



OTOÑO 2025

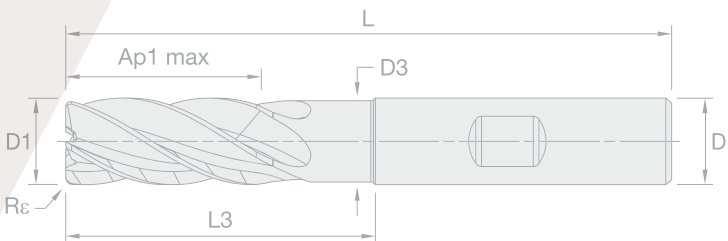
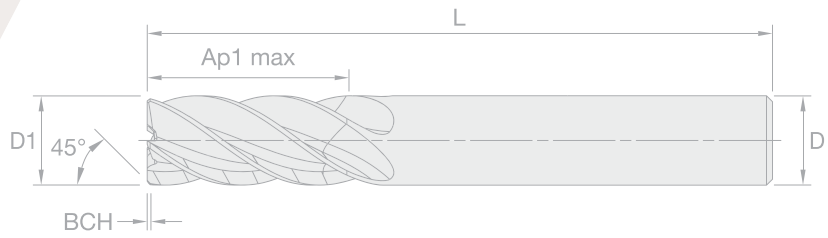
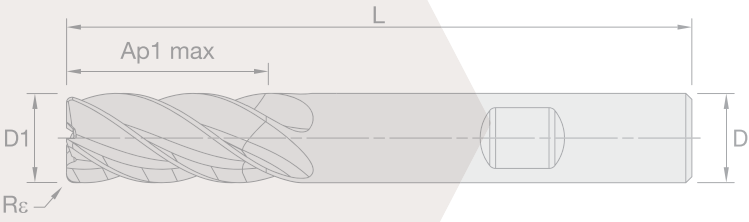
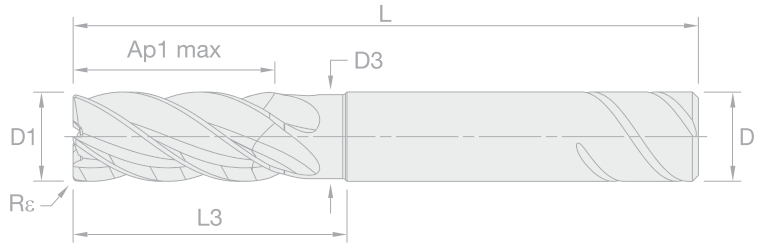
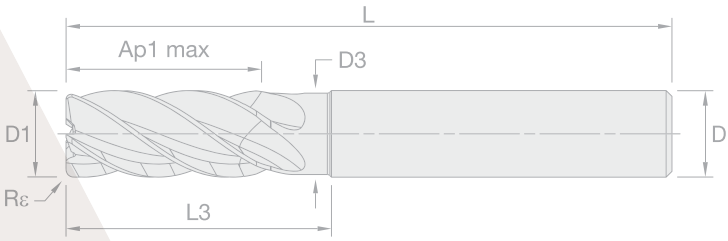
sistema
métrico

INNOVATIONS

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FRESAS DE MANGO INTEGRALES



HARVI II TE

FRESAS DE MANGO INTEGRALES

Las fresas de mango de 5 canales con rango de aplicación extremo logran la máxima productividad y vida de la herramienta

Al aprovechar al máximo la combinación de un conjunto de aplicaciones extremadamente amplio con una máxima productividad y una larga vida de la herramienta, HARVI II TE puede hacer que sus proyectos de ingeniería general, aeroespaciales, defensa y médicos vayan un paso por delante del resto. Puede contar con la máxima flexibilidad de mecanizado en todos los materiales y eficiencia en aplicaciones de fresado tradicionales y dinámicas.

Aplicaciones

PRINCIPAL



Fresado lateral/
Escuadrado



Ranurado hasta
1,5 – 2xD



Interpolación
helicoidal



Vaciado



Fresado descendente
hasta 45 grados



Fresado
trochoidal

SECUNDARIO

Materiales

PRINCIPAL



Aceros



Aleaciones de alta
temperatura



Materiales
endurecidos

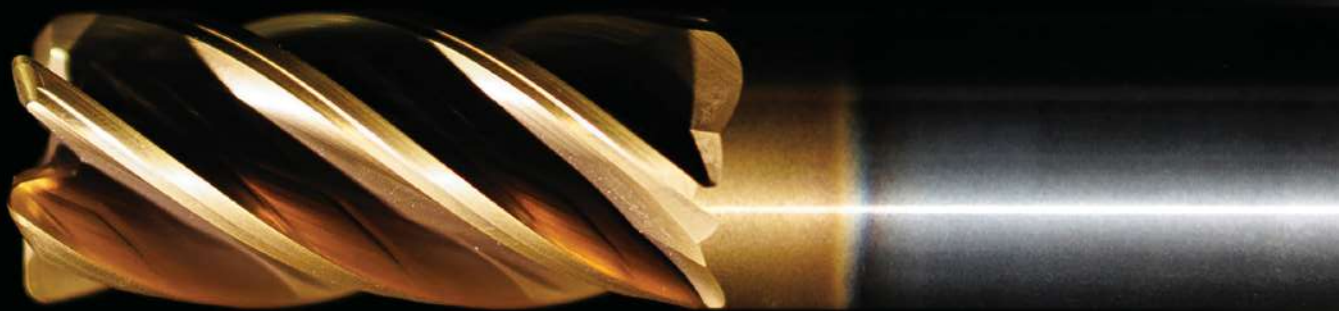


Aceros inoxidables



Fundición

SECUNDARIO



Un revolucionario diseño de fresa de mango de 5 canales que proporciona un máximo rendimiento

Las fresas de mango integrales HARVI II TE son la última incorporación a la familia de fresas de mango versátiles de alto rendimiento HARVI de Kennametal y la única herramienta de 5 canales sin centro disponible para parámetros de corte agresivos como fresado descendente, vaciado y ranurado profundo.

- Diseño abierto de 5 canales combinado con un núcleo más fuerte para una mayor tasa de evacuación del metal, vida de la herramienta y capacidades de evacuación de virutas
- Nuevo extremo frontal sin centro diseñado para fresado descendente, vaciado y ranurado profundo agresivos
- Cámaras de virutas para una mejor evacuación de virutas y refrigeración de herramientas con un mayor flujo de refrigerante desde el canal hasta la zona de corte
- Forma de canal en W patentada para una mejor evacuación de virutas y un núcleo más fuerte
- El desahogo excéntrico aumenta la resistencia del filo para una vida más prolongada de la herramienta y una amplia gama de aplicaciones de material

Industrias



Ingeniería general



Sector aeroespacial



Medicina



Petróleo y gas

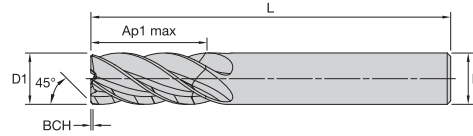


Energía eólica y solar



Automoción





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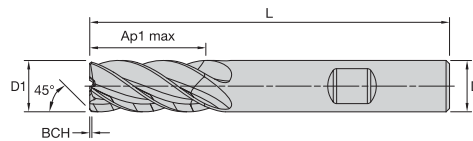
- Principal
- Secundario

KCPM15A

HARVI II TE

Biselado • 5 canales • Mango liso

Número de pedido	Número de catálogo	D1	D	Ap1 máx.	L	BCH	
7156120	H2TE5CH0400R011HAM	4.00	6.00	11.00	57.00	0.20	●
7156121	H2TE5CH0500R013HAM	5.00	6.00	13.00	57.00	0.20	●
7156122	H2TE5CH0600R016HAM	6.00	6.00	16.00	57.00	0.20	●
7157115	H2TE5CH0700R016HAM	7.00	8.00	16.00	63.00	0.20	●
7156125	H2TE5CH0800R019HAM	8.00	8.00	19.00	63.00	0.30	●
7157117	H2TE5CH0900R019HAM	9.00	10.00	19.00	72.00	0.30	●
7157118	H2TE5CH1000R022HAM	10.00	10.00	22.00	72.00	0.30	●
7156127	H2TE5CH1200R026HAM	12.00	12.00	26.00	83.00	0.40	●
7157120	H2TE5CH1600R032HAM	16.00	16.00	32.00	92.00	0.50	●
7157141	H2TE5CH1600L060HAM	16.00	16.00	60.00	125.00	0.50	●
7157142	H2TE5CH1800R032HAM	18.00	18.00	32.00	92.00	0.50	●
7157143	H2TE5CH2000R038HAM	20.00	20.00	38.00	104.00	0.50	●
7157144	H2TE5CH2000L060HAM	20.00	20.00	60.00	125.00	0.50	●
7157145	H2TE5CH2500R045HAM	25.00	25.00	45.00	121.00	0.50	●
7157146	H2TE5CH2500R075HAM	25.00	25.00	75.00	150.00	0.50	●



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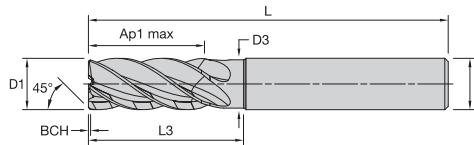
- Principal
- Secundario

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HARVI II TE

Biselado • 5 canales • Mango Weldon

Número de pedido	Número de catálogo	D1	D	Ap1 máx.	L	BCH	
7156123	H2TE5CH0500R013HBM	5.00	6.00	13.00	57.00	0.20	●
7156124	H2TE5CH0600R016HBM	6.00	6.00	16.00	57.00	0.20	●
7157116	H2TE5CH0700R016HBM	7.00	8.00	16.00	63.00	0.20	●
7156126	H2TE5CH0800R019HBM	8.00	8.00	19.00	63.00	0.30	●
7157119	H2TE5CH1000R022HBM	10.00	10.00	22.00	72.00	0.30	●
7156128	H2TE5CH1200R026HBM	12.00	12.00	26.00	83.00	0.40	●
7157148	H2TE5CH1600R032HBM	16.00	16.00	32.00	92.00	0.50	●
7157149	H2TE5CH1600L060HBM	16.00	16.00	60.00	125.00	0.50	●
7157150	H2TE5CH1800R032HBM	18.00	18.00	32.00	92.00	0.50	●
7157151	H2TE5CH2000R038HBM	20.00	20.00	38.00	104.00	0.50	●
7157152	H2TE5CH2000L060HBM	20.00	20.00	60.00	125.00	0.50	●



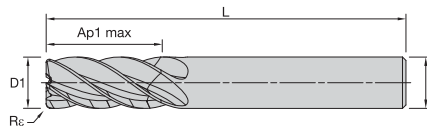
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● Principal
○ Secundario

HARVI II TE

Biselado • 5 canales • Con cuello • Mango liso

Número de pedido	Número de catálogo	D1	D	D3	Ap1 máx.	L3	L	BCH	
7157191	H2TE5CH1000N022HAM	10.0	10.0	9.40	22.0	30.0	72.0	0.30	●
7156181	H2TE5CH1200N026HAM	12.0	12.0	11.28	26.0	36.0	83.0	0.40	●
7157192	H2TE5CH1600N032HAM	16.0	16.0	15.04	32.0	42.0	92.0	0.50	●
7157193	H2TE5CH2000N038HAM	20.0	20.0	18.80	38.0	52.0	104.0	0.50	●



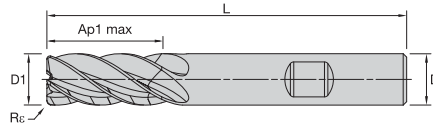
P	○
M	●
K	○
N	●
S	●
H	○

● Principal
○ Secundario

HARVI II TE

Con radio • 5 canales • Mango liso

Número de pedido	Número de catálogo	D1	D	Ap1 máx.	L	Rε	
7156129	H2TE5RA0400R011HAR025M	4.00	6.00	11.00	57.00	0.25	●
7156130	H2TE5RA0500R013HAR025M	5.00	6.00	13.00	57.00	0.25	●
7156142	H2TE5RA0600R016HAR050M	6.00	6.00	16.00	57.00	0.50	●
7156168	H2TE5RA0600R016HAR100M	6.00	6.00	16.00	57.00	1.00	●
7156143	H2TE5RA0700R016HAR050M	7.00	8.00	16.00	63.00	0.50	●
7156144	H2TE5RA0800R019HAR050M	8.00	8.00	19.00	63.00	0.50	●
7157159	H2TE5RA0800R019HAR100M	8.00	8.00	19.00	63.00	1.00	●
7157154	H2TE5RA0900R019HAR050M	9.00	10.00	19.00	72.00	0.50	●
7156145	H2TE5RA1000R022HAR050M	10.00	10.00	22.00	72.00	0.50	●
7157160	H2TE5RA1000R022HAR100M	10.00	10.00	22.00	72.00	1.00	●
7156146	H2TE5RA1200R026HAR050M	12.00	12.00	26.00	83.00	0.50	●
7156169	H2TE5RA1200R026HAR100M	12.00	12.00	26.00	83.00	1.00	●
7157165	H2TE5RA1200R026HAR250M	12.00	12.00	26.00	83.00	2.50	●
7156147	H2TE5RA1600R032HAR050M	16.00	16.00	32.00	92.00	0.50	●
7156170	H2TE5RA1600R032HAR100M	16.00	16.00	32.00	92.00	1.00	●
7157166	H2TE5RA1600R032HAR250M	16.00	16.00	32.00	92.00	2.50	●
7156148	H2TE5RA1600L060HAR050M	16.00	16.00	60.00	125.00	0.50	●
7156171	H2TE5RA1600L060HAR100M	16.00	16.00	60.00	125.00	1.00	●
7157167	H2TE5RA1600L060HAR250M	16.00	16.00	60.00	125.00	2.50	●
7157161	H2TE5RA1800R032HAR100M	18.00	18.00	32.00	92.00	1.00	●
7156149	H2TE5RA2000R038HAR050M	20.00	20.00	38.00	104.00	0.50	●
7156172	H2TE5RA2000R038HAR100M	20.00	20.00	38.00	104.00	1.00	●
7157168	H2TE5RA2000R038HAR250M	20.00	20.00	38.00	104.00	2.50	●
7156173	H2TE5RA2000L060HAR100M	20.00	20.00	60.00	125.00	1.00	●
7156150	H2TE5RA2500R045HAR050M	25.00	25.00	45.00	121.00	0.50	●
7157172	H2TE5RA2500R075HAR400M	25.00	25.00	75.00	150.00	4.00	●



P	Blue	○
M	Yellow	●
K	Red	○
N	Green	○
S	Orange	●
H	Grey	○

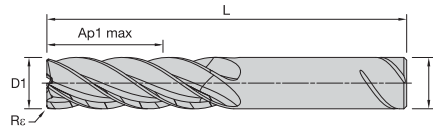
- Principal
- Secundario

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HARVI II TE

Con radio • 5 canales • Mango Weldon

Número de pedido	Número de catálogo	D1	D	Ap1 máx.	L	Rε	
7156141	H2TE5RA0500R013HBR025M	5.00	6.00	13.00	57.00	0.25	●
7156161	H2TE5RA0600R016HBR050M	6.00	6.00	16.00	57.00	0.50	●
7156162	H2TE5RA0800R019HBR050M	8.00	8.00	19.00	63.00	0.50	●
7156163	H2TE5RA1000R022HBR050M	10.00	10.00	22.00	72.00	0.50	●
7156164	H2TE5RA1200R026HBR050M	12.00	12.00	26.00	83.00	0.50	●
7157162	H2TE5RA1200R026HBR100M	12.00	12.00	26.00	83.00	1.00	●
7157169	H2TE5RA1200R026HBR250M	12.00	12.00	26.00	83.00	2.50	●
7156165	H2TE5RA1600R032HBR050M	16.00	16.00	32.00	92.00	0.50	●
7156174	H2TE5RA1600R032HBR100M	16.00	16.00	32.00	92.00	1.00	●
7157170	H2TE5RA1600R032HBR250M	16.00	16.00	32.00	92.00	2.50	●
7156166	H2TE5RA1600L060HBR050M	16.00	16.00	60.00	125.00	0.50	●
7156175	H2TE5RA1600L060HBR100M	16.00	16.00	60.00	125.00	1.00	●
7157155	H2TE5RA1800R032HBR050M	18.00	18.00	32.00	92.00	0.50	●
7156167	H2TE5RA2000R038HBR050M	20.00	20.00	38.00	104.00	0.50	●
7156176	H2TE5RA2000R038HBR100M	20.00	20.00	38.00	104.00	1.00	●
7157171	H2TE5RA2000R038HBR250M	20.00	20.00	38.00	104.00	2.50	●
7156177	H2TE5RA2000L060HBR100M	20.00	20.00	60.00	125.00	1.00	●
7157156	H2TE5RA2500R045HBR050M	25.00	25.00	45.00	121.00	0.50	●
7157173	H2TE5RA2500R075HBR400M	25.00	25.00	75.00	150.00	4.00	●



P	Blue	○
M	Yellow	●
K	Red	○
N	Green	○
S	Orange	●
H	Grey	○

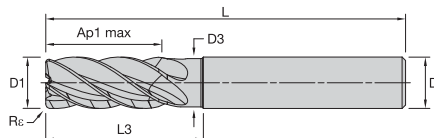
- Principal
- Secundario

KCSM15A

HARVI II TE

Con radio • 5 canales • Mango SAFE-LOCK™

Número de pedido	Número de catálogo	D1	D	Ap1 máx.	L	Rε	
7157163	H2TE5RA1600R032SLR100M	16.00	16.00	32.00	92.00	1.00	●
7157157	H2TE5RA2000R038SLR050M	20.00	20.00	38.00	104.00	0.50	●
7157164	H2TE5RA2000R038SLR100M	20.00	20.00	38.00	104.00	1.00	●
7157158	H2TE5RA2500R045SLR050M	25.00	25.00	45.00	121.00	0.50	●



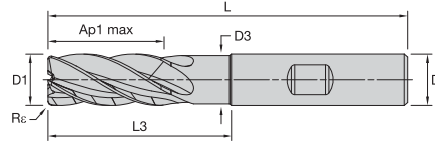
HARVI II TE

Con radio • 5 canales • Con cuello • Mango liso

- Principal
- Secundario

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Número de pedido	Número de catálogo	D1	D	D3	Ap1 máx.	L3	L	Rε	
7156182	H2TE5RA0600N013HAR025M	6.00	6.00	5.64	13.00	19.00	57.00	0.25	●
7156186	H2TE5RA0600N013HAR050M	6.00	6.00	5.64	13.00	19.00	57.00	0.50	●
7156199	H2TE5RA0600N013HAR100M	6.00	6.00	5.64	13.00	19.00	57.00	1.00	●
7156183	H2TE5RA0800N019HAR025M	8.00	8.00	7.52	19.00	25.00	63.00	0.25	●
7156187	H2TE5RA0800N019HAR050M	8.00	8.00	7.52	19.00	25.00	63.00	0.50	●
7156200	H2TE5RA0800N019HAR100M	8.00	8.00	7.52	19.00	25.00	63.00	1.00	●
7157194	H2TE5RA1000N022HAR025M	10.00	10.00	9.40	22.00	30.00	72.00	0.25	●
7156188	H2TE5RA1000N022HAR050M	10.00	10.00	9.40	22.00	30.00	72.00	0.50	●
7156201	H2TE5RA1000N022HAR100M	10.00	10.00	9.40	22.00	30.00	72.00	1.00	●
7157209	H2TE5RA1000N022HAR150M	10.00	10.00	9.40	22.00	30.00	72.00	1.50	●
7156211	H2TE5RA1200N026HAR025M	12.00	12.00	11.28	26.00	36.00	83.00	0.25	●
7156216	H2TE5RA1200N026HAR050M	12.00	12.00	11.28	26.00	36.00	83.00	0.50	●
7156202	H2TE5RA1200N026HAR100M	12.00	12.00	11.28	26.00	36.00	83.00	1.00	●
7156212	H2TE5RA1200N026HAR200M	12.00	12.00	11.28	26.00	36.00	83.00	2.00	●
7156217	H2TE5RA1200N026HAR250M	12.00	12.00	11.28	26.00	36.00	83.00	2.50	●
7156218	H2TE5RA1200N026HAR300M	12.00	12.00	11.28	26.00	36.00	83.00	3.00	●
7156190	H2TE5RA1400N026HAR050M	14.00	14.00	13.16	26.00	42.00	83.00	0.50	●
7157210	H2TE5RA1400N026HAR200M	14.00	14.00	13.16	26.00	42.00	83.00	2.00	●
7157219	H2TE5RA1400N026HAR300M	14.00	14.00	13.16	26.00	42.00	83.00	3.00	●
7156191	H2TE5RA1600N032HAR050M	16.00	16.00	15.04	32.00	42.00	92.00	0.50	●
7156203	H2TE5RA1600N032HAR100M	16.00	16.00	15.04	32.00	42.00	92.00	1.00	●
7156213	H2TE5RA1600N032HAR200M	16.00	16.00	15.04	32.00	42.00	92.00	2.00	●
7157214	H2TE5RA1600N032HAR250M	16.00	16.00	15.04	32.00	42.00	92.00	2.50	●
7156219	H2TE5RA1600N032HAR300M	16.00	16.00	15.04	32.00	42.00	92.00	3.00	●
7156192	H2TE5RA1600E032HAR050M	16.00	16.00	15.04	32.00	48.00	100.00	0.50	●
7156204	H2TE5RA1600E032HAR100M	16.00	16.00	15.04	32.00	48.00	100.00	1.00	●
7156214	H2TE5RA1600E032HAR200M	16.00	16.00	15.04	32.00	48.00	100.00	2.00	●
7157215	H2TE5RA1600E032HAR250M	16.00	16.00	15.04	32.00	48.00	100.00	2.50	●
7156220	H2TE5RA1600E032HAR300M	16.00	16.00	15.04	32.00	48.00	100.00	3.00	●
7156234	H2TE5RA1600E032HAR400M	16.00	16.00	15.04	32.00	48.00	100.00	4.00	●
7156237	H2TE5RA1600E032HAR600M	16.00	16.00	15.04	32.00	48.00	100.00	6.00	●
7156193	H2TE5RA2000N038HAR050M	20.00	20.00	18.80	38.00	52.00	104.00	0.50	●
7157201	H2TE5RA2000N038HAR100M	20.00	20.00	18.80	38.00	52.00	104.00	1.00	●
7157211	H2TE5RA2000N038HAR200M	20.00	20.00	18.80	38.00	52.00	104.00	2.00	●
7157220	H2TE5RA2000N038HAR300M	20.00	20.00	18.80	38.00	52.00	104.00	3.00	●
7156235	H2TE5RA2000N038HAR400M	20.00	20.00	18.80	38.00	52.00	104.00	4.00	●
7157195	H2TE5RA2000E038HAR050M	20.00	20.00	18.80	38.00	65.00	115.00	0.50	●
7157202	H2TE5RA2000E038HAR100M	20.00	20.00	18.80	38.00	65.00	115.00	1.00	●
7157212	H2TE5RA2000E038HAR200M	20.00	20.00	18.80	38.00	65.00	115.00	2.00	●
7157216	H2TE5RA2000E038HAR250M	20.00	20.00	18.80	38.00	65.00	115.00	2.50	●
7157221	H2TE5RA2000E038HAR300M	20.00	20.00	18.80	38.00	65.00	115.00	3.00	●
7156236	H2TE5RA2000E038HAR400M	20.00	20.00	18.80	38.00	65.00	115.00	4.00	●
7156205	H2TE5RA2500N045HAR100M	25.00	25.00	23.50	45.00	63.00	121.00	1.00	●
7157222	H2TE5RA2500N045HAR300M	25.00	25.00	23.50	45.00	63.00	121.00	3.00	●
7157227	H2TE5RA2500N045HAR400M	25.00	25.00	23.50	45.00	63.00	121.00	4.00	●
7157203	H2TE5RA2500E045HAR100M	25.00	25.00	23.50	45.00	75.00	135.00	1.00	●
7157224	H2TE5RA2500E045HAR300M	25.00	25.00	23.50	45.00	75.00	135.00	3.00	●



P	●	○
M	●	○
K	●	○
N	●	○
S	●	○
H	●	○

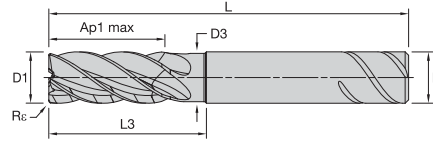
● Principal
○ Secundario

HARVI II TE

Con radio • 5 canales • Con cuello • Mango Weldon

Número de pedido	Número de catálogo	D1	D	D3	Ap1 máx.	L3	L	Rc	
7156184	H2TE5RA0600N013HBR025M	6.00	6.00	5.64	13.00	19.00	57.00	0.25	●
7156206	H2TE5RA0600N013HBR100M	6.00	6.00	5.64	13.00	19.00	57.00	1.00	●
7156185	H2TE5RA0800N019HBR025M	8.00	8.00	7.52	19.00	25.00	63.00	0.25	●
7156207	H2TE5RA0800N019HBR100M	8.00	8.00	7.52	19.00	25.00	63.00	1.00	●
7157196	H2TE5RA1000N022HBR050M	10.00	10.00	9.40	22.00	30.00	72.00	0.50	●
7157217	H2TE5RA1000N022HBR250M	10.00	10.00	9.40	22.00	30.00	72.00	2.50	●
7156194	H2TE5RA1200N026HBR050M	12.00	12.00	11.28	26.00	36.00	83.00	0.50	●
7156231	H2TE5RA1200N026HBR300M	12.00	12.00	11.28	26.00	36.00	83.00	3.00	●
7156208	H2TE5RA1400N026HBR100M	14.00	14.00	13.16	26.00	42.00	83.00	1.00	●
7156195	H2TE5RA1600N032HBR050M	16.00	16.00	15.04	32.00	42.00	92.00	0.50	●
7156209	H2TE5RA1600N032HBR100M	16.00	16.00	15.04	32.00	42.00	92.00	1.00	●
7156232	H2TE5RA1600N032HBR300M	16.00	16.00	15.04	32.00	42.00	92.00	3.00	●
7156196	H2TE5RA1600E032HBR050M	16.00	16.00	15.04	32.00	48.00	100.00	0.50	●
7156210	H2TE5RA1600E032HBR100M	16.00	16.00	15.04	32.00	48.00	100.00	1.00	●
7156233	H2TE5RA1600E032HBR300M	16.00	16.00	15.04	32.00	48.00	100.00	3.00	●
7156197	H2TE5RA2000N038HBR050M	20.00	20.00	18.80	38.00	52.00	104.00	0.50	●
7156215	H2TE5RA2000N038HBR200M	20.00	20.00	18.80	38.00	52.00	104.00	2.00	●
7157225	H2TE5RA2000N038HBR300M	20.00	20.00	18.80	38.00	52.00	104.00	3.00	●
7156198	H2TE5RA2000E038HBR050M	20.00	20.00	18.80	38.00	65.00	115.00	0.50	●
7157204	H2TE5RA2000E038HBR100M	20.00	20.00	18.80	38.00	65.00	115.00	1.00	●
7157213	H2TE5RA2000E038HBR200M	20.00	20.00	18.80	38.00	65.00	115.00	2.00	●
7157218	H2TE5RA2000E038HBR250M	20.00	20.00	18.80	38.00	65.00	115.00	2.50	●
7157226	H2TE5RA2000E038HBR300M	20.00	20.00	18.80	38.00	65.00	115.00	3.00	●
7157228	H2TE5RA2000E038HBR400M	20.00	20.00	18.80	38.00	65.00	115.00	4.00	●
7157205	H2TE5RA2500N045HBR100M	25.00	25.00	23.50	45.00	63.00	121.00	1.00	●
7157206	H2TE5RA2500E045HBR100M	25.00	25.00	23.50	45.00	75.00	135.00	1.00	●

KCSM15A

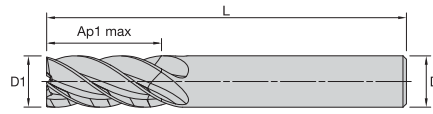


- Principal
 - Secundario
- | | | |
|---|--------|---|
| P | Blue | ○ |
| M | Yellow | ● |
| K | Red | ○ |
| N | Green | ○ |
| S | Orange | ● |
| H | Grey | ○ |

HARVI II TE

Con radio • 5 canales • Con cuello • Mango SAFE-LOCK

Número de pedido	Número de catálogo	D1	D	D3	Ap1 máx.	L3	L	Rε	
7157197	H2TE5RA1200N026SLR050M	12.00	12.00	11.28	26.00	36.00	83.00	0.50	●
7157198	H2TE5RA1600N032SLR050M	16.00	16.00	15.04	32.00	42.00	92.00	0.50	●
7157207	H2TE5RA1600E032SLR100M	16.00	16.00	15.04	32.00	48.00	100.00	1.00	●
7157199	H2TE5RA2000N038SLR050M	20.00	20.00	18.80	38.00	52.00	104.00	0.50	●
7157200	H2TE5RA2000E038SLR050M	20.00	20.00	18.80	38.00	65.00	115.00	0.50	●
7157208	H2TE5RA2500N045SLR100M	25.00	25.00	23.50	45.00	63.00	121.00	1.00	●

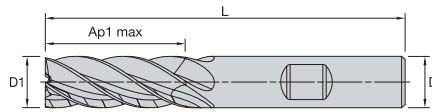


- Principal
 - Secundario
- | | | |
|---|--------|---|
| P | Blue | ● |
| M | Yellow | ● |
| K | Red | ● |
| N | Green | ○ |
| S | Orange | ○ |
| H | Grey | ○ |

HARVI II TE

Frontal plano • 5 canales • Mango liso

Número de pedido	Número de catálogo	D1	D	Ap1 máx.	L	
7156097	H2TE5SE0400R011HAM	4.00	6.00	11.00	57.00	●
7156098	H2TE5SE0500R013HAM	5.00	6.00	13.00	57.00	●
7156099	H2TE5SE0600R016HAM	6.00	6.00	16.00	57.00	●
7156100	H2TE5SE0700R016HAM	7.00	8.00	16.00	63.00	●
7156111	H2TE5SE0800R019HAM	8.00	8.00	19.00	63.00	●
7156930	H2TE5SE0900R019HAM	9.00	10.00	19.00	72.00	●
7156112	H2TE5SE1000R022HAM	10.00	10.00	22.00	72.00	●
7156113	H2TE5SE1200R026HAM	12.00	12.00	26.00	83.00	●
7156114	H2TE5SE1600R032HAM	16.00	16.00	32.00	92.00	●
7156115	H2TE5SE1600L060HAM	16.00	16.00	60.00	125.00	●
7157111	H2TE5SE1800R032HAM	18.00	18.00	32.00	92.00	●
7156117	H2TE5SE2000R038HAM	20.00	20.00	38.00	104.00	●
7156118	H2TE5SE2000L060HAM	20.00	20.00	60.00	125.00	●
7157112	H2TE5SE2500R045HAM	25.00	25.00	45.00	121.00	●



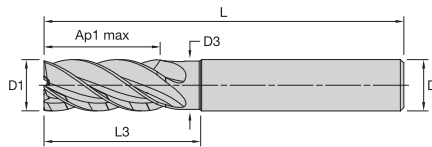
P	●
M	●
K	●
N	●
S	○
H	○

- Principal
- Secundario

HARVI II TE

Frontal plano • 5 canales • Mango Weldon

Número de pedido	Número de catálogo	D1	D	Ap1 máx.	L	
7156119	H2TE5SE1600L060HBM	16.00	16.00	60.00	125.00	●
7157113	H2TE5SE2000R038HBM	20.00	20.00	38.00	104.00	●
7157114	H2TE5SE2000L060HBM	20.00	20.00	60.00	125.00	●



P	●
M	●
K	●
N	●
S	○
H	○

- Principal
- Secundario

HARVI II TE

Frontal plano • 5 canales • Con cuello • Mango liso

Número de pedido	Número de catálogo	D1	D	D3	Ap1 máx.	L3	L	
7156180	H2TE5SE0600N013HAM	6.00	6.00	5.64	13.00	19.00	57.00	●
7156178	H2TE5SE0800N019HAM	8.00	8.00	7.52	19.00	25.00	63.00	●
7156179	H2TE5SE1000N022HAM	10.00	10.00	9.40	22.00	30.00	72.00	●
7157174	H2TE5SE1200N026HAM	12.00	12.00	11.28	26.00	36.00	83.00	●
7157175	H2TE5SE1400N026HAM	14.00	14.00	13.16	26.00	42.00	83.00	●
7157176	H2TE5SE1600E032HAM	16.00	16.00	15.04	32.00	48.00	100.00	●
7157177	H2TE5SE2000N038HAM	20.00	20.00	18.80	38.00	52.00	104.00	●
7157178	H2TE5SE2000E038HAM	20.00	20.00	18.80	38.00	65.00	115.00	●
7157179	H2TE5SE2500N045HAM	25.00	25.00	23.50	45.00	63.00	121.00	●
7157180	H2TE5SE2500E045HAM	25.00	25.00	23.50	45.00	75.00	135.00	●

DATOS DE LA APLICACIÓN HARVI II TE

Grupo de materiales					KCPM15A - KCSM15A		Avance recomendado por diente (Fz=mm/diente) para fresado lateral. Para ranurado, reduzca el fz un 20 %													
	Fresado lateral		Ranurado		Velocidad de corte (Vc)		D1 - Diámetro													
	Ap	Ae	Ap	Min.	Máx.	mm	4,0	5,0	6,0	7,0	8,0	9,0	10,0	12,0	14,0	16,0	18,0	20,0	25,0	
					m/mín															
P	P0	1.5xD	0.5XD	1.25xD	150	200	Fz	0.031	0.040	0.048	0.057	0.066	0.073	0.079	0.091	0.102	0.111	0.119	0.125	0.136
	P1	1.5xD	0.5XD	1.25xD	150	200	Fz	0.031	0.040	0.048	0.057	0.066	0.073	0.079	0.091	0.102	0.111	0.119	0.125	0.136
	P2	1.5xD	0.5XD	1.25xD	140	190	Fz	0.031	0.040	0.048	0.057	0.066	0.073	0.079	0.091	0.102	0.111	0.119	0.125	0.136
	P3	1.5xD	0.5XD	1.25xD	120	160	Fz	0.026	0.033	0.040	0.047	0.055	0.061	0.067	0.077	0.087	0.096	0.104	0.111	0.125
	P4	1.5xD	0.5XD	1.25xD	90	150	Fz	0.024	0.030	0.036	0.043	0.049	0.054	0.059	0.069	0.077	0.084	0.091	0.097	0.107
	P5	1.5xD	0.5XD	1.25xD	60	100	Fz	0.021	0.027	0.032	0.038	0.044	0.049	0.053	0.062	0.070	0.077	0.083	0.089	0.100
M	P6	1.5xD	0.5XD	1.25xD	50	75	Fz	0.018	0.022	0.027	0.032	0.037	0.041	0.044	0.051	0.057	0.063	0.067	0.071	0.078
	M1	1.5xD	0.5XD	1.25xD	90	115	Fz	0.026	0.033	0.040	0.047	0.055	0.061	0.067	0.077	0.087	0.096	0.104	0.111	0.125
	M2	1.5xD	0.5XD	1.25xD	60	80	Fz	0.021	0.027	0.032	0.038	0.044	0.049	0.053	0.062	0.070	0.077	0.083	0.089	0.100
K	M3	1.5xD	0.5XD	1.0xD	60	70	Fz	0.018	0.022	0.027	0.032	0.037	0.041	0.044	0.051	0.057	0.063	0.067	0.071	0.078
	K1	1.5xD	0.5XD	1.0xD	120	150	Fz	0.031	0.040	0.048	0.057	0.066	0.073	0.079	0.091	0.102	0.111	0.119	0.125	0.136
	K2	1.5xD	0.5XD	1.0xD	110	140	Fz	0.026	0.033	0.040	0.047	0.055	0.061	0.067	0.077	0.087	0.096	0.104	0.111	0.125
S	K3	1.5xD	0.5XD	1.0xD	110	130	Fz	0.021	0.027	0.032	0.038	0.044	0.049	0.053	0.062	0.070	0.077	0.083	0.089	0.100
	S1	1.5xD	0.3XD	0.75xD	50	90	Fz	0.026	0.033	0.040	0.047	0.055	0.061	0.067	0.077	0.087	0.096	0.104	0.111	0.125
	S2	1.5xD	0.3XD	0.75xD	25	50	Fz	0.014	0.018	0.021	0.025	0.029	0.032	0.035	0.041	0.046	0.051	0.055	0.059	0.067
	S3	1.5xD	0.5XD	0.75xD	25	40	Fz	0.014	0.018	0.021	0.025	0.029	0.032	0.035	0.041	0.046	0.051	0.055	0.059	0.067
H	S4	1.5xD	0.5XD	1.25xD	50	60	Fz	0.017	0.023	0.028	0.034	0.040	0.045	0.049	0.057	0.064	0.071	0.076	0.082	0.092
	H1	1.5xD	0.5XD	1.0xD	80	140	Fz	0.024	0.030	0.036	0.043	0.049	0.054	0.059	0.069	0.077	0.084	0.091	0.097	0.107
	H2	1.5xD	0.2XD	1.0xD	70	120	Fz	0.018	0.022	0.027	0.032	0.037	0.041	0.044	0.051	0.057	0.063	0.067	0.071	0.078

NOTA:

Esas directrices pueden requerir variaciones para obtener resultados óptimos.
 Se utiliza una velocidad de corte menor para aplicaciones de alta retirada de material o para una mayor dureza (maquinabilidad) dentro del grupo.
 Se utiliza una velocidad de corte mayor para aplicaciones de acabado o para una dureza menor (maquinabilidad) dentro del grupo.
 Los parámetros anteriores se basan en las condiciones ideales.
 Para centros de mecanizado más pequeños, ajuste los parámetros como corresponda en diámetros superiores a 12 mm.
 Para herramientas con alcance >4.5xD, reduzca el fz en un 30 % y utilice el rango bajo de velocidad de corte como condición de inicio.
 Mayor DOC de ranurado posible con protección adecuada contra extracción, portaherramientas, configuración de la máquina y flujo de refrigerante.

DATOS DE APLICACIÓN DE HARVI II TE - Tabla de factores de ajuste

Tabla de factor de ajuste para el cálculo del avance y la velocidad.

	Ae/D	2 %	4 %	5 %	8 %	10 %	12 %	20 %	30 %	40 %	50 %	100 %
Factor de velocidad	Kv	2.1 - 3.6	1.6 - 3	1.6 - 2.5	1.6	1.4	1.38	1.3	1.2	1.1	1	1
Factor de avance	KFz	3.58	2.56	2.3	1.84	1.67	1.54	1.25	1.09	1.02	1	0.9
phi [°]		16.26	23.07	25.84	32.86	36.87	40.54	53.13	66.42	78,46	90.00	180.00

NOTA:

Estos cálculos son para cortes de desbaste/semiacabado cuando se utilizan con el Fz básico recomendado.
 Para cortes de acabado ligero que requieren una calidad superficial mejorada, se recomienda reducir el fz básico aproximadamente un 50 % y luego aplicar estos factores.
 Para una relación Ae/D del 5 % o menos, existe un rango dado para el factor de velocidad Kv, que permite al usuario ser más conservador con el valor más bajo o más agresivo con el valor más alto.
 Esto también se puede considerar en función de la maquinabilidad del material, desde el corte difícil hasta el libre.

Para calcular los datos de corte específicos para la aplicación, utilice el coeficiente Kv anterior para la adaptación de la velocidad de corte y KFz para el avance, respectivamente.

Vc nuevo = Vc * Kv
 Fz nuevo = Fz * KFz

Ejemplos de cálculo:

Aplicación: D1= 12.0 mm
 Grupo de materiales P5
 Ae= 20 % de D
 Datos de corte recomendados: Vc= 80 m/mín
 Fz= 0.062 mm/diente
 Coeficiente de ajuste: Kv= 1.30
 KFz= 1.25

Datos de corte final recomendados:

Vc nuevo= 80 * 1.30 = 104 m/mín
 Fz nuevo= 0.062 * 1.25 = 0.0775 mm/diente

DATOS DE LA APLICACIÓN HARVI II TE

Grupo de materiales	Interpolación helicoidal/ Fresado descendente 0° - 15°	KCPM15A - KCSM15A		Diámetro mín- máx para inter- polación helicoidal	Avance recomendado por diente (fz = mm/z) para interpolación helicoidal y fresado descendente - zeff = 2													
		Velocidad de corte (Vc)			D1 - Diámetro													
		m/min			4,6-7,6	5,8-9,5	6,9-11,4	8,1-13,3	9,2-15,2	10,4-17,1	11,5-19,0	13,8-22,8	16,1-26,6	18,4-30,4	20,7-34,2	23,0-38,0	28,8-47,5	
		Profundidad máx.	Mín.		Máx.	mm	4.0	5.0	6.0	7.0	8.0	9.0	10.0	12.0	14.0	16.0	18.0	20.0
P	P0	1,25 x D1	150	200	Fz	0.031	0.040	0.048	0.057	0.066	0.073	0.079	0.091	0.102	0.111	0.119	0.125	0.136
	P1	1,25 x D1	150	200	Fz	0.031	0.040	0.048	0.057	0.066	0.073	0.079	0.091	0.102	0.111	0.119	0.125	0.136
	P2	1,25 x D1	140	190	Fz	0.031	0.040	0.048	0.057	0.066	0.073	0.079	0.091	0.102	0.111	0.119	0.125	0.136
	P3	1,25 x D1	120	160	Fz	0.026	0.033	0.040	0.047	0.055	0.061	0.067	0.077	0.087	0.096	0.104	0.111	0.125
	P4	1,25 x D1	90	150	Fz	0.024	0.030	0.036	0.043	0.049	0.054	0.059	0.069	0.077	0.084	0.091	0.097	0.107
	P5	1,25 x D1	60	100	Fz	0.021	0.027	0.032	0.038	0.044	0.049	0.053	0.062	0.070	0.077	0.083	0.089	0.100
M	P6	1,25 x D1	50	75	Fz	0.018	0.022	0.027	0.032	0.037	0.041	0.044	0.051	0.057	0.063	0.067	0.071	0.078
	M1	1,25 x D1	90	115	Fz	0.026	0.033	0.040	0.047	0.055	0.061	0.067	0.077	0.087	0.096	0.104	0.111	0.125
	M2	1,25 x D1	60	80	Fz	0.021	0.027	0.032	0.038	0.044	0.049	0.053	0.062	0.070	0.077	0.083	0.089	0.100
K	M3	1,0 x D1	60	70	Fz	0.018	0.022	0.027	0.032	0.037	0.041	0.044	0.051	0.057	0.063	0.067	0.071	0.078
	K1	1,0 x D1	120	150	Fz	0.031	0.040	0.048	0.057	0.066	0.073	0.079	0.091	0.102	0.111	0.119	0.125	0.136
	K2	1,0 x D1	110	140	Fz	0.026	0.033	0.040	0.047	0.055	0.061	0.067	0.077	0.087	0.096	0.104	0.111	0.125
S	K3	1,0 x D1	110	130	Fz	0.021	0.027	0.032	0.038	0.044	0.049	0.053	0.062	0.070	0.077	0.083	0.089	0.100
	S1	0,75 x D1	50	90	Fz	0.026	0.033	0.040	0.047	0.055	0.061	0.067	0.077	0.087	0.096	0.104	0.111	0.125
	S2	0,75 x D1	25	50	Fz	0.014	0.018	0.021	0.025	0.029	0.032	0.035	0.041	0.046	0.051	0.055	0.059	0.067
	S3	0,5 x D1	25	40	Fz	0.014	0.018	0.021	0.025	0.029	0.032	0.035	0.041	0.046	0.051	0.055	0.059	0.067
H	S4	1,25 x D1	50	60	Fz	0.017	0.023	0.028	0.034	0.040	0.045	0.049	0.057	0.064	0.071	0.076	0.082	0.092
	H1	1,0 x D1	80	140	Fz	0.024	0.030	0.036	0.043	0.049	0.054	0.059	0.069	0.077	0.084	0.091	0.097	0.107
	H2	1,0 x D1	70	120	Fz	0.018	0.022	0.027	0.032	0.037	0.041	0.044	0.051	0.057	0.063	0.067	0.071	0.078

DATOS DE LA APLICACIÓN HARVI II TE

Grupo de materiales	Interpolación helicoidal/ Fresado descendente 15° - 30°	KCPM15A - KCSM15A		Diámetro mín- máx para inter- polación helicoidal	Avance recomendado por diente (fz = mm/z) para interpolación helicoidal y fresado descendente - zeff = 2													
		Velocidad de corte (Vc)			D1 - Diámetro													
		m/min			4,6-7,6	5,8-9,5	6,9-11,4	8,1-13,3	9,2-15,2	10,4-17,1	11,5-19,0	13,8-22,8	16,1-26,6	18,4-30,4	20,7-34,2	23,0-38,0	28,8-47,5	
		Profundidad máx.	Mín.		Máx.	mm	4.0	5.0	6.0	7.0	8.0	9.0	10.0	12.0	14.0	16.0	18.0	20.0
P	P0	1,25 x D1	150	200	Fz	0.023	0.030	0.036	0.043	0.050	0.055	0.059	0.068	0.076	0.083	0.089	0.094	0.102
	P1	1,25 x D1	150	200	Fz	0.023	0.030	0.036	0.043	0.050	0.055	0.059	0.068	0.076	0.083	0.089	0.094	0.102
	P2	1,25 x D1	140	190	Fz	0.023	0.030	0.036	0.043	0.050	0.055	0.059	0.068	0.076	0.083	0.089	0.094	0.102
	P3	1,25 x D1	120	160	Fz	0.019	0.025	0.030	0.036	0.041	0.046	0.050	0.058	0.065	0.072	0.078	0.083	0.094
	P4	1,25 x D1	90	150	Fz	0.018	0.022	0.027	0.032	0.037	0.041	0.045	0.051	0.058	0.063	0.068	0.073	0.080
	P5	1,25 x D1	60	100	Fz	0.016	0.020	0.024	0.029	0.033	0.037	0.040	0.046	0.052	0.058	0.062	0.067	0.075
K	P6	1,25 x D1	50	75	Fz	0.013	0.017	0.020	0.024	0.028	0.031	0.033	0.038	0.043	0.047	0.050	0.053	0.059
	K1	1,0 x D1	120	150	Fz	0.023	0.030	0.036	0.043	0.050	0.055	0.059	0.068	0.076	0.083	0.089	0.094	0.102
	K2	1,0 x D1	110	140	Fz	0.019	0.025	0.030	0.036	0.041	0.046	0.050	0.058	0.065	0.072	0.078	0.083	0.094
S	K3	1,0 x D1	110	130	Fz	0.016	0.020	0.024	0.029	0.033	0.037	0.040	0.046	0.052	0.058	0.062	0.067	0.075
	S1	0,75 x D1	50	90	Fz	0.019	0.025	0.030	0.036	0.041	0.046	0.050	0.058	0.065	0.072	0.078	0.083	0.094
	S2	0,75 x D1	25	50	Fz	0.010	0.013	0.016	0.019	0.022	0.024	0.026	0.031	0.035	0.038	0.042	0.045	0.051
	S3	0,5 x D1	25	40	Fz	0.010	0.013	0.016	0.019	0.022	0.024	0.026	0.031	0.035	0.038	0.042	0.045	0.051
H	S4	1,25 x D1	50	60	Fz	0.013	0.017	0.021	0.026	0.030	0.034	0.037	0.043	0.048	0.053	0.057	0.061	0.069
	H1	1,0 x D1	80	140	Fz	0.018	0.022	0.027	0.032	0.037	0.041	0.045	0.051	0.058	0.063	0.068	0.073	0.080
	H2	1,0 x D1	70	120	Fz	0.013	0.017	0.020	0.024	0.028	0.031	0.033	0.038	0.043	0.047	0.050	0.053	0.059

DATOS DE LA APLICACIÓN HARVI II TE

Grupo de materiales	Interpolación helicoidal/ Fresado descendente 15° - 30°	KCPM15A - KCSM15A		Diámetro mín- máx para interpo- lación helicoidal	Avance recomendado por diente (fz = mm/z) para interpolación helicoidal y fresado descendente - zeff = 2													
		Velocidad de corte (Vc)			D1 - Diámetro													
		m/mín			4,6-7,6	5,8-9,5	6,9-11,4	8,1-13,3	9,2-15,2	10,4-17,1	11,5-19,0	13,8-22,8	16,1-26,6	18,4-30,4	20,7-34,2	23,0-38,0	28,8-47,5	
		Profundidad máx.	Mín.		Máx.	mm	4.0	5.0	6.0	7.0	8.0	9.0	10.0	12.0	14.0	16.0	18.0	20.0
P	P0	1,25 x D1	150	200	Fz	0.023	0.030	0.036	0.043	0.050	0.055	0.059	0.068	0.076	0.083	0.089	0.094	0.102
	P1	1,25 x D1	150	200	Fz	0.023	0.030	0.036	0.043	0.050	0.055	0.059	0.068	0.076	0.083	0.089	0.094	0.102
	P2	1,25 x D1	140	190	Fz	0.023	0.030	0.036	0.043	0.050	0.055	0.059	0.068	0.076	0.083	0.089	0.094	0.102
	P3	1,25 x D1	120	160	Fz	0.019	0.025	0.030	0.036	0.041	0.046	0.050	0.058	0.065	0.072	0.078	0.083	0.094
	P4	1,25 x D1	90	150	Fz	0.018	0.022	0.027	0.032	0.037	0.041	0.045	0.051	0.058	0.063	0.068	0.073	0.080
	P5	1,25 x D1	60	100	Fz	0.016	0.020	0.024	0.029	0.033	0.037	0.040	0.046	0.052	0.058	0.062	0.067	0.075
K	P6	1,25 x D1	50	75	Fz	0.013	0.017	0.020	0.024	0.028	0.031	0.033	0.038	0.043	0.047	0.050	0.053	0.059
	K1	1,0 x D1	120	150	Fz	0.023	0.030	0.036	0.043	0.050	0.055	0.059	0.068	0.076	0.083	0.089	0.094	0.102
	K2	1,0 x D1	110	140	Fz	0.019	0.025	0.030	0.036	0.041	0.046	0.050	0.058	0.065	0.072	0.078	0.083	0.094
S	K3	1,0 x D1	110	130	Fz	0.016	0.020	0.024	0.029	0.033	0.037	0.040	0.046	0.052	0.058	0.062	0.067	0.075
	S1	0,75 x D1	50	90	Fz	0.019	0.025	0.030	0.036	0.041	0.046	0.050	0.058	0.065	0.072	0.078	0.083	0.094
	S2	0,75 x D1	25	50	Fz	0.010	0.013	0.016	0.019	0.022	0.024	0.026	0.031	0.035	0.038	0.042	0.045	0.051
	S3	0,5 x D1	25	40	Fz	0.010	0.013	0.016	0.019	0.022	0.024	0.026	0.031	0.035	0.038	0.042	0.045	0.051
H	S4	1,25 x D1	50	60	Fz	0.013	0.017	0.021	0.026	0.030	0.034	0.037	0.043	0.048	0.053	0.057	0.061	0.069
	H1	1,0 x D1	80	140	Fz	0.018	0.022	0.027	0.032	0.037	0.041	0.045	0.051	0.058	0.063	0.068	0.073	0.080
	H2	1,0 x D1	70	120	Fz	0.013	0.017	0.020	0.024	0.028	0.031	0.033	0.038	0.043	0.047	0.050	0.053	0.059

DATOS DE LA APLICACIÓN HARVI II TE

Grupo de materiales	Interpolación helicoidal/ Fresado descendente 30° - 45°	KCPM15A - KCSM15A		Diámetro mín- máx para interpo- lación helicoidal	Avance recomendado por diente (fz = mm/z) para interpolación helicoidal y fresado descendente - zeff = 2													
		Velocidad de corte (Vc)			D1 - Diámetro													
		m/mín			4,6-7,6	5,8-9,5	6,9-11,4	8,1-13,3	9,2-15,2	10,4-17,1	11,5-19,0	13,8-22,8	16,1-26,6	18,4-30,4	20,7-34,2	23,0-38,0	28,8-47,5	
		Profundidad máx.	Mín.		Máx.	mm	4.0	5.0	6.0	7.0	8.0	9.0	10.0	12.0	14.0	16.0	18.0	20.0
P	P0	1,25 x D1	150	200	Fz	0.019	0.024	0.029	0.034	0.040	0.044	0.048	0.055	0.061	0.067	0.071	0.075	0.082
	P1	1,25 x D1	150	200	Fz	0.019	0.024	0.029	0.034	0.040	0.044	0.048	0.055	0.061	0.067	0.071	0.075	0.082
	P2	1,25 x D1	140	190	Fz	0.019	0.024	0.029	0.034	0.040	0.044	0.048	0.055	0.061	0.067	0.071	0.075	0.082
	P3	1,25 x D1	120	160	Fz	0.015	0.020	0.024	0.028	0.033	0.037	0.040	0.046	0.052	0.058	0.062	0.067	0.075
	P4	1,25 x D1	90	150	Fz	0.014	0.018	0.022	0.026	0.030	0.033	0.036	0.041	0.046	0.051	0.055	0.058	0.064
	P5	1,25 x D1	60	100	Fz	0.013	0.016	0.019	0.023	0.026	0.029	0.032	0.037	0.042	0.046	0.050	0.053	0.060
K	P6	1,25 x D1	50	75	Fz	0.011	0.013	0.016	0.019	0.022	0.024	0.027	0.031	0.034	0.038	0.040	0.043	0.047
	K1	1,0 x D1	120	150	Fz	0.019	0.024	0.029	0.034	0.040	0.044	0.048	0.055	0.061	0.067	0.071	0.075	0.082
	K2	1,0 x D1	110	140	Fz	0.015	0.020	0.024	0.028	0.033	0.037	0.040	0.046	0.052	0.058	0.062	0.067	0.075
S	K3	1,0 x D1	110	130	Fz	0.013	0.016	0.019	0.023	0.026	0.029	0.032	0.037	0.042	0.046	0.050	0.053	0.060
	S1	0,75 x D1	50	90	Fz	0.015	0.020	0.024	0.028	0.033	0.037	0.040	0.046	0.052	0.058	0.062	0.067	0.075
	S2	0,75 x D1	25	50	Fz	0.008	0.011	0.013	0.015	0.017	0.019	0.021	0.025	0.028	0.031	0.033	0.036	0.040
	S3	0,5 x D1	25	40	Fz	0.008	0.011	0.013	0.015	0.017	0.019	0.021	0.025	0.028	0.031	0.033	0.036	0.040
H	S4	1,25 x D1	50	60	Fz	0.010	0.014	0.017	0.021	0.024	0.027	0.029	0.034	0.038	0.042	0.046	0.049	0.055
	H1	1,0 x D1	80	140	Fz	0.014	0.018	0.022	0.026	0.030	0.033	0.036	0.041	0.046	0.051	0.055	0.058	0.064
	H2	1,0 x D1	70	120	Fz	0.011	0.013	0.016	0.019	0.022	0.024	0.027	0.031	0.034	0.038	0.040	0.043	0.047

HARVI II TE

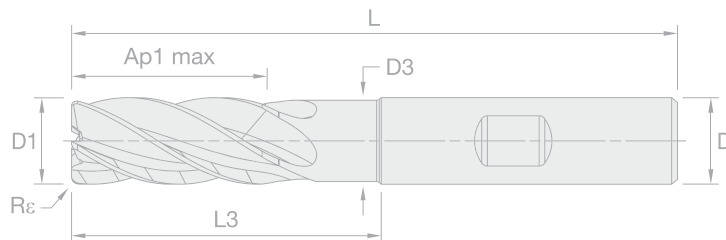
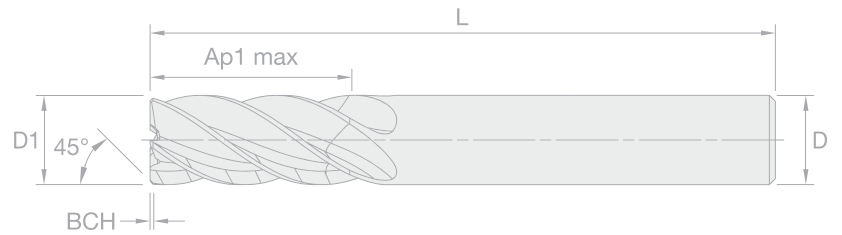
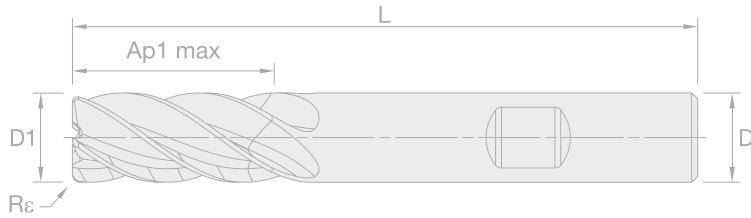
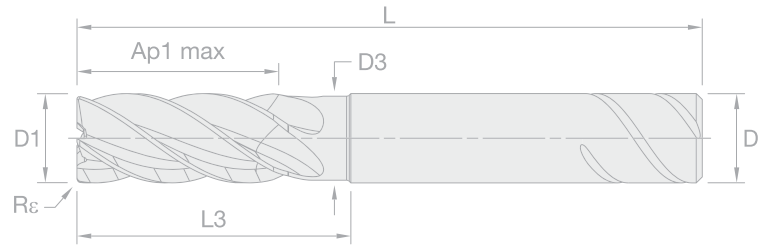
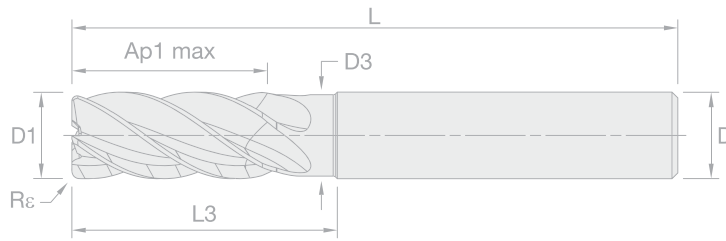
SUS MATERIALES MÁS
DUROS **NO TENDRÁN**
NINGUNA POSIBILIDAD



LLEVE SU
FABRICACIÓN AL
SIGUIENTE NIVEL

kennametal.com/HARVI-II-TE





Gomill™ PRO

FRESAS MANGO METAL DURO INTEGRAL

Ideal para talleres que trabajan en las industrias de ingeniería general, transporte, energía y medicina, GOmill PRO sirve como una fresa de mango para todo donde el precio, el rendimiento y la versatilidad se unen para operaciones de siguiente nivel.

