, 3D Ø28 - Ø50, 5, 3D Ø51 - Ø60, 4D Ø13 - Ø29, 4D Ø30 - Ø50, 5D Ø28 - Ø50, 2,5D Ø51 - Ø80
	SHGT110408-HP	4 arêtes de coupe, positive, arêtes vives pour matériaux non-ferreux, R0,8	0,14	0,23	BSD03B, BSE01A, 2D Ø30 - Ø50, 3D Ø28 - Ø50, 5, 4D Ø30 - Ø50, 5D Ø28 - Ø50, 2,5D Ø51 - Ø80
	SHLT060204N	Géométrie fonte R 0,4	0,08	0,25	BSE01C 90°, BSE01B 93,2°, BSD03A, BSD03B, BSE01A, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27, 5, 4D Ø13 - Ø29, 5D Ø13 - Ø27
	SHLT060204N-PH	4 arêtes de coupe, positive, R0,4	0,06	0,20	BSE01C 90°, BSE01B 93,2°, BSD03A, BSD03B, BSE01A, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27, 5, 4D Ø13 - Ø29, 5D Ø13 - Ø27
	SHLT090308N-HR	4 arêtes de coupe, positive	0,12	0,20	ES09D10, TS09M01
	SHLT090408N	Géométrie fonte R 0,8	0,12	0,25	BSE01C 90°, BSE01B 93,2°, BSD03A, BSD03B, BSE01A, 2D Ø13 - Ø29, 2D Ø30 - Ø50, 3D Ø28 - Ø50, 5, 3D Ø51 - Ø60, 4D Ø13 - Ø29, 4D Ø30 - Ø50, 5D Ø28 - Ø50, 2,5D Ø51 - Ø80
	SHLT090408N-PH1	4 arêtes de coupe, positive, R0,8	0,07	0,22	BSE01C 90°, BSE01B 93,2°, BSD03A, BSD03B, BSE01A, 2D Ø13 - Ø29, 2D Ø30 - Ø50, 3D Ø28 - Ø50, 5, 3D Ø51 - Ø60, 4D Ø13 - Ø29, 4D Ø30 - Ø50, 5D Ø28 - Ø50, 2,5D Ø51 - Ø80
	SHLT110408N	Géométrie fonte R 0,8	0,16	0,28	BSD03B, BSE01A, 2D Ø30 - Ø50, 3D Ø28 - Ø50, 5, 4D Ø30 - Ø50, 5D Ø28 - Ø50, 2,5D Ø51 - Ø80
	SHLT110408N-PH1	4 arêtes de coupe, positive, R0,8	0,08	0,23	BSD03B, BSE01A, 2D Ø30 - Ø50, 3D Ø28 - Ø50, 5, 4D Ø30 - Ø50, 5D Ø28 - Ø50, 2,5D Ø51 - Ø80
	SHLT110408TN-HR	4 arêtes de coupe, positive, R0,8	0,12	0,25	ES11D10
	SHLT140508TN-HR	4 arêtes de coupe, positive R0,8	0,15	0,30	IS14D10, ES14D10, PS14D10, TS14M01
	SHLT140508TN-HS	4 arêtes de coupe, positive, géométrie matériaux non-ferreux, R0,8	0,12	0,30	IS14D10, ES14D10, PS14D10
	SHLT1405APTN-HR	4 arêtes de coupe, positive, avec arête de planage	0,15	0,40	PS14D10
	SHLT1405APTN-HR - A	4 arêtes de coupe, positive, avec arête de planage	0,15	0,40	PS14D10

## APERÇU DES PLAQUETTES STANDARDS

	Références	Version plaquettes	Plage d'avance standard		Type d'outils
			fz min (hm)	fz max	
	SPLT07T308N	Géométrie fonte R 0,8	0,10	0,25	BSE01C 90°, BSE01B 93,2°, BSD03A, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27,5, 3D Ø51 - Ø60, 4D Ø13 - Ø29, 5D Ø13 - Ø27, 2,5D Ø51 - Ø80
	SPLT07T308N-PH	4 arêtes de coupe, positive, R0,8	0,06	0,20	BSE01C 90°, BSE01B 93,2°, BSD03A, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27,5, 3D Ø51 - Ø60, 4D Ø13 - Ø29, 5D Ø13 - Ø27, 2,5D Ø51 - Ø80
	SPLT120408N-PH	4 arêtes de coupe, positive, R0,8	0,08	0,28	2,5D Ø51 - Ø80
	SPLT140512N	Géométrie fonte R 1,2	0,18	0,30	BSD03A, BSD03B, BSE01A, 2D Ø30 - Ø50, 3D Ø28 - Ø50,5, 4D Ø30 - Ø50, 5D Ø28 - Ø50
	SPLT140512N-PH	4 arêtes de coupe, positive, R1,2	0,06	0,26	BSD03A, BSD03B, BSE01A, 2D Ø30 - Ø50, 3D Ø28 - Ø50,5, 4D Ø30 - Ø50, 5D Ø28 - Ø50
	UHLD08T310R-M	2 arêtes de coupe, positive	0,80	2,00	KU08E01, KU08D10
	UHLD08T310R-MR	2 arêtes de coupe, neutre	1,00	2,50	KU08E01, KU08D10
	UHLD130515R-M	2 arêtes de coupe, positive	1,00	2,50	KU13E01, KU13D10
	UHLD130515R-MM	Géo. semi positive	1,00	2,50	KU13E01, KU13D10
	UHLD130515R-MR	2 arêtes de coupe, neutre	1,00	3,00	KU13E01, KU13D10
	UOMT0602TR	Géométrie haute avance	0,30	0,80	SA06D02, SA06D03, SA06M01, SA06E01, EA06D10
	XEET250408R-P	2 arêtes de coupe, positive, polie et arêtes vives pour matériaux non-ferreux, R0,8	0,05	0,35	EX25E01, EX25D10
	XEET250408R-PWRWK	2 arêtes de coupe, avec arête de planage, R0,8	0,05	0,35	EX25E01, EX25D10
	XEET250416R-P	Géo. pour mat. non fer., polie R 1,6	0,05	0,35	EX25E01, EX25D10

Sous réserve de modifications technique

## APERÇU DES PLAQUETTES STANDARDS

	Références	Version plaquettes	Plage d'avance standard		Type d'outils
			fz min (hm)	fz max	
	XEET250432R-P	2 arêtes de coupe, positive, polie et arêtes vives pour matériaux non-ferreux, R3,2	0,05	0,35	EX25E01, EX25D10
	XEET250440R-P	Géo. pour mat. non fer., polie R 4,0	0,05	0,35	EX25E01, EX25D10
	XEET250450R-P	Géo. pour mat. non fer., polie R 5,0	0,05	0,35	EX25E01, EX25D10
	XFEB330504R-P	2 arêtes de coupe, pour mat. non fer, polie R0,4	0,05	0,40	EX33D08
	XFEB330508R-P	2 arêtes de coupe, pour mat. non fer, polie R0,8	0,05	0,40	EX33D08
	XFEB330508R-PW	2 arêtes de coupe, plaquette repleuse non fer., R0,8	0,05	0,40	EX33D08
	XFEB330516R-P	2 arêtes de coupe, pour mat. non fer, polie R1,6	0,05	0,40	EX33D08
	XFEB330532R-P	2 arêtes de coupe, pour mat. non fer, polie R3,2	0,05	0,40	EX33D08
	XFEB330540R-P	2 arêtes de coupe, pour mat. non fer, polie R4,0	0,05	0,40	EX33D08
	XFEB330550R-P	2 arêtes de coupe, pour mat. non fer, polie R5,0	0,05	0,40	EX33D08
	XFEB330564R-P	2 arêtes de coupe, pour mat. non fer, polie R6,4	0,05	0,40	EX33D08
	XPET140405FR-P	Géo. pour mat. non fer., polie R 0,5	0,05	0,30	EX14E01, EX14D08A, EX14D08B, EX14D08C, EX14D10
	XPET140408FR-P	Géo. pour mat. non fer., polie R 0,8	0,05	0,30	EX14E01, EX14D08A, EX14D08B, EX14D08C, EX14D10
	XPET140416FR-P	Géo. pour mat. non fer., polie R 1,6	0,05	0,30	EX14E01, EX14D08A, EX14D08B, EX14D08C, EX14D10

## APERÇU DES PLAQUETTES STANDARDS

	Références	Version plaquettes	Plage d'avance standard		Type d'outils
			fz min (hm)	fz max	
	XPET140420FR-P	Géo. pour mat. non fer., polie R 2,0	0,05	0,30	EX14E01, EX14D08A, EX14D08B, EX14D08C, EX14D10
	XPET140424FR-P	Géo. pour mat. non fer., polie R 2,4	0,05	0,30	EX14E01, EX14D08A, EX14D08B, EX14D08C, EX14D10
	XPET140430FR-P	Géo. pour mat. non fer., polie R 3,0	0,05	0,30	EX14E01, EX14D08A, EX14D08B, EX14D08C, EX14D10
	XPET140432FR-P	Géo. pour mat. non fer., polie R 3,2	0,05	0,30	EX14E01, EX14D08A, EX14D08B, EX14D08C, EX14D10
	XPET140440FR-P	Géo. pour mat. non fer., polie R 4,0	0,05	0,30	EX14E01, EX14D08A, EX14D08B, EX14D08C, EX14D10
	YDA322L101	Plaquette rombique de finition, à 2 aretes de planage	dépendant de l'application	dépendant de l'application	PYD10



A  
1
P  
2
C  
3
T  
4

1

2

3

4

**FORME DE LA PLAQUETTE**

**ANGLE DE DÉPOUILLE**

**TOLÉRANCE**

**TYPE**

o = autre







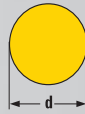
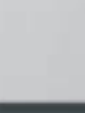
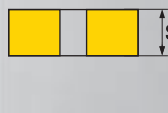
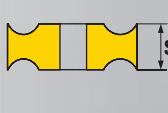
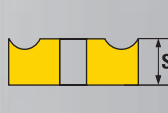
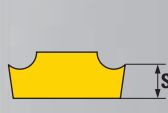
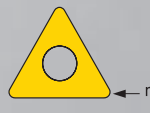







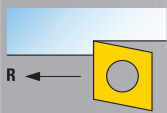
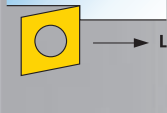
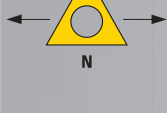
**Tolérances en mm**

	d	m	s
A	± 0,025	± 0,005	± 0,025
C	± 0,025	± 0,013	± 0,025
E	± 0,025	± 0,025	± 0,025
F	± 0,013	± 0,005	± 0,025
G	± 0,025	± 0,025	± 0,05-0,13
H	± 0,013	± 0,013	± 0,025
J	± 0,05-0,15 <sup>1</sup>	± 0,005	± 0,025
K	± 0,05-0,15 <sup>2</sup>	± 0,013	± 0,025
L	± 0,05-0,15 <sup>2</sup>	± 0,013	± 0,025
M	± 0,05-0,15 <sup>2</sup>	± 0,08-0,20 <sup>2</sup>	± 0,013
N	± 0,05-0,15 <sup>2</sup>	± 0,08-0,20 <sup>2</sup>	± 0,025
U	± 0,05-0,25 <sup>2</sup>	± 0,13-0,38 <sup>2</sup>	± 0,05-0,13

<sup>1</sup> Plaquette avec arêtes de planage rectifiées  
<sup>2</sup> Selon les dimensions des plaquettes (voir Norme ISO 1832)

X  
Version spéciale  
(description requise/exigée)



08 5	03 6	04 7	F 8	R 9	P 10
5	6	7	8	9	10
LONGEUR D'ARÊTE DE COUPE	EPAISSEUR DE PLAQUETTES	ARRONDI D'ARETE	ARÊTE DE COUPE	DIRECTION DE COUPE	DÉSIGNATION INTERNE
       	   	 <p>02 r = 0,2 04 r = 0,4 08 r = 0,8 12 r = 1,2 16 r = 1,6 24 r = 2,4</p>  <p>00 pour diamètre avec des mesures en inch converties en mm MO pour diamètre en mesures métriques</p>  	 <p><b>E</b> Arrondie</p>  <p><b>F</b> Angle vif</p>  <p><b>T</b> Chanfreinée</p>  <p><b>S</b> Chanfrein et arrondi d'arete</p>	  	<p><b>par exemple:</b></p> <p>P = Polie</p> <p>W = Plaquette avec aretes de planage</p>
	<p>01 s = 1,59 T1 s = 1,98 02 s = 2,38 T2 s = 2,78 03 s = 3,18 T3 s = 3,97 04 s = 4,76 05 s = 5,56 06 s = 6,35 07 s = 7,94 09 s = 9,52</p>	<p><b>1</b> Angle d'attaque % A = 45° D = 60° E = 75° F = 85° P = 90° Z = Autres</p> <p><b>2</b> Angle de dépouille à l'arete de planage A = 3° B = 5° C = 7° D = 15° E = 20° F = 25° G = 30° N = 0° P = 11° Z = Autres angle de dépouille</p>			

## SUBSTRATS - REVETEMENTS

### NUANCES NON REVETUES

IN04S	<b>K10-K20</b>	Carbure micro-grain, préconisé pour l'usinage des aluminium à haute teneur en silice, aux usinages à conditions de coupe élevées, ainsi qu'aux usinages légers dans les fontes grises.
IN05S	<b>M10-M20</b>	Carbure micro-grain, préconisé pour l'usinage du titane et de superalliages („exotiques“) du groupe d'usinabilité „S“. Convient aussi aux métaux non ferreux, et aux usinages légers dans la fonte grise.
IN10K	<b>K10-K25</b>	Haute résistance à l'usure, pour l'ébauche et la finition de la fonte grise, alliages Aluminium, cuivre, certains métaux non ferreux et les matières plastiques. Convient aux usinages avec de faibles profondeurs de passe et des vitesses de coupe élevées.
IN15K	<b>K20-K40</b>	Nuance universelle pour l'usinage de la fonte grise, alliages Alu et certains métaux non ferreux. Convient aux applications avec des valeurs d'usinage moyennes.
IN30M	<b>M20-M40</b> <b>K20-K50</b>	Haute résistance aux ébrèchures. Convient aux usinages de métaux non ferreux et de matières en fonte.

### NUANCES REVETUES

IN054S	<b>P30-P50</b>	Nuance spéciale avec revêtement PVD, spécifique pour le fraisage par interpolation. Arêtes fortement renforcées, contribue à une durée de vie très importante, lors de l'usinage, de l'acier, de l'inox, et les fontes grises.
IN1030	<b>P20-P40</b> <b>M20-M40</b> <b>K15-K30</b>	Nuance universelle revêtue PVD pour tous types d'aciers. Particulièrement conçue pour le fraisage sous arrosage des aciers inoxydables, avec des vitesses de coupe moyennes. Très tenace et bonne résistance aux ébrèchures.
IN2004	<b>P10-P20</b> <b>K10-K25</b>	Carbure revêtu PVD, de haute performance dans l'usinage universel, avec une haute résistance à l'usure et une grande tenacité pour le fraisage d'aciers alliés et de la fonte, en particulier la GGv. Utilisation avec des vitesses de coupe moyennes et élevées, pour travail de semi-ébauche et de finition, dans de très bonnes conditions d'usinage.
IN2005	<b>P15-P30</b> <b>M15-M35</b> <b>K20-K40</b>	Carbure micro-grain revêtu PVD avec une très bonne tenacité et une excellente résistance à l'usure, pour l'usinage d'aciers à dureté améliorée, aciers inoxydables, fonte grise et fonte graphite sphéroïdale.
IN2006	<b>P05-P20</b> <b>M10-M20</b>	Carbure micro-grain revêtu avec une très bonne tenacité et une excellente résistance à l'usure, pour l'usinage d'aciers.
IN2010	<b>K10-K25</b>	Nuance revêtue TiAlN-PVD avec une excellente résistance à l'usure, pour une large plage de conditions de coupe. Préconisé pour l'usinage de la fonte grise. Cette nuance adaptée à des géométries positives est utilisée dans des conditions d'usinage peu favorables.
IN2015	<b>P20-P35</b> <b>K20-K40</b> <b>M20-M40</b>	Nuance carbure universelle revêtue PVD avec une haute résistance à l'usure et une bonne tenacité. Convient pour le fraisage de la fonte grise, de la fonte graphite sphéroïdale, de l'acier en particulier acier à dureté améliorée et acier austénitique. Utilisation avec des conditions de coupes moyennes, et des profondeurs de passe moyennes.
IN2030	<b>P20-P40</b> <b>M20-M40</b> <b>K20-K40</b>	Revêtement TiAlN, permettant de combiner une haute résistance à l'usure et une bonne tenacité, lors de l'usinage d'acier, inox, acier austénitique et alliages à haute température. Convient bien pour les fontes aciérées, avec des conditions de coupe moyennes à hautes.

# GENERAL TECHNICAL INFORMATION

## SUBSTRATS - REVETEMENTS

IN2035	<b>P20-P40</b> <b>M20-M40</b> <b>K20-K40</b>	Nuance de fraisage revêtue TiAlN avec une excellente résistance à l'usure et une bonne ténacité. Convient à l'usinage du titane, alliages de titane-super alliages du groupe des matériaux S.
IN2040	<b>P20-P40</b>	Nuance revêtue TiAlN-PVD avec une excellente résistance à l'usure. Utilisée dans de nombreux cas d'usinage de l'acier. En particulier préconisé pour le fraisage à sec d'aciers non alliés et d'aciers alliés avec des vitesses de coupe et des conditions moyennes ou élevées.
IN2505	<b>P15-P35</b> <b>M10-M30</b> <b>K10-K30</b>	Nuance submicro-grain revêtue TiAlN + TiN présentant une bonne ténacité, une excellente résistance à l'usure et une tenue d'arête exceptionnelle. Préconisée pour la semi-finition et l'ébauche des aciers haute dureté et les aciers inox.
IN2540	<b>P10-P40</b>	Nuance de fraisage revêtue TiAlN + TiN présentant une bonne tenue à l'usure et aux chocs thermiques en ébauche moyenne des aciers faiblement alliés et des aciers traités.
IN6515	<b>K20-K40</b>	Carbure revêtu CVD multicouches permettant de combiner une haute résistance à l'usure et une bonne ténacité, pour l'usinage avec des conditions de coupe moyennes à hautes, comme pour les usinages à section de copeaux moyenne. Convient bien pour les usinages des fontes grises, fonte aciérée, fonte grise nodular, et pour l'utilisation avec des conditions de coupe défavorables.
IN6520	<b>P10-P35</b> <b>M10-M35</b> <b>K10-K30</b>	Nuance revêtue CVD avec une excellente résistance à l'usure et une bonne ténacité. Convient au perçage dans le plein des aciers, aciers moxydables et austénitiques, HSS ainsi qu'aux fontes grises avec des conditions de coupe moyennes à hautes. Cette nuance est utilisée pour les plaquettes périphériques en cas de problème d'usure.
IN6530	<b>P25-P45</b> <b>M25-M40</b> <b>K20-K50</b>	Nuance revêtue CVD multicouches avec une bonne résistance à l'usure et une très bonne ténacité, pour le fraisage de l'acier, l'inox, les aciers austénitiques, l'HSS, alliages réfractaires, la fonte grise, avec des vitesses de coupe faibles ou moyennes. Convient pour le fraisage d'aciers non alliés, dans le cadre d'usinages moyens à lourds.
INDD15	<b>K20-K40</b>	Nuance revêtue multicouches CVD + PVD avec une excellente résistance à l'usure et une bonne ténacité. Convient à l'usinage des fontes tels les fontes grises.

## CERMET

IN60C	<b>P10-P30</b>	Nuance Cermet non revêtue avec une très bonne résistance à l'usure, avec des vitesses de coupe élevées. Aretes rapportées minimisées. Utilisation en semi-finition.
IN0560	<b>P05-P15</b> <b>M05-M15</b>	Nuance Cermet revêtue, utilisée en général pour la finition de l'acier, avec des vitesses de coupe élevées. Recommandée pour le fraisage d'aciers inoxydables et d'aciers austénitiques avec des profondeurs de passe modérées.

## SiN

IN70N	<b>K10-K20</b>	Nitride de silicium (céramique) pour usinage de la fonte grise avec des vitesses de coupe très élevées.
-------	----------------	---

## PCD

IN90D	<b>K01-K10</b> <b>K01-K15</b>	Diamant polycristallin pour usinage de l'Aluminium, matières plastiques et graphite.
-------	----------------------------------	--



- **Presentazione degli inserti e dei Campi di Applicazione** 510 - 525
- **Sistema di Codificazione - Inserti ISO standard** 526 - 527
  - **Gradi di Metallo duro e Rivestimenti** 528 - 529

**MINNO**



# APPENDICE TECNICA



STOOL

## PRESENTAZIONE INSERTI


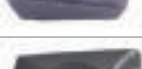

	Articolo-Nr.	Caratteristiche	Avanzamento Standard		Fresa
			fz min (hm)	fz max	
	AOCT060204FR-P	Geometria positiva, lappata e affilata per metalli non ferrosi con R0,4 2 taglienti	0,05	0,12	SA06D02, SA06D03, SA06M01, SA06E01, IA06D03, IA06M01, EA06D10, FA06D02
	AOCT110304FR-P	Geometria positiva, lappata e affilata per metalli non ferrosi con R0,4 2 taglienti	0,05	0,20	SA11D03, SA11M01, SA11E01, IA11D03, IA11D10, IA11M01, EA11D10
	AOCT110308FR-P	Geometria positiva, lappata e affilata per metalli non ferrosi con R0,8 doppio tagliente	0,05	0,20	SA11D03, SA11M01, SA11E01, IA11D03, IA11D10, IA11M01, EA11D10
	AOMT060202R	Geometria positiva con R0,2 2 taglienti	0,06	0,12	SA06D02, SA06D03, SA06M01, SA06E01, IA06D03, IA06M01, EA06D10, FA06D02
	AOMT060202R-DT1	Inserto positivo con breve cuspidi in PCD monotagliente	0,05	0,12	SA06D02, SA06D03, SA06M01, SA06E01, EA06D10
	AOMT060204R	Geometria positiva con R0,4 2 taglienti	0,06	0,12	SA06D02, SA06D03, SA06M01, SA06E01, IA06D03, IA06M01, EA06D10, FA06D02
	AOMT060208R	Geometria positiva con R0,8 2 taglienti	0,06	0,12	SA06D02, SA06D03, SA06M01, SA06E01, IA06D03, IA06M01, EA06D10, FA06D02
	AOMT060216R	Geometria positiva con R1,6 2 taglienti	0,06	0,12	SA06D02, SA06D03, SA06M01, SA06E01, IA06D03, IA06M01, EA06D10, FA06D02
	AOMT110304R	Geometria positiva con R0,4 2 taglienti	0,11	0,15	SA11D03, SA11M01, SA11E01, IA11D03, IA11D10, IA11M01, EA11D10
	AOMT110308R	Geometria positiva con R0,8 2 taglienti	0,11	0,15	SA11D03, SA11M01, SA11E01, IA11D03, IA11D10, IA11M01, EA11D10
	AOMT110316R	Geometria positiva con R1,6 2 taglienti	0,11	0,15	SA11D03, SA11M01, SA11E01, IA11D03, IA11D10, IA11M01, EA11D10
	AOMT110332R	Geometria positiva con R3,2 2 taglienti	0,11	0,15	SA11D03, SA11M01, SA11E01, IA11D03, IA11D10, IA11M01, EA11D10
	AOMT160508R	Geometria positiva con R0,8 2 taglienti	0,16	0,30	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10
	AOMT160508R-HS	Geometria positiva per titanio con R0,8 2 taglienti	0,10	0,25	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10

## PRESENTAZIONE INSERTI

	Articolo-Nr.	Caratteristiche	Avanzamento Standard		Fresa
			fz min (hm)	fz max	
	AOMT160516R	Geometria positiva con R1,6 2 taglienti	0,16	0,30	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10
	AOMT160524R	Geometria positiva con R2,4 2 taglienti	0,16	0,30	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10
	AOMT160532R	Geometria positiva con R3,2 2 taglienti	0,16	0,30	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10
	AOMT160540R	Geometria positiva con R4,0 2 taglienti	0,16	0,30	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10
	AOMT160550R	Geometria positiva con R5,0 2 taglienti	0,16	0,30	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10
	AOMT160564R	Geometria positiva con R6,4 2 taglienti	0,16	0,30	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10
	APKT080304R-DT1	Inserto positivo con breve cuspid in PCD monotagliente	0,05	0,20	EA08D10A
	APKT080304R-DT2	Inserto positivo con lunga cuspid in PCD monotagliente	0,05	0,20	EA08D10A
	BEEW120310R-CR	Geometria neutra con R1,0 2 taglienti	0,08	0,20	F___D03, F___E01
	BEEW120316R-CR	Geometria neutra con R1,6 2 taglienti	0,08	0,20	F___D03, F___E01
	BEEW120320R-CR	Geometria neutra con R2,0 2 taglienti	0,08	0,20	F___D03, F___E01
	BEEW120325R-CR	Geometria neutra con R2,5 2 taglienti	0,08	0,20	F___D03, F___E01
	BEEW120330R-CR	Geometria neutra con R3,0 2 taglienti	0,08	0,20	F___D03, F___E01
	BEHW250304R	Geometria neutra con R4,0 2 taglienti	0,08	0,20	FB25D10

Con riserva di variazioni tecniche

## PRESENTAZIONE INSERTI

	Articolo-Nr.	Caratteristiche	Avanzamento Standard		Fresa
			fz min (hm)	fz max	
	BEHW250304R-P	Geometria lappata e affilata per materiali non ferrosi R0,4 2 taglienti	0,05	0,20	FB25D10
	BEHW250308R	Geometria neutra con R0,8 2 taglienti	0,08	0,20	FB25D10
	BEHW250308R-P	Geometria lappata e affilata per materiali non ferrosi R0,8 2 taglienti	0,05	0,20	FB25D10
	BEHW250316R	Geometria neutra con R1,6 2 taglienti	0,08	0,20	FB25D10
	BEHW250316R-P	Geometria lappata e affilata per materiali non ferrosi R1,6 2 taglienti	0,05	0,20	FB25D10
	BOCT090304FR-P	Geometria positiva lappata e affilata per materiali non ferrosi con R0,4 2 taglienti	0,05	0,20	SB09D03, SB09M01, SB09E01, IB09D03, IB09M01, EB09D10
	BOCT090308FR-P	Geometria positiva lappata e affilata per materiali non ferrosi con R0,8 2 taglienti	0,05	0,20	SB09D03, SB09M01, SB09E01, IB09D03, IB09M01, EB09D10
	BOCT130404FR-P	Geometria positiva lappata e affilata per materiali non ferrosi con R0,4 2 taglienti	0,05	0,25	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B, FB13D03B, FB13D10B
	BOCT130408FR-P	Geometria positiva lappata e affilata per materiali non ferrosi con R0,8 2 taglienti	0,05	0,25	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B
	BOMT09T304R	Geometria positiva con R0,4 2 taglienti	0,10	0,15	SB09D03, SB09M01, SB09E01, IB09D03, IB09M01, EB09D10
	BOMT09T308R	Geometria positiva con R0,8 2 taglienti	0,10	0,15	SB09D03, SB09M01, SB09E01, IB09D03, IB09M01, EB09D10
	BOMT09T316R	Geometria positiva con R1,6 2 taglienti	0,10	0,15	SB09D03, SB09M01, SB09E01, IB09D03, IB09M01, EB09D10
	BOMT130404R	Geometria positiva con R0,4 2 taglienti	0,12	0,20	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B, FB13D03B, FB13D10B
	BOMT130408R	Geometria positiva con R0,8 2 taglienti	0,12	0,20	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B



## PRESENTAZIONE INSERTI

	Articolo-Nr.	Caratteristiche	Avanzamento Standard		Fresa
			fz min (hm)	fz max	
	BOMT130416R	Geometria positiva con R1,6 2 taglienti	0,12	0,20	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B
	BOMT130420R	Geometria positiva con R2,0 2 taglienti	0,12	0,20	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B
	BOMT130424R	Geometria positiva con R2,4 2 taglienti	0,12	0,20	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B
	BOMT130431R	Geometria positiva con R3,1 2 taglienti	0,12	0,20	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B
	BOMT130440R	Geometria positiva con R4,0 2 taglienti	0,12	0,20	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B
	CDE313L021	Inserto romboidale, positivo 2 taglienti	0,10	0,25	BCE01A
	CDE313L021 - J	Inserto romboidale, positivo 2 taglienti	0,10	0,25	BCE01A
	CDE313L021T00	Ins. romboidale, positivo, bisello 45° 2 taglienti	0,10	0,20	BCE01A
	CDE322L005	Inserto romboidale, positivo 2 taglienti	0,10	0,25	BCD10A
	CDE322L005 - J	Inserto romboidale, positivo 2 taglienti	0,10	0,25	BCD10A
	CDE322L005T00	Inserto romboidale, positivo, bisello 45° 2 taglienti	0,10	0,20	BCD10A
	CNHU060310N	Geometria positiva con R1,0 4 taglienti	0,10	0,30	KC06E01
	CNHU060315N	Geometria positiva con R1,5 4 taglienti	0,10	0,30	KC06E01
	CNHU110420N	Geometria positiva con R2,0 4 taglienti	0,10	0,40	KC11E01, KC11D10

Con riserva di variazioni tecniche

## PRESENTAZIONE INSERTI

	Articolo-Nr.	Caratteristiche	Avanzamento Standard		Fresa
			fz min (hm)	fz max	
	DND324L103 - J	Geometria neutra, bisello 45° con R1,6 2 taglienti	0,10	0,30	BDD10A
	DND324L104T34 - J	Geometria neutra, bisello 45° con R1,6 2 taglienti	0,10	0,30	BDD10A
	DPD324L123 - A	Geometria positiva, bisello 45° con R1,6 2 taglienti	0,10	0,25	BDD10A
	DPD324L124 - A	Geometria positiva, bisello 45° con R1,6 2 taglienti	0,10	0,25	BDD10A
	FEEW250340R-CR	Geometria neutra con R4,0 2 taglienti	0,08	0,20	F___D03, F___E01
	FEEW250350R-CR	Geometria neutra con R5,0 2 taglienti	0,08	0,20	F___D03, F___E01
	FEEW250360R-CR	Geometria neutra con R6,0 2 taglienti	0,08	0,20	F___D03, F___E01
	GCXF071601N	Geometria positiva con R0,15 monotagliente	0,08	0,15	DFD01
	GCXF082202N	Geometria positiva con R0,2 monotagliente	0,08	0,15	DFD01
	GCXF092402N	Geometria positiva con R0,2 monotagliente	0,08	0,15	DFD01A
	GCXF113102N	Geometria positiva con R0,2 monotagliente	0,08	0,15	DFD01A
	GCXF114103N	Geometria positiva con R0,25 monotagliente	0,08	0,15	DFD01A
	NCET0802MOR	Geometria positiva con R4,0 monotagliente	0,08	0,15	KWD03, KWD02, KWE01
	NCET1002MOR	Geometria positiva con R5,0 monotagliente	0,08	0,15	KWD03, KWD02, KWE01

## PRESENTAZIONE INSERTI

	Articolo-Nr.	Caratteristiche	Avanzamento Standard		Fresa
			fz min (hm)	fz max	
	NCEX1203MOR	Geometria positiva con R6,0 monotagliante	0,10	0,20	KWD03, KWD02, KWE01
	NCEX1605MOR	Geometria positiva con R0,8 monotagliante	0,10	0,20	KWD03, KWD02, KWE01
	NCEX2005MOR	Geometria positiva con R10,0 monotagliante	0,10	0,25	KWD03, KWD02, KWE01
	NCEX2506MOR	Geometria positiva con 12,5 monotagliante	0,10	0,25	KWD03, KWD02, KWE01
	NPHG1003MOR	Geometria positiva con R5,0 monotagliante	0,10	0,20	KND02A, KND02C, KND02B, KNE01
	NPHG1204MOR	Geometria positiva con R6,0 monotagliante	0,10	0,20	KND02A, KND02C, KND02B, KNE01
	NPHG1604MOR	Geometria positiva con R8,0 monotagliante	0,10	0,25	KND02A, KND02C, KND02B, KNE01
	NPHG2004MOR	Geometria positiva con R10,0 monotagliante	0,10	0,25	KND02A, KND02C, KND02B, KNE01
	NPHG2506MOR	Geometria positiva con R12,5 monotagliante	0,10	0,30	KND02A, KND02C, KND02B, KNE01
	NPHG3007MOR	Geometria positiva con R15,0 monotagliante	0,10	0,30	KND02A, KND02C, KNE01
	NPHG3207MOR	Geometria positiva con R16,0 monotagliante	0,10	0,30	KND02A, KNE01
	OFCT05T3AFFN-P	Geometria positiva, lappata e affilata per metalli non ferrosi 8 taglianti	0,05	0,30	PO05E01, PO05D10
	OFCT05T3TN	Geometria positiva con tagliante rinforzato, 8 taglianti	0,12	0,30	PO05E01, PO05D10
	OFCT0705AFFN-P	Geometria positiva, lappata e affilata per metalli non ferrosi, 8 taglianti	0,05	0,30	PO07D10

Con riserva di variazioni tecniche

## PRESENTAZIONE INSERTI

	Articolo-Nr.	Caratteristiche	Avanzamento Standard		Fresa
			fz min (hm)	fz max	
	OFCT0705AFRR-W	Inserto per superfinitura WIPER, 4 taglienti	0,15	0,30	PO07D10
	OFMT05T3AFN-HR	Geometria positiva 8 taglienti	0,12	0,25	PO05E01, PO05D10
	OFMT0705AFR-HR	Geometria positiva 8 taglienti	0,15	0,30	PO07D10
	OFMT0705AFTN	Geometria positiva con tagliente rinforzato, 8 taglienti	0,15	0,30	PO07D10
	OFMW05T3AFTN	Geometria neutra, bisello 45° per lavorazioni pesanti, 8 taglienti	0,20	0,40	PO05E01, PO05D10
	OFMW0705AFTN	Geometria neutra, bisello 45° per lavorazioni pesanti, 8 taglienti	0,25	0,50	PO07D10
	PNCQ0804GNTN	Geometria neutra, bisello 45° 10 taglienti	0,21	0,40	PP08D10
	PNCQ0804ZNTN	Geometria neutra, bisello 45° 10 taglienti	0,50	2,50	KP08E01, KP08D10
	PNCT0804ZNN-HR	Geometria positiva 5 taglienti	0,22	1,50	KP08E01, KP08D10
	PNCU0805GNFR-HS	Geometria molto positiva, 10 taglienti	0,08	0,30	PP08D10
	PNCU0805GNFR-P	Geometria positiva lappata e affilata per materiali non ferrosi, 10 taglienti	0,05	0,40	PP08D10
	PNCU0805GNR	Geometria positiva SiN, 10 taglienti	0,10	0,18	PP08D10
	PNCU0805GNTR	Geometria positiva, 10 taglienti	0,22	0,40	PP08D10
	PNCU0805GNTR-W	Inserti per finitura, WIPER 2 taglienti	0,22	0,40	PP08D10

## PRESENTAZIONE INSERTI

	Articolo-Nr.	Caratteristiche	Avanzamento Standard		Fresa
			fz min (hm)	fz max	
	PNCU1708GNTR	Geometria positiva, 10 taglienti	0,30	0,50	PP17D10
	RCLT1204M0N-CC1	Geometria positiva per acciaio con R1,2 4 taglienti	0,10	0,25	PR12E01CC, PR12D10CC
	RCLT1204M0N-CC2	Geometria positiva per acciaio con bisello 45° con R1,2 4 taglienti	0,15	0,30	PR12E01CC, PR12D10CC
	RCLT1204M0N-CP	Geometria positiva, lappata e affilata per materiali non ferrosi, 4 taglienti	0,10	0,25	PR12E01CC, PR12D10CC
	RCLT1204M0TN-PH2	Geometria positiva per acciaio bisello 45°, 8 taglienti	0,20	0,70	PR12E01CC, PR12D10CC
	RCLT1606M0N-CC	Geometria positiva per acciaio con R1,2 4 taglienti	0,10	0,25	PR16E01CC, PR16D10CC
	RCLT1606M0N-CC1	Geometria positiva per acciaio con R1,6 4 taglienti	0,10	0,30	PR16E01CC, PR16D10CC
	RCLT1606M0N-CP	Geometria positiva per materiali non ferrosi, 4 taglienti	0,10	0,25	PR16E01CC, PR16D10CC
	RCLT1606M0TN-PH	Geometria positiva per acciaio, min. 4 taglienti	0,10	0,50	PR16E01CC, PR16D10CC
	RCLT1606M0TN-PH2	Geometria negativa per acciaio bisello 45°, 8 taglienti	0,20	0,80	PR16E01CC, PR16D10CC
	RFMT1404M0N-F	Geometria positiva bisello 45° 8 taglienti	0,15	0,30	PO05E01, PO05D10
	RHHT0802M0FN-P	Geometria positiva, lappata e affilata, min. 4 taglienti	0,10	0,30	PR08D03/PR10D03N, PR08E01N, PR08E01P
	RHHT0802M0TN	Geometria positiva, bisello 45°, min. 4 taglienti	0,10	0,20	PR08D03/PR10D03N, PR08E01N, PR08E01P
	RHHT0802M0TN-P	Geometria per titanio lappato, min. 4 taglienti	0,10	0,20	PR08D03/PR10D03N, PR08E01N, PR08E01P

Con riserva di variazioni tecniche

## PRESENTAZIONE INSERTI

	Articolo-Nr.	Caratteristiche	Avanzamento Standard		Fresa
			fz min (hm)	fz max	
	RHHT1003M0FN-P	Geometria positiva, lappata e affilata per materiali non ferrosi, min. 4 taglienti	0,15	0,30	PR08D03/PR10D03N, PR10E01N, PR10D10N, PR10E01P, PR10D10P
	RHHT1003M0TN	Geometria positiva, bisello 45°, min. 4 taglienti	0,15	0,40	PR08D03/PR10D03N, PR10E01N, PR10D10N, PR10E01P, PR10D10P
	RHHT1003M0TN-P	Geometria per titanio lappato, min. 4 taglienti	0,10	0,20	PR08D03/PR10D03N, PR10E01N, PR10D10N, PR10E01P, PR10D10P
	RHHT1204M0FN-P	Geometria positiva, lappata e affilata per materiali non ferrosi, min. 4 taglienti	0,15	0,30	PR12E01N, PR12D10N, PR12E01P, PR12D10P
	RHHT1204M0TN	Geometria positiva, bisello 45°, min. 4 taglienti	0,25	0,50	PR12E01N, PR12D10N, PR12E01P, PR12D10P
	RHHT1204M0TN-P	Geometria per titanio lappato, min. 4 taglienti	0,10	0,25	PR12E01N, PR12D10N, PR12E01P, PR12D10P
	RHHT1605M0FN-P	Geometria positiva, lappata e affilata per materiali non ferrosi, min. 4 taglienti	0,15	0,30	PR16E01N, PR16D10N, PR16E01P, PR16D10P
	RHHT1605M0TN	Geometria positiva, bisello 45°, min. 4 taglienti	0,25	0,50	PR16E01N, PR16D10N, PR16E01P, PR16D10P
	RHHT1605M0TN-P	Geometria positiva e lappata per titanio, min. 4 taglienti	0,10	0,25	PR16E01N, PR16D10N, PR16E01P, PR16D10P
	RHHW0602M0TN	Geometria neutra, bisello 45°, min. 4 taglienti	0,20	0,30	PR06D03N, PR06E01N
	RHHW0802M0TN	Geometria neutra, bisello 45°, min. 4 taglienti			PR08D03/PR10D03N, PR08E01N, PR08E01P
	RHHW1003M0TN	Geometria neutra, bisello 45°, min. 4 taglienti	0,25	0,50	PR08D03/PR10D03N, PR10E01N, PR10D10N, PR10E01P, PR10D10P
	RHHW1204M0TN	Geometria neutra, bisello 45°, min. 4 taglienti	0,25	0,45	PR12E01N, PR12D10N, PR12E01P, PR12D10P
	RHHW1605M0TN	Geometria neutra, bisello 45°, min. 4 taglienti	0,30	0,60	PR16E01N, PR16D10N, PR16E01P, PR16D10P

## PRESENTAZIONE INSERTI

Articolo-Nr.	Caratteristiche	Avanzamento Standard		Fresa
		fz min (hm)	fz max	
	Geometria positiva per sgrossatura bisello negativo 45°, min. 4 taglienti	0,50	1,50	PR16E01N, PR16D10N, PR16E01P, PR16D10P
	Geometria positiva, bisello 45°, min. 4 taglienti	0,25	0,50	PR20D10P
	Geometria positiva per sgrossatura, bisello 45°, min. 4 taglienti	0,50	1,50	PR20D10P
	Geometria neutra, bisello 45° per sgrossare, min. 4 taglienti	0,25	0,60	PR08D03/PR10D03N, PR10E01N, PR10D10N, PR10E01P, PR10D10P
	Geometria neutra, bisello 45° per sgrossare, min. 4 taglienti	0,25	0,60	PR12E01N, PR12D10N, PR12E01P, PR12D10P
	Geometria neutra, bisello 45° per sgrossare, min. 4 taglienti	0,30	0,76	PR16E01N, PR16D10N, PR16E01P, PR16D10P
	Geometria neutra, bisello 45° per sgrossare, min. 4 taglienti	0,40	1,00	PR20D10P
	Geometria per ghisa R0,4 4 taglienti	0,05	0,12	BSD03B, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27,5, 4D Ø13 - Ø29, 5D Ø13 - Ø27
	Geometria positiva con R0,4 4 taglienti	0,05	0,12	BSD03B, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27,5, 4D Ø13 - Ø29, 5D Ø13 - Ø27
	Geometria positiva, affilata per materiali non ferrosi R0,5 4 taglienti	0,05	0,20	ES08D10, DS08D01, DS08D10, FS08D03, FS08E01, TS08D03, TS08M01
	Geometria positiva, lappata e affilata per materiali non ferrosi R0,5 4 taglienti	0,05	0,20	SS08D03, SS08M01, IS08D03, IS08D10, IS08M01, ES08D10, DS08D01, DS08D10, FS08D03, FS08E01, TS08D03, TS08M01
	Geometria positiva, bisello 45° 4 taglienti	0,15	0,20	DTD01, DTD10
	Geometria positiva, bisello 45° 4 taglienti	0,15	0,20	DTD01, DTD10
	Geometria positiva, bisello 45° 4 taglienti	0,15	0,20	DTD01, DTD10

Con riserva di variazioni tecniche

## PRESENTAZIONE INSERTI

Articolo-Nr.	Caratteristiche	Avanzamento Standard		Fresa
		fz min (hm)	fz max	
 SDE-42-002 - J	Geometria positiva, bisello 45° 4 taglienti	0,15	0,20	DTD01, DTD10
 SDE-42-003 - J	Geometria positiva, bisello 45° 4 taglienti	0,15	0,20	DTD01, DTD10
 SDE-43-001 - J	Geometria positiva, bisello 45° 4 taglienti	0,15	0,20	DTD01, DTD10
 SDGT07T308-HP	Geometria positiva e affilata per materiali non ferrosi R0,8 4 taglienti	0,08	0,15	BSE01C 90°, BSE01B 93,2°, BSD03A, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27,5, 3D Ø51 - Ø60, 4D Ø13 - Ø29, 5D Ø13 - Ø27, 2,5D Ø51 - Ø80
 SDGT140512-HP	Geometria positiva e affilata per materiali non ferrosi R1,2 4 taglienti	0,15	0,26	BSD03A, BSD03B, BSE01A, 2D Ø30 - Ø50, 3D Ø28 - Ø50,5, 4D Ø30 - Ø50, 5D Ø28 - Ø50
 SDMT080305N	Geometria positiva R0,5 4 taglienti	0,13	0,17	SS08D03, SS08M01, IS08D03, IS08D10, IS08M01, ES08D10, DS08D01, DS08D10, FS08D03, FS08E01, TS08D03, TS08M01
 SDMT120608R	Geometria positiva R0,8 4 taglienti	0,16	0,25	IS12D10, IS12M01, ES12D10
 SDMT120608R-HS	Geometria positiva per titanio R0,8 4 taglienti	0,11	0,20	IS12D10, IS12M01, ES12D10
 SDMW080305TN	Geometria neutra, bisello 45° per lavorazioni pesanti R0,5 4 taglienti	0,13	0,20	SS08D03, SS08M01, IS08D03, IS08D10, IS08M01, ES08D10, DS08D01, DS08D10, FS08D03, FS08E01, TS08D03, TS08M01
 SDMW080305TN-W	Geometria per sgrassare-finire R0,5 4 taglienti	0,13	0,20	ES08D10
 SECT09T3AFFN	Geometria positiva, affilata per materiali non ferrosi 4 taglienti	0,05	0,20	PS09D03, PS09D10
 SECT09T3AFFN-P	Geometria positiva, lappata e affilata per materiali non ferrosi 4 taglienti	0,05	0,20	PS09D03, PS09D10
 SEE-31-101	Geometria per materiali non ferrosi 4 taglienti	0,05	0,20	DTD01, DTD10
 SEE-31-102	Geometria per materiali non ferrosi 4 taglienti	0,05	0,20	DTD01, DTD10



## PRESENTAZIONE INSERTI

Articolo-Nr.	Caratteristiche	Avanzamento Standard		Fresa
		fz min (hm)	fz max	
	SEE-42-101 Geometria per materiali non ferrosi 4 taglienti	0,05	0,20	DTD01, DTD10
	SEE-42-102 Geometria per materiali non ferrosi 4 taglienti	0,05	0,20	DTD01, DTD10
	SEE-42-103 Geometria per materiali non ferrosi 4 taglienti	0,05	0,20	DTD01, DTD10
	SEE-43-101 Geometria per materiali non ferrosi 4 taglienti	0,05	0,20	DTD01, DTD10
	SEKT09T3AFN Geometria positiva, 4 taglienti	0,13	0,20	PS09D03, PS09D10
	SHET110502FR-P Geometria positiva lappata e affilata per materiali non ferrosi R0,2 4 taglienti	0,05	0,30	SS11E01, ES11D10
	SHET110505FR-P Geometria positiva lappata e affilata per materiali non ferrosi R0,5 4 taglienti	0,05	0,30	SS11E01, ES11D10
	SHET110508FR-P Geometria positiva lappata e affilata per materiali non ferrosi R0,8 4 taglienti	0,05	0,30	SS11E01, ES11D10
	SHET110516FR-P Geometria positiva lappata e affilata per materiali non ferrosi R1,6 4 taglienti	0,05	0,30	SS11E01, ES11D10
	SHET110524FN-P Geometria positiva lappata e affilata per materiali non ferrosi R2,4 4 taglienti	0,05	0,30	SS11E01, ES11D10
	SHET110532FN-P Geometria positiva lappata e affilata per materiali non ferrosi R3,2 4 taglienti	0,05	0,30	SS11E01, ES11D10
	SHET110540FN-P Geometria positiva lappata e affilata per materiali non ferrosi R4,0 4 taglienti	0,05	0,30	SS11E01, ES11D10
	SHGT050204-HP Geometria positiva lappata e affilata per materiali non ferrosi R0,4 4 taglienti	0,05	0,12	BSD03B, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27,5, 4D Ø13 - Ø29, 5D Ø13 - Ø27
	SHGT060204-HP Geometria positiva lappata e affilata per materiali non ferrosi R0,4 4 taglienti	0,08	0,15	BSE01C 90°, BSE01B 93,2°, BSD03A, BSD03B, BSE01A, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27,5, 4D Ø13 - Ø29, 5D Ø13 - Ø27

Con riserva di variazioni tecniche

## PRESENTAZIONE INSERTI

Articolo-Nr.	Caratteristiche	Avanzamento Standard		Fresa
		fz min (hm)	fz max	
	Geometria positiva lappata e affilata per materiali non ferrosi R0,8 4 taglienti	0,10	0,20	BSE01C 90°, BSE01B 93,2°, BSD03A, BSD03B, BSE01A, 2D Ø13 - Ø29, 2D Ø30 - Ø50, 3D Ø28 - Ø50, 5, 3D Ø51 - Ø60, 4D Ø13 - Ø29, 4D Ø30 - Ø50, 5D Ø28 - Ø50, 2,5D Ø51 - Ø80
	Geometria positiva lappata e affilata per materiali non ferrosi R0,8 4 taglienti	0,14	0,23	BSD03B, BSE01A, 2D Ø30 - Ø50, 3D Ø28 - Ø50, 5, 4D Ø30 - Ø50, 5D Ø28 - Ø50, 2,5D Ø51 - Ø80
	Geometria per ghisa R0,4 4 taglienti	0,08	0,25	BSE01C 90°, BSE01B 93,2°, BSD03A, BSD03B, BSE01A, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27, 5, 4D Ø13 - Ø29, 5D Ø13 - Ø27
	Geometria positiva R0,4 4 taglienti	0,06	0,20	BSE01C 90°, BSE01B 93,2°, BSD03A, BSD03B, BSE01A, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27, 5, 4D Ø13 - Ø29, 5D Ø13 - Ø27
	Geometria positiva 4 taglienti	0,12	0,20	ES09D10, TS09M01
	Geometria per ghisa R0,8 4 taglienti	0,12	0,25	BSE01C 90°, BSE01B 93,2°, BSD03A, BSD03B, BSE01A, 2D Ø13 - Ø29, 2D Ø30 - Ø50, 3D Ø28 - Ø50, 5, 3D Ø51 - Ø60, 4D Ø13 - Ø29, 4D Ø30 - Ø50, 5D Ø28 - Ø50, 2,5D Ø51 - Ø80
	Geometria positiva R0,8 4 taglienti	0,07	0,22	BSE01C 90°, BSE01B 93,2°, BSD03A, BSD03B, BSE01A, 2D Ø13 - Ø29, 2D Ø30 - Ø50, 3D Ø28 - Ø50, 5, 3D Ø51 - Ø60, 4D Ø13 - Ø29, 4D Ø30 - Ø50, 5D Ø28 - Ø50, 2,5D Ø51 - Ø80
	Geometria per ghisa R0,8 4 taglienti	0,16	0,28	BSD03B, BSE01A, 2D Ø30 - Ø50, 3D Ø28 - Ø50, 5, 4D Ø30 - Ø50, 5D Ø28 - Ø50, 2,5D Ø51 - Ø80
	Geometria positiva R0,8 4 taglienti	0,08	0,23	BSD03B, BSE01A, 2D Ø30 - Ø50, 3D Ø28 - Ø50, 5, 4D Ø30 - Ø50, 5D Ø28 - Ø50, 2,5D Ø51 - Ø80
	Geometria positiva R0,8 4 taglienti	0,12	0,25	ES11D10
	Geometria positiva R0,8 4 taglienti	0,15	0,30	IS14D10, ES14D10, PS14D10, TS14M01
	Geometria positiva per materiali non ferrosi R0,8 4 taglienti	0,12	0,30	IS14D10, ES14D10, PS14D10
	Inserto positivo, 4 taglienti, fase piana	0,15	0,40	PS14D10
	Inserto positivo, 4 taglienti, fase piana	0,15	0,40	PS14D10