Aplicaciones



Fresado lateral/
Escuadrado



Fresado helicoidal



Mecanizado de
alojamientos



Ranurado



Fresado descendente



Fresado dinámico

Materiales

PRINCIPAL



Aceros



Fundición



Aceros
inoxidables

SECUNDARIO



Aleaciones de alta
temperatura



Su fresa de mango de referencia en cuanto a precio, rendimiento y versatilidad

Las fresas de mango de metal duro integral GOMILL PRO de 4 canales de Kennametal son adecuadas para convertirse en una solución de referencia para talleres pequeños y medianos. Diseñadas para fresado lateral y escuadrado, fresado helicoidal, creación de alojamientos, ranurado y fresado descendente superficial, GOMILL PRO ofrece asequibilidad, versatilidad y alto rendimiento para mecanizado de siguiente nivel. Diseñadas para cortar aceros, aceros inoxidables y fundición, las nuevas fresas de mango de metal duro integral cuentan con:

- Canal dividido asimétrico para un mejor control de las vibraciones, mayor vida útil de la herramienta y un corte más suave
- Un ángulo de la hélice variable para un mejor control de las vibraciones y una mayor vida útil de la herramienta
- Un núcleo cónico para una mejor evacuación de virutas y resistencia de la herramienta
- Recubrimiento TiN/TiAlN multicapa para un alto rendimiento a un corte medio-alto en aceros, aceros inoxidables y fundición
- Diseño de desahogo especial para una mayor resistencia del filo, mejor control de las vibraciones y flexibilidad del material de la pieza de trabajo

Industrias



Ingeniería general



Automoción



Energía eólica y solar

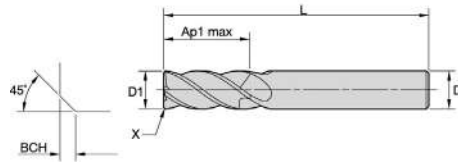


Petróleo y gas



Medicina





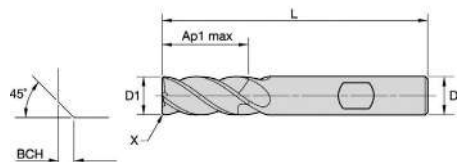
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- Principal
- Secundario

GOmill PRO

Biselado • 4 canales • Mango liso

Número de pedido	Número de catálogo	D1	D	Ap1 máx.	L	BCH	
7231597	GOPR4CH0300R008HAM	3.00	6.00	8.00	57.00	0.15	●
7231599	GOPR4CH0400R011HAM	4.00	6.00	11.00	57.00	0.15	●
7231601	GOPR4CH0500R013HAM	5.00	6.00	13.00	57.00	0.15	●
7231603	GOPR4CH0600R013HAM	6.00	6.00	13.00	57.00	0.15	●
7231605	GOPR4CH0600X032HAM	6.00	6.00	32.00	76.00	0.15	●
7231606	GOPR4CH0700R019HAM	7.00	8.00	19.00	63.00	0.15	●
7231676	GOPR4CH0800R019HAM	8.00	8.00	19.00	63.00	0.20	●
7231678	GOPR4CH0800L032HAM	8.00	8.00	32.00	87.00	0.20	●
7231679	GOPR4CH0900R022HAM	9.00	10.00	22.00	72.00	0.20	●
7231680	GOPR4CH1000R022HAM	10.00	10.00	22.00	72.00	0.20	●
7231712	GOPR4CH1000L038HAM	10.00	10.00	38.00	89.00	0.20	●
7231713	GOPR4CH1200R026HAM	12.00	12.00	26.00	83.00	0.20	●
7231715	GOPR4CH1200L051HAM	12.00	12.00	51.00	100.00	0.20	●
7231716	GOPR4CH1400S026HAM	14.00	14.00	26.00	83.00	0.35	●
7231718	GOPR4CH1600R032HAM	16.00	16.00	32.00	92.00	0.35	●
7231721	GOPR4CH1600L057HAM	16.00	16.00	57.00	125.00	0.35	●
7231722	GOPR4CH2000S038HAM	20.00	20.00	38.00	104.00	0.35	●
7231724	GOPR4CH2000R057HAM	20.00	20.00	57.00	125.00	0.35	●
7231726	GOPR4CH2500S045HAM	25.00	25.00	45.00	121.00	0.35	●



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- Principal
- Secundario

GOmill PRO

Biselado • 4 canales • Mango Weldon

Número de pedido	Número de catálogo	D1	D	Ap1 máx.	L	BCH	
7231598	GOPR4CH0300R008HBM	3.00	6.00	8.00	57.00	0.15	●
7231600	GOPR4CH0400R011HBM	4.00	6.00	11.00	57.00	0.15	●
7231602	GOPR4CH0500R013HBM	5.00	6.00	13.00	57.00	0.15	●
7231604	GOPR4CH0600R013HBM	6.00	6.00	13.00	57.00	0.15	●
7231677	GOPR4CH0800R019HBM	8.00	8.00	19.00	63.00	0.20	●
7231711	GOPR4CH1000R022HBM	10.00	10.00	22.00	72.00	0.20	●
7231714	GOPR4CH1200R026HBM	12.00	12.00	26.00	83.00	0.20	●
7231717	GOPR4CH1400S026HBM	14.00	14.00	26.00	83.00	0.35	●
7231719	GOPR4CH1600R032HBM	16.00	16.00	32.00	92.00	0.35	●
7231723	GOPR4CH2000S038HBM	20.00	20.00	38.00	104.00	0.35	●



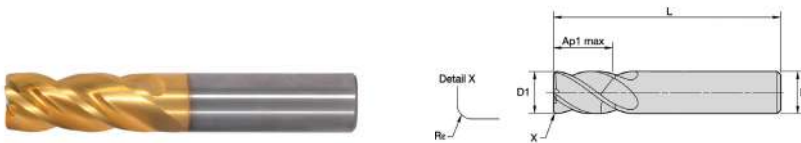
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● Principal
○ Secundario

GOmill PRO

Biselado • 4 canales • Con cuello • Mango Weldon

Número de pedido	Número de catálogo	D1	D	D3	Ap1 máx.	L	L3	BCH	
7230995	GOPR4CH0200N006HBM	2.00	6.00	1.88	4.00	57.00	8.00	0.15	●
7231184	GOPR4CH0300N008HBM	3.00	6.00	2.82	8.00	57.00	15.00	0.15	●
7231185	GOPR4CH0400N011HBM	4.00	6.00	3.76	11.00	57.00	16.00	0.15	●
7231186	GOPR4CH0500N013HBM	5.00	6.00	4.70	13.00	57.00	18.00	0.15	●
7231187	GOPR4CH0600N013HBM	6.00	6.00	5.64	13.00	57.00	21.00	0.15	●
7231188	GOPR4CH0800N019HBM	8.00	8.00	7.52	19.00	63.00	27.00	0.20	●
7231189	GOPR4CH1000N022HBM	10.00	10.00	9.40	22.00	72.00	32.00	0.20	●
7231190	GOPR4CH1200N026HBM	12.00	12.00	11.28	26.00	83.00	38.00	0.20	●
7231191	GOPR4CH1600N032HBM	16.00	16.00	15.04	32.00	92.00	44.00	0.35	●
7231192	GOPR4CH2000N038HBM	20.00	20.00	18.80	38.00	104.00	53.00	0.35	●
7231725	GOPR4CH2500N045HBM	25.00	25.00	23.50	45.00	121.00	65.00	0.35	●



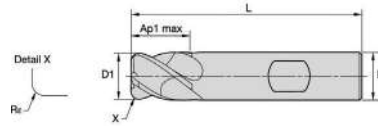
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● Principal
○ Secundario

GOmill PRO

Con radio • 4 canales • Mango liso

Número de pedido	Número de catálogo	D1	D	Ap1 máx.	L	Re	
7231579	GOPR4RA0600S007HAR040M	6.00	6.00	7.00	50.00	0.40	●
7231641	GOPR4RA0800S010HAR040M	8.00	8.00	10.00	50.00	0.40	●
7231643	GOPR4RA1000S012HAR040M	10.00	10.00	12.00	66.00	0.40	●
7231646	GOPR4RA1200S015HAR050M	12.00	12.00	15.00	73.00	0.50	●
7231664	GOPR4RA1600S020HAR050M	16.00	16.00	20.00	82.00	0.50	●
7231662	GOPR4RA1600R035HAR050M	16.00	16.00	35.00	92.00	0.50	●
7231670	GOPR4RA2000S025HAR050M	20.00	20.00	25.00	92.00	0.50	●
7231668	GOPR4RA2000R042HAR050M	20.00	20.00	42.00	104.00	0.50	●
7231674	GOPR4RA2500R052HAR050M	25.00	25.00	52.00	121.00	0.50	●



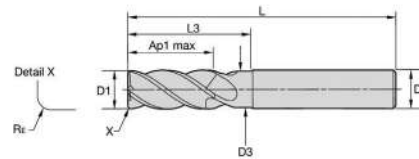
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- Principal
- Secundario

GOmill PRO

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Número de pedido	Número de catálogo	D1	D	Ap1 máx.	L	Re	
7231580	GOPR4RA0600S007HBR040M	6.00	6.00	7.00	50.00	0.40	●
7231642	GOPR4RA0800S010HBR040M	8.00	8.00	10.00	50.00	0.40	●
7231644	GOPR4RA1000S012HBR040M	10.00	10.00	12.00	66.00	0.40	●
7231647	GOPR4RA1200S015HBR050M	12.00	12.00	15.00	73.00	0.50	●
7231665	GOPR4RA1600S020HBR050M	16.00	16.00	20.00	82.00	0.50	●
7231663	GOPR4RA1600R035HBR050M	16.00	16.00	35.00	92.00	0.50	●
7231671	GOPR4RA2000S025HBR050M	20.00	20.00	25.00	92.00	0.50	●
7231669	GOPR4RA2000R042HBR050M	20.00	20.00	42.00	104.00	0.50	●
7231675	GOPR4RA2500R052HBR050M	25.00	25.00	52.00	121.00	0.50	●



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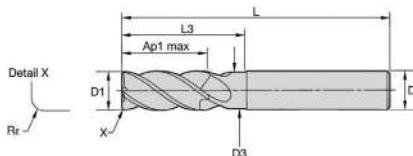
- Principal
- Secundario

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Número de pedido	Número de catálogo	D1	D	D3	Ap1 máx.	L	L3	Re	
7231153	GOPR4RA0300N008HAR020M	3.00	6.00	2.82	8.00	57.00	15.00	0.20	●
7231154	GOPR4RA0400N011HAR020M	4.00	6.00	3.76	11.00	57.00	16.00	0.20	●
7231155	GOPR4RA0400N011HAR050M	4.00	6.00	3.76	11.00	57.00	16.00	0.50	●
7231156	GOPR4RA0500N013HAR020M	5.00	6.00	4.70	13.00	57.00	18.00	0.20	●
7231157	GOPR4RA0500N013HAR050M	5.00	6.00	4.70	13.00	57.00	18.00	0.50	●
7231158	GOPR4RA0500N013HAR100M	5.00	6.00	4.70	13.00	57.00	18.00	1.00	●
7231159	GOPR4RA0600N013HAR050M	6.00	6.00	5.64	13.00	57.00	21.00	0.50	●
7231160	GOPR4RA0600N013HAR100M	6.00	6.00	5.64	13.00	57.00	21.00	1.00	●
7231161	GOPR4RA0600N013HAR150M	6.00	6.00	5.64	13.00	57.00	21.00	1.50	●
7231163	GOPR4RA0800N019HAR050M	8.00	8.00	7.52	19.00	63.00	27.00	0.50	●
7231164	GOPR4RA0800N019HAR100M	8.00	8.00	7.52	19.00	63.00	27.00	1.00	●
7231165	GOPR4RA0800N019HAR150M	8.00	8.00	7.52	19.00	63.00	27.00	1.50	●
7231166	GOPR4RA0800N019HAR200M	8.00	8.00	7.52	19.00	63.00	27.00	2.00	●
7231167	GOPR4RA1000N022HAR050M	10.00	10.00	9.40	22.00	72.00	32.00	0.50	●
7231168	GOPR4RA1000N022HAR100M	10.00	10.00	9.40	22.00	72.00	32.00	1.00	●
7231169	GOPR4RA1000N022HAR150M	10.00	10.00	9.40	22.00	72.00	32.00	1.50	●
7231170	GOPR4RA1000N022HAR200M	10.00	10.00	9.40	22.00	72.00	32.00	2.00	●
7231645	GOPR4RA1000N022HAR250M	10.00	10.00	9.40	22.00	72.00	32.00	2.50	●
7231171	GOPR4RA1200N026HAR050M	12.00	12.00	11.28	26.00	83.00	38.00	0.50	●
7231172	GOPR4RA1200N026HAR100M	12.00	12.00	11.28	26.00	83.00	38.00	1.00	●
7231173	GOPR4RA1200N026HAR150M	12.00	12.00	11.28	26.00	83.00	38.00	1.50	●
7231174	GOPR4RA1200N026HAR200M	12.00	12.00	11.28	26.00	83.00	38.00	2.00	●
7231648	GOPR4RA1200N026HAR250M	12.00	12.00	11.28	26.00	83.00	38.00	2.50	●
7231649	GOPR4RA1200N026HAR300M	12.00	12.00	11.28	26.00	83.00	38.00	3.00	●
7231175	GOPR4RA1200N026HAR400M	12.00	12.00	11.28	26.00	83.00	38.00	4.00	●

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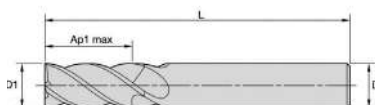


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GOmill PRO Continuación

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Número de pedido	Número de catálogo	D1	D	D3	Ap1 máx.	L	L3	Rε	
7231650	GOPR4RA1400N026HAR050M	14.00	14.00	13.16	26.00	89.00	40.00	0.50	●
7231661	GOPR4RA1400N026HAR100M	14.00	14.00	13.16	26.00	89.00	40.00	1.00	●
7231666	GOPR4RA1600N032HAR050M	16.00	16.00	15.04	32.00	92.00	44.00	0.50	●
7231176	GOPR4RA1600N032HAR100M	16.00	16.00	15.04	32.00	92.00	44.00	1.00	●
7231177	GOPR4RA1600N032HAR200M	16.00	16.00	15.04	32.00	92.00	44.00	2.00	●
7231667	GOPR4RA1600N032HAR250M	16.00	16.00	15.04	32.00	92.00	44.00	2.50	●
7231178	GOPR4RA1600N032HAR300M	16.00	16.00	15.04	32.00	92.00	44.00	3.00	●
7231179	GOPR4RA1600N032HAR400M	16.00	16.00	15.04	32.00	92.00	44.00	4.00	●
7231672	GOPR4RA2000N038HAR050M	20.00	20.00	18.80	38.00	104.00	53.00	0.50	●
7231180	GOPR4RA2000N038HAR100M	20.00	20.00	18.80	38.00	104.00	53.00	1.00	●
7231181	GOPR4RA2000N038HAR200M	20.00	20.00	18.80	38.00	104.00	53.00	2.00	●
7231673	GOPR4RA2000N038HAR250M	20.00	20.00	18.8	38.00	104.00	53.00	2.50	●
7231182	GOPR4RA2000N038HAR300M	20.00	20.00	18.80	38.00	104.00	53.00	3.00	●
7231183	GOPR4RA2000N038HAR400M	20.00	20.00	18.80	38.00	104.00	53.00	4.00	●

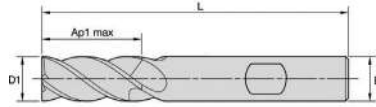


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- Principal
○ Secundario

GOmill PRO

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Número de pedido	Número de catálogo	D1	D	Ap1 máx.	L	
7230994	GOPR4SE0200R006HAM	2.00	6.00	6.00	57.00	●
7231062	GOPR4SE0300R008HAM	3.00	6.00	8.00	57.00	●
7231064	GOPR4SE0400R011HAM	4.00	6.00	11.00	57.00	●
7231066	GOPR4SE0500R013HAM	5.00	6.00	13.00	57.00	●
7231068	GOPR4SE0600R013HAM	6.00	6.00	13.00	57.00	●
7231070	GOPR4SE0800R019HAM	8.00	8.00	19.00	63.00	●
7231132	GOPR4SE1000R022HAM	10.00	10.00	22.00	72.00	●
7231133	GOPR4SE1000R025HAM	10.00	10.00	25.00	72.00	●
7231135	GOPR4SE1200R026HAM	12.00	12.00	26.00	83.00	●
7231137	GOPR4SE1200R030HAM	12.00	12.00	30.00	83.00	●
7231578	GOPR4SE1400S026HAM	14.00	14.00	26.00	83.00	●
7231139	GOPR4SE1600R032HAM	16.00	16.00	32.00	92.00	●
7231151	GOPR4SE2000S038HAM	20.00	20.00	38.00	104.00	●



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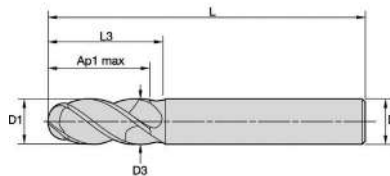
- Principal
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KCU20

GOmill PRO

Frontal plano • 4 canales • Mango Weldon

Número de pedido	Número de catálogo	D1	D	Ap1 máx.	L	
7231063	GOPR4SE0300R008HBM	3.00	6.00	8.00	57.00	●
7231065	GOPR4SE0400R011HBM	4.00	6.00	11.00	57.00	●
7231067	GOPR4SE0500R013HBM	5.00	6.00	13.00	57.00	●
7231069	GOPR4SE0600R013HBM	6.00	6.00	13.00	57.00	●
7231131	GOPR4SE0800R019HBM	8.00	8.00	19.00	63.00	●
7231134	GOPR4SE1000R022HBM	10.00	10.00	22.00	72.00	●
7231136	GOPR4SE1200R026HBM	12.00	12.00	26.00	83.00	●
7231140	GOPR4SE1600R032HBM	16.00	16.00	32.00	92.00	●
7231152	GOPR4SE2000S038HBM	20.00	20.00	38.00	104.00	●



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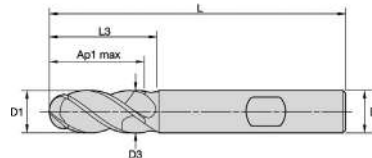
- Principal
- Secundario

KCU20

GOmill PRO

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Número de pedido	Número de catálogo	D1	D	D3	Ap1 máx.	L	L3	
7231264	GOPR4BN0500R013HAM	5.00	6.00	4.70	13.00	57.00	18.00	●
7231266	GOPR4BN0600R013HAM	6.00	6.00	5.64	13.00	57.00	21.00	●
7231268	GOPR4BN0800R019HAM	8.00	8.00	7.52	19.00	63.00	27.00	●
7231270	GOPR4BN1000R022HAM	10.00	10.00	9.40	22.00	72.00	32.00	●
7231272	GOPR4BN1200R026HAM	12.00	12.00	11.28	26.00	83.00	30.00	●
7231274	GOPR4BN1600R032HAM	16.00	16.00	15.04	32.00	92.00	38.00	●
7231276	GOPR4BN2000S038HAM	20.00	20.00	18.80	38.00	104.00	50.00	●



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- Principal
- Secundario

KCU20

GOmill PRO

Punta esférica • 4 canales • Con cuello • Mango Weldon

Número de pedido	Número de catálogo	D1	D	D3	Ap1 máx.	L	L3	
7231265	GOPR4BN0500R013HBM	5.00	6.00	4.70	13.00	57.00	18.00	●
7231267	GOPR4BN0600R013HBM	6.00	6.00	5.64	13.00	57.00	21.00	●
7231269	GOPR4BN0800R019HBM	8.00	8.00	7.52	19.00	63.00	27.00	●
7231271	GOPR4BN1000R022HBM	10.00	10.00	9.40	22.00	72.00	32.00	●
7231273	GOPR4BN1200R026HBM	12.00	12.00	11.28	26.00	83.00	30.00	●
7231275	GOPR4BN1600R032HBM	16.00	16.00	15.04	32.00	92.00	38.00	●
7231277	GOPR4BN2000S038HBM	20.00	20.00	18.80	38.00	104.00	50.00	●

DATOS DE LA APLICACIÓN GOMILL PRO



Grupo de materiales	Fresado lateral		Ranurado		Velocidad de corte (Vc)		Avance recomendado por diente (Fz=mm/diente) para fresado lateral (A). Para ranurado (B), reduzca el fz un 20 %													
	Fresado lateral		Ranurado		m/mín		D1 - Diámetro													
	ap		ae		m/mín															
	ap		ae		m/mín															
P	P0	Ap1Máx	0.4xD	1xD	150	200	Fz	0.014	0.021	0.028	0.036	0.044	0.060	0.072	0.083	0.092	0.101	0.108	0.114	0.124
	P1	Ap1Máx	0.4xD	1xD	150	200	Fz	0.014	0.021	0.028	0.036	0.044	0.060	0.072	0.083	0.092	0.101	0.108	0.114	0.124
	P2	Ap1Máx	0.4xD	1xD	140	190	Fz	0.014	0.021	0.028	0.036	0.044	0.060	0.072	0.083	0.092	0.101	0.108	0.114	0.124
	P3	Ap1Máx	0.4xD	1xD	120	160	Fz	0.011	0.017	0.023	0.030	0.036	0.050	0.061	0.070	0.079	0.087	0.095	0.101	0.114
	P4	Ap1Máx	0.4xD	0.75xD	90	150	Fz	0.010	0.016	0.021	0.027	0.033	0.045	0.054	0.062	0.070	0.077	0.083	0.088	0.098
	P5	Ap1Máx	0.4xD	1xD	60	100	Fz	0.009	0.014	0.019	0.024	0.029	0.040	0.048	0.056	0.063	0.070	0.076	0.081	0.091
M	P6	Ap1Máx	0.4xD	0.75xD	50	75	Fz	0.008	0.012	0.016	0.020	0.025	0.034	0.040	0.047	0.052	0.057	0.061	0.065	0.071
	M1	Ap1Máx	0.4xD	1xD	90	115	Fz	0.011	0.017	0.023	0.030	0.036	0.050	0.061	0.070	0.079	0.087	0.095	0.101	0.114
	M2	Ap1Máx	0.4xD	1xD	60	80	Fz	0.009	0.014	0.019	0.024	0.029	0.040	0.048	0.056	0.063	0.070	0.076	0.081	0.091
K	M3	Ap1Máx	0.4xD	1xD	60	70	Fz	0.008	0.012	0.016	0.020	0.025	0.034	0.040	0.047	0.052	0.057	0.061	0.065	0.071
	K1	Ap1Máx	0.4xD	1xD	120	150	Fz	0.014	0.021	0.028	0.036	0.044	0.060	0.072	0.083	0.092	0.101	0.108	0.114	0.124
	K2	Ap1Máx	0.4xD	1xD	110	140	Fz	0.011	0.017	0.023	0.030	0.036	0.050	0.061	0.070	0.079	0.087	0.095	0.101	0.114
S	K3	Ap1Máx	0.4xD	1xD	110	130	Fz	0.009	0.014	0.019	0.024	0.029	0.040	0.048	0.056	0.063	0.070	0.076	0.081	0.091
	S1	Ap1Máx	0.4xD	0.3xD	50	90	Fz	0.011	0.017	0.023	0.030	0.036	0.050	0.061	0.070	0.079	0.087	0.095	0.101	0.114
	S2	Ap1Máx	0.4xD	0.3xD	25	50	Fz	0.006	0.009	0.013	0.016	0.019	0.026	0.032	0.037	0.042	0.046	0.050	0.054	0.061
	S3	Ap1Máx	0.4xD	1xD	25	40	Fz	0.006	0.009	0.013	0.016	0.019	0.026	0.032	0.037	0.042	0.046	0.050	0.054	0.061
	S4	Ap1Máx	0.4xD	1xD	50	60	Fz	0.007	0.011	0.016	0.021	0.026	0.037	0.045	0.052	0.058	0.064	0.069	0.074	0.084
H	H1	Ap1Máx	0.4xD	0.75xD	80	140	Fz	0.010	0.016	0.021	0.027	0.033	0.045	0.054	0.062	0.070	0.077	0.083	0.088	0.098
	H2	Ap1Máx	0.4xD	0.5xD	70	120	Fz	0.008	0.012	0.016	0.020	0.025	0.034	0.040	0.047	0.052	0.057	0.061	0.065	0.071

NOTA:

Esas directrices pueden requerir variaciones para obtener resultados óptimos.

Se utiliza una velocidad de corte menor para aplicaciones de alta retirada de material o para una mayor dureza (maquinabilidad) dentro del grupo.

Se utiliza una velocidad de corte mayor para aplicaciones de acabado o para una dureza menor (maquinabilidad) dentro del grupo.

Los parámetros anteriores se basan en las condiciones ideales. Para centros de mecanizado más pequeños, ajuste los parámetros como corresponda en diámetros superiores a 12 mm.

Si desea obtener un mejor acabado superficial, reduzca el avance por diente.

Aplicaciones de fresado lateral: en las herramientas con el mayor alcance (L3), reduzca Ae en un 30 %.

Aplicaciones de fresado de ranura: en las herramientas con el mayor alcance (L3), reduzca Ae en un 30 %.

No se recomiendan herramientas de esquinas afiladas para la aplicación de ranurado.

DATOS DE LA APLICACIÓN GOMILL PRO - Tabla de factores de ajuste

Tabla de factor de ajuste para el cálculo del avance y la velocidad.

	Ae/D	2 %	4 %	5 %	8 %	10 %	12 %	20 %	30 %	40 %	50 %	100 %
Factor de velocidad	Kv	2.1 - 3.6	1.6 - 3	1.6 - 2.5	1.6	1.4	1.38	1.3	1.2	1.1	1	1
Factor de avance	KFz	3.58	2.56	2.3	1.84	1.67	1.54	1.25	1.09	1.02	1	0.9
phi [°]		16.26	23.07	25.84	32.86	36.87	40.54	53.13	66.42	78.46	90.00	180.00

NOTA:

Estos cálculos son para cortes de desbaste/semiacabado cuando se utilizan con el Fz básico recomendado.

Para cortes de acabado ligero que requieren una calidad superficial mejorada, se recomienda reducir el fz básico aproximadamente un 50 % y luego aplicar estos factores.

Para una relación Ae/D del 5 % o menos, existe un rango dado para el factor de velocidad Kv, que permite al usuario ser más conservador con el valor más bajo o más agresivo con el valor más alto.

Esto también se puede considerar en función de la maquinabilidad del material, desde el corte difícil hasta el libre.

Para calcular los datos de corte específicos para la aplicación, utilice el coeficiente KV anterior para la adaptación de la velocidad de corte y KFz para el avance, respectivamente.

$$Vc \text{ nuevo} = Vc * Kv$$

$$Fz \text{ nuevo} = Fz * KFz$$

Ejemplos de cálculo:

Aplicación:	D1=	14,0 mm
	Grupo de materiales	P5
	Ae=	20 % de D
Datos de corte recomendados:	Vc=	80 m/mín
	Fz=	0.063 mm/diente
Coefficiente de ajuste:	Kv=	1.30
	KFz=	1.25

Datos de corte final recomendados:

Vc nuevo=	80 *	1.30 =	104
Fz nuevo=	0.06328 *	1.25 =	0.0791

DATOS DE LA APLICACIÓN G0mill PRO - Largo



Grupo de materiales			Avance recomendado por diente (Fz=mm/diente) para fresado lateral (A). No se recomiendan operaciones de ranurado.															
			KCU20		D1 - Diámetro													
	Fresado lateral		Velocidad de corte (Vc)		mm	2.0	3.0	4.0	5.0	6.0	8.0	10.0	12.0	14.0	18.0	20.0	25.0	
	ap	ae	Min.	Máx.														m/mín
P	P0	Ap1Máx	0.2xD	150	200	Fz	0.014	0.021	0.028	0.036	0.044	0.060	0.072	0.083	0.092	0.108	0.114	0.124
	P1	Ap1Máx	0.2xD	150	200	Fz	0.014	0.021	0.028	0.036	0.044	0.060	0.072	0.083	0.092	0.108	0.114	0.124
	P2	Ap1Máx	0.2xD	140	190	Fz	0.014	0.021	0.028	0.036	0.044	0.060	0.072	0.083	0.092	0.108	0.114	0.124
	P3	Ap1Máx	0.2xD	120	160	Fz	0.011	0.017	0.023	0.030	0.036	0.050	0.061	0.070	0.079	0.095	0.101	0.114
	P4	Ap1Máx	0.2xD	90	150	Fz	0.010	0.016	0.021	0.027	0.033	0.045	0.054	0.062	0.070	0.083	0.088	0.098
	P5	Ap1Máx	0.2xD	60	100	Fz	0.009	0.014	0.019	0.024	0.029	0.040	0.048	0.056	0.063	0.076	0.081	0.091
M	P6	Ap1Máx	0.15xD	50	75	Fz	0.008	0.012	0.016	0.020	0.025	0.034	0.040	0.047	0.052	0.061	0.065	0.071
	M1	Ap1Máx	0.2xD	90	115	Fz	0.011	0.017	0.023	0.030	0.036	0.050	0.061	0.070	0.079	0.095	0.101	0.114
	M2	Ap1Máx	0.2xD	60	80	Fz	0.009	0.014	0.019	0.024	0.029	0.040	0.048	0.056	0.063	0.076	0.081	0.091
K	M3	Ap1Máx	0.2xD	60	70	Fz	0.008	0.012	0.016	0.020	0.025	0.034	0.040	0.047	0.052	0.061	0.065	0.071
	K1	Ap1Máx	0.2xD	120	150	Fz	0.014	0.021	0.028	0.036	0.044	0.060	0.072	0.083	0.092	0.108	0.114	0.124
	K2	Ap1Máx	0.2xD	110	140	Fz	0.011	0.017	0.023	0.030	0.036	0.050	0.061	0.070	0.079	0.095	0.101	0.114
S	K3	Ap1Máx	0.2xD	110	130	Fz	0.009	0.014	0.019	0.024	0.029	0.040	0.048	0.056	0.063	0.076	0.081	0.091
	S1	Ap1Máx	0.1xD	50	90	Fz	0.011	0.017	0.023	0.030	0.036	0.050	0.061	0.070	0.079	0.095	0.101	0.114
	S2	Ap1Máx	0.1xD	25	50	Fz	0.006	0.009	0.013	0.016	0.019	0.026	0.032	0.037	0.042	0.050	0.054	0.061
	S3	Ap1Máx	0.1xD	25	40	Fz	0.006	0.009	0.013	0.016	0.019	0.026	0.032	0.037	0.042	0.050	0.054	0.061
H	S4	Ap1Máx	0.15xD	50	60	Fz	0.007	0.011	0.016	0.021	0.026	0.037	0.045	0.052	0.058	0.069	0.074	0.084
	H1	Ap1Máx	0.15xD	80	140	Fz	0.010	0.016	0.021	0.027	0.033	0.045	0.054	0.062	0.070	0.083	0.088	0.098
	H2	Ap1Máx	0.15xD	70	120	Fz	0.008	0.012	0.016	0.020	0.025	0.034	0.040	0.047	0.052	0.061	0.065	0.071

NOTA:

Esas directrices pueden requerir variaciones para obtener resultados óptimos.

Se utiliza una velocidad de corte menor para aplicaciones de alta retirada de material o para una mayor dureza (maquinabilidad) dentro del grupo.

Se utiliza una velocidad de corte mayor para aplicaciones de acabado o para una dureza menor (maquinabilidad) dentro del grupo.

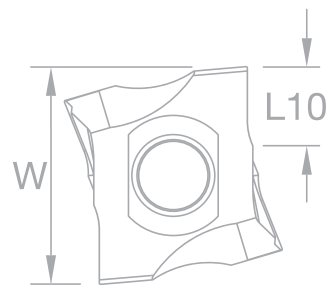
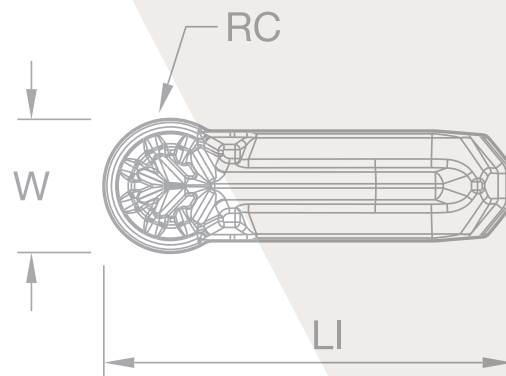
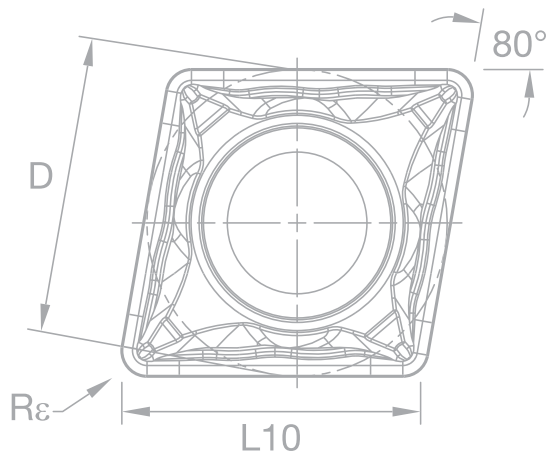
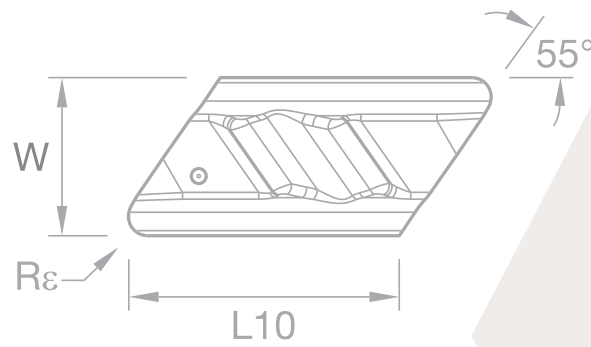
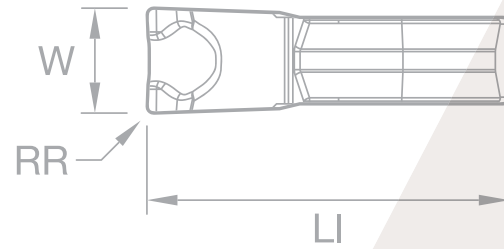
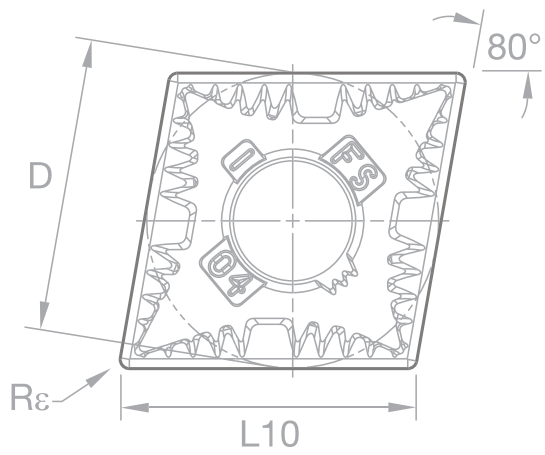
Si desea obtener un mejor acabado superficial, reduzca el avance por diente.

GOMILL PRO

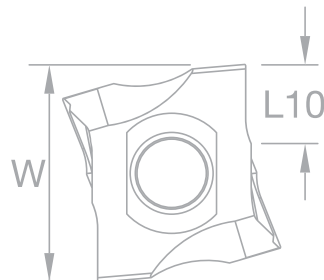
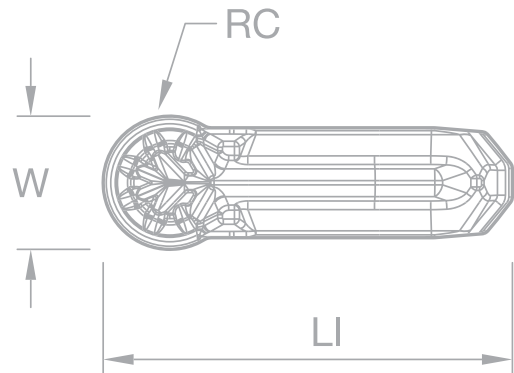
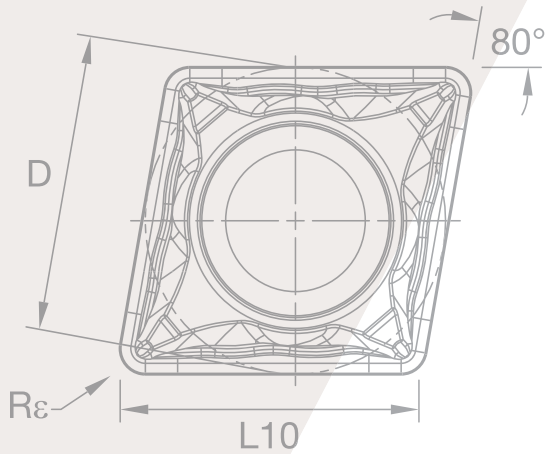
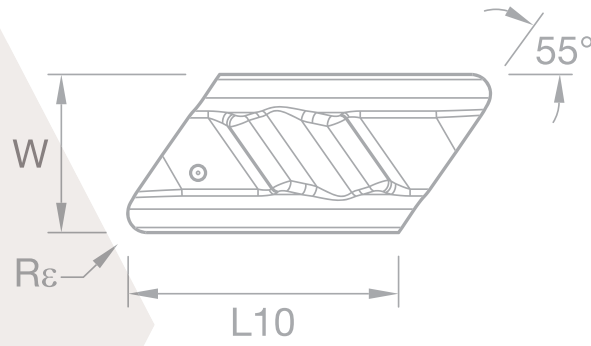
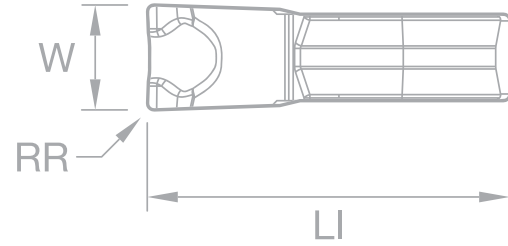
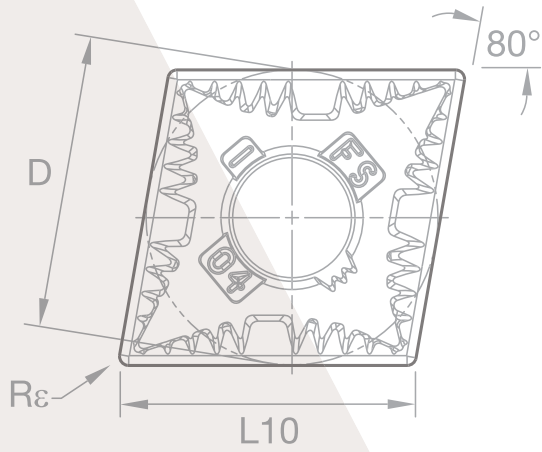
**FRESAS DE MANGO
VERSÁTILES DE 4 CANALES
CON RECUBRIMIENTO
TIN/TIAlN MULTICAPA**

LLEVE SU
FABRICACIÓN AL
SIGUIENTE NIVEL

kennametal.com/GOMILLPRO



TORNEADO



KCU25B

CALIDAD DE TORNEADO UNIVERSAL CON KENGold TECNOLOGÍA DE RECUBRIMIENTO PVD

Uniformidad en el corte de varios materiales
Mejor resistencia al desgaste
Seguridad de proceso mejorada

Aplicaciones (desbaste y mecanizado medio)



Materiales

PRINCIPAL

- P** Aceros
- S** Aleaciones de alta temperatura

SECUNDARIO

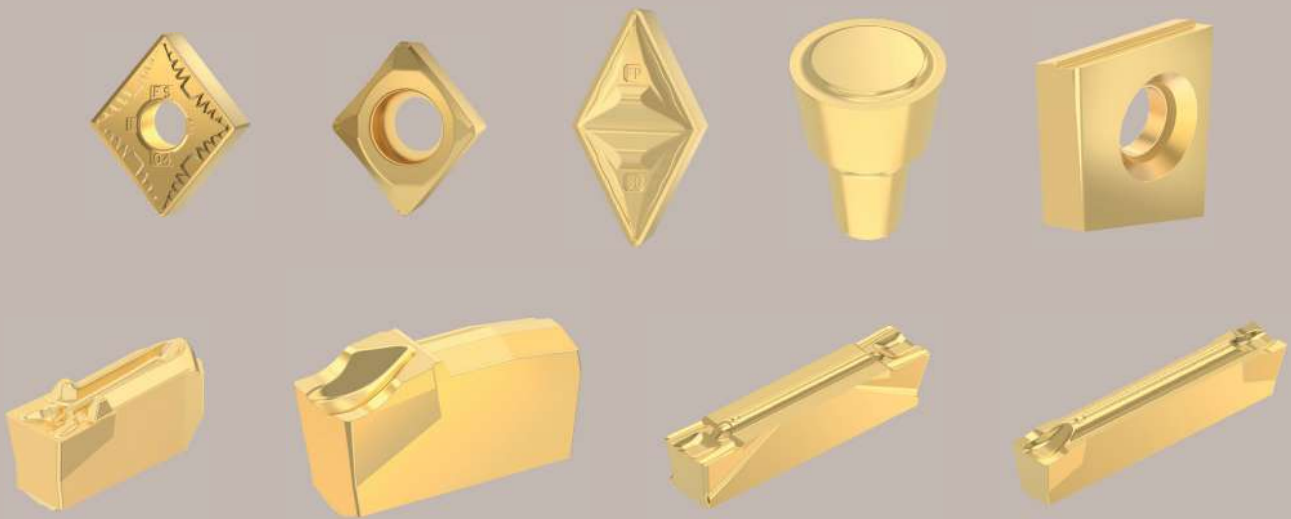
- M** Aceros inoxidables
- N** Materiales no ferrosos
- K** Fundición



Un vistazo más de cerca a la tecnología de recubrimiento KENGold PVD

Esta tecnología de recubrimiento multicapa está compuesta por tres capas, cada una con propiedades de protección únicas:

- La capa superior de TiSiN es dorada para facilitar la identificación del desgaste
- La segunda capa de AlTiSiN es una capa intermedia nanoestructurada superdura para una resistencia superior al desgaste
- La tercera capa de AlTiN es una capa base de baja tensión para una excelente resistencia a la descamación
- Recubrimiento multicapa aplicado al metal duro cementado que proporciona una mayor resistencia a la deformación térmica y una resistencia excepcional al desgaste del filo



Industrias



Ingeniería general



Sector aeroespacial



Automoción



Petróleo y gas



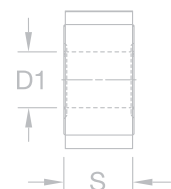
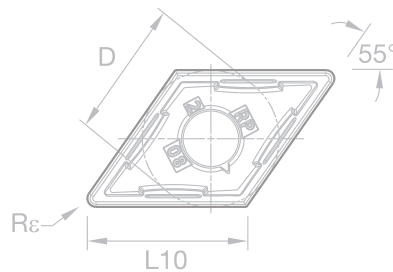
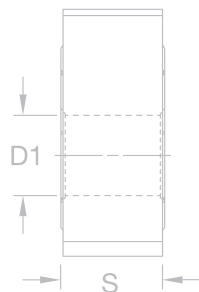
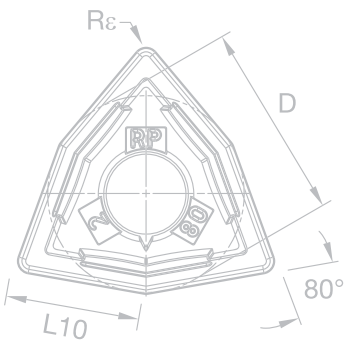
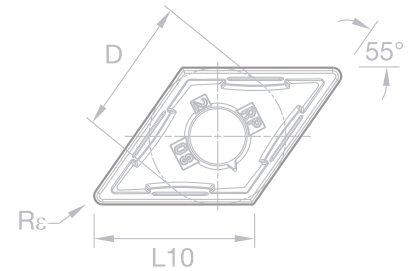
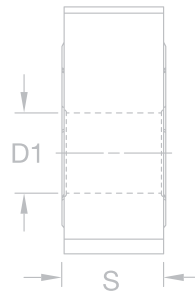
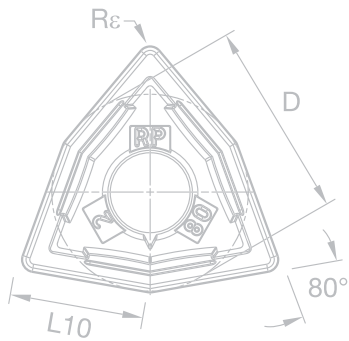
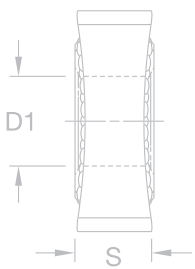
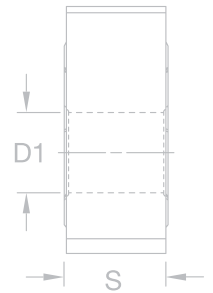
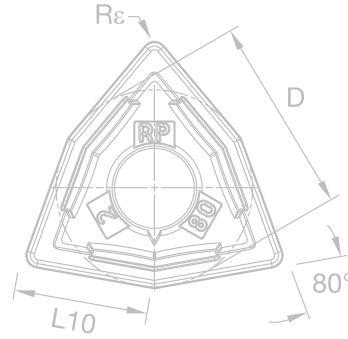
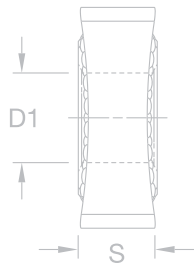
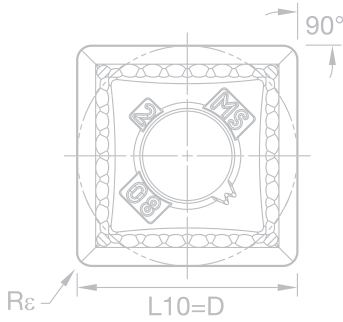
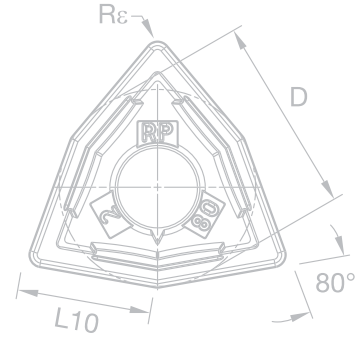
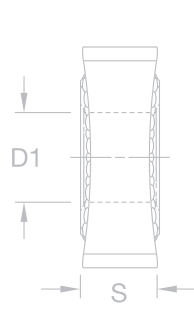
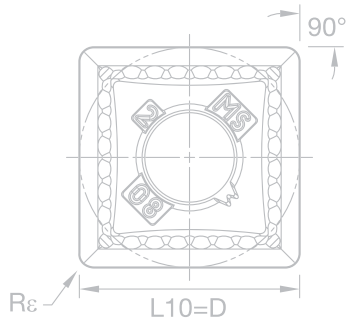
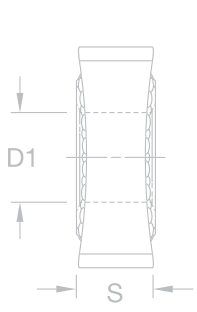
Energía eólica y solar

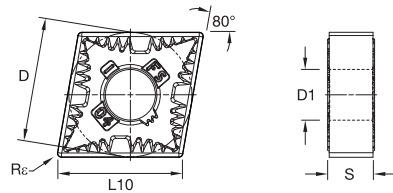


Medicina

KENLOC™

PLAQUITAS NEGATIVAS



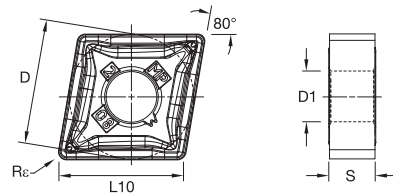


- | | |
|---|---|
| P | ● |
| M | ● |
| K | ● |
| N | ○ |
| S | ● |
| H | ● |
- Principal
○ Secundario

Kenloc

Plaquitas negativas • CNGG-FS

ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
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CNGG120404FS	CNGG431FS	12.70	0.500	12.90	0.508	0.4	0.016	●

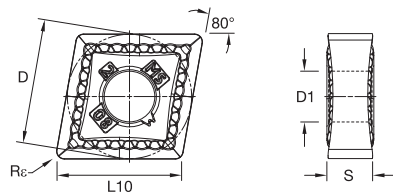


- | | |
|---|---|
| P | ● |
| M | ● |
| K | ● |
| N | ○ |
| S | ● |
| H | ● |
- Principal
○ Secundario

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Plaquitas negativas • CNMG-MP

ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
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CNMG120408MP	CNMG432MP	12.70	0.500	12.90	0.508	0.8	0.031	●
CNMG120412MP	CNMG433MP	12.70	0.500	12.90	0.508	1.2	0.047	●
CNMG160612MP	CNMG543MP	15.88	0.625	16.12	0.635	1.2	0.047	●
CNMG190612MP	CNMG643MP	19.05	0.750	19.34	0.762	1.2	0.047	●



- | | |
|---|---|
| P | ● |
| M | ● |
| K | ● |
| N | ○ |
| S | ● |
| H | ● |
- Principal
○ Secundario

Kenloc

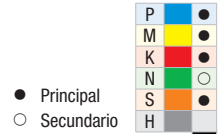
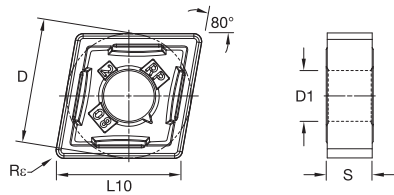
Plaquitas negativas • CNMG-MS

ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
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CNMG120402MS	CNMG4305MS	12.70	0.500	12.90	0.508	0.2	0.008	●
CNMG120404MS	CNMG431MS	12.70	0.500	12.90	0.508	0.4	0.016	●
CNMG120408MS	CNMG432MS	12.70	0.500	12.90	0.508	0.8	0.031	●
CNMG120412MS	CNMG433MS	12.70	0.500	12.90	0.508	1.2	0.047	●
CNMG120416MS	CNMG434MS	12.70	0.500	12.90	0.508	1.6	0.063	●
CNMG160608MS	CNMG542MS	15.88	0.625	16.12	0.635	0.8	0.031	●
CNMG160612MS	CNMG543MS	15.88	0.625	16.12	0.635	1.2	0.047	●
CNMG190608MS	CNMG642MS	19.05	0.750	19.34	0.762	0.8	0.031	●
CNMG190612MS	CNMG643MS	19.05	0.750	19.34	0.762	1.2	0.047	●
CNMG190616MS	CNMG644MS	19.05	0.750	19.34	0.762	1.6	0.063	●



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Plaquitas negativas • CNMG-RP

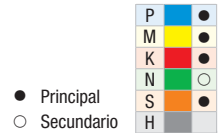
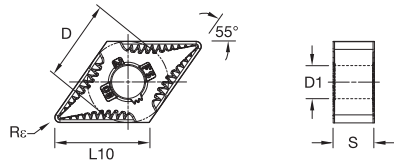


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CNMG120408RP	CNMG432RP	12.70	0.500	12.90	0.508	0.8	0.031	•
CNMG120412RP	CNMG433RP	12.70	0.500	12.90	0.508	1.2	0.047	•
CNMG120416RP	CNMG434RP	12.70	0.500	12.90	0.508	1.6	0.063	•
CNMG160608RP	CNMG542RP	15.88	0.625	16.12	0.635	0.8	0.031	•
CNMG160612RP	CNMG543RP	15.88	0.625	16.12	0.635	1.2	0.047	•
CNMG160616RP	CNMG544RP	15.88	0.625	16.12	0.635	1.6	0.063	•
CNMG190612RP	CNMG643RP	19.05	0.750	19.34	0.762	1.2	0.047	•
CNMG190616RP	CNMG644RP	19.05	0.750	19.34	0.762	1.6	0.063	•



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Plaquitas negativas • DNGG-FS

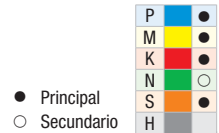
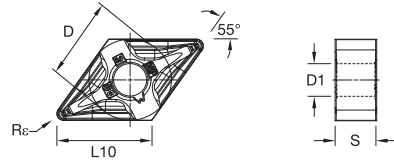


ISO Número de catálogo	ANSI Número de catálogo	D		L10		Re		
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DNGG150408FS	DNGG432FS	12.70	0.500	15.50	0.610	0.8	0.031	•



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Plaquitas negativas • DNMG-MP

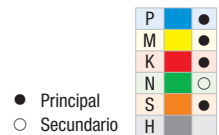
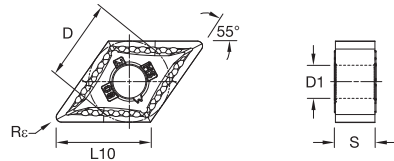


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DNMG150608MP	DNMG442MP	12.70	0.500	15.50	0.610	0.8	0.031	•
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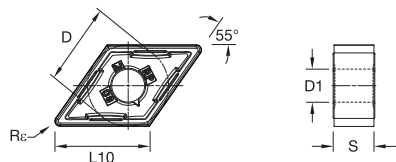


Kenloc

Plaquitas negativas • DNMG-MS



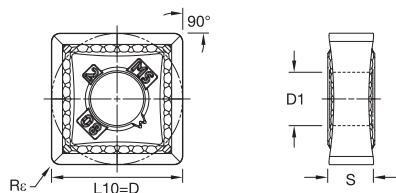
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DNMG150402MS	DNMG430MS	12.70	0.500	15.50	0.610	0.2	0.008	•
DNMG150404MS	DNMG431MS	12.70	0.500	15.50	0.610	0.4	0.016	•
DNMG150408MS	DNMG432MS	12.70	0.500	15.50	0.610	0.8	0.031	•
DNMG150412MS	DNMG433MS	12.70	0.500	15.50	0.610	1.2	0.047	•
DNMG150604MS	DNMG441MS	12.70	0.500	15.50	0.610	0.4	0.016	•
DNMG150608MS	DNMG442MS	12.70	0.500	15.50	0.610	0.8	0.031	•
DNMG150612MS	DNMG443MS	12.70	0.500	15.50	0.610	1.2	0.047	•



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Plaquitas negativas • DNMG-RP

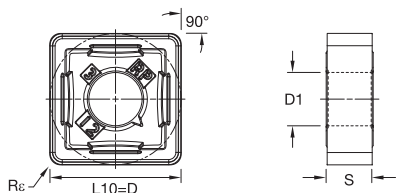
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DNMG150408RP	DNMG432RP	12.70	0.500	15.50	0.610	0.8	0.031	•
DNMG150608RP	DNMG442RP	12.70	0.500	15.50	0.610	0.8	0.031	•
DNMG150612RP	DNMG443RP	12.70	0.500	15.50	0.610	1.2	0.047	•
DNMG150616RP	DNMG444RP	12.70	0.500	15.50	0.610	1.6	0.063	•



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Plaquitas negativas • SNMG-MS

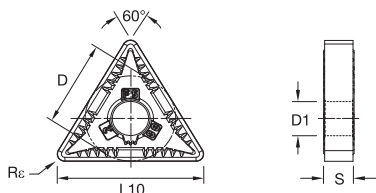
ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
SNMG120408MS	SNMG432MS	12.70	0.500	12.70	0.500	0.8	0.031	•
SNMG120412MS	SNMG433MS	12.70	0.500	12.70	0.500	1.2	0.047	•
SNMG190612MS	SNMG643MS	19.05	0.750	19.05	0.750	1.2	0.047	•



Kenloc

Plaquitas negativas • SNMG-RP

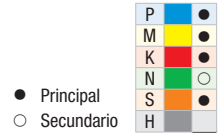
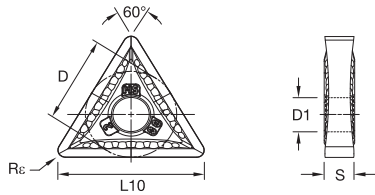
ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
SNMG120408RP	SNMG432RP	12.70	0.500	12.70	0.500	0.8	0.031	•
SNMG120412RP	SNMG433RP	12.70	0.500	12.70	0.500	1.2	0.047	•
SNMG120416RP	SNMG434RP	12.70	0.500	12.70	0.500	1.6	0.063	•
SNMG150612RP	SNMG543RP	15.88	0.625	15.88	0.625	1.2	0.047	•
SNMG150616RP	SNMG544RP	15.88	0.625	15.88	0.625	1.6	0.063	•
SNMG190612RP	SNMG643RP	19.05	0.750	19.05	0.750	1.2	0.047	•
SNMG190616RP	SNMG644RP	19.05	0.750	19.05	0.750	1.6	0.063	•



Kenloc

Plaquitas negativas • TNGG-FS

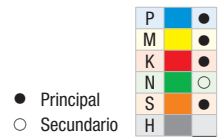
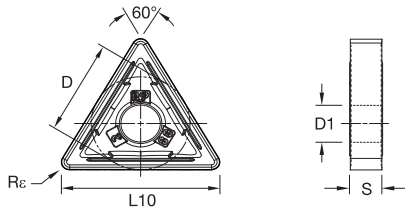
ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
TNGG160402FS	TNGG3305FS	9.53	0.375	16.50	0.650	0.2	0.008	•
TNGG160404FS	TNGG331FS	9.53	0.375	16.50	0.620	0.4	0.016	•



Kenloc

Plaquitas negativas • TNMG-MS

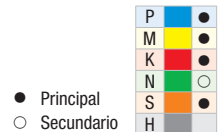
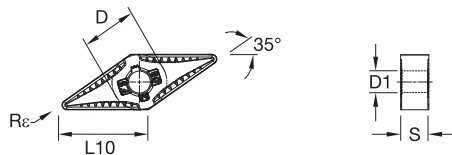
ISO Número de catálogo	ANSI Número de catálogo	D		L10		Re		
		mm	in	mm	in	mm	in	
TNMG160402MS	TNMG3305MS	9.53	0.375	16.50	0.650	0.2	0.008	•
TNMG160404MS	TNMG331MS	9.53	0.375	16.50	0.650	0.4	0.016	•
TNMG160408MS	TNMG332MS	9.53	0.375	16.50	0.650	0.8	0.031	•
TNMG220404MS	TNMG431MS	12.70	0.500	22.00	0.866	0.4	0.016	•
TNMG220408MS	TNMG432MS	12.70	0.500	22.00	0.867	0.8	0.031	•
TNMG220412MS	TNMG433MS	12.70	0.500	22.00	0.866	1.2	0.047	•
TNMG270608MS	TNMG542MS	15.88	0.625	27.50	1.083	0.8	0.031	•



Kenloc

Plaquitas negativas • TNMG-RP

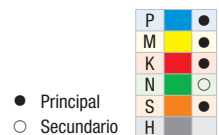
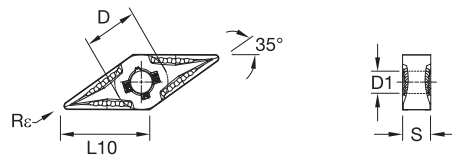
ISO Número de catálogo	ANSI Número de catálogo	D		L10		Re		
		mm	in	mm	in	mm	in	
TNMG160408RP	TNMG332RP	9.53	0.375	16.50	0.650	0.8	0.031	•
TNMG160412RP	TNMG333RP	9.53	0.375	16.50	0.650	1.2	0.047	•
TNMG220408RP	TNMG432RP	12.70	0.500	22.00	0.866	0.8	0.031	•
TNMG220412RP	TNMG433RP	12.70	0.500	22.00	0.866	1.2	0.047	•
TNMG220416RP	TNMG434RP	12.70	0.500	22.00	0.866	1.6	0.063	•
TNMG270612RP	TNMG543RP	15.88	0.625	27.50	1.083	1.2	0.047	•



Kenloc

Plaquitas negativas • VNGG-FS

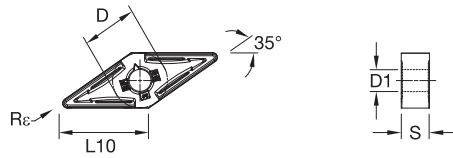
ISO Número de catálogo	ANSI Número de catálogo	D		L10		Re		
		mm	in	mm	in	mm	in	
VNGG160402FS	VNGG3305FS	9.53	0.375	16.61	0.654	0.2	0.008	•
VNGG160404FS	VNGG331FS	9.53	0.375	16.61	0.654	0.4	0.016	•
VNGG160408FS	VNGG332FS	9.53	0.375	16.61	0.654	0.8	0.031	•



Kenloc

Plaquitas negativas • VNMG-MS

ISO Número de catálogo	ANSI Número de catálogo	D		L10		Re		
		mm	in	mm	in	mm	in	
VNMG160401MS	VNMG3302MS	9.53	0.375	16.61	0.654	0.1	0.004	•
VNMG160402MS	VNMG3305MS	9.53	0.375	16.61	0.654	0.2	0.008	•
VNMG160404MS	VNMG331MS	9.53	0.375	16.61	0.654	0.4	0.016	•
VNMG160408MS	VNMG332MS	9.53	0.375	16.61	0.654	0.8	0.031	•
VNMG220404MS	VNMG431MS	12.70	0.500	22.14	0.872	0.4	0.016	•
VNMG220408MS	VNMG432MS	12.70	0.500	22.14	0.872	0.8	0.031	•



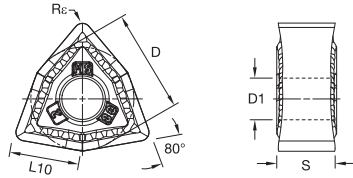
P	●
M	●
K	●
N	○
S	●
H	●

● Principal
○ Secundario

Kenloc

Plaquitas negativas • VNMG-RP

ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
VNMG160408RP	VNMG332RP	9.53	0.375	16.61	0.654	0.8	0.031	●
VNMG160412RP	VNMG333RP	9.53	0.375	16.61	0.654	1.2	0.047	●



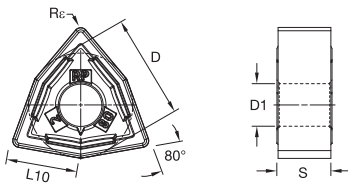
P	●
M	●
K	●
N	○
S	●
H	●

● Principal
○ Secundario

Kenloc

Plaquitas negativas • WNMG-MS

ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
WNMG060408MS	WNMG332MS	9.53	0.375	6.52	0.257	0.8	0.031	●
WNMG080402MS	WNMG4305MS	12.70	0.500	8.69	0.342	0.2	0.008	●
WNMG080404MS	WNMG431MS	12.70	0.500	8.69	0.342	0.4	0.016	●
WNMG080408MS	WNMG432MS	12.70	0.500	8.69	0.342	0.8	0.031	●



P	●
M	●
K	●
N	○
S	●
H	●

● Principal
○ Secundario

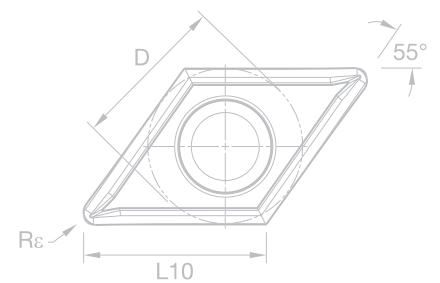
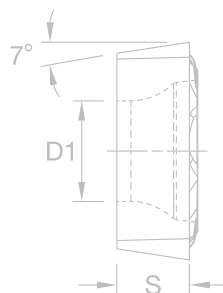
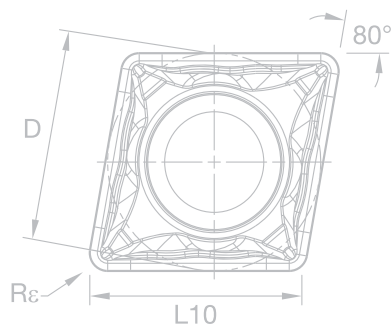
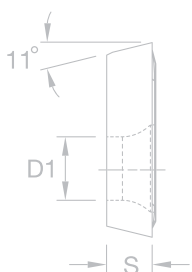
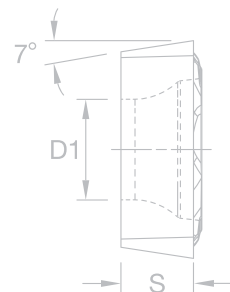
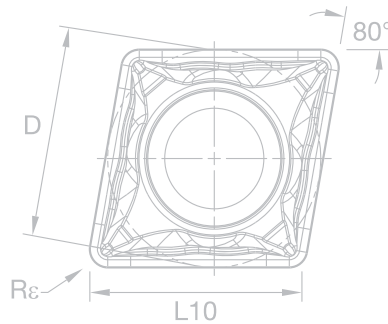
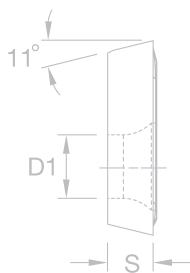
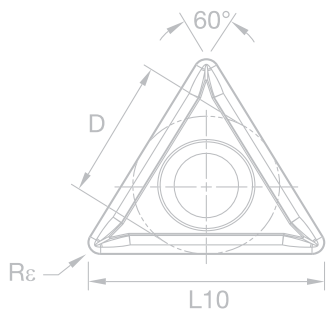
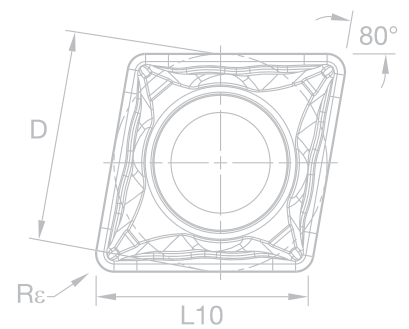
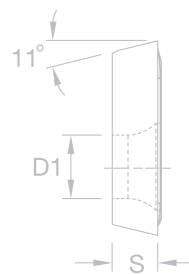
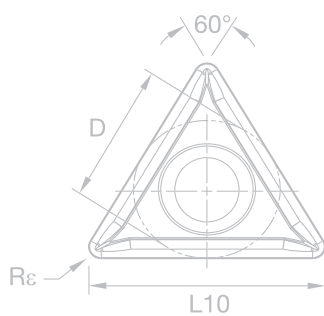
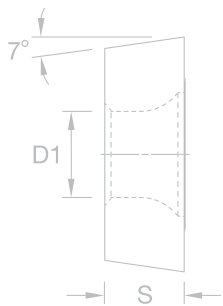
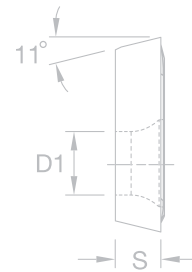
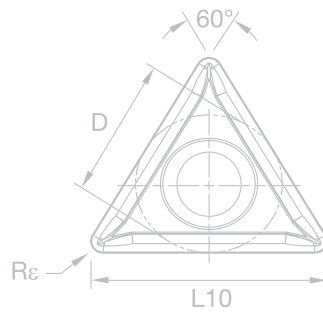
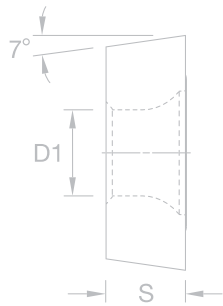
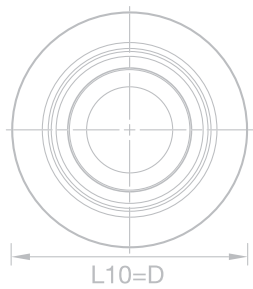
Kenloc

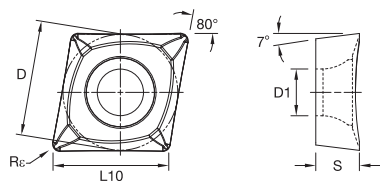
Plaquitas negativas • WNMG-RP

ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
WNMG060408RP	WNMG332RP	9.53	0.375	6.52	0.257	0.8	0.031	●
WNMG080408RP	WNMG432RP	12.70	0.500	8.69	0.342	0.8	0.031	●
WNMG080412RP	WNMG433RP	12.70	0.500	8.69	0.342	1.2	0.047	●
WNMG080416RP	WNMG434RP	12.70	0.500	8.69	0.342	1.6	0.063	●

SCREW-ON

PLAQUITAS POSITIVAS



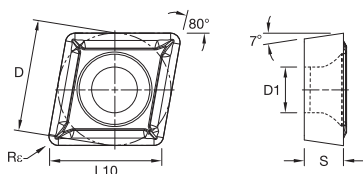


- P ■ ●
 - M ■ ●
 - K ■ ●
 - N ■ ●
 - S ■ ●
 - H ■ ●
- Principal
○ Secundario

Screw-On

Plaquitas positivas • CCGT-HP

ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
CCGT060202HP	CCGT21505HP	6.35	0.250	6.46	0.254	0.2	0.008	●
CCGT060204HP	CCGT2151HP	6.35	0.250	6.46	0.254	0.4	0.016	●
CCGT060208HP	CCGT2152HP	6.35	0.250	6.45	0.254	0.8	0.031	●
CCGT09T302HP	CCGT32505HP	9.53	0.375	9.67	0.381	0.2	0.008	●
CCGT09T304HP	CCGT3251HP	9.53	0.375	9.67	0.381	0.4	0.016	●
CCGT09T308HP	CCGT3252HP	9.53	0.375	9.67	0.381	0.8	0.031	●
CCGT120402HP	CCGT4305HP	12.70	0.500	12.90	0.508	0.2	0.008	●
CCGT120404HP	CCGT431HP	12.70	0.500	12.90	0.508	0.4	0.016	●
CCGT120408HP	CCGT432HP	12.70	0.500	12.90	0.508	0.8	0.031	●

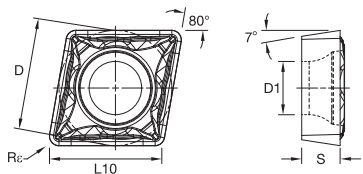


- P ■ ●
 - M ■ ●
 - K ■ ●
 - N ■ ●
 - S ■ ●
 - H ■ ●
- Principal
○ Secundario

Screw-On

Plaquitas positivas • CCGT-LF

ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
CCGT0602X0LF	CCGT215X0LF	6.35	0.250	6.45	0.254	0.0	0.002	●
CCGT060201LF	CCGT21502LF	6.35	0.250	6.45	0.254	0.1	0.004	●
CCGT060202LF	CCGT21505LF	6.35	0.250	6.45	0.254	0.2	0.008	●
CCGT060204LF	CCGT2151LF	6.35	0.250	6.45	0.254	0.4	0.016	●
CCGT09T3X0LF	CCGT325X0LF	9.53	0.375	9.67	0.381	0.0	0.002	●
CCGT09T301LF	CCGT32502LF	9.53	0.375	9.67	0.381	0.1	0.004	●
CCGT09T302LF	CCGT32505LF	9.53	0.375	9.67	0.381	0.2	0.008	●
CCGT09T304LF	CCGT3251LF	9.53	0.375	9.67	0.381	0.4	0.016	●
CCGT09T308LF	CCGT3252LF	9.53	0.375	9.67	0.381	0.8	0.031	●

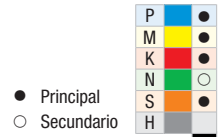
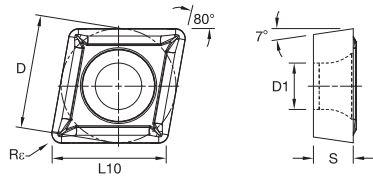


- P ■ ●
 - M ■ ●
 - K ■ ●
 - N ■ ●
 - S ■ ●
 - H ■ ●
- Principal
○ Secundario

Screw-On

Plaquitas positivas • CCMT-FP

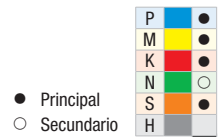
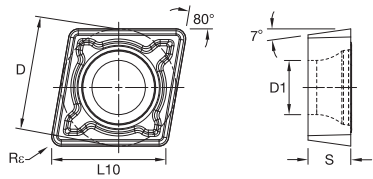
ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
CCMT060202FP	CCMT21505FP	6.35	0.250	6.45	0.254	0.2	0.008	●
CCMT060204FP	CCMT2151FP	6.35	0.250	6.45	0.254	0.4	0.016	●
CCMT060208FP	CCMT2152FP	6.35	0.250	6.45	0.254	0.8	0.031	●
CCMT09T302FP	CCMT32505FP	9.53	0.375	9.67	0.381	0.2	0.008	●
CCMT09T304FP	CCMT3251FP	9.53	0.375	9.67	0.381	0.4	0.016	●
CCMT09T308FP	CCMT3252FP	9.53	0.375	9.67	0.381	0.8	0.031	●
CCMT120404FP	CCMT431FP	12.70	0.500	12.90	0.508	0.4	0.016	●
CCMT120408FP	CCMT432FP	12.70	0.500	12.90	0.508	0.8	0.031	●



Screw-On

Plaquitas positivas • CCMT-LF

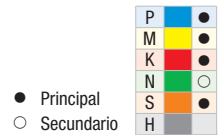
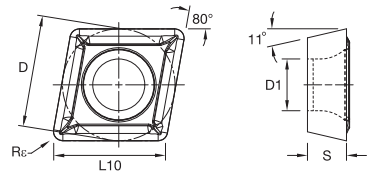
ISO Número de catálogo	ANSI Número de catálogo	D		L10		Re		
		mm	in	mm	in	mm	in	
CCMT060202LF	CCMT21505LF	6.35	0.250	6.45	0.254	0.2	0.008	•
CCMT060204LF	CCMT2151LF	6.35	0.250	6.45	0.254	0.4	0.016	•
CCMT060208LF	CCMT2152LF	6.35	0.250	6.45	0.254	0.8	0.031	•
CCMT09T302LF	CCMT32505LF	9.53	0.375	9.67	0.381	0.2	0.008	•
CCMT09T304LF	CCMT3251LF	9.53	0.375	9.67	0.381	0.4	0.016	•
CCMT09T308LF	CCMT3252LF	9.53	0.375	9.67	0.381	0.8	0.031	•
CCMT120404LF	CCMT431LF	12.70	0.500	12.90	0.508	0.4	0.016	•
CCMT120408LF	CCMT432LF	12.70	0.500	12.90	0.508	0.8	0.031	•



Screw-On

Plaquitas positivas • CCMT-MF

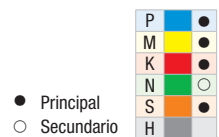
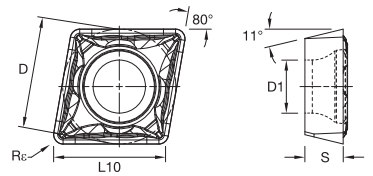
ISO Número de catálogo	ANSI Número de catálogo	D		L10		Re		
		mm	in	mm	in	mm	in	
CCMT09T308MF	CCMT3252MF	9.53	0.375	9.67	0.381	0.8	0.031	•
CCMT120412MF	CCMT433MF	12.70	0.500	12.90	0.508	1.2	0.047	•



Screw-On

Plaquitas positivas • CPGT-LF

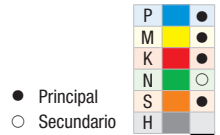
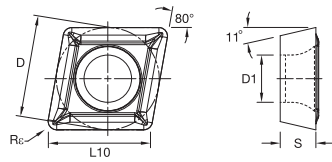
ISO Número de catálogo	ANSI Número de catálogo	D		L10		Re		
		mm	in	mm	in	mm	in	
CPGT060201LF	CPGT21502LF	6.35	0.250	6.45	0.254	0.1	0.004	•
CPGT060202LF	CPGT21505LF	6.35	0.250	6.45	0.254	0.2	0.008	•
CPGT060204LF	CPGT2151LF	6.35	0.250	6.45	0.254	0.4	0.016	•
CPGT060208LF	CPGT2152LF	6.35	0.250	6.45	0.254	0.8	0.031	•
CPGT09T304LF	CPGT3251LF	9.53	0.375	9.67	0.381	0.4	0.016	•
CPGT09T308LF	CPGT3252LF	9.53	0.375	9.67	0.381	0.8	0.031	•



Screw-On

Plaquitas positivas • CPMT-FP

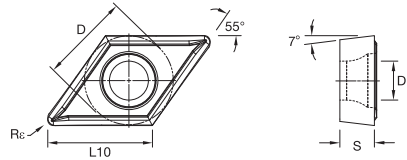
ISO Número de catálogo	ANSI Número de catálogo	D		L10		Re		
		mm	in	mm	in	mm	in	
CPMT050204FP	CPMT18151FP	5.56	0.219	5.56	0.219	0.4	0.016	•
CPMT060202FP	CPMT21505FP	6.35	0.250	6.45	0.254	0.2	0.008	•
CPMT060204FP	CPMT2151FP	6.35	0.250	6.45	0.254	0.4	0.016	•
CPMT060208FP	CPMT2152FP	6.35	0.250	6.45	0.254	0.8	0.032	•
CPMT09T304FP	CPMT3251FP	9.53	0.375	9.67	0.381	0.4	0.016	•
CPMT09T308FP	CPMT3252FP	9.53	0.375	9.67	0.381	0.8	0.031	•



Screw-On

Plaquitas positivas • CPMT-LF

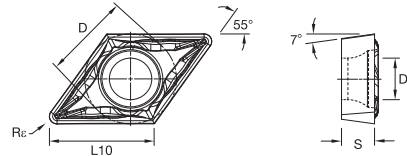
ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
CPMT050204LF	CPMT18151LF	5.56	0.219	5.65	0.222	0.4	0.016	●
CPMT060202LF	CPMT21505LF	6.35	0.250	6.45	0.254	0.2	0.008	●
CPMT060204LF	CPMT2151LF	6.35	0.250	6.45	0.254	0.4	0.016	●
CPMT060208LF	CPMT2152LF	6.35	0.250	6.45	0.254	0.8	0.031	●
CPMT09T304LF	CPMT3251LF	9.53	0.375	9.67	0.381	0.4	0.016	●
CPMT09T308LF	CPMT3252LF	9.53	0.375	9.67	0.381	0.8	0.031	●



Screw-On

Plaquitas positivas • DCGT-LF

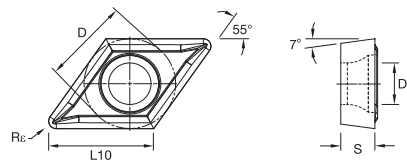
ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
DCGT0702X0LF	DCGT215X0LF	6.35	0.250	7.75	0.305	0.0	0.002	●
DCGT070201LF	DCGT21502LF	6.35	0.250	7.75	0.305	0.1	0.004	●
DCGT11T3X0LF	DCGT325X0LF	9.53	0.375	11.63	0.458	0.0	0.002	●
DCGT11T301LF	DCGT32502LF	9.53	0.375	11.63	0.458	0.1	0.004	●



Screw-On

Plaquitas positivas • DCMT-FP

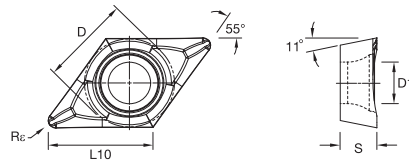
ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
DCMT070204FP	DCMT2151FP	6.35	0.250	7.75	0.305	0.4	0.016	●
DCMT11T302FP	DCMT32505FP	9.53	0.375	11.63	0.458	0.2	0.008	●
DCMT11T304FP	DCMT3251FP	9.53	0.375	11.63	0.458	0.4	0.016	●
DCMT11T308FP	DCMT3252FP	9.53	0.375	11.63	0.458	0.8	0.031	●



Screw-On

Plaquitas positivas • DCMT-LF

ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
DCMT070202LF	DCMT21505LF	6.35	0.250	7.75	0.305	0.2	0.008	●
DCMT070204LF	DCMT2151LF	6.35	0.250	7.75	0.305	0.4	0.016	●
DCMT11T302LF	DCMT32505LF	9.53	0.375	11.63	0.458	0.2	0.008	●
DCMT11T304LF	DCMT3251LF	9.53	0.375	11.63	0.458	0.4	0.016	●



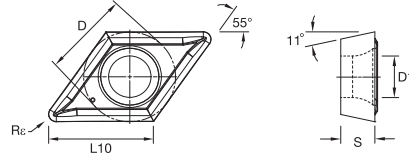
P	●
M	●
K	●
N	○
S	●
H	●

● Principal
○ Secundario

Screw-On

Plaquitas positivas • DPGT-HP

ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
DPGT11T304HP	DPGT3251HP	9.53	0.375	11.63	0.458	0.4	0.016	●
DPGT11T308HP	DPGT3252HP	9.53	0.375	11.63	0.458	0.8	0.031	●



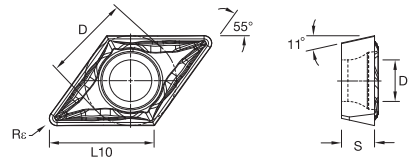
P	●
M	●
K	●
N	○
S	●
H	●

● Principal
○ Secundario

Screw-On

Plaquitas positivas • DPGT-LF

ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
DPGT070204LF	DPGT2151LF	6.35	0.250	7.75	0.305	0.4	0.016	●
DPGT11T302LF	DPGT32505LF	9.53	0.375	11.63	0.458	0.2	0.008	●
DPGT11T304LF	DPGT3251LF	9.53	0.375	11.63	0.458	0.4	0.016	●



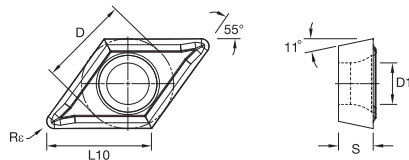
P	●
M	●
K	●
N	○
S	●
H	●

● Principal
○ Secundario

Screw-On

Plaquitas positivas • DPMT-FP

ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
DPMT070204FP	DPMT2151FP	6.35	0.250	7.75	0.305	0.4	0.016	●
DPMT070208FP	DPMT2152FP	6.35	0.250	7.75	0.305	0.8	0.031	●
DPMT11T304FP	DPMT3251FP	9.53	0.375	11.63	0.458	0.4	0.016	●
DPMT11T308FP	DPMT3252FP	9.53	0.375	11.63	0.458	0.8	0.031	●



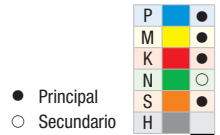
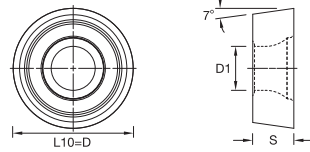
P	●
M	●
K	●
N	○
S	●
H	●

● Principal
○ Secundario

Screw-On

Plaquitas positivas • DPMT-LF

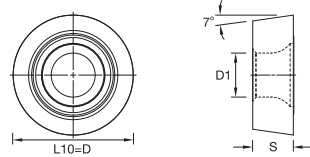
ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
DPMT070202LF	DPMT21505LF	6.35	0.250	7.75	0.305	0.2	0.008	●
DPMT070204LF	DPMT2151LF	6.35	0.250	7.75	0.305	0.4	0.016	●
DPMT070208LF	DPMT2152LF	6.35	0.250	7.75	0.305	0.8	0.031	●
DPMT11T304LF	DPMT3251LF	9.53	0.375	11.63	0.458	0.4	0.016	●
DPMT11T308LF	DPMT3252LF	9.53	0.375	11.63	0.458	0.8	0.031	●



Screw-On

Plaquitas positivas • RCGT-HP

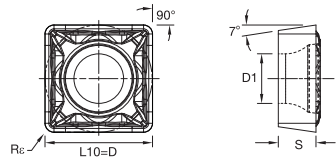
ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
RCGT0803M0HP	RCGT0803M0HP	8.00	0.315	-	-	-	-	•
RCGT10T3M0HP	RCGT10T3M0HP	10.00	0.394	-	-	-	-	•
RCGT1204M0HP	RCGT1204M0HP	12.00	0.472	-	-	-	-	•



Screw-On

Plaquitas positivas • RCGT-MS

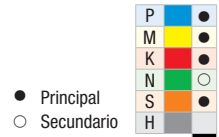
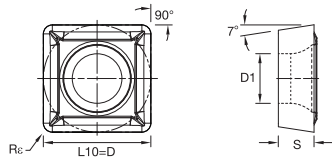
ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
RCGT1204M0MS	RCGT1204M0MS	12.00	0.472	-	-	-	-	•



Screw-On

Plaquitas positivas • SCMT-FP

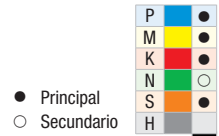
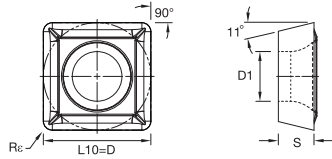
ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
SCMT09T304FP	SCMT3251FP	9.53	0.375	9.53	0.375	0.4	0.016	•
SCMT09T308FP	SCMT3252FP	9.53	0.375	9.53	0.375	0.8	0.031	•
SCMT120408FP	SCMT432FP	12.70	0.500	12.70	0.500	0.8	0.031	•



Screw-On

Plaquetas positivas • SCMT-LF

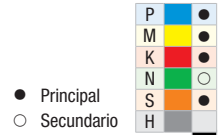
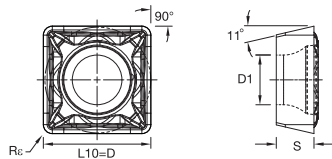
ISO Número de catálogo	ANSI Número de catálogo	D		L10		Re		
		mm	in	mm	in	mm	in	
SCMT09T304LF	SCMT3251LF	9.53	0.375	9.53	0.375	0.4	0.016	•
SCMT09T308LF	SCMT3252LF	9.53	0.375	9.53	0.375	0.8	0.031	•
SCMT120408LF	SCMT432LF	12.70	0.500	12.70	0.500	0.8	0.031	•



Screw-On

Plaquetas positivas • SPGT-LF

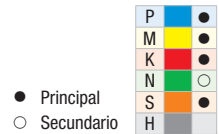
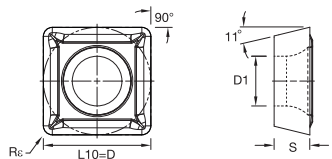
ISO Número de catálogo	ANSI Número de catálogo	D		L10		Re		
		mm	in	mm	in	mm	in	
SPGT09T304LF	SPGT3251LF	9.53	0.375	9.53	0.375	0.4	0.016	•
SPGT09T308LF	SPGT3252LF	9.53	0.375	9.53	0.375	0.8	0.031	•



Screw-On

Plaquetas positivas • SPMT-FP

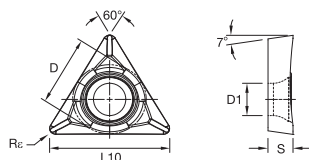
ISO Número de catálogo	ANSI Número de catálogo	D		L10		Re		
		mm	in	mm	in	mm	in	
SPMT09T304FP	SPMT3251FP	9.53	0.375	9.53	0.375	0.4	0.016	•
SPMT09T308FP	SPMT3252FP	9.53	0.375	9.53	0.375	0.8	0.031	•



Screw-On

Plaquetas positivas • SPMT-LF

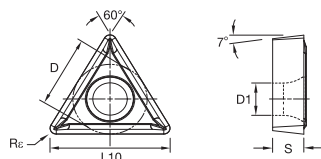
ISO Número de catálogo	ANSI Número de catálogo	D		L10		Re		
		mm	in	mm	in	mm	in	
SPMT09T304LF	SPMT3251LF	9.53	0.375	9.53	0.375	0.4	0.016	•
SPMT09T308LF	SPMT3252LF	9.53	0.375	9.53	0.375	0.8	0.031	•



Screw-On

Plaquitas positivas • TCGT-HP

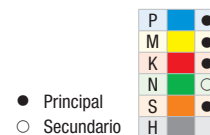
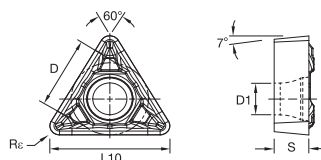
ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
TCGT110202HP	TCGT21505HP	6.35	0.250	11.00	0.433	0.2	0.008	•
TCGT110204HP	TCGT2151HP	6.35	0.250	11.00	0.433	0.4	0.016	•
TCGT16T302HP	TCGT32505HP	9.53	0.375	16.50	0.650	0.2	0.008	•
TCGT16T304HP	TCGT3251HP	9.53	0.375	16.50	0.650	0.4	0.016	•
TCGT16T308HP	TCGT3252HP	9.53	0.375	16.50	0.650	0.8	0.031	•



Screw-On

Plaquitas positivas • TCGT-LF

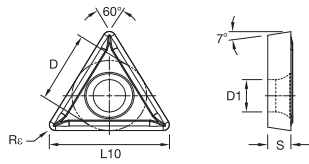
ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	pulg.	mm	pulg.	mm	pulg.	
TCGT110201LF	TCGT21502LF	6.35	0.250	11.00	0.433	0.1	0.004	•
TCGT110204LF	TCGT2151LF	6.35	0.250	11.00	0.433	0.4	0.016	•



Screw-On

Plaquitas positivas • TCMT-FP

ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	pulg.	mm	pulg.	mm	pulg.	
TCMT090204FP	TCMT18151FP	5.56	0.219	9.62	0.379	0.4	0.016	•
TCMT090208FP	TCMT18152FP	5.56	0.219	9.63	0.379	0.8	0.031	•
TCMT110202FP	TCMT21505FP	6.35	0.250	11.00	0.433	0.2	0.008	•
TCMT110204FP	TCMT2151FP	6.35	0.250	11.00	0.433	0.4	0.016	•
TCMT110208FP	TCMT2152FP	6.35	0.250	11.00	0.433	0.8	0.031	•
TCMT110304FP	TCMT221FP	6.35	0.250	11.00	0.433	0.4	0.016	•
TCMT110308FP	TCMT222FP	6.35	0.250	11.00	0.433	0.8	0.031	•
TCMT16T304FP	TCMT3251FP	9.53	0.375	16.50	0.650	0.4	0.016	•
TCMT16T308FP	TCMT3252FP	9.53	0.375	16.50	0.650	0.8	0.031	•
TCMT16T312FP	TCMT3253FP	9.53	0.375	16.50	0.650	1.2	0.047	•
TCMT220408FP	TCMT432FP	12.70	0.500	22.00	0.866	0.8	0.031	•



P	●
M	●
K	●
N	○
S	●
H	●

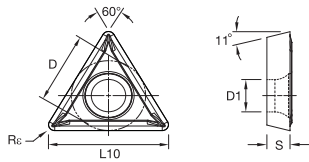
- Principal
- Secundario

Screw-On

Plaquitas positivas • TCMT-LF

ISO Número de catálogo	ANSI Número de catálogo	D		L10		Re		
		mm	in	mm	in	mm	in	
TCMT110202LF	TCMT21505LF	6.35	0.250	11.00	0.433	0.2	0.008	●
TCMT110204LF	TCMT21511LF	6.35	0.250	11.00	0.433	0.4	0.016	●
TCMT110208LF	TCMT2152LF	6.35	0.250	11.00	0.433	0.8	0.031	●
TCMT16T302LF	TCMT32505LF	9.53	0.375	16.50	0.650	0.2	0.008	●
TCMT16T304LF	TCMT3251LF	9.53	0.375	16.50	0.650	0.4	0.016	●
TCMT16T308LF	TCMT3252LF	9.53	0.375	16.50	0.650	0.8	0.031	●
TCMT220408LF	TCMT432LF	12.70	0.500	22.00	0.866	0.8	0.031	●

KC025B



P	●
M	●
K	●
N	○
S	●
H	●

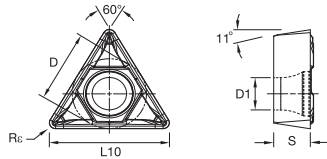
- Principal
- Secundario

Screw-On

Plaquitas positivas • TPGT-LF

ISO Número de catálogo	ANSI Número de catálogo	D		L10		Re		
		mm	in	mm	in	mm	in	
TPGT090204LF	TPGT18151LF	5.56	0.219	9.62	0.379	0.4	0.016	●
TPGT110202LF	TPGT21505LF	6.35	0.250	11.00	0.433	0.2	0.008	●
TPGT110204LF	TPGT21511LF	6.35	0.250	11.00	0.433	0.4	0.016	●
TPGT16T304LF	TPGT3251LF	9.53	0.375	16.50	0.650	0.4	0.016	●

KC025B



P	●
M	●
K	●
N	○
S	●
H	●

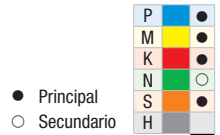
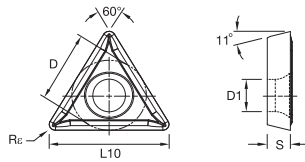
- Principal
- Secundario

Screw-On

Plaquitas positivas • TPMT-FP

ISO Número de catálogo	ANSI Número de catálogo	D		L10		Re		
		mm	in	mm	in	mm	in	
TPMT110204FP	TPMT2151FP	6.35	0.250	11.00	0.433	0.4	0.016	●
TPMT110208FP	TPMT2152FP	6.35	0.250	11.00	0.433	0.8	0.031	●
TPMT110304FP	TPMT221FP	6.35	0.250	11.00	0.433	0.4	0.016	●
TPMT16T304FP	TPMT3251FP	9.53	0.375	16.50	0.650	0.4	0.016	●
TPMT16T308FP	TPMT3252FP	9.53	0.375	16.50	0.650	0.8	0.031	●

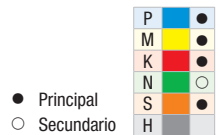
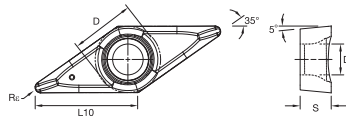
KC025B



Screw-On

Plaquitas positivas • TPMT-LF

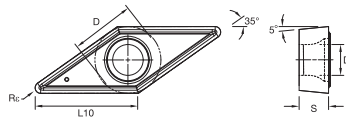
ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
TPMT090204LF	TPMT18151LF	5.56	0.219	9.63	0.379	0.4	0.016	•
TPMT110204LF	TPMT2151LF	6.35	0.250	11.00	0.433	0.4	0.016	•
TPMT110208LF	TPMT2152LF	6.35	0.250	11.00	0.433	0.8	0.031	•
TPMT16T304LF	TPMT3251LF	9.53	0.375	16.50	0.650	0.4	0.016	•
TPMT16T308LF	TPMT3252LF	9.53	0.375	16.50	0.650	0.8	0.031	•
TPMT220408LF	TPMT432LF	12.70	0.500	22.00	0.866	0.8	0.031	•



Screw-On

Plaquitas positivas • VBGT-HP

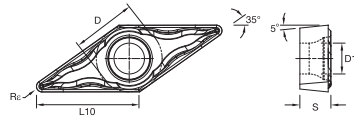
ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
VBGT110302HP	VBGT2205HP	6.35	0.250	11.07	0.436	0.2	0.008	•
VBGT110304HP	VBGT221HP	6.35	0.250	10.95	0.431	0.4	0.016	•
VBGT160404HP	VBGT331HP	9.53	0.375	16.61	0.654	0.4	0.016	•
VBGT160408HP	VBGT332HP	9.53	0.375	16.61	0.654	0.8	0.031	•



Screw-On

Plaquitas positivas • VBGT-LF

ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
VBGT1103X0LF	VBGT22X0LF	6.35	0.250	11.07	0.436	0.0	0.002	•
VBGT110301LF	VBGT2202LF	6.35	0.250	11.07	0.436	0.1	0.004	•
VBGT110302LF	VBGT2205LF	6.35	0.250	11.07	0.436	0.2	0.008	•
VBGT110304LF	VBGT221LF	6.35	0.250	11.07	0.436	0.4	0.016	•
VBGT1604X0LF	VBGT33X0LF	9.53	0.375	16.61	0.654	0.0	0.002	•
VBGT160401LF	VBGT3302LF	9.53	0.375	16.61	0.654	0.1	0.004	•
VBGT160402LF	VBGT3305LF	9.53	0.375	16.61	0.654	0.2	0.008	•
VBGT160404LF	VBGT331LF	9.53	0.375	16.61	0.654	0.4	0.016	•



- Principal
- Secundario

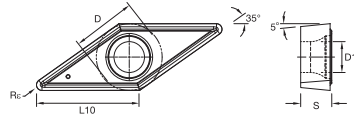
P	Blue	●
M	Yellow	●
K	Red	●
N	Green	○
S	Orange	●
H	Grey	●

Screw-On

Plaquitas positivas • VBMT-FP

ISO Número de catálogo	ANSI Número de catálogo	D		L10		Re		
		mm	in	mm	in	mm	in	
VBMT110304FP	VBMT221FP	6.35	0.250	11.07	0.436	0.4	0.016	●
VBMT110308FP	VBMT222FP	6.35	0.250	11.07	0.436	0.8	0.031	●
VBMT160402FP	VBMT3305FP	9.53	0.375	16.61	0.654	0.2	0.008	●
VBMT160404FP	VBMT331FP	9.53	0.375	16.61	0.654	0.4	0.016	●
VBMT160408FP	VBMT332FP	9.53	0.375	16.61	0.654	0.8	0.031	●

KCU25B



- Principal
- Secundario

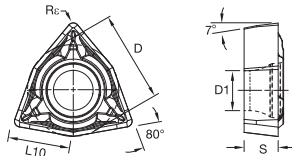
P	Blue	●
M	Yellow	●
K	Red	●
N	Green	○
S	Orange	●
H	Grey	●

Screw-On

Plaquitas positivas • VBMT-LF

ISO Número de catálogo	ANSI Número de catálogo	D		L10		Re		
		mm	in	mm	in	mm	in	
VBMT110304LF	VBMT221LF	6.35	0.250	11.07	0.436	0.4	0.016	●
VBMT110308LF	VBMT222LF	6.35	0.250	11.07	0.436	0.8	0.031	●
VBMT160402LF	VBMT3305LF	9.53	0.375	16.61	0.654	0.2	0.008	●
VBMT160404LF	VBMT331LF	9.53	0.375	16.61	0.654	0.4	0.016	●
VBMT160408LF	VBMT332LF	9.53	0.375	16.61	0.654	0.8	0.031	●

KCU25B



- Principal
- Secundario

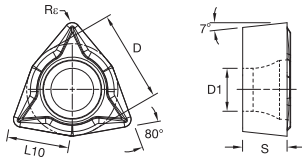
P	Blue	●
M	Yellow	●
K	Red	●
N	Green	○
S	Orange	●
H	Grey	●

Screw-On

Plaquitas positivas • WCMT-FP

ISO Número de catálogo	ANSI Número de catálogo	D		L10		Re		
		mm	in	mm	in	mm	in	
WCMT040204FP	WCMT2151FP	6.35	0.250	4.34	0.171	0.4	0.016	●

KCU25B

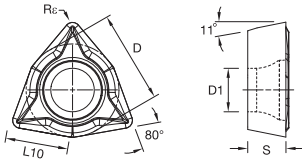


- Principal
 - Secundario
- | | |
|---|---|
| P | ● |
| M | ● |
| K | ● |
| N | ○ |
| S | ● |
| H | ● |

Screw-On

Plaquitas positivas • WCMT-LF

ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
WCMT06T308LF	WCMT3252LF	9.53	0.375	6.52	0.257	0.8	0.031	●

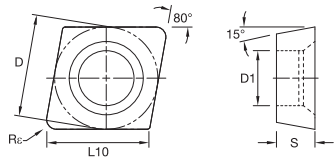


- Principal
 - Secundario
- | | |
|---|---|
| P | ● |
| M | ● |
| K | ● |
| N | ○ |
| S | ● |
| H | ● |

Screw-On

Plaquitas positivas • WPMT-LF

ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
WPMTS3T104LF	WPMT15121LF	4.76	0.188	3.26	0.128	0.4	0.016	●
WPMT040204LF	WPMT2151LF	6.35	0.250	4.34	0.171	0.4	0.016	●

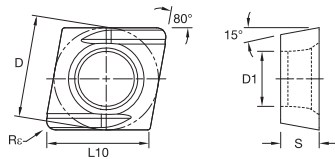


- Principal
 - Secundario
- | | |
|---|---|
| P | ● |
| M | ● |
| K | ● |
| N | ○ |
| S | ● |
| H | ● |

Screw-On

Plaquitas positivas • CDHB

ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
CDHBS4T0S0	CDHB120601	3.97	0.156	4.03	0.159	0.1	0.002	●
CDHBS4T002	CDHB120605	3.97	0.156	4.03	0.159	0.2	0.007	●
CDHBS4T004	CDHB12061	3.97	0.156	4.03	0.159	0.4	0.015	●

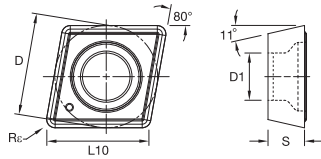


- Principal
 - Secundario
- | | |
|---|---|
| P | ● |
| M | ● |
| K | ● |
| N | ○ |
| S | ● |
| H | ● |

Screw-On

Plaquitas positivas • CDHH

ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
CDHHS4T002L	CDHH120605L	3.97	0.156	4.03	0.159	0.2	0.007	●
CDHHS4T002R	CDHH120605R	3.97	0.156	4.03	0.159	0.2	0.007	●
CDHHS4T004L	CDHH12061L	3.97	0.156	4.03	0.159	0.4	0.015	●



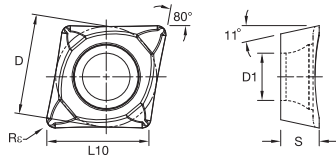
- Principal
- Secundario

P	■	●
M	■	●
K	■	●
N	■	○
S	■	●
H	■	●

Screw-On

Plaquitas positivas • CPGM

ISO Número de catálogo	ANSI Número de catálogo	D		L10		R _c		
		mm	in	mm	in	mm	in	
CPGH09T301	CPGM32502	9.53	0.375	9.67	0.381	0.1	0.004	●
CPGH09T302	CPGM32505	9.53	0.375	9.67	0.381	0.2	0.008	●
CPGH09T304	CPGM3251	9.53	0.375	9.67	0.381	0.4	0.016	●
CPGH09T308	CPGM3252	9.53	0.375	9.67	0.381	0.8	0.031	●



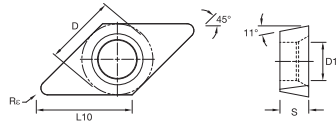
- Principal
- Secundario

P	■	●
M	■	●
K	■	●
N	■	○
S	■	●
H	■	●

Screw-On

Plaquitas positivas • CPGT-HP

ISO Número de catálogo	ANSI Número de catálogo	D		L10		R _c		
		mm	in	mm	in	mm	in	
CPGT060202HP	CPGT21505HP	6.35	0.250	6.45	0.254	0.2	0.008	●
CPGT060204HP	CPGT2151HP	6.35	0.250	6.45	0.254	0.4	0.016	●
CPGT060208HP	CPGT2152HP	6.35	0.250	6.45	0.254	0.8	0.031	●
CPGT09T302HP	CPGT32505HP	9.53	0.375	9.67	0.381	0.2	0.008	●
CPGT09T304HP	CPGT3251HP	9.53	0.375	9.67	0.381	0.4	0.016	●
CPGT09T308HP	CPGT3252HP	9.53	0.375	9.67	0.381	0.8	0.031	●



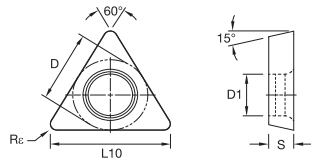
- Principal
- Secundario

P	■	●
M	■	●
K	■	●
N	■	○
S	■	●
H	■	●

Screw-On

Plaquitas positivas • GPCD

ISO Número de catálogo	ANSI Número de catálogo	D		L10		R _c		
		mm	in	mm	in	mm	in	
GPHW050102	GPHW12105	3.97	0.156	5.61	0.221	0.2	0.007	●
GPHW050104	GPHW1211	3.97	0.156	5.61	0.221	0.4	0.015	●

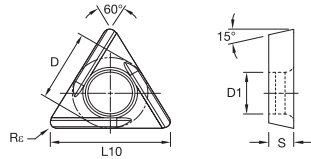


- P
 - M
 - K
 - N
 - S
 - H
- Principal
○ Secundario

Screw-On

Plaquitas positivas • TDHB

ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
TDHB07T12S0	TDHB12807501	4.06	0.158	7.04	0.277	0.1	0.002	●
TDHB07T1202	TDHB12807505	4.06	0.160	7.04	0.277	0.2	0.007	●
TDHB07T1204	TDHB1280751	4.06	0.160	7.04	0.277	0.4	0.015	●
TDHB07T1208	TDHB1280752	4.06	0.158	7.04	0.277	0.8	0.031	●

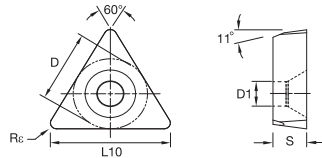


- P
 - M
 - K
 - N
 - S
 - H
- Principal
○ Secundario

Screw-On

Plaquitas positivas • TDHH

ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
TDHH07T1202L	TDHH12807505L	4.06	0.158	7.04	0.277	0.2	0.007	●
TDHH07T1204L	TDHH1280751L	4.06	0.160	7.04	0.277	0.4	0.015	●



- P
 - M
 - K
 - N
 - S
 - H
- Principal
○ Secundario

Screw-On

Plaquitas positivas • TPHB

ISO Número de catálogo	ANSI Número de catálogo	D		L10		Rε		
		mm	in	mm	in	mm	in	
TPHB110204	TPHB2151	6.35	0.250	11.00	0.433	0.4	0.015	●

PASO 1 - SELECCIONA LA GEOMETRÍA DE LA PLAQUITA

Plaquitas negativas

1/2" IC CNMG120408

	avance mín.	Profundidad de corte mín.	avance máx.	Profundidad de corte máx.
-FF	0.1	0.1	0.3	2.7
-FV	0.1	0.4	0.3	3.0
-FN	0.1	0.3	0.3	2.5
-MV	0.2	0.5	0.5	4.5
-MN	0.2	0.5	0.5	5.1
-MR	0.2	1.0	0.5	5.7
-RN	0.3	1.1	0.6	5.7
-RP	0.2	1.1	0.6	6.4

Geometría de plaquita positiva

Tamaño 3 CCMT09T308/CCGT09T308

	avance mín.	Profundidad de corte mín.	avance máx.	Profundidad de corte máx.
-11	0.1	0.2	0.3	1.3
-UF	0.1	1.1	0.3	1.3
-HP	0.2	0.6	0.4	2.3
-LF	0.2	0.8	0.4	2.3
-FP	0.1	0.2	0.3	1.2
-MP	0.1	0.8	0.4	1.7
-MF	0.2	1.1	0.4	1.7
-RP	0.2	1.1	0.6	6.4

PASO 2 - SELECCIONE LA CALIDAD

Geometría de plaquita negativa									
Condición de corte	-CT	-FF	-FV	-FN	-MV	-MN	-MR	-RP	-RN
corte muy interrumpido	-	KCP10B/ KCP10	KCP25C/ KCU25B	KCP25C/ KCU25B	KCP40B	KCP30B/ KCP40B	KCP30B	KCP30B/ KCP40B	KCP30B/ KCP40B
corte ligeramente interrumpido	-	KCP10B/ KCP10	KCP10B	KCP25C/ KCU25B	KCP25C/ KCU25B	KCP25C/ KCU25B	KCP25C/ KCU25B	KCP25C/ KCU25B	KCP25C/ KCU25B
profundidad de corte variable, costra de fundición o forja	KCP10B	KCP05B/ KCU10B/ KTP10/ KT315	KCP10B	KCP10B	KCP10B	KCP10B	KCP10B/ KCU10B	KCP10B/ KCU10B	KCP10B/ KCU10B
corte suave, superficie pretorneada	KCP05	KCP05B	KCP05B	KCP05B/ KCP05/ KCP10B	KCPK05	KCP05B/ KCP10B	KCP10B/ KCP10/ KCK15B	KCP05B/ KCPK05	KCP05B
corte suave, alta precisión / tolerancia ajustada	KCU10B	KCU10B/ KTP10/ KT315	KTP10/ KT315	KCU10B/ KTP10/ KT315	-	-	KCU10B	KCU10B	KCU10B

Geometría de plaquita positiva						
Condición de corte	-11	-UF	-LF	-FP	-MF	-MP
corte muy interrumpido	-	KCP25C/ KCU25B/ KCU10B	KCP25C/ KCU25B/ KCP30B/ KCP40B	KCP25C/ KCU25B	KCP25C/ KCU25B/ KCP30B	-
corte ligeramente interrumpido	-	KCP25C/ KCU25B/ KCU10B	KCP25C/ KCU25B	KCP25C/ KCU25B	KCP25C/ KCU25B	KCP25C/ KCU25B
profundidad de corte variable, costra de fundición o forja	KTP10/ KT315	KCP10B	KCU10B	KCP10B/ KCU10B	KCP10B	KCU10B/ KCP10
corte suave, superficie pretorneada	KTP10/ KT315	KCP05B	KCP05B	KCP05B/ KCP10B	KCP10B	-
corte suave, alta precisión / tolerancia ajustada	KTP10/ KT315	-	KCU10B	KCU10B/ KTP10/ KT315	-	KCU10B

NOTA: La opción en **negrita** es la primera opción cuando se muestran varias calidades.

PASO 3 - SELECCION LA VELOCIDAD DE CORTE

Acero bajo en carbono (<0,3 % C) y de mecanizado libre		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
P0/P1	KTP10/KT315	180	475	590	1560
	KCU10B	165	395	540	1300
	KCU25B	135	360	443	1181
	KCP05B/KCP05/KCPK05	180	500	590	1640
	KCP10B/KCP10	180	440	590	1440
	KCP25C	150	430	490	1410
	KCP30B/KCP30/KCP40/KCP40B	115	235	380	770

Aceros al carbono medios y altos (>0,3 % C)		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
P2	KTP10/KT315	190	395	620	1300
	KCU10B	155	250	510	820
	KCU25B	125	220	410	722
	KCP05B/KCP05/KCPK05	180	400	590	1310
	KCP10B/KCP10	180	350	590	1150
	KCP25C	150	385	490	1260
	KCP30B/KCP30/KCP40/KCP40B	115	240	380	790

Aceros aleados y aceros para herramientas; <330 HB; <35 HRC		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
P3	KTP10/KT315	180	275	590	900
	KCU10B	150	250	490	820
	KCU25B	120	220	394	722
	KCP05B/KCP05/KCPK05	180	275	590	900
	KCP10B/KCP10	160	245	520	800
	KCP25C	150	275	490	900
	KCP30B/KCP30/KCP40/KCP40B	115	160	380	520

Aceros aleados y aceros para herramientas; 350–450 HB; 35–48 HRC		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
P4	KTP10/KT315	90	215	300	710
	KCU10B	85	195	280	640
	KCU25B	35	95	115	312
	KCP05B/KCP05/KCPK05	90	215	300	710
	KCP10B/KCP10	90	195	300	640
	KCP25C	75	215	250	710
	KCP30B/KCP30/KCP40/KCP40B	50	135	160	440

Aceros inoxidables ferríticos, martensíticos y PH; <330 HB; <35 HRC		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
P5	KTP10/KT315	150	310	490	1020
	KCU10B	130	290	430	950
	KCU25B	60	145	197	476
	KCP05B/KCP05/KCPK05	150	270	490	890
	KCP10B/KCP10	150	300	490	980
	KCP25C	130	325	430	1070
	KCP30B/KCP30/KCP40/KCP40B	110	150	360	490

Aceros inoxidables ferríticos, martensíticos y PH; 350–450 HB; 35–48 HRC		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
P6	KTP10/KT315	140	295	460	970
	KCU10B	115	250	380	820
	KCU25B	50	120	164	394
	KCP05B/KCP05/KCPK05	140	300	460	980
	KCP10B/KCP10	120	270	390	890
	KCP25C	115	265	380	870
	KCP30B/KCP30/KCP40/KCP40B	90	140	300	460

PASO 1 - SELECCIONE LA GEOMETRÍA DE LA PLAQUITA

Plaquitas negativas

1/2" IC CNMG120408

	avance mín.	Profundidad de corte mín.	avance máx.	Profundidad de corte máx.
-FF	0.1	0.1	0.3	2.7
-FP	0.1	0.3	0.3	2.5
-MP/-UP	0.2	0.8	0.6	6.4
-RP	0.2	1.1	0.6	6.4
-MR	0.2	1.0	0.5	5.7
-FS	0.1	0.2	0.3	2.0

Geometría de plaquita positiva

CCMT09T308/CCGT09T308

	avance mín.	Profundidad de corte mín.	avance máx.	Profundidad de corte máx.
-11	0.1	0.2	0.3	1.3
-UF	0.1	1.1	0.3	1.3
..GT-LF	0.2	0.8	0.4	2.3
-LF	0.2	0.8	0.4	1.7
-FP	0.1	0.2	0.3	1.2
-MP/-MF	0.1	0.8	0.4	1.7
R.GT-MS	0.1	0.8	0.4	3.2

PASO 2 - SELECCIONA LA CALIDAD

Geometría de plaquita negativa						
Condición de corte	-FF	-FP	-MP/-UP	-RP	-MR	-FS/MS
corte muy interrumpido	KCU10B	KCM15B/ KCM15	KCM35B/ KCM35	KCM35B/ KCM35	KCM35B/ KCM35	-
corte ligeramente interrumpido	KCU10B	KCM15B/ KCM15/ KCS10B/ KCU10B	KCM25B/ KCM25/ KCS10B	KCM25B/ KCM25/ KCU25B	KCM25B/ KCM25	KCS10B/ KCU25B
profundidad de corte variable, costra de fundición o forja	KTP10/ KT315	KCM15B/ KCM15/ KCS10B/ KCU10B	KCM15B/ KCM15/ KCS10B/ KCU10B	KCM15B/ KCM15/ KCM25B/ KCM25/ KCU25B	KCM15B/ KCM15/ KCU10B	KCS10B/ KCU25B
corte suave, superficie pretorneada	KCU10B/ KTP10/ KT315	KCM15B/ KCM15	KCM15B/ KCM15	KCU10B/ KCU25B	KCM15B/ KCM15	KCS10B/ KCU25B
corte suave, alta precisión / tolerancia ajustada	KCU10B/ KTP10/ KT315	KCU10B/ KCS10B/ KTP10/ KT315	KCS10B/ KCU10B	KCU10B/ KCU25B	KCU10B	KCS10B/ KCU25B

Geometría de plaquita positiva							
Condición de corte	-11	-UF	..GT-LF	-LF	-FP	-MP/-MF	R.GT-MS
corte muy interrumpido	-	-	KCU25B	KCM35B/ KCM35	KCM25B/ KCU25B/ KCM25	KCM25B/ KCM25/ KCU25B	KCU25B
corte ligeramente interrumpido	-	KCU10B	KCU25B	KCM25B/ KCM25/ KCS10B	KCM15B/ KCM15/ KCU10B	KCM25B/ KCM25/ KCU25B	KCU25B
profundidad de corte variable, costra de fundición o forja	KTP10/ KT315	-	KCU10B/ KCU25B	KCM15B/ KCU10B/ KCS10B	KCU10B	KCM15B/ KCM15/ KCU10B	KCS10B
corte suave, superficie pretorneada	KTP10/ KT315	KCU10B	KCU10B	KCM15B/ KCM15	KCU10B/ KT315/ KTP10	KCM15B/ KCM15	KCS10B
corte suave, alta precisión / tolerancia ajustada	KTP10/ KT315	KCU10B	KCU10B	KCU10B/ KCS10B/ KTP10/ KT315	KCU10B/ KT315/ KTP10	KCU10B	KCS10B

NOTA: La opción en **negrita** es la primera opción cuando se muestran varias calidades.