## PRESENTAZIONE INSERTI




	Articolo-Nr.	Caratteristiche	Avanzamento Standard		Fresa
			fz min (hm)	fz max	
	SPLT07T308N	-Geometria per ghisa R0,8 4 taglienti	0,10	0,25	BSE01C 90°, BSE01B 93,2°, BSD03A, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27,5, 3D Ø51 - Ø60, 4D Ø13 - Ø29, 5D Ø13 - Ø27, 2,5D Ø51 - Ø80
	SPLT07T308N-PH	Geometria positiva R0,8 4 taglienti	0,06	0,20	BSE01C 90°, BSE01B 93,2°, BSD03A, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27,5, 3D Ø51 - Ø60, 4D Ø13 - Ø29, 5D Ø13 - Ø27, 2,5D Ø51 - Ø80
	SPLT120408N-PH	Geometria positiva R0,8 4 taglienti	0,08	0,28	2,5D Ø51 - Ø80
	SPLT140512N	Geometria per ghisa R1,2 4 taglienti	0,18	0,30	BSD03A, BSD03B, BSE01A, 2D Ø30 - Ø50, 3D Ø28 - Ø50,5, 4D Ø30 - Ø50, 5D Ø28 - Ø50
	SPLT140512N-PH	Geometria positiva R1,2 4 taglienti	0,06	0,26	BSD03A, BSD03B, BSE01A, 2D Ø30 - Ø50, 3D Ø28 - Ø50,5, 4D Ø30 - Ø50, 5D Ø28 - Ø50
	UHLD08T310R-M	Geometria positiva 2 taglienti	0,80	2,00	KU08E01, KU08D10
	UHLD08T310R-MR	Geometria neutra 2 taglienti	1,00	2,50	KU08E01, KU08D10
	UHLD130515R-M	Geometria positiva 2 taglienti	1,00	2,50	KU13E01, KU13D10
	UHLD130515R-MM	Geometria semi positiva R0,4 2 taglienti	1,00	2,50	KU13E01, KU13D10
	UHLD130515R-MR	Geometria neutra 2 taglienti	1,00	3,00	KU13E01, KU13D10
	UOMT0602TR	Geometria per alti avanzamenti 2 taglienti	0,30	0,80	SA06D02, SA06D03, SA06M01, SA06E01, EA06D10
	XEET250408R-P	Geometria positiva, lappato e affilato per materiali non ferrosi con R0,8 2 taglienti	0,05	0,35	EX25E01, EX25D10
	XEET250408R-PWRWK	Geometria con WIPER per materiali non ferrosi R0,8 2 taglienti	0,05	0,35	EX25E01, EX25D10
	XEET250416R-P	Geometria per materiali non ferrosi lappato R1,6	0,05	0,35	EX25E01, EX25D10

Con riserva di variazioni tecniche

## PRESENTAZIONE INSERTI

	Articolo-Nr.	Caratteristiche	Avanzamento Standard		Fresa
			fz min (hm)	fz max	
	XEET250432R-P	Geometria positiva, lappata e affilata per materiali non ferrosi con R3,2 2 taglienti	0,05	0,35	EX25E01, EX25D10
	XEET250440R-P	Geometria positiva, lappata e affilata per materiali non ferrosi R4,0	0,05	0,35	EX25E01, EX25D10
	XEET250450R-P	Geometria positiva, lappata e affilata per materiali non ferrosi R5,0	0,05	0,35	EX25E01, EX25D10
	XFEB330504R-P	Geometria positiva, lappata e affilata per materiali non ferrosi R0,4	0,05	0,40	EX33D08
	XFEB330508R-P	Geometria positiva, lappata e affilata per materiali non ferrosi R0,8	0,05	0,40	EX33D08
	XFEB330508R-PW	Geometria per materiali non ferrosi con WIPER lappata R0,8	0,05	0,40	EX33D08
	XFEB330516R-P	Geometria per materiali non ferrosi lappata R1,6	0,05	0,40	EX33D08
	XFEB330532R-P	Geometria per materiali non ferrosi lappata R3,2	0,05	0,40	EX33D08
	XFEB330540R-P	Geometria per materiali non ferrosi lappata R4,0	0,05	0,40	EX33D08
	XFEB330550R-P	Geometria per materiali non ferrosi lappata R5,0	0,05	0,40	EX33D08
	XFEB330564R-P	Geometria per materiali non ferrosi lappata R6,4	0,05	0,40	EX33D08
	XPET140405FR-P	Geometria per materiali non ferrosi lappata R0,5	0,05	0,30	EX14E01, EX14D08A, EX14D08B, EX14D08C, EX14D10
	XPET140408FR-P	Geometria per materiali non ferrosi lappata R0,8	0,05	0,30	EX14E01, EX14D08A, EX14D08B, EX14D08C, EX14D10
	XPET140416FR-P	Geometria per materiali non ferrosi lappata R1,6	0,05	0,30	EX14E01, EX14D08A, EX14D08B, EX14D08C, EX14D10

## PRESENTAZIONE INSERTI

	Articolo-Nr.	Caratteristiche	Avanzamento Standard		Fresa
			fz min (hm)	fz max	
	XPET140420FR-P	Geometria per materiali non ferrosi lappata R2,0	0,05	0,30	EX14E01, EX14D08A, EX14D08B, EX14D08C, EX14D10
	XPET140424FR-P	Geometria per materiali non ferrosi lappata R2,4	0,05	0,30	EX14E01, EX14D08A, EX14D08B, EX14D08C, EX14D10
	XPET140430FR-P	Geometria per materiali non ferrosi lappata R3,0	0,05	0,30	EX14E01, EX14D08A, EX14D08B, EX14D08C, EX14D10
	XPET140432FR-P	Geometria per materiali non ferrosi lappata R3,2	0,05	0,30	EX14E01, EX14D08A, EX14D08B, EX14D08C, EX14D10
	XPET140440FR-P	Geometria per materiali non ferrosi lappata R4,0	0,05	0,30	EX14E01, EX14D08A, EX14D08B, EX14D08C, EX14D10
	YDA322L101	Inserto romboidale, 2 taglienti per superfinitura WIPER	In base all'applicazione	In base all'applicazione	PYD10

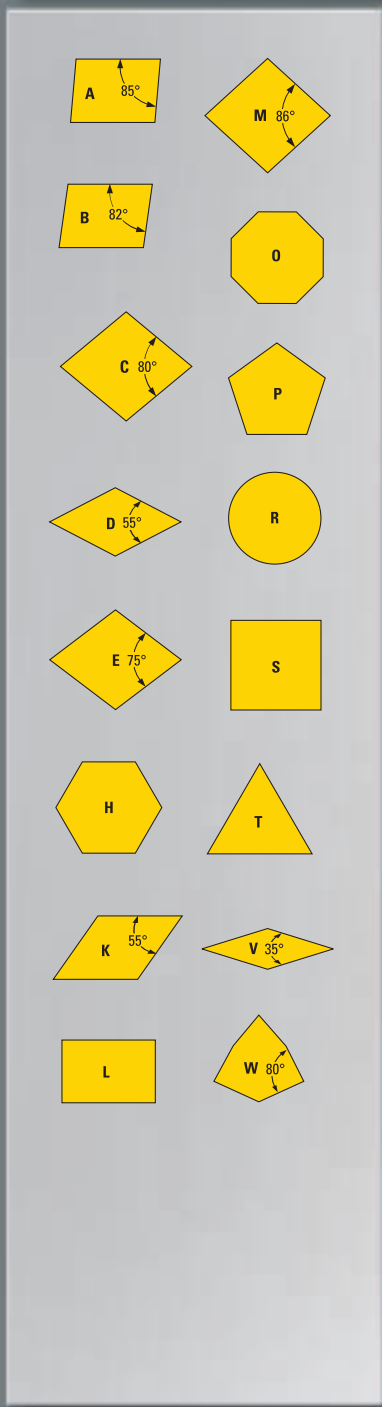
Con riserva di variazioni tecniche



**A** 1    **P** 2    **C** 3    **T** 4

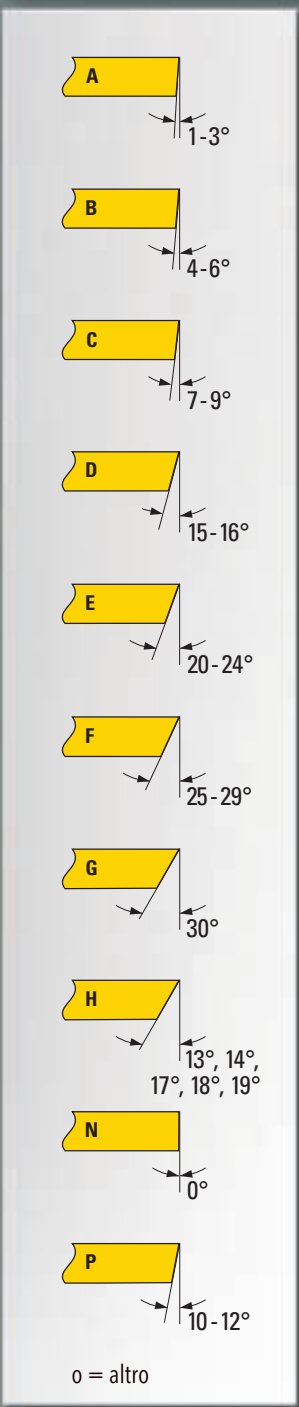
1

**FORMA INSERTO**



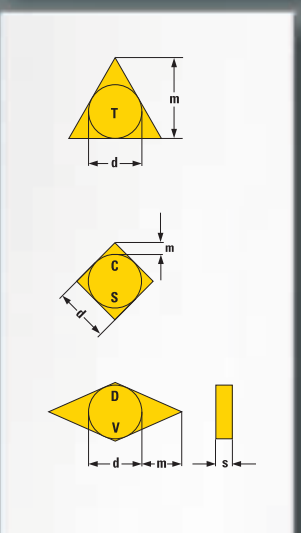
2

**ANGOLO DI SPOGLI A**



3

**TOLLERANZE**



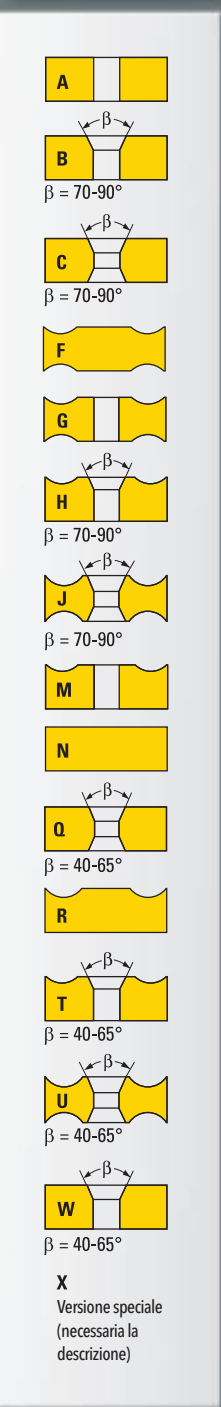
**Tolleranze in mm**

	d	m	s
A	± 0,025	± 0,005	± 0,025
C	± 0,025	± 0,013	± 0,025
E	± 0,025	± 0,025	± 0,025
F	± 0,013	± 0,005	± 0,025
G	± 0,025	± 0,025	± 0,05-0,13
H	± 0,013	± 0,013	± 0,025
J	± 0,05-0,15 <sup>2</sup>	± 0,005	± 0,025
K	± 0,05-0,15 <sup>2</sup>	± 0,013	± 0,025
L	± 0,05-0,15 <sup>2</sup>	± 0,013	± 0,025
M	± 0,05-0,15 <sup>2</sup>	± 0,08-0,20 <sup>2</sup>	± 0,013
N	± 0,05-0,15 <sup>2</sup>	± 0,08-0,20 <sup>2</sup>	± 0,025
U	± 0,05-0,25 <sup>2</sup>	± 0,13-0,38 <sup>2</sup>	± 0,05-0,13

<sup>1</sup> Inserti con spigolo affilato  
<sup>2</sup> in relazione con la misura dell'inserto (vedere norma ISO 1832)

4

**TIPO DI INSERTO**



**X**  
 Versione speciale  
 (necessaria la  
 descrizione)

08 5	03 6	04 7	F 8	R 9	P 10
5	6	7	8	9	10
LUNGHEZZA TAGLIANTE	SPESSORE	RAGGIO SPIGOLO	GEOMETRIA TAGLIANTE	DIREZIONE DI TAGLIO	DISEGNO INTERNO
	<p>01 s = 1,59 T1 s = 1,98 02 s = 2,38 T2 s = 2,78 03 s = 3,18 T3 s = 3,97 04 s = 4,76 05 s = 5,56 06 s = 6,35 07 s = 7,94 09 s = 9,52</p>	<p>02 r = 0,2 04 r = 0,4 08 r = 0,8 12 r = 1,2 16 r = 1,6 24 r = 2,4</p> <p>R</p> <p>00 per Ø in mm.</p> <p>M0 per Ø in scala metrica.</p> <p>1</p> <p>2</p> <p>1 Angolo di montaggio <math>\chi_r</math> A = 45° D = 60° E = 75° F = 85° P = 90° Z = Angoli diversi</p> <p>2 Angolo libro sul tagliente A = 3° B = 5° C = 7° D = 15° E = 20° F = 25° G = 30° N = 0° P = 11° Z = Angoli diversi</p>	<p>E Spigolo arrotondato</p> <p>F Spigolo affilato</p> <p>T Spigolo 45°</p> <p>S Spigolo 45° arrotondato</p>		<p>pereseempio:</p> <p>P = Lappato</p> <p>W = Con taglio affilato</p>

## MATERIALI DA TAGLIO / GRADI

### NON RIVESTITI

IN04S	<b>K10-K20</b>	Micro grana di metallo duro per la lavorazione ad alta velocità di alluminio con alto contenuto di silicio e per lavorazioni leggere / medie su ghisa grigia.
IN05S	<b>M10-M20</b>	Micro grana di metallo duro adatto sia per la lavorazione del titanio che delle super leghe appartenenti al gruppo ISO „S“. Utilizzabile con successo anche su metalli non ferrosi e su lavorazioni leggere su ghisa grigia.
IN10K	<b>K10-K25</b>	Grado in metallo duro resistente all'usura per sgrossatura e finitura di ghisa, leghe di alluminio, rame e leghe di rame oltre che materiali plastici. Da utilizzare con carichi leggeri ad alte velocità di taglio.
IN15K	<b>K20-K40</b>	Qualità universale per la lavorazione di ghisa, leghe di alluminio e vari materiali non ferrosi. Da impiegare preferibilmente con medie velocità di taglio.
IN30M	<b>M20-M40</b> <b>K20-K50</b>	Molto resistente alle scheggiature e alle rotture. Qualità per la lavorazione di metalli non ferrosi e ghise.

### RIVESTITI

IN0545	<b>P30-P50</b>	Grado speciale rivestito PVD per fresatura di filetti. I taglienti rinforzati conferiscono un'eccellente durata dell'utensile nella lavorazione di acciaio, acciaio inossidabile e ghisa.
IN1030	<b>P20-P40</b> <b>M20-M40</b> <b>K15-K30</b>	Qualità universale per tutti i tipi di acciai, lavorazione con acqua di acciaio inossidabile a media velocità di taglio. Molto tenace e resistente alle scheggiature.
IN2004	<b>P10-P20</b> <b>K10-K25</b>	Qualità rivestita TiAlN PVD ad alte prestazioni per diversi campi di applicazione. Molto resistente all'usura e tenace per fresare acciai legati e ghisa - specialmente GGI. Da usare con velocità di taglio medio-alte, per operazioni di finitura e media sgrossatura, in condizioni di lavoro stabili.
IN2005	<b>P15-P30</b> <b>M15-M35</b> <b>K20-K40</b>	Micrograna di metallo duro rivestita TiAlN con buona tenacità ed eccellente resistenza all'usura per la lavorazione di acciai con alta tenacità, acciai inossidabili, titanio, ghisa grigia e ghisa nodulare.
IN2006	<b>P05-P20</b> <b>M10-M20</b>	Micrograna di metallo duro rivestita TiAlN con buona tenacità ed eccellente resistenza all'usura per la lavorazione di acciai temprati fino a 62 HRC.
IN2010	<b>K10-K25</b>	Qualità rivestita TiAlN con buona resistenza all'usura per la lavorazione di ghise con velocità medio alte. Qualità particolarmente indicata se si utilizzano geometrie positive in condizioni di lavoro sfavorevoli.
IN2015	<b>P20-P35</b> <b>K20-K40</b> <b>M20-M40</b>	Qualità rivestita TiAlN per diverse applicazioni, con eccellente resistenza all'usura e buona tenacità per la lavorazione di ghisa, ghisa nodulare e acciai con alta tenacità come anche acciaio inossidabile austenitico. Da utilizzare con velocità di taglio e carico di lavoro medi.
IN2030	<b>P20-P40</b> <b>M20-M40</b> <b>K20-K40</b>	Qualità rivestita TiAlN, con eccellente resistenza all'usura con alta tenacità per la lavorazione di acciaio, acciaio inossidabile ferritico e austenitico, leghe ad alte temperature, ghise da utilizzare con velocità di taglio medio-alte.



## MATERIALI DA TAGLIO / GRADI

IN2035	<p>P20-P40</p> <p>M20-M40</p> <p>K20-K40</p>	Qualità rivestita TiAlN, con ottima resistenza all'usura e alta tenacità, specifico per lavorare superleghe di materiali ISO del gruppo S.
IN2040	<p>P20-P40</p>	Qualità rivestita TiAlN con alta resistenza all'usura e utilizzabile su una vasta gamma di acciai. Specialmente indicato per la lavorazione a secco di acciai non legati e temprati con velocità di taglio medio alte.
IN2505	<p>P15-P35</p> <p>M10-M30</p> <p>K10-K30</p>	Supermicrograna di metallo duro rivestita TiAlN + TiN con buona tenacità ed eccellente resistenza all'usura. Adatta per sgrossature medie di acciai ad alta resistenza, e di acciai inossidabili.
IN2540	<p>P10-P40</p>	Metallo duro rivestito TiAlN + TiN con eccellente resistenza all'usura e stabilità termica. Adatto per medie sgrossature di acciai non legati e di acciai trattati termicamente.
IN6515	<p>K20-K40</p>	Qualità rivestita MT-CVD con alta resistenza all'usura e tenacità per la lavorazione di ghise come ghisa grigia, ghisa sferoidale con formazione di trucioli medi a velocità di taglio medio-alte anche con condizioni non ottimali.
IN6520	<p>P10-P35</p> <p>M10-M35</p> <p>K10-K30</p>	Qualità rivestita MT-CVD con buona resistenza all'usura e alta tenacità per forare acciaio, acciaio inossidabile ferritico e austenitico, HSS, leghe termo trattabili come anche ghise con velocità di taglio medio alte. Grado consigliato per prevenire l'usura degli inserti laterali.
IN6530	<p>P25-P45</p> <p>M25-M40</p> <p>K20-K50</p>	Qualità di rivestimento multistrato MT-CVD, con buona resistenza all'usura e alta tenacità per fresare acciai, acciai inossidabili ferritici e austenitici, HSS, leghe termo trattabili come anche ghise con velocità di taglio medio basse. Particolarmente indicata per fresatura di acciai non legati su applicazioni medio-pesanti.
INDD15	<p>K20-K40</p>	Qualità di rivestimento multistrato MT-CVD, con eccellente resistenza all'usura e tenacità per fresare a velocità medio alte. Raccomandato per fresare ghise come anche ghisa grigia e ghisa nodulare.
<b>CERMET</b>		
IN60C	<p>P10-P30</p>	Qualità Cermet con alta resistenza ad alte velocità di taglio. Resistente all'attaccamento del materiale sul tagliente. Fresatura di semi-finitura.
IN0560	<p>P05-P15</p> <p>M05-M15</p>	Qualità Cermet rivestita per finitura di acciaio ad alte velocità. Consigliato per la lavorazione di acciai inossidabili e austenitici.
<b>SiN</b>		
IN70N	<p>K10-K20</p>	Qualità ceramica (Si-Ni) per la lavorazione di ghise a velocità estremamente alte.
<b>PCD</b>		
IN90D	<p>K01-K10</p> <p>K01-K15</p>	Grado diamante policristallino (PCD) per la lavorazione dell'alluminio, plastica e grafite.



- **Sinopsis de Placas de Corte reversible y Campos de Aplicación** 532 - 547
- **Sistema de Denominacion de Placas de Corte reversible ISO** 548 - 549
  - **Calidades de Metal Duo - Revestimientos** 550 - 551

**MINNO** 

The word "MINNO" is written in a large, bold, light blue sans-serif font. To the right of the text is a circular logo symbol consisting of a circle with a diagonal line from the top-left to the bottom-right, and a smaller circle inside it, also with a diagonal line.



# ANEXO TÉCNICO



STOOL

## SINOPSIS DE LAS PLACAS DE CORTE REVERSIBLE

	N.º de artículo	Diseño de placa de corte reversible	Avance por diente		Tipo de fresa
			fz min (hm)	fz max	
	AOPT060204FR-P	dos puntas, positiva, pulida y arista de corte canto vivo, geometría para materiales no férricos con R0,4	0,05	0,12	SA06D02, SA06D03, SA06M01, SA06E01, IA06D03, IA06M01, EA06D10, FA06D02
	AOPT110304FR-P	positiva, pulida y geometría afilada para materiales no ferrosos con R0,4	0,05	0,20	SA11D03, SA11M01, SA11E01, IA11D03, IA11D10, IA11M01, EA11D10
	AOPT110308FR-P	positiva, pulida y geometría afilada para materiales no ferrosos con R0,8	0,05	0,20	SA11D03, SA11M01, SA11E01, IA11D03, IA11D10, IA11M01, EA11D10
	AOMT060202R	dos puntas, geometría positiva con R0,2	0,06	0,12	SA06D02, SA06D03, SA06M01, SA06E01, IA06D03, IA06M01, EA06D10, FA06D02
	AOMT060202R-DT1	una punta, placa positiva con pastilla PCD corta con R0,2	0,05	0,12	SA06D02, SA06D03, SA06M01, SA06E01, EA06D10
	AOMT060204R	dos puntas, geometría positiva con R0,4	0,06	0,12	SA06D02, SA06D03, SA06M01, SA06E01, IA06D03, IA06M01, EA06D10, FA06D02
	AOMT060208R	dos puntas, geometría positiva con R0,8	0,06	0,12	SA06D02, SA06D03, SA06M01, SA06E01, IA06D03, IA06M01, EA06D10, FA06D02
	AOMT060216R	dos puntas, geometría positiva con R1,6	0,06	0,12	SA06D02, SA06D03, SA06M01, SA06E01, IA06D03, IA06M01, EA06D10, FA06D02
	AOMT110304R	geometría positiva con R0,4	0,11	0,15	SA11D03, SA11M01, SA11E01, IA11D03, IA11D10, IA11M01, EA11D10
	AOMT110308R	geometría positiva con R0,8	0,11	0,15	SA11D03, SA11M01, SA11E01, IA11D03, IA11D10, IA11M01, EA11D10
	AOMT110316R	geometría positiva con R1,6	0,11	0,15	SA11D03, SA11M01, SA11E01, IA11D03, IA11D10, IA11M01, EA11D10
	AOMT110332R	geometría positiva con R3,2	0,11	0,15	SA11D03, SA11M01, SA11E01, IA11D03, IA11D10, IA11M01, EA11D10
	AOMT160508R	geometría positiva con R0,8	0,16	0,30	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10
	AOMT160508R-HS	dos puntas, geometría positiva para titanio con R0,8	0,10	0,25	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10

## SINOPSIS DE LAS PLACAS DE CORTE REVERSIBLE

	N.º de artículo	Diseño de placa de corte reversible	Avance por diente		Tipo de fresa
			fz min (hm)	fz max	
	AOMT160516R	geometría positiva con R1,6	0,16	0,30	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10
	AOMT160524R	geometría positiva con R2,4	0,16	0,30	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10
	AOMT160532R	geometría positiva con R3,2	0,16	0,30	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10
	AOMT160540R	geometría positiva con R4,0	0,16	0,30	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10
	AOMT160550R	geometría positiva con R5,0	0,16	0,30	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10
	AOMT160564R	geometría positiva con R6,4	0,16	0,30	SA16D03, SA16M01, IA16D10, IA16M01, EA16D10
	APKT080304R-DT1	plaquetas positiva corta PCD	0,05	0,20	EA08D10A
	APKT080304R-DT2	plaquetas positiva larga PCD	0,05	0,20	EA08D10A
	BEEW120310R-CR	dos puntas, geometría neutra R1,0	0,08	0,20	F___D03, F___E01
	BEEW120316R-CR	dos puntas, geometría neutra R1,6	0,08	0,20	F___D03, F___E01
	BEEW120320R-CR	dos puntas, geometría neutra R2,0	0,08	0,20	F___D03, F___E01
	BEEW120325R-CR	dos puntas, geometría neutra R2,5	0,08	0,20	F___D03, F___E01
	BEEW120330R-CR	dos puntas, geometría neutra R3,0	0,08	0,20	F___D03, F___E01
	BEHW250304R	dos puntas, geometría neutra R0,4	0,08	0,20	FB25D10