PASO 3 - SELECCIONE LA VELOCIDAD DE CORTE

Acero inoxidable austenítico		m/min		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
M1	KTP10/KT315	145	300	480	980
	KCU10B	150	275	490	900
	KCU25B	100	265	328	869
	KCS10B	135	250	440	820
	KCM15B/KCM15	100	240	330	790
	KCM25B/KCM25	90	180	300	590
	KCM35B/KCM35	80	135	260	440

Aceros inoxidables fundidos e inoxidables austeníticos de alta resistencia		m/min		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
M2	KTP10/KT315	140	290	460	950
	KCU10B	125	275	410	900
	KCU25B	90	250	295	820
	KCS10B	115	250	380	820
	KCM15B/KCM15	110	250	360	820
	KCM25B/KCM25	90	225	300	740
	KCM35B/KCM35	80	130	260	430

Aceros inoxidables Duplex (mezcla de ferrítico y austenítico)		m/min		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
M3	KTP10/KT315	140	290	460	950
	KCU10B	140	250	460	820
	KCU25B	90	220	295	722
	KCS10B	125	225	410	740
	KCM15B/KCM15	110	250	360	820
	KCM25B/KCM25	90	180	300	590
	KCM35B/KCM35	80	135	260	440

PASO 1 - SELECCIONA LA GEOMETRÍA DE LA PLAQUITA

Plaquitas negativas

1/2" IC CNMG120408

	avance mín.	Profundidad de corte mín.	avance máx.	Profundidad de corte máx.
-FN	0.1	0.3	0.3	2.5
-MR	0.2	1.0	0.5	5.7
-UN/-RP	0.2	0.8	0.6	6.4
..MA	0.1	0.1	0.3	2.5

Geometría de plaquita positiva

CCMT09T308/CCGT09T308

	avance mín.	Profundidad de corte mín.	avance máx.	Profundidad de corte máx.
-11/-UF	0.1	0.2	0.3	1.3
-LF	0.2	0.8	0.4	1.7
-FP	0.1	0.2	0.3	1.2
-MF	0.2	1.1	0.4	1.7
-MP	0.1	0.8	0.4	1.7

PASO 2 - SELECCIONE LA CALIDAD

Geometría de plaquita negativa				
Condición de corte	-FN	-MR	-UN/-RP	..MA
corte muy interrumpido	KCK15B/ KCK15	KCP10B/ KCP10/ KCP25C/	KCK20B / KCK20/ KCPK05/ KCU25B	KCK20B/ KCK20/ KYK25/ KY3500/ KBK45/ KB1340
corte ligeramente interrumpido	KCK15B/ KCK15	KCP10B/ KCP10/ KCP25C/ KCU25B	KCK20B / KCK20/ KCPK05/ KCU25B	KCK20B/ KCK20/ KYK25/ KY3500/ KBK45/ KB1340
profundidad de corte variable, costra de fundición o forja	KCK05B/ KCK05/ KTP10/ KT315	KCK15B/ KCK15	KCK15B/ KCK15	KCK15B/ KCK15/ KYK25/ KY3500/ KB5630/ KB1345
corte suave, superficie pretorneada	KCK05B/ KCK05	KCK15B/ KCK15	KCK05B/ KCK05	KCK05B/ KCK05/ KYK25/ KY3500/ KYHK15B/ KB5630/ KB1345
corte suave, alta precisión / tolerancia ajustada	KTP10/ KT315	KCU10B		KYHK15B/ KB5630/ KB1345

Geometría de plaquita positiva						
Condición de corte	-11	-LF	-FP	-MP	-MF	..GN y ..GW
corte muy interrumpido	-	KCK20B/ KCK20/ KCU25B	KCK20B/ KCK20/ KCU25B	KCK20B/ KCK20	KCK20B/ KCK20	KY3500/ KB5630/ KB1345
corte ligeramente interrumpido	KCU10B	KCK20B/ KCK20/ KCU25B	KCK20B/ KCK20/ KCU25B	KCK20B/ KCK20	KCK20B/ KCK20	KY3500/ KB5630/ KB1345
profundidad de corte variable, costra de fundición o forja	KCU10B	KCK15B/ KCK15/ KCU25B	KCK20B/ KCK20/ KCU25B	KCK20B/ KCK20	KCK15B/ KCK15	KY3500/ KB5630/ KB1345
corte suave, superficie pretorneada	KCU10B/ KTP10/ KT315	KCU10B	KCK20B/ KCK20/	KCK20B/ KCK20	KCK15B/ KCK15	KY3500/ KYHK15B/ KB5630/ KB1345
corte suave, alta precisión / tolerancia ajustada	KCU10B/ KTP10/ KT315	KCU10B	-	KCU10B	-	KYHK15B/ KB5630/ KB1345

NOTA: La opción en **negrita** es la primera opción cuando se muestran varias calidades.

NOTA: El mecanizado de fundición dúctil requiere un borde más afilado/rompe virutas ("MR", "-11")

PASO 3 - SELECCIONE LA VELOCIDAD DE CORTE

Fundición gris		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
K1	KTP10/KT315	150	440	490	1440
	KCU10B	150	440	490	1440
	KCU25B	135	400	443	1312
	KCK05B/KCK05	240	615	790	2020
	KCK15B/KCK15	200	550	660	1800
	KCK20B/KCK20	200	550	660	1800
	KYHK15B	450	950	1480	3120
	KY3500/KYK25/KYK10	350	1040	1150	3410
	KBK45/KB1340	600	1200	1970	3940
	KB5630/KB1345	550	1200	1800	3940

Fundición maleable de hierro dúctil y templado austenítico (ADI) de alta resistencia;
>600 MPa de resistencia a la tensión

Fundición maleable de hierro dúctil y templado austenítico (ADI) de alta resistencia; >600 MPa de resistencia a la tensión		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
K3	KTP10/KT315	150	440	490	1440
	KCU10B	110	375	360	1230
	KCU25B	115	375	377	1230
	KCK05B/KCK05	155	445	510	1460
	KCK15B/KCK15	140	380	460	1250
	KCK20B/KCK20/KCPK05	140	350	460	1150

PASO 1 - SELECCIONE LA GEOMETRÍA DE LA PLAQUITA

Plaquitas negativas

1/2" IC CNMG120408

	avance mín.	Profundidad de corte mín.	avance máx.	Profundidad de corte máx.
..GP	0.1	0.2	0.3	1.6
-P	0.2	0.8	0.5	5.0
-K	0.1	0.2	0.4	2.5
..MS	0.1	0.2	0.3	2.5
..MG	0.1	0.2	0.3	2.5
-FST	0.1	0.1	0.3	2.0
-E	0.1	0.1	0.3	0.4

Geometría de plaquita positiva

CCMT09T308/CCGT09T308

	avance mín.	Profundidad de corte mín.	avance máx.	Profundidad de corte máx.
-LF	0.2	0.8	0.4	2.3
-HP	0.2	0.6	0.4	2.3
..MT	0.1	0.8	0.4	1.7
-FST	0.1	0.1	0.3	2.0
-ST	0.1	0.1	0.3	2.0

PASO 2 - SELECCIONA LA CALIDAD

Geometría de plaquita negativa							
Condición de corte	..GP	-P	-K	..MS	MG	-FST	-E
corte muy interrumpido	KC5410/ KCU10B/ K313	K313	K313	KC5410/ KCU10B/ K313	K68	-	-
corte ligeramente interrumpido	KC5410/ KCU10B/ K313	K313	K313	KC5410/ KCU10B/ K313	K68	KD1400/ KD1425	KD1405
profundidad de corte variable, costras de fundición, o forja	KC5410/ KCU10B/ K313	K313	K313	KC5410/ KCU10B/ K313	K68	KD1400/ KD1425	KD1405
corte suave, superficie pretorneada	KC5410/ KCU10B/ K313	K313	K313	KC5410/ KCU10B/ K313	K68	KD1400/ KD1425	KD1405

Geometría de plaquita positiva					
Condición de corte	-LF	-HP	..MT	-FST	-ST
corte muy interrumpido	KCU10B/ KCU25B/ K313	KC5410/ KCU10B/ K313	KCU10B/ K313	KD1400/ KD1425	KD1400/ KD1425
corte ligeramente interrumpido	KC5410/ KCU10B/ KCU25B/ K313	KC5410/ KCU10B/ K313	KC5410/ KCU10B/ K313	KD1400/ KD1425	KD1400/ KD1425
profundidad de corte variable, costra de fundición o forja	KC5410/ KCU10B/ KCU25B/ K313	KC5410/ KCU10B/ K313	KC5410/ KCU10B/ K313	KD1425/ KD1400	KD1425/ KD1400
corte suave, superficie pretorneada	KC5410/ KCU10B/ K313	KC5410/ KCU10B/ K313	KC5410/ KCU10B/ K313	KD1425/ KD1400	KD1425/ KD1400

NOTA: La opción en **negrita** es la primera opción cuando se muestran varias calidades.

PASO 3 - SELECCIONE LA VELOCIDAD DE CORTE

Aleaciones de aluminio forjado		m/min		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
N1	KC5410	200	1200	660	3940
	K313	198	617	650	2020
	KCU10B	200	900	660	2950
	KCU25B	200	900	660	2950
Aleaciones de aluminio bajos en silicio y aleaciones de magnesio; 12,2 % Si		m/min		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
N2	KC5410	125	1000	410	3280
	K313	100	600	330	1970
	KCU10B	125	900	410	2950
	KCU25B	125	900	410	2950
	KD1400	250	2625	820	8610
Aluminio con alto contenido de silicón y aleaciones de magnesio; >12,2 % Si		m/min		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
N3	KD1405	250	1125	820	3690
	KD1425	250	1000	820	3280
Base cobre, bronce, cinc en un rango de índice de maquinabilidad de 70-100		m/min		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
N4	KC5410	125	750	410	2460
	K68	125	360	410	1180
	K313	107	366	350	1200
	KCU10B	125	700	410	2300
	KD1400/KD1405	250	1000	820	3280
	KD1425	125	750	410	2460
Nylon, plásticos, gomas, fenólicos, resinas y fibra de vidrio		m/min		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
N5	KC5410	125	400	410	1310
	KCU10B	100	350	330	1150
	KD1400/KD1405	125	750	410	2460
	KD1425	125	500	410	1640

PASO 1 - SELECCIONA LA GEOMETRÍA DE LA PLAQUITA

Plaquitas negativas

1/2" IC CNMG120408

	avance mín.	Profundidad de corte mín.	avance máx.	Profundidad de corte máx.
-FS	0.1	0.2	0.3	2.0
-FP	0.1	0.3	0.3	2.5
-P	0.2	0.8	0.5	5.0
-MS	0.1	0.8	0.4	5.0
-UP	0.2	1.0	0.6	6.4
-MP	0.2	0.8	0.5	5.1
-RP	0.2	1.1	0.6	6.4
CNGA	0.1	0.2	0.3	2.5

Geometría de plaquita positiva

CCMT09T308/CCGT09T308

	avance mín.	Profundidad de corte mín.	avance máx.	Profundidad de corte máx.
-FS	0.1	0.2	0.3	2.0
-HP	0.2	0.6	0.4	2.3
-LF	0.2	0.8	0.4	2.3
-FP	0.1	0.2	0.3	1.6
-MS	0.1	0.8	0.4	5.0
-MP	0.2	0.8	0.5	5.1

PASO 2 - SELECCION LA CALIDAD

Geometría de plaquita negativa							
Condición de corte	-FS	-FP	-MS	-UP	-MP	-RP	CNGA
corte muy interrumpido	KCU25B	-	KCU25B	KCM35B	KCU25B	KCM35B/ KCM25	-
corte ligeramente interrumpido	KCU10B	KCU10B	KCU25B	KCM25B	KCU25B	KCM15B/ KCU25B	KYS30
profundidad de corte variable, costras de fundición, o forja	KCU10B	KCS10B/ KCU10B	KCS10B/ KCU10B	KCM15B	KCS10B	KCS10B/ KCU10B/ KCU25B	KYS30/ KYS25/ KY4300/ KB1630
corte suave, superficie pretorneada	KCU10B/ K313	KCS10B/ KCU10B	KCS10B/ KCU10B	KCU10B	KCS10B/ KCU10B	KCS10B/ KCU10B	KYS25/ KY4300/ KB1630
corte suave, alta precisión / tolerancia ajustada	KCU10B/ K313	KCS10B/ KCU10B	KCS10B/ KCU10B	KCU10B	KCS10B/ KCU10B	KCS10B/ KCU10B	-

Geometría de plaquita positiva						
Condición de corte	-FS	-HP	-LF	-FP	-MS	-MP
corte muy interrumpido	-	-	-	KCU25B	-	-
corte ligeramente interrumpido	KCU10B	KCU25B	KCU25B	KCU25B/ KCU10B	KCU25B	-
profundidad de corte variable, costra de fundición o forja	KCU10B	KCS10B/ KCU10B	KCS10B/ KCU10B	KCS10B/ KCU10B	KCS10B/ KCU10B	KCS10B
corte suave, superficie pretorneada	KCU10B/ K313	KCS10B/ KCU10B	KCS10B/ KCU10B	KCS10B/ KCU10B	KCS10B/ KCU10B	KCS10B
corte suave, alta precisión / tolerancia ajustada	KCU10B	KCS10B/ KCU10B	KCS10B/ KCU10B	KCS10B/ KCU10B	KCS10B	KCS10B

NOTA: La opción en **negrita** es la primera opción cuando se muestran varias calidades.

PASO 3 - SELECCIONE LA VELOCIDAD DE CORTE

Aleaciones a base de hierro resistentes al calor; 160-260 HB; 25-48 HRC;
resistencia a la tensión de 500-1200 Mpa

Grupo de materiales	Calidad	m/mín		SFM	
		MÍN.	MÁX.	MÍN.	MÁX.
S1	K313	10	75	30	250
	KCU10B	15	155	50	510
	KCS10B	15	140	50	460
	KCU25B	10	65	33	213
	KCM15B/KCM15	30	120	100	390
	KCM25B/KCM25/KCM35B/KCM35	10	60	30	200
	KYS25/KY4300	80	195	260	640
	KYS30	80	195	260	640
KB1630	80	210	260	690	

Aleaciones a base de cobalto resistentes al calor; 250-450 HB; 25-48 HRC;
resistencia a la tensión de 1000-1450

Grupo de materiales	Calidad	m/mín		SFM	
		MÍN.	MÁX.	MÍN.	MÁX.
S2	K313	10	75	30	250
	KCU10B	15	155	50	510
	KCS10B	15	140	50	460
	KCU25B	10	85	33	279
	KCM15B/KCM15	30	120	100	390
	KCM25B/KCM25/KCM35B/KCM35	10	60	30	200
	KYHK15B	70	120	230	390
	KYS25/KY4300	85	215	280	710
	KYS30	85	215	280	710
	KB1630	85	225	280	740

Aleaciones resistentes al calor a base de níquel 160-450HB; <48 HRC;
resistencia a la tensión de 600-1700

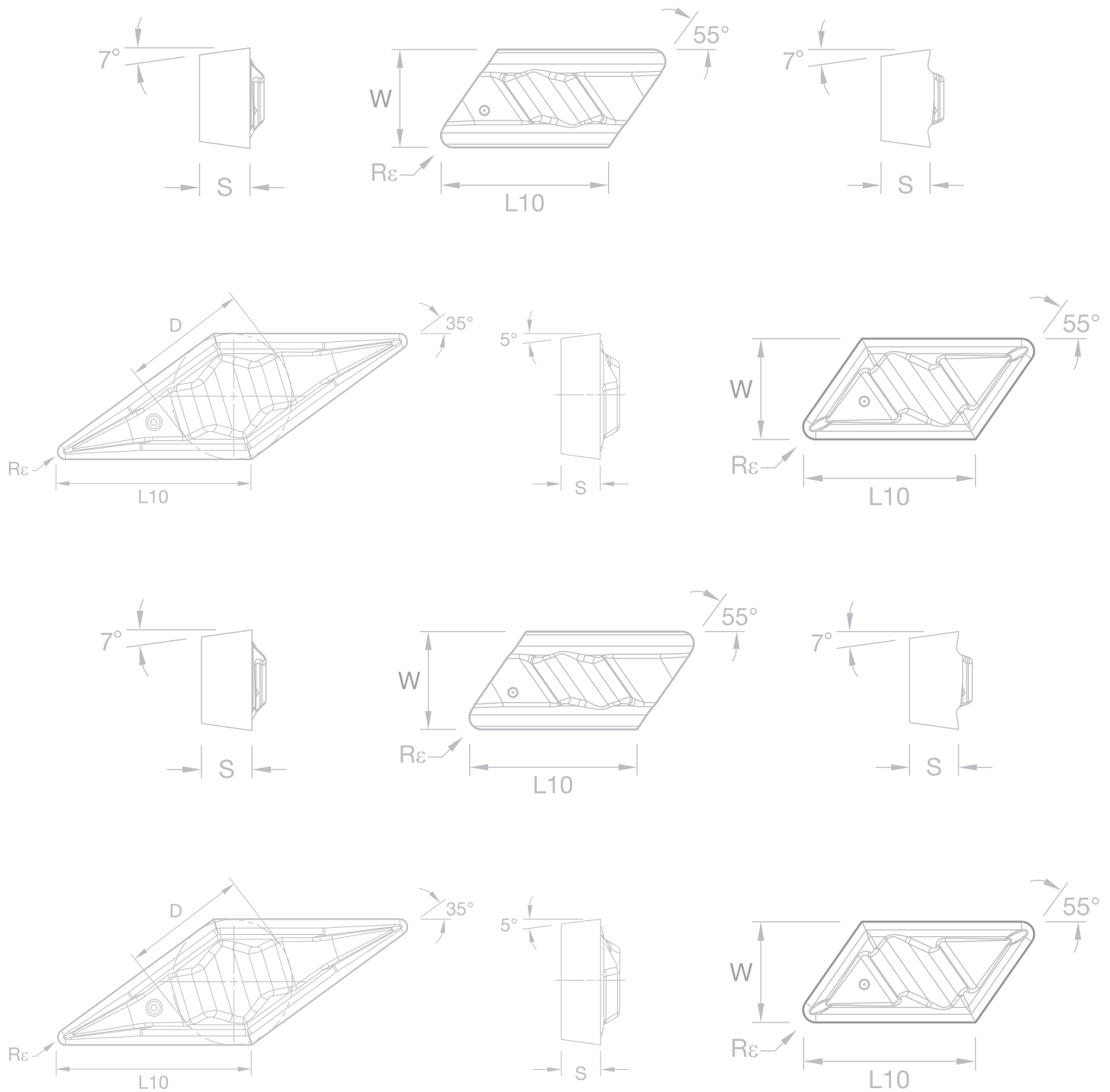
Grupo de materiales	Calidad	m/mín		SFM	
		MÍN.	MÁX.	MÍN.	MÁX.
S3	K313	10	75	30	250
	KCU10B	15	155	50	510
	KCS10B	15	140	50	460
	KCU25B	15	85	49	279
	KCM15B/KCM15	30	120	100	390
	KCM25B/KCM25/KCM35B/KCM35	10	60	30	200
	KYS25/KY4300	100	250	330	820
	KYS30	100	250	330	820
KB1630	100	270	330	890	

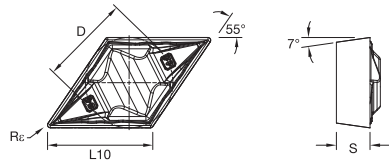
Titanio y aleaciones de titanio 300-400 HB; 33-48 HRC; resistencia a la tensión 900-1600

Grupo de materiales	Calidad	m/mín		SFM	
		MÍN.	MÁX.	MÍN.	MÁX.
S4	K313	10	75	30	250
	KCU10B	15	185	50	610
	KCS10B	15	170	50	560
	KCU25B	10	115	33	377
	KD1405	150	350	490	1150

TOP NOTCH™

PLAQUITAS DE PERFILADO





P	●
M	●
K	●
N	○
S	●
H	●

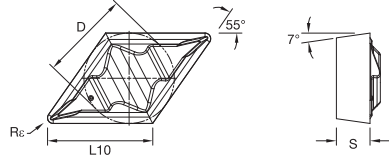
● Principal
○ Secundario

Top Notch

Plaquitas de perfilado • DCGR-FP

ISO	ANSI	D		L10		S		Re		
Número de catálogo	Número de catálogo	mm	in	mm	in	mm	in	mm	in	
DCGR150404FP	DPGR431FP	12.70	0.500	15.50	0.610	4.76	0.188	0.4	0.016	●
DCGR150408FP	DPGR432FP	12.70	0.500	15.50	0.610	4.76	0.188	0.8	0.031	●

KCU25B



P	●
M	●
K	●
N	○
S	●
H	●

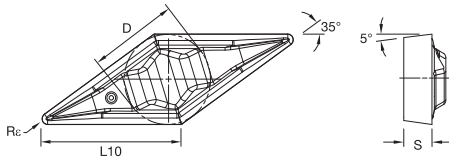
● Principal
○ Secundario

Top Notch

Plaquitas de perfilado • DCGR

ISO	ANSI	D		L10		S		Re		
Número de catálogo	Número de catálogo	mm	in	mm	in	mm	in	mm	in	
DCGR150412	DPGR433	12.70	0.500	15.50	0.610	4.76	0.188	1.2	0.047	●

KCU25B



P	●
M	●
K	●
N	○
S	●
H	●

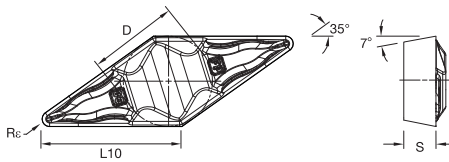
● Principal
○ Secundario

Top Notch

Plaquitas de perfilado • VBMR-FP

ISO	ANSI	D		L10		S		Re		
Número de catálogo	Número de catálogo	mm	in	mm	in	mm	in	mm	in	
VBMR110304FP	VBMR221FP	6.35	0.250	11.07	0.436	3.18	0.125	0.4	0.016	●

KCU25B



P	●
M	●
K	●
N	○
S	●
H	●

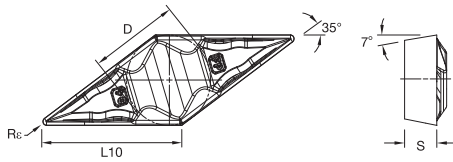
● Principal
○ Secundario

Top Notch

Plaquitas de perfilado • VCGR-FP

ISO	ANSI	D		L10		S		Re		
Número de catálogo	Número de catálogo	mm	in	mm	in	mm	in	mm	in	
VCGR160402FP	VCGR3305FP	9.52	0.375	16.61	0.654	4.76	0.188	0.2	0.008	●
VCGR160404FP	VCGR331FP	9.52	0.375	16.61	0.654	4.76	0.188	0.4	0.016	●
VCGR160408FP	VCGR332FP	9.52	0.375	16.61	0.654	4.76	0.188	0.8	0.031	●
VCGR160412FP	VCGR333FP	9.52	0.375	16.61	0.654	4.76	0.188	1.2	0.047	●

KCU25B

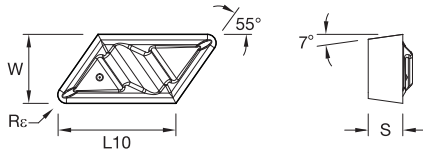


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|---|---|
| P | ● |
| M | ● |
| K | ● |
| N | ○ |
| S | ● |
| H | ● |
- Principal
○ Secundario

Top Notch

Plaquitas de perfilado • VCMR-FP

ISO Número de catálogo	ANSI Número de catálogo	D		L10		S		Rε		
		mm	in	mm	in	mm	in	mm	in	
VCMR160404FP	VCMR331FP	9.52	0.375	16.61	0.654	4.76	0.188	0.4	0.016	●
VCMR160408FP	VCMR332FP	9.52	0.375	16.61	0.654	4.76	0.188	0.8	0.031	●

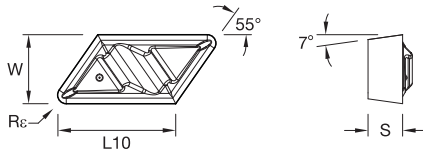


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| P | ● |
| M | ● |
| K | ● |
| N | ○ |
| S | ● |
| H | ● |
- Principal
○ Secundario

Top Notch

Plaquitas de perfilado • KCGR • A derechas

ISO Número de catálogo	ANSI Número de catálogo	L10		W		S		Rε		
		mm	in	mm	in	mm	in	mm	in	
KCGR110304R08	NPGR51R	11.60	0.457	6.35	0.250	3.18	0.125	0.4	0.016	●
KCGR110308R08	NPGR52R	11.60	0.457	6.35	0.250	3.18	0.125	0.8	0.031	●

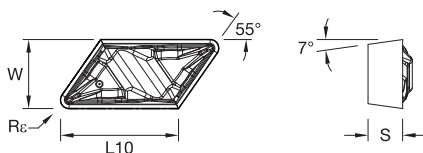


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|---|---|
| P | ● |
| M | ● |
| K | ● |
| N | ○ |
| S | ● |
| H | ● |
- Principal
○ Secundario

Top Notch

Plaquitas de perfilado • KCGR • A izquierdas

ISO Número de catálogo	ANSI Número de catálogo	L10		W		S		Rε		
		mm	in	mm	in	mm	in	mm	in	
KCGR110308L08	NPGR52L	11.60	0.457	6.35	0.250	3.18	0.125	0.8	0.031	●

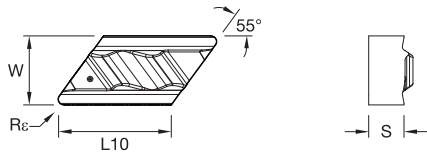


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|---|---|
| P | ● |
| M | ● |
| K | ● |
| N | ○ |
| S | ● |
| H | ● |
- Principal
○ Secundario

Top Notch

Plaquitas de perfilado • KCGR-FP • A izquierdas

ISO Número de catálogo	ANSI Número de catálogo	L10		W		S		Rε		
		mm	in	mm	in	mm	in	mm	in	
KCGR110304L08FP	NPGR51LFP	11.60	0.457	6.33	0.249	3.18	0.125	0.4	0.016	●



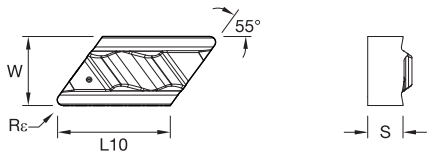
P	●
M	●
K	●
N	○
S	●
H	●

● Principal
○ Secundario

Top Notch

Plaquitas de perfilado • KNGX • A derechas

ISO		ANSI		L10		W		S		Re	
Número de catálogo	Número de catálogo	mm	in	mm	in	mm	in	mm	in	mm	in
KNGX150404R20	NPR131F	15.44	0.608	9.47	0.373	4.76	0.188	0.4	0.016	●	
KNGX150408R20	NPR132F	15.44	0.608	9.47	0.373	4.76	0.188	0.8	0.031	●	
KNGX220404R25	NPR331N	22.73	0.895	9.53	0.375	4.76	0.188	0.4	0.016	●	



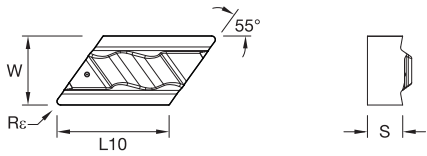
P	●
M	●
K	●
N	○
S	●
H	●

● Principal
○ Secundario

Top Notch

Plaquitas de perfilado • KNGX • A izquierdas

ISO		ANSI		L10		W		S		Re	
Número de catálogo	Número de catálogo	mm	in	mm	in	mm	in	mm	in	mm	in
KNGX150404L20	NPL131F	15.44	0.608	9.47	0.373	4.76	0.188	0.4	0.016	●	
KNGX150408L20	NPL132F	15.44	0.608	9.47	0.373	4.76	0.188	0.8	0.031	●	



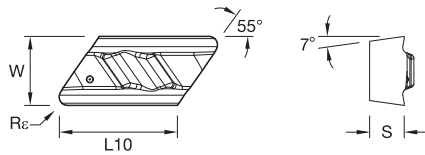
P	●
M	●
K	●
N	○
S	●
H	●

● Principal
○ Secundario

Top Notch

Plaquitas de perfilado • KNUX • A derechas

ISO		ANSI		L10		W		S		Re	
Número de catálogo	Número de catálogo	mm	in	mm	in	mm	in	mm	in	mm	in
KNUX160405R1	KNUX160405R1	17.51	0.689	9.52	0.375	4.76	0.188	0.5	0.020	●	



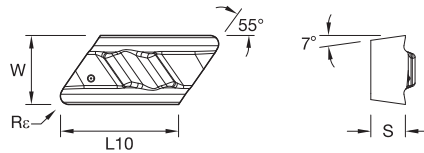
P	●
M	●
K	●
N	○
S	●
H	●

● Principal
○ Secundario

Top Notch

Plaquitas de perfilado • KCGX • A derechas

ISO Número de catálogo	ANSI Número de catálogo	L10		W		S		Rε		
		mm	in	mm	in	mm	in	mm	in	
KCGX110301R15	NPR505	11.60	0.457	6.33	0.249	3.18	0.125	0.1	0.005	●
KCGX110302R15	NPR508	11.60	0.457	6.33	0.249	3.18	0.125	0.2	0.008	●
KCGX110304R15	NPR51	11.60	0.457	6.33	0.249	3.18	0.125	0.4	0.016	●
KCGX110308R15	NPR52	-	-	6.33	0.249	3.18	0.125	0.8	0.031	●



P	●
M	●
K	●
N	○
S	●
H	●

● Principal
○ Secundario

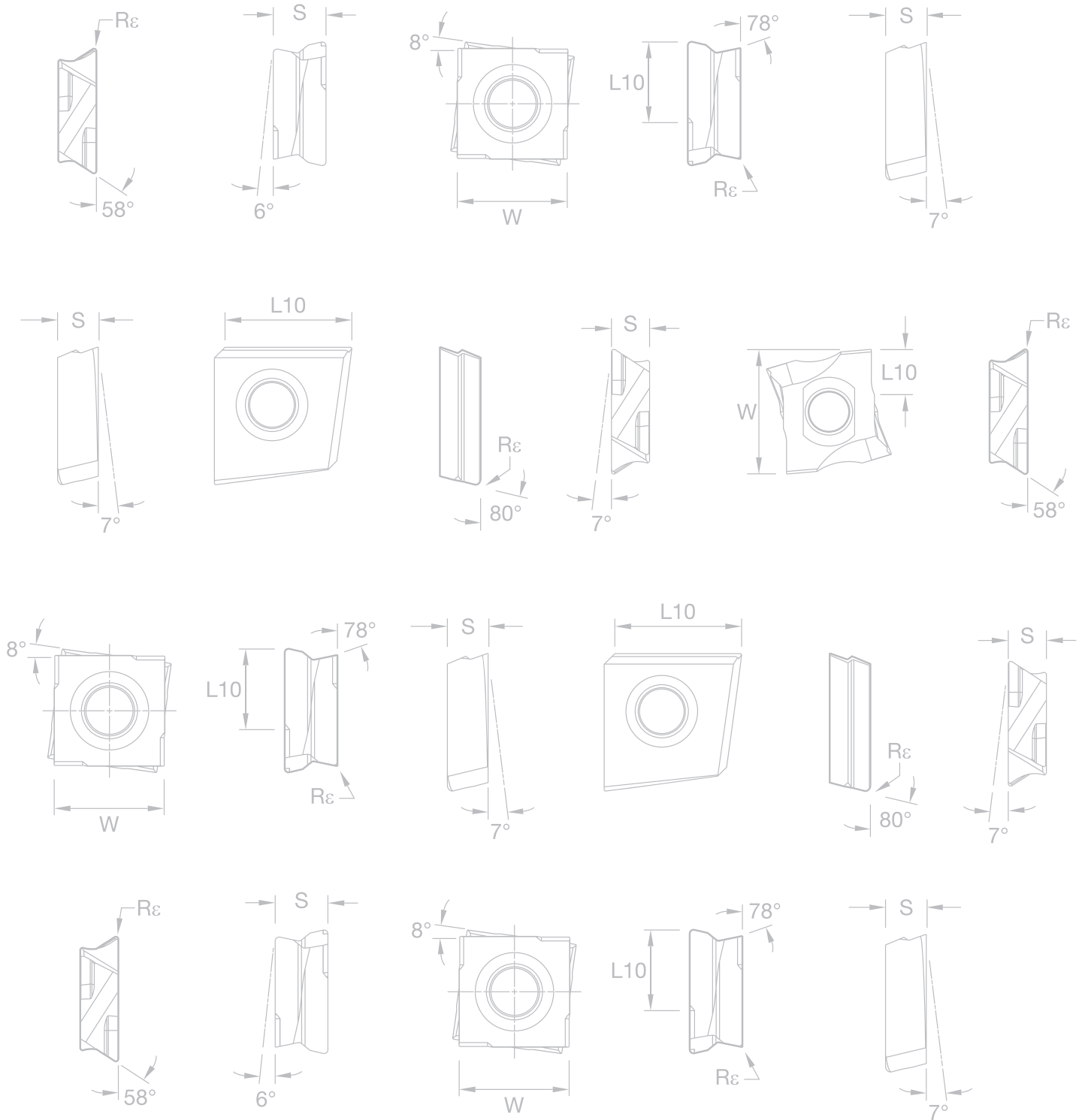
Top Notch

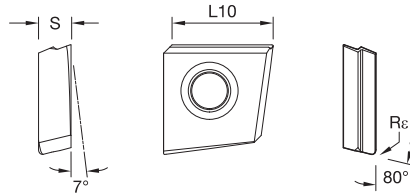
Plaquitas de perfilado • KCGX • A izquierdas

ISO Número de catálogo	ANSI Número de catálogo	L10		W		S		Rε		
		mm	in	mm	in	mm	in	mm	in	
KCGX110301L15	NPL505	11.60	0.457	6.35	0.250	3.18	0.125	0.1	0.005	●
KCGX110302L15	NPL508	11.60	0.457	6.35	0.250	3.18	0.125	0.2	0.008	●
KCGX110304L15	NPL51	11.60	0.457	6.35	0.250	3.18	0.125	0.4	0.016	●
KCGX110308L15	NPL52	-	-	6.33	0.249	3.18	0.125	0.8	0.031	●

FIX-PERFECT™

PLAQUITAS MONTADAS TANGENCIALMENTE



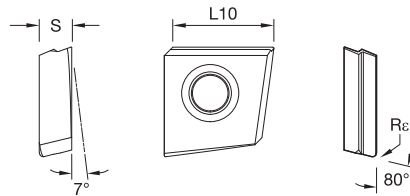


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| P | ● |
| M | ● |
| K | ● |
| N | ○ |
| S | ● |
| H | ● |
- Principal
○ Secundario

Fix-Perfect

Plaquitas negativas • C2FIX-MN • A derechas

ISO	L10		S		Rc	
Número de catálogo	mm	in	mm	in	mm	in
C2FIX150512RMN	14.50	0.571	5.00	0.197	1.2	0.048

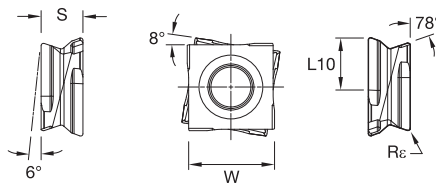


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|---|---|
| P | ● |
| M | ● |
| K | ● |
| N | ○ |
| S | ● |
| H | ● |
- Principal
○ Secundario

Fix-Perfect

Plaquitas negativas • C2FIX-MN • A izquierdas

ISO	L10		S		Rc	
Número de catálogo	mm	in	mm	in	mm	in
C2FIX150504LMN	14.70	0.578	5.00	0.197	0.4	0.016
C2FIX150508LMN	14.60	0.574	5.00	0.197	0.8	0.032

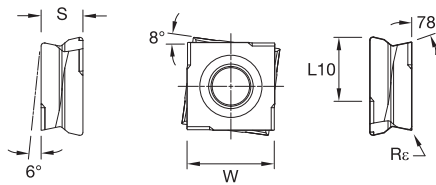


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| M | ● |
| K | ● |
| N | ○ |
| S | ● |
| H | ● |
- Principal
○ Secundario

Fix-Perfect

Plaquitas negativas • C8FIX-MP • A derechas

ISO	L10		S		Rc	
Número de catálogo	mm	in	mm	in	mm	in
C8FIX120503RMP	7.30	0.287	5.50	0.217	0.3	0.012
C8FIX150603RMP	9.30	0.366	6.60	0.260	0.3	0.012

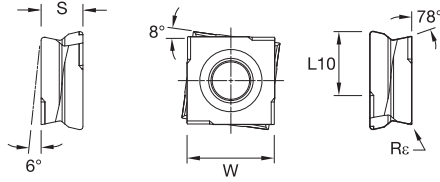


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|---|---|
| P | ● |
| M | ● |
| K | ● |
| N | ○ |
| S | ● |
| H | ● |
- Principal
○ Secundario

Fix-Perfect

Plaquitas negativas • C8FIX-RN • A derechas

ISO	L10		S		Rc	
Número de catálogo	mm	in	mm	in	mm	in
C8FIX150605RRN	10.00	0.394	6.60	0.260	0.5	0.020
C8FIX150608RRN	8.90	0.350	6.60	0.260	0.8	0.031



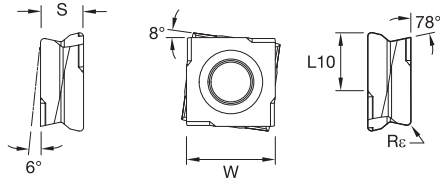
- Principal
- Secundario

P	■	●
M	■	●
K	■	●
N	■	○
S	■	●
H	■	●

Fix-Perfect

Plaquitas negativas • C8FIX-RN • A izquierdas

ISO	L10		S		Rε	
Número de catálogo	mm	in	mm	in	mm	in
C8FIX150605LRN	10.00	0.394	6.60	0.260	0.5	0.020



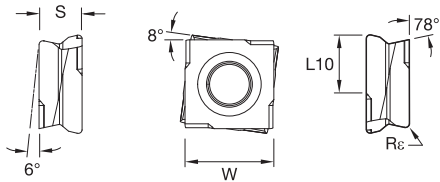
- Principal
- Secundario

P	■	●
M	■	●
K	■	●
N	■	○
S	■	●
H	■	●

Fix-Perfect

Plaquitas negativas • C8FIX-RP • A derechas

ISO	L10		S		Rε	
Número de catálogo	mm	in	mm	in	mm	in
C8FIX120505RRP	7.10	0.280	5.50	0.217	0.5	0.020



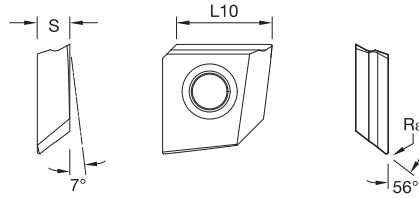
- Principal
- Secundario

P	■	●
M	■	●
K	■	●
N	■	○
S	■	●
H	■	●

Fix-Perfect

Plaquitas negativas • C8FIX-RP • A izquierdas

ISO	L10		S		Rε	
Número de catálogo	mm	in	mm	in	mm	in
C8FIX150608LRP	8.80	0.345	6.60	0.260	0.8	0.031

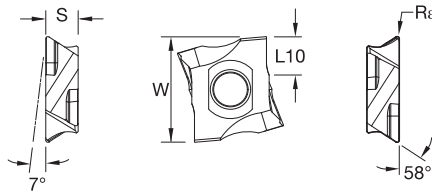


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| P | ● |
| M | ● |
| K | ● |
| N | ○ |
| S | ● |
| H | ● |
- Principal
○ Secundario

Fix-Perfect

Plaquitas negativas • D2FIX-HP • A derechas

ISO	L10		S		Rc		
	mm	in	mm	in	mm	in	
D2FIX110404RHP	10.00	0.394	4.00	0.157	0.4	0.016	●



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| P | ● |
| M | ● |
| K | ● |
| N | ○ |
| S | ● |
| H | ● |
- Principal
○ Secundario

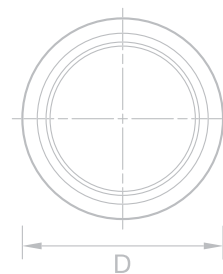
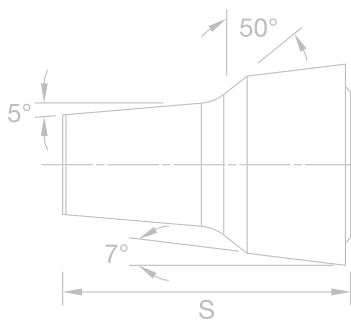
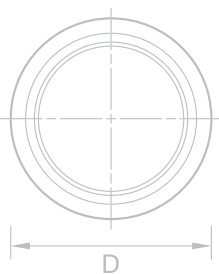
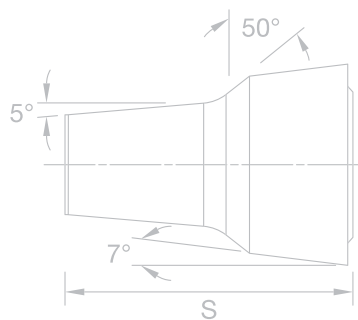
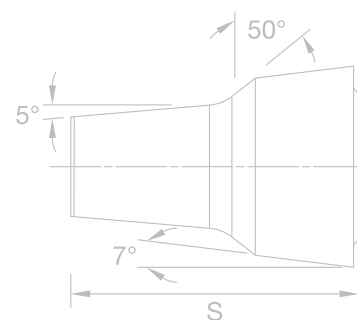
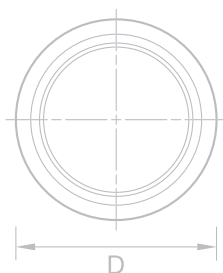
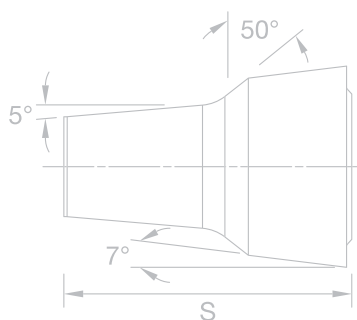
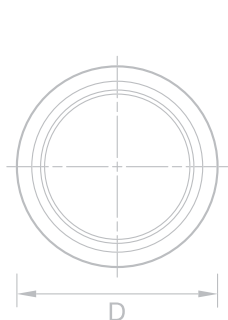
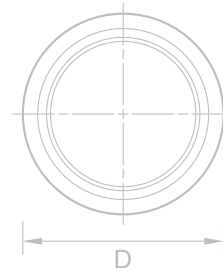
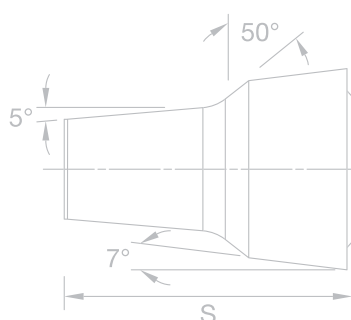
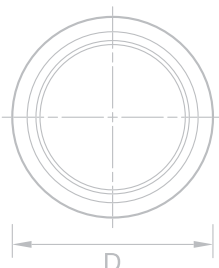
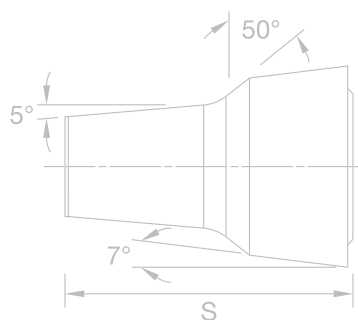
Fix-Perfect

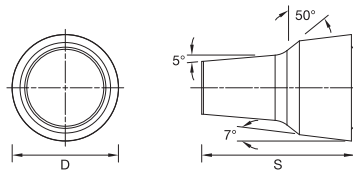
Plaquitas negativas • D4FIX-MN • A derechas

ISO	L10		S		Rc		
	mm	in	mm	in	mm	in	
D4FIX140604RMN	7.10	0.280	5.90	0.233	0.4	0.016	●
D4FIX140608RMN	6.70	0.264	5.90	0.233	0.8	0.031	●

K-LOCK™

PLAQUITAS POSITIVAS





P	●
M	●
K	●
N	○
S	●
H	●

● Principal
○ Secundario

K-Lock

Plaquitas positivas • RCGK-FS

ISO	D		S	
Número de catálogo	mm	in	mm	in
RCGK090700FS	9.53	0.375	13.23	0.521

KCI25B



PASO 1 - SELECCIONE LA GEOMETRÍA DE LA PLAQUITA

Perfilado Top Notch

Tamaño 15 DCGR150408FP

	avance mín.	Profundidad de corte mín.	avance máx.	Profundidad de corte máx.
- FP	0.063	0.1	0.25	1.2
- R/L 08	0.080	0.2	0.25	1.6
- R/L 15	0.140	0.8	0.40	2.8
- R/L 20	0.200	1.0	0.50	3.0
- R/L 25	0.300	1.1	0.60	3.6

Fix Perfect

Tamaño 15 C8FIX15

	avance mín.	Profundidad de corte mín.	avance máx.	Profundidad de corte máx.
D2FIX - HP	0.160	0.515	0.70	5.15
D4FIX - MN	0.160	0.515	0.63	5.15
C2FIX - MN	0.160	0.515	0.63	5.15
C8FIX - MP	0.160	0.515	0.63	5.15
C8FIX - RN	0.280	1.150	0.85	10.0
C8FIX - RP	0.280	0.630	0.85	8.2

K-Lock

Tamaño 09 RCGK09

	avance mín.	Profundidad de corte mín.	avance máx.	Profundidad de corte máx.
RCMK	0.10	0.40	0.80	3.81
RCGK - FS	0.07	0.50	0.30	3.81
RCGK - HP	0.20	0.60	0.60	3.45
RCMK - MP	0.10	0.40	0.80	3.81

PASO 2 - SELECCIONE LA CALIDAD

Perfilado Top Notch					
Condición de corte	- FP	- R/L 08	- R/L 15	- R/L 20	- R/L 25
corte muy interrumpido	KCU25B KCU25 KCP25C KCP25 KCM25	KCU25B KCU25 KCP25C	KCU25B KCU25 KCP25C KCP25B	KCU25B KCU25 KCP25C KCP25B	KCP25B KCU25
corte ligeramente interrumpido	KCU25B KCU25 KCP25C KCP25 KCM25	KCU25B KCU25 KCP25C	KCU25B KCU25 KCP25C KCP25B	KCU25B KCU25 KCP25C KCP25B	KCP25B KCU25 KCU10B KCU10
profundidad de corte variable, costra de fundición o forja	KCU10B KCS10B KCU10 KCP10 KCK05	KCU10B KCU10 KCM15B KT315	KCU10B KCU10 KC5410 KT315	KCU10B KCU10 KCU25	KCU10B KCU10 KCU25
corte suave, superficie pretorneada	KCU10B KCS10B KCU10 KCP10 KCK05	KCU10B KCU10 KCM15B K68 KT315	KCU10B KCU10 KC5410 K68 K313 KT315	KCU10B KCU10 K68	KCU10B KCU10 K68
corte suave, alta precisión / tolerancia ajustada	KCU10B KCS10B KCU10 KCP10 KCK05	KCU10B KCU10 KCM15B K68 KT315	KCU10B KCU10 KC5410 K68 K313 KT315	KCU10B KCU10 K68	KCU10B KCU10 K68

Fix Perfect						
Condición de corte	D2FIX - HP	D4FIX - MN	C2FIX - MN	C8FIX - MP	C8FIX - RN	C8FIX - RP
corte muy interrumpido	*	KCP40 KCP25 KCU25B KCU25	KCP40 KCP25 KCU25B KCU25	KCP40 KCP25 KCU25B KCU25	KCP40 KCP25 KCU25B KCU25	KCP40 KCP25 KCU25B KCU25
corte ligeramente interrumpido	KCU25B KCU25 KCP25	KCU25B KCU25 KCP25	KCU25B KCU25 KCP25	KCU25B KCU25 KCP25	KCU25B KCU25 KCP25	KCU25B KCU25 KCP25
profundidad de corte variable, costra de fundición o forja	KCU25B KCU25 KCP25	KCU25B KCU25 KCP25	KCU25B KCU25 KCP25	KCU25B KCU25 KCP25	KCU25B KCU25 KCP25	KCU25B KCU25 KCP25
corte suave, superficie pretorneada	KCU10B KCU10 KCU25 KCU25B	KCU10B KCU10 KCP10 KCU25B	KCU10B KCU10 KCP10 KCU25B	KCU10B KCU10 KCP10 KCU25B	KCU10B KCU10 KCP10 KCU25B	KCU10B KCU10 KCP10 KCU25B
corte suave, alta precisión / tolerancia ajustada	KCU10B KCU10	KCU10B KCU10 KCP10	KCU10B KCU10 KCP10	KCU10B KCU10 KCP10	KCU10B KCU10 KCP10	KCU10B KCU10 KCP10



K - Lock				
Condición de corte	RCMK	RCGK - FS	RCGK - HP	RCMK - MP
corte muy interrumpido	*	*	*	*
corte ligeramente interrumpido	KCU10B KCU10 KCP25B K313	KCS10B KCU25B KCU10B KCU10	KCU10B KCU10 KC5410 K313	KCS10
profundidad de corte variable, costra de fundición o forja	KCU10B KCU10 KCP25B K313	KCS10B KCU25B KCU10B KCU10	KCU10B KCU10 KC5410 K313	KCS10
corte suave, superficie pretorneada	KCU10B KCP25B KCU10 K313	KCS10B KCU10B KCU10	KCU10B KCU10 KC5410 K313	KCS10
corte suave, alta precisión / tolerancia ajustada	KCU10B KCU10 K313	KCS10B KCU10B KCU10	KCU10B KCU10 KC5410 K313	KCS10

NOTA: La opción en **negrita** es la primera opción cuando se muestran varias calidades.

PASO 3 - SELECCION LA VELOCIDAD DE CORTE

Acero bajo en carbono (<0,3 % C) y de mecanizado libre		m/min		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
P0/P1	KTP10/KT315	180	475	590	1560
	KCU10B	165	395	540	1300
	KCU25B	135	360	443	1181
	KCP05B/KCP05/KCPK05	180	500	590	1640
	KCP10B/KCP10	180	440	590	1440
	KCP25C	150	430	490	1410
	KCP30B/KCP30/KCP40/KCP40B	115	235	380	770

Aceros al carbono medios y altos (>0,3 % C)		m/min		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
P2	KTP10/KT315	190	395	620	1300
	KCU10B	155	250	510	820
	KCU25B	125	220	410	722
	KCP05B/KCP05/KCPK05	180	400	590	1310
	KCP10B/KCP10	180	350	590	1150
	KCP25C	150	385	490	1260
	KCP30B/KCP30/KCP40/KCP40B	115	240	380	790

Aceros aleados y aceros para herramientas; <330 HB; <35 HRC		m/min		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
P3	KTP10/KT315	180	275	590	900
	KCU10B	150	250	490	820
	KCU25B	120	220	394	722
	KCP05B/KCP05/KCPK05	180	275	590	900
	KCP10B/KCP10	160	245	520	800
	KCP25C	150	275	490	900
	KCP30B/KCP30/KCP40/KCP40B	115	160	380	520

Aceros aleados y aceros para herramientas; 350–450 HB; 35–48 HRC		m/min		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
P4	KTP10/KT315	90	215	300	710
	KCU10B	85	195	280	640
	KCU25B	35	95	115	312
	KCP05B/KCP05/KCPK05	90	215	300	710
	KCP10B/KCP10	90	195	300	640
	KCP25C	75	215	250	710
	KCP30B/KCP30/KCP40/KCP40B	50	135	160	440

Aceros inoxidables ferríticos, martensíticos y PH; <330 HB; <35 HRC		m/min		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
P5	KTP10/KT315	150	310	490	1020
	KCU10B	130	290	430	950
	KCU25B	60	145	197	476
	KCP05B/KCP05/KCPK05	150	270	490	890
	KCP10B/KCP10	150	300	490	980
	KCP25C	130	325	430	1070
	KCP30B/KCP30/KCP40/KCP40B	110	150	360	490

Aceros inoxidables ferríticos, martensíticos y PH; 350–450 HB; 35–48 HRC		m/min		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
P6	KTP10/KT315	140	295	460	970
	KCU10B	115	250	380	820
	KCU25B	50	120	164	394
	KCP05B/KCP05/KCPK05	140	300	460	980
	KCP10B/KCP10	120	270	390	890
	KCP25C	115	265	380	870
	KCP30B/KCP30/KCP40/KCP40B	90	140	300	460

Acero inoxidable austenítico		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
M1	KTP10/KT315	145	300	480	980
	KCU10B	150	275	490	900
	KCU25B	100	265	328	869
	KCS10B	135	250	440	820
	KCM15B/KCM15	100	240	330	790
	KCM25B/KCM25	90	180	300	590
	KCM35B/KCM35	80	135	260	440

Aceros inoxidables fundidos e inoxidables austeníticos de alta resistencia		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
M2	KTP10/KT315	140	290	460	950
	KCU10B	125	275	410	900
	KCU25B	90	250	295	820
	KCS10B	115	250	380	820
	KCM15B/KCM15	110	250	360	820
	KCM25B/KCM25	90	225	300	740
	KCM35B/KCM35	80	130	260	430

Aceros inoxidables Duplex (mezcla de ferrítico y austenítico)		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
M3	KTP10/KT315	140	290	460	950
	KCU10B	140	250	460	820
	KCU25B	90	220	295	722
	KCS10B	125	225	410	740
	KCM15B/KCM15	110	250	360	820
	KCM25B/KCM25	90	180	300	590
	KCM35B/KCM35	80	135	260	440

Fundición gris		m/min		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
K1	KTP10/KT315	150	440	490	1440
	KCU10B	150	440	490	1440
	KCU25B	135	400	443	1312
	KCK05B/KCK05	240	615	790	2020
	KCK15B/KCK15	200	550	660	1800
	KCK20B/KCK20	200	550	660	1800
	KYHK15B	450	950	1480	3120
	KY3500/KYK25/KYK10	350	1040	1150	3410
	KBK45/KB1340	600	1200	1970	3940
KB5630/KB1345	550	1200	1800	3940	

Fundiciones dúctiles de resistencia media y baja (hierros nodulares) y hierros de grafito compactado (CGI); Resistencia a la tensión <600 MPa		m/min		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
K2	KTP10/KT315	150	440	490	1440
	KCU10B	125	410	410	1350
	KCU25B	115	375	377	1230
	KCK05B/KCK05	240	500	790	1640
	KCK15B/KCK15	150	450	490	1480
	KCK20B/KCK20/KCPK05	150	420	490	1380
	KYHK15B	360	760	1180	2490

Fundición maleable de hierro dúctil y templado austenítico (ADI) de alta resistencia; >600 MPa de resistencia a la tensión		m/min		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
K3	KTP10/KT315	150	440	490	1440
	KCU10B	110	375	360	1230
	KCU25B	115	375	377	1230
	KCK05B/KCK05	155	445	510	1460
	KCK15B/KCK15	140	380	460	1250
	KCK20B/KCK20/KCPK05	140	350	460	1150

Aleaciones de aluminio forjado		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
N1	KC5410	200	1200	660	3940
	K313	198	617	650	2020
	KCU10B	200	900	660	2950
	KCU25B	200	900	660	2950

Aleaciones de aluminio bajos en silicio y aleaciones de magnesio; 12,2 % Si		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
N2	KC5410	125	1000	410	3280
	K313	100	600	330	1970
	KCU10B	125	900	410	2950
	KCU25B	125	900	410	2950
	KD1400	250	2625	820	8610

Aluminio con alto contenido de silicona y aleaciones de magnesio; >12,2 % Si		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
N3	KD1405	250	1125	820	3690
	KD1425	250	1000	820	3280

Base cobre, bronce, cinc en un rango de índice de maquinabilidad de 70-100		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
N4	KC5410	125	750	410	2460
	K68	125	360	410	1180
	K313	107	366	350	1200
	KCU10B	125	700	410	2300
	KD1400/KD1405	250	1000	820	3280
	KD1425	125	750	410	2460

Nylon, plásticos, gomas, fenólicos, resinas y fibra de vidrio		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
N5	KC5410	125	400	410	1310
	KCU10B	100	350	330	1150
	KD1400/KD1405	125	750	410	2460
	KD1425	125	500	410	1640

Aleaciones a base de hierro resistentes al calor; 160-260 HB; 25-48 HRC;
resistencia a la tensión de 500-1200 Mpa

Grupo de materiales	Calidad	m/mín		SFM	
		MÍN.	MÁX.	MÍN.	MÁX.
S1	K313	10	75	30	250
	KCU10B	15	155	50	510
	KCS10B	15	140	50	460
	KCU25B	10	65	33	213
	KCM15B/KCM15	30	120	100	390
	KCM25B/KCM25/KCM35B/KCM35	10	60	30	200
	KYS25/KY4300	80	195	260	640
	KYS30	80	195	260	640
	KB1630	80	210	260	690

Aleaciones a base de cobalto resistentes al calor; 250-450 HB; 25-48 HRC;
resistencia a la tensión de 1000-1450

Grupo de materiales	Calidad	m/mín		SFM	
		MÍN.	MÁX.	MÍN.	MÁX.
S2	K313	10	75	30	250
	KCU10B	15	155	50	510
	KCS10B	15	140	50	460
	KCU25B	10	85	33	279
	KCM15B/KCM15	30	120	100	390
	KCM25B/KCM25/KCM35B/KCM35	10	60	30	200
	KYHK15B	70	120	230	390
	KYS25/KY4300	85	215	280	710
	KYS30	85	215	280	710
	KB1630	85	225	280	740

Aleaciones resistentes al calor a base de níquel 160-450HB; <48 HRC;
resistencia a la tensión de 600-1700

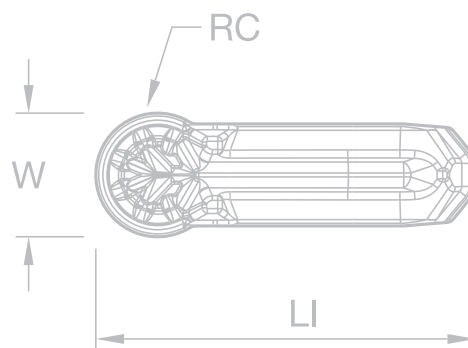
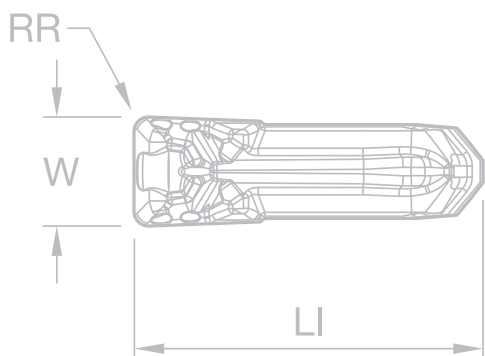
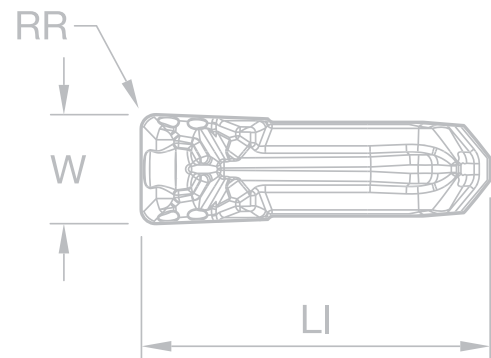
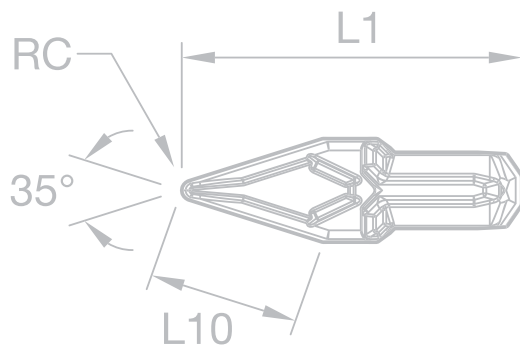
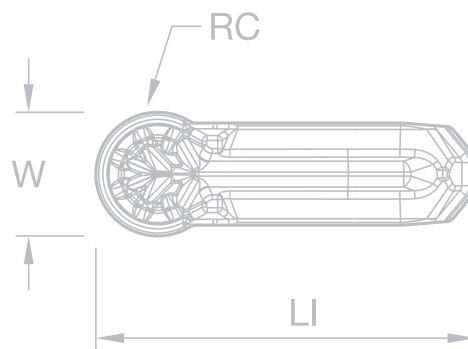
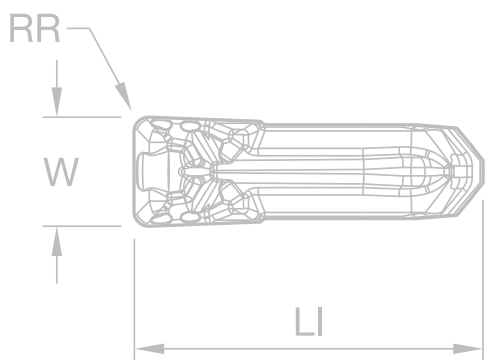
Grupo de materiales	Calidad	m/mín		SFM	
		MÍN.	MÁX.	MÍN.	MÁX.
S3	K313	10	75	30	250
	KCU10B	15	155	50	510
	KCS10B	15	140	50	460
	KCU25B	15	85	49	279
	KCM15B/KCM15	30	120	100	390
	KCM25B/KCM25/KCM35B/KCM35	10	60	30	200
	KYS25/KY4300	100	250	330	820
	KYS30	100	250	330	820
	KB1630	100	270	330	890

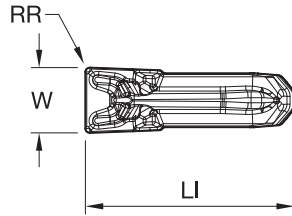
Titanio y aleaciones de titanio 300-400 HB; 33-48 HRC; resistencia a la tensión 900-1600

Grupo de materiales	Calidad	m/mín		SFM	
		MÍN.	MÁX.	MÍN.	MÁX.
S4	K313	10	75	30	250
	KCU10B	15	185	50	610
	KCS10B	15	170	50	560
	KCU25B	10	115	33	377
	KD1405	150	350	490	1150

BEYOND EVOLUTION

PLAQUITAS DE TORNEADO Y RANURADO





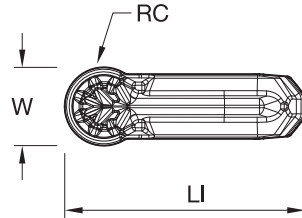
P	●
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● Principal
○ Secundario

Beyond Evolution

Plaquitas de ranurado y torneado • GUN • Rectificado de precisión

Número de catálogo	Tamaño de asiento	W		W Tol +/-		RR		LI		
		mm	in	mm	in	mm	in	mm	in	
EG0212M02U02GUN	2	2.125	0.084	0.050	0.002	0.20	0.008	8.97	0.353	●
EG0251M02U02GUN	2	2.510	0.099	0.050	0.002	0.20	0.008	8.97	0.353	●
EG0312M03U02GUN	3	3.125	0.123	0.075	0.003	0.20	0.008	9.60	0.378	●
EG0312M03U04GUN	3	3.125	0.123	0.075	0.003	0.40	0.016	9.60	0.378	●
EG0412M04U04GUN	4	4.125	0.162	0.075	0.003	0.40	0.016	10.19	0.401	●
EG0412M04U08GUN	4	4.125	0.162	0.075	0.003	0.80	0.031	10.19	0.401	●
EG0512M05U04GUN	5	5.125	0.202	0.075	0.003	0.40	0.016	12.20	0.481	●
EG0512M05U08GUN	5	5.125	0.202	0.075	0.003	0.80	0.031	12.20	0.481	●
EG0612M06U04GUN	6	6.125	0.241	0.075	0.003	0.40	0.016	14.60	0.575	●
EG0612M06U08GUN	6	6.125	0.241	0.075	0.003	0.80	0.031	14.60	0.574	●
EG0812M08U08GUN	8	8.125	0.320	0.075	0.003	0.80	0.031	17.50	0.687	●
EG0812M08U12GUN	8	8.125	0.320	0.075	0.003	1.20	0.047	17.50	0.687	●
EG1012M10U12GUN	10	10.125	0.399	0.075	0.003	1.20	0.047	20.80	0.817	●



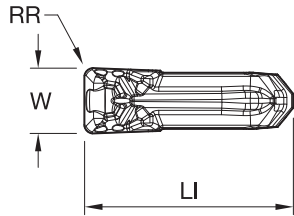
P	●
M	●
K	●
N	○
S	●
H	●

● Principal
○ Secundario

Beyond Evolution

Plaquitas de ranurado y torneado • GUN • Radio completo • Rectificado de precisión

Número de catálogo	Tamaño de asiento	W		W Tol +/-		RC		LI		
		mm	in	mm	in	mm	in	mm	in	
ER0212M02U00GUN	2	2.120	0.083	0.050	0.002	1.06	0.042	8.97	0.353	●
ER0312M03U00GUN	3	3.125	0.123	0.075	0.003	1.56	0.062	9.60	0.378	●
ER0412M04U00GUN	4	4.125	0.162	0.075	0.003	2.06	0.081	10.20	0.401	●
ER0512M05U00GUN	5	5.125	0.202	0.075	0.003	2.56	0.101	12.20	0.482	●
ER0612M06U00GUN	6	6.125	0.241	0.075	0.003	3.06	0.121	14.60	0.575	●
ER0812M08U00GUN	8	8.125	0.320	0.075	0.003	4.06	0.160	17.47	0.688	●



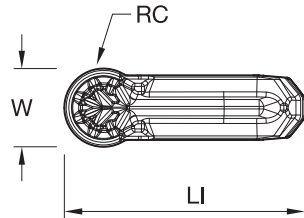
P	●
M	●
K	●
N	○
S	●
H	●

- Principal
- Secundario

Beyond Evolution

Plaquetas de ranurado y torneado • GUP • Rectificado de precisión

Número de catálogo	Tamaño de asiento	W		W Tol +/-		RR		LI		
		mm	in	mm	in	mm	in	mm	in	
EG0200M02P02GUP	2	2.00	0.079	0.025	0.001	0.20	0.008	8.92	0.351	●
EG0300M03P02GUP	3	3.00	0.118	0.025	0.001	0.20	0.008	9.55	0.376	●
EG0300M03P04GUP	3	3.00	0.118	0.025	0.001	0.40	0.016	9.55	0.376	●
EG0400M04P04GUP	4	4.00	0.158	0.025	0.001	0.40	0.016	10.15	0.399	●
EG0400M04P08GUP	4	4.00	0.158	0.025	0.001	0.80	0.032	10.15	0.399	●
EG0500M05P04GUP	5	5.00	0.197	0.025	0.001	0.40	0.016	12.18	0.480	●
EG0500M05P08GUP	5	5.00	0.197	0.025	0.001	0.80	0.032	12.20	0.480	●
EG0600M06P04GUP	6	6.00	0.236	0.025	0.001	0.40	0.016	14.53	0.057	●
EG0600M06P08GUP	6	6.00	0.236	0.025	0.001	0.80	0.032	14.54	0.572	●
EG0700M06P08GUP	6	7.00	0.276	0.025	0.001	0.80	0.031	14.50	0.572	●
EG0800M08P08GUP	8	8.00	0.315	0.025	0.001	0.80	0.031	17.40	0.685	●
EG0800M08P12GUP	8	8.00	0.315	0.025	0.001	1.20	0.047	17.40	0.685	●
EG1000M10P12GUP	10	10.00	0.394	0.025	0.001	1.20	0.047	20.70	0.815	●



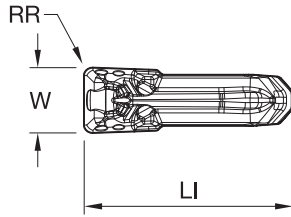
P	●
M	●
K	●
N	○
S	●
H	●

- Principal
- Secundario

Beyond Evolution

Plaquetas de ranurado y torneado • GUP • Radio completo • Rectificado de precisión

Número de catálogo	Tamaño de asiento	W		W Tol +/-		RC		LI		
		mm	in	mm	in	mm	in	mm	in	
ER0200M02P00GUP	2	2.00	0.079	0.025	0.001	1.00	0.039	8.91	0.351	●
ER0300M03P00GUP	3	3.00	0.118	0.025	0.001	1.50	0.059	9.50	0.376	●
ER0400M04P00GUP	4	4.00	0.157	0.025	0.001	2.00	0.079	10.10	0.399	●
ER0500M05P00GUP	5	5.00	0.197	0.025	0.001	2.50	0.098	12.20	0.480	●
ER0600M06P00GUP	6	6.00	0.236	0.025	0.001	3.00	0.118	14.50	0.572	●
ER0800M08P00GUP	8	8.00	0.315	0.025	0.001	4.00	0.157	17.40	0.685	●



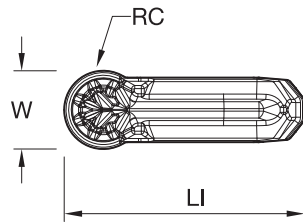
P	●
M	●
K	●
N	○
S	●
H	●

● Principal
○ Secundario

Beyond Evolution

Plaquitas de ranurado y torneado • GUP • Rectificado de precisión

Número de catálogo	Tamaño de asiento	W		W Tol +/-		RR		LI		
		mm	in	mm	in	mm	in	mm	in	
EG0212M02U02GUP	2	2.125	0.084	0.050	0.002	0.20	0.008	8.97	0.353	●
EG0251M02U02GUP	2	2.511	0.099	0.050	0.002	0.20	0.008	8.97	0.353	●
EG0312M03U02GUP	3	3.125	0.123	0.075	0.003	0.20	0.008	9.60	0.378	●
EG0312M03U04GUP	3	3.125	0.123	0.075	0.003	0.40	0.016	9.60	0.378	●
EG0412M04U04GUP	4	4.125	0.162	0.075	0.003	0.40	0.016	10.19	0.401	●
EG0412M04U08GUP	4	4.125	0.162	0.075	0.003	0.80	0.031	10.19	0.401	●
EG0512M05U04GUP	5	5.125	0.202	0.075	0.003	0.40	0.016	12.25	0.482	●
EG0512M05U08GUP	5	5.125	0.202	0.075	0.003	0.80	0.031	12.25	0.482	●
EG0612M06U04GUP	6	6.125	0.241	0.075	0.003	0.40	0.016	14.60	0.575	●
EG0612M06U08GUP	6	6.125	0.241	0.075	0.003	0.80	0.031	14.60	0.574	●
EG0712M06U08GUP	6	7.125	0.281	0.075	0.003	0.80	0.032	14.60	0.574	●
EG0812M08U08GUP	8	8.125	0.320	0.075	0.003	0.80	0.031	17.47	0.688	●
EG0812M08U12GUP	8	8.125	0.320	0.075	0.003	1.18	0.046	17.45	0.687	●
EG1012M10U12GUP	10	10.125	0.399	0.075	0.003	1.20	0.047	20.80	0.817	●



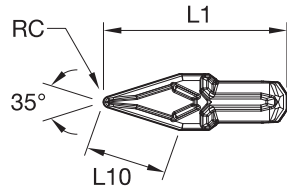
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● Principal
○ Secundario

Beyond Evolution

Plaquitas de ranurado y torneado • GUP • Radio completo • Rectificado de precisión

Número de catálogo	Tamaño de asiento	W		W Tol +/-		RC		LI		
		mm	in	mm	in	mm	in	mm	in	
ER0212M02U00GUP	2	2.120	0.084	0.050	0.002	1.06	0.042	8.97	0.353	●
ER0312M03U00GUP	3	3.125	0.123	0.075	0.003	1.56	0.062	9.60	0.378	●
ER0412M04U00GUP	4	4.125	0.162	0.075	0.003	2.06	0.081	10.20	0.401	●
ER0512M05U00GUP	5	5.125	0.202	0.075	0.003	2.56	0.101	12.20	0.482	●
ER0612M06U00GUP	6	6.125	0.241	0.075	0.003	3.06	0.121	14.60	0.575	●
ER0812M08U00GUP	8	8.125	0.320	0.075	0.003	4.06	0.160	17.50	0.688	●



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○ Secundario

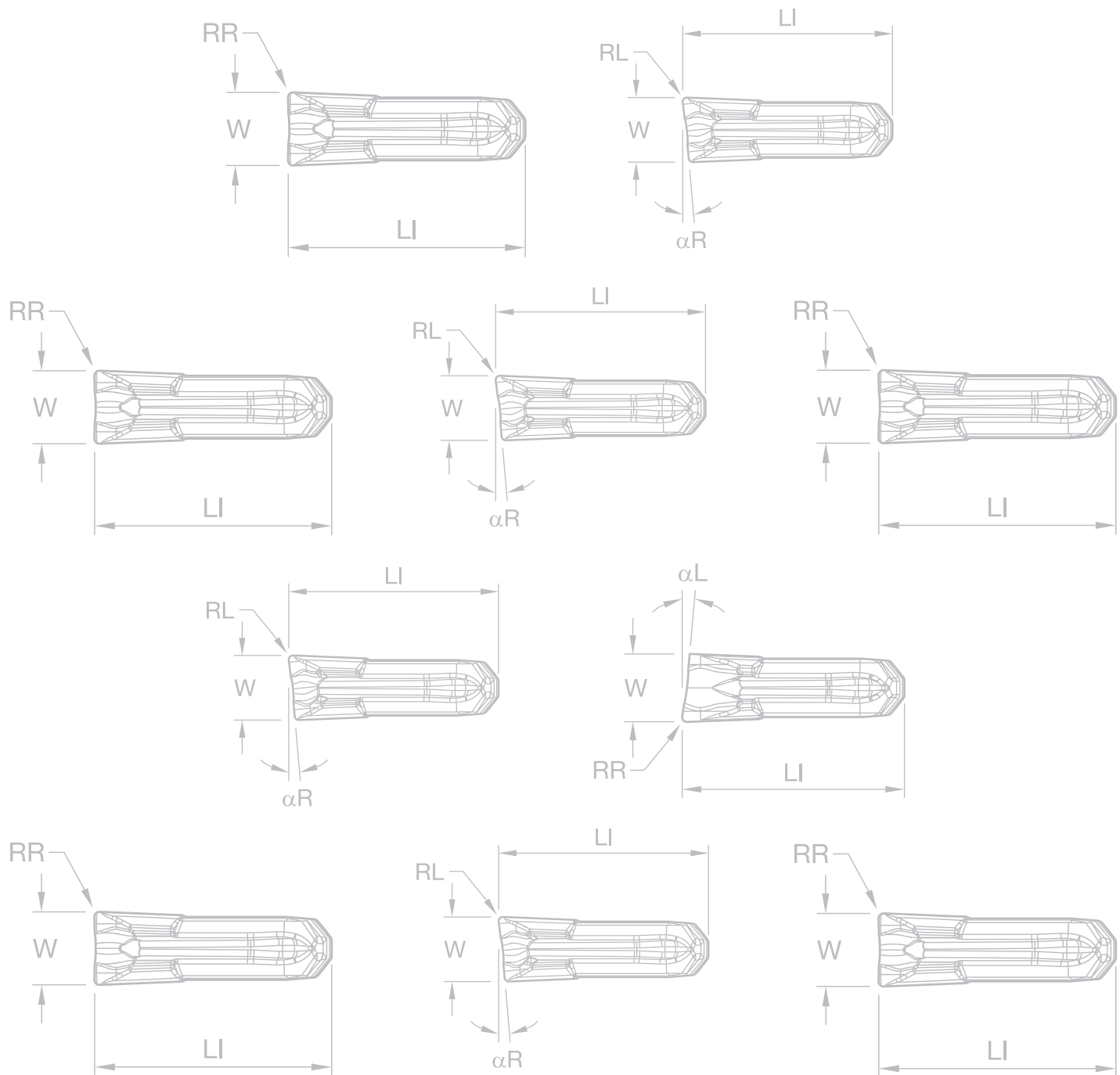
Beyond Evolution

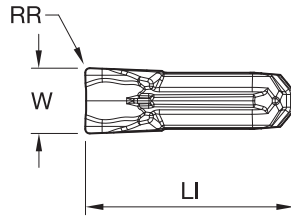
Plaquitas de ranurado y torneado • GUP • Rectificado de precisión

Número de catálogo	Tamaño de asiento	RC		LI		L10		
		mm	in	mm	in	mm	in	
EV0000M03U02GUP	3	0.200	0.008	14.74	0.580	0.25	6.392	●
EV0000M06U08GUP	6	0.800	0.030	24.02	0.946	0.42	10.638	●

BEYOND EVOLUTION

PLAQUITAS DE TRONZAR





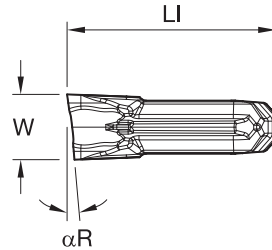
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● Principal
○ Secundario

Beyond Evolution

Plaquitas de tronzar • CF • Rectificado de precisión • Neutral

Número de catálogo	Tamaño de asiento	W		W Tol +/-		LI		RR		
		mm	in	mm	in	mm	in	mm	in	
EC014M1BPN00CF00	1B	1.40	0.055	0.025	0.001	9.00	0.355	-	-	●
EC014M1BPN00CF01	1B	1.40	0.055	0.025	0.001	9.11	0.359	0.15	0.006	●
EC020M02PN00CF00	2	2.00	0.079	0.025	0.001	8.94	0.352	-	-	●
EC020M02PN00CF02	2	2.00	0.079	0.025	0.001	9.04	0.356	0.20	0.008	●
EC030M03PN00CF00	3	3.00	0.118	0.025	0.001	9.48	0.373	-	-	●
EC030M03PN00CF02	3	3.00	0.118	0.025	0.001	9.63	0.379	0.20	0.008	●
EC040M04PN00CF00	4	4.00	0.158	0.025	0.001	10.01	0.394	-	-	●
EC040M04PN00CF02	4	4.00	0.158	0.025	0.001	10.16	0.400	0.20	0.008	●
EC050M05PN00CF00	5	5.00	0.197	0.025	0.001	12.07	0.475	-	-	●
EC050M05PN00CF03	5	5.00	0.197	0.025	0.001	12.22	0.481	0.30	0.012	●



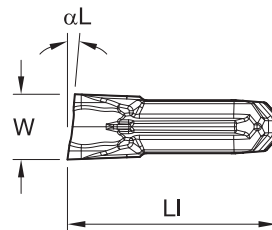
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● Principal
○ Secundario

Beyond Evolution

Plaquitas de tronzar • CF • Rectificado de precisión • A derechas

Número de catálogo	Tamaño de asiento	W		W Tol +/-		LI		αR	
		mm	in	mm	in	mm	in		
EC014M1BPR06CF00	1B	1.40	0.055	0.025	0.001	9.00	0.355	6°	●
EC014M1BPR12CF00	1B	1.40	0.055	0.025	0.001	9.00	0.355	12°	●
EC020M02PR06CF00	2	2.00	0.079	0.025	0.001	8.94	0.352	6°	●
EC020M02PR12CF00	2	2.00	0.079	0.025	0.001	8.95	0.352	12°	●
EC030M03PR06CF00	3	3.00	0.118	0.025	0.001	9.48	0.373	6°	●
EC030M03PR12CF00	3	3.00	0.118	0.025	0.001	9.48	0.373	12°	●
EC040M04PR06CF00	4	4.00	0.158	0.025	0.001	10.01	0.394	6°	●
EC040M04PR12CF00	4	4.00	0.158	0.025	0.001	10.25	0.405	12°	●



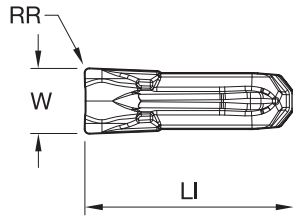
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● Principal
○ Secundario

Beyond Evolution

Plaquitas de tronzar • CF • Rectificado de precisión • A izquierdas

Número de catálogo	Tamaño de asiento	W		W Tol +/-		LI		αL	
		mm	in	mm	in	mm	in		
EC014M1BPL06CF00	1B	1.40	0.055	0.025	0.001	9.00	0.355	6°	●
EC014M1BPL12CF00	1B	1.40	0.055	0.025	0.001	9.00	0.355	12°	●
EC020M02PL06CF00	2	2.00	0.079	0.025	0.001	8.95	0.352	6°	●
EC020M02PL12CF00	2	2.00	0.079	0.025	0.001	8.95	0.352	12°	●
EC030M03PL06CF00	3	3.00	0.118	0.025	0.001	9.48	0.373	6°	●
EC030M03PL12CF00	3	3.00	0.118	0.025	0.001	9.48	0.373	12°	●
EC040M04PL06CF00	4	4.00	0.158	0.025	0.001	10.01	0.394	6°	●
EC040M04PL12CF00	4	4.00	0.158	0.025	0.001	10.28	0.405	12°	●



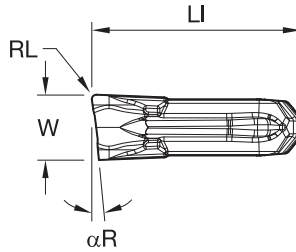
Beyond Evolution

Plaquitas de tronzar • CF • Moldeado de precisión • Neutral

- Principal
- Secundario

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Número de catálogo	Tamaño de asiento	W		W Tol +/-		LI		RR		α	
		mm	in	mm	in	mm	in	mm	in		
EC014M1BN00CF01	1B	1.40	0.055	0.050	0.002	9.00	0.355	0.15	0.006	-	●
EC020M02N00CF02	2	2.00	0.079	0.050	0.002	8.97	0.353	0.20	0.008	-	●
EC030M03N00CF02	3	3.00	0.118	0.075	0.003	9.60	0.378	0.20	0.008	-	●
EC040M04N00CF02	4	4.00	0.158	0.075	0.003	10.19	0.401	0.20	0.008	-	●
EC050M05N00CF03	5	5.00	0.197	0.075	0.003	12.20	0.482	0.30	0.012	-	●
EC030M03PR12CF00	3	3.00	0.118	0.03	0.001	9.48	0.373	-	-	12°	●
EC040M04PR06CF00	4	4.00	0.158	0.03	0.001	10.01	0.394	-	-	6°	●
EC040M04PR12CF00	4	4.00	0.158	0.03	0.001	10.25	0.405	-	-	12°	●



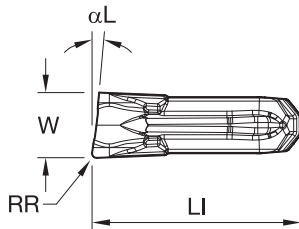
Beyond Evolution

Plaquitas de tronzar • CF • Moldeado de precisión • A derechas

- Principal
- Secundario

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Número de catálogo	Tamaño de asiento	W		W Tol +/-		LI		RL		αR	
		mm	in	mm	in	mm	in	mm	in		
EC014M1BR06CF01	1B	1.40	0.055	0.050	0.002	9.00	0.355	0.15	0.006	6°	●
EC020M02R06CF02	2	2.00	0.079	0.050	0.002	8.97	0.353	0.20	0.008	6°	●
EC030M03R06CF02	3	3.00	0.118	0.075	0.003	9.60	0.378	0.20	0.008	6°	●
EC040M04R06CF02	4	4.00	0.158	0.075	0.003	10.19	0.401	0.20	0.008	6°	●



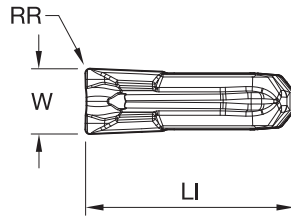
Beyond Evolution

Plaquitas de tronzar • CF • Moldeado de precisión • A izquierdas

- Principal
- Secundario

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Número de catálogo	Tamaño de asiento	W		W Tol +/-		LI		RR		αL	
		mm	in	mm	in	mm	in	mm	in		
EC014M1BL06CF01	1B	1.40	0.055	0.050	0.002	9.00	0.355	0.15	0.006	6°	●
EC020M02L06CF02	2	2.00	0.079	0.050	0.002	8.97	0.353	0.20	0.008	6°	●
EC030M03L06CF02	3	3.00	0.118	0.075	0.003	9.60	0.378	0.20	0.008	6°	●
EC040M04L06CF02	4	4.00	0.157	0.075	0.003	10.19	0.401	0.20	0.008	6°	●

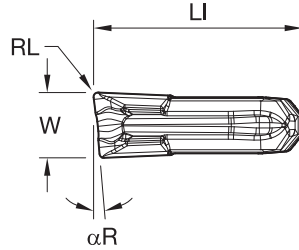


- P
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- Principal
○ Secundario

Beyond Evolution

Plaquitas de tronzar • CL • Moldeado de precisión • Neutral

Número de catálogo	Tamaño de asiento	W		W Tol +/-		LI		RR		
		mm	in	mm	in	mm	in	mm	in	
EC014M1BN00CLO1	1B	1.40	0.055	0.050	0.002	9.00	0.355	0.15	0.006	●
EC020M02N00CLO2	2	2.00	0.079	0.050	0.002	8.97	0.353	0.20	0.008	●
EC030M03N00CLO2	3	3.00	0.118	0.075	0.003	9.60	0.378	0.20	0.008	●
EC040M04N00CLO2	4	4.00	0.157	0.075	0.003	10.20	0.401	0.20	0.008	●

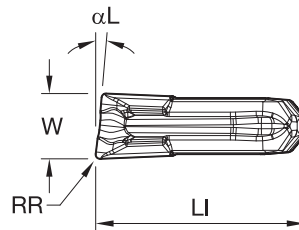


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- Principal
○ Secundario

Beyond Evolution

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Número de catálogo	Tamaño de asiento	W		W Tol +/-		LI		RL		αR	
		mm	in	mm	in	mm	in	mm	in		
EC014M1BR06CLO1	1B	1.40	0.055	0.050	0.002	9.00	0.355	0.15	0.006	6°	●
EC020M02R06CLO2	2	2.00	0.079	0.050	0.002	8.96	0.353	0.20	0.005	6°	●
EC030M03R06CLO2	3	3.00	0.118	0.075	0.003	9.59	0.378	0.20	0.008	6°	●
EC040M04R06CLO2	4	4.00	0.158	0.075	0.003	10.19	0.401	0.20	0.008	6°	●

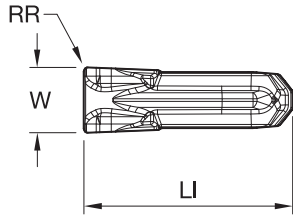


- P
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- Principal
○ Secundario

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Plaquitas de tronzar • CL • Moldeado de precisión • A izquierdas

Número de catálogo	Tamaño de asiento	W		W Tol +/-		LI		RR		αL	
		mm	in	mm	in	mm	in	mm	in		
EC014M1BL06CLO1	1B	1.40	0.055	0.050	0.002	9.00	0.355	0.15	0.006	6°	●
EC020M02L06CLO2	2	2.00	0.079	0.050	0.002	8.96	0.353	0.20	0.008	6°	●
EC030M03L06CLO2	3	3.00	0.118	0.075	0.003	9.59	0.378	0.20	0.008	6°	●
EC040M04L06CLO2	4	4.00	0.158	0.075	0.003	10.19	0.401	0.20	0.008	6°	●



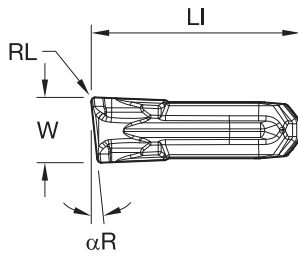
Beyond Evolution

Plaquitas de tronzar • CM • Moldeado de precisión • Neutral

- Principal
- Secundario

P	●
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Número de catálogo	Tamaño de asiento	W		W Tol +/-		LI		RR		
		mm	in	mm	in	mm	in	mm	in	
EC014M1BN00CM01	1B	1.40	0.055	0.050	0.002	9.00	0.355	0.15	0.006	●
EC020M02N00CM02	2	2.00	0.079	0.050	0.002	8.98	0.353	0.20	0.008	●
EC030M03N00CM02	3	3.00	0.118	0.075	0.003	9.60	0.378	0.20	0.008	●
EC040M04N00CM02	4	4.00	0.158	0.075	0.003	10.20	0.402	0.20	0.008	●
EC050M05N00CM03	5	5.00	0.197	0.075	0.003	12.20	0.482	0.30	0.012	●
EC060M06N00CM03	6	6.00	0.236	0.075	0.003	14.59	0.574	0.30	0.012	●
EC070M06N00CM04	6	7.00	0.276	0.075	0.003	14.60	0.574	0.40	0.016	●
EC080M08N00CM04	8	8.00	0.315	0.075	0.003	17.50	0.688	0.40	0.016	●



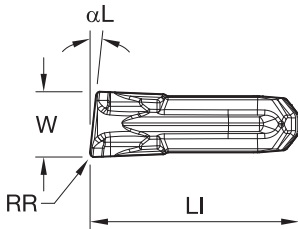
Beyond Evolution

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- Principal
- Secundario

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Número de catálogo	Tamaño de asiento	W		W Tol +/-		LI		RL		αR	
		mm	in	mm	in	mm	in	mm	in		
EC014M1BR06CM02	1B	1.40	0.055	0.050	0.002	9.02	0.355	0.20	0.008	6°	●
EC020M02R06CM02	2	2.00	0.079	0.050	0.002	9.00	0.353	0.20	0.008	6°	●
EC030M03R06CM02	3	3.00	0.118	0.075	0.003	9.60	0.378	0.20	0.008	6°	●
EC040M04R06CM02	4	4.00	0.157	0.075	0.003	10.20	0.401	0.20	0.008	6°	●



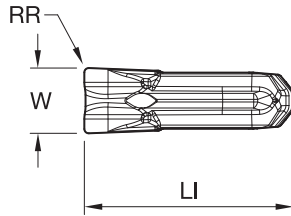
Beyond Evolution

Plaquitas de tronzar • CM • Moldeado de precisión • A izquierdas

- Principal
- Secundario

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Número de catálogo	Tamaño de asiento	W		W Tol +/-		LI		RR		αL	
		mm	in	mm	in	mm	in	mm	in		
EC014M1BL06CM02	1B	1.40	0.055	0.050	0.002	9.00	0.355	0.20	0.008	6°	●
EC020M02L06CM02	2	2.00	0.079	0.050	0.002	9.00	0.353	0.20	0.008	6°	●
EC030M03L06CM02	3	3.00	0.118	0.075	0.003	9.60	0.378	0.20	0.008	6°	●
EC040M04L06CM02	4	4.00	0.157	0.075	0.003	10.20	0.401	0.20	0.008	6°	●



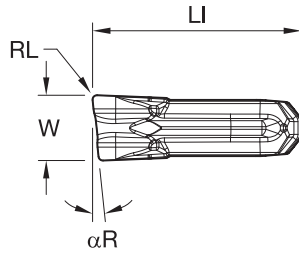
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● Principal
○ Secundario

Beyond Evolution

Plaquitas de tronzar • CR • Moldeado de precisión • Neutral

Número de catálogo	Tamaño de asiento	W		W Tol +/-		LI		RR		
		mm	in	mm	in	mm	in	mm	in	
EC020M02N00CR02	2	2.00	0.079	0.050	0.002	8.98	0.353	0.20	0.008	●
EC030M03N00CR02	3	3.00	0.118	0.075	0.003	9.60	0.378	0.20	0.008	●
EC040M04N00CR02	4	4.00	0.158	0.075	0.003	10.20	0.402	0.20	0.008	●
EC050M05N00CR03	5	5.00	0.197	0.075	0.003	12.25	0.482	0.30	0.012	●
EC060M06N00CR03	6	6.00	0.236	0.075	0.003	14.59	0.574	0.30	0.012	●
EC070M06N00CR04	6	7.00	0.276	0.075	0.003	14.60	0.574	0.40	0.016	●
EC080M08N00CR04	8	8.00	0.315	0.075	0.003	17.50	0.687	0.40	0.016	●



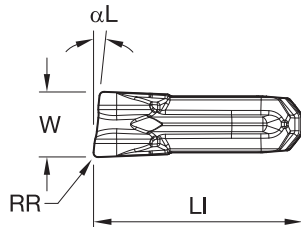
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○ Secundario

Beyond Evolution

Plaquitas de tronzar • CR • Moldeado de precisión • A derechas

Número de catálogo	Tamaño de asiento	W		W Tol +/-		LI		RL		αR	
		mm	in	mm	in	mm	in	mm	in		
EC020M02R06CR02	2	2.00	0.079	0.050	0.002	9.00	0.353	0.20	0.008	6°	●
EC030M03R06CR02	3	3.00	0.118	0.075	0.003	9.60	0.378	0.20	0.008	6°	●
EC040M04R06CR02	4	4.00	0.157	0.075	0.003	10.20	0.402	0.20	0.008	6°	●
EC060M06R06CR04	6	6.00	0.236	0.075	0.003	14.59	0.574	0.40	0.016	6°	●
EC080M08R06CR04	8	8.00	0.315	0.075	0.003	17.50	0.687	0.40	0.016	6°	●



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● Principal
○ Secundario

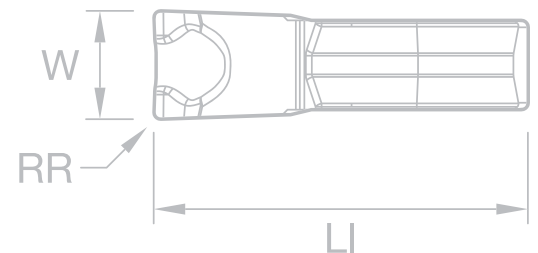
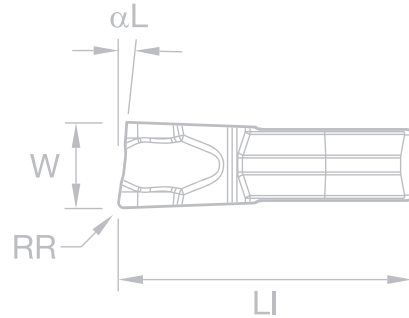
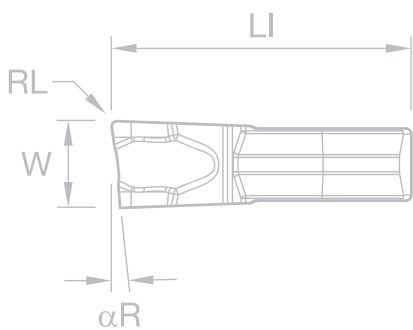
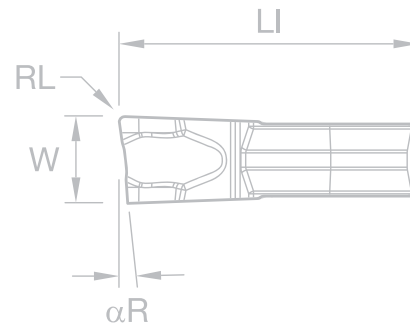
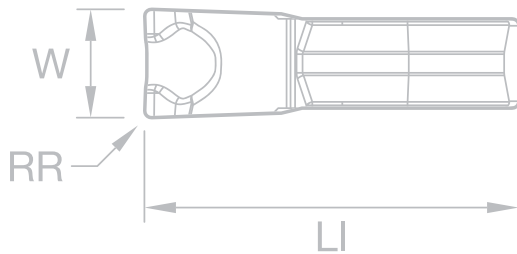
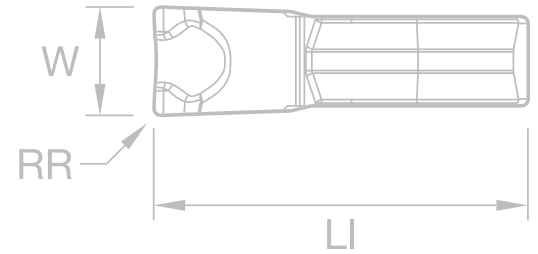
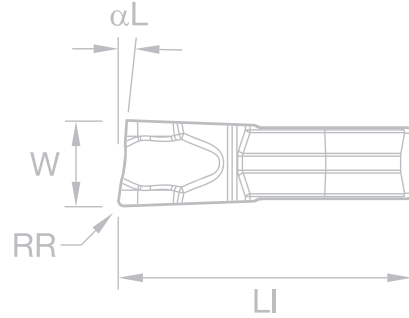
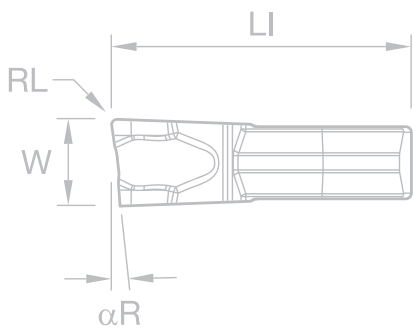
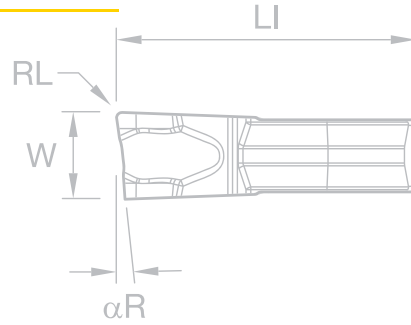
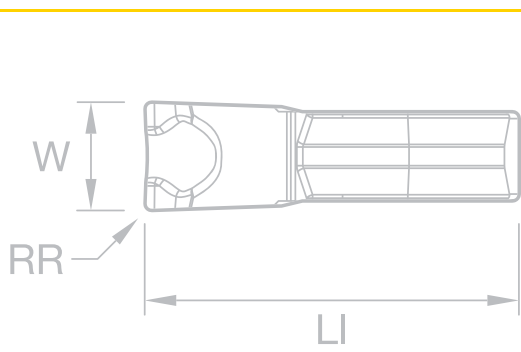
Beyond Evolution

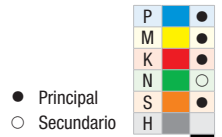
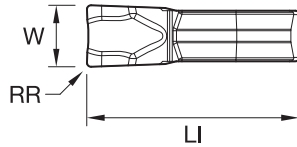
Plaquitas de tronzar • CR • Moldeado de precisión • A izquierdas

Número de catálogo	Tamaño de asiento	W		W Tol +/-		LI		RR		αL	
		mm	in	mm	in	mm	in	mm	in		
EC020M02L06CR02	2	2.00	0.079	0.050	0.002	9.00	0.353	0.20	0.008	6°	●
EC030M03L06CR02	3	3.00	0.118	0.075	0.003	9.60	0.378	0.20	0.008	6°	●
EC040M04L06CR02	4	4.00	0.157	0.075	0.003	10.20	0.402	0.20	0.008	6°	●
EC060M06L06CR04	6	6.00	0.236	0.075	0.003	14.59	0.574	0.40	0.016	6°	●
EC080M08L06CR04	8	8.00	0.315	0.075	0.003	17.50	0.687	0.40	0.016	6°	●

A2™

PLAQUITAS DE TRONZAR

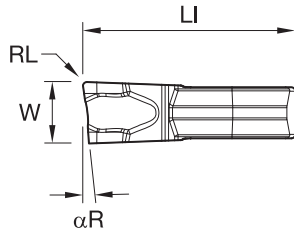




A2

Plaquitas de tronzar • CF • Moldeado de precisión • Neutral

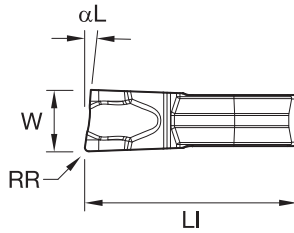
Número de catálogo	Tamaño de asiento	W		RR		LI		
		mm	in	mm	in	mm	in	
A2014N00CF01	1B	1.40	0.055	0.15	0.006	9.90	0.389	•
A2016N00CF00	1	1.55	0.061	-	-	10.50	0.414	•
A2016N00CF01	1	1.60	0.063	0.15	0.006	10.70	0.421	•
A2022N00CF00	2	2.20	0.087	-	-	10.45	0.412	•
A2022N00CF02	2	2.20	0.087	0.20	0.008	10.71	0.422	•
A2030N00CF00	3	3.10	0.122	-	-	10.50	0.413	•
A2030N00CF02	3	3.00	0.118	0.20	0.008	10.71	0.422	•
A2040N00CF00	4	4.05	0.159	-	-	10.50	0.413	•
A2040N00CF02	4	4.00	0.157	0.20	0.008	10.71	0.422	•
A2050N00CF03	5	5.00	0.197	0.30	0.012	12.50	0.492	•



A2

Plaquitas de tronzar • CF • Moldeado de precisión • A derechas

Número de catálogo	Tamaño de asiento	W		RL		LI		αR	
		mm	in	mm	in	mm	in		
A2016R06CF00	1	1.60	0.063	-	-	10.53	0.415	6°	•
A2016R10CF00	1	1.60	0.063	-	-	10.53	0.415	10°	•
A2016R16CF00	1	1.60	0.063	-	-	10.53	0.415	16°	•
A2022R06CF02	2	2.20	0.087	0.20	0.008	10.69	0.421	6°	•
A2022R10CF00	2	2.20	0.087	-	-	10.49	0.413	10°	•
A2022R16CF00	2	2.20	0.087	-	-	10.50	0.413	16°	•
A2030R06CF02	3	3.00	0.118	0.20	0.008	10.80	0.425	6°	•
A2030R10CF00	3	3.00	0.118	-	-	10.50	0.413	10°	•
A2030R15CF00	3	3.00	0.118	-	-	10.50	0.413	15°	•
A2040R06CF02	4	4.00	0.157	0.20	0.008	10.80	0.425	6°	•
A2050R06CF03	5	5.00	0.197	0.30	0.012	12.48	0.491	6°	•



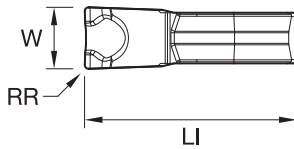
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● Principal
○ Secundario

A2

Plaquetas de tronzar • CF • Moldeado de precisión • A izquierdas

Número de catálogo	Tamaño de asiento	W		RR		LI		αL	
		mm	in	mm	in	mm	in		
A2016L06CF00	1	1.60	0.063	-	-	10.53	0.415	6°	●
A2016L16CF00	1	1.60	0.063	-	-	10.53	0.415	16°	●
A2022L06CF02	2	2.20	0.087	0.20	0.008	10.69	0.421	6°	●
A2022L10CF00	2	2.20	0.087	-	-	10.49	0.413	10°	●
A2022L16CF00	2	2.20	0.087	-	-	10.50	0.413	16°	●
A2030L06CF02	3	3.00	0.118	0.20	0.008	10.80	0.425	6°	●
A2030L10CF00	3	3.00	0.118	-	-	10.50	0.413	10°	●
A2030L15CF00	3	3.00	0.118	-	-	10.50	0.413	15°	●
A2040L06CF02	4	4.00	0.157	0.20	0.008	10.80	0.425	6°	●



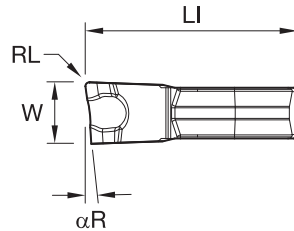
P	●
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● Principal
○ Secundario

A2

Plaquetas de tronzar • CL • Moldeado de precisión • Neutral

Número de catálogo	Tamaño de asiento	W		RR		LI		
		mm	in	mm	in	mm	in	
A2022N00CL02	2	2.20	0.087	0.20	0.008	10.45	0.411	●
A2030N00CL02	3	3.05	0.120	0.20	0.008	10.70	0.421	●
A2040N00CL02	4	4.05	0.159	0.20	0.008	10.71	0.422	●



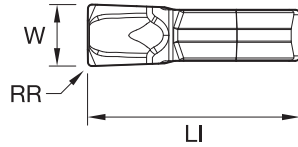
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● Principal
○ Secundario

A2

Plaquetas de tronzar • CL • Moldeado de precisión • A derechas

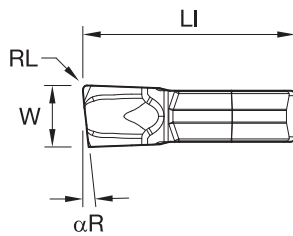
Número de catálogo	Tamaño de asiento	W		RL		LI		αR	
		mm	in	mm	in	mm	in		
A2016R16CL01	1	1.60	0.063	0.15	0.006	10.49	0.413	16°	●
A2030R06CL02	3	3.05	0.120	0.20	0.008	10.70	0.421	6°	●
A2040R06CL02	4	4.05	0.159	0.20	0.008	10.72	0.422	6°	●



A2

Plaquitas de tronzar • CM • Moldeado de precisión • Neutral

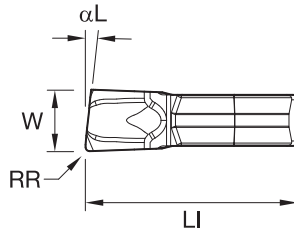
Número de catálogo	Tamaño de asiento	W		RR		LI		
		mm	in	mm	in	mm	in	
A2016N00CM01	1	1.60	0.063	0.10	0.004	10.70	0.421	●
A2022N00CM02	2	2.20	0.087	0.20	0.008	10.71	0.422	●
A2030N00CM02	3	3.00	0.118	0.20	0.008	10.71	0.422	●
A2040N00CM02	4	4.00	0.157	0.20	0.008	10.71	0.422	●
A2050N00CM03	5	5.00	0.197	0.30	0.012	12.50	0.492	●
A2060N00CM03	6	6.00	0.236	0.30	0.012	12.50	0.492	●
A2080N00CM04	8	8.00	0.315	0.40	0.016	16.50	0.650	●



A2

Plaquitas de tronzar • CM • Moldeado de precisión • A derechas

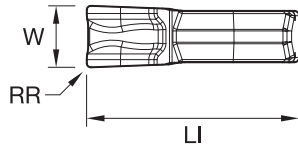
Número de catálogo	Tamaño de asiento	W		RL		LI		αR	
		mm	in	mm	in	mm	in		
A2016R06CM00	1	1.60	0.063	-	-	10.52	0.414	6°	●
A2016R16CM00	1	1.60	0.063	-	-	10.60	0.417	16°	●
A2022R06CM00	2	2.20	0.087	-	-	10.50	0.413	6°	●
A2030R06CM01	3	3.00	0.118	0.10	0.004	10.50	0.413	6°	●



A2

Plaquitas de tronzar • CM • Moldeado de precisión • A izquierdas

Número de catálogo	Tamaño de asiento	W		RR		LI		αL	
		mm	in	mm	in	mm	in		
A2016L06CM00	1	1.60	0.063	-	-	10.52	0.414	6°	●
A2022L06CM00	2	2.20	0.087	-	-	10.50	0.413	6°	●
A2030L06CM01	3	3.00	0.118	0.10	0.004	10.50	0.413	6°	●
A2040N00CM02	4	4.00	0.157	0.20	0.008	10.71	0.422	-	●
A2050N00CM03	5	5.00	0.197	0.30	0.012	12.50	0.492	-	●
A2060N00CM03	6	6.00	0.236	0.30	0.012	12.50	0.492	-	●
A2080N00CM04	8	8.00	0.315	0.40	0.016	16.50	0.650	-	●



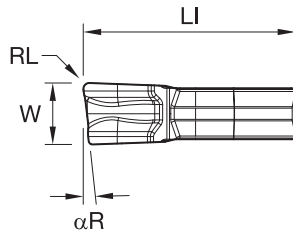
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- Principal
- Secundario

A2

Plaquitas de tronzar • CR • Moldeado de precisión • Neutral

Número de catálogo	Tamaño de asiento	W		RR		LI		
		mm	in	mm	in	mm	in	
A2022N00CR02	2	2.20	0.087	0.20	0.008	10.71	0.422	●
A2030N00CR02	3	3.00	0.118	0.20	0.008	10.71	0.422	●
A2040N00CR02	4	4.05	0.159	0.20	0.008	10.71	0.422	●
A2050N00CR03	5	5.00	0.197	0.30	0.012	12.50	0.492	●
A2060N00CR03	6	6.00	0.236	0.30	0.012	12.50	0.492	●
A2080N00CR04	8	8.00	0.315	0.40	0.016	16.50	0.650	●



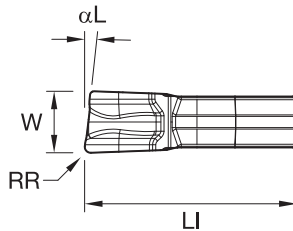
P	●
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- Principal
- Secundario

A2

Plaquitas de tronzar • CR • Moldeado de precisión • A derechas

Número de catálogo	Tamaño de asiento	W		RL		LI		αR	
		mm	in	mm	in	mm	in		
A2022R06CR03	2	2.20	0.087	0.30	0.012	10.71	0.422	6°	●
A2030R06CR03	3	3.00	0.118	0.30	0.012	10.71	0.422	6°	●
A2040R06CR03	4	4.00	0.157	0.30	0.012	10.85	0.427	6°	●
A2050R06CR04	5	5.00	0.197	0.40	0.016	13.10	0.516	6°	●
A2060R06CR04	6	6.00	0.236	0.40	0.016	13.10	0.516	6°	●



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S	●
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- Principal
- Secundario

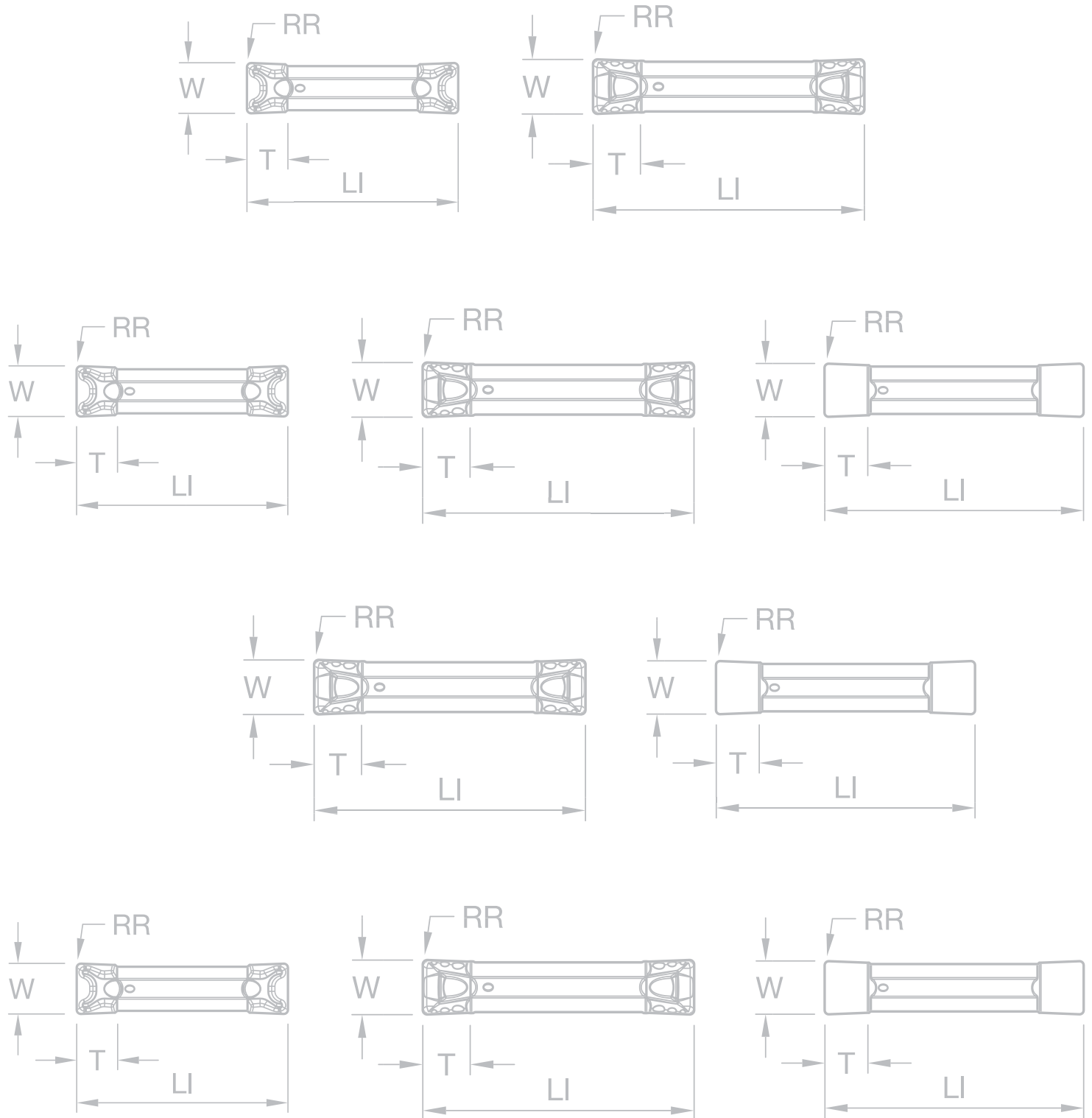
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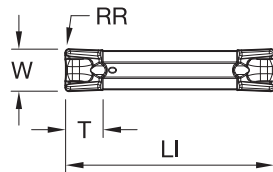
Plaquitas de tronzar • CR • Moldeado de precisión • A izquierdas

Número de catálogo	Tamaño de asiento	W		RR		LI		αL	
		mm	in	mm	in	mm	in		
A2030L06CR03	3	3.00	0.118	0.30	0.012	10.71	0.422	6°	●
A2040L06CR03	4	4.00	0.157	0.30	0.012	10.85	0.427	6°	●

A4™

PLAQUITAS DE RANURADO





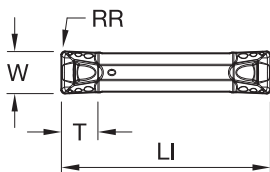
P	●
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- Principal
- Secundario

A4

Plaquitas de ranurado • GMP • Rectificado de precisión

Número de catálogo	Tamaño de asiento	W		RR		LI		T		
		mm	in	mm	in	mm	in	mm	in	
A4G0200M02P02GMP	2	2.00	0.079	0.2	0.008	19.90	0.782	2.0	0.079	●
A4G0300M03P02GMP	3	3.00	0.118	0.2	0.008	19.90	0.784	3.5	0.138	●
A4G0300M03P04GMP	3	3.00	0.118	0.4	0.016	19.90	0.784	3.5	0.138	●
A4G0400M04P02GMP	4	4.00	0.158	0.2	0.008	19.90	0.783	3.2	0.124	●
A4G0400M04P04GMP	4	4.00	0.158	0.4	0.016	19.90	0.783	3.5	0.138	●
A4G0400M04P08GMP	4	4.00	0.158	0.8	0.032	19.90	0.784	3.5	0.138	●
A4G0500M05P04GMP	5	5.00	0.197	0.4	0.016	25.00	0.984	4.1	0.162	●
A4G0500M05P08GMP	5	5.00	0.197	0.8	0.032	25.00	0.984	3.9	0.155	●
A4G0600M06P04GMP	6	6.00	0.236	0.4	0.016	29.85	1.175	4.9	0.192	●
A4G0600M06P08GMP	6	6.00	0.236	0.8	0.031	29.85	1.175	4.9	0.192	●
A4G0800M08P08GMP	8	8.00	0.315	0.8	0.031	29.85	1.175	6.4	0.251	●



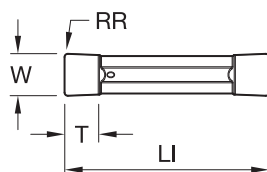
P	●
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H	●

- Principal
- Secundario

A4

Plaquitas de ranurado • GUP • Rectificado de precisión

Número de catálogo	Tamaño de asiento	W		RR		LI		T		
		mm	in	mm	in	mm	in	mm	in	
A4G0200M02P02GUP	2	2.00	0.079	0.2	0.008	20.00	0.787	1.9	0.075	●
A4G0200M2SP02GUP	2S	2.00	0.079	0.2	0.008	20.00	0.787	1.9	0.075	●
A4G0300M03P02GUP	3	3.00	0.118	0.2	0.008	20.00	0.787	2.9	0.115	●
A4G0300M03P04GUP	3	3.00	0.118	0.4	0.016	20.00	0.787	2.9	0.115	●
A4G0300M3SP02GUP	3S	3.00	0.118	0.2	0.008	20.00	0.787	2.9	0.115	●
A4G0300M3SP04GUP	3S	3.00	0.118	0.4	0.016	20.00	0.787	2.9	0.115	●
A4G0400M04P02GUP	4	4.00	0.158	0.2	0.008	20.00	0.787	3.3	0.130	●
A4G0400M04P04GUP	4	4.00	0.158	0.4	0.016	20.00	0.787	3.3	0.130	●
A4G0400M04P08GUP	4	4.00	0.157	0.8	0.032	20.00	0.787	3.3	0.130	●
A4G0500M05P04GUP	5	5.00	0.197	0.4	0.016	25.00	0.984	4.1	0.162	●
A4G0500M05P08GUP	5	5.00	0.197	0.8	0.031	25.00	0.984	4.1	0.163	●
A4G0500M5SP04GUP	5S	5.00	0.197	0.4	0.016	25.00	0.984	4.1	0.163	●
A4G0600M06P04GUP	6	6.00	0.236	0.4	0.016	30.00	1.181	4.4	0.175	●
A4G0600M06P08GUP	6	6.00	0.236	0.8	0.032	30.00	1.181	4.4	0.175	●
A4G0800M08P08GUP	8	8.00	0.315	0.8	0.032	30.00	1.181	5.9	0.234	●
A4G0800M08P12GUP	8	8.00	0.315	1.2	0.048	30.00	1.181	5.9	0.234	●
A4G1000M10P08GUP	10	10.00	0.394	0.8	0.031	30.00	1.181	6.0	0.235	●
A4G1000M10P12GUP	10	10.00	0.394	1.2	0.048	30.00	1.181	5.9	0.234	●



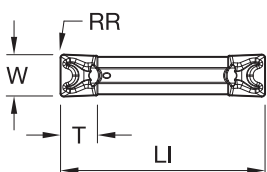
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● Principal
○ Secundario

A4

Plaquitas de ranurado • Parte superior plana • Moldeado de precisión

Número de catálogo	Tamaño de asiento	W		RR		LI		T		
		mm	in	mm	in	mm	in	mm	in	
A4G0305M03U02B	3	3.12	0.123	0.2	0.008	20.00	0.787	3.5	0.138	●
A4G0405M04U04B	4	4.12	0.162	0.4	0.015	20.00	0.787	3.4	0.134	●
A4G0505M05U04B	5	5.12	0.202	0.4	0.015	25.00	0.984	4.2	0.165	●
A4G0605M06U04B	6	6.13	0.241	0.4	0.016	30.00	1.181	4.9	0.193	●



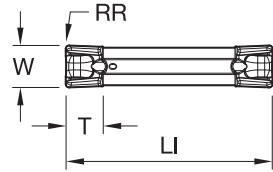
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● Principal
○ Secundario