## SINOPSIS DE LAS PLACAS DE CORTE REVERSIBLE

	N.º de artículo	Diseño de placa de corte reversible	Avance por diente		Tipo de fresa
			fz min (hm)	fz max	
	BEHW250304R-P	dos puntas, pulido y arista de corte canto vivo, geometría de materiales no férricos	0,05	0,20	FB25D10
	BEHW250308R	dos puntas, geometría neutra R0,8	0,08	0,20	FB25D10
	BEHW250308R-P	dos puntas, pulido y arista de corte canto vivo, geometría de materiales no férricos con R0,8	0,05	0,20	FB25D10
	BEHW250316R	dos puntas, geometría neutra R1,6	0,08	0,20	FB25D10
	BEHW250316R-P	dos puntas, pulido y arista de corte canto vivo, geometría de materiales no férricos con R1,6	0,05	0,20	FB25D10
	BOCT090304FR-P	dos puntas, positiva, pulida y arista de corte canto vivo, geometría para materiales no férricos con R0,4	0,05	0,20	SB09D03, SB09M01, SB09E01, IB09D03, IB09M01, EB09D10
	BOCT090308FR-P	dos puntas, positiva, pulida y arista de corte canto vivo, geometría para materiales no férricos con R0,8	0,05	0,20	SB09D03, SB09M01, SB09E01, IB09D03, IB09M01, EB09D10
	BOCT130404FR-P	dos puntas, positiva, pulida y arista de corte canto vivo, geometría para materiales no férricos con R0,4	0,05	0,25	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B, FB13D03B, FB13D10B
	BOCT130408FR-P	dos puntas, positiva, pulida y arista de corte canto vivo, geometría para materiales no férricos con R0,8	0,05	0,25	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B
	BOMT09T304R	dos puntas, geometría positiva con R0,4	0,10	0,15	SB09D03, SB09M01, SB09E01, IB09D03, IB09M01, EB09D10
	BOMT09T308R	dos puntas, geometría positiva con R0,8	0,10	0,15	SB09D03, SB09M01, SB09E01, IB09D03, IB09M01, EB09D10
	BOMT09T316R	dos puntas, geometría positiva con R1,6	0,10	0,15	SB09D03, SB09M01, SB09E01, IB09D03, IB09M01, EB09D10
	BOMT130404R	dos puntas, geometría positiva con R0,4	0,12	0,20	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B, FB13D03B, FB13D10B
	BOMT130408R	dos puntas, geometría positiva con R0,8	0,12	0,20	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B

## SINOPSIS DE LAS PLACAS DE CORTE REVERSIBLE

N.º de artículo	Diseño de placa de corte reversible	Avance por diente		Tipo de fresa	
		fz min (hm)	fz max		
	BOMT130416R	dos puntas, geometría positiva con R1,6	0,12	0,20	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B
	BOMT130420R	dos puntas, geometría positiva con R2,0	0,12	0,20	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B
	BOMT130424R	dos puntas, geometría positiva con R2,4	0,12	0,20	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B
	BOMT130431R	dos puntas, geometría positiva con R3,1	0,12	0,20	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B
	BOMT130440R	dos puntas, geometría positiva con R4,0	0,12	0,20	SB13D03B, SB13M01B, SB13E01B, IB13D02B, IB13D10B, IB13M01B, EB13D10B
	CDE313L021	positiva de doble filo, rombica	0,10	0,25	BCE01A
	CDE313L021 - J	positiva de doble filo, rombica	0,10	0,25	BCE01A
	CDE313L021T00	geometria neutral, K-biselada	0,10	0,20	BCE01A
	CDE322L005	positiva de doble filo, rombica	0,10	0,25	BCD10A
	CDE322L005 - J	positiva de doble filo, rombica	0,10	0,25	BCD10A
	CDE322L005T00	geometría de acero positiva con K-land	0,10	0,20	BCD10A
	CNHU060310N	cuatro puntas, geometría positiva con R1,0	0,10	0,30	KC06E01
	CNHU060315N	cuatro puntas, geometría positiva con R1,5	0,10	0,30	KC06E01
	CNHU110420N	cuatro puntas, geometría positiva con R2,0	0,10	0,40	KC11E01, KC11D10

## SINOPSIS DE LAS PLACAS DE CORTE REVERSIBLE












	N.º de artículo	Diseño de placa de corte reversible	Avance por diente		Tipo de fresa
			fz min (hm)	fz max	
	DND324L103 - J	geometría neutral, K-biselada	0,10	0,30	BDD10A
	DND324L104T34 - J	geometría neutral, K-biselada	0,10	0,30	BDD10A
	DPD324L123 - A	positiva con K-biselada	0,10	0,25	BDD10A
	DPD324L124 - A	positiva con K-biselada	0,10	0,25	BDD10A
	FEEW250340R-CR	dos puntas, geometría neutra con R4,0	0,08	0,20	F___D03, F___E01
	FEEW250350R-CR	dos puntas, geometría neutra con R5,0	0,08	0,20	F___D03, F___E01
	FEEW250360R-CR	dos puntas, geometría neutra con R6,0	0,08	0,20	F___D03, F___E01
	GCXF071601N	geometría positiva	0,08	0,15	DFD01
	GCXF082202N	geometría positiva	0,08	0,15	DFD01
	GCXF092402N	geometría positiva	0,08	0,15	DFD01A
	GCXF113102N	geometría positiva	0,08	0,15	DFD01A
	GCXF114103N	geometría positiva	0,08	0,15	DFD01A
	NCET0802MOR	geometría de acero positiva	0,08	0,15	KWD03, KWD02, KWE01
	NCET1002MOR	geometría de acero positiva	0,08	0,15	KWD03, KWD02, KWE01



## SINOPSIS DE LAS PLACAS DE CORTE REVERSIBLE

	N.º de artículo	Diseño de placa de corte reversible	Avance por diente		Tipo de fresa
			fz min (hm)	fz max	
	NCEX1203MOR	geometría de acero positiva	0,10	0,20	KWD03, KWD02, KWE01
	NCEX1605MOR	geometría de acero positiva	0,10	0,20	KWD03, KWD02, KWE01
	NCEX2005MOR	geometría de acero positiva	0,10	0,25	KWD03, KWD02, KWE01
	NCEX2506MOR	geometría de acero positiva	0,10	0,25	KWD03, KWD02, KWE01
	NPHG1003MOR	una punta, geometría positiva con R5,0	0,10	0,20	KND02A, KND02C, KND02B, KNE01
	NPHG1204MOR	una punta, geometría positiva con R6,0	0,10	0,20	KND02A, KND02C, KND02B, KNE01
	NPHG1604MOR	una punta, geometría positiva con R8,0	0,10	0,25	KND02A, KND02C, KND02B, KNE01
	NPHG2004MOR	una punta, geometría positiva con R10	0,10	0,25	KND02A, KND02C, KND02B, KNE01
	NPHG2506MOR	una punta, geometría positiva con R12,5	0,10	0,30	KND02A, KND02C, KND02B, KNE01
	NPHG3007MOR	una punta, geometría positiva con R15	0,10	0,30	KND02A, KND02C, KNE01
	NPHG3207MOR	una punta, geometría positiva con R16	0,10	0,30	KND02A, KNE01
	OFCT05T3AFFN-P	positiva, pulida y geometría afilada para materiales no ferrosos	0,05	0,30	PO05E01, PO05D10
	OFCT05T3TN	ocho puntas, positiva con arista de corte reforzada	0,12	0,30	PO05E01, PO05D10
	OFCT0705AFFN-P	positiva, pulida y geometría afilada para materiales no ferrosos	0,05	0,30	PO07D10

## SINOPSIS DE LAS PLACAS DE CORTE REVERSIBLE

	N.º de artículo	Diseño de placa de corte reversible	Avance por diente		Tipo de fresa
			fz min (hm)	fz max	
	OFCT0705AFRR-W	Plaquita rascateadora para acabado con 4 puntas	0,15	0,30	PO07D10
	OFMT05T3AFN-HR	geometría positiva	0,12	0,25	PO05E01, PO05D10
	OFMT0705AFR-HR	geometría positiva	0,15	0,30	PO07D10
	OFMT0705AFTN	geometría positiva con refuerzo en el filo de corte	0,15	0,30	PO07D10
	OFMW05T3AFTN	geometría neutral, K-biselada para mecanizados fuertes	0,20	0,40	PO05E01, PO05D10
	OFMW0705AFTN	geometría neutral, K-biselada para mecanizados fuertes	0,25	0,50	PO07D10
	PNCQ0804GNTN	diez puntas, geometría neutra K-biselada	0,21	0,40	PP08D10
	PNCQ0804ZNTN	geometría neutra, K-biselada	0,50	2,50	KP08E01, KP08D10
	PNCT0804ZNN-HR	cinco puntas, geometría positiva	0,22	1,50	KP08E01, KP08D10
	PNCU0805GNFR-HS	diez puntas, alta geometría positiva	0,08	0,30	PP08D10
	PNCU0805GNFR-P	diez puntas, positiva, pulida y arista de corte canto vivo, geometría para materiales no férricos	0,05	0,40	PP08D10
	PNCU0805GNR	diez puntas, geometría positiva SiN	0,10	0,18	PP08D10
	PNCU0805GNTR	diez puntas, geometría positiva	0,22	0,40	PP08D10
	PNCU0805GNTR-W	plaquita rasqueteadora	0,22	0,40	PP08D10

## SINOPSIS DE LAS PLACAS DE CORTE REVERSIBLE

	N.º de artículo	Diseño de placa de corte reversible	Avance por diente		Tipo de fresa
			fz min (hm)	fz max	
	PNCU1708GNTR	diez puntas, geometría positiva	0,30	0,50	PP17D10
	RCLT1204M0N-CC1	cuatro puntas, geometría positiva para aceros con R1,2	0,10	0,25	PR12E01CC, PR12D10CC
	RCLT1204M0N-CC2	diez puntas, geometría positiva para aceros con K-biselada y R1,2	0,15	0,30	PR12E01CC, PR12D10CC
	RCLT1204M0N-CP	cuatro puntas, positiva, pulida y arista de corte canto vivo, geometría para materiales no férricos	0,10	0,25	PR12E01CC, PR12D10CC
	RCLT1204M0TN-PH2	ocho puntas, geometría positiva para aceros con K-biselada	0,20	0,70	PR12E01CC, PR12D10CC
	RCLT1606M0N-CC	cuatro puntas, geometría positiva para aceros con R1,2	0,10	0,25	PR16E01CC, PR16D10CC
	RCLT1606M0N-CC1	cuatro puntas, geometría positiva para aceros con R1,6	0,10	0,30	PR16E01CC, PR16D10CC
	RCLT1606M0N-CP	cuatro puntas, positiva, geometría no férrica	0,10	0,25	PR16E01CC, PR16D10CC
	RCLT1606M0TN-PH	mínimo cuatro puntas, geometría positiva para aceros	0,10	0,50	PR16E01CC, PR16D10CC
	RCLT1606M0TN-PH2	ocho puntas, geometría negativa para aceros con K-biselada	0,20	0,80	PR16E01CC, PR16D10CC
	RFMT1404M0N-F	ocho puntas, geometría positiva con K-biselada	0,15	0,30	PO05E01, PO05D10
	RHHT0802M0FN-P	positiva, pulida y geometría afilada para materiales no ferrosos	0,10	0,30	PR08D03/PR10D03N, PR08E01N, PR08E01P
	RHHT0802M0TN	geometría neutral, K-biselada	0,10	0,20	PR08D03/PR10D03N, PR08E01N, PR08E01P
	RHHT0802M0TN-P	mínimo cuatro puntas, geometría de titanio, pulida	0,10	0,20	PR08D03/PR10D03N, PR08E01N, PR08E01P

## SINOPSIS DE LAS PLACAS DE CORTE REVERSIBLE

	N.º de artículo	Diseño de placa de corte reversible	Avance por diente		Tipo de fresa
			fz min (hm)	fz max	
	RHHT1003M0FN-P	positiva, pulida y geometría afilada para materiales no ferrosos	0,15	0,30	PR08D03/PR10D03N, PR10E01N, PR10D10N, PR10E01P, PR10D10P
	RHHT1003M0TN	geometría neutral, K-biselada	0,15	0,40	PR08D03/PR10D03N, PR10E01N, PR10D10N, PR10E01P, PR10D10P
	RHHT1003M0TN-P	mínimo cuatro puntas, geometría de titanio, pulida	0,10	0,20	PR08D03/PR10D03N, PR10E01N, PR10D10N, PR10E01P, PR10D10P
	RHHT1204M0FN-P	positiva, pulida y geometría afilada para materiales no ferrosos	0,15	0,30	PR12E01N, PR12D10N, PR12E01P, PR12D10P
	RHHT1204M0TN	geometría neutral, K-biselada	0,25	0,50	PR12E01N, PR12D10N, PR12E01P, PR12D10P
	RHHT1204M0TN-P	mínimo cuatro puntas, geometría de titanio, pulida	0,10	0,25	PR12E01N, PR12D10N, PR12E01P, PR12D10P
	RHHT1605M0FN-P	positiva, pulida y geometría afilada para materiales no ferrosos	0,15	0,30	PR16E01N, PR16D10N, PR16E01P, PR16D10P
	RHHT1605M0TN	geometría neutral, K-biselada	0,25	0,50	PR16E01N, PR16D10N, PR16E01P, PR16D10P
	RHHT1605M0TN-P	mínimo cuatro puntas, geometría positiva y pulida para titanio	0,10	0,25	PR16E01N, PR16D10N, PR16E01P, PR16D10P
	RHHW0602M0TN	geometría neutral, K-biselada	0,20	0,30	PR06D03N, PR06E01N
	RHHW0802M0TN	geometría neutral, K-biselada			PR08D03/PR10D03N, PR08E01N, PR08E01P
	RHHW1003M0TN	geometría neutral, K-biselada	0,25	0,50	PR08D03/PR10D03N, PR10E01N, PR10D10N, PR10E01P, PR10D10P
	RHHW1204M0TN	geometría neutral, K-biselada	0,25	0,45	PR12E01N, PR12D10N, PR12E01P, PR12D10P
	RHHW1605M0TN	geometría neutral, K-biselada	0,30	0,60	PR16E01N, PR16D10N, PR16E01P, PR16D10P

## SINOPSIS DE LAS PLACAS DE CORTE REVERSIBLE

N.º de artículo	Diseño de placa de corte reversible	Avance por diente		Tipo de fresa
		fz min (hm)	fz max	
	mínimo cuatro puntas, geometría de desbaste positiva, K-biselada negativa	0,50	1,50	PR16E01N, PR16D10N, PR16E01P, PR16D10P
	mínimo cuatro puntas, geometría positiva con K-biselada	0,25	0,50	PR20D10P
	mínimo cuatro puntas, geometría de desbaste positiva, K-biselada negativa	0,50	1,50	PR20D10P
	geometría neutral, K-biselada para desbaste	0,25	0,60	PR08D03/PR10D03N, PR10E01N, PR10D10N, PR10E01P, PR10D10P
	geometría neutral, K-biselada para desbaste	0,25	0,60	PR12E01N, PR12D10N, PR12E01P, PR12D10P
	geometría neutral, K-biselada para desbaste	0,30	0,76	PR16E01N, PR16D10N, PR16E01P, PR16D10P
	geometría neutral, K-biselada para desbaste	0,40	1,00	PR20D10P
	cuatro puntas, geometría de fundición R0,4	0,05	0,12	BSD03B, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27,5, 4D Ø13 - Ø29, 5D Ø13 - Ø27
	cuatro puntas, geometría positiva con R0,4	0,05	0,12	BSD03B, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27,5, 4D Ø13 - Ø29, 5D Ø13 - Ø27
	positiva y geometría afilada para materiales no ferrosos	0,05	0,20	ES08D10, DS08D01, DS08D10, FS08D03, FS08E01, TS08D03, TS08M01
	geometría de corte afilado positiva para materiales no ferrosos	0,05	0,20	SS08D03, SS08M01, IS08D03, IS08D10, IS08M01, ES08D10, DS08D01, DS08D10, FS08D03, FS08E01, TS08D03, TS08M01
	corte afilado, K-biselada	0,15	0,20	DTD01, DTD10
	corte afilado, K-biselada	0,15	0,20	DTD01, DTD10
	corte afilado, K-biselada	0,15	0,20	DTD01, DTD10

## SINOPSIS DE LAS PLACAS DE CORTE REVERSIBLE

	N.º de artículo	Diseño de placa de corte reversible	Avance por diente		Tipo de fresa
			fz min (hm)	fz max	
	SDE-42-002 - J	cate afilado, K-biselada	0,15	0,20	DTD01, DTD10
	SDE-42-003 - J	cate afilado, K-biselada	0,15	0,20	DTD01, DTD10
	SDE-43-001 - J	cate afilado, K-biselada	0,15	0,20	DTD01, DTD10
	SDGT07T308-HP	cuatro puntas, positiva, pulida y arista de cate canto vivo, geometría para materiales no férricos con R0,8	0,08	0,15	BSE01C 90°, BSE01B 93,2°, BSD03A, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27,5, 3D Ø51 - Ø60, 4D Ø13 - Ø29, 5D Ø13 - Ø27, 2,5D Ø51 - Ø80
	SDGT140512-HP	cuatro puntas, positiva, pulida y arista de cate canto vivo, geometría para materiales no férricos con R1,2	0,15	0,26	BSD03A, BSD03B, BSE01A, 2D Ø30 - Ø50, 3D Ø28 - Ø50,5, 4D Ø30 - Ø50, 5D Ø28 - Ø50
	SDMT080305N	geometría positiva	0,13	0,17	SS08D03, SS08M01, IS08D03, IS08D10, IS08M01, ES08D10, DS08D01, DS08D10, FS08D03, FS08E01, TS08D03, TS08M01
	SDMT120608R	geometría positiva	0,16	0,25	IS12D10, IS12M01, ES12D10
	SDMT120608R-HS	cuatro puntas, geometría positiva de titanio con R0,8	0,11	0,20	IS12D10, IS12M01, ES12D10
	SDMW080305TN	geometría neutral, K-biselada para mecanizados fuertes	0,13	0,20	SS08D03, SS08M01, IS08D03, IS08D10, IS08M01, ES08D10, DS08D01, DS08D10, FS08D03, FS08E01, TS08D03, TS08M01
	SDMW080305TN-W	cuatro puntas, geometría desbaste-acabado con R0,5	0,13	0,20	ES08D10
	SECT09T3AFFN	positiva y geometría para mecanizados fuertes	0,05	0,20	PS09D03, PS09D10
	SECT09T3AFFN-P	geometría de cate afilado positiva para materiales no ferrosos	0,05	0,20	PS09D03, PS09D10
	SEE-31-101	cuatro puntas, geometría para materiales no férricos	0,05	0,20	DTD01, DTD10
	SEE-31-102	cuatro puntas, geometría para materiales no férricos	0,05	0,20	DTD01, DTD10

## SINOPSIS DE LAS PLACAS DE CORTE REVERSIBLE

N.º de artículo	Diseño de placa de corte reversible	Avance por diente		Tipo de fresa
		fz min (hm)	fz max	
SEE-42-101	cuatro puntas, geometría para materiales no férricos	0,05	0,20	DTD01, DTD10
SEE-42-102	cuatro puntas, geometría para materiales no férricos	0,05	0,20	DTD01, DTD10
SEE-42-103	cuatro puntas, geometría para materiales no férricos	0,05	0,20	DTD01, DTD10
SEE-43-101	cuatro puntas, geometría para materiales no férricos	0,05	0,20	DTD01, DTD10
SEKT09T3AFN	geometría positiva	0,13	0,20	PS09D03, PS09D10
SHET110502FR-P	cuatro puntas, positiva, pulida y arista de corte canto vivo, geometría para materiales no férricos con R0,2	0,05	0,30	SS11E01, ES11D10
SHET110505FR-P	cuatro puntas, positiva, pulida y arista de corte canto vivo, geometría para materiales no férricos con R0,5	0,05	0,30	SS11E01, ES11D10
SHET110508FR-P	cuatro puntas, positiva, pulida y arista de corte canto vivo, geometría para materiales no férricos con R0,8	0,05	0,30	SS11E01, ES11D10
SHET110516FR-P	cuatro puntas, positiva, pulida y arista de corte canto vivo, geometría para materiales no férricos con R1,6	0,05	0,30	SS11E01, ES11D10
SHET110524FN-P	cuatro puntas, positiva, pulida y arista de corte canto vivo, geometría para materiales no férricos con R2,4	0,05	0,30	SS11E01, ES11D10
SHET110532FN-P	cuatro puntas, positiva, pulida y arista de corte canto vivo, geometría para materiales no férricos con R3,2	0,05	0,30	SS11E01, ES11D10
SHET110540FN-P	cuatro puntas, positiva, pulida y arista de corte canto vivo, geometría para materiales no férricos con R4,0	0,05	0,30	SS11E01, ES11D10
SHGT050204-HP	cuatro puntas, positiva, pulida y arista de corte canto vivo, geometría para materiales no férricos con R0,4	0,05	0,12	BSD03B, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27,5, 4D Ø13 - Ø29, 5D Ø13 - Ø27
SHGT060204-HP	cuatro puntas, positiva, pulida y arista de corte canto vivo, geometría para materiales no férricos con R0,4	0,08	0,15	BSE01C 90°, BSE01B 93,2°, BSD03A, BSD03B, BSE01A, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27,5, 4D Ø13 - Ø29, 5D Ø13 - Ø27

## SINOPSIS DE LAS PLACAS DE CORTE REVERSIBLE

N.º de artículo	Diseño de placa de corte reversible	Avance por diente		Tipo de fresa
		fz min (hm)	fz max	
	SHGT090408-HP cuatro puntas, positiva, pulida y arista de corte canto vivo, geometría para materiales no férricos con R0,8	0,10	0,20	BSE01C 90°, BSE01B 93,2°, BSD03A, BSD03B, BSE01A, 2D Ø13 - Ø29, 2D Ø30 - Ø50, 3D Ø28 - Ø50, 5, 3D Ø51 - Ø60, 4D Ø13 - Ø29, 4D Ø30 - Ø50, 5D Ø28 - Ø50, 2,5D Ø51 - Ø80
	SHGT110408-HP cuatro puntas, positiva, pulida y arista de corte canto vivo, geometría para materiales no férricos con R0,8	0,14	0,23	BSD03B, BSE01A, 2D Ø30 - Ø50, 3D Ø28 - Ø50, 5, 4D Ø30 - Ø50, 5D Ø28 - Ø50, 2,5D Ø51 - Ø80
	SHLT060204N cuatro puntas, geometría de fundición R0,4	0,08	0,25	BSE01C 90°, BSE01B 93,2°, BSD03A, BSD03B, BSE01A, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27, 5, 4D Ø13 - Ø29, 5D Ø13 - Ø27
	SHLT060204N-PH cuatro puntas, geometría positiva con R0,4	0,06	0,20	BSE01C 90°, BSE01B 93,2°, BSD03A, BSD03B, BSE01A, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27, 5, 4D Ø13 - Ø29, 5D Ø13 - Ø27
	SHLT090308N-HR cuatro puntas y geometría positiva	0,12	0,20	ES09D10, TS09M01
	SHLT090408N cuatro puntas, geometría de fundición R0,8	0,12	0,25	BSE01C 90°, BSE01B 93,2°, BSD03A, BSD03B, BSE01A, 2D Ø13 - Ø29, 2D Ø30 - Ø50, 3D Ø28 - Ø50, 5, 3D Ø51 - Ø60, 4D Ø13 - Ø29, 4D Ø30 - Ø50, 5D Ø28 - Ø50, 2,5D Ø51 - Ø80
	SHLT090408N-PH1 cuatro puntas, geometría positiva con R0,8	0,07	0,22	BSE01C 90°, BSE01B 93,2°, BSD03A, BSD03B, BSE01A, 2D Ø13 - Ø29, 2D Ø30 - Ø50, 3D Ø28 - Ø50, 5, 3D Ø51 - Ø60, 4D Ø13 - Ø29, 4D Ø30 - Ø50, 5D Ø28 - Ø50, 2,5D Ø51 - Ø80
	SHLT110408N cuatro puntas, geometría de fundición R0,8	0,16	0,28	BSD03B, BSE01A, 2D Ø30 - Ø50, 3D Ø28 - Ø50, 5, 4D Ø30 - Ø50, 5D Ø28 - Ø50, 2,5D Ø51 - Ø80
	SHLT110408N-PH1 cuatro puntas, geometría positiva con R0,8	0,08	0,23	BSD03B, BSE01A, 2D Ø30 - Ø50, 3D Ø28 - Ø50, 5, 4D Ø30 - Ø50, 5D Ø28 - Ø50, 2,5D Ø51 - Ø80
	SHLT110408TN-HR cuatro puntas, geometría positiva con R0,8	0,12	0,25	ES11D10
	SHLT140508TN-HR positiva de cuatro cortes	0,15	0,30	IS14D10, ES14D10, PS14D10, TS14M01
	SHLT140508TN-HS cuatro puntas, geometría positiva para materiales no ferrosos	0,12	0,30	IS14D10, ES14D10, PS14D10
	SHLT1405APTN-HR cuatro cortes geometría positiva para materiales no ferrosos	0,15	0,40	PS14D10
	SHLT1405APTN-HR - A cuatro puntas, geometría positiva, rasqueteadora	0,15	0,40	PS14D10