A4

Plaquitas de ranurado • GMN • Moldeado de precisión

Número de catálogo	Tamaño de asiento	W		RR		LI		T		
		mm	in	mm	in	mm	in	mm	in	
A4G0205M02U02GMN	2	2.13	0.084	0.2	0.008	20.10	0.791	2.0	0.079	●
A4G0205M2SU02GMN	2S	2.13	0.084	0.2	0.008	20.10	0.791	2.0	0.079	●
A4G0255M2BU02GMN	2B	2.62	0.103	0.2	0.008	20.10	0.791	2.0	0.079	●
A4G0305M03U02GMN	3	3.12	0.123	0.2	0.008	20.00	0.787	3.5	0.138	●
A4G0305M03U04GMN	3	3.12	0.123	0.4	0.016	20.00	0.787	3.5	0.138	●
A4G0305M3SU02GMN	3S	3.13	0.123	0.2	0.008	20.00	0.787	3.5	0.138	●
A4G0305M3SU04GMN	3S	3.12	0.123	0.4	0.016	20.00	0.787	3.5	0.138	●
A4G0405M04U04GMN	4	4.12	0.162	0.4	0.016	20.00	0.787	3.4	0.134	●
A4G0405M04U08GMN	4	4.12	0.162	0.8	0.031	20.00	0.787	3.4	0.134	●
A4G0405M4SU04GMN	4S	4.12	0.162	0.4	0.016	20.00	0.787	3.6	0.143	●
A4G0405M4SU08GMN	4S	4.12	0.162	0.8	0.031	20.00	0.787	3.6	0.143	●
A4G0505M05U04GMN	5	5.12	0.202	0.4	0.016	25.00	0.984	4.2	0.165	●
A4G0505M05U08GMN	5	5.12	0.202	0.8	0.031	25.00	0.984	4.2	0.165	●
A4G0505M5SU04GMN	5S	5.12	0.202	0.4	0.016	25.00	0.984	4.2	0.165	●
A4G0605M06U04GMN	6	6.13	0.241	0.4	0.016	30.00	1.181	4.9	0.193	●
A4G0605M06U08GMN	6	6.13	0.241	0.8	0.031	30.00	1.181	4.9	0.193	●
A4G0605M06U12GMN	6	6.13	0.241	1.2	0.047	30.00	1.181	4.9	0.193	●
A4G0805M08U08GMN	8	8.13	0.320	0.8	0.031	30.00	1.181	6.4	0.252	●
A4G0805M08U12GMN	8	8.13	0.320	1.2	0.047	30.00	1.181	6.4	0.252	●
A4G1005M10U08GMN	10	10.13	0.399	0.8	0.031	30.00	1.181	8.1	0.319	●
A4G1005M10U12GMN	10	10.13	0.399	1.2	0.047	30.00	1.181	8.1	0.319	●



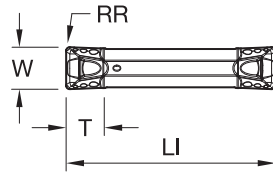
P	●
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- Principal
- Secundario

A4

Plaquitas de ranurado • GMP • Moldeado de precisión

Número de catálogo	Tamaño de asiento	W		RR		LI		T		
		mm	in	mm	in	mm	in	mm	in	
A4G0205M02U02GMP	2	2.13	0.084	0.2	0.008	20.10	0.791	2.0	0.079	●
A4G0255M2BU02GMP	2B	2.62	0.103	0.2	0.008	20.10	0.791	2.0	0.079	●
A4G0305M03U02GMP	3	3.10	0.122	0.2	0.008	20.10	0.791	3.5	0.138	●
A4G0305M03U04GMP	3	3.10	0.122	0.4	0.016	20.10	0.791	3.5	0.138	●
A4G0405M04U04GMP	4	4.10	0.161	0.4	0.015	20.10	0.791	3.4	0.134	●
A4G0405M04U08GMP	4	4.10	0.161	0.8	0.031	20.10	0.791	3.4	0.134	●
A4G0505M05U04GMP	5	5.10	0.201	0.4	0.015	25.15	0.990	4.2	0.165	●
A4G0505M05U08GMP	5	5.10	0.201	0.8	0.032	25.15	0.990	4.2	0.165	●
A4G0605M06U04GMP	6	6.13	0.241	0.4	0.016	30.10	1.185	4.9	0.193	●
A4G0605M06U08GMP	6	6.13	0.241	0.8	0.031	30.10	1.185	4.9	0.193	●
A4G0805M08U08GMP	8	8.13	0.320	0.8	0.031	30.10	1.185	6.1	0.241	●
A4G1005M10U08GMP	10	10.13	0.399	0.8	0.031	30.10	1.185	8.1	0.319	●



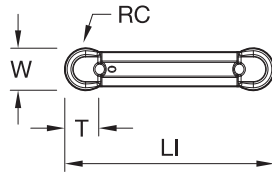
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- Principal
- Secundario

A4

Plaquitas de ranurado • GUP • Moldeado de precisión

Número de catálogo	Tamaño de asiento	W		RR		LI		T		
		mm	in	mm	in	mm	in	mm	in	
A4G0205M02U02GUP	2	2.13	0.084	0.2	0.008	20.15	0.793	2.0	0.079	●
A4G0205M2SU02GUP	2S	2.13	0.084	0.2	0.008	20.15	0.793	2.0	0.079	●
A4G0305M03U02GUP	3	3.13	0.123	0.2	0.008	20.15	0.793	3.0	0.118	●
A4G0305M03U04GUP	3	3.13	0.123	0.4	0.016	20.15	0.793	3.0	0.118	●
A4G0305M3SU02GUP	3S	3.13	0.123	0.2	0.008	20.15	0.793	3.0	0.118	●
A4G0305M3SU04GUP	3S	3.13	0.123	0.4	0.016	20.15	0.793	3.0	0.118	●
A4G0405M04U04GUP	4	4.12	0.162	0.4	0.016	20.15	0.793	3.4	0.134	●
A4G0405M04U08GUP	4	4.12	0.162	0.8	0.031	20.15	0.793	3.4	0.134	●
A4G0405M4SU04GUP	4S	4.12	0.162	0.4	0.016	20.15	0.793	3.4	0.134	●
A4G0505M05U04GUP	5	5.13	0.202	0.4	0.016	25.15	0.990	4.2	0.165	●
A4G0505M05U08GUP	5	5.13	0.202	0.8	0.031	25.15	0.990	4.2	0.165	●
A4G0505M5SU04GUP	5S	5.13	0.202	0.4	0.016	25.15	0.990	4.2	0.165	●
A4G0505M5SU08GUP	5S	5.13	0.202	0.8	0.031	25.15	0.990	4.2	0.165	●
A4G0605M06U04GUP	6	6.12	0.241	0.4	0.016	30.10	1.185	4.5	0.177	●
A4G0605M06U08GUP	6	6.12	0.241	0.8	0.031	30.10	1.185	4.5	0.177	●
A4G0605M06U12GUP	6	6.12	0.241	1.2	0.047	30.10	1.185	4.5	0.177	●
A4G0805M08U08GUP	8	8.13	0.320	0.8	0.031	30.10	1.185	6.0	0.236	●
A4G0805M08U12GUP	8	8.13	0.320	1.2	0.047	30.10	1.185	6.0	0.236	●
A4G1005M10U08GUP	10	10.13	0.399	0.8	0.031	30.10	1.185	6.0	0.236	●
A4G1005M10U12GUP	10	10.13	0.399	1.2	0.047	30.10	1.185	6.1	0.238	●



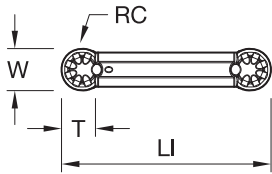
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● Principal
○ Secundario

A4

Plaquitas de ranurado • GMP • Radio completo • Rectificado de precisión

Número de catálogo	Tamaño de asiento	W		RC		LI		T		
		mm	in	mm	in	mm	in	mm	in	
A4R0200M02P00GMP	2	2.00	0.079	1.0	0.039	19.90	0.783	1.7	0.065	●
A4R0200M2SP00GMP	2S	2.00	0.079	1.0	0.039	19.86	0.782	1.6	0.064	●
A4R0300M03P00GMP	3	3.00	0.118	1.5	0.059	19.90	0.783	2.5	0.098	●
A4R0300M3SP00GMP	3S	3.00	0.118	1.5	0.059	19.90	0.783	2.5	0.098	●
A4R0400M04P00GMP	4	4.00	0.157	2.0	0.079	19.90	0.783	3.1	0.122	●
A4R0500M05P00GMP	5	5.00	0.197	2.5	0.098	24.90	0.980	4.1	0.160	●
A4R0500M5SP00GMP	5S	5.00	0.197	2.5	0.098	24.90	0.980	4.1	0.159	●
A4R0600M06P00GMP	6	6.00	0.236	3.0	0.118	29.85	1.175	4.8	0.189	●
A4R0800M08P00GMP	8	8.00	0.315	4.0	0.158	29.85	1.175	6.4	0.252	●



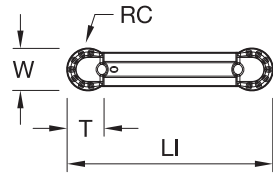
P	●
M	●
K	●
N	○
S	●
H	●

● Principal
○ Secundario

A4

Plaquitas de ranurado • GUP • Radio completo • Rectificado de precisión

Número de catálogo	Tamaño de asiento	W		RC		LI		T		
		mm	in	mm	in	mm	in	mm	in	
A4R0300M03P00GUP	3	3.00	0.118	1.5	0.059	20.00	0.787	2.41	0.095	●
A4R0400M04P00GUP	4	4.00	0.157	2.0	0.079	20.00	0.787	3.4	0.134	●
A4R0500M05P00GUP	5	5.00	0.197	2.5	0.098	25.00	0.984	4	0.157	●
A4R0600M06P00GUP	6	6.00	0.236	3.0	0.118	30.00	1.181	4.75	0.187	●
A4R0800M08P00GUP	8	8.00	0.315	4.0	0.158	30.00	1.181	6.35	0.25	●
A4R1000M10P00GUP	10	10.00	0.394	5.0	0.197	30.00	1.181	8.06	0.318	●



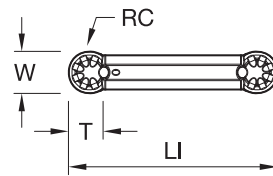
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H	●

- Principal
- Secundario

A4

Plaquitas de ranurado • GMN • Radio completo • Moldeado de precisión

Número de catálogo	Tamaño de asiento	W		RC		LI		T		
		mm	in	mm	in	mm	in	mm	in	
A4R0205M02U00GMN	2	2.13	0.084	1.1	0.042	20.10	0.791	1.8	0.069	●
A4R0305M03U00GMN	3	3.12	0.123	1.5	0.060	20.10	0.791	2.6	0.101	●
A4R0405M04U00GMN	4	4.12	0.162	2.0	0.080	20.10	0.791	3.5	0.136	●
A4R0505M05U00GMN	5	5.12	0.202	2.5	0.099	25.15	0.990	4.2	0.163	●
A4R0605M06U00GMN	6	6.12	0.241	3.0	0.119	30.10	1.185	4.9	0.194	●
A4R0805M08U00GMN	8	8.12	0.320	4.0	0.159	30.10	1.185	6.5	0.256	●
A4R1005M10U00GMN	10	10.13	0.399	5.0	0.198	30.10	1.185	8.2	0.322	●



P	●
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K	●
N	○
S	●
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- Principal
- Secundario

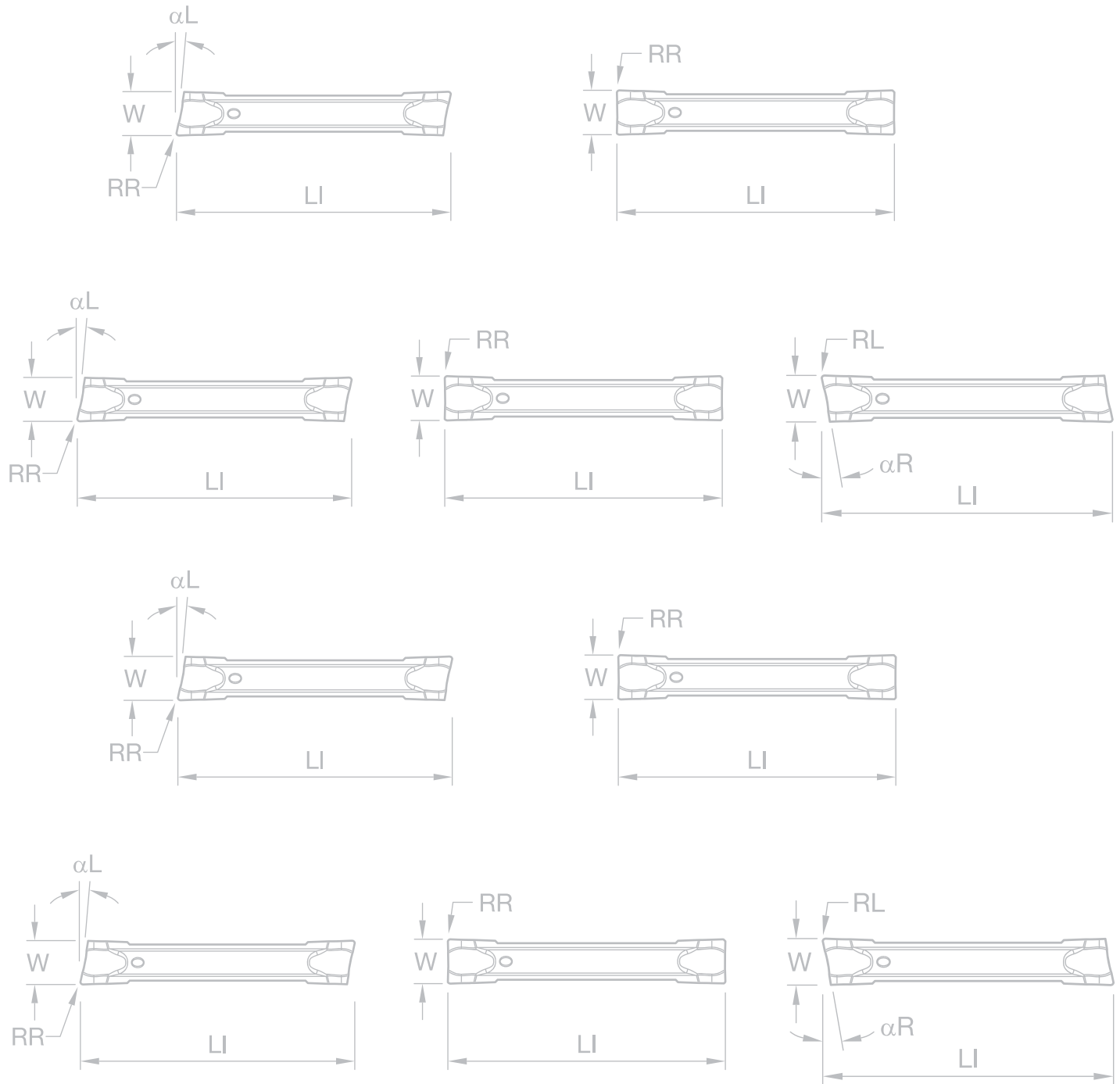
A4

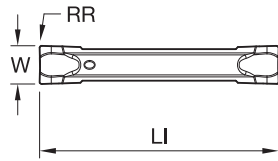
Plaquitas de ranurado • GUP • Radio completo • Moldeado de precisión

Número de catálogo	Tamaño de asiento	W		RC		LI		T		
		mm	in	mm	in	mm	in	mm	in	
A4R0305M03U00GUP	3	3.12	0.123	1.5	0.060	20.10	0.791	2.57	0.101	●
A4R0405M04U00GUP	4	4.12	0.162	2.0	0.080	20.10	0.791	3.45	0.136	●
A4R0505M05U00GUP	5	5.12	0.202	2.5	0.099	25.15	0.990	4.15	0.163	●
A4R0605M06U00GUP	6	6.12	0.241	3.0	0.119	30.10	1.185	4.8	0.189	●
A4R0805M08U00GUP	8	8.13	0.320	4.0	0.159	30.10	1.185	6.52	0.257	●
A4R1005M10U00GUP	10	10.13	0.399	5.0	0.198	30.10	1.185	7.96	0.313	●

A4

PLAQUITAS DE TRONZAR





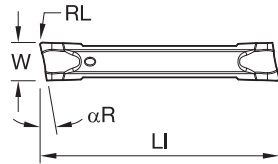
P	●
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H	●

- Principal
- Secundario

A4

Plaquitas de tronzar • CF • Moldeado de precisión • Neutral

Número de catálogo	Tamaño de asiento	W		RR		LI		α
		mm	in	mm	in	mm	in	
A4C0155N00CF01	1	1.50	0.059	0.15	0.006	15.50	0.610	-
A4C0205N00CF02	2	2.00	0.079	0.20	0.008	20.02	0.788	-
A4C0255N00CF02	2B	2.50	0.098	0.20	0.008	20.02	0.788	-
A4C0305N00CF02	3	3.12	0.123	0.20	0.008	20.10	0.791	-
A4C0405N00CF02	4	4.12	0.162	0.20	0.008	20.10	0.791	-



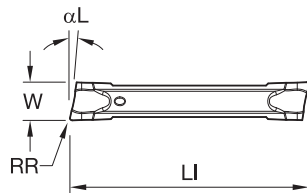
P	●
M	●
K	●
N	○
S	●
H	●

- Principal
- Secundario

A4

Plaquitas de tronzar • CF • Moldeado de precisión • A derechas

Número de catálogo	Tamaño de asiento	W		RL		LI		αR
		mm	in	mm	in	mm	in	
A4C0155R06CF01	1	1.50	0.059	0.15	0.006	15.50	0.610	6
A4C0155R10CF01	1	1.50	0.059	0.15	0.006	15.50	0.610	10
A4C0155R16CF01	1	1.49	0.059	0.15	0.006	15.50	0.610	16
A4C0205R06CF02	2	2.00	0.079	0.20	0.008	20.03	0.788	6
A4C0205R10CF02	2	1.99	0.078	0.20	0.008	20.03	0.788	10
A4C0255R06CF02	2B	2.49	0.098	0.20	0.008	20.03	0.788	6
A4C0305R06CF02	3	3.11	0.123	0.20	0.008	20.10	0.791	6
A4C0305R10CF02	3	3.11	0.122	0.20	0.008	20.10	0.791	10
A4C0405R06CF02	4	4.11	0.162	0.20	0.008	20.10	0.791	6
A4C0405R10CF02	4	4.10	0.161	0.20	0.008	20.10	0.791	10



P	●
M	●
K	●
N	○
S	●
H	●

- Principal
- Secundario

A4

Plaquitas de tronzar • CF • Moldeado de precisión • A izquierdas

Número de catálogo	Tamaño de asiento	W		RR		LI		αL
		mm	in	mm	in	mm	in	
A4C0155L06CF01	1	1.50	0.059	0.15	0.006	15.50	0.610	6
A4C0205L06CF02	2	2.00	0.079	0.20	0.008	20.03	0.788	6
A4C0205L10CF02	2	1.99	0.078	0.20	0.008	20.03	0.788	10
A4C0305L06CF02	3	3.11	0.123	0.20	0.008	20.10	0.791	6
A4C0305L10CF02	3	3.11	0.122	0.20	0.008	20.10	0.791	10
A4C0405L06CF02	4	4.11	0.162	0.20	0.008	20.10	0.791	6
A4C0405L10CF02	4	4.10	0.161	0.20	0.008	20.10	0.791	10

DATOS DE LA APLICACIÓN KCU25B

Grupo de materiales		Ranurado y tronzado • Datos de aplicación • Velocidades iniciales recomendadas (m/min)																					
		K313		KCU10B		KCU25B		KCM35B		KCP10B		KCP25B		KCK20B		KCS10B		KY3500		KYS30		KB1630	
		MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.
P	0-1	-	-	145	350	135	360	90	213	185	450	145	365	200	490	-	-	-	-	-	-	-	-
	2	-	-	145	255	125	220	90	155	185	350	145	305	200	380	-	-	-	-	-	-	-	-
	3	-	-	145	255	120	220	90	155	170	260	140	245	600	280	-	-	-	-	-	-	-	-
	4	-	-	80	180	35	95	50	110	90	200	75	180	100	220	-	-	-	-	-	-	-	-
	5	-	-	125	275	60	145	80	165	150	305	120	270	165	330	-	-	-	-	-	-	-	-
	6	-	-	115	240	50	120	70	145	120	275	110	230	130	300	-	-	-	-	-	-	-	-
M	1	60	120	145	275	100	265	75	135	-	-	-	-	-	135	250	-	-	-	-	-	-	
	2	45	110	125	255	90	250	75	135	-	-	-	-	-	115	250	-	-	-	-	-	-	
	3	35	100	125	255	90	220	75	135	-	-	-	-	-	125	225	-	-	-	-	-	-	
K	1	30	120	125	255	135	400	-	-	170	440	140	360	210	550	-	-	350	1040	-	-	-	-
	2	25	110	95	220	115	375	-	-	120	340	100	280	150	430	-	-	-	-	-	-	-	-
	3	20	90	65	160	100	340	-	-	120	270	100	220	150	335	-	-	-	-	-	-	-	-
N	1-2	150	610	160	1025	115	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4	120	430	125	640	115	635	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	5	45	150	95	255	90	320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S	6	40	150	125	320	90	410	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1	8	75	15	140	10	65	8	60	-	-	-	-	-	35	105	-	-	80	195	110	275	
	2	8	75	15	140	10	85	8	60	-	-	-	-	-	40	110	-	-	85	215	120	235	
	3	8	75	15	140	15	85	15	60	-	-	-	-	-	45	115	-	-	100	250	100	250	
H	4	8	75	15	180	10	115	15	90	-	-	-	-	-	45	130	-	-	-	-	-	-	
	1	-	-	30	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2	-	-	45	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

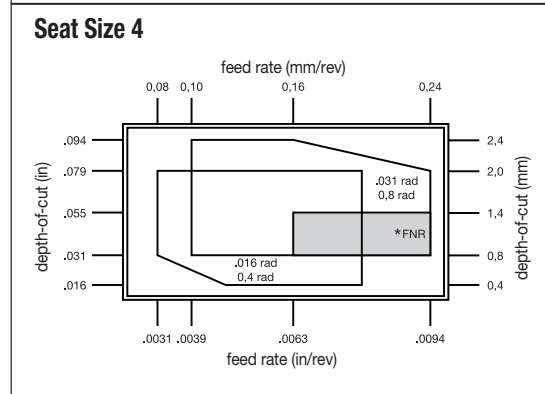
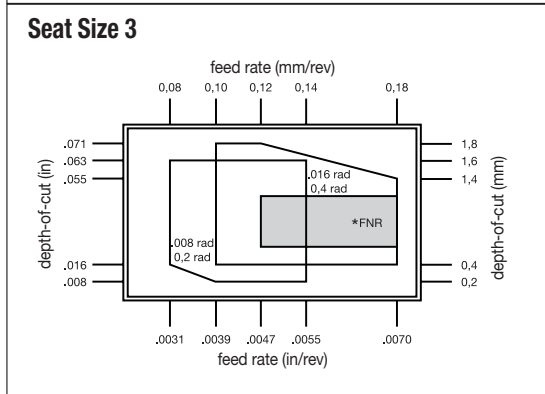
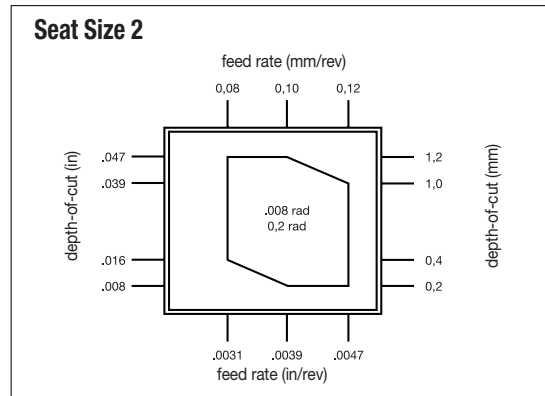
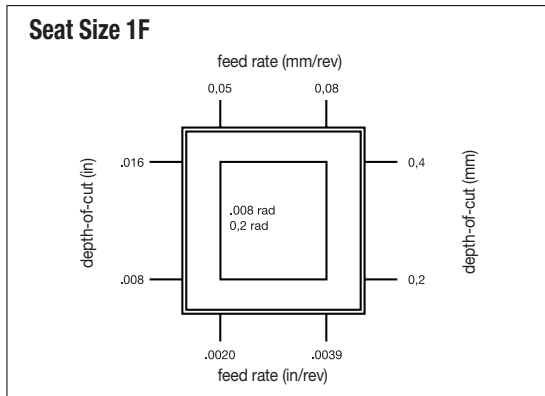
NOTA:

A medida que el grosor medio de viruta aumenta, la velocidad debería reducirse.

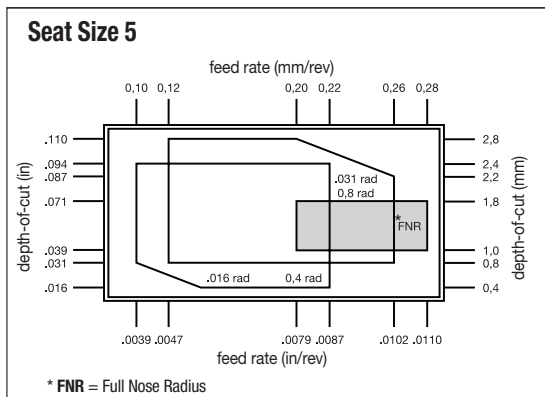
DATOS DE LA APLICACIÓN KCU25B

Ranurado y tronzado • Datos de aplicación • Avances de vaciado							
Geometry	Tamaño de asiento	RR		fn (mm/rev)		fn (pulg./rev)	
		mm	in	MIN	MAX	MIN	MAX
GUP / GMP GMN / GUN	1F	0.20	0.008	0.05	0.08	0.002	0.003
	2	0.20	0.008	0.05	0.14	0.002	0.006
	3	0.20	0.008	0.05	0.16	0.002	0.006
		0.40	0.016	0.08	0.18	0.003	0.007
	4	0.40	0.016	0.08	0.22	0.003	0.009
		0.80	0.031	0.10	0.24	0.004	0.009
	5	0.40	0.016	0.10	0.23	0.004	0.009
		0.80	0.031	0.10	0.25	0.004	0.010
	6	0.40	0.016	0.10	0.22	0.004	0.009
		0.80	0.031	0.12	0.26	0.005	0.010
8	1.20	0.047	0.14	0.30	0.006	0.012	
	0.80	0.031	0.12	0.30	0.005	0.012	
10	1.20	0.047	0.15	0.35	0.006	0.014	
	1B	0.15	0.006	0.05	0.09	0.002	0.004
CL	2	0.20	0.008	0.05	0.11	0.002	0.004
	3	0.20	0.008	0.05	0.14	0.002	0.006
	4	0.20	0.008	0.05	0.18	0.002	0.007
CF	1B	0.00	0.000	0.04	0.08	0.002	0.003
		0.10	0.004	0.05	0.10	0.002	0.004
	2	0.00	0.000	0.04	0.08	0.002	0.003
		0.20	0.008	0.05	0.13	0.002	0.005
	3	0.00	0.000	0.04	0.12	0.002	0.005
		0.20	0.008	0.05	0.18	0.002	0.007
	4	0.00	0.000	0.04	0.12	0.002	0.005
		0.20	0.008	0.05	0.20	0.002	0.008
	5	0.00	0.000	0.04	0.14	0.002	0.006
		0.30	0.012	0.05	0.23	0.002	0.009
CM	1B	0.15	0.006	0.05	0.09	0.002	0.004
	2	0.20	0.008	0.05	0.13	0.002	0.005
	3	0.20	0.008	0.05	0.18	0.002	0.007
	4	0.20	0.008	0.05	0.20	0.002	0.008
	5	0.30	0.012	0.05	0.20	0.002	0.008
		0.40	0.016	0.05	0.25	0.002	0.010
	8	0.40	0.016	0.05	0.30	0.002	0.012
	CR	2	0.20	0.008	0.08	0.13	0.003
3		0.20	0.008	0.08	0.23	0.003	0.009
4		0.20	0.008	0.08	0.30	0.003	0.012
5		0.30	0.012	0.10	0.35	0.004	0.014
		0.30	0.012	0.10	0.40	0.004	0.016
6		0.40	0.016	0.10	0.40	0.004	0.016
		0.40	0.016	0.10	0.43	0.004	0.017

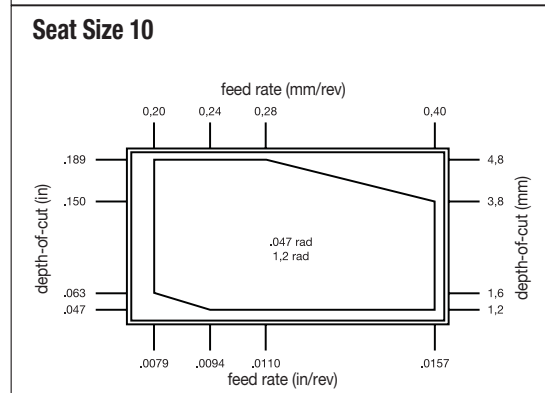
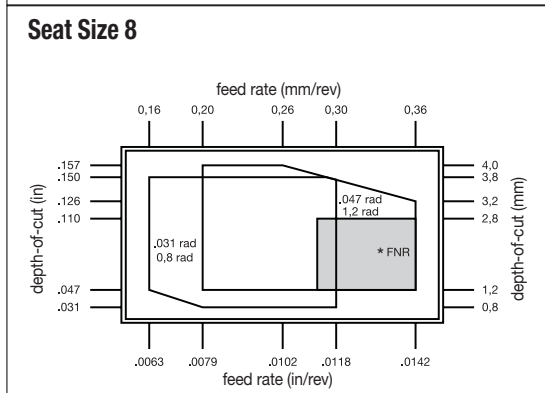
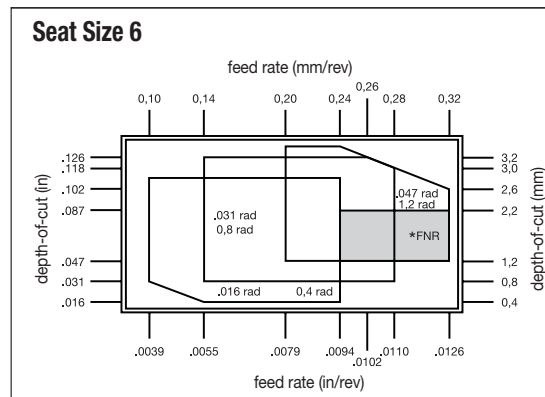
RANURADO Y TRONZADO DATOS DE APLICACIÓN - AVANCES DE TORNEADO Y PERFILADO



*FNR = radio de nariz completo



* FNR = Full Nose Radius



*FNR = radio de nariz completo

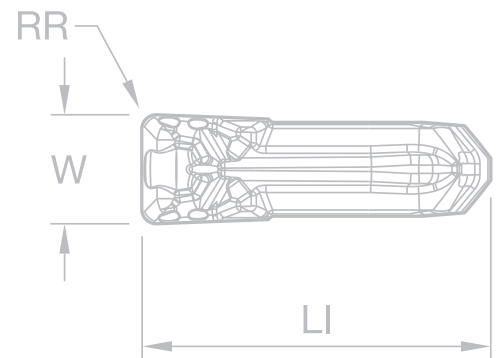
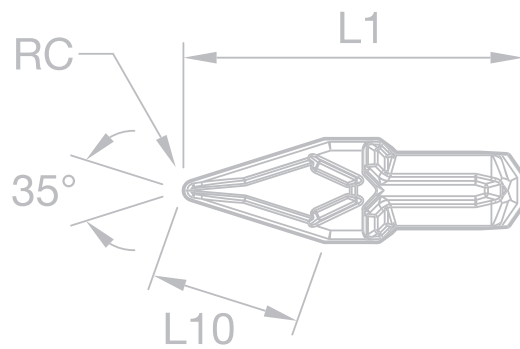
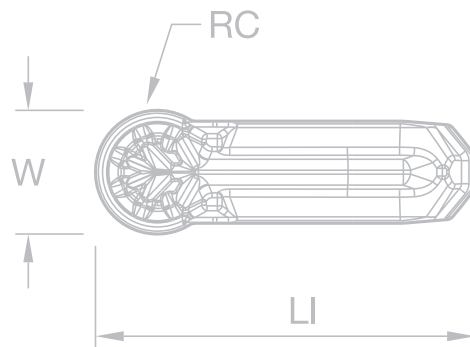
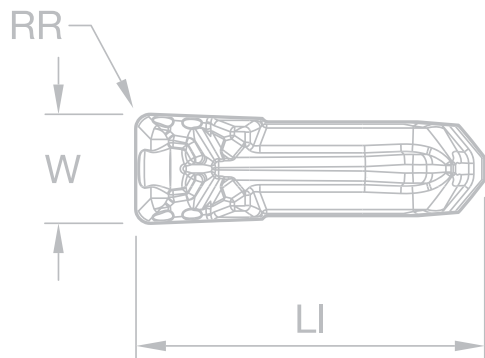
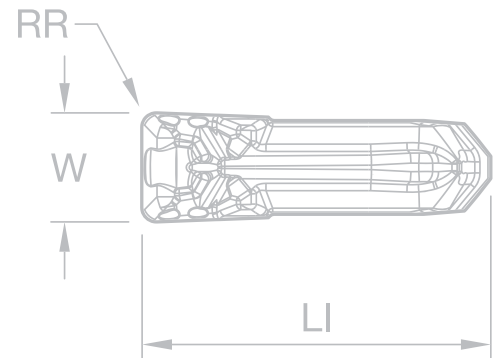
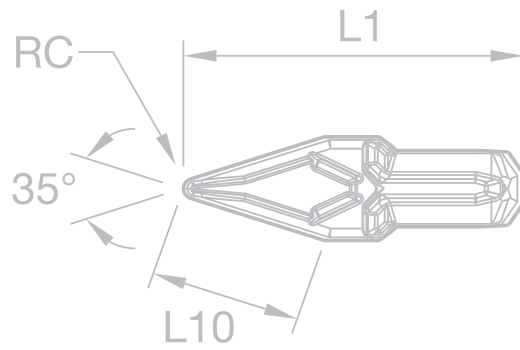
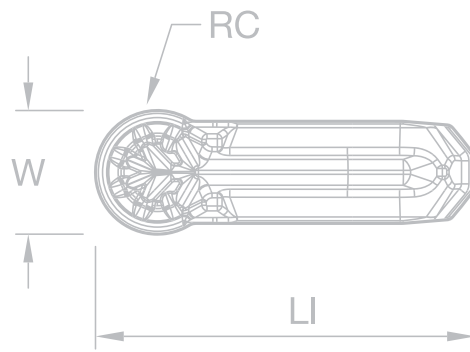
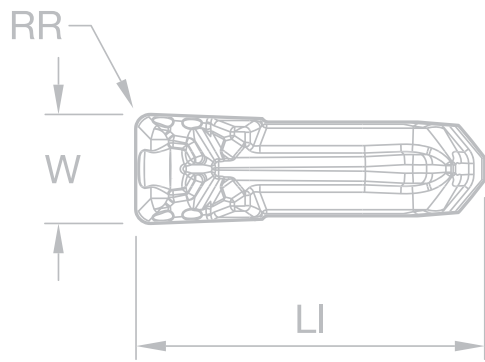
KCU25B

**PRECISIÓN Y POTENCIA
EN CADA CORTE**



LLEVE SU
FABRICACIÓN AL
SIGUIENTE NIVEL

kennametal.com/KCU25B



BEYOND EVOLUTION

RANURADO, TRONZADO Y TORNEADO

¡NOVEDAD! Algunas plaquitas ahora disponibles en calidad de torneado KCS10B para aleaciones de alta temperatura

Trabajo a velocidades más altas con mayor resistencia al calor y a la fricción en aleaciones de alta temperatura con plaquitas de tronzar CF y CL

Aplicaciones (desbaste y mecanizado medio)

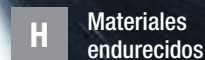


Materiales

PRINCIPAL



SECUNDARIO



Sistema de ranurado, torneado y tronzado de una sola cara

Beyond Evolution es aplicable con suministro de refrigerante a alta o baja presión. La función de control activo del refrigerante ofrece una vida más prolongada de la herramienta y mayores tasas de evacuación del metal (MRR). La característica de asiento Triple-V patentada con tres superficies de contacto proporciona estabilidad funcional y minimiza la vibración, lo que da como resultado excelentes acabados superficiales.

- **Efecto ventilador:** Redirige el refrigerante a través de la parte superior de la plaquita de forma precisa hasta la zona de corte bajo la viruta, y controla la temperatura
- **Efecto de rotura de virutas:** Mejora el control de virutas en todas las aplicaciones de ranurado, tronzado y torneado multidireccional
- **V superior e inferior:** Posicionamiento preciso y seguro de la plaquita para aumentar la rigidez y la precisión dimensional
- **Diseño trasero en V:** Estabilidad de carga de ranurado, tronzado y torneado multidireccional sin rival

Industrias



Ingeniería general



Sector aeroespacial



Medicina



Automoción

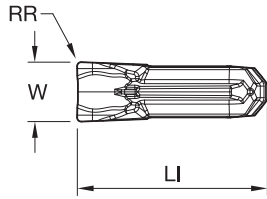


Petróleo y gas



Energía eólica y solar





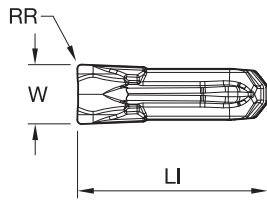
P	Blue
M	Yellow
K	Red
N	Green
S	Orange
H	Grey

- Principal
- Secundario

Beyond Evolution

Plaquitas de tronzar • CF • Rectificado de precisión • Neutral

ISO	Número de catálogo	Tamaño de asiento	W		W Tol +/-		LI		RR		α	
			mm	in	mm	in	mm	in	mm	in		
	EC020M02PN00CF02	2	2.00	0.079	0.025	0.001	9.04	0.356	0.20	0.008	-	●
	EC030M03PN00CF02	3	3.00	0.118	0.025	0.001	9.63	0.379	0.20	0.008	-	●
	EC040M04PN00CF02	4	4.00	0.158	0.025	0.001	10.16	0.400	0.20	0.008	-	●
	EC050M05PN00CF03	5	5.00	0.197	0.025	0.001	12.22	0.481	0.30	0.012	-	●



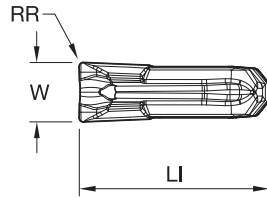
P	Blue
M	Yellow
K	Red
N	Green
S	Orange
H	Grey

- Principal
- Secundario

Beyond Evolution

Plaquitas de tronzar • CF • Rectificado de precisión • Neutral

ISO	Número de catálogo	Tamaño de asiento	W		W Tol +/-		LI		RR		α	
			mm	in	mm	in	mm	in	mm	in		
	EC020M02N00CF02	2	2.00	0.079	0.050	0.002	8.97	0.353	0.20	0.008	-	●
	EC030M03N00CF02	3	3.00	0.118	0.075	0.003	9.60	0.378	0.20	0.008	-	●
	EC040M04N00CF02	4	4.00	0.158	0.075	0.003	10.19	0.401	0.20	0.008	-	●
	EC050M05N00CF03	5	5.00	0.197	0.075	0.003	12.20	0.482	0.30	0.012	-	●



P	Blue
M	Yellow
K	Red
N	Green
S	Orange
H	Grey

- Principal
- Secundario

Beyond Evolution

Plaquitas de tronzar • CL • Rectificado de precisión • Neutral

ISO	Número de catálogo	Tamaño de asiento	W		W Tol +/-		LI		RR		α	
			mm	in	mm	in	mm	in	mm	in		
	EC020M02N00CL02	2	2.00	0.079	0.050	0.002	8.97	0.353	0.20	0.008	-	●
	EC030M03N00CL02	3	3.00	0.118	0.075	0.003	9.60	0.378	0.20	0.008	-	●
	EC040M04N00CL02	4	4.00	0.157	0.075	0.003	10.20	0.401	0.20	0.008	-	●

***Información de la aplicación, en la página 109**



BEYOND EVOLUTION

RANURADO, TRONZADO
Y TORNEADO

LLEVE SU
FABRICACIÓN AL
SIGUIENTE NIVEL

kennametal.com/BeyondEvolution

TopSwiss™ MBS

TORNEADO INTERNO DE PRECISIÓN

Barras de mandrinar y soportes de acero de metal duro integral con micromandrinado TopSwiss para torneado de mandrinados de diámetro pequeño



Aplicaciones



Mandrinado



Perfilado



Mandrinado en retroceso



Ranurado



Biselado



Roscado



Ranurado frontal



Multidirección

Materiales

PRINCIPAL

P

Aceros

M

Aceros
inoxidables

K

Fundición

SECUNDARIO

C

Materiales de
compuestos

N

Materiales no
ferrosos

S

Aleaciones
de alta
temperatura

H

Materiales
endurecidos

Mecanizado de piezas pulido, suizo y pequeño

Cuando se trata de la precisión y el rendimiento necesarios para girar orificios, ranuras y roscas de diámetro pequeño, TopSwiss MBS tiene una oferta versátil en la que puede confiar para un torneado interno de siguiente nivel.

- Torneado interno de alto rendimiento en orificios de tan solo $\varnothing 0,3$ mm (0,012")
- Filos de corte excepcionalmente afilados para la mejor vida de la herramienta y acabados superficiales de su clase
- Mangos de plaquita rectificadas de precisión para una alta precisión y estabilidad
- Más de 1100 elementos estándar proporcionan el soporte y la plaquita adecuados para cada aplicación

Industrias



Medicina



Sector
aeroespacial



Automoción

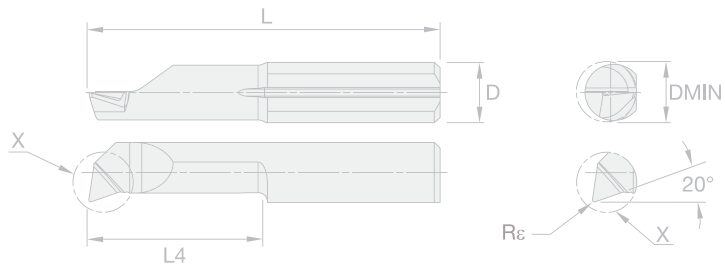
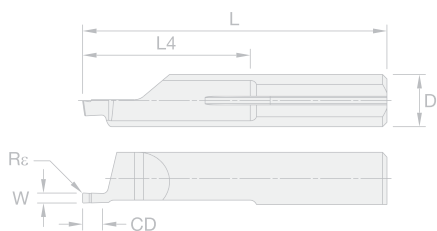
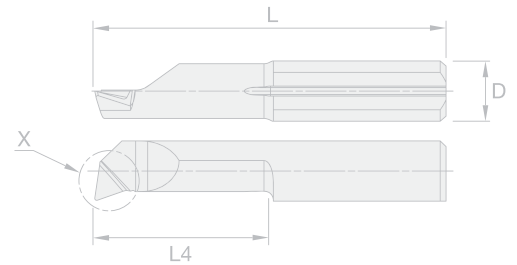
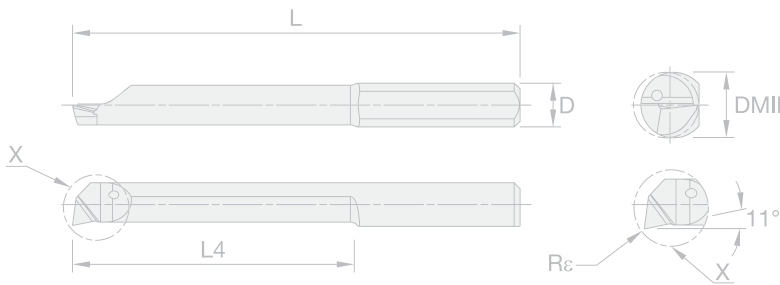
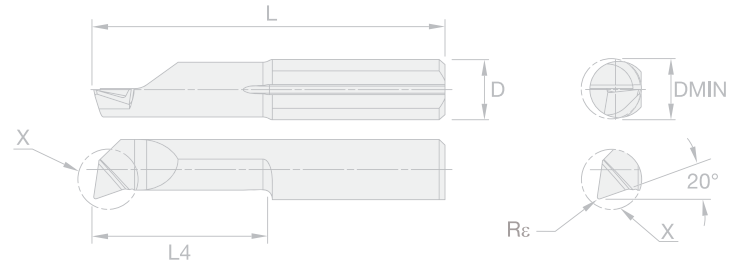
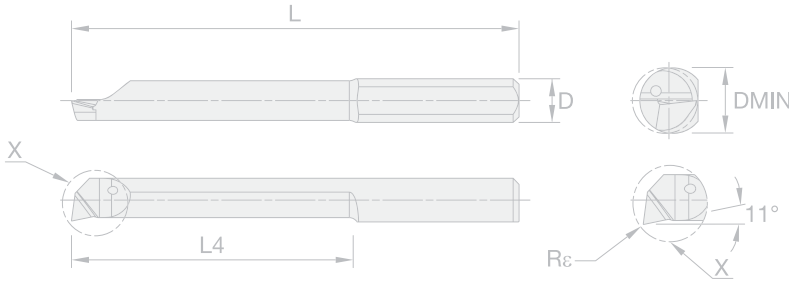
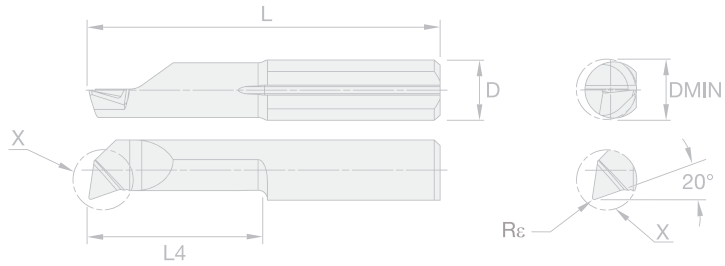
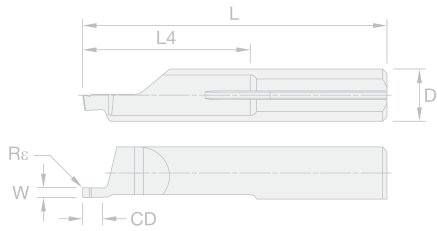
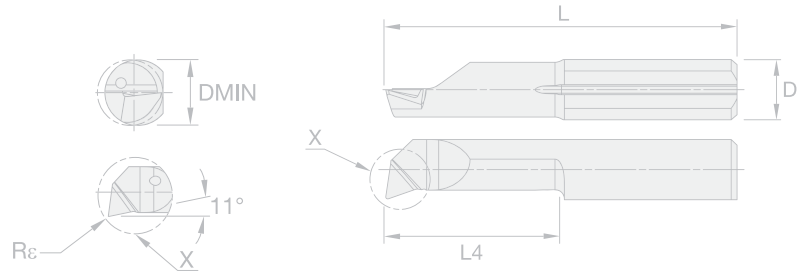


Ingeniería
general



TopSwiss MBS

PLAQUITAS




PLAQUITAS DE MANDRINADO Y PERFILADO DE NOMENCLATURA

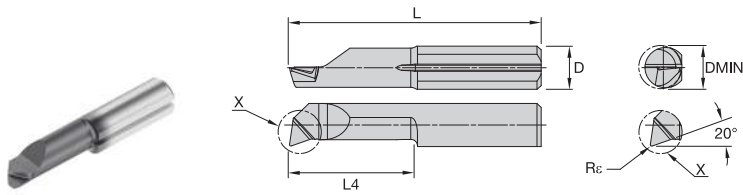
							Ejemplo: R4BPML003C01 R002 - KCSM25S		
R	4	BP	ML	003	C	01	R002	-	KCSM25S
Dirección	Mango Diámetro	Áreas de aplicación	Estilo (ángulos de ataque y de alivio)	Tamaño mín. del orificio	Refrigerante	Profundidad de mecanizado	Radio de esquina	Separator	Calidad
R = derecha	4: 4 mm Ø	BP: mandrinado y perfilado	GA: geometría A (8° y 20°)	003: 0.3 mm	Canales de refrigerante	01: 1 mm	R000: 0.00 mm (0.0000")		KCU25S
L = izquierda	5: 5 mm Ø	MF: multifunción	GB: geometría B (0° y 20°)	005: 0.5 mm	Orificios de refrigerante	05: 5 mm	R002: 0.02 mm (0.0008")		KCPM25S
	6: 6 mm Ø		GC: geometría C (8° y 47°)	070: 7.0 mm	D: orificio de refrigerante doble	10 = 10 mm	R005: 0.05 mm (0.002")		KCSM25S
	7: 7mm Ø		ML: línea médica (8° y 11°)	160: 16.0 mm		25 = 25 mm	R015: 0.15 mm (0.006")		KCHS25S
	8: 8 mm Ø		HP: alto rendimiento (6° y 7°)				R020: 0.2 mm (0.008")		
			HM: mecanizado duro (8° y 20°)				R150 = 1.5 mm (0.060")		
			DB: taladro y orificio (0° y 0°)						

RANURADO DE NOMENCLATURA Y MANDRINADO ESPECIALIZADO

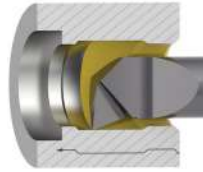
							Ejemplo: R4GR08003C01 R002 - KCHS25S		
R	4	GR	08	003	C	01	R002	-	KCHS25S
Dirección	Mango Diámetro	Áreas de aplicación	Ancho	Tamaño mín. del orificio	Refrigerante	Profundidad de mecanizado	Radio de esquina	Separator	Calidad
R = derecha	4: 4 mm Ø	BB: mandrinado posterior	03: 0.30 mm	003: 0.3 mm	Canales de refrigerante	01: 1 mm	R000: 0.00 mm (0.0000")		KCU25S
L = izquierda	5: 5 mm Ø	PG: prerranurado	08: 0.80 mm	005: 0.5 mm	Orificios de refrigerante	05: 5 mm	R002: 0.02 mm (0.0008")		KCPM25S
	6: 6 mm Ø	BC: agujero y bisel	10 = 1.00 mm 20 = 2.00 mm	070: 7.0 mm	D: orificio de refrigerante doble	10 = 10 mm	R005: 0.05 mm (0.002")		KCSM25S
	7: 7mm Ø	GS: ranura interna con esquina afilada	40: 4.00 mm	160: 16.0 mm		25 = 25 mm	R015: 0.15 mm (0.006")		KCHS25S
	8: 8 mm Ø	GR: ranura interna con esquina de radio GF: ranura interna con radio de nariz completo					R020: 0.2 mm (0.008")		
		FI: ranura frontal, barrido interior					R150 = 1.5 mm (0.060")		
		FO: ranura frontal, barrido fueraborda							

ROSCADO DE NOMENCLATURA

							Ejemplo: R4TPME070C01 T025 - KCU25S		
R	4	TP	ME	070	C	01	T025	-	KCU25S
Dirección	Diámetro del mango	Áreas de aplicación	Tipo	Tamaño mín. del orificio	Refrigerante	Profundidad de mecanizado	Paso	Separator	Calidad
R = derecha	4: 4 mm Ø	TP: roscado, perfil parcial	ME: ISO métrico	003: 0.3 mm	Canales de refrigerante	01: 1 mm	T025: Paso métrico 0.25		KCU25S
L = izquierda	5: 5 mm Ø	TF: roscado, perfil completo	ONU: nacional unificado	005: 0.5 mm	Orificios de refrigerante	05: 5 mm	T024: Paso 24 de la ONU		KCPM25S
	6: 6 mm Ø		WH: whitworth	070: 7.0 mm	D: orificio de refrigerante doble	10 = 10 mm	T016: Paso Whitworth 16		KCSM25S
	7: 7mm Ø		NP: tubería nacional	160: 16.0 mm		25 = 25 mm	T018: Paso NP 18		KCHS25S
	8: 8 mm Ø								
							Para perfiles parciales		
							Indica el inicio del rango de paso		
							T025: Paso métrico (0.25-0.3)		
							T024: Paso de la ONU (24-28)		



APLICACIONES



P	●
M	●
K	●
N	○
S	○
H	○

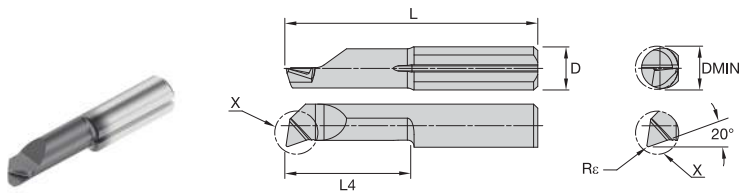
- Principal
- Secundario

Mandrinado y perfilado

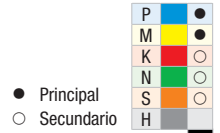
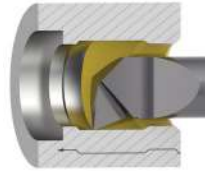
GA

Número de pedido	Número de catálogo	D	DMIN		L4		L		Re		ÁNGULO		●
			in	mm	in	mm	in	mm	in	mm	ATAQUE	DESAHOGO	
7219715	L4BPGA003C01R002 KCU25S	4	0.012	0.30	0.047	1.20	0.787	20	0.001	0.02	8.0°	20°	●
7219716	L4BPGA004C01R002 KCU25S	4	0.016	0.40	0.063	1.60	0.787	20	0.001	0.02	8.0°	20°	●
7219717	L4BPGA005C02R004 KCU25S	4	0.020	0.50	0.071	1.80	0.787	20	0.002	0.04	8.0°	20°	●
7219718	L4BPGA006C02R004 KCU25S	4	0.024	0.60	0.071	1.80	0.787	20	0.002	0.04	8.0°	20°	●
7219720	L4BPGA006C03R004 KCU25S	4	0.024	0.60	0.110	2.80	0.787	20	0.002	0.04	8.0°	20°	●
7219721	L4BPGA008C04R004 KCU25S	4	0.032	0.80	0.150	3.80	0.787	20	0.002	0.04	8.0°	20°	●
7219722	L4BPGA010C05R005 KCU25S	4	0.039	1.00	0.177	4.50	0.787	20	0.002	0.05	8.0°	20°	●
7219723	L4BPGA010C07R005 KCU25S	4	0.039	1.00	0.256	6.50	0.866	22	0.002	0.05	8.0°	20°	●
7219724	L4BPGA010C08R005 KCU25S	4	0.039	1.00	0.295	7.50	0.866	22	0.002	0.05	8.0°	20°	●
7219725	L4BPGA015C05R005 KCU25S	4	0.059	1.50	0.177	4.50	0.748	19	0.002	0.05	8.0°	20°	●
7219726	L4BPGA015C10R005 KCU25S	4	0.059	1.50	0.354	9.00	0.945	24	0.002	0.05	8.0°	20°	●
7219727	L4BPGA015C12R005 KCU25S	4	0.059	1.50	0.433	11.00	1.024	26	0.002	0.05	8.0°	20°	●
7219728	L4BPGA020C05R005 KCU25S	4	0.079	2.00	0.177	4.50	0.748	19	0.002	0.05	8.0°	20°	●
7219729	L4BPGA020C10R005 KCU25S	4	0.079	2.00	0.354	9.00	0.945	24	0.002	0.05	8.0°	20°	●
7219730	L4BPGA020C15R005 KCU25S	4	0.079	2.00	0.551	14.00	1.142	29	0.002	0.05	8.0°	20°	●
7219741	L4BPGA025C05R005 KCU25S	4	0.098	2.50	0.177	4.50	0.748	19	0.002	0.05	8.0°	20°	●
7219742	L4BPGA025C10R005 KCU25S	4	0.098	2.50	0.354	9.00	0.945	24	0.002	0.05	8.0°	20°	●
7219743	L4BPGA025C16R005 KCU25S	4	0.098	2.50	0.591	15.00	1.181	30	0.002	0.05	8.0°	20°	●
7220066	L4BPGA028C10R005 KCU25S	4	0.110	2.80	0.354	9.00	0.945	24	0.002	0.05	8.0°	20°	●
7219745	L4BPGA028C10R010 KCU25S	4	0.110	2.80	0.354	9.00	0.945	24	0.004	0.10	8.0°	20°	●
7220067	L4BPGA028C16R005 KCU25S	4	0.110	2.80	0.591	15.00	1.181	30	0.002	0.05	8.0°	20°	●
7219746	L4BPGA028C16R010 KCU25S	4	0.110	2.80	0.591	15.00	1.181	30	0.004	0.10	8.0°	20°	●
7220068	L4BPGA028C20R005 KCU25S	4	0.110	2.80	0.748	19.00	1.339	34	0.002	0.05	8.0°	20°	●
7219747	L4BPGA028C20R010 KCU25S	4	0.110	2.80	0.748	19.00	1.339	34	0.004	0.10	8.0°	20°	●
7220063	L4BPGA02XC05R005 KCU25S	4	0.083	2.10	0.177	4.50	0.748	19	0.002	0.05	8.0°	20°	●
7220064	L4BPGA02XC10R005 KCU25S	4	0.083	2.10	0.177	4.50	0.748	19	0.002	0.05	8.0°	20°	●
7220065	L4BPGA02XC15R005 KCU25S	4	0.083	2.10	0.551	14.00	1.142	29	0.002	0.05	8.0°	20°	●
7219748	L4BPGA035C10R010 KCU25S	4	0.138	3.50	0.354	9.00	0.945	24	0.004	0.10	8.0°	20°	●
7219749	L4BPGA035C16R010 KCU25S	4	0.138	3.50	0.591	15.00	1.181	30	0.004	0.10	8.0°	20°	●
7219750	L4BPGA035C20R010 KCU25S	4	0.138	3.50	0.748	19.00	1.339	34	0.004	0.10	8.0°	20°	●
7219751	L4BPGA035C24R010 KCU25S	4	0.138	3.50	0.906	23.00	1.496	38	0.004	0.10	8.0°	20°	●
7220069	L4BPGA040C10R005 KCU25S	4	0.158	4.00	0.354	9.00	0.945	24	0.002	0.05	8.0°	20°	●
7219752	L4BPGA040C10R010 KCU25S	4	0.158	4.00	0.354	9.00	0.945	24	0.004	0.10	8.0°	20°	●
7220070	L4BPGA040C16R005 KCU25S	4	0.158	4.00	0.591	15.00	1.181	30	0.002	0.05	8.0°	20°	●
7219753	L4BPGA040C16R010 KCU25S	4	0.158	4.00	0.591	15.00	1.181	30	0.004	0.10	8.0°	20°	●
7220071	L4BPGA040C20R005 KCU25S	4	0.158	4.00	0.748	19.00	1.339	34	0.002	0.05	8.0°	20°	●
7219754	L4BPGA040C20R010 KCU25S	4	0.158	4.00	0.748	19.00	1.339	34	0.004	0.10	8.0°	20°	●
7220072	L4BPGA040C24R005 KCU25S	4	0.158	4.00	0.906	23.00	1.496	38	0.002	0.05	8.0°	20°	●
7219755	L4BPGA040C24R010 KCU25S	4	0.158	4.00	0.906	23.00	1.496	38	0.004	0.10	8.0°	20°	●
7220073	L4BPGA040C28R005 KCU25S	4	0.158	4.00	1.063	27.00	1.654	42	0.002	0.05	8.0°	20°	●
7219756	L4BPGA040C28R010 KCU25S	4	0.158	4.00	1.063	27.00	1.654	42	0.004	0.10	8.0°	20°	●
7220074	L5BPGA050C10R005 KCU25S	5	0.197	5.00	0.354	9.00	0.984	25	0.002	0.05	8.0°	20°	●
7219757	L5BPGA050C10R015 KCU25S	5	0.197	5.00	0.354	9.00	0.984	25	0.006	0.15	8.0°	20°	●
7220075	L5BPGA050C15R005 KCU25S	5	0.197	5.00	0.551	14.00	1.181	30	0.002	0.05	8.0°	20°	●
7219758	L5BPGA050C15R015 KCU25S	5	0.197	5.00	0.551	14.00	1.181	30	0.006	0.15	8.0°	20°	●
7220077	L5BPGA050C20R005 KCU25S	5	0.197	5.00	0.748	19.00	1.378	35	0.002	0.05	8.0°	20°	●
7219759	L5BPGA050C20R015 KCU25S	5	0.197	5.00	0.748	19.00	1.378	35	0.006	0.15	8.0°	20°	●
7220079	L5BPGA050C25R005 KCU25S	5	0.197	5.00	0.945	24.00	1.575	40	0.002	0.05	8.0°	20°	●