## SINOPSIS DE LAS PLACAS DE CORTE REVERSIBLE

N.º de artículo	Diseño de placa de corte reversible	Avance por diente		Tipo de fresa
		fz min (hm)	fz max	
	cuatro puntas, geometría de fundición R0,8	0,10	0,25	BSE01C 90°, BSE01B 93,2°, BSD03A, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27,5, 3D Ø51 - Ø60, 4D Ø13 - Ø29, 5D Ø13 - Ø27, 2,5D Ø51 - Ø80
	cuatro puntas, geometría positiva con R0,8	0,06	0,20	BSE01C 90°, BSE01B 93,2°, BSD03A, 2D Ø13 - Ø29, 3D Ø12,5 - Ø27,5, 3D Ø51 - Ø60, 4D Ø13 - Ø29, 5D Ø13 - Ø27, 2,5D Ø51 - Ø80
	cuatro puntas, geometría positiva con R0,8	0,08	0,28	2,5D Ø51 - Ø80
	cuatro puntas, geometría de fundición R1,2	0,18	0,30	BSD03A, BSD03B, BSE01A, 2D Ø30 - Ø50, 3D Ø28 - Ø50,5, 4D Ø30 - Ø50, 5D Ø28 - Ø50
	cuatro puntas, geometría positiva con R1,2	0,06	0,26	BSD03A, BSD03B, BSE01A, 2D Ø30 - Ø50, 3D Ø28 - Ø50,5, 4D Ø30 - Ø50, 5D Ø28 - Ø50
	dos puntas, geometría positiva	0,80	2,00	KU08E01, KU08D10
	dos puntas, geometría neutra	1,00	2,50	KU08E01, KU08D10
	dos puntas, geometría positiva	1,00	2,50	KU13E01, KU13D10
	dos puntas, geometría semi positiva con R0,4	1,00	2,50	KU13E01, KU13D10
	dos puntas, geometría neutra	1,00	3,00	KU13E01, KU13D10
	dos puntas, geometría de alta velocidad	0,30	0,80	SA06D02, SA06D03, SA06M01, SA06E01, EA06D10
	positiva, pulida y geometría afilada para materiales no ferrosos con R0,8	0,05	0,35	EX25E01, EX25D10
	dos puntas, rasqueteadora para materiales no férricos con R0,8	0,05	0,35	EX25E01, EX25D10
	geometría no férrica, pulida con R1,6	0,05	0,35	EX25E01, EX25D10

## SINOPSIS DE LAS PLACAS DE CORTE REVERSIBLE

	N.º de artículo	Diseño de placa de corte reversible	Avance por diente		Tipo de fresa
			fz min (hm)	fz max	
	XEET250432R-P	positiva, pulida y geometría afilada para materiales no ferrosos con R3,2	0,05	0,35	EX25E01, EX25D10
	XEET250440R-P	geometría no férrica, pulida con R4,0	0,05	0,35	EX25E01, EX25D10
	XEET250450R-P	geometría no férrica, pulida con R5,0	0,05	0,35	EX25E01, EX25D10
	XFEB330504R-P	geometría no férrica, pulida con R0,4	0,05	0,40	EX33D08
	XFEB330508R-P	geometría no férrica, pulida con R0,8	0,05	0,40	EX33D08
	XFEB330508R-PW	rasqueteadora geometría no férrica pulida con R0,8	0,05	0,40	EX33D08
	XFEB330516R-P	geometría no férrica, pulida con R1,6	0,05	0,40	EX33D08
	XFEB330532R-P	geometría no férrica, pulida con R3,2	0,05	0,40	EX33D08
	XFEB330540R-P	geometría no férrica, pulida con R4,0	0,05	0,40	EX33D08
	XFEB330550R-P	geometría no férrica, pulida con R5,0	0,05	0,40	EX33D08
	XFEB330564R-P	geometría no férrica, pulida con R6,4	0,05	0,40	EX33D08
	XPET140405FR-P	geometría no férrica, pulida con R0,5	0,05	0,30	EX14E01, EX14D08A, EX14D08B, EX14D08C, EX14D10
	XPET140408FR-P	geometría no férrica, pulida con R0,8	0,05	0,30	EX14E01, EX14D08A, EX14D08B, EX14D08C, EX14D10
	XPET140416FR-P	geometría no férrica, pulida con R1,6	0,05	0,30	EX14E01, EX14D08A, EX14D08B, EX14D08C, EX14D10





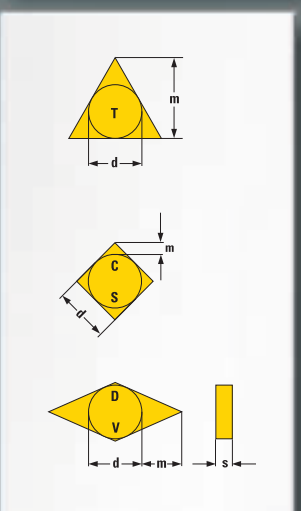
**A** 1    **P** 2    **C** 3    **T** 4

1 **FORMA DE PLACA**

2 **ÁNGULO DE INCIDENCIA**

o = otra

3 **TOLERANCIAS**



**Tolleranze in mm**

	d	m	s
A	± 0,025	± 0,005	± 0,025
C	± 0,025	± 0,013	± 0,025
E	± 0,025	± 0,025	± 0,025
F	± 0,013	± 0,005	± 0,025
G	± 0,025	± 0,025	± 0,05-0,13
H	± 0,013	± 0,013	± 0,025
J	± 0,05-0,15 <sup>2</sup>	± 0,005	± 0,025
K	± 0,05-0,15 <sup>2</sup>	± 0,013	± 0,025
L	± 0,05-0,15 <sup>2</sup>	± 0,013	± 0,025
M	± 0,05-0,15 <sup>2</sup>	± 0,08-0,20 <sup>2</sup>	± 0,013
N	± 0,05-0,15 <sup>2</sup>	± 0,08-0,20 <sup>2</sup>	± 0,025
U	± 0,05-0,25 <sup>2</sup>	± 0,13-0,38 <sup>2</sup>	± 0,05-0,13

<sup>1</sup> Placa con arista afilada  
<sup>2</sup> con relacion con la medida de la placa (ver la norma ISO 1832)

4 **TIPO DE PLACA**

**X**  
Version especial (es necesaria la descripcion)

08 5	03 6	04 7	F 8	R 9	P 10
5	6	7	8	9	10
LONGITUD DE FILOS	CORTANTES	CONFORMACIÓN DEL CORTE	DIRECCIÓN DEL CORTE	DIRECCIÓN DEL CORTE	ÁREAS INTERNAS
	<p>01 s = 1,59 T1 s = 1,98 02 s = 2,38 T2 s = 2,78 03 s = 3,18 T3 s = 3,97 04 s = 4,76 05 s = 5,56 06 s = 6,35 07 s = 7,94 09 s = 9,52</p>	<p>02 r = 0,2 04 r = 0,4 08 r = 0,8 12 r = 1,2 16 r = 1,6 24 r = 2,4</p> <p>R 00 per Ø in mm. MO per Ø in scala metrica.</p> <p>1 Angulo de montaje <math>\chi</math> A = 45° D = 60° E = 75° F = 85° P = 90° Z = el Apoyo</p> <p>2 Angulo libre A = 3° B = 5° C = 7° D = 15° E = 20° F = 25° G = 30° N = 0° P = 11° Z = Angulos diversos</p>	<p>E Arista redondeada</p> <p>F Arista afilada</p> <p>T Arista 45°</p> <p>S Arista 45° biselada</p>		<p>por ejemplo:</p> <p>P = Pulida</p> <p>W = Con cuchilla de acabado (ancho)</p>

## MATERIALES DE CORTE-RECUBRIMIENTOS

### METAL DURO SIN RECUBRIR

IN04S	<b>K10-K20</b>	Calidad de metal duro Micro Grano para el mecanizado de Aluminio incluso con alto contenido de Silicio pudiendo mecanizar con altas velocidades de corte. También nos permite semi desbaste y acabar fundición gris.
IN05S	<b>M10-M20</b>	Calidad de metal duro Micro Grano para el mecanizado de Titanio y super aleaciones del grupo S de la tabla ISO. También aplicable con éxito en metales no férricos así como semi-desbaste y acabado en fundición gris.
IN10K	<b>K10-K25</b>	Metal duro para el mecanizado de metales no férricos así como plásticos. Para ser aplicado con poca carga por diente y altas velocidades de corte.
IN15K	<b>K20-K40</b>	Calidad universal para el mecanizado de fundición gris, aleaciones de aluminios y varios metales no férricos. Preferiblemente aplicar condiciones de corte medianas.
IN30M	<b>M20-M40</b> <b>K20-K50</b>	Calidad tenaz muy resistente a la rotura. Este grado de metal duro se aplica para el mecanizado de metales no férricos así como materiales de fundición gris.

### METAL DURO CON RECUBRIMIENTO

IN054S	<b>P30-P50</b>	Calidad de metal duro especial con recubrimiento PVD para el mecanizado de interpolaciones circulares. Aristas de corte reforzadas nos dan una excelente vida de herramienta en el mecanizado de aceros, inoxidables y fundiciones.
IN1030	<b>P20-P40</b> <b>M20-M40</b> <b>K15-K30</b>	Calidad de metal duro universal para todo tipo de aceros y mecanizado de inoxidables con taladrina, velocidades de corte medias. Metal duro con alta tenacidad.
IN2004	<b>P10-P20</b> <b>K10-K25</b>	Metal duro Micro Grano muy polivalente con recubrimiento PVD combinando alta resistencia al desgaste con una alta tenacidad. Para el mecanizado de aceros aleados así como fundiciones, especialmente CGI. Aplicado para velocidades de corte de medias a altas. Para desbastes finos y acabados en condiciones medianamente estables.
IN2005	<b>P15-P30</b> <b>M15-M35</b> <b>K20-K40</b>	Metal duro Micro Grano recubierto con una alta resistencia al desgaste y excelente tenacidad, para el mecanizado de aceros, aceros inoxidables y también fundiciones grises y nodulares.
IN2006	<b>P05-P20</b> <b>M10-M20</b>	Metal duro Micro Grano recubierto con una alta resistencia al desgaste y excelente tenacidad, para el mecanizado de materiales templados hasta 62 HRC.
IN2010	<b>K10-K25</b>	Metal duro Micro Grano recubierto de TiAlN con una excelente resistencia al desgaste, para el mecanizado de fundición gris con velocidades de corte de medianas a altas. Esta calidad se aplica con geometrías positivas bajo condiciones de corte no favorables.
IN2015	<b>P20-P35</b> <b>K20-K40</b> <b>M20-M40</b>	Metal duro Micro Grano recubierto de TiAlN combinando una excelente resistencia al desgaste con una buena tenacidad para el mecanizado de fundición gris, fundición nodular, y aceros austeníticos. Aplicar velocidades y cargas por diente moderadas.
IN2030	<b>P20-P40</b> <b>M20-M40</b> <b>K20-K40</b>	Metal duro Micro Grano recubierto de TiAlN combinando una excelente resistencia al desgaste con una buena tenacidad para el mecanizado de aceros, aceros inoxidables, aceros austeníticos, aleaciones resistentes a la temperatura y materiales de fundición gris con velocidades de corte medianas.

IN	IN2035	P20-P40 M20-M40 K20-K40	Metal duro Micro Grano recubierto de TiAlN combinando resistencia al desgaste con una buena tenacidad. Especialmente indicada para el mecanizado de Titanio y super aleaciones del grupo S en la tabla ISO de materiales.
	IN2040	P20-P40	Metal duro Micro Grano recubierto de TiAlN con una excelente resistencia al desgaste con amplio campo de aplicación sobre los aceros. Especialmente indicado para el mecanizado en seco de aceros no aleados y aceros para el temple con velocidades de corte de medianas a altas.
	IN2505	P15-P35 M10-M30 K10-K30	TiAlN + TiN-Metal duro Submicron recubierto con buena tenacidad y excelente resistencia al desgaste. Aplicable para fresado en semi desbastes de aceros aleados de alta resistencia así como aceros inoxidable.
	IN2540	P10-P40	TiAlN + TiN-Metal duro recubierto con una excelente resistencia y estabilidad térmica. Aplicable para semi desbastes de aceros no aleados y aleados.
	IN6515	K20-K40	Calidad de metal duro con recubrimiento MT-CVD con excelente resistencia al desgaste y alta tenacidad para el mecanizado de fundiciones como fundición gris y fundiciones de aceros nodulares. Para trabajar con avances por diente de medianos a altos y velocidades de corte medianas.
	IN6520	P10-P35 M10-M35 K10-K30	Calidad de metal duro con recubrimiento MT-CVD combinando una excelente resistencia al desgaste con una buena tenacidad para taladrar aceros, inoxidable y aceros austeníticos, HSS, aceros aleados, aceros con resistencia a la temperatura y también fundición gris con velocidades de corte de medianas a altas. Esta calidad se aplica para solucionar problemas de desgaste en la plaquita periférica.
	IN6530	P25-P45 M25-M40 K20-K50	Calidad de metal duro con recubrimiento multi capa MT-CVD combinando una excelente resistencia al desgaste con una buena tenacidad para el mecanizado de aceros, inoxidable y aceros austeníticos, HSS, aceros aleados, aceros con resistencia a la temperatura y también fundición gris con velocidades de corte de bajas a medianas. Especialmente indicada para operaciones de fresado de aceros no aleados en desbastes finos y grandes desbastes.
	INDD15	K20-K40	Calidad de metal duro con recubrimiento multi capa MT-CVD combinando una excelente resistencia al desgaste con una buena tenacidad para mecanizar con velocidades de corte de medianas a altas. Recomendada para el fresado de fundiciones como fundición gris y fundición nodular.
<b>CERMET</b>			
IN	IN60C	P10-P30	Calidad de Cermet con una gran resistencia al desgaste para trabajar con velocidades de corte altas. Ideal para evitar el recrecimiento del filo en la arista de corte. Para operaciones de semi-acabado.
	IN0560	P05-P15 M05-M15	Cermet recubierto para operaciones de acabado de aceros con velocidades de corte altas. Recomendado para aceros inoxidable y aceros austeníticos.
<b>SiN</b>			
IN	IN70N	K10-K20	Cerámica (Nitrato de Silicio)- para mecanizar fundición gris con velocidades de corte extremadamente altas.
<b>PCD</b>			
IN	IN90D	K01-K10 K01-K15	Diamante Policristalino (PCD) para el mecanizado de Aluminios, Aluminios con alto contenido de Silicio.

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
12Y1H009035W4R00	340
12Y1H010035W4R00	340
12Y1J012025W4R00	344
12Y1J014035W4R00	344
12Y1J017035W4R00	344
12Y1J020043W4R00	344
12Y1N018035W4R00	348
12Y1N021044W4R00	348
12Y1N025075W4R00	348
12Y1N030052W5R00	348
12Y1N063050F1R00	352
12Y1S029054W5R00	354
12Y1S031094W5R00	354
12Y1S038090W6R00	354
12Y1S040070W6R00	354
12Y1S063050F1R00	358
12Y1S080055F2R00	358
12Y1S100060F3R00	358
12Y1U048083W7R00	360
12Y1U050083W7R00	360
12Y1U080065F2R00	362
12Y1U100070F3R00	362
12Y5H009089T0R00	342
12Y5J013070T1R00	346
12Y5J013110T1R00	346
12Y5J015130T2R00	346
12Y5N021082T3R00	350
12Y5N021152T3R00	350
12Y5S027220T4R00	356
16 D.RING SEMC	460
22 D.RING SEMC	460
22Y3Q023054W5R00	364
22Y3R032070W6R00	366
22Y3S045070W6R00	368
22Y3T063050F1R00	370
27 D.RING SEMC	460
32 D.RING SEMC	460
40 D.RING SEMC	460
45B00401T9RB380	263
45B00501T9RB380	263
45B00601T9RB380	263
45B00701T9RB380	263
45B00802T9RB380	263
45B01003U0RB500	263
45B01103U0RB500	263
45B01203U0RB500	263
45B01604U0RB500	263
45B02003T7RB800	266
45B02004T7RB500	265
45B02004T9RB380	265

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
45B02006T9RB800	268
45B02006U0RB500	263
45B03004T7RB800	266
45B03005T7RB570	265
45B03005T9RB380	265
45B03008T7RB700	267
45B03008T9RB100	268
45B03030T9RB750	292
45B04005T7RB800	266
45B04007T7RB570	265
45B04007U0RB500	265
45B04008T7RB540	265
45B04008T7RB700	267
45B04008U0RB100	268
45B04030U0RB750	292
45B05008T7RB570	265
45B05008U1RB500	265
45B05009T7RB540	265
45B05010T7RB120	268
45B05012T7RB800	267
45B05040U1RB100	292
45B06006T0RB100	266
45B06006T7RB800	266
45B06008T7RB570	265
45B06010T7RB120	268
45B06010T7RB540	265
45B06012T7RB800	267
45B06050T7RB150	292
45B07014T0RB900	267
45B08007T0RB100	266
45B08007T1RB120	266
45B08011T0RB630	265
45B08012T0RB580	265
45B08014T0RB140	268
45B08014T0RB900	267
45B08050T0RB150	292
45B10009T1RB120	266
45B10009T2RB160	266
45B10013T1RB720	265
45B10014T1RB670	265
45B10018T1RB100	267
45B10018T1RB180	268
45B10060T1RB150	292
45B12014T2RB830	265
45B12022T2RB110	267
45B12022T2RB200	268
45B12075T2RB150	292
45B14026T2RB120	267
45B16016T3RB930	265
45B16030T3RB140	267



# GENERAL TECHNICAL INFORMATION

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

45B16030T3RB250	268
45B18034T3RB140	267
45B20020T4RB100	265
45B20038T4RB160	267
45B20038T4RB250	268
45B25055T5RB180	267
45J03030T9RB750	296
45J04012T7RD570	295
45J04030U0RB750	296
45J05014T7RD570	295
45J05040U1RB100	296
45J06016T7RD570	295
45J06050T7RB150	296
45J08020T0RD630	295
45J08050T0RB150	296
45J10022T1RD720	295
45J10060T1RB150	296
45J12025T2RD830	295
45J12075T2RB150	296
45J16032T3RD920	295
45J20038T4RD100	295
45U02002T7RB050	273
45U03002T7RB050	273
45U04003T7RB100	273
45U06004T0RB200	273
45U06004T7RB200	273
45U08004T0RB200	273
45U08004T1RB200	273
45U10006T1RB300	273
45U10006T2RB300	273
46B06016T7RA570	265
46B08016T0RA630	265
46D05014T7RD020	298
46D05014T7RD050	284
46D05014W0RD020	298
46D06009T7RN020	293
46D06009T7RN021	294
46D06009WERN020	293
46D06009WERN021	294
46D06013T7RD050	284
46D06013T7RD100	284
46D06016T7RD020	298
46D06016W0RD020	298
46D08012T0RN020	293
46D08012T0RN021	294
46D08012W0RN020	293
46D08012W0RN021	294
46D08020T0RD020	298
46D08020T0RD050	284
46D08020T0RD100	284

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

46D08020T0RD150	284
46D08020T0RD200	284
46D08020W0RD020	298
46D10012T1RN020	293
46D10012T1RN021	294
46D10012W1RN020	293
46D10012W1RN021	294
46D10022T1RD020	298
46D10022T1RD050	284
46D10022T1RD100	284
46D10022T1RD150	284
46D10022T1RD200	284
46D10022T1RD300	284
46D10022W1RD020	298
46D12012T2RN020	293
46D12012W2RN020	293
46D12014T2RN021	294
46D12014W2RN021	294
46D12025T2RD020	298
46D12025T2RD050	284
46D12025T2RD100	284
46D12025T2RD150	284
46D12025T2RD200	284
46D12025T2RD300	284
46D12025W2RD020	298
46D14030U8RD020	298
46D14030WFRD020	298
46D16014T3RN020	293
46D16014W3RN020	293
46D16018T3RN021	294
46D16018W3RN021	294
46D16032T3RD020	298
46D16032T3RD050	284
46D16032T3RD100	284
46D16032T3RD200	284
46D16032T3RD300	284
46D16032W3RD020	298
46D20017T4RN020	293
46D20017W4RN020	293
46D20022T4RN021	294
46D20022W4RN021	294
46D20038T4RD020	298
46D20038W4RD020	298
46J02007T7RD500	282
46J02007T9RD380	282
46J02804WERC570	281
46J03008T7RD450	297
46J03010T7RD500	282
46J03010T9RD380	282
46J03805WERC570	281

INDEX / INDEX ALPHANUMÉRIQUE  
 INDICE ALFANUMERICO DEGLI ARTICOLI / LISTA ALFANUMÉRICA DE ARTÍCULOS

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
46J04011T7RD450	297
46J04012T7RD500	282
46J04012U0RD500	282
46J04806WERC570	281
46J05013T7RD500	297
46J05014T7RD500	282
46J05014U1RD500	282
46J05707WERC570	281
46J06013T7RD500	297
46J06016T7RD500	282
46J06016WERD500	283
46J06708W0RC630	281
46J07016UARD600	282
46J07709W0RC630	281
46J08019T0RD600	297
46J08020T0RD630	282
46J08020W0RD630	283
46J09020U9RD670	282
46J09711W1RC720	281
46J10022T1RD700	297
46J10022T1RD720	282
46J10022W1RD720	283
46J11712W2RC730	281
46J12025T2RD730	282
46J12025W2RD830	283
46J12026T2RD750	297
46J13714WFRC830	281
46J14025U8RD750	282
46J15716W3RC820	281
46J16032T3RD820	282
46J16032W3RD920	283
46J17718WGRC920	281
46J18032U2RD920	282
46J19720W4RC920	281
46J20038T4RD920	282
46J20038W4RD100	283
46Y030IST9RM040	391
46Y035IST9RM050	391
46Y040IST7LM050	393
46Y040IST7RM050	391
46Y040IST9RM060	391
46Y045IST7LM050	393
46Y045IST7LM060	393
46Y045IST7LM080	393
46Y045IST7RM050	391
46Y045IST7RM060	391
46Y045IST7RM080	391
46Y050IST7LM070	393
46Y050IST7LM100	393
46Y050IST7RA050	384

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
46Y050IST7RA100	384
46Y050IST7RB100	372
46Y050IST7RM070	391
46Y050IST7RM100	391
46Y060IST7LM080	393
46Y060IST7RM080	391
46Y070IST7LM090	393
46Y070IST7LM130	393
46Y070IST7RA070	384
46Y070IST7RB070	372
46Y070IST7RM090	391
46Y070IST7RM130	391
46Y075IST7RA100	384
46Y075IST7RB100	372
46Y080IST7LM130	393
46Y080IST7LM160	393
46Y080IST7RA090	384
46Y080IST7RB090	372
46Y080IST7RM130	391
46Y080IST7RM160	391
46Y-08UNT3RA430	386
46Y-09UNT3RA380	386
46Y-09UNT3RB380	373
46Y100IST7LM140	393
46Y100IST7LM200	393
46Y100IST7RA110	384
46Y100IST7RA130	384
46Y100IST7RA150	384
46Y100IST7RB110	372
46Y100IST7RB130	372
46Y100IST7RB150	372
46Y100IST7RC110	378
46Y100IST7RC130	378
46Y100IST7RM140	391
46Y100IST7RM200	391
46Y-10UNT2RA340	386
46Y-11BWT2RA240	387
46Y-11UNT1RA290	386
46Y-11UNT2RB290	373
46Y-11UNT2RC290	379
46Y-11UNT2RM350	392
46Y125IST7LM180	393
46Y125IST7LM240	393
46Y125IST7RA140	384
46Y125IST7RA190	384
46Y125IST7RB140	372
46Y125IST7RB190	372
46Y125IST7RC140	378
46Y125IST7RC190	378
46Y125IST7RM200	391

# GENERAL TECHNICAL INFORMATION

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

46Y125IST7RM240	391
46Y-12UNT1RA270	386
46Y-12UNT2RC270	379
46Y-12UNT2RM320	392
46Y-13UNT0RA230	386
46Y-13UNT1LM280	394
46Y-13UNT1RB230	373
46Y-13UNT1RC230	379
46Y-13UNT1RM280	392
46Y-14UNT0LM250	394
46Y-14UNT0RA210	386
46Y-14UNT0RB210	373
46Y-14UNT0RC210	379
46Y-14UNT0RM250	392
46Y150IST0LM230	393
46Y150IST0RA170	384
46Y150IST0RA250	384
46Y150IST0RB170	372
46Y150IST0RB250	372
46Y150IST0RC170	378
46Y150IST0RM230	391
46Y-16UNT0LM220	394
46Y-16UNT0RB170	373
46Y-16UNT0RC170	379
46Y-16UNT0RM220	392
46Y-16UNT7RA170	386
46Y175IST0RA200	384
46Y175IST0RA290	384
46Y175IST1LM260	393
46Y175IST1RB200	372
46Y175IST1RB290	372
46Y175IST1RM260	391
46Y175ISU9RC200	378
46Y175ISU9RC290	378
46Y-18NFT0RA150	390
46Y-18NTT0RA150	389
46Y-18UNT7LM170	394
46Y-18UNT7LM230	394
46Y-18UNT7RA150	386
46Y-18UNT7RB150	373
46Y-18UNT7RC150	379
46Y-18UNT7RM170	392
46Y-18UNT7RM230	392
46Y-19BTT0RA140	388
46Y-19BWT0RA140	387
46Y200IST1RA170	385
46Y200IST1RA270	384
46Y200IST1RA390	384
46Y200IST1RB270	372
46Y200IST1RC270	378