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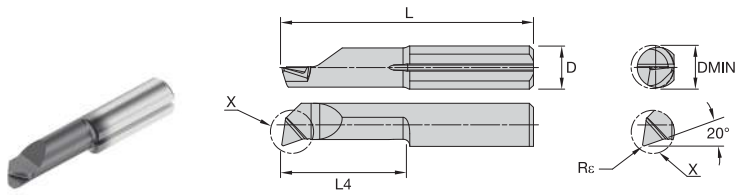


Mandrinado y perfilado Continuación

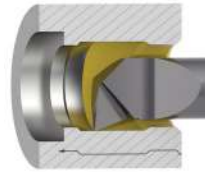
GA

Número de pedido	Número de catálogo	D	DMIN		L4		L		Re		ÁNGULO		KCU25S
			in	mm	in	mm	in	mm	in	mm	ATAQUE	DESAHOGO	
7219760	L5BPGA050C25R015 KCU25S	5	0.197	5.00	0.945	24.00	1.575	40	0.006	0.15	8.0°	20°	•
7220081	L5BPGA050C30R005 KCU25S	5	0.197	5.00	1.142	29.00	1.772	45	0.002	0.05	8.0°	20°	•
7219761	L5BPGA050C30R015 KCU25S	5	0.197	5.00	1.142	29.00	1.772	45	0.006	0.15	8.0°	20°	•
7220083	L5BPGA050C35R005 KCU25S	5	0.197	5.00	1.339	34.00	1.969	50	0.002	0.05	8.0°	20°	•
7219762	L5BPGA050C35R015 KCU25S	5	0.197	5.00	1.339	34.00	1.969	50	0.004	0.10	8.0°	20°	•
7219763	L5BPGA050C40R015 KCU25S	5	0.197	5.00	1.535	39.00	2.165	55	0.006	0.15	8.0°	20°	•
7220085	L6BPGA060C15R005 KCU25S	6	0.236	6.00	0.551	14.00	1.181	30	0.002	0.05	8.0°	20°	•
7219764	L6BPGA060C15R015 KCU25S	6	0.236	6.00	0.551	14.00	1.181	30	0.006	0.15	8.0°	20°	•
7220087	L6BPGA060C22R005 KCU25S	6	0.236	6.00	0.827	21.00	1.457	37	0.002	0.05	8.0°	20°	•
7219765	L6BPGA060C22R015 KCU25S	6	0.236	6.00	0.827	21.00	1.457	37	0.006	0.15	8.0°	20°	•
7220089	L6BPGA060C25R005 KCU25S	6	0.236	6.00	0.945	24.00	1.575	40	0.002	0.05	8.0°	20°	•
7219766	L6BPGA060C25R015 KCU25S	6	0.236	6.00	0.945	24.00	1.575	40	0.006	0.15	8.0°	20°	•
7220091	L6BPGA060C30R005 KCU25S	6	0.236	6.00	1.142	29.00	1.772	45	0.002	0.05	8.0°	20°	•
7219767	L6BPGA060C30R015 KCU25S	6	0.236	6.00	1.142	29.00	1.772	45	0.006	0.15	8.0°	20°	•
7220093	L6BPGA060C35R005 KCU25S	6	0.236	6.00	1.339	34.00	1.969	50	0.002	0.05	8.0°	20°	•
7219769	L6BPGA060C35R015 KCU25S	6	0.236	6.00	1.339	34.00	1.969	50	0.006	0.15	8.0°	20°	•
7220095	L6BPGA060C42R005 KCU25S	6	0.236	6.00	1.614	41.00	2.244	57	0.002	0.05	8.0°	20°	•
7219770	L6BPGA060C42R015 KCU25S	6	0.236	6.00	1.614	41.00	2.244	57	0.006	0.15	8.0°	20°	•
7219771	L7BPGA068C20R015 KCU25S	7	0.268	6.80	0.748	19.00	1.378	35	0.006	0.15	8.0°	20°	•
7219772	L7BPGA068C25R015 KCU25S	7	0.268	6.80	0.945	24.00	1.575	40	0.006	0.15	8.0°	20°	•
7219773	L7BPGA068C30R015 KCU25S	7	0.268	6.80	1.142	29.00	1.772	45	0.006	0.15	8.0°	20°	•
7219774	L7BPGA068C35R015 KCU25S	7	0.268	6.80	1.339	34.00	1.969	50	0.006	0.15	8.0°	20°	•
7219775	L7BPGA068C40R015 KCU25S	7	0.268	6.80	1.535	39.00	2.165	55	0.006	0.15	8.0°	20°	•
7219776	L7BPGA068C45R015 KCU25S	7	0.268	6.80	1.732	44.00	2.362	60	0.006	0.15	8.0°	20°	•
7219777	L7BPGA068C50R015 KCU25S	7	0.268	6.80	1.929	49.00	2.559	65	0.006	0.15	8.0°	20°	•
7219778	L8BPGA078C50R020 KCU25S	8	0.307	7.80	1.929	49.00	2.756	70	0.008	0.20	8.0°	20°	•
7219779	L8BPGA078C60R020 KCU25S	8	0.307	7.80	2.323	59.00	3.150	80	0.008	0.20	8.0°	20°	•
7219780	R4BPGA003C01R002 KCU25S	4	0.012	0.30	0.047	1.20	0.787	20	0.001	0.02	8.0°	20°	•
7219781	R4BPGA004C01R002 KCU25S	4	0.016	0.40	0.063	1.60	0.787	20	0.001	0.02	8.0°	20°	•
7219782	R4BPGA005C02R004 KCU25S	4	0.020	0.50	0.071	1.80	0.787	20	0.002	0.04	8.0°	20°	•
7219783	R4BPGA006C02R004 KCU25S	4	0.024	0.60	0.071	1.80	0.787	20	0.002	0.04	8.0°	20°	•
7219784	R4BPGA006C03R004 KCU25S	4	0.024	0.60	0.079	2.00	0.787	20	0.002	0.04	8.0°	20°	•
7219785	R4BPGA008C04R004 KCU25S	4	0.032	0.80	0.150	3.80	0.787	20	0.002	0.04	8.0°	20°	•
7219786	R4BPGA010C05R005 KCU25S	4	0.039	1.00	0.177	4.50	0.787	20	0.002	0.05	8.0°	20°	•
7219787	R4BPGA010C07R005 KCU25S	4	0.039	1.00	0.256	6.50	0.866	22	0.002	0.05	8.0°	20°	•
7219788	R4BPGA010C08R005 KCU25S	4	0.039	1.00	0.295	7.50	0.866	22	0.002	0.05	8.0°	20°	•
7219789	R4BPGA015C05R005 KCU25S	4	0.059	1.50	0.177	4.50	0.748	19	0.002	0.05	8.0°	20°	•
7219790	R4BPGA015C10R005 KCU25S	4	0.059	1.50	0.354	9.00	0.945	24	0.002	0.05	8.0°	20°	•
7219791	R4BPGA015C12R005 KCU25S	4	0.059	1.50	0.433	11.00	1.024	26	0.002	0.05	8.0°	20°	•
7219792	R4BPGA020C05R005 KCU25S	4	0.079	2.00	0.177	4.50	0.748	19	0.002	0.05	8.0°	20°	•
7219794	R4BPGA020C10R005 KCU25S	4	0.079	2.00	0.354	9.00	0.945	24	0.002	0.05	8.0°	20°	•
7219795	R4BPGA020C15R005 KCU25S	4	0.079	2.00	0.551	14.00	1.142	29	0.002	0.05	8.0°	20°	•
7219796	R4BPGA025C05R005 KCU25S	4	0.098	2.50	0.177	4.50	0.748	19	0.002	0.05	8.0°	20°	•
7219797	R4BPGA025C10R005 KCU25S	4	0.098	2.50	0.354	9.00	0.945	24	0.002	0.05	8.0°	20°	•
7219798	R4BPGA025C16R005 KCU25S	4	0.098	2.50	0.591	15.00	1.181	30	0.002	0.05	8.0°	20°	•
7220103	R4BPGA028C10R005 KCU25S	4	0.110	2.80	0.354	9.00	0.945	24	0.002	0.05	8.0°	20°	•
7219799	R4BPGA028C10R010 KCU25S	4	0.110	2.80	0.354	9.00	0.945	24	0.004	0.10	8.0°	20°	•
7220105	R4BPGA028C16R005 KCU25S	4	0.110	2.80	0.591	15.00	1.181	30	0.002	0.05	8.0°	20°	•

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APLICACIONES



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M	●
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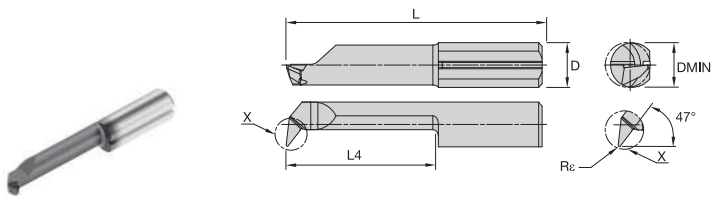
- Principal
- Secundario

Mandrinado y perfilado Continuación

GA

Número de pedido	Número de catálogo	D	DMIN		L4		L		Rε		ÁNGULO		●
			in	mm	in	mm	in	mm	in	mm	ATAQUE	DESAHOGO	
7219800	R4BPGA028C16R010 KCU25S	4	0.110	2.80	0.591	15.00	1.181	30	0.004	0.10	8.0°	20°	●
7220107	R4BPGA028C20R005 KCU25S	4	0.110	2.80	0.748	19.00	1.339	34	0.002	0.05	8.0°	20°	●
7219811	R4BPGA028C20R010 KCU25S	4	0.110	2.80	0.748	19.00	1.339	34	0.004	0.10	8.0°	20°	●
7220097	R4BPGA02XC05R005 KCU25S	4	0.079	2.00	0.177	4.50	0.748	19	0.002	0.05	8.0°	20°	●
7220099	R4BPGA02XC10R005 KCU25S	4	0.079	2.00	0.354	9.00	0.945	24	0.002	0.05	8.0°	20°	●
7220101	R4BPGA02XC15R005 KCU25S	4	0.079	2.00	0.551	14.00	1.142	29	0.002	0.05	8.0°	20°	●
7219812	R4BPGA035C10R010 KCU25S	4	0.138	3.50	0.354	9.00	0.945	24	0.004	0.10	8.0°	20°	●
7219813	R4BPGA035C16R010 KCU25S	4	0.138	3.50	0.591	15.00	1.181	30	0.004	0.10	8.0°	20°	●
7219814	R4BPGA035C20R010 KCU25S	4	0.138	3.50	0.748	19.00	1.339	34	0.004	0.10	8.0°	20°	●
7219815	R4BPGA035C24R010 KCU25S	4	0.138	3.50	0.906	23.00	1.496	38	0.004	0.10	8.0°	20°	●
7220109	R4BPGA040C10R005 KCU25S	4	0.158	4.00	0.354	9.00	0.945	24	0.002	0.05	8.0°	20°	●
7219817	R4BPGA040C10R010 KCU25S	4	0.158	4.00	0.354	9.00	0.945	24	0.004	0.10	8.0°	20°	●
7220111	R4BPGA040C16R005 KCU25S	4	0.158	4.00	0.591	15.00	1.181	30	0.002	0.05	8.0°	20°	●
7219818	R4BPGA040C16R010 KCU25S	4	0.158	4.00	0.591	15.00	1.181	30	0.004	0.10	8.0°	20°	●
7220113	R4BPGA040C20R005 KCU25S	4	0.158	4.00	0.748	19.00	1.339	34	0.002	0.05	8.0°	20°	●
7219819	R4BPGA040C20R010 KCU25S	4	0.158	4.00	0.748	19.00	1.339	34	0.004	0.10	8.0°	20°	●
7220115	R4BPGA040C24R005 KCU25S	4	0.158	4.00	0.906	23.00	1.496	38	0.002	0.05	8.0°	20°	●
7219820	R4BPGA040C24R010 KCU25S	4	0.158	4.00	0.906	23.00	1.496	38	0.004	0.10	8.0°	20°	●
7220117	R4BPGA040C28R005 KCU25S	4	0.158	4.00	1.063	27.00	1.654	42	0.002	0.05	8.0°	20°	●
7219821	R4BPGA040C28R010 KCU25S	4	0.158	4.00	1.063	27.00	1.654	42	0.004	0.10	8.0°	20°	●
7220119	R5BPGA050C10R005 KCU25S	5	0.197	5.00	0.354	9.00	0.984	25	0.002	0.05	8.0°	20°	●
7219822	R5BPGA050C10R015 KCU25S	5	0.197	5.00	0.354	9.00	0.984	25	0.006	0.15	8.0°	20°	●
7220121	R5BPGA050C15R005 KCU25S	5	0.197	5.00	0.551	14.00	1.181	30	0.002	0.05	8.0°	20°	●
7219823	R5BPGA050C15R015 KCU25S	5	0.197	5.00	0.551	14.00	1.181	30	0.006	0.15	8.0°	20°	●
7220123	R5BPGA050C20R005 KCU25S	5	0.197	5.00	0.748	19.00	1.378	35	0.002	0.05	8.0°	20°	●
7219824	R5BPGA050C20R015 KCU25S	5	0.197	5.00	0.748	19.00	1.378	35	0.006	0.15	8.0°	20°	●
7220125	R5BPGA050C25R005 KCU25S	5	0.197	5.00	0.945	24.00	1.575	40	0.002	0.05	8.0°	20°	●
7219825	R5BPGA050C25R015 KCU25S	5	0.197	5.00	0.945	24.00	1.575	40	0.006	0.15	8.0°	20°	●
7220127	R5BPGA050C30R005 KCU25S	5	0.197	5.00	1.142	29.00	1.772	45	0.002	0.05	8.0°	20°	●
7219826	R5BPGA050C30R015 KCU25S	5	0.197	5.00	1.142	29.00	1.772	45	0.006	0.15	8.0°	20°	●
7220129	R5BPGA050C35R005 KCU25S	5	0.197	5.00	1.339	34.00	1.969	50	0.002	0.05	8.0°	20°	●
7219827	R5BPGA050C35R015 KCU25S	5	0.197	5.00	1.339	34.00	1.969	50	0.004	0.10	8.0°	20°	●
7219828	R5BPGA050C40R015 KCU25S	5	0.197	5.00	1.535	39.00	2.165	55	0.006	0.15	8.0°	20°	●
7220131	R6BPGA060C15R005 KCU25S	6	0.236	6.00	0.551	14.00	1.181	30	0.002	0.05	8.0°	20°	●
7219829	R6BPGA060C15R015 KCU25S	6	0.236	6.00	0.551	14.00	1.181	30	0.006	0.15	8.0°	20°	●
7220133	R6BPGA060C22R005 KCU25S	6	0.236	6.00	0.827	21.00	1.457	37	0.002	0.05	8.0°	20°	●
7219830	R6BPGA060C22R015 KCU25S	6	0.236	6.00	0.827	21.00	1.457	37	0.006	0.15	8.0°	20°	●
7220135	R6BPGA060C25R005 KCU25S	6	0.236	6.00	0.945	24.00	1.575	40	0.002	0.05	8.0°	20°	●
7219831	R6BPGA060C25R015 KCU25S	6	0.236	6.00	0.945	24.00	1.575	40	0.006	0.15	8.0°	20°	●
7220137	R6BPGA060C30R005 KCU25S	6	0.236	6.00	1.142	29.00	1.772	45	0.002	0.05	8.0°	20°	●
7219832	R6BPGA060C30R015 KCU25S	6	0.236	6.00	1.142	29.00	1.772	45	0.006	0.15	8.0°	20°	●
7220139	R6BPGA060C35R005 KCU25S	6	0.236	6.00	1.339	34.00	1.969	50	0.002	0.05	8.0°	20°	●
7219833	R6BPGA060C35R015 KCU25S	6	0.236	6.00	1.339	34.00	1.969	50	0.006	0.15	8.0°	20°	●
7220141	R6BPGA060C42R005 KCU25S	6	0.236	6.00	1.614	41.00	2.244	57	0.002	0.05	8.0°	20°	●
7219834	R6BPGA060C42R015 KCU25S	6	0.236	6.00	1.614	41.00	2.244	57	0.006	0.15	8.0°	20°	●
7219835	R7BPGA068C20R015 KCU25S	7	0.268	6.80	0.748	19.00	1.378	35	0.006	0.15	8.0°	20°	●
7219836	R7BPGA068C25R015 KCU25S	7	0.268	6.80	0.945	24.00	1.575	40	0.006	0.15	8.0°	20°	●
7219837	R7BPGA068C30R015 KCU25S	7	0.268	6.80	1.142	29.00	1.772	45	0.006	0.15	8.0°	20°	●
7219838	R7BPGA068C35R015 KCU25S	7	0.268	6.80	1.339	34.00	1.969	50	0.006	0.15	8.0°	20°	●
7219839	R7BPGA068C40R015 KCU25S	7	0.268	6.80	1.535	39.00	2.165	55	0.006	0.15	8.0°	20°	●
7219840	R7BPGA068C45R015 KCU25S	7	0.268	6.80	1.732	44.00	2.362	60	0.006	0.15	8.0°	20°	●
7219841	R7BPGA068C50R015 KCU25S	7	0.268	6.80	1.929	49.00	2.559	65	0.006	0.15	8.0°	20°	●
7219843	R8BPGA078C50R020 KCU25S	8	0.307	7.80	1.929	49.00	2.756	70	0.008	0.20	8.0°	20°	●
7219844	R8BPGA078C60R020 KCU25S	8	0.307	7.80	2.323	59.00	3.150	80	0.008	0.20	8.0°	20°	●

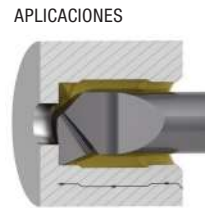
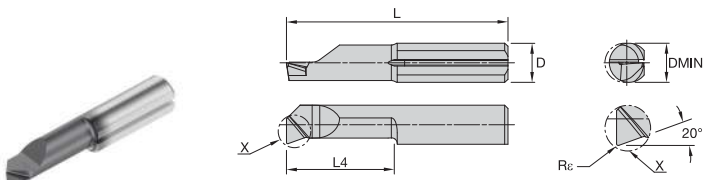
KCU25S



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|---|---|
| P | ● |
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- Principal
○ Secundario

Mandrinado y perfilado GC

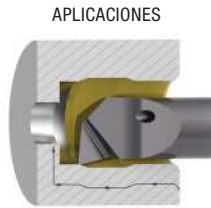
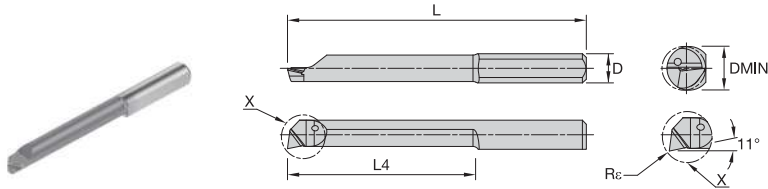
Número de pedido	Número de catálogo	D	DMIN		L4		L		Re		ÁNGULO		●
			in	mm	in	mm	in	mm	in	mm	ATAQUE	DESAHOGO	
7220076	L4BPGC020C10R005 KCU25S	4	0.079	2.00	0.354	9	0.945	24	0.002	0.05	8,0°	47°	●
7220078	L4BPGC028C15R010 KCU25S	4	0.110	2.80	0.551	14	1.142	29	0.004	0.10	8,0°	47°	●
7220080	L4BPGC040C10R010 KCU25S	4	0.158	4.00	0.354	9	0.945	24	0.004	0.10	8,0°	47°	●
7220082	L4BPGC040C20R010 KCU25S	4	0.158	4.00	0.748	19	1.339	34	0.004	0.10	8,0°	47°	●
7220084	L4BPGC040C2TR010 KCU25S	4	0.158	4.00	0.748	19	1.339	34	0.004	0.10	8,0°	47°	●
7220086	L5BPGC050C15R015 KCU25S	5	0.197	5.00	0.551	14	1.181	30	0.006	0.15	8,0°	47°	●
7220088	L5BPGC050C25R015 KCU25S	5	0.197	5.00	0.945	24	1.575	40	0.006	0.15	8,0°	47°	●
7220090	L5BPGC050C2TR015 KCU25S	5	0.197	5.00	0.945	24	1.181	30	0.006	0.15	8,0°	47°	●
7220092	L6BPGC060C22R015 KCU25S	6	0.236	6.00	0.827	21	1.457	37	0.006	0.15	8,0°	47°	●
7220094	L6BPGC060C30R015 KCU25S	6	0.236	6.00	1.142	29	1.772	45	0.006	0.15	8,0°	47°	●
7220096	L6BPGC060C3TR015 KCU25S	6	0.236	6.00	1.142	29	1.457	37	0.006	0.15	8,0°	47°	●
7220098	R4BPGC020C10R005 KCU25S	4	0.079	2.00	0.354	9	0.945	24	0.002	0.05	8,0°	47°	●
7220100	R4BPGC028C15R010 KCU25S	4	0.110	2.80	0.551	14	1.142	29	0.004	0.10	8,0°	47°	●
7220102	R4BPGC040C10R010 KCU25S	4	0.158	4.00	0.354	9	0.945	24	0.004	0.10	8,0°	47°	●
7220104	R4BPGC040C20R010 KCU25S	4	0.158	4.00	0.748	19	1.339	34	0.004	0.10	8,0°	47°	●
7220106	R4BPGC040C2TR010 KCU25S	4	0.158	4.00	0.748	19	1.339	34	0.004	0.10	8,0°	47°	●
7220108	R5BPGC050C15R015 KCU25S	5	0.197	5.00	0.551	14	1.181	30	0.006	0.15	8,0°	47°	●
7220110	R5BPGC050C25R015 KCU25S	5	0.197	5.00	0.945	24	1.575	40	0.006	0.15	8,0°	47°	●
7220112	R5BPGC050C2TR015 KCU25S	5	0.197	5.00	0.945	24	1.181	30	0.006	0.15	8,0°	47°	●
7220114	R6BPGC060C22R015 KCU25S	6	0.236	6.00	0.827	21	1.457	37	0.006	0.15	8,0°	47°	●
7220116	R6BPGC060C30R015 KCU25S	6	0.236	6.00	1.142	29	1.772	45	0.006	0.15	8,0°	47°	●
7220118	R6BPGC060C3TR015 KCU25S	6	0.236	6.00	1.142	29	1.457	37	0.006	0.15	8,0°	47°	●



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| P | ● |
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| H | ● |
- Principal
○ Secundario

Mandrinado y perfilado GB

Número de pedido	Número de catálogo	D	DMIN		L4		L		Re		ÁNGULO		●
			in	mm	in	mm	in	mm	in	mm	ATAQUE	DESAHOGO	
7220120	L4BPGB028C10R010 KCU25S	4	0.110	2.80	0.354	9	0.945	24	0.004	0.10	0,0°	20°	●
7220122	L4BPGB028C16R010 KCU25S	4	0.110	2.80	0.591	15	1.181	30	0.004	0.10	0,0°	20°	●
7220124	L4BPGB040C10R010 KCU25S	4	0.158	4.00	0.354	9	0.945	24	0.004	0.10	0,0°	20°	●
7220126	L4BPGB040C16R010 KCU25S	4	0.158	4.00	0.591	15	1.181	30	0.004	0.10	0,0°	20°	●
7220128	L4BPGB040C20R010 KCU25S	4	0.158	4.00	0.748	19	1.339	34	0.004	0.10	0,0°	20°	●
7220130	L5BPGB050C10R015 KCU25S	5	0.197	5.00	0.354	9	0.984	25	0.006	0.15	0,0°	20°	●
7220132	L5BPGB050C15R015 KCU25S	5	0.197	5.00	0.551	14	1.181	30	0.006	0.15	0,0°	20°	●
7220134	L5BPGB050C20R015 KCU25S	5	0.197	5.00	0.748	19	1.378	35	0.006	0.15	0,0°	20°	●
7220136	L5BPGB050C25R015 KCU25S	5	0.197	5.00	0.945	24	1.575	40	0.006	0.15	0,0°	20°	●
7220138	L6BPGB060C15R015 KCU25S	6	0.236	6.00	0.551	14	1.181	30	0.006	0.15	0,0°	20°	●
7220140	L6BPGB060C22R015 KCU25S	6	0.236	6.00	0.827	21	1.457	37	0.006	0.15	0,0°	20°	●
7220142	L6BPGB060C25R015 KCU25S	6	0.236	6.00	0.945	24	1.575	40	0.006	0.15	0,0°	20°	●
7220143	L6BPGB060C30R015 KCU25S	6	0.236	6.00	1.142	29	1.772	45	0.006	0.15	0,0°	20°	●
7220144	R4BPGB028C10R010 KCU25S	4	0.110	2.80	0.354	9	0.945	24	0.004	0.10	0,0°	20°	●
7220145	R4BPGB028C16R010 KCU25S	4	0.110	2.80	0.591	15	1.181	30	0.004	0.10	0,0°	20°	●
7220146	R4BPGB040C10R010 KCU25S	4	0.158	4.00	0.354	9	0.945	24	0.004	0.10	0,0°	20°	●
7220147	R4BPGB040C16R010 KCU25S	4	0.158	4.00	0.591	15	1.181	30	0.004	0.10	0,0°	20°	●
7220148	R4BPGB040C20R010 KCU25S	4	0.158	4.00	0.748	19	1.339	34	0.004	0.10	0,0°	20°	●
7220149	R5BPGB050C10R015 KCU25S	5	0.197	5.00	0.354	9	0.984	25	0.006	0.15	0,0°	20°	●
7220150	R5BPGB050C15R015 KCU25S	5	0.197	5.00	0.551	14	1.181	30	0.006	0.15	0,0°	20°	●
7220151	R5BPGB050C20R015 KCU25S	5	0.197	5.00	0.748	19	1.378	35	0.006	0.15	0,0°	20°	●
7220152	R5BPGB050C25R015 KCU25S	5	0.197	5.00	0.945	24	1.575	40	0.006	0.15	0,0°	20°	●



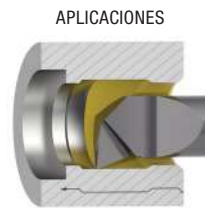
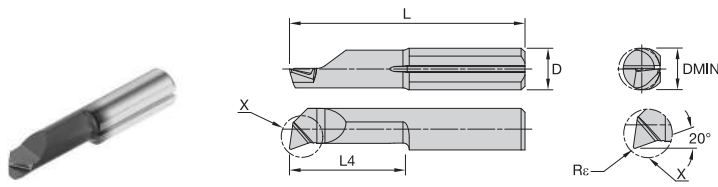
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K	■
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S	■
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- Principal
- Secundario

Mandrinado y perfilado

ML • Línea médica

Número de pedido	Número de catálogo	D	DMIN		L4		L		Rε		ÁNGULO		KCSM25S
			in	mm	in	mm	in	mm	in	mm	ATAQUE	DESAHOGO	
7233060	L4BPML005H02R002 KCSM25S	4	0.020	0.50	0.079	2	0.787	20	0.001	0.02	8.0°	11°	●
7233082	L4BPML008H04R002 KCSM25S	4	0.032	0.80	0.158	4	0.787	20	0.001	0.02	8.0°	11°	●
7233083	L4BPML010H05R002 KCSM25S	4	0.039	1.00	0.197	5	0.787	20	0.001	0.02	8.0°	11°	●
7233084	L4BPML010H07R002 KCSM25S	4	0.039	1.00	0.276	7	0.866	22	0.001	0.02	8.0°	11°	●
7233085	L4BPML015H05R002 KCSM25S	4	0.059	1.50	0.197	5	0.748	19	0.001	0.02	8.0°	11°	●
7233086	L4BPML015H10R002 KCSM25S	4	0.059	1.50	0.394	10	0.945	24	0.001	0.02	8.0°	11°	●
7233087	L4BPML020H05R002 KCSM25S	4	0.079	2.00	0.197	5	0.748	19	0.001	0.02	8.0°	11°	●
7233088	L4BPML020H10R002 KCSM25S	4	0.079	2.00	0.394	10	0.945	24	0.001	0.02	8.0°	11°	●
7233089	L4BPML025H05R002 KCSM25S	4	0.098	2.50	0.197	5	0.748	19	0.001	0.02	8.0°	11°	●
7233090	L4BPML025H10R002 KCSM25S	4	0.098	2.50	0.394	10	0.945	24	0.001	0.02	8.0°	11°	●
7233091	L4BPML030H10R002 KCSM25S	4	0.118	3.00	0.394	10	0.945	24	0.001	0.02	8.0°	11°	●
7233093	L4BPML030H16R002 KCSM25S	4	0.118	3.00	0.630	16	1.181	30	0.001	0.02	8.0°	11°	●
7233094	L4BPML035H10R002 KCSM25S	4	0.138	3.50	0.394	10	0.945	24	0.001	0.02	8.0°	11°	●
7233096	L4BPML035H16R002 KCSM25S	4	0.138	3.50	0.630	16	1.181	30	0.001	0.02	8.0°	11°	●
7233097	L4BPML035H20R002 KCSM25S	4	0.138	3.50	0.787	20	1.339	34	0.001	0.02	8.0°	11°	●
7233098	L4BPML040H10R002 KCSM25S	4	0.158	4.00	0.394	10	0.945	24	0.001	0.02	8.0°	11°	●
7233099	L4BPML040H16R002 KCSM25S	4	0.158	4.00	0.630	16	1.181	30	0.001	0.02	8.0°	11°	●
7233100	L4BPML040H20R002 KCSM25S	4	0.158	4.00	0.787	20	1.339	34	0.001	0.02	8.0°	11°	●
7233101	L4BPML040H24R002 KCSM25S	4	0.158	4.00	0.945	24	1.496	38	0.001	0.02	8.0°	11°	●
7233102	R4BPML005H02R002 KCSM25S	4	0.020	0.50	0.079	2	0.787	20	0.001	0.02	8.0°	11°	●
7233103	R4BPML008H04R002 KCSM25S	4	0.032	0.80	0.158	4	0.787	20	0.001	0.02	8.0°	11°	●
7233104	R4BPML010H05R002 KCSM25S	4	0.039	1.00	0.197	5	0.787	20	0.001	0.02	8.0°	11°	●
7233105	R4BPML010H07R002 KCSM25S	4	0.039	1.00	0.276	7	0.866	22	0.001	0.02	8.0°	11°	●
7233106	R4BPML015H05R002 KCSM25S	4	0.059	1.50	0.197	5	0.748	19	0.001	0.02	8.0°	11°	●
7233107	R4BPML015H10R002 KCSM25S	4	0.059	1.50	0.394	10	0.945	24	0.001	0.02	8.0°	11°	●
7233108	R4BPML020H05R002 KCSM25S	4	0.079	2.00	0.197	5	0.748	19	0.001	0.02	8.0°	11°	●
7233109	R4BPML020H10R002 KCSM25S	4	0.079	2.00	0.394	10	0.945	24	0.001	0.02	8.0°	11°	●
7233110	R4BPML025H05R002 KCSM25S	4	0.098	2.50	0.197	5	0.748	19	0.001	0.02	8.0°	11°	●
7233111	R4BPML025H10R002 KCSM25S	4	0.098	2.50	0.394	10	0.945	24	0.001	0.02	8.0°	11°	●
7233112	R4BPML030H10R002 KCSM25S	4	0.118	3.00	0.394	10	0.945	24	0.001	0.02	8.0°	11°	●
7233113	R4BPML030H16R002 KCSM25S	4	0.118	3.00	0.630	16	1.181	30	0.001	0.02	8.0°	11°	●
7233114	R4BPML035H10R002 KCSM25S	4	0.138	3.50	0.394	10	0.945	24	0.001	0.02	8.0°	11°	●
7233115	R4BPML035H16R002 KCSM25S	4	0.138	3.50	0.630	16	1.181	30	0.001	0.02	8.0°	11°	●
7233116	R4BPML035H20R002 KCSM25S	4	0.138	3.50	0.787	20	1.339	34	0.001	0.02	8.0°	11°	●
7233117	R4BPML040H10R002 KCSM25S	4	0.158	4.00	0.394	10	0.945	24	0.001	0.02	8.0°	11°	●
7233119	R4BPML040H16R002 KCSM25S	4	0.158	4.00	0.630	16	1.181	30	0.001	0.02	8.0°	11°	●
7233120	R4BPML040H20R002 KCSM25S	4	0.158	4.00	0.787	20	1.339	34	0.001	0.02	8.0°	11°	●
7233131	R4BPML040H24R002 KCSM25S	4	0.158	4.00	0.945	24	1.496	38	0.001	0.02	8.0°	11°	●

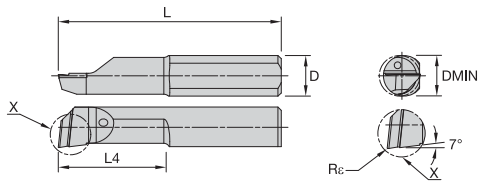


P	Principal
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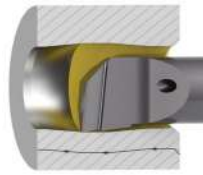
Mandrinado y perfilado

HM • Materiales endurecidos

Número de pedido	Número de catálogo	D	DMIN		L4		L		Rε		ÁNGULO		KCHS25S
			in	mm	in	mm	in	mm	in	mm	ATAQUE	DESAHOGO	
7233132	L4BPHM020C05R005 KCHS25S	4	0.079	2.00	0.197	5	0.748	19	0.002	0.05	8.0°	20°	•
7233134	L4BPHM020C10R005 KCHS25S	4	0.079	2.00	0.394	10	0.945	24	0.002	0.05	8.0°	20°	•
7233135	L4BPHM020C15R005 KCHS25S	4	0.079	2.00	0.591	15	1.142	29	0.002	0.05	8.0°	20°	•
7233136	L4BPHM028C10R010 KCHS25S	4	0.110	2.80	0.394	10	0.945	24	0.004	0.10	8.0°	20°	•
7233137	L4BPHM028C16R010 KCHS25S	4	0.110	2.80	0.630	16	1.181	30	0.004	0.10	8.0°	20°	•
7233151	L4BPHM028C20R010 KCHS25S	4	0.110	2.80	0.787	20	1.339	34	0.004	0.10	8.0°	20°	•
7233152	L4BPHM040C10R010 KCHS25S	4	0.158	4.00	0.394	10	0.945	24	0.004	0.10	8.0°	20°	•
7233153	L4BPHM040C16R010 KCHS25S	4	0.158	4.00	0.630	16	1.181	30	0.004	0.10	8.0°	20°	•
7233154	L4BPHM040C20R010 KCHS25S	4	0.158	4.00	0.787	20	1.339	34	0.004	0.10	8.0°	20°	•
7233156	L4BPHM040C24R010 KCHS25S	4	0.158	4.00	0.945	24	1.496	38	0.004	0.10	8.0°	20°	•
7233157	L4BPHM040C28R010 KCHS25S	4	0.158	4.00	1.102	28	1.654	42	0.004	0.10	8.0°	20°	•
7233158	L5BPHM050C10R015 KCHS25S	5	0.197	5.00	0.394	10	0.984	25	0.006	0.15	8.0°	20°	•
7233159	L5BPHM050C15R015 KCHS25S	5	0.197	5.00	0.591	15	1.181	30	0.006	0.15	8.0°	20°	•
7233160	L5BPHM050C20R015 KCHS25S	5	0.197	5.00	0.787	20	1.378	35	0.006	0.15	8.0°	20°	•
7233161	L5BPHM050C25R015 KCHS25S	5	0.197	5.00	0.984	25	1.575	40	0.006	0.15	8.0°	20°	•
7233162	L5BPHM050C30R015 KCHS25S	5	0.197	5.00	1.181	30	1.772	45	0.006	0.15	8.0°	20°	•
7233163	L5BPHM050C35R015 KCHS25S	5	0.197	5.00	1.378	35	1.969	50	0.006	0.15	8.0°	20°	•
7233164	L6BPHM060C15R015 KCHS25S	6	0.236	6.00	0.591	15	1.181	30	0.006	0.15	8.0°	20°	•
7233165	L6BPHM060C22R015 KCHS25S	6	0.236	6.00	0.866	22	1.457	37	0.006	0.15	8.0°	20°	•
7233166	L6BPHM060C25R015 KCHS25S	6	0.236	6.00	0.984	25	1.575	40	0.006	0.15	8.0°	20°	•
7233167	L6BPHM060C30R015 KCHS25S	6	0.236	6.00	1.181	30	1.772	45	0.006	0.15	8.0°	20°	•
7233168	L6BPHM060C35R015 KCHS25S	6	0.236	6.00	1.378	35	1.969	50	0.006	0.15	8.0°	20°	•
7233169	L6BPHM060C42R015 KCHS25S	6	0.236	6.00	1.654	42	2.244	57	0.006	0.15	8.0°	20°	•
7233170	L7BPHM068C20R015 KCHS25S	7	0.268	6.80	0.787	20	1.378	35	0.006	0.15	8.0°	20°	•
7233171	L7BPHM068C25R015 KCHS25S	7	0.268	6.80	0.984	25	1.575	40	0.006	0.15	8.0°	20°	•
7233172	L7BPHM068C30R015 KCHS25S	7	0.268	6.80	1.181	30	1.772	45	0.006	0.15	8.0°	20°	•
7233173	L7BPHM068C35R015 KCHS25S	7	0.268	6.80	1.378	35	1.969	50	0.006	0.15	8.0°	20°	•
7233174	L7BPHM068C40R015 KCHS25S	7	0.268	6.80	1.575	40	2.165	55	0.006	0.15	8.0°	20°	•
7233175	L7BPHM068C45R015 KCHS25S	7	0.268	6.80	1.772	45	2.362	60	0.006	0.15	8.0°	20°	•
7233176	L7BPHM068C50R015 KCHS25S	7	0.268	6.80	1.969	50	2.559	65	0.006	0.15	8.0°	20°	•
7233177	R4BPHM020C05R005 KCHS25S	4	0.079	2.00	0.197	5	0.748	19	0.002	0.05	8.0°	20°	•
7233179	R4BPHM020C10R005 KCHS25S	4	0.079	2.00	0.394	10	0.945	24	0.002	0.05	8.0°	20°	•
7233180	R4BPHM020C15R005 KCHS25S	4	0.079	2.00	0.591	15	1.142	29	0.002	0.05	8.0°	20°	•
7233181	R4BPHM028C10R010 KCHS25S	4	0.110	2.80	0.394	10	0.945	24	0.004	0.10	8.0°	20°	•
7233183	R4BPHM028C16R010 KCHS25S	4	0.110	2.80	0.630	16	1.181	30	0.004	0.10	8.0°	20°	•
7233184	R4BPHM028C20R010 KCHS25S	4	0.110	2.80	0.787	20	1.339	34	0.004	0.10	8.0°	20°	•
7233185	R4BPHM040C10R010 KCHS25S	4	0.158	4.00	0.394	10	0.945	24	0.004	0.10	8.0°	20°	•
7233186	R4BPHM040C16R010 KCHS25S	4	0.158	4.00	0.630	16	1.181	30	0.004	0.10	8.0°	20°	•
7233187	R4BPHM040C20R010 KCHS25S	4	0.158	4.00	0.787	20	1.339	34	0.004	0.10	8.0°	20°	•
7233188	R4BPHM040C24R010 KCHS25S	4	0.158	4.00	0.945	24	1.496	38	0.004	0.10	8.0°	20°	•
7233189	R4BPHM040C28R010 KCHS25S	4	0.158	4.00	1.102	28	1.654	42	0.004	0.10	8.0°	20°	•
7233191	R5BPHM050C10R015 KCHS25S	5	0.197	5.00	0.394	10	0.984	25	0.006	0.15	8.0°	20°	•
7233192	R5BPHM050C15R015 KCHS25S	5	0.197	5.00	0.591	15	1.181	30	0.006	0.15	8.0°	20°	•
7233193	R5BPHM050C20R015 KCHS25S	5	0.197	5.00	0.787	20	1.378	35	0.006	0.15	8.0°	20°	•
7233194	R5BPHM050C25R015 KCHS25S	5	0.197	5.00	0.984	25	1.575	40	0.006	0.15	8.0°	20°	•
7233195	R5BPHM050C30R015 KCHS25S	5	0.197	5.00	1.181	30	1.772	45	0.006	0.15	8.0°	20°	•
7233196	R5BPHM050C35R015 KCHS25S	5	0.197	5.00	1.378	35	1.969	50	0.006	0.15	8.0°	20°	•
7233200	R6BPHM060C25R015 KCHS25S	6	0.236	6.00	0.984	25	1.575	40	0.006	0.15	8.0°	20°	•
7233201	R6BPHM060C30R015 KCHS25S	6	0.236	6.00	1.181	30	1.772	45	0.006	0.15	8.0°	20°	•
7233202	R6BPHM060C35R015 KCHS25S	6	0.236	6.00	1.378	35	1.969	50	0.006	0.15	8.0°	20°	•
7233203	R6BPHM060C42R015 KCHS25S	6	0.236	6.00	1.654	42	2.244	57	0.006	0.15	8.0°	20°	•
7233197	R6BPHM060C15R015 KCHS25S	6	0.236	6.00	0.590	15	1.181	30	0.006	0.15	8.0°	20°	•
7233199	R6BPHM060C22R015 KCHS25S	6	0.236	6.00	0.866	22	1.456	37	0.006	0.15	8.0°	20°	•
7233204	R7BPHM068C20R015 KCHS25S	7	0.268	6.80	0.787	20	1.378	35	0.006	0.15	8.0°	20°	•
7233205	R7BPHM068C25R015 KCHS25S	7	0.268	6.80	0.984	25	1.575	40	0.006	0.15	8.0°	20°	•
7233206	R7BPHM068C30R015 KCHS25S	7	0.268	6.80	1.181	30	1.772	45	0.006	0.15	8.0°	20°	•
7233207	R7BPHM068C35R015 KCHS25S	7	0.268	6.80	1.378	35	1.969	50	0.006	0.15	8.0°	20°	•
7233208	R7BPHM068C40R015 KCHS25S	7	0.268	6.80	1.575	40	2.165	55	0.006	0.15	8.0°	20°	•
7233209	R7BPHM068C45R015 KCHS25S	7	0.268	6.80	1.772	45	2.362	60	0.006	0.15	8.0°	20°	•
7233210	R7BPHM068C50R015 KCHS25S	7	0.268	6.80	1.969	50	2.559	65	0.006	0.15	8.0°	20°	•



APLICACIONES



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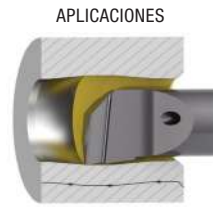
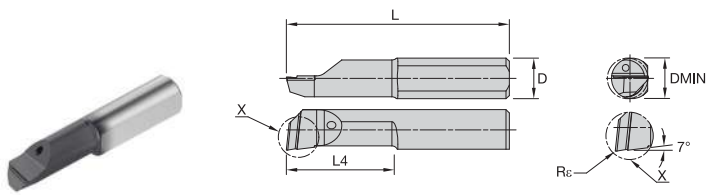
- Principal
- Secundario

Mandrinado y perfilado

HP • Alto rendimiento

Número de pedido	Número de catálogo	D	DMIN		L4		L		R _e		ÁNGULO		KCPM25S
			in	mm	in	mm	in	mm	in	mm	ATAQUE	DESAHOGO	
7232827	L4BPHP010H05R005 KCPM25S	4	0.039	1.00	0.197	5	0.787	20	0.002	0.05	6.0°	7.0°	●
7232828	L4BPHP015H07R010 KCPM25S	4	0.059	1.50	0.276	7	0.827	21	0.004	0.10	6.0°	7.0°	●
7232829	L4BPHP020H05R015 KCPM25S	4	0.079	2.00	0.197	5	0.748	19	0.006	0.15	6.0°	7.0°	●
7232830	L4BPHP020H10R005 KCPM25S	4	0.079	2.00	0.394	10	0.945	24	0.002	0.05	6.0°	7.0°	●
7232851	L4BPHP020H10R015 KCPM25S	4	0.079	2.00	0.394	10	0.945	24	0.006	0.15	6.0°	7.0°	●
7232852	L4BPHP020H15R015 KCPM25S	4	0.079	2.00	0.591	15	1.142	29	0.006	0.15	6.0°	7.0°	●
7232853	L4BPHP030H16R005 KCPM25S	4	0.118	3.00	0.394	10	0.945	24	0.002	0.05	6.0°	7.0°	●
7232855	L4BPHP030H10R020 KCPM25S	4	0.118	3.00	0.394	10	0.945	24	0.008	0.20	6.0°	7.0°	●
7232856	L4BPHP030H16R005 KCPM25S	4	0.118	3.00	0.630	16	1.181	30	0.002	0.05	6.0°	7.0°	●
7232857	L4BPHP030H16R010 KCPM25S	4	0.118	3.00	0.630	16	1.181	30	0.004	0.10	6.0°	7.0°	●
7232858	L4BPHP030H16R020 KCPM25S	4	0.118	3.00	0.630	16	1.181	30	0.008	0.20	6.0°	7.0°	●
7232859	L4BPHP040H10R010 KCPM25S	4	0.158	4.00	0.394	10	0.945	24	0.004	0.10	6.0°	7.0°	●
7232860	L4BPHP040H10R020 KCPM25S	4	0.158	4.00	0.394	10	0.945	24	0.008	0.20	6.0°	7.0°	●
7232861	L4BPHP040H16R005 KCPM25S	4	0.158	4.00	0.630	16	1.181	30	0.002	0.05	6.0°	7.0°	●
7232862	L4BPHP040H16R020 KCPM25S	4	0.158	4.00	0.630	16	1.181	30	0.004	0.10	6.0°	7.0°	●
7232863	L4BPHP040H16R020 KCPM25S	4	0.158	4.00	0.630	16	1.181	30	0.008	0.20	6.0°	7.0°	●
7232864	L4BPHP040H16R040 KCPM25S	4	0.158	4.00	0.630	16	1.181	30	0.016	0.40	6.0°	7.0°	●
7232865	L4BPHP040H24R010 KCPM25S	4	0.158	4.00	0.945	24	1.496	38	0.004	0.10	6.0°	7.0°	●
7232866	L4BPHP040H24R020 KCPM25S	4	0.158	4.00	0.945	24	1.496	38	0.008	0.20	6.0°	7.0°	●
7232867	L4BPHP040H24R040 KCPM25S	4	0.158	4.00	0.945	24	1.496	38	0.016	0.40	6.0°	7.0°	●
7232868	L5BPHP050H15R005 KCPM25S	5	0.197	5.00	0.591	15	1.181	30	0.002	0.05	6.0°	7.0°	●
7232869	L5BPHP050H15R010 KCPM25S	5	0.197	5.00	0.591	15	1.181	30	0.004	0.10	6.0°	7.0°	●
7232870	L5BPHP050H15R020 KCPM25S	5	0.197	5.00	0.591	15	1.181	30	0.008	0.20	6.0°	7.0°	●
7232871	L5BPHP050H15R040 KCPM25S	5	0.197	5.00	0.591	15	1.181	30	0.016	0.40	6.0°	7.0°	●
7232872	L5BPHP050H25R010 KCPM25S	5	0.197	5.00	0.984	25	1.575	40	0.004	0.10	6.0°	7.0°	●
7232873	L5BPHP050H25R020 KCPM25S	5	0.197	5.00	0.984	25	1.575	40	0.008	0.20	6.0°	7.0°	●
7232874	L5BPHP050H30R010 KCPM25S	5	0.197	5.00	1.181	30	1.772	45	0.004	0.10	6.0°	7.0°	●
7232875	L5BPHP050H30R020 KCPM25S	5	0.197	5.00	1.181	30	1.772	45	0.008	0.20	6.0°	7.0°	●
7232876	L5BPHP050H30R040 KCPM25S	5	0.197	5.00	1.181	30	1.772	45	0.016	0.40	6.0°	7.0°	●
7232877	L6BPHP060H15R005 KCPM25S	6	0.236	6.00	0.591	15	1.181	30	0.002	0.05	6.0°	7.0°	●
7232878	L6BPHP060H15R010 KCPM25S	6	0.236	6.00	0.591	15	1.181	30	0.004	0.10	6.0°	7.0°	●
7232879	L6BPHP060H15R020 KCPM25S	6	0.236	6.00	0.591	15	1.181	30	0.008	0.20	6.0°	7.0°	●
7232880	L6BPHP060H15R040 KCPM25S	6	0.236	6.00	0.591	15	1.181	30	0.016	0.40	6.0°	7.0°	●
7232881	L6BPHP060H22R020 KCPM25S	6	0.236	6.00	0.866	22	1.457	37	0.008	0.20	6.0°	7.0°	●
7232882	L6BPHP060H30R020 KCPM25S	6	0.236	6.00	1.181	30	1.772	45	0.008	0.20	6.0°	7.0°	●
7232883	L6BPHP060H30R040 KCPM25S	6	0.236	6.00	1.181	30	1.772	45	0.016	0.40	6.0°	7.0°	●
7232884	L6BPHP060H35R020 KCPM25S	6	0.236	6.00	1.378	35	1.969	50	0.008	0.20	6.0°	7.0°	●
7232885	L6BPHP060H42R020 KCPM25S	6	0.236	6.00	1.653	42	2.244	57	0.008	0.20	6.0°	7.0°	●
7232886	L6BPHP060H50R020 KCPM25S	6	0.236	6.00	1.968	50	2.559	65	0.008	0.20	6.0°	7.0°	●
7232887	L7BPHP070H25R020 KCPM25S	7	0.276	7.00	0.984	25	1.575	40	0.008	0.20	6.0°	7.0°	●
7232888	L7BPHP070H30R020 KCPM25S	7	0.276	7.00	1.181	30	1.772	45	0.008	0.20	6.0°	7.0°	●
7232889	L7BPHP070H30R040 KCPM25S	7	0.276	7.00	1.181	30	1.772	45	0.016	0.40	6.0°	7.0°	●
7232890	L7BPHP070H35R020 KCPM25S	7	0.276	7.00	1.378	35	1.969	50	0.008	0.20	6.0°	7.0°	●
7232891	L7BPHP070H40R020 KCPM25S	7	0.276	7.00	1.575	40	2.165	55	0.008	0.20	6.0°	7.0°	●
7232892	L7BPHP070H45R020 KCPM25S	7	0.276	7.00	1.772	45	2.362	60	0.008	0.20	6.0°	7.0°	●
7232893	L7BPHP070H50R020 KCPM25S	7	0.276	7.00	1.969	50	2.559	65	0.008	0.20	6.0°	7.0°	●

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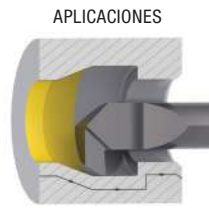
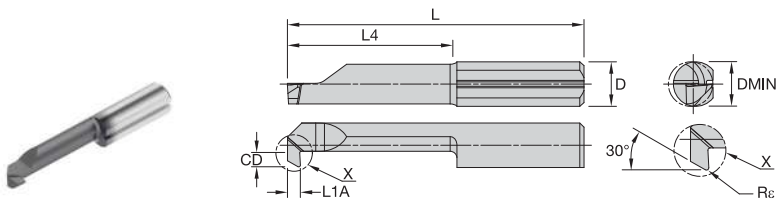
P	●
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● Principal
○ Secundario

Mandrinado y perfilado Continuación

HP • Alto rendimiento

Número de pedido	Número de catálogo	D	DMIN		L4		L		Rε		ÁNGULO		KCPM25S
			in	mm	in	mm	in	mm	in	mm	ATAQUE	DESAHOGO	
7232894	R4BPHP010H05R005 KCPM25S	4	0.039	1.00	0.197	5	0.787	20	0.002	0.05	6.0°	7.0°	●
7232895	R4BPHP015H07R010 KCPM25S	4	0.059	1.50	0.276	7	0.827	21	0.004	0.10	6.0°	7.0°	●
7232896	R4BPHP020H05R015 KCPM25S	4	0.079	2.00	0.197	5	0.748	19	0.006	0.15	6.0°	7.0°	●
7232897	R4BPHP020H10R005 KCPM25S	4	0.079	2.00	0.394	10	0.945	24	0.002	0.05	6.0°	7.0°	●
7232898	R4BPHP020H10R015 KCPM25S	4	0.079	2.00	0.394	10	0.945	24	0.006	0.15	6.0°	7.0°	●
7232899	R4BPHP020H15R015 KCPM25S	4	0.079	2.00	0.591	15	1.142	29	0.006	0.15	6.0°	7.0°	●
7232900	R4BPHP030H10R005 KCPM25S	4	0.118	3.00	0.394	10	0.945	24	0.002	0.05	6.0°	7.0°	●
7232911	R4BPHP030H10R020 KCPM25S	4	0.118	3.00	0.394	10	0.945	24	0.008	0.20	6.0°	7.0°	●
7232912	R4BPHP030H16R005 KCPM25S	4	0.118	3.00	0.630	16	1.181	30	0.002	0.05	6.0°	7.0°	●
7232913	R4BPHP030H16R010 KCPM25S	4	0.118	3.00	0.630	16	1.181	30	0.004	0.10	6.0°	7.0°	●
7232914	R4BPHP040H16R020 KCPM25S	4	0.118	3.00	0.630	16	1.181	30	0.008	0.20	6.0°	7.0°	●
7232915	R4BPHP040H10R010 KCPM25S	4	0.158	4.00	0.394	10	0.945	24	0.004	0.10	6.0°	7.0°	●
7232916	R4BPHP040H10R020 KCPM25S	4	0.158	4.00	0.394	10	0.945	24	0.008	0.20	6.0°	7.0°	●
7232917	R4BPHP040H16R005 KCPM25S	4	0.158	4.00	0.630	16	1.181	30	0.002	0.05	6.0°	7.0°	●
7232918	R4BPHP040H16R010 KCPM25S	4	0.158	4.00	0.630	16	1.181	30	0.004	0.10	6.0°	7.0°	●
7232919	R4BPHP040H16R020 KCPM25S	4	0.158	4.00	0.630	16	1.181	30	0.008	0.20	6.0°	7.0°	●
7232920	R4BPHP040H16R040 KCPM25S	4	0.158	4.00	0.630	16	1.181	30	0.016	0.40	6.0°	7.0°	●
7232921	R4BPHP040H24R010 KCPM25S	4	0.158	4.00	0.945	24	1.496	38	0.004	0.10	6.0°	7.0°	●
7232922	R4BPHP040H24R020 KCPM25S	4	0.158	4.00	0.945	24	1.496	38	0.008	0.20	6.0°	7.0°	●
7232923	R4BPHP040H24R040 KCPM25S	4	0.158	4.00	0.945	24	1.496	38	0.016	0.40	6.0°	7.0°	●
7232924	R5BPHP050H15R005 KCPM25S	5	0.197	5.00	0.591	15	1.181	30	0.002	0.05	6.0°	7.0°	●
7232925	R5BPHP050H15R010 KCPM25S	5	0.197	5.00	0.591	15	1.181	30	0.004	0.10	6.0°	7.0°	●
7232926	R5BPHP050H15R020 KCPM25S	5	0.197	5.00	0.591	15	1.181	30	0.008	0.20	6.0°	7.0°	●
7232927	R5BPHP050H15R040 KCPM25S	5	0.197	5.00	0.591	15	1.181	30	0.016	0.40	6.0°	7.0°	●
7232928	R5BPHP050H25R010 KCPM25S	5	0.197	5.00	0.984	25	1.575	40	0.004	0.10	6.0°	7.0°	●
7232929	R5BPHP050H25R020 KCPM25S	5	0.197	5.00	0.984	25	1.575	40	0.008	0.20	6.0°	7.0°	●
7232930	R5BPHP050H30R010 KCPM25S	5	0.197	5.00	1.181	30	1.772	45	0.004	0.10	6.0°	7.0°	●
7232941	R5BPHP050H30R020 KCPM25S	5	0.197	5.00	1.181	30	1.772	45	0.008	0.20	6.0°	7.0°	●
7232942	R5BPHP050H30R040 KCPM25S	5	0.197	5.00	1.181	30	1.772	45	0.016	0.40	6.0°	7.0°	●
7232943	R6BPHP060H15R005 KCPM25S	6	0.236	6.00	0.591	15	1.181	30	0.002	0.05	6.0°	7.0°	●
7232944	R6BPHP060H15R010 KCPM25S	6	0.236	6.00	0.591	15	1.181	30	0.004	0.10	6.0°	7.0°	●
7232945	R6BPHP060H15R020 KCPM25S	6	0.236	6.00	0.591	15	1.181	30	0.008	0.20	6.0°	7.0°	●
7232946	R6BPHP060H15R040 KCPM25S	6	0.236	6.00	0.591	15	1.181	30	0.016	0.40	6.0°	7.0°	●
7232947	R6BPHP060H22R020 KCPM25S	6	0.236	6.00	0.866	22	1.457	37	0.008	0.20	6.0°	7.0°	●
7232948	R6BPHP060H30R020 KCPM25S	6	0.236	6.00	1.181	30	1.772	45	0.008	0.20	6.0°	7.0°	●
7232949	R6BPHP060H30R040 KCPM25S	6	0.236	6.00	1.181	30	1.772	45	0.016	0.40	6.0°	7.0°	●
7232950	R6BPHP060H35R020 KCPM25S	6	0.236	6.00	1.378	35	1.969	50	0.008	0.20	6.0°	7.0°	●
7232951	R6BPHP060H42R020 KCPM25S	6	0.236	6.00	1.653	42	2.244	57	0.008	0.20	6.0°	7.0°	●
7232952	R6BPHP060H50R020 KCPM25S	6	0.236	6.00	1.968	50	2.559	65	0.008	0.20	6.0°	7.0°	●
7232953	R7BPHP070H25R020 KCPM25S	7	0.276	7.00	0.984	25	1.575	40	0.008	0.20	6.0°	7.0°	●
7232954	R7BPHP070H30R020 KCPM25S	7	0.276	7.00	1.181	30	1.772	45	0.008	0.20	6.0°	7.0°	●
7232955	R7BPHP070H30R040 KCPM25S	7	0.276	7.00	1.181	30	1.772	45	0.016	0.40	6.0°	7.0°	●
7232956	R7BPHP070H35R020 KCPM25S	7	0.276	7.00	1.378	35	1.969	50	0.008	0.20	6.0°	7.0°	●
7232957	R7BPHP070H40R020 KCPM25S	7	0.276	7.00	1.575	40	2.165	55	0.008	0.20	6.0°	7.0°	●
7232958	R7BPHP070H45R020 KCPM25S	7	0.276	7.00	1.772	45	2.362	60	0.008	0.20	6.0°	7.0°	●
7232959	R7BPHP070H50R020 KCPM25S	7	0.276	7.00	1.969	50	2.559	65	0.008	0.20	6.0°	7.0°	●