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

46Y-20UNT0RA200	386
46Y-20UNT0RB210	373
46Y-20UNT0RC210	379
46Y-20UNT0RM250	392
46Y-20UNT7LM140	394
46Y-20UNT7LM190	394
46Y-20UNT7RA120	386
46Y-20UNT7RB120	373
46Y-20UNT7RM140	392
46Y-20UNT7RM190	392
46Y-24UNT0LM170	394
46Y-24UNT0LM240	394
46Y-24UNT0RA200	386
46Y-24UNT0RB140	373
46Y-24UNT0RB210	373
46Y-24UNT0RC140	379
46Y-24UNT0RM170	392
46Y-24UNT0RM240	392
46Y-24UNT7LM110	394
46Y-24UNT7RA150	386
46Y-24UNT7RM110	392
46Y-26UNT2RB270	373
46Y-27NFT0RB110	377
46Y-27NFT0RC110	383
46Y-27NFT7RA100	390
46Y-27NTT0RB110	376
46Y-27NTT0RC110	382
46Y-27NTT7RA100	389
46Y-28BTT0RB140	375
46Y-28BTT0RC140	381
46Y-28BTT7RA090	388
46Y-28BWT0RB140	374
46Y-28BWT0RC140	380
46Y-28BWT7RA100	387
46Y-28UNT7LM110	394
46Y-28UNT7LM150	394
46Y-28UNT7LM190	394
46Y-28UNT7RA110	386
46Y-28UNT7RA150	386
46Y-28UNT7RB110	373
46Y-28UNT7RB140	373
46Y-28UNT7RC110	379
46Y-28UNT7RC140	379
46Y-28UNT7RM150	392
46Y-28UNT7RM190	392
46Y300IST3RA410	384
46Y300IST3RA590	384
46Y-32UNT7LM070	394
46Y-32UNT7LM100	394
46Y-32UNT7LM110	394

**INDEX / INDEX ALPHANUMÉRIQUE  
INDICE ALFANUMERICO DEGLI ARTICOLI / LISTA ALFANUMÉRICA DE ARTÍCULOS**

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

46Y-32UNT7LM130	394
46Y-32UNT7LM150	394
46Y-32UNT7RA070	386
46Y-32UNT7RB070	373
46Y-32UNT7RB140	373
46Y-32UNT7RM070	392
46Y-32UNT7RM100	392
46Y-32UNT7RM110	392
46Y-32UNT7RM130	392
46Y-32UNT7RM150	392
46Y-36UNT7LM090	394
46Y-36UNT7RM090	392
46Y-40UNT7LM060	394
46Y-40UNT7LM070	394
46Y-40UNT7LM100	394
46Y-40UNT7RM060	392
46Y-40UNT7RM070	392
46Y-40UNT7RM100	392
46Y-40UNUERA060	386
46Y-48UNT7LM050	394
46Y-48UNT7RM050	392
46Y-56UNT7LM040	394
46Y-56UNT7RM040	392
46Y-64UNT7LM040	394
46Y-64UNT7RM040	392
46Y-72UNT7LM040	394
46Y-72UNT7RM040	392
46Y-80UNT7LM040	394
46Y-80UNT7RM040	392
47A06003T7RA010	272
47A08004T0RA013	272
47A10005T1RA016	272
47A12006T2RA020	272
47A16008T3RA026	272
47A20010T4RA032	272
47B02003T9RB380	269
47B03005T7RB570	269
47B03005T9RB380	269
47B03008U0RB500	270
47B04007T7RB570	269
47B04007U0RB500	269
47B04012U0RB500	270
47B04012U0RB800	271
47B05008T7RB570	269
47B05014U1RB500	270
47B06008T7RB570	269
47B06016T7RB100	271
47B06016T7RB570	270
47B07016UARB100	271
47B08011TORB630	269

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

47B08020TORB100	271
47B08020TORB630	270
47B09020U9RB100	271
47B10013T1RB720	269
47B10022T1RA720	264
47B10022T1RB100	271
47B10022T1RB720	270
47B12014T2RB830	269
47B12025T2RB100	271
47B12025T2RB830	270
47B12026T2RA830	264
47B14026U8RA830	264
47B16016T3RB920	269
47B16032T3RA920	264
47B16032T3RB130	271
47B16032T3RB920	270
47B18032U2RA920	264
47B20020T4RB100	269
47B20038T4RA100	264
47B20038T4RB100	270
47C05005WERN020	275
47C05010WERN020	276
47C06006WERN030	275
47C06012WERN020	276
47C06012WERN021	277
47C06014T7RN020	279
47C06014T7RQ020	274
47C06014WERN020	274
47C06014WRRN020	279
47C06015T7RQ021	274
47C06015WERN021	274
47C08008W0RN030	275
47C08012W0RN030	278
47C08016W0RN030	276
47C08016W0RN031	277
47C08018TORN030	279
47C08018TORQ030	274
47C08018W0RQ030	274
47C08018WSRN030	279
47C08020TORQ021	274
47C08020W0RQ021	274
47C10010W1RN030	275
47C10015W1RN030	278
47C10020W1RN030	276
47C10020W1RN031	277
47C10022T1RN030	279
47C10022T1RQ040	274
47C10022W1RQ040	274
47C10022WTRN030	279
47C10025T1RQ031	274

# GENERAL TECHNICAL INFORMATION

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

47C10025W1RQ031	274
47C12012W2RN030	275
47C12018W2RN030	278
47C12024W2RN030	276
47C12024W2RN031	277
47C12026T2RN040	279
47C12026T2RQ050	274
47C12026W2RQ050	274
47C12026WURN040	279
47C12030T2RQ041	274
47C12030W2RQ041	274
47C14030U8RN040	279
47C14030WFRN040	279
47C16016W3RN030	275
47C16024W3RN030	278
47C16032W3RN030	276
47C16032W3RN031	277
47C16034T3RQ060	274
47C16034W3RQ060	274
47C16040T3RQ051	274
47C16040W3RQ051	274
47C20042T4RQ060	274
47C20042W4RQ060	274
47C20050T4RQ051	274
47C20050W4RQ051	274
47D06016T7RD050	287
47D06016T7RD100	287
47D08020T0RD050	287
47D08020T0RD100	287
47D08020T0RD150	287
47D08020T0RD200	287
47D10020W1RN100	276
47D10022T1RD050	287
47D10022T1RD100	287
47D10022T1RD150	287
47D10022T1RD200	287
47D10022T1RD300	287
47D12024W2RN120	276
47D12025T2RD050	287
47D12025T2RD100	287
47D12025T2RD150	287
47D12025T2RD200	287
47D12025T2RD300	287
47D16032T3RD050	287
47D16032T3RD100	287
47D16032T3RD150	287
47D16032T3RD200	287
47D16032T3RD250	287
47D16032T3RD300	287
47D16032W3RN160	276

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

47D20038T4RD050	287
47D20038T4RD100	287
47D20038T4RD200	287
47D20038T4RD300	287
47D20038T4RD400	287
47J02007T7RD500	285
47J02007T9RD380	285
47J03010T7RD500	285
47J03010T9RD380	285
47J03030T9RB750	299
47J04012T7RD500	285
47J04012U0RD500	285
47J04030U0RB750	299
47J05014T7RD500	285
47J05014U1RD500	285
47J05040U1RB100	299
47J06014T7RU570	280
47J06014WERU570	280
47J06016T7RD500	285
47J06024T7RD650	288
47J06050T7RB150	299
47J07016UARD600	285
47J08018T0RU630	280
47J08018W0RU630	280
47J08020T0RD630	285
47J08020W0RD630	286
47J08032T0RD800	288
47J08050T0RB150	299
47J09020U9RD670	285
47J10022T1RD720	285
47J10022T1RU720	280
47J10022W1RD720	286
47J10022W1RU720	280
47J10040T1RD100	288
47J10060T1RB150	299
47J10060T1RD110	289
47J12025T2RD730	285
47J12025W2RD830	286
47J12026T2RU830	280
47J12026W2RU830	280
47J12048T2RD100	288
47J12072T2RD150	289
47J12075T2RB150	299
47J14025U8RD750	285
47J14030U8RU830	280
47J14030WFRU830	280
47J14050U8RD100	288
47J16032T3RD820	285
47J16032W3RD920	286
47J16034T3RU920	280

**INDEX / INDEX ALPHANUMÉRIQUE**  
**INDICE ALFANUMERICO DEGLI ARTICOLI / LISTA ALFANUMÉRICA DE ARTÍCULOS**

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Páginas
47J16034W3RU920	280
47J18032U2RD920	285
47J20038T4RD920	285
47J20038W4RD100	286
47J20042T4RU040	280
47J20042W4RU040	280
47J25052T5RU210	280
47J25052W5RU210	280
47Y-07UNT4RA450	386
47Y-07UNT4RB450	373
47Y-08NFT4RA400	390
47Y-08NFT4RB400	377
47Y-08NTT4RA400	389
47Y-08NTT4RB400	376
47Y-08UNT4RB430	373
47Y100IST0RA170	384
47Y100IST0RB170	372
47Y100IST0RC170	378
47Y100IST1RA170	385
47Y100IST1RB240	372
47Y100IST2RA210	385
47Y-10UNT3RB340	373
47Y-10UNT3RC340	379
47Y-10UNT3RM420	392
47Y-11BTT3RA280	388
47Y-11BTT3RB280	375
47Y-11BTT3RC290	381
47Y-11BWT3RA380	387
47Y-11BWT3RB380	374
47Y-11BWT3RC380	380
47Y-11BWT4RA470	387
47Y-11BWT4RB470	374
47Y-11NFT3RA280	390
47Y-11NFT3RB300	377
47Y-11NTT3RA280	389
47Y-11NTT4RB300	376
47Y-12UNT3RA410	386
47Y-12UNT3RB410	373
47Y-14BTT2RA190	388
47Y-14BTT3RB260	375
47Y-14BTT3RC260	381
47Y-14BWT2RA190	387
47Y-14BWT2RA260	387
47Y-14BWT3RB260	374
47Y-14BWT3RC260	380
47Y-14NFT2RA210	390
47Y-14NFT3RB230	377
47Y-14NFT3RC230	383
47Y-14NTT2RA210	389
47Y-14NTT3RB230	376

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Páginas
47Y-14NTT3RC230	382
47Y-14UNT3RA370	386
47Y-14UNT3RB370	373
47Y-14UNT3RC370	379
47Y150IST1RA160	385
47Y150IST1RA220	384
47Y150IST1RB220	372
47Y150IST1RC220	378
47Y150IST2RA200	385
47Y150IST2RB260	372
47Y150IST2RC260	378
47Y150IST3RC340	378
47Y-16UNT2RA300	386
47Y-16UNT2RB310	373
47Y-16UNT2RC310	379
47Y175IST2RA200	385
47Y-18NFT1RB160	377
47Y-18NFT1RC160	383
47Y-18NTT1RB160	376
47Y-18NTT1RC160	382
47Y-18UNT1RA260	386
47Y-18UNT2LM350	394
47Y-18UNT2RB260	373
47Y-18UNT2RC260	379
47Y-18UNT2RM350	392
47Y-19BTT1RB160	375
47Y-19BTT1RC170	381
47Y-19BWT1RB170	374
47Y-19BWT1RC170	380
47Y200ISS0RC270	378
47Y200IST2RA210	385
47Y200IST2RA270	384
47Y200IST2RB270	372
47Y200IST2RB390	372
47Y200IST2RM350	391
47Y-20UNT1RB220	373
47Y-20UNT1RC220	379
47Y-20UNT2RA270	386
47Y-20UNT2RB270	373
47Y-20UNT2RC270	379
47Y-24UNT0RC210	379
47Y250ISS0RC340	378
47Y250IST3RB340	372
47Y250IST3RB490	372
47Y250IST3RM430	391
47Y250ISU8RA340	384
47Y250ISU8RA490	384
47Y300IST4RA440	384
47Y300IST4RB410	372
47Y300IST4RB440	372

# GENERAL TECHNICAL INFORMATION

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

47Y3001ST4RB590	372
47Y-31UNT0RB190	373
48C16034T3RN050	279
48C16034WVRN050	279
48C20020W4RN030	275
48C20040W4RN030	276
48C20040W4RN031	277
48C20042T4RN070	279
48C20042WVRN070	279
48C25052T5RN090	279
48C25052W5RN090	279
48J06016T7RD570	290
48J06026T7RD700	291
48J08020T0RD630	290
48J08036T0RD900	291
48J10022T1RD720	290
48J10046T1RD100	291
48J12025T2RD830	290
48J12056T2RD110	291
48J16032T3RD920	290
48J16056T3RD120	288
48J16066T3RD130	291
48J16080T3RD150	289
48J20038T4RD100	290
48J20060T4RD130	288
48J20076T4RD140	291
48J20080T4RD150	289
48J25092T5RD180	291
48Y1501ST3RA340	384
48Y1501ST3RB340	372
48Y2001ST4RA410	384
48Y2001ST4RB410	372
50 D.RING SEMC	460
55E175R00	145
55E192R01	332
55E212R01	332
55E213R01	332
55E223R01	332
55F233R01	332
55F243R02	332
55F243R03	332
55F263R01	332
55G264R01	332
55G294R01	332
55H294R00	334
55H314R00	334
69871A40FM40SA50	428
69871A40SM16SA35	428
69871A40SM22SA35	428
69871A40SM22SK052	430

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

69871A40SM22SK077	430
69871A40SM22SK102	430
69871A40SM22SK127	430
69871A40SM27SA35	428
69871A40SM32SA50	428
69871A50CP40SA25	431
69871A50CP60SA25	431
69871A50FM40SA100	428
69871A50FM40SA160	428
69871A50FM40SA35	428
69871A50FM40SA50	428
69871A50FM40SA75	428
69871A50SM16SA35	428
69871A50SM22SA100	428
69871A50SM22SA200	428
69871A50SM22SA300	428
69871A50SM22SA35	428
69871A50SM22SA50	428
69871A50SM22SA75	428
69871A50SM22SK077	430
69871A50SM22SK127	430
69871A50SM22SK177	430
69871A50SM27SA047	430
69871A50SM27SA100	428
69871A50SM27SA160	428
69871A50SM27SA300	428
69871A50SM27SA35	428
69871A50SM27SA50	428
69871A50SM27SA75	428
69871A50SM27SK077	430
69871A50SM27SK127	430
69871A50SM27SK177	430
69871A50SM32SA100	428
69871A50SM32SA160	428
69871A50SM32SA35	428
69871A50SM32SA370	428
69871A50SM32SA50	428
69871A50SM32SA75	428
69871A50SM32SK077	430
69871A50SM32SK127	430
69871A50SM40SA077	430
69871A50SM40SA127	430
69871A60CP40SA25	431
69871A60CP60SA25	431
AF.024.001	416
AF.024.002	416
AF.024.003	416
AF.024.004	419
AF.024.005	419
AF.024.006	419

**INDEX / INDEX ALPHANUMÉRIQUE  
 INDICE ALFANUMERICO DEGLI ARTICOLI / LISTA ALFANUMÉRICA DE ARTÍCULOS**

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
AF.037.001	418
AF.037.002	418
AF.037.003	418
AF.037.004	418
AF.037.005	417
AF.037.006	417
AF.037.007	417
AF.037.008	420
AF.037.009	420
AF.037.010	420
AF.037.011	420
AH.050.001	412
AH.063.001	412
AH.080.001	412
AH.080.002	412
AH.100.001	412
AH.100.016	412
AOCT060204FR-P	13
AOCT110304FR-P	27
AOCT110308FR-P	27
AOMT060202R	13
AOMT060202R-DT1	13
AOMT060204R	13
AOMT060208R	13
AOMT060216R	13
AOMT110304R	27
AOMT110308R	27
AOMT110316R	27
AOMT110332R	27
AOMT160508R	39
AOMT160508R-HS	39
AOMT160516R	39
AOMT160524R	39
AOMT160532R	39
AOMT160540R	39
AOMT160550R	39
AOMT160564R	39
APKT080304R-DT1	101
APKT080304R-DT2	101
AS.040.001	413
AS.040.003	415
AS.040.004	414
AS.050.001	413
AS.050.003	415
AS.050.004	414
AS.050.022	413
AS.050.045	415
AS.050.046	414
BC.025.001	260
BC.025.002	260

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
BC.030.001	260
BC.032.001	260
BC.032.002	260
BC.040.001	260
BC.042.001	260
BC.042.002	260
BC.050.001	261
BC.052.001	261
BC.052.002	261
BD.052.001	262
BD.052.002	262
BD.066.003	262
BD.066.004	262
BD.080.003	262
BD.080.004	262
BD.100.003	262
BD.100.004	262
BEEW120310R-CR	177
BEEW120316R-CR	177
BEEW120320R-CR	177
BEEW120325R-CR	177
BEEW120330R-CR	177
BEHW250304R	173
BEHW250304R-P	173
BEHW250308R	173
BEHW250308R-P	173
BEHW250316R	173
BEHW250316R-P	173
BOCT090304FR-P	21
BOCT090308FR-P	21
BOCT130404FR-P	33
BOCT130408FR-P	33
BOMT09T304R	21
BOMT09T308R	21
BOMT09T316R	21
BOMT130404R	33
BOMT130408R	33
BOMT130416R	33
BOMT130420R	33
BOMT130424R	33
BOMT130431R	33
BOMT130440R	33
BS.010.001	310
BS.011.001	310
BS.013.002	314
BS.013.003	318
BS.013.004	318
BS.013.006	324
BS.013.007	310
BS.013.008	328



# GENERAL TECHNICAL INFORMATION

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

BS.014.002	314
BS.014.003	318
BS.014.004	318
BS.014.006	324
BS.014.007	328
BS.015.002	310
BS.015.004	314
BS.015.005	318
BS.015.006	318
BS.015.008	324
BS.015.009	312
BS.015.010	328
BS.016.005	314
BS.016.006	318
BS.016.007	324
BS.016.008	308
BS.016.010	318
BS.016.012	258
BS.016.013	256
BS.016.014	328
BS.017.003	314
BS.017.004	318
BS.017.005	324
BS.017.006	318
BS.017.007	328
BS.018.005	314
BS.018.006	318
BS.018.007	324
BS.018.008	310
BS.018.009	318
BS.018.010	312
BS.018.011	328
BS.019.004	314
BS.019.005	318
BS.019.006	324
BS.019.007	318
BS.019.008	328
BS.020.007	314
BS.020.008	318
BS.020.009	324
BS.020.010	310
BS.020.011	308
BS.020.012	318
BS.020.013	312
BS.020.014	258
BS.020.015	256
BS.020.016	328
BS.021.003	314
BS.021.004	318
BS.021.005	324

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

BS.021.006	318
BS.021.007	328
BS.022.006	318
BS.022.007	314
BS.022.008	318
BS.022.009	324
BS.022.010	328
BS.023.007	318
BS.023.008	314
BS.023.009	318
BS.023.010	324
BS.023.011	328
BS.024.007	310
BS.024.009	314
BS.024.010	318
BS.024.011	318
BS.024.012	324
BS.024.013	312
BS.024.014	328
BS.025.010	308
BS.025.012	314
BS.025.013	318
BS.025.014	318
BS.025.015	324
BS.025.016	258
BS.025.017	256
BS.025.018	328
BS.026.007	310
BS.026.008	314
BS.026.009	318
BS.026.010	324
BS.026.011	312
BS.026.012	328
BS.026.013	318
BS.027.008	314
BS.027.009	318
BS.027.010	318
BS.027.011	324
BS.027.012	328
BS.028.006	314
BS.028.007	320
BS.028.008	324
BS.028.009	318
BS.028.010	330
BS.029.007	314
BS.029.008	320
BS.029.009	320
BS.029.010	324
BS.029.011	330
BS.030.008	310

**INDEX / INDEX ALPHANUMÉRIQUE  
 INDICE ALFANUMERICO DEGLI ARTICOLI / LISTA ALFANUMÉRICA DE ARTÍCULOS**

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

BS.030.009	308
BS.030.010	316
BS.030.011	320
BS.030.012	326
BS.030.013	320
BS.030.014	312
BS.030.015	330
BS.031.006	316
BS.031.007	320
BS.031.008	326
BS.031.009	330
BS.032.008	308
BS.032.009	316
BS.032.010	320
BS.032.011	326
BS.032.012	258
BS.032.013	256
BS.032.014	330
BS.033.007	310
BS.033.008	316
BS.033.009	320
BS.033.010	326
BS.033.011	312
BS.033.012	330
BS.034.006	316
BS.034.007	320
BS.034.008	326
BS.034.009	330
BS.035.006	316
BS.035.007	320
BS.035.008	326
BS.035.009	330
BS.035.010	320
BS.036.007	310
BS.036.008	316
BS.036.009	320
BS.036.010	326
BS.036.011	312
BS.036.012	330
BS.037.006	316
BS.037.007	320
BS.037.008	326
BS.037.009	330
BS.038.006	316
BS.038.007	320
BS.038.008	326
BS.038.009	330
BS.038.010	320
BS.039.006	316
BS.039.007	320

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

BS.039.008	326
BS.039.009	330
BS.040.008	310
BS.040.009	308
BS.040.010	320
BS.040.011	326
BS.040.012	312
BS.040.013	316
BS.040.014	330
BS.041.003	316
BS.041.004	320
BS.041.005	326
BS.041.006	330
BS.041.007	320
BS.042.007	316
BS.042.008	320
BS.042.009	326
BS.042.010	258
BS.042.011	256
BS.043.006	316
BS.043.007	320
BS.043.008	326
BS.044.003	316
BS.044.004	320
BS.044.005	326
BS.045.003	316
BS.045.004	320
BS.045.005	326
BS.046.003	316
BS.046.004	320
BS.046.005	326
BS.047.003	316
BS.047.004	320
BS.047.005	326
BS.047.006	320
BS.048.004	316
BS.048.005	320
BS.048.006	326
BS.048.007	310
BS.048.008	312
BS.049.003	316
BS.049.004	320
BS.049.005	326
BS.050.003	316
BS.050.004	320
BS.050.005	326
BS.050.006	330
BS.051.002	322
BS.051.003	320
BS.051.004	332

# GENERAL TECHNICAL INFORMATION

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

BS.051.005	336
BS.052.001	322
BS.053.001	322
BS.054.002	322
BS.054.003	332
BS.054.004	336
BS.055.001	322
BS.056.001	322
BS.057.002	322
BS.057.003	332
BS.057.004	336
BS.058.001	322
BS.059.001	322
BS.060.001	322
BS.063.002	332
BS.063.003	336
BS.067.002	332
BS.067.003	336
BS.074.001	334
BS.074.002	338
BT40FM40	436
BT40ODP10X106	437
BT40ODP10X66	437
BT40ODP12X106	437
BT40ODP12X66	437
BT40ODP16X106	437
BT40ODP16X66	437
BT40ODP6X106	437
BT40ODP6X66	437
BT40ODP8X106	437
BT40ODP8X66	437
BT40SEMC16X100	434
BT40SEMC16X50	434
BT40SEMC22X100	434
BT40SEMC22X53	434
BT40SEMC27X100	434
BT40SEMC27X55	434
BT40SEMC32X100	434
BT40SEMC32X60	434
BT40SEMC40X80	434
BT50FM40	436
BT50FM60	436
BT50ODP12X144	437
BT50ODP12X194	437
BT50ODP12X244	437
BT50ODP12X94	437
BT50ODP16X144	437
BT50ODP16X194	437
BT50ODP16X244	437
BT50ODP16X94	437

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

BT50SEMC16X100	434
BT50SEMC16X150	434
BT50SEMC16X65	434
BT50SEMC22X100	434
BT50SEMC22X150	434
BT50SEMC22X68	434
BT50SEMC27X100	434
BT50SEMC27X150	434
BT50SEMC27X78	434
BT50SEMC32X100	434
BT50SEMC32X150	434
BT50SEMC32X78	434
BT50SEMC40X100	434
BT50SEMC40X150	434
BT50SEMC40X78	434
BT50SEMC50X100	434
BT50SEMC50X150	434
BT50SEMC50X79	434
BT50SM22SA100	435
BT50SM22SA220	435
BT50SM22SA320	435
BT50SM22SA50	435
BT50SM22SA75	435
BT50SM27SA100	435
BT50SM27SA160	435
BT50SM27SA320	435
BT50SM27SA50	435
BT50SM27SA75	435
BT50SM32SA100	435
BT50SM32SA160	435
BT50SM32SA390	435
BT50SM32SA50	435
BT50SM32SA75	435
BT50SM40SA100	435
BT50SM40SA160	435
BT50SM40SA50	435
BT50SM40SA75	435
CABM06M08	449
CABM08M08-C	448
CABM08M10	449
CABM10M10-C	448
CABM10M12	449
CABM12M12-C	448
CABM12M16	449
CABM16M16-C	448
CA.083.001	145
CA.113.001	145
CA.165.001	145
CDE313L021	260
CDE313L021 - J	260

**INDEX / INDEX ALPHANUMÉRIQUE  
 INDICE ALFANUMERICO DEGLI ARTICOLI / LISTA ALFANUMÉRICA DE ARTÍCULOS**

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Páginas
CDE313L021T00	260
CDE322L005	261
CDE322L005 - J	261
CDE322L005T00	261
CL-5000	205
CNHU060310N	238
CNHU060315N	238
CNHU110420N	239
COOLING TUBE HSK A 100	452
COOLING TUBE HSK A 40	452
COOLING TUBE HSK A 50	452
COOLING TUBE HSK A 63	452
COOLING TUBE HSK A 80	452
CO.05T.001	145
CO.075.001	145
CP.085.001	145
CR.124.001	145
CR.165.001	145
CS.083.001	145
CS.09T.001	145
CS.126.001	145
CS.145.001	145
CS.145.002	145
CS.145.003	145
CY.322.001	145
DF.075.1.6B	150
DF.075.2.2B	150
DF.100.1.6B	150
DF.100.2.2B	150
DF.100.2.4F	151
DF.100.3.1F	151
DF.100.4.1F	151
DF.125.1.6B	150
DF.125.2.2B	150
DF.125.2.4F	151
DF.125.3.1F	151
DF.125.4.1F	151
DF.160.2.4F	151
DF.160.3.1F	151
DF.160.4.1F	151
DIN208040CP40	441
DIN208040FM40	440
DIN208040SEM16X28	439
DIN208040SEM22X27	439
DIN208040SEM27X26	439
DIN208040SEM32X23	439
DIN208040SEM40X34	439
DIN208040SEMC16X52	438
DIN208040SEMC22X52	438
DIN208040SEMC27X52	438

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Páginas
DIN208040SEMC32X52	438
DIN208040SEMC40X52	438
DIN208050CP40	441
DIN208050CP50	441
DIN208050CP60	441
DIN208050FM40	440
DIN208050FM60	440
DIN208050SEM16X38	439
DIN208050SEM22X38	439
DIN208050SEM27X38	439
DIN208050SEM32X36	439
DIN208050SEM40X40	439
DIN208050SEMC16X55	438
DIN208050SEMC22X55	438
DIN208050SEMC27X55	438
DIN208050SEMC32X55	438
DIN208050SEMC40X55	438
DIN208050SEMC50X55	438
DIN2084A13X003	456
DIN2084A13X004	456
DIN2084A13X005	456
DIN2084A13X01	456
DIN2084A13X02	456
DIN2084A13X03	456
DIN2084A13X05	456
DIN2084A13X06	456
DIN2084A13X1	456
DIN2084A16X003	456
DIN2084A16X004	456
DIN2084A16X005	456
DIN2084A16X01	456
DIN2084A16X02	456
DIN2084A16X03	456
DIN2084A16X05	456
DIN2084A16X06	456
DIN2084A16X1	456
DIN2084A16X1.5	456
DIN2084A22X003	456
DIN2084A22X004	456
DIN2084A22X005	456
DIN2084A22X01	456
DIN2084A22X02	456
DIN2084A22X03	456
DIN2084A22X05	456
DIN2084A22X06	456
DIN2084A22X1	456
DIN2084A22X1.5	456
DIN2084A27X003	456
DIN2084A27X004	456
DIN2084A27X005	456

# GENERAL TECHNICAL INFORMATION

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

DIN2084A27X01	456
DIN2084A27X02	456
DIN2084A27X03	456
DIN2084A27X05	456
DIN2084A27X06	456
DIN2084A27X1	456
DIN2084A27X1.5	457
DIN2084A32X003	457
DIN2084A32X004	457
DIN2084A32X005	457
DIN2084A32X01	457
DIN2084A32X02	457
DIN2084A32X03	457
DIN2084A32X05	457
DIN2084A32X06	457
DIN2084A32X1	457
DIN2084A32X1.5	457
DIN2084A40X003	457
DIN2084A40X004	457
DIN2084A40X005	457
DIN2084A40X01	457
DIN2084A40X02	457
DIN2084A40X03	457
DIN2084A40X05	457
DIN2084A40X06	457
DIN2084A40X1	457
DIN2084A40X1.5	457
DIN2084A50X005	457
DIN2084A50X01	457
DIN2084A50X02	457
DIN2084A50X03	457
DIN2084A50X05	457
DIN2084A50X06	457
DIN2084A50X1	457
DIN2084A50X1.5	457
DIN2084A60X005	457
DIN2084A60X01	457
DIN2084A60X02	457
DIN2084A60X03	457
DIN2084A60X05	457
DIN2084A60X06	457
DIN2084A60X1	457
DIN2084B13X10	458
DIN2084B13X2	458
DIN2084B13X20	458
DIN2084B13X3	458
DIN2084B13X30	458
DIN2084B13X4	458
DIN2084B13X5	458
DIN2084B13X6	458

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

DIN2084B16X10	458
DIN2084B16X2	458
DIN2084B16X20	458
DIN2084B16X3	458
DIN2084B16X30	458
DIN2084B16X4	458
DIN2084B16X5	458
DIN2084B16X6	458
DIN2084B16X60	458
DIN2084B22X10	458
DIN2084B22X100	458
DIN2084B22X2	458
DIN2084B22X20	458
DIN2084B22X3	458
DIN2084B22X30	458
DIN2084B22X4	458
DIN2084B22X5	458
DIN2084B22X6	458
DIN2084B22X60	458
DIN2084B27X10	458
DIN2084B27X100	458
DIN2084B27X2	458
DIN2084B27X20	458
DIN2084B27X3	458
DIN2084B27X30	458
DIN2084B27X4	458
DIN2084B27X5	458
DIN2084B27X6	458
DIN2084B27X60	458
DIN2084B32X10	459
DIN2084B32X100	459
DIN2084B32X2	459
DIN2084B32X20	459
DIN2084B32X3	459
DIN2084B32X30	459
DIN2084B32X4	459
DIN2084B32X5	459
DIN2084B32X6	459
DIN2084B32X60	459
DIN2084B40X10	459
DIN2084B40X100	459
DIN2084B40X2	459
DIN2084B40X20	459
DIN2084B40X3	459
DIN2084B40X30	459
DIN2084B40X4	459
DIN2084B40X5	459
DIN2084B40X5	459
DIN2084B40X6	459
DIN2084B40X60	459

**INDEX / INDEX ALPHANUMÉRIQUE  
INDICE ALFANUMERICO DEGLI ARTICOLI / LISTA ALFANUMÉRICA DE ARTÍCULOS**

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Páginas
---	---------------------------------

DIN2084B50X10	459
DIN2084B50X100	459
DIN2084B50X2	459
DIN2084B50X20	459
DIN2084B50X3	459
DIN2084B50X30	459
DIN2084B50X4	459
DIN2084B50X6	459
DIN2084B50X60	459
DIN2084B60X10	459
DIN2084B60X100	459
DIN2084B60X20	459
DIN2084B60X30	459
DIN2084B60X6	459
DIN2084B60X60	459
DIN6987140FM40X60	429
DIN6987140DP10x38	432
DIN6987140DP10x58	432
DIN6987140DP10x78	432
DIN6987140DP10x98	432
DIN6987140DP12x118	432
DIN6987140DP12x38	432
DIN6987140DP12x58	432
DIN6987140DP12x78	432
DIN6987140DP12x98	432
DIN6987140DP16x38	432
DIN6987140DP16x58	432
DIN6987140DP16x78	432
DIN6987140DP16x98	432
DIN6987140DP6x58	432
DIN6987140DP6x98	432
DIN6987140DP8x38	432
DIN6987140DP8x58	432
DIN6987140DP8x78	432
DIN6987140DP8x98	432
DIN6987140SEMC16X100	427
DIN6987140SEMC16X55	427
DIN6987140SEMC22X100	427
DIN6987140SEMC22X55	427
DIN6987140SEMC27X100	427
DIN6987140SEMC27X55	427
DIN6987140SEMC32X100	427
DIN6987140SEMC32X55	427
DIN6987140SEMC32X60	427
DIN6987140SEMC40X60	427
DIN6987150FM40X70	429
DIN6987150FM60X70	429
DIN6987150DP10X128	433
DIN6987150DP10X178	433
DIN6987150DP10X228	433
DIN6987150DP10X78	433

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Páginas
---	---------------------------------

DIN6987150DP12X128	433
DIN6987150DP12X178	433
DIN6987150DP12X228	433
DIN6987150DP12X78	433
DIN6987150DP16X128	433
DIN6987150DP16X178	433
DIN6987150DP16X228	433
DIN6987150DP16x38	433
DIN6987150DP16X78	433
DIN6987150DP8X128	433
DIN6987150DP8X178	433
DIN6987150DP8X228	433
DIN6987150DP8X78	433
DIN6987150SEMC16X100	427
DIN6987150SEMC16X55	427
DIN6987150SEMC22X100	427
DIN6987150SEMC22X55	427
DIN6987150SEMC27X100	427
DIN6987150SEMC27X55	427
DIN6987150SEMC32X100	427
DIN6987150SEMC32X55	427
DIN6987150SEMC40X100	427
DIN6987150SEMC40X55	427
DIN6987150SEMC50X70	427
DIN6987150SEMC60X80	427
DND324L103 - J	262
DND324L104T34 - J	262
DPD324L123 - A	262
DPD324L124 - A	262
DR-0031	151
DR-0032	150
DS.063.001	156
DS.063.002	156
DS.063.003	156
DS.063.004	160
DS.063.005	160
DS.063.006	160
DS.063.007	152
DS.063.008	152
DS.063.009	152
DS.063.010	154
DS.063.011	154
DS.063.012	154
DS.063.013	156
DS.063.014	160
DS.063.015	156
DS.063.016	156
DS.063.017	160
DS.063.018	160
DS.080.001	156

# GENERAL TECHNICAL INFORMATION

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

DS.080.002	156
DS.080.003	156
DS.080.004	160
DS.080.005	160
DS.080.006	160
DS.080.007	152
DS.080.008	152
DS.080.009	152
DS.080.010	154
DS.080.011	154
DS.080.012	154
DS.080.013	156
DS.080.014	160
DS.080.015	156
DS.080.016	156
DS.080.017	160
DS.080.018	160
DS.100.001	156
DS.100.002	156
DS.100.003	156
DS.100.004	156
DS.100.005	152
DS.100.006	152
DS.100.007	152
DS.100.008	160
DS.100.009	160
DS.100.010	160
DS.100.011	160
DS.100.012	154
DS.100.013	154
DS.100.014	154
DS.100.015	156
DS.100.016	156
DS.100.017	160
DS.100.018	160
DS.125.001	158
DS.125.002	158
DS.125.003	158
DS.125.004	158
DS.125.005	152
DS.125.006	152
DS.125.007	152
DS.125.008	162
DS.125.009	162
DS.125.010	162
DS.125.011	162
DS.125.012	154
DS.125.013	154
DS.125.014	154
DS.125.015	158

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

DS.125.016	158
DS.125.017	162
DS.125.018	162
DS.160.001	158
DS.160.002	158
DS.160.003	158
DS.160.004	158
DS.160.005	152
DS.160.006	152
DS.160.007	152
DS.160.008	154
DS.160.009	154
DS.160.010	154
DS.160.011	162
DS.160.012	162
DS.160.013	158
DS.160.014	158
DS.160.015	162
DS.160.016	162
DS.200.001	158
DS.200.002	158
DS.200.003	152
DS.200.004	152
DS.200.005	152
DS.200.006	154
DS.200.007	154
DS.200.008	154
DS.200.009	158
DS.200.010	158
DS-H04T	462
DS-H04T	462
DS-H05T	144
DS-H05T	462
DS-T05F	101
DS-T07S	243
DS-T08S	21
DS-T09S	42
DS-T10S	32
DS-T15S	39
DS-T15T	243
DS-T20S	93
DS-T20T	57
DS-T25T	243
DS-TP06S (TX-Plus)	13
DS-TP08S	227
EA.032.002	100
EA.032.003	98
EA.035.001	104
EA.035.002	98
EA.040.002	100

INDEX / INDEX ALPHANUMÉRIQUE  
 INDICE ALFANUMERICO DEGLI ARTICOLI / LISTA ALFANUMÉRICA DE ARTÍCULOS

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

EA.040.003	108
EA.040.004	104
EA.040.005	98
EA.050.002	100
EA.050.003	108
EA.050.004	108
EA.050.005	104
EA.063.002	100
EA.063.003	108
EA.063.004	108
EA.063.005	104
EA.063.006	104
EA.080.002	100
EA.080.003	108
EA.080.004	108
EA.080.005	104
EA.100.002	100
EA.100.003	108
EA.100.004	108
EA.100.005	104
EA.125.001	108
EA.125.002	108
EA.160.001	108
EA.160.002	108
EB.032.001	102
EB.035.001	106
EB.040.002	106
EB.040.003	106
EB.040.004	102
EB.050.002	106
EB.050.003	102
EB.052.001	106
EB.063.002	106
EB.063.003	102
EB.066.001	106
EB.080.002	106
EB.085.001	106
EB.100.002	106
EB.125.002	106
ES.040.001	110
ES.040.002	112
ES.050.001	116
ES.050.002	110
ES.050.003	117
ES.050.004	114
ES.050.005	112
ES.050.006	113
ES.063.001	116
ES.063.002	110
ES.063.003	110

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

ES.063.004	117
ES.063.005	114
ES.063.006	112
ES.063.007	113
ES.080.001	116
ES.080.002	116
ES.080.003	110
ES.080.004	110
ES.080.005	117
ES.080.007	114
ES.080.008	112
ES.080.009	113
ES.100.001	116
ES.100.002	117
ES.100.004	114
ES.100.005	113
ES.125.001	116
ES.125.002	117
ES.160.001	116
ES.160.002	117
EX.020.001	46
EX.025.001	54
EX.025.002	46
EX.032.001	54
EX.032.002	46
EX.032.003	48
EX.032.004	48
EX.032.005	48
EX.032.006	50
EX.032.007	50
EX.032.008	50
EX.032.009	52
EX.032.010	52
EX.032.011	52
EX.040.001	46
EX.040.002	48
EX.040.003	48
EX.040.004	48
EX.040.005	50
EX.040.006	50
EX.040.007	50
EX.040.008	52
EX.040.009	52
EX.040.010	52
EX.042.001	54
EX.042.002	46
EX.050.001	120
EX.050.002	118
EX.050.003	48
EX.050.004	48



# GENERAL TECHNICAL INFORMATION

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

EX.050.005	48
EX.050.006	50
EX.050.007	50
EX.050.008	50
EX.050.009	52
EX.050.010	52
EX.050.011	52
EX.050.014	56
EX.050.015	56
EX.052.001	120
EX.052.002	118
EX.063.001	120
EX.063.002	118
EX.063.003	48
EX.063.004	48
EX.063.005	48
EX.063.006	50
EX.063.007	50
EX.063.008	50
EX.063.009	52
EX.063.010	52
EX.063.011	52
EX.066.001	120
EX.066.002	118
EX.080.001	120
EX.080.002	118
EX.080.003	48
EX.080.004	48
EX.080.005	48
EX.080.006	50
EX.080.007	50
EX.080.008	50
EX.080.009	52
EX.080.010	52
EX.080.011	52
EX.100.001	120
EX.125.001	120
FA.008.001	168
FA.008.002	168
FA.008.003	168
FB.020.006	170
FB.020.007	170
FB.020.008	170
FB.020.009	170
FB.020.010	170
FB.025.001	176
FB.025.002	178
FB.035.006	171
FB.035.007	171
FB.035.008	171

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

FB.035.009	171
FB.035.010	171
FB.045.001	172
FB.045.002	172
FB.045.003	172
FB.045.004	172
FB.045.005	172
FBD32CP32SA060	455
FBD40CP32SA060	455
FEEW250340R-CR	177
FEEW250350R-CR	177
FEEW250360R-CR	177
FF.025.001	176
FF.025.002	178
FL-0005	454
FL-0006	454
FL-0007	454
FS.006.001	174
FS.006.002	174
FS.006.003	174
FS.016.001	174
FS.020.001	175
GCXF071601N	150
GCXF082202N	150
GCXF092402N	151
GCXF113102N	151
GCXF114103N	151
HSKA100FM40SA100	422
HSKA100FM40SA160	422
HSKA100FM40SA60	422
HSKA100FM60SA160	422
HSKA100FM60SA75	422
HSKA1000DP10X112	425
HSKA1000DP10X137	425
HSKA1000DP10X57	425
HSKA1000DP10x87	425
HSKA1000DP12X137	425
HSKA1000DP12X187	425
HSKA1000DP12X237	425
HSKA1000DP12X57	425
HSKA1000DP12X87	425
HSKA1000DP16X137	425
HSKA1000DP16X187	425
HSKA1000DP16X237	425
HSKA1000DP16X57	425
HSKA1000DP16X87	425
HSKA100SEMC16X60	421
HSKA100SEMC22X60	421
HSKA100SEMC27X60	421
HSKA100SEMC32X60	421

**INDEX / INDEX ALPHANUMÉRIQUE**  
**INDICE ALFANUMERICO DEGLI ARTICOLI / LISTA ALFANUMÉRICA DE ARTÍCULOS**

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

HSKA100SEMC40X70	421
HSKA100SEMC50X80	421
HSKA100SM22SA100	422
HSKA100SM22SA160	422
HSKA100SM22SA50	422
HSKA100SM22SK087	423
HSKA100SM22SK137	423
HSKA100SM22SK187	423
HSKA100SM22SK237	423
HSKA100SM27SA100	422
HSKA100SM27SA160	422
HSKA100SM27SA50	422
HSKA100SM27SA50-01	422
HSKA100SM27SK087	423
HSKA100SM27SK137	423
HSKA100SM27SK187	423
HSKA100SM27SK237	423
HSKA100SM27SK287	423
HSKA100SM27SK337	423
HSKA100SM32SA100	422
HSKA100SM32SA160	422
HSKA100SM32SA50	422
HSKA50SEMC16X50	421
HSKA50SEMC22X60	421
HSKA50SEMC27X65	421
HSKA50SEMC32X65	421
HSKA50SM16SA60	422
HSKA50SM22SA100	422
HSKA50SM22SA60	422
HSKA50SM27SA100	422
HSKA50SM27SA60	422
HSKA50SM32SA100	422
HSKA50SM32SA60	422
HSKA63FM40SA100	422
HSKA63FM40SA60	422
HSKA63ODP10X109	424
HSKA63ODP10X134	424
HSKA63ODP10X184	424
HSKA63ODP10X59	424
HSKA63ODP10x84	424
HSKA63ODP12X109	424
HSKA63ODP12X134	424
HSKA63ODP12X184	424
HSKA63ODP12X59	424
HSKA63ODP12x84	424
HSKA63ODP16X109	424
HSKA63ODP16X134	424
HSKA63ODP16X184	424
HSKA63ODP16X59	424
HSKA63ODP16x84	424

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

HSKA63ODP6X109	424
HSKA63ODP6X59	424
HSKA63ODP8X109	424
HSKA63ODP8X134	424
HSKA63ODP8X184	424
HSKA63ODP8X59	424
HSKA63ODP8x84	424
HSKA63SEMC16X60	421
HSKA63SEMC22X60	421
HSKA63SEMC27X60	421
HSKA63SEMC32X60	421
HSKA63SEMC40X70	421
HSKA63SM16SA50	422
HSKA63SM22SA100	422
HSKA63SM22SA50	422
HSKA63SM22SK084	423
HSKA63SM22SK134	423
HSKA63SM22SK184	423
HSKA63SM22SK234	423
HSKA63SM27SA084	423
HSKA63SM27SA100	422
HSKA63SM27SA134	423
HSKA63SM27SA184	423
HSKA63SM27SA234	423
HSKA63SM27SA284	423
HSKA63SM27SA334	423
HSKA63SM27SA60	422
HSKA63SM27SA60-02	422
HSKA63SM32SA100	422
HSKA63SM32SA60	422
HSKE400DP10X103	426
HSKE400DP10X53	426
HSKE400DP12X103	426
HSKE400DP12X53	426
HSKE500DP10X109	426
HSKE500DP10X59	426
HSKE500DP12X109	426
HSKE500DP12X59	426
HSKE500DP16X109	426
HSKE500DP16X59	426
HSKE630DP10X109	426
HSKE630DP10X59	426
HSKE630DP12X109	426
HSKE630DP12X59	426
HSKE630DP16X109	426
HSKE630DP16X59	426
IA.016.001	62
IA.016.002	64
IA.019.001	62
IA.020.003	62

# GENERAL TECHNICAL INFORMATION

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

IA.020.004	64
IA.022.001	62
IA.025.003	62
IA.025.004	64
IA.028.001	70
IA.028.002	74
IA.028.003	74
IA.032.001	70
IA.032.002	74
IA.032.003	74
IA.040.001	84
IA.040.002	70
IA.040.003	72
IA.040.004	74
IA.040.005	74
IA.040.006	74
IA.040.007	74
IA.050.001	84
IA.050.002	72
IA.050.003	74
IA.050.004	74
IA.050.005	74
IA.063.001	82
IA.063.002	82
IA.063.003	82
IA.063.004	84
IA.063.006	84
IA.063.007	84
IA.063.008	84
IA.063.009	72
IA.063.010	82
IA.080.001	82
IA.080.002	82
IA.080.003	82
IA.080.004	84
IA.080.005	84
IA.080.006	84
IA.100.001	82
IA.125.001	82
IB.025.001	66
IB.025.002	68
IB.028.001	68
IB.032.003	76
IB.032.004	80
IB.032.005	66
IB.032.006	68
IB.040.008	76
IB.040.009	78
IB.040.010	80
IB.040.011	80

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

IB.040.012	80
IB.040.013	80
IB.040.014	68
IB.050.008	78
IB.050.009	80
IB.050.010	80
IB.063.006	78
IB.063.007	80
IB.063.008	80
IB.063.009	80
IB.080.003	78
IK12	340
IK14	344
IK21	348
IK22	366
IK30	354
IK40	360
IS.028.001	86
IS.028.002	88
IS.028.003	88
IS.032.001	86
IS.032.002	88
IS.032.003	88
IS.040.001	86
IS.040.002	87
IS.040.003	87
IS.040.004	88
IS.040.005	88
IS.040.006	88
IS.040.007	88
IS.040.008	88
IS.050.001	87
IS.050.002	87
IS.050.003	88
IS.050.004	88
IS.050.005	88
IS.063.001	90
IS.063.002	91
IS.063.003	91
IS.063.004	91
IS.063.005	87
IS.063.006	87
IS.063.007	92
IS.080.001	90
IS.080.002	91
IS.080.003	92
IS.100.001	90
IS.100.002	92
IS.125.001	90
IS.160.001	90

**INDEX / INDEX ALPHANUMÉRIQUE  
INDICE ALFANUMERICO DEGLI ARTICOLI / LISTA ALFANUMÉRICA DE ARTÍCULOS**

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

IS12	90
IS14	92
IS21	348
IS23	364
IS30	354
IS32	366
IS40	360
IS45	368
IS63	370
KC.016.001	238
KC.020.001	238
KC.025.001	238
KC.025.002	239
KC.035.001	238
KC.035.002	239
KC.042.001	238
KC.042.002	239
KC.052.001	240
KC.066.001	240
KC.080.001	240
KC.100.001	240
KN.010.001	248
KN.010.002	252
KN.010.003	252
KN.010.004	254
KN.010.005	250
KN.010.006	250
KN.012.001	248
KN.012.002	248
KN.012.003	248
KN.012.004	252
KN.012.005	252
KN.012.006	252
KN.012.007	252
KN.012.008	254
KN.012.009	254
KN.012.010	250
KN.012.011	250
KN.016.001	248
KN.016.002	248
KN.016.003	248
KN.016.004	252
KN.016.005	252
KN.016.006	252
KN.016.007	254
KN.016.008	250
KN.016.014	250
KN.020.001	248
KN.020.002	248
KN.020.003	248

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

KN.020.004	252
KN.020.005	252
KN.020.006	252
KN.020.007	254
KN.020.008	250
KN.020.009	250
KN.025.001	248
KN.025.002	248
KN.025.003	248
KN.025.004	252
KN.025.005	254
KN.025.006	250
KN.025.007	250
KN.030.001	248
KN.030.002	248
KN.030.003	248
KN.030.004	248
KN.030.005	254
KN.030.006	250
KN.030.007	250
KN.032.001	248
KN.032.002	254
KP.035.001	136
KP.042.001	136
KP.050.001	137
KP.052.001	137
KP.063.001	137
KP.066.001	137
KP.080.001	137
KP.100.001	137
KP.125.001	137
KP.160.001	137
KR.008.001	242
KR.008.002	244
KR.008.003	246
KR.010.001	242
KR.010.002	244
KR.010.003	246
KR.012.001	242
KR.012.002	244
KR.012.003	246
KR.016.001	242
KR.016.002	244
KR.016.003	246
KR.020.001	242
KR.020.002	244
KR.020.003	246
KR.025.001	242
KR.025.002	244
KR.025.003	246

# GENERAL TECHNICAL INFORMATION

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

KU.020.001	227
KU.025.001	227
KU.025.002	227
KU.032.001	228
KU.032.002	227
KU.035.001	227
KU.040.001	227
KU.042.001	228
KU.042.002	227
KU.042.003	227
KU.050.001	229
KU.052.001	230
KU.052.002	229
KU.063.001	229
KU.066.001	230
KU.066.002	229
KU.080.001	230
KU.080.002	229
KU.100.001	230
LYER27080UN	365
LYER27100IS	365
LYER27110BT	365
LYER27110BW	365
LYER27115NT	365
LYER27120UN	365
LYER27150IS	365
LYER27160UN	365
LYER27200IS	365
LYER27240UN	365
LYER27300IS	365
LYER32060UN	367
LYER32080UN	367
LYER32110BT	367
LYER32110BW	367
LYER32115NT	367
LYER32120UN	367
LYER32150IS	367
LYER32160UN	367
LYER32200IS	367
LYER32300IS	367
LYER32400IS	367
LYER37060UN	369
LYER37080UN	369
LYER37110BT	369
LYER37110BW	369
LYER37115NT	369
LYER37120UN	369
LYER37150IS	369
LYER37160UN	369
LYER37200IS	369

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

LYER37300IS	369
LYER37400IS	369
LYER38060UN	371
LYER38080UN	371
LYER38110BT	371
LYER38110BW	371
LYER38115NT	371
LYER38120UN	371
LYER38150IS	371
LYER38160UN	371
LYER38200IS	371
LYER38300IS	371
LYER38400IS	371
LYEU12050IS	341
LYEU12075IS	341
LYEU12100IS	341
LYEU12125IS	341
LYEU12150IS	341
LYEU12160UN	341
LYEU12180NF	341
LYEU12180NT	341
LYEU12180UN	341
LYEU12190BT	341
LYEU12190BW	341
LYEU12200UN	341
LYEU12240UN	341
LYEU12280UN	341
LYEU12320UN	341
LYEU14050IS	345
LYEU14075IS	345
LYEU14075IS-X	345
LYEU14100IS	345
LYEU14100IS-X	345
LYEU14100UN	345
LYEU14120UN	345
LYEU14120UN-X	345
LYEU14125IS	345
LYEU14125IS-X	345
LYEU14140BT	345
LYEU14140BW	345
LYEU14140NF	345
LYEU14140NT	345
LYEU14140UN	345
LYEU14140UN-X	345
LYEU14150IS	345
LYEU14150IS-X	345
LYEU14160BW	345
LYEU14160UN	345
LYEU14160UN-X	345
LYEU14175IS	345

**INDEX / INDEX ALPHANUMÉRIQUE  
INDICE ALFANUMERICO DEGLI ARTICOLI / LISTA ALFANUMÉRICA DE ARTÍCULOS**

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

LYEU14175IS-X	345
LYEU14180NF	345
LYEU14180NT	345
LYEU14180PG	345
LYEU14180UN	345
LYEU14180UN-X	345
LYEU14190BT	345
LYEU14190BW	345
LYEU14200BW	345
LYEU14200IS	345
LYEU14200IS-X	345
LYEU14200UN	345
LYEU14200UN-X	345
LYEU14240BW	345
LYEU14240UN	345
LYEU14240UN-X	345
LYEU14250IS	345
LYEU14250IS-X	345
LYEU14270UN	345
LYEU14280UN	345
LYEU14280UN-X	345
LYEU14320UN	345
LYEU14320UN-X	345
LYEU21070UN	349
LYEU21080UN	349
LYEU21100IS	349
LYEU21100IS-X	349
LYEU21100UN	349
LYEU21100UN-X	349
LYEU21110BT	349
LYEU21110BW	349
LYEU21115NF	349
LYEU21115NT	349
LYEU21120UN	349
LYEU21120UN-X	349
LYEU21140BT	349
LYEU21140BW	349
LYEU21140NF	349
LYEU21140NT	349
LYEU21140UN	349
LYEU21140UN-X	349
LYEU21150IS	349
LYEU21150IS-X	349
LYEU21160BW	349
LYEU21160PG	349
LYEU21160UN	349
LYEU21160UN-X	349
LYEU21175IS	349
LYEU21180PG	349
LYEU21180UN	349

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

LYEU21180UN-X	349
LYEU21190BW	349
LYEU21200BW	349
LYEU21200IS	349
LYEU21200IS-X	349
LYEU21200UN	349
LYEU21200UN-X	349
LYEU21240UN	349
LYEU21240UN-X	349
LYEU21250IS	349
LYEU21250IS-X	349
LYEU21300IS	349
LYEU21300IS-X	349
LYEU21350IS	348
LYEU30060UN	355
LYEU30060UN-X	355
LYEU30080NF	355
LYEU30080NT	355
LYEU30080UN	355
LYEU30080UN-X	355
LYEU30100UN	355
LYEU30100UN-X	355
LYEU30110BT	355
LYEU30110BW	355
LYEU30115NF	355
LYEU30115NT	355
LYEU30120UN	355
LYEU30120UN-X	355
LYEU30140BW	355
LYEU30140UN	355
LYEU30140UN-X	355
LYEU30150IS	355
LYEU30150IS-X	355
LYEU30160BW	355
LYEU30160PG	355
LYEU30160UN	355
LYEU30160UN-X	355
LYEU30180UN	355
LYEU30180UN-X	355
LYEU30200IS	355
LYEU30200IS-X	355
LYEU30200UN	355
LYEU30200UN-X	355
LYEU30300IS	355
LYEU30300IS-X	355
LYEU30350IS	355
LYEU30350IS-X	355
LYEU30400IS	355
LYEU30400IS-X	355
LYEU30450IS	355

# GENERAL TECHNICAL INFORMATION

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

LYEU30500IS	355
LYEU40040UN	361
LYEU40045UN	361
LYEU40060UN	361
LYEU40060UN-X	361
LYEU40080BW	361
LYEU40080NF	361
LYEU40080NT	361
LYEU40080UN	361
LYEU40080UN-X	361
LYEU40100UN	361
LYEU40100UN-X	361
LYEU40110BT	361
LYEU40110BW	361
LYEU40115NF	361
LYEU40115NT	361
LYEU40120UN	361
LYEU40120UN-X	361
LYEU40140UN	361
LYEU40140UN-X	361
LYEU40150IS	361
LYEU40150IS-X	361
LYEU40160UN	361
LYEU40160UN-X	361
LYEU40200IS	361
LYEU40200IS-X	361
LYEU40300IS	361
LYEU40300IS-X	361
LYEU40350IS	361
LYEU40400IS	361
LYEU40400IS-X	361
LYEU40450IS	361
LYEU40500IS	361
LYEU40500IS-X	361
LYEU40550IS	361
LYEU40600IS	361
LYEU40600IS-X	361
M 10 CLAMP SCREW SEM 22	453
M 12 CLAMP SCREW SEM 27	453
M 16 CLAMP SCREW SEM 32	453
M 20 CLAMP SCREW SEM 40	453
M 24 CLAMP SCREW SEM 50	453
M 8 CLAMP SCREW SEM 16	453
NCET0802MOR	243
NCET1002MOR	243
NCEX1203MOR	243
NCEX1605MOR	243
NCEX2005MOR	243
NCEX2506MOR	243
NPHG1003MOR	249

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

NPHG1204MOR	249
NPHG1604MOR	249
NPHG2004MOR	249
NPHG2506MOR	249
NPHG3007MOR	249
NPHG3207MOR	249
OFCT05T3AFFN-P	129
OFCT05T3TN	129
OFCT0705AFFN-P	133
OFCT0705AFFR-W	133
OFMT05T3AFN-HR	129
OFMT0705AFR-HR	133
OFMT0705AFTN	133
OFMW05T3AFTN	129
OFMW0705AFTN	133
PAR5061	101
PASSFEDER A10x8x32	461
PASSFEDER A12x8x36	461
PASSFEDER A4x4x20	461
PASSFEDER A6x6x25	461
PASSFEDER A7x7x25	461
PASSFEDER A8x7x28	461
PN072-02	123
PNCQ0804GNTN	135
PNCQ0804ZNTN	136
PNCT0804ZNN-HR	136
PNCU0805GNFR-HS	135
PNCU0805GNFR-P	135
PNCU0805GNR	135
PNCU0805GNTR	135
PNCU0805GNTR-W	135
PNCU1708GNTR	139
PO.032.001	130
PO.032.002	128
PO.040.001	130
PO.040.002	128
PO.042.001	130
PO.050.001	132
PO.050.002	130
PO.051.001	132
PO.055.001	130
PO.063.001	132
PO.063.002	130
PO.068.001	132
PO.072.001	130
PO.080.001	132
PO.080.002	130
PO.088.001	132
PO.092.001	130
PO.100.001	132

**INDEX / INDEX ALPHANUMÉRIQUE**  
**INDICE ALFANUMERICO DEGLI ARTICOLI / LISTA ALFANUMÉRICA DE ARTÍCULOS**

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

PO.100.002	130
PO.113.001	132
PO.117.001	130
PO.125.001	132
PO.125.002	130
PO.160.001	132
PP.040.001	134
PP.050.001	134
PP.050.002	134
PP.063.001	134
PP.063.002	134
PP.080.001	134
PP.080.002	134
PP.080.003	138
PP.100.001	134
PP.100.002	134
PP.100.003	138
PP.100.004	138
PP.125.001	134
PP.125.002	134
PP.125.003	138
PP.125.004	138
PP.160.001	134
PP.160.002	134
PP.160.003	138
PP.160.004	138
PP.200.001	138
PP.200.002	138
PP.250.001	138
PP.250.002	138
PP.315.001	138
PP.315.002	138
PR.012.001	198
PR.012.002	198
PR.012.003	194
PR.012.004	194
PR.012.005	194
PR.016.001	198
PR.016.002	199
PR.016.003	196
PR.016.004	196
PR.016.005	196
PR.016.006	196
PR.016.007	196
PR.016.008	212
PR.020.001	198
PR.020.002	200
PR.020.003	196
PR.020.004	196
PR.020.005	196

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

PR.020.006	196
PR.020.007	196
PR.020.008	214
PR.024.001	202
PR.024.002	216
PR.024.003	231
PR.025.001	198
PR.025.002	200
PR.025.003	200
PR.025.004	196
PR.025.005	196
PR.025.006	196
PR.025.007	214
PR.030.001	199
PR.030.002	200
PR.030.003	214
PR.032.001	202
PR.032.002	204
PR.032.003	216
PR.032.004	218
PR.032.005	232
PR.032.006	231
PR.035.001	202
PR.035.002	200
PR.035.003	214
PR.035.004	216
PR.035.005	231
PR.040.002	232
PR.040.003	231
PR.040.004	216
PR.042.001	202
PR.042.002	200
PR.042.003	214
PR.042.004	216
PR.042.005	218
PR.042.006	232
PR.042.007	231
PR.050.002	236
PR.050.003	234
PR.052.001	222
PR.052.002	206
PR.052.003	208
PR.052.004	210
PR.052.005	220
PR.052.006	224
PR.052.007	236
PR.052.008	234
PR.063.002	236
PR.063.003	234
PR.066.001	206



# GENERAL TECHNICAL INFORMATION

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

PR.066.002	208
PR.066.003	210
PR.066.004	222
PR.066.005	224
PR.066.006	226
PR.066.007	236
PR.066.008	234
PR.080.002	208
PR.080.003	210
PR.080.004	222
PR.080.005	224
PR.080.006	226
PR.080.007	236
PR.080.008	234
PR.100.002	210
PR.100.003	224
PR.100.004	226
PR.100.005	236
PR.125.002	210
PR.125.003	224
PR.125.004	226
PR.125.005	236
PR.160.001	210
PR.160.002	224
PR.160.003	226
PR.160.004	236
PS BT40 15° M16 JIS B	451
PS BT40 45° M16 MAS1	451
PS BT40 45° M16 MAS1	451
PS BT40 45° M16 MAZAK B	451
PS BT40 60° M16 MAS2	451
PS BT40 60° M16 MAS2	451
PS BT40 90° M16 MAS3	451
PS BT40 90° M16 MAS3	451
PS BT50 15° M24 JIS B	451
PS BT50 45° M24 MAS1	451
PS BT50 45° M24 MAS1	451
PS BT50 45° M24 MAZAK B	451
PS BT50 60° M24 MAS2	451
PS BT50 60° M24 MAS2	451
PS BT50 90° M24 MAS3	451
PS BT50 90° M24 MAS3	451
PS CAT30 45 M12 ISO B	451
PS CAT40 45 M16 ISO B	451
PS CAT50 45 M24 ISO B	451
PS SK 40 15 M16 DIN O	451
PS SK 40 15 M16 DIN O B	451
PS SK40 15 M16 DIN	451
PS SK40 15 M16 DIN B	451
PS SK50 15 M24 DIN	451

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

PS SK50 15 M24 DIN	451
PS SK50 15 M24 DIN B	451
PS.020.001	140
PS.025.001	140
PS.032.001	141
PS.040.001	141
PS.050.001	141
PS.050.002	142
PS.063.001	141
PS.063.002	142
PS.080.001	141
PS.080.002	142
PS.100.001	141
PS.100.002	142
PS.125.001	142
PS.160.001	142
PY.050.001	122
PY.063.001	122
PY.080.001	122
PY.100.001	122
PY.125.001	122
PY.160.001	122
PY.200.001	122
RCLT1204M0N-CC1	231
RCLT1204M0N-CC2	231
RCLT1204M0N-CP	231
RCLT1204M0TN-PH2	231
RCLT1606M0N-CC	233
RCLT1606M0N-CC1	233
RCLT1606M0N-CP	233
RCLT1606M0TN-PH	233
RCLT1606M0TN-PH2	233
RFMT1404M0N-F	129
RHHT0802M0FN-P	197
RHHT0802M0TN	197
RHHT0802M0TN-P	197
RHHT1003M0FN-P	197
RHHT1003M0TN	197
RHHT1003M0TN-P	197
RHHT1204M0FN-P	203
RHHT1204M0TN	203
RHHT1204M0TN-P	203
RHHT1605M0FN-P	205
RHHT1605M0TN	205
RHHT1605M0TN-P	205
RHHW0602M0TN	195
RHHW0802M0TN	197
RHHW1003M0TN	197
RHHW1204M0TN	203
RHHW1605M0TN	205

**INDEX / INDEX ALPHANUMÉRIQUE**  
**INDICE ALFANUMERICO DEGLI ARTICOLI / LISTA ALFANUMÉRICA DE ARTÍCULOS**

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

RHKT1605M0TN-PH2	205
RHKT2006M0TN-PH	226
RHKT2006M0TN-PH2	226
RHKW1003M0TN	197
RHKW1204M0TN	203
RHKW1605M0TN	205
RHKW2006M0TN	226
RR03-01	243
RR03-02	243
RR04-01	243
RR04-02	243
S010MOD06CA024	444
S010MOD06CA031	444
S010MOD06CA100	444
S012MOD06CA030	444
S012MOD06CA031	444
S012MOD06CA040	444
S012MOD06CA060	444
S012MOD06CA080	444
S012MOD06CA100	444
S012MOD06CA100-03	444
S012MOD06VA020	445
S012MOD06VA070	445
S014MOD08CA024	444
S016MOD08CA055	444
S016MOD08CA135	444
S016MOD08CK040	447
S016MOD08CK060	447
S016MOD08CK080	447
S016MOD08CK100	447
S016MOD08CK120	447
S016MOD08HA040	443
S016MOD08HA060	443
S016MOD08HA080	443
S016MOD08HA100	443
S016MOD08HK040	446
S016MOD08HK060	446
S016MOD08HK080	446
S016MOD08HK100	446
S016MOD08HK120	446
S016MOD08VA006	445
S016MOD08VA056	445
S018MOD10CA040	444
S019MOD10CA135	444
S020MOD10CA055	444
S020MOD10CA135	444
S020MOD10CK040	447
S020MOD10CK060	447
S020MOD10CK080	447
S020MOD10CK100	447

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

S020MOD10CK120	447
S020MOD10HK040	446
S020MOD10HK060	446
S020MOD10HK080	446
S020MOD10HK100	446
S020MOD10HK120	446
S020MOD10VA006	445
S020MOD10VA024	445
S020MOD10VA070	445
S020MOD10VA125	445
S025MOD12CA060	444
S025MOD12CA080	444
S025MOD12CA100	444
S025MOD12CA157	444
S025MOD12CA207	444
S025MOD12VA015	445
S025MOD12VA045	445
S025MOD12VA110	445
S025MOD12VA155	445
S032MOD16CA207	444
S032MOD16VA014	445
S032MOD16VA090	445
S032MOD16VA108	445
S032MOD16VA159	445
S032MOD16VA207	445
SA.010.004	14
SA.010.005	14
SA.010.006	12
SA.010.007	16
SA.010.009	18
SA.012.005	14
SA.012.006	14
SA.012.007	12
SA.012.008	18
SA.012.009	16
SA.014.004	14
SA.014.005	14
SA.015.002	18
SA.016.004	26
SA.016.005	28
SA.016.006	30
SA.016.008	14
SA.016.009	12
SA.016.010	18
SA.016.011	16
SA.018.004	26
SA.018.005	28
SA.020.007	26
SA.020.008	26
SA.020.009	28

# GENERAL TECHNICAL INFORMATION

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

SA.020.010	28
SA.020.011	28
SA.020.012	30
SA.020.014	14
SA.020.015	12
SA.020.016	18
SA.020.017	16
SA.020.018	26
SA.020.019	28
SA.020.020	30
SA.025.007	26
SA.025.008	26
SA.025.009	28
SA.025.010	28
SA.025.011	28
SA.025.012	30
SA.025.014	14
SA.025.015	12
SA.025.016	18
SA.025.017	16
SA.025.018	38
SA.025.019	40
SA.025.020	26
SA.025.021	28
SA.025.022	30
SA.030.001	18
SA.032.006	26
SA.032.007	26
SA.032.008	28
SA.032.009	28
SA.032.010	28
SA.032.011	30
SA.032.012	38
SA.032.013	38
SA.032.014	40
SA.032.015	40
SA.032.016	40
SA.032.018	18
SA.035.001	30
SA.035.002	18
SA.040.001	30
SA.040.002	38
SA.040.003	38
SA.040.004	40
SA.040.005	40
SA.042.001	30
SA080-21	462
SA080-21	462
SA100-45	462
SA100-45	462

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

SB.012.001	20
SB.012.002	24
SB.015.001	24
SB.016.001	20
SB.016.002	22
SB.016.003	24
SB.020.001	32
SB.020.002	36
SB.020.003	34
SB.020.004	34
SB.020.005	20
SB.020.006	20
SB.020.007	22
SB.020.008	22
SB.020.009	24
SB.025.005	32
SB.025.006	36
SB.025.007	34
SB.025.008	34
SB.025.009	20
SB.025.010	20
SB.025.011	22
SB.025.012	22
SB.025.013	24
SB.032.005	32
SB.032.006	36
SB.032.007	32
SB.032.008	34
SB.032.009	34
SB.032.010	22
SB.032.011	24
SB.035.001	36
SB.040.001	36
SB025-00	101
SC03-28	144
SC050-01	123
SCLT050204N	311
SCLT050204N-PH	311
SDCT080305FN	42
SDCT080305FN-P	42
SDE-31-001 - J	157
SDE-31-002 - J	157
SDE-42-001 - J	157
SDE-42-002 - J	157
SDE-42-003 - J	157
SDE-43-001 - J	157
SDGT07T308-HP	257
SDGT140512-HP	309
SDMT080305N	42
SDMT120608R	90

**INDEX / INDEX ALPHANUMÉRIQUE**  
**INDICE ALFANUMERICO DEGLI ARTICOLI / LISTA ALFANUMÉRICA DE ARTÍCULOS**

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
SDMT120608R-HS	90
SDMW080305TN	42
SDMW080305TN-W	111
SECT09T3AFFN	140
SECT09T3AFFN-P	140
SEE-31-101	157
SEE-31-102	157
SEE-42-101	157
SEE-42-102	157
SEE-42-103	157
SEE-43-101	157
SEKT09T3AFN	140
SF035-01	203
SF050-01	243
SF060-01	243
SF080-01	243
SF080-02	243
SHET110502FR-P	45
SHET110505FR-P	45
SHET110508FR-P	45
SHET110516FR-P	45
SHET110524FN-P	45
SHET110532FN-P	45
SHET110540FN-P	45
SHGT050204-HP	311
SHGT060204-HP	257
SHGT090408-HP	257
SHGT110408-HP	311
SHLT060204N	257
SHLT060204N-PH	257
SHLT090308N-HR	112
SHLT090408N	257
SHLT090408N-PH1	257
SHLT110408N	311
SHLT110408N-PH1	311
SHLT110408TN-HR	113
SHLT140508TN-HR	93
SHLT140508TN-HS	93
SHLT1405APTN-HR	143
SHLT1405APTN-HR - A	143
SM06-L105-C12	442
SM06-L125-C16	442
SM06-L60-C10	442
SM08-L128-C16	442
SM08-L170-C20	442
SM08-L73-C16	442
SM10-L130-C20	442
SM10-L200-C25	442
SM10-L80-C20	442
SM12-L200-C32	442

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
SM12-L86-C25	442
SM16-L230-C32	442
SM16-L95-C32	442
SM18-041-00	13
SM20-043-00	310
SM22-046-00	243
SM22-052-00	256
SM25-049-00	195
SM25-054-00	21
SM25-055-10	243
SM25-064-00	21
SM25-075-20	238
SM25-075-60	227
SM30-053-00	196
SM30-065-00	42
SM30-082-00	140
SM30-082-B0	249
SM35-034-50	156
SM35-042-50	156
SM35-070-00	177
SM35-088-10	32
SM35-088-60	256
SM35-089-00	173
SM40-050-50	156
SM40-060-50	156
SM40-070-00	55
SM40-080-10	39
SM40-080-50	156
SM40-090-00	121
SM40-093-20	39
SM40-100-10	135
SM40-100-B0	255
SM40-106-B0	249
SM40-110-00	123
SM40-120-20	228
SM50-100-10	57
SM50-105-10	233
SM50-108-20	93
SM50-120-10	237
SM50-120-30	133
SM50-122-50	308
SM50-130-R0	139
SM50-138-B0	249
SM60-165-B0	249
SM70-210-B0	249
SM80-250-B0	249
SPLT07T308N	257
SPLT07T308N-PH	257
SPLT120408N-PH	333
SPLT140512N	309

# GENERAL TECHNICAL INFORMATION

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

SPLT140512N-PH	309
SR062-01	144
SS.016.001	42
SS.016.002	43
SS.018.001	42
SS.018.002	43
SS.020.001	42
SS.020.002	43
SS.025.001	42
SS.025.002	43
SS.025.003	42
SS.025.004	43
SS.025.005	43
SS.025.006	44
SS.032.001	42
SS.032.002	43
SS.032.003	42
SS.032.004	43
SS.032.005	43
SS.032.006	44
SS.040.002	44
TS.025.001	180
TS.025.002	181
TS.032.001	180
TS.032.002	181
TS.032.003	182
TS.040.001	180
TS.040.002	181
TS.040.003	182
TS.050.001	180
TS.050.002	181
TS.050.003	183
TS.050.004	183
TS.058.001	183
UF.100.001	144
UF.125.001	144
UF.125.002	144
UF.160.001	144
UF.160.002	144
UF.200.001	144
UF.200.002	144
UF.250.001	144
UF.250.002	144
UF.315.001	144
UF.315.002	144
UHLD08T310R-M	227
UHLD08T310R-MR	227
UHLD130515R-M	228
UHLD130515R-MM	228
UHLD130515R-MR	228

Designation / Référence Articolo-Nr. / N.º de artículo	Page / Page Pagine / Página
---	--------------------------------

UOMT0602TR	13
WB32CP22SA030	455
WRENCH COOL TUBE HSK 100	453
WRENCH COOL TUBE HSK 40	453
WRENCH COOL TUBE HSK 50	453
WRENCH COOL TUBE HSK 63	453
WRENCH COOL TUBE HSK 80	453
WRENCH M10 SEMC 22	453
WRENCH M12 SEMC 27	453
WRENCH M16 SEMC 32	453
WRENCH M20 SEMC 40	453
WRENCH M24 SEMC 50	453
WRENCH M8 SEMC 16	453
WS-0060	249
WS-0062	249
WS-5002	144
XEET250408R-P	55
XEET250408R-PWRWK	55
XEET250416R-P	55
XEET250432R-P	55
XEET250440R-P	55
XEET250450R-P	55
XFEB330504R-P	57
XFEB330508R-P	57
XFEB330508R-PW	57
XFEB330516R-P	57
XFEB330532R-P	57
XFEB330540R-P	57
XFEB330550R-P	57
XFEB330564R-P	57
XPET140405FR-P	47
XPET140408FR-P	47
XPET140416FR-P	47
XPET140420FR-P	47
XPET140424FR-P	47
XPET140430FR-P	47
XPET140432FR-P	47
XPET140440FR-P	47
YDA322L101	123

INDEX / INDEX ALPHANUMÉRIQUE  
 INDICE ALFANUMERICO DEGLI ARTICOLI / LISTA ALFANUMÉRICA DE ARTÍCULOS



NOTES / NOTES  
NOTES / NOTES



NOTES / NOTES  
NOTES / NOTES





EN ANNEXE TECHNIQUE  
IT APPENDICE TECNICA  
ES ANEXO TÉCNICO

NOTES / NOTES  
NOTES / NOTES





# GENERAL TECHNICAL INFORMATION

NOTES / NOTES  
NOTES / NOTES





EN ANNEXE TECHNIQUE  
IT APPENDICE TECNICA  
ES ANEXO TÉCNICO

NOTES / NOTES  
NOTES / NOTES







# INNO<sup>TOOL</sup>

**Innovative Cutting Tools**

Florianstrasse 17  
71665 Vaihingen-Horrheim  
Germany

Phone: +49 (0)7042 8316-0  
Fax: +49 (0)7042 8316-26  
E-Mail: [info@innotool.de](mailto:info@innotool.de)  
Internet: [www.innotool.de](http://www.innotool.de)