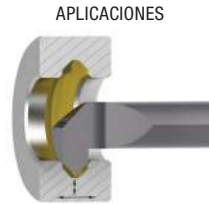
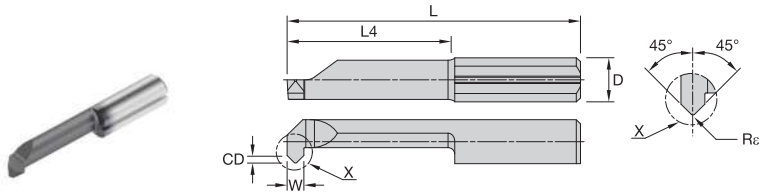
P	●
M	●
K	○
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S	○
H	○

- Principal
- Secundario

Mandrinado en retroceso

BB

Número de pedido	Número de catálogo	CD		D	DMIN		L4		L		Rε		W		ÁNGULO		●
		in	mm		in	mm	in	mm	in	mm	in	mm	in	mm	ATAQUE	DESAHOGO	
7221350	L4BB15030C15R010 KCU25S	0.020	0.50	4	0.118	3	1.181	30	0.532	13.50	0.004	0.10	0.059	1.50	3.0°	30°	●
7221411	L4BB15030C20R010 KCU25S	0.020	0.50	4	0.118	3	1.339	34	0.728	18.50	0.004	0.10	0.059	1.50	3.0°	30°	●
7221413	L4BB15040C15R015 KCU25S	0.031	0.80	4	0.158	4	1.181	30	0.532	13.50	0.006	0.15	0.059	1.50	3.0°	30°	●
7221414	L4BB15040C25R015 KCU25S	0.031	0.80	4	0.158	4	1.535	39	0.925	23.50	0.006	0.15	0.059	1.50	3.0°	30°	●
7221415	L5BB15050C20R020 KCU25S	0.039	1.00	5	0.197	5	1.378	35	0.728	18.50	0.008	0.20	0.059	1.50	3.0°	30°	●
7221416	L5BB15050C30R020 KCU25S	0.039	1.00	5	0.197	5	1.772	45	1.122	28.50	0.008	0.20	0.059	1.50	3.0°	30°	●
7221417	L6BB15060C20R020 KCU25S	0.071	1.80	6	0.236	6	1.378	35	0.728	18.50	0.008	0.20	0.059	1.50	3.0°	30°	●
7221418	L6BB15060C30R020 KCU25S	0.071	1.80	6	0.236	6	1.772	45	1.122	28.50	0.008	0.20	0.059	1.50	3.0°	30°	●
7221419	L7BB15070C20R020 KCU25S	0.098	2.50	7	0.276	7	1.378	35	0.728	18.50	0.008	0.20	0.059	1.50	3.0°	30°	●
7221420	L7BB15070C30R020 KCU25S	0.098	2.50	7	0.276	7	1.772	45	1.122	28.50	0.008	0.20	0.059	1.50	3.0°	30°	●
7221421	R4BB15030C15R010 KCU25S	0.020	0.50	4	0.118	3	1.181	30	0.532	13.50	0.004	0.10	0.059	1.50	3.0°	30°	●
7221422	R4BB15030C20R010 KCU25S	0.020	0.50	4	0.118	3	1.339	34	0.728	18.50	0.004	0.10	0.059	1.50	3.0°	30°	●
7221423	R4BB15040C15R015 KCU25S	0.031	0.80	4	0.158	4	1.181	30	0.532	13.50	0.006	0.15	0.059	1.50	3.0°	30°	●
7221424	R4BB15040C25R015 KCU25S	0.031	0.80	4	0.158	4	1.535	39	0.925	23.50	0.006	0.15	0.059	1.50	3.0°	30°	●
7221425	R5BB15050C20R020 KCU25S	0.039	1.00	5	0.197	5	1.378	35	0.728	18.50	0.008	0.20	0.059	1.50	3.0°	30°	●
7221426	R5BB15050C30R020 KCU25S	0.039	1.00	5	0.197	5	1.772	45	1.122	28.50	0.008	0.20	0.059	1.50	3.0°	30°	●
7221427	R6BB15060C20R020 KCU25S	0.071	1.80	6	0.236	6	1.378	35	0.728	18.50	0.008	0.20	0.059	1.50	3.0°	30°	●
7221428	R6BB15060C30R020 KCU25S	0.071	1.80	6	0.236	6	1.772	45	1.122	28.50	0.008	0.20	0.059	1.50	3.0°	30°	●
7221429	R7BB15070C20R020 KCU25S	0.098	2.50	7	0.276	7	1.378	35	0.728	18.50	0.008	0.20	0.059	1.50	3.0°	30°	●
7221430	R7BB15070C30R020 KCU25S	0.098	2.50	7	0.276	7	1.772	45	1.122	28.50	0.008	0.20	0.059	1.50	3.0°	30°	●



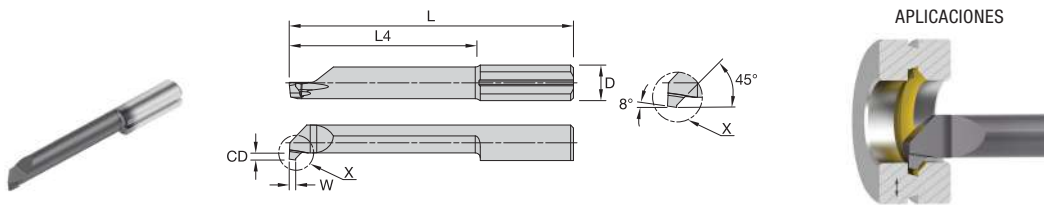
P	●
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K	○
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S	○
H	○

- Principal
- Secundario

Mandrinado y biselado

BC

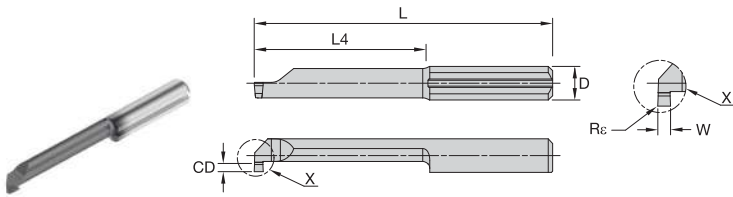
Número de pedido	Número de catálogo	CD		DMIN		L4		L		Rε		W		ÁNGULO		●
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	ATAQUE	DESAHOGO	
7219478	L4BC12030C10R020 KCU25S	0.016	0.40	0.118	3.00	0.394	10	0.945	24	0.008	0.20	0.047	1.20	45°	45°	●
7219481	L4BC15040C16R020 KCU25S	0.020	0.50	0.158	4.00	0.630	16	1.181	30	0.008	0.20	0.059	1.50	45°	45°	●
7219483	L5BC20050C15R020 KCU25S	0.028	0.70	0.197	5.00	0.591	15	1.181	30	0.008	0.20	0.079	2.00	45°	45°	●
7219485	L5BC20050C20R020 KCU25S	0.028	0.70	0.197	5.00	0.787	20	1.378	35	0.008	0.20	0.079	2.00	45°	45°	●
7219487	L6BC20060C20R020 KCU25S	0.028	0.70	0.236	6.00	0.787	20	1.378	35	0.008	0.20	0.079	2.00	45°	45°	●
7219490	L6BC20060C25R020 KCU25S	0.028	0.70	0.236	6.00	0.984	25	1.575	40	0.008	0.20	0.079	2.00	45°	45°	●
7219492	L7BC20068C20R020 KCU25S	0.028	0.70	0.268	6.80	0.787	20	1.378	35	0.008	0.20	0.079	2.00	45°	45°	●
7219493	L7BC20068C40R020 KCU25S	0.028	0.70	0.268	6.80	1.575	40	2.165	55	0.008	0.20	0.079	2.00	45°	45°	●
7219494	R4BC12030C10R020 KCU25S	0.016	0.40	0.118	3.00	0.394	10	0.945	24	0.008	0.20	0.047	1.20	45°	45°	●
7219495	R4BC15040C16R020 KCU25S	0.020	0.50	0.158	4.00	0.630	16	1.181	30	0.008	0.20	0.059	1.50	45°	45°	●
7219496	R5BC20050C15R020 KCU25S	0.028	0.70	0.197	5.00	0.591	15	1.181	30	0.008	0.20	0.079	2.00	45°	45°	●
7219497	R5BC20050C20R020 KCU25S	0.028	0.70	0.197	5.00	0.787	20	1.378	35	0.008	0.20	0.079	2.00	45°	45°	●
7219498	R6BC20060C20R020 KCU25S	0.028	0.70	0.236	6.00	0.787	20	1.378	35	0.008	0.20	0.079	2.00	45°	45°	●
7219499	R6BC20060C25R020 KCU25S	0.028	0.70	0.236	6.00	0.984	25	1.575	40	0.008	0.20	0.079	2.00	45°	45°	●
7219511	R7BC20068C20R020 KCU25S	0.028	0.70	0.268	6.80	0.787	20	1.378	35	0.008	0.20	0.079	2.00	45°	45°	●
7219512	R7BC20068C40R020 KCU25S	0.028	0.70	0.268	6.80	1.575	40	2.165	55	0.008	0.20	0.079	2.00	45°	45°	●



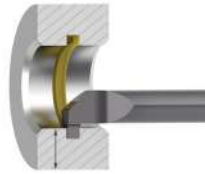
- Principal
 - Secundario
- | | | |
|---|--------|---|
| P | Blue | ● |
| M | Yellow | ● |
| K | Red | ○ |
| N | Green | ○ |
| S | Orange | ○ |
| H | Grey | ○ |

Ranurado previo PG

Número de pedido	Número de catálogo	CD		D	DMIN		L4		L		W		ÁNGULO		KCU25S
		in	mm		in	mm	in	mm	in	mm	ATAQUE	DESAHOGO			
7219513	L4PG10040C10R000 KCU25S	0.032	0.80	4	0.158	4	0.394	10	0.984	25	0.039	1	8.0°	45°	●
7219514	L4PG10040C16R000 KCU25S	0.032	0.80	4	0.158	4	0.630	16	1.181	30	0.039	1	8.0°	45°	●
7219515	L5PG10050C15R000 KCU25S	0.039	1.00	5	0.197	5	0.591	15	1.181	30	0.039	1	8.0°	45°	●
7219517	L5PG10050C20R000 KCU25S	0.039	1.00	5	0.197	5	0.787	20	1.378	35	0.039	1	8.0°	45°	●
7219518	L5PG10050C30R000 KCU25S	0.039	1.00	5	0.197	5	1.181	30	1.772	45	0.039	1	8.0°	45°	●
7219519	L6PG10060C30R000 KCU25S	0.039	1.00	6	0.236	6	1.181	30	1.772	45	0.039	1	8.0°	45°	●
7219520	L6PG10060C42R000 KCU25S	0.039	1.00	6	0.236	6	1.654	42	2.244	57	0.039	1	8.0°	45°	●
7219541	R4PG10040C10R000 KCU25S	0.032	0.80	4	0.158	4	0.394	10	0.984	25	0.039	1	8.0°	45°	●
7219542	R4PG10040C16R000 KCU25S	0.032	0.80	4	0.158	4	0.630	16	1.181	30	0.039	1	8.0°	45°	●
7219544	R5PG10050C15R000 KCU25S	0.039	1.00	5	0.197	5	0.591	15	1.181	30	0.039	1	8.0°	45°	●
7219546	R5PG10050C20R000 KCU25S	0.039	1.00	5	0.197	5	0.787	20	1.378	35	0.039	1	8.0°	45°	●
7219548	R5PG10050C30R000 KCU25S	0.039	1.00	5	0.197	5	1.181	30	1.772	45	0.039	1	8.0°	45°	●
7219550	R6PG10060C30R000 KCU25S	0.039	1.00	6	0.236	6	1.181	30	1.772	45	0.039	1	8.0°	45°	●
7219552	R6PG10060C42R000 KCU25S	0.039	1.00	6	0.236	6	1.654	42	2.244	57	0.039	1	8.0°	45°	●



APLICACIONES



P	●
M	●
K	●
N	○
S	○
H	○

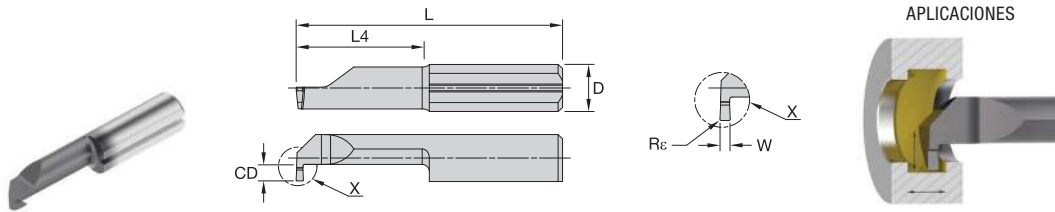
● Principal
○ Secundario

Ranurado

Esquina afilada • GS

Número de pedido	Número de catálogo	CD		D	DMIN		L4		L		Re		W		●
		in	mm		in	mm	in	mm	in	mm	in	mm			
7221431	L4GS03010C04R000 KCU25S	0.008	0.20	4	0.039	1	0.158	4	0.787	20	0	0	0.012	0.30	●
7221432	L4GS03010C07R000 KCU25S	0.008	0.20	4	0.039	1	0.276	7	0.866	22	0	0	0.012	0.30	●
7221433	L4GS04015C05R000 KCU25S	0.016	0.40	4	0.059	1.5	0.197	5	0.866	22	0	0	0.016	0.40	●
7221434	L4GS04015C10R000 KCU25S	0.016	0.40	4	0.059	1.5	0.394	10	0.984	25	0	0	0.016	0.40	●
7221435	L4GS04015C12R000 KCU25S	0.016	0.40	4	0.059	1.5	0.472	12	1.063	27	0	0	0.016	0.40	●
7221436	L4GS05020C05R000 KCU25S	0.016	0.40	4	0.079	2	0.197	5	0.945	24	0	0	0.020	0.50	●
7221437	L4GS05020C10R000 KCU25S	0.016	0.40	4	0.079	2	0.394	10	0.945	24	0	0	0.020	0.50	●
7221438	L4GS05020C15R000 KCU25S	0.024	0.60	4	0.079	2	0.591	15	0.748	19	0	0	0.020	0.50	●
7221443	L4GS05040C10R000 KCU25S	0.031	0.80	4	0.158	4	0.394	10	0.945	24	0	0	0.020	0.50	●
7221444	L4GS05040C16R000 KCU25S	0.031	0.80	4	0.158	4	0.630	16	1.181	30	0	0	0.020	0.50	●
7221445	L4GS05040C20R000 KCU25S	0.031	0.80	4	0.158	4	0.787	20	1.339	34	0	0	0.020	0.50	●
7221439	L4GS07030C05R000 KCU25S	0.024	0.60	4	0.118	3	0.197	5	0.748	19	0	0	0.028	0.70	●
7221441	L4GS07030C10R000 KCU25S	0.024	0.60	4	0.118	3	0.394	10	0.945	24	0	0	0.028	0.70	●
7221442	L4GS07030C16R000 KCU25S	0.024	0.60	4	0.118	3	0.630	16	1.181	30	0	0	0.028	0.70	●
7221446	L4GS10040C10R000 KCU25S	0.031	0.80	4	0.158	4	0.394	10	0.945	24	0	0	0.039	1.00	●
7221447	L4GS10040C16R000 KCU25S	0.031	0.80	4	0.158	4	0.630	16	1.181	30	0	0	0.039	1.00	●
7221449	L4GS10040C20R000 KCU25S	0.031	0.80	4	0.158	4	0.787	20	1.339	34	0	0	0.039	1.00	●
7221450	R4GS03010C04R000 KCU25S	0.008	0.20	4	0.039	1	0.158	4	0.787	20	0	0	0.012	0.30	●
7221451	R4GS03010C07R000 KCU25S	0.008	0.20	4	0.039	1	0.276	7	0.866	22	0	0	0.012	0.30	●
7221452	R4GS04015C05R000 KCU25S	0.016	0.40	4	0.059	1.5	0.197	5	0.866	22	0	0	0.016	0.40	●
7221453	R4GS04015C10R000 KCU25S	0.016	0.40	4	0.059	1.5	0.394	10	0.984	25	0	0	0.016	0.40	●
7221454	R4GS04015C12R000 KCU25S	0.016	0.40	4	0.059	1.5	0.472	12	1.063	27	0	0	0.016	0.40	●
7221456	R4GS05020C05R000 KCU25S	0.016	0.40	4	0.079	2	0.197	5	0.748	19	0	0	0.020	0.50	●
7221457	R4GS05020C10R000 KCU25S	0.016	0.40	4	0.079	2	0.394	10	0.945	24	0	0	0.020	0.50	●
7221458	R4GS05020C15R000 KCU25S	0.016	0.40	4	0.079	2	0.591	15	1.142	29	0	0	0.020	0.50	●
7221462	R4GS05040C10R000 KCU25S	0.031	0.80	4	0.158	4	0.394	10	0.945	24	0	0	0.020	0.50	●
7221463	R4GS05040C16R000 KCU25S	0.031	0.80	4	0.158	4	0.630	16	1.181	30	0	0	0.020	0.50	●
7221464	R4GS05040C20R000 KCU25S	0.031	0.80	4	0.158	4	0.787	20	1.339	34	0	0	0.020	0.50	●
7221459	R4GS07030C05R000 KCU25S	0.024	0.60	4	0.118	3	0.197	5	0.748	19	0	0	0.028	0.70	●
7221460	R4GS07030C10R000 KCU25S	0.024	0.60	4	0.118	3	0.394	10	0.945	24	0	0	0.028	0.70	●
7221461	R4GS07030C16R000 KCU25S	0.024	0.60	4	0.118	3	0.630	16	1.181	30	0	0	0.028	0.70	●
7221465	R4GS10040C10R000 KCU25S	0.031	0.80	4	0.158	4	0.394	10	0.945	24	0	0	0.039	1.00	●
7221466	R4GS10040C16R000 KCU25S	0.031	0.80	4	0.158	4	0.630	16	1.181	30	0	0	0.039	1.00	●
7221467	R4GS10040C20R000 KCU25S	0.031	0.80	4	0.158	4	0.787	20	1.339	34	0	0	0.039	1.00	●

KCU25S



Ranurado

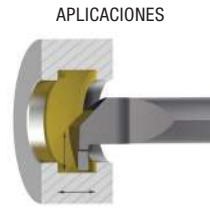
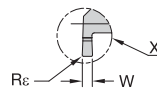
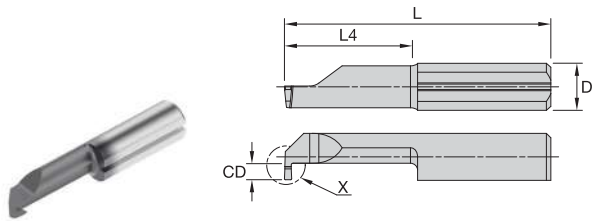
Radio de esquina • GR

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S	○
H	○

● Principal
○ Secundario

Número de pedido	Número de catálogo	CD		DMIN		L4		L		Re		W		
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	
7220157	L4GR08040C20R010 KCU25S	0.031	0.80	0.158	4.00	0.787	20	1.339	34	0.004	0.10	0.032	0.80	●
7220158	L4GR10040C10R010 KCU25S	0.031	0.80	0.158	4.00	0.394	10	0.945	24	0.004	0.10	0.039	1.00	●
7220159	L4GR10040C16R010 KCU25S	0.031	0.80	0.158	4.00	0.630	16	1.181	30	0.004	0.10	0.039	1.00	●
7220160	L4GR10040C20R010 KCU25S	0.031	0.80	0.158	4.00	0.787	20	1.339	34	0.004	0.10	0.039	1.00	●
7220161	L5GR10050C10R010 KCU25S	0.039	1.00	0.197	5.00	0.394	10	0.984	25	0.004	0.10	0.039	1.00	●
7220162	L5GR10050C15R010 KCU25S	0.039	1.00	0.197	5.00	0.591	15	1.181	30	0.004	0.10	0.039	1.00	●
7220163	L5GR10050C20R010 KCU25S	0.039	1.00	0.197	5.00	0.787	20	1.378	35	0.004	0.10	0.039	1.00	●
7220164	L5GR10050C25R010 KCU25S	0.039	1.00	0.197	5.00	0.984	25	1.575	40	0.004	0.10	0.039	1.00	●
7220165	L5GR10050C30R010 KCU25S	0.039	1.00	0.197	5.00	1.181	30	1.772	45	0.004	0.10	0.039	1.00	●
7220166	L5GR15050C10R010 KCU25S	0.039	1.00	0.197	5.00	0.394	10	0.984	25	0.004	0.10	0.059	1.50	●
7220167	L5GR15050C15R010 KCU25S	0.039	1.00	0.197	5.00	0.591	15	1.181	30	0.004	0.10	0.059	1.50	●
7220168	L5GR15050C20R010 KCU25S	0.039	1.00	0.197	5.00	0.787	20	1.378	35	0.004	0.10	0.059	1.50	●
7220169	L5GR15050C25R010 KCU25S	0.039	1.00	0.197	5.00	0.984	25	1.575	40	0.004	0.10	0.059	1.50	●
7220170	L5GR15050C30R010 KCU25S	0.039	1.00	0.197	5.00	1.181	30	1.772	45	0.004	0.10	0.059	1.50	●
7220171	L5GR16050C20R010 KCU25S	0.039	1.00	0.197	5.00	0.787	20	1.378	35	0.004	0.10	0.063	1.60	●
7220172	L5GR20050C10R010 KCU25S	0.039	1.00	0.197	5.00	0.394	10	0.984	25	0.004	0.10	0.079	2.00	●
7220173	L5GR20050C15R010 KCU25S	0.039	1.00	0.197	5.00	0.591	15	1.181	30	0.004	0.10	0.079	2.00	●
7220174	L5GR20050C20R010 KCU25S	0.039	1.00	0.197	5.00	0.787	20	1.378	35	0.004	0.10	0.079	2.00	●
7220175	L5GR20050C25R010 KCU25S	0.039	1.00	0.197	5.00	0.984	25	1.575	40	0.004	0.10	0.079	2.00	●
7220176	L5GR20050C30R010 KCU25S	0.039	1.00	0.197	5.00	1.181	30	1.772	45	0.004	0.10	0.079	2.00	●
7220177	L6GR08060C15R010 KCU25S	0.071	1.80	0.236	6.00	0.591	15	1.181	30	0.004	0.10	0.032	0.80	●
7220178	L6GR10060C10R010 KCU25S	0.071	1.80	0.236	6.00	0.394	10	0.984	25	0.004	0.10	0.039	1.00	●
7220179	L6GR10060C15R010 KCU25S	0.071	1.80	0.236	6.00	0.591	15	1.181	30	0.004	0.10	0.039	1.00	●
7220180	L6GR10060C22R010 KCU25S	0.071	1.80	0.236	6.00	0.866	22	1.457	37	0.004	0.10	0.039	1.00	●
7220181	L6GR10060C25R010 KCU25S	0.071	1.80	0.236	6.00	0.984	25	1.575	40	0.004	0.10	0.039	1.00	●
7220182	L6GR10060C30R010 KCU25S	0.071	1.80	0.236	6.00	1.181	30	1.772	45	0.004	0.10	0.039	1.00	●
7220183	L6GR12060C15R010 KCU25S	0.071	1.80	0.236	6.00	0.591	15	1.181	30	0.004	0.10	0.047	1.20	●
7220184	L6GR15060C10R010 KCU25S	0.071	1.80	0.236	6.00	0.394	10	0.984	25	0.004	0.10	0.059	1.50	●
7220185	L6GR15060C15R010 KCU25S	0.071	1.80	0.236	6.00	0.591	15	1.181	30	0.004	0.10	0.059	1.50	●
7220186	L6GR15060C22R010 KCU25S	0.071	1.80	0.236	6.00	0.866	22	1.457	37	0.004	0.10	0.059	1.50	●
7220187	L6GR15060C25R010 KCU25S	0.071	1.80	0.236	6.00	0.984	25	1.575	40	0.004	0.10	0.059	1.50	●
7220188	L6GR15060C30R010 KCU25S	0.071	1.80	0.236	6.00	1.181	30	1.772	45	0.004	0.10	0.059	1.50	●
7220189	L6GR19060C15R010 KCU25S	0.071	1.80	0.236	6.00	0.591	15	1.181	30	0.004	0.10	0.075	1.90	●
7220190	L6GR20060C10R010 KCU25S	0.071	1.80	0.236	6.00	0.394	10	1.181	30	0.004	0.10	0.079	2.00	●
7220191	L6GR20060C15R010 KCU25S	0.071	1.80	0.236	6.00	0.591	15	1.181	30	0.004	0.10	0.079	2.00	●
7220192	L6GR20060C22R010 KCU25S	0.071	1.80	0.236	6.00	0.866	22	1.457	37	0.004	0.10	0.079	2.00	●
7220193	L6GR20060C25R010 KCU25S	0.071	1.80	0.236	6.00	0.984	25	1.575	40	0.004	0.10	0.079	2.00	●
7220194	L6GR20060C30R010 KCU25S	0.071	1.80	0.236	6.00	1.181	30	1.772	45	0.004	0.10	0.079	2.00	●
7220195	L7GR10068C10R010 KCU25S	0.098	2.50	0.268	6.80	0.394	10	0.984	25	0.004	0.10	0.039	1.00	●
7220196	L7GR10068C15R010 KCU25S	0.098	2.50	0.268	6.80	0.591	15	1.181	30	0.004	0.10	0.039	1.00	●
7220197	L7GR10068C22R010 KCU25S	0.098	2.50	0.268	6.80	0.866	22	1.457	37	0.004	0.10	0.039	1.00	●
7220198	L7GR10068C25R010 KCU25S	0.098	2.50	0.268	6.80	0.984	25	1.575	40	0.004	0.10	0.039	1.00	●
7220199	L7GR10068C30R010 KCU25S	0.098	2.50	0.268	6.80	1.181	30	1.772	45	0.004	0.10	0.039	1.00	●
7220200	L7GR12068C10R010 KCU25S	0.098	2.50	0.268	6.80	0.394	10	0.984	25	0.004	0.10	0.047	1.20	●
7220201	L7GR12068C22R010 KCU25S	0.098	2.50	0.2677	6.80	0.866	22	1.457	37	0.004	0.10	0.047	1.20	●
7220202	L7GR15068C10R010 KCU25S	0.098	2.50	0.268	6.80	0.394	10	0.984	25	0.004	0.10	0.059	1.50	●
7220203	L7GR15068C15R010 KCU25S	0.098	2.50	0.268	6.80	0.591	15	1.181	30	0.004	0.10	0.059	1.50	●
7220204	L7GR15068C22R010 KCU25S	0.098	2.50	0.268	6.80	0.866	22	1.457	37	0.004	0.10	0.059	1.50	●
7220205	L7GR15068C25R010 KCU25S	0.098	2.50	0.268	6.80	0.984	25	1.575	40	0.004	0.10	0.059	1.50	●
7220206	L7GR15068C30R010 KCU25S	0.098	2.50	0.268	6.80	1.181	30	1.772	45	0.004	0.10	0.059	1.50	●
7220207	L7GR16068C10R010 KCU25S	0.098	2.50	0.268	6.80	0.394	10	0.984	25	0.004	0.10	0.063	1.60	●
7220208	L7GR16068C25R010 KCU25S	0.098	2.50	0.268	6.80	0.984	25	1.575	40	0.004	0.10	0.063	1.60	●
7220209	L7GR19068C22R010 KCU25S	0.098	2.50	0.268	6.80	0.866	22	1.457	37	0.004	0.10	0.075	1.90	●
7220210	L7GR20068C10R010 KCU25S	0.098	2.50	0.268	6.80	0.394	10	0.984	25	0.004	0.10	0.079	2.00	●
7220211	L7GR20068C15R010 KCU25S	0.098	2.50	0.268	6.80	0.591	15	1.181	30	0.004	0.10	0.079	2.00	●

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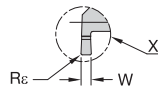
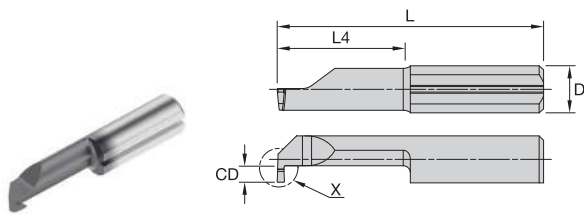
● Principal
○ Secundario

Ranurado Continuación

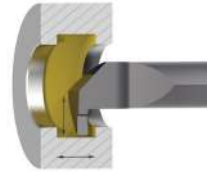
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Número de pedido	Número de catálogo	CD		DMIN		L4		L		Rc		W		KCJ25S
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	
7220212	L7GR20068C22R010 KCJ25S	0.098	2.50	0.268	6.80	0.866	22	1.457	37	0.004	0.10	0.079	2.00	●
7220213	L7GR20068C25R010 KCJ25S	0.098	2.50	0.268	6.80	0.984	25	1.575	40	0.004	0.10	0.079	2.00	●
7220214	L7GR20068C30R010 KCJ25S	0.098	2.50	0.268	6.80	1.181	30	1.772	45	0.004	0.10	0.079	2.00	●
7220215	L8GR10078C30R010 KCJ25S	0.118	3.00	0.307	7.80	1.181	30	1.969	50	0.004	0.10	0.039	1.00	●
7220216	L8GR10078C40R010 KCJ25S	0.118	3.00	0.307	7.80	1.575	40	2.362	60	0.004	0.10	0.039	1.00	●
7220217	L8GR20078C30R010 KCJ25S	0.118	3.00	0.307	7.80	1.181	30	1.969	50	0.004	0.10	0.079	2.00	●
7220218	L8GR20078C40R010 KCJ25S	0.118	3.00	0.307	7.80	1.575	40	2.362	60	0.004	0.10	0.079	2.00	●
7220219	L8GR25078C30R010 KCJ25S	0.118	3.00	0.307	7.80	1.181	30	1.969	50	0.004	0.10	0.098	2.50	●
7220220	L8GR25078C40R010 KCJ25S	0.118	3.00	0.307	7.80	1.575	40	2.362	60	0.004	0.10	0.098	2.50	●
7220221	R4GR08040C20R010 KCJ25S	0.031	0.80	0.158	4.00	0.787	20	1.339	34	0.004	0.10	0.032	0.80	●
7220222	R4GR10040C10R010 KCJ25S	0.031	0.80	0.158	4.00	0.394	10	0.945	24	0.004	0.10	0.039	1.00	●
7220223	R4GR10040C16R010 KCJ25S	0.031	0.80	0.158	4.00	0.630	16	1.181	30	0.004	0.10	0.039	1.00	●
7220224	R4GR10040C20R010 KCJ25S	0.031	0.80	0.158	4.00	0.787	20	1.339	34	0.004	0.10	0.039	1.00	●
7220226	R5GR10050C15R010 KCJ25S	0.039	1.00	0.197	5.00	0.591	15	1.181	30	0.004	0.10	0.039	1.00	●
7220227	R5GR10050C20R010 KCJ25S	0.039	1.00	0.197	5.00	0.787	20	1.378	35	0.004	0.10	0.039	1.00	●
7220225	R5GR10050C10R010 KCJ25S	0.000	1.00	0.197	5.00	0.394	10	0.984	25	0.004	0.10	0.039	1.00	●
7220228	R5GR10050C25R010 KCJ25S	0.000	1.00	0.197	5.00	0.984	25	1.575	40	0.004	0.10	0.039	1.00	●
7220229	R5GR10050C30R010 KCJ25S	0.039	1.00	0.197	5.00	1.181	30	1.772	45	0.004	0.10	0.039	1.00	●
7220230	R5GR15050C10R010 KCJ25S	0.039	1.00	0.197	5.00	0.394	10	0.984	25	0.004	0.10	0.059	1.50	●
7220231	R5GR15050C15R010 KCJ25S	0.039	1.00	0.197	5.00	0.591	15	1.181	30	0.004	0.10	0.059	1.50	●
7220232	R5GR15050C20R010 KCJ25S	0.039	1.00	0.197	5.00	0.787	20	1.378	35	0.004	0.10	0.059	1.50	●
7220233	R5GR15050C25R010 KCJ25S	0.039	1.00	0.197	5.00	0.984	25	1.575	40	0.004	0.10	0.059	1.50	●
7220234	R5GR15050C30R010 KCJ25S	0.039	1.00	0.197	5.00	1.181	30	1.772	45	0.004	0.10	0.059	1.50	●
7220235	R5GR16050C20R010 KCJ25S	0.039	1.00	0.197	5.00	0.787	20	1.378	35	0.004	0.10	0.063	1.60	●
7220236	R5GR20050C10R010 KCJ25S	0.039	1.00	0.197	5.00	0.394	10	0.984	25	0.004	0.10	0.079	2.00	●
7220237	R5GR20050C15R010 KCJ25S	0.039	1.00	0.197	5.00	0.591	15	1.181	30	0.004	0.10	0.079	2.00	●
7220238	R5GR20050C20R010 KCJ25S	0.039	1.00	0.197	5.00	0.787	20	1.378	35	0.004	0.10	0.079	2.00	●
7220239	R5GR20050C25R010 KCJ25S	0.039	1.00	0.197	5.00	0.984	25	1.575	40	0.004	0.10	0.079	2.00	●
7220240	R5GR20050C30R010 KCJ25S	0.039	1.00	0.197	5.00	1.181	30	1.772	45	0.004	0.10	0.079	2.00	●
7220241	R6GR08060C15R010 KCJ25S	0.071	1.80	0.236	6.00	0.591	15	1.181	30	0.004	0.10	0.032	0.80	●
7220242	R6GR10060C10R010 KCJ25S	0.071	1.80	0.236	6.00	0.394	10	0.984	25	0.004	0.10	0.039	1.00	●
7220243	R6GR10060C15R010 KCJ25S	0.071	1.80	0.236	6.00	0.591	15	1.181	30	0.004	0.10	0.039	1.00	●
7220244	R6GR10060C22R010 KCJ25S	0.071	1.80	0.236	6.00	0.866	22	1.457	37	0.004	0.10	0.039	1.00	●
7220245	R6GR10060C25R010 KCJ25S	0.071	1.80	0.236	6.00	0.984	25	1.575	40	0.004	0.10	0.039	1.00	●
7220246	R6GR10060C30R010 KCJ25S	0.071	1.80	0.236	6.00	1.181	30	1.772	45	0.004	0.10	0.039	1.00	●
7220247	R6GR12060C15R010 KCJ25S	0.071	1.80	0.236	6.00	0.591	15	1.181	30	0.004	0.10	0.047	1.20	●
7220248	R6GR15060C10R010 KCJ25S	0.071	1.80	0.236	6.00	0.394	10	0.984	25	0.004	0.10	0.059	1.50	●
7220249	R6GR15060C15R010 KCJ25S	0.071	1.80	0.236	6.00	0.591	15	1.181	30	0.004	0.10	0.059	1.50	●
7220250	R6GR15060C22R010 KCJ25S	0.071	1.80	0.236	6.00	0.866	22	1.457	37	0.004	0.10	0.059	1.50	●
7220251	R6GR15060C25R010 KCJ25S	0.071	1.80	0.236	6.00	0.984	25	1.575	40	0.004	0.10	0.059	1.50	●
7220252	R6GR15060C30R010 KCJ25S	0.071	1.80	0.236	6.00	1.181	30	1.772	45	0.004	0.10	0.059	1.50	●
7220253	R6GR19060C15R010 KCJ25S	0.071	1.80	0.236	6.00	0.591	15	1.181	30	0.004	0.10	0.075	1.90	●
7220254	R6GR20060C10R010 KCJ25S	0.071	1.80	0.236	6.00	0.394	10	0.984	25	0.004	0.10	0.079	2.00	●
7220255	R6GR20060C15R010 KCJ25S	0.071	1.80	0.236	6.00	0.591	15	1.181	30	0.004	0.10	0.079	2.00	●
7220256	R6GR20060C22R010 KCJ25S	0.071	1.80	0.236	6.00	0.866	22	1.457	37	0.004	0.10	0.079	2.00	●
7220257	R6GR20060C25R010 KCJ25S	0.071	1.80	0.236	6.00	0.984	25	1.575	40	0.004	0.10	0.079	2.00	●
7220258	R6GR20060C30R010 KCJ25S	0.071	1.80	0.236	6.00	1.181	30	1.772	45	0.004	0.10	0.079	2.00	●
7220259	R7GR10068C10R010 KCJ25S	0.098	2.50	0.268	6.80	0.394	10	0.984	25	0.004	0.10	0.039	1.00	●
7220260	R7GR10068C15R010 KCJ25S	0.098	2.50	0.268	6.80	0.591	15	1.181	30	0.004	0.10	0.039	1.00	●
7220261	R7GR10068C22R010 KCJ25S	0.098	2.50	0.268	6.80	0.866	22	1.457	37	0.004	0.10	0.039	1.00	●
7220262	R7GR10068C25R010 KCJ25S	0.098	2.50	0.268	6.80	0.984	25	1.575	40	0.004	0.10	0.039	1.00	●
7220263	R7GR10068C30R010 KCJ25S	0.098	2.50	0.268	6.80	1.181	30	1.772	45	0.004	0.10	0.039	1.00	●
7220264	R7GR12068C10R010 KCJ25S	0.098	2.50	0.268	6.80	0.394	10	0.984	25	0.004	0.10	0.047	1.20	●
7220265	R7GR12068C22R010 KCJ25S	0.098	2.50	0.268	6.80	0.866	22	1.457	37	0.004	0.10	0.047	1.20	●
7220266	R7GR15068C10R010 KCJ25S	0.098	2.50	0.268	6.80	0.394	10	0.984	25	0.004	0.10	0.059	1.50	●

Continúa en la página siguiente



APLICACIONES



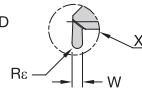
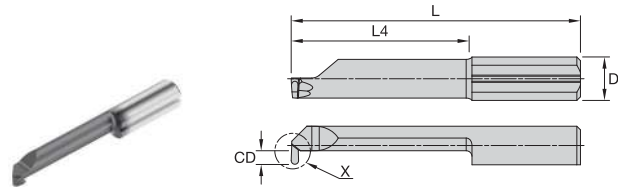
- Principal
- Secundario

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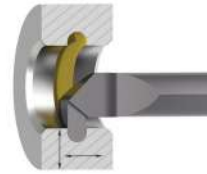
Ranurado Continuación

Radio de esquina • GR

Número de pedido	Número de catálogo	CD		DMIN		L4		L		Rε		W		●
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	
7220267	R7GR15068C15R010 KCU25S	0.098	2.50	0.268	6.80	0.591	15	1.181	30	0.004	0.10	0.059	1.50	●
7220268	R7GR15068C22R010 KCU25S	0.098	2.50	0.268	6.80	0.866	22	1.457	37	0.004	0.10	0.059	1.50	●
7220269	R7GR15068C25R010 KCU25S	0.098	2.50	0.268	6.80	0.984	25	1.575	40	0.004	0.10	0.059	1.50	●
7220270	R7GR15068C30R010 KCU25S	0.098	2.50	0.268	6.80	1.181	30	1.772	45	0.004	0.10	0.059	1.50	●
7220271	R7GR16068C10R010 KCU25S	0.098	2.50	0.268	6.80	0.394	10	0.984	25	0.004	0.10	0.063	1.60	●
7220272	R7GR16068C25R010 KCU25S	0.098	2.50	0.268	6.80	0.984	25	1.575	40	0.004	0.10	0.063	1.60	●
7220273	R7GR19068C22R010 KCU25S	0.098	2.50	0.268	6.80	0.866	22	1.457	37	0.004	0.10	0.075	1.90	●
7220274	R7GR20068C10R010 KCU25S	0.098	2.50	0.268	6.80	0.394	10	0.984	25	0.004	0.10	0.079	2.00	●
7220275	R7GR20068C15R010 KCU25S	0.098	2.50	0.268	6.80	0.591	15	1.181	30	0.004	0.10	0.079	2.00	●
7220276	R7GR20068C22R010 KCU25S	0.098	2.50	0.268	6.80	0.866	22	1.457	37	0.004	0.10	0.079	2.00	●
7220277	R7GR20068C25R010 KCU25S	0.098	2.50	0.268	6.80	0.984	25	1.575	40	0.004	0.10	0.079	2.00	●
7220278	R7GR20078C30R010 KCU25S	0.098	2.50	0.268	6.80	1.181	30	1.772	45	0.004	0.10	0.079	2.00	●
7220279	R8GR10078C30R010 KCU25S	0.118	3.00	0.307	7.80	1.181	30	1.969	50	0.004	0.10	0.039	1.00	●
7220280	R8GR10078C40R010 KCU25S	0.118	3.00	0.307	7.80	1.575	40	2.362	60	0.004	0.10	0.039	1.00	●
7220281	R8GR20078C30R010 KCU25S	0.118	3.00	0.307	7.80	1.181	30	1.969	50	0.004	0.10	0.079	2.00	●
7220282	R8GR20078C40R010 KCU25S	0.118	3.00	0.307	7.80	1.575	40	2.362	60	0.004	0.10	0.079	2.00	●
7220283	R8GR25078C30R010 KCU25S	0.118	3.00	0.307	7.80	1.181	30	1.969	50	0.004	0.10	0.098	2.50	●
7220284	R8GR25078C40R010 KCU25S	0.118	3.00	0.307	7.80	1.575	40	2.362	60	0.004	0.10	0.098	2.50	●



APLICACIONES



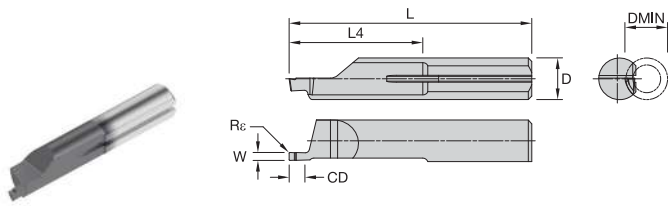
- Principal
- Secundario

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Ranurado

Radio de nariz completo • GF

Número de pedido	Número de catálogo	CD		D	DMIN		L4		L		Rε		W		●
		in	mm		in	mm	in	mm	in	mm	in	mm	in	mm	
7219543	L4GF10040C16R050 KCU25S	0.031	0.80	4	0.158	4.00	0.591	15	1.181	30	0.020	0.50	0.039	1.00	●
7219545	L5GF10050C20R050 KCU25S	0.039	1.00	5	0.197	5.00	0.748	19	1.378	35	0.020	0.50	0.039	1.00	●
7219547	L5GF15050C20R075 KCU25S	0.039	1.00	5	0.197	5.00	0.748	19	1.378	35	0.030	0.75	0.059	1.50	●
7219549	L5GF20050C20R100 KCU25S	0.039	1.00	5	0.197	5.00	0.748	19	1.378	35	0.039	1.00	0.079	2.00	●
7219551	L6GF10060C25R050 KCU25S	0.071	1.80	6	0.236	6.00	0.945	24	1.575	40	0.020	0.50	0.039	1.00	●
7219553	L6GF15060C25R075 KCU25S	0.071	1.80	6	0.236	6.00	0.945	24	1.575	40	0.030	0.75	0.059	1.50	●
7219554	L6GF20060C25R100 KCU25S	0.071	1.80	6	0.236	6.00	0.945	24	1.575	40	0.039	1.00	0.079	2.00	●
7219555	L7GF10068C30R050 KCU25S	0.098	2.50	7	0.268	6.80	1.142	29	1.772	45	0.020	0.50	0.039	1.00	●
7219556	L7GF15068C30R075 KCU25S	0.098	2.50	7	0.268	6.80	1.142	29	1.772	45	0.030	0.75	0.059	1.50	●
7219557	L7GF20068C30R100 KCU25S	0.098	2.50	7	0.268	6.80	1.142	29	1.772	45	0.039	1.00	0.079	2.00	●
7219558	R4GF10040C16R050 KCU25S	0.031	0.80	4	0.158	4.00	0.591	15	1.181	30	0.020	0.50	0.039	1.00	●
7219559	R5GF10050C20R050 KCU25S	0.039	1.00	5	0.197	5.00	0.748	19	1.378	35	0.020	0.50	0.039	1.00	●
7219560	R5GF15050C20R075 KCU25S	0.039	1.00	5	0.197	5.00	0.748	19	1.378	35	0.030	0.75	0.059	1.50	●
7219561	R5GF20050C20R100 KCU25S	0.039	1.00	5	0.197	5.00	0.748	19	1.378	35	0.039	1.00	0.079	2.00	●
7219562	R6GF10060C25R050 KCU25S	0.071	1.80	6	0.236	6.00	0.945	24	1.575	40	0.020	0.50	0.039	1.00	●
7219564	R6GF15060C25R075 KCU25S	0.071	1.80	6	0.236	6.00	0.945	24	1.575	40	0.030	0.75	0.059	1.50	●
7219566	R6GF20060C25R100 KCU25S	0.071	1.80	6	0.236	6.00	0.945	24	1.575	40	0.039	1.00	0.079	2.00	●
7219568	R7GF10068C30R050 KCU25S	0.098	2.50	7	0.268	6.80	1.142	29	1.772	45	0.020	0.50	0.039	1.00	●
7219570	R7GF15068C30R075 KCU25S	0.098	2.50	7	0.268	6.80	1.142	29	1.772	45	0.030	0.75	0.059	1.50	●
7219572	R7GF20068C30R100 KCU25S	0.098	2.50	7	0.268	6.80	1.142	29	1.772	45	0.039	1.00	0.079	2.00	●



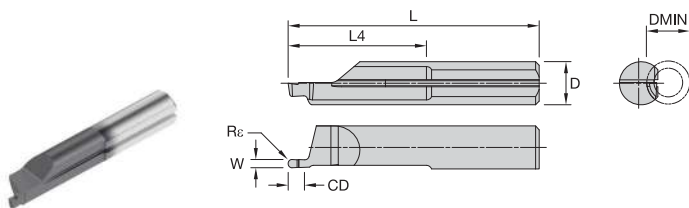
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- Principal
- Secundario

Ranurado frontal

Barrido del fueraborda • FO • Esquina de radio

Número de pedido	Número de catálogo	CD		D	DMIN		L4		L		Rε		W		●
		in	mm		in	mm	in	mm	in	mm	in	mm			
7219342	L6F010060C20R010 KCU25S	0.079	2	6	0.236	6	0.748	19.00	1.378	35	0.004	0.10	0.039	1.00	●
7219343	L6F015060C20R010 KCU25S	0.118	3	6	0.236	6	0.748	19.00	1.378	35	0.004	0.10	0.059	1.50	●
7219344	L6F020060C20R010 KCU25S	0.157	4	6	0.236	6	0.748	19.00	1.378	35	0.004	0.10	0.079	2.00	●
7219345	L6F025060C20R010 KCU25S	0.197	5	6	0.236	6	0.768	19.50	1.378	35	0.004	0.10	0.098	2.50	●
7219346	L6F030060C20R010 KCU25S	0.236	6	6	0.236	6	0.748	19.00	1.378	35	0.004	0.10	0.118	3.00	●
7219347	R6F010060C20R010 KCU25S	0.079	2	6	0.236	6	0.748	19.00	1.378	35	0.004	0.10	0.039	1.00	●
7219348	R6F015060C20R010 KCU25S	0.118	3	6	0.236	6	0.748	19.00	1.378	35	0.004	0.10	0.059	1.50	●
7219349	R6F020060C20R010 KCU25S	0.157	4	6	0.236	6	0.748	19.00	1.378	35	0.004	0.10	0.079	2.00	●
7219350	R6F025060C20R010 KCU25S	0.197	5	6	0.236	6	0.768	19.50	1.378	35	0.004	0.10	0.098	2.50	●
7219431	R6F030060C20R010 KCU25S	0.236	6	6	0.236	6	0.748	19.00	1.378	35	0.004	0.10	0.118	3.00	●



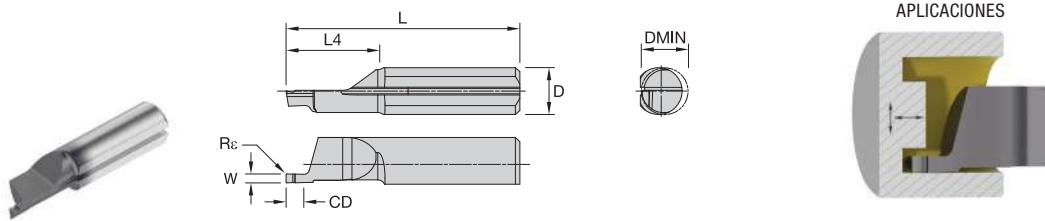
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H	○

- Principal
- Secundario

Ranurado frontal

Barrido fueraborda • FO • Radio de nariz completo

Número de pedido	Número de catálogo	CD		D	DMIN		L4		L		Rε		W		●
		in	mm		in	mm	in	mm	in	mm	in	mm			
7219432	L6F010060C20R050 KCU25S	0.079	2	6	0.236	6	0.748	19	1.378	35	0.020	0.50	0.039	1.00	●
7219433	L6F016060C20R080 KCU25S	0.118	3	6	0.236	6	0.748	19	1.378	35	0.032	0.80	0.063	1.60	●
7219434	L6F020060C20R100 KCU25S	0.157	4	6	0.236	6	0.748	19	1.378	35	0.039	1.00	0.079	2.00	●
7219436	L6F025060C20R125 KCU25S	0.197	5	6	0.236	6	0.748	19	1.378	35	0.049	1.25	0.098	2.50	●
7219438	L6F030060C20R150 KCU25S	0.236	6	6	0.236	6	0.748	19	1.378	35	0.059	1.50	0.118	3.00	●
7219440	R6F010060C20R050 KCU25S	0.079	2	6	0.236	6	0.748	19	1.378	35	0.020	0.50	0.039	1.00	●
7219452	R6F016060C20R080 KCU25S	0.118	3	6	0.236	6	0.748	19	1.378	35	0.032	0.80	0.063	1.60	●
7219454	R6F020060C20R100 KCU25S	0.157	4	6	0.236	6	0.748	19	1.378	35	0.039	1.00	0.079	2.00	●
7219456	R6F025060C20R125 KCU25S	0.197	5	6	0.236	6	0.748	19	1.378	35	0.049	1.25	0.098	2.50	●
7219458	R6F030060C20R150 KCU25S	0.236	6	6	0.236	6	0.748	19	1.378	35	0.059	1.50	0.118	3.00	●



- Principal
- Secundario

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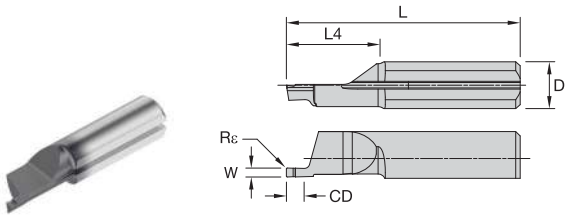
Ranurado frontal

Barrido interior • FI • Esquina de radio

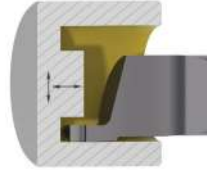
Número de pedido	Número de catálogo	CD		D	DMIN		L4		L		Re		W		
		in	mm		in	mm	in	mm	in	mm	in	mm			
7220799	L5FI05050C11R005 KCU25S	0.039	1	5	0.197	5	0.433	11	1.024	26	0.002	0.05	0.020	0.50	●
7220800	L5FI08050C11R005 KCU25S	0.079	2	5	0.197	5	0.433	11	1.024	26	0.002	0.05	0.032	0.80	●
7220951	L5FI10050C11R005 KCU25S	0.079	2	5	0.197	5	0.433	11	1.024	26	0.002	0.05	0.039	1.00	●
7220954	L5FI10050C20R005 KCU25S	0.079	2	5	0.197	5	0.787	20	1.378	35	0.002	0.05	0.039	1.00	●
7220952	L5FI15050C11R005 KCU25S	0.118	3	5	0.197	5	0.433	11	1.024	26	0.002	0.05	0.059	1.50	●
7220955	L5FI15050C20R005 KCU25S	0.118	3	5	0.197	5	0.787	20	1.378	35	0.002	0.05	0.059	1.50	●
7220953	L5FI20050C11R005 KCU25S	0.157	4	5	0.197	5	0.433	11	1.024	26	0.002	0.05	0.079	2.00	●
7220956	L5FI20050C20R005 KCU25S	0.157	4	5	0.197	5	0.787	20	1.378	35	0.002	0.05	0.079	2.00	●
7220957	L6FI10060C11R010 KCU25S	0.079	2	6	0.236	6	0.433	11	1.024	26	0.004	0.10	0.039	1.00	●
7220962	L6FI10060C20R010 KCU25S	0.079	2	6	0.236	6	0.787	20	1.378	35	0.004	0.10	0.039	1.00	●
7220967	L6FI10060C30R010 KCU25S	0.079	2	6	0.236	6	1.181	30	1.772	45	0.004	0.10	0.039	1.00	●
7220958	L6FI15060C11R010 KCU25S	0.118	3	6	0.236	6	0.433	11	1.024	26	0.004	0.10	0.059	1.50	●
7220963	L6FI15060C20R010 KCU25S	0.118	3	6	0.236	6	0.787	20	1.378	35	0.004	0.10	0.059	1.50	●
7220968	L6FI15060C30R010 KCU25S	0.118	3	6	0.236	6	1.181	30	1.772	45	0.004	0.10	0.059	1.50	●
7220959	L6FI20060C11R010 KCU25S	0.157	4	6	0.236	6	0.433	11	1.024	26	0.004	0.10	0.079	2.00	●
7220964	L6FI20060C20R010 KCU25S	0.157	4	6	0.236	6	0.787	20	1.378	35	0.004	0.10	0.079	2.00	●
7220969	L6FI20060C30R010 KCU25S	0.157	4	6	0.236	6	1.181	30	1.772	45	0.004	0.10	0.079	2.00	●
7220960	L6FI25060C11R010 KCU25S	0.197	5	6	0.236	6	0.433	11	1.024	26	0.004	0.10	0.098	2.50	●
7220965	L6FI25060C20R010 KCU25S	0.197	5	6	0.236	6	0.787	20	1.378	35	0.004	0.10	0.098	2.50	●
7220970	L6FI25060C30R010 KCU25S	0.197	5	6	0.236	6	1.181	30	1.772	45	0.004	0.10	0.098	2.50	●
7220961	L6FI30060C11R010 KCU25S	0.197	5	6	0.236	6	0.433	11	1.024	26	0.004	0.10	0.118	3.00	●
7220966	L6FI30060C20R010 KCU25S	0.197	5	6	0.236	6	0.787	20	1.024	26	0.004	0.10	0.118	3.00	●
7220981	L6FI30060C30R010 KCU25S	0.236	6	6	0.236	6	1.181	30	1.772	45	0.004	0.10	0.118	3.00	●
7221005	L7FI10080C11R010 KCU25S	0.079	2	7	0.315	8	0.433	11	1.024	26	0.004	0.10	0.039	1.00	●
7221011	L7FI10080C20R010 KCU25S	0.079	2	7	0.315	8	0.787	20	1.378	35	0.004	0.10	0.039	1.00	●
7221006	L7FI15080C11R010 KCU25S	0.118	3	7	0.315	8	0.433	11	1.024	26	0.004	0.10	0.059	1.50	●
7221012	L7FI15080C20R010 KCU25S	0.118	3	7	0.315	8	0.787	20	1.378	35	0.004	0.10	0.059	1.50	●
7221007	L7FI16080C11R010 KCU25S	0.118	3	7	0.315	8	0.433	11	1.024	26	0.004	0.10	0.063	1.60	●
7221008	L7FI20080C11R010 KCU25S	0.157	4	7	0.315	8	0.433	11	1.024	26	0.004	0.10	0.079	2.00	●
7221013	L7FI20080C20R010 KCU25S	0.157	4	7	0.315	8	0.787	20	1.378	35	0.004	0.10	0.079	2.00	●
7221014	L7FI24080C20R010 KCU25S	0.197	5	7	0.315	8	0.787	20	1.378	35	0.004	0.10	0.095	2.40	●
7221009	L7FI25080C11R010 KCU25S	0.197	5	7	0.315	8	0.433	11	1.024	26	0.004	0.10	0.098	2.50	●
7221015	L7FI25080C20R010 KCU25S	0.197	5	7	0.315	8	0.787	20	1.378	35	0.004	0.10	0.098	2.50	●
7221010	L7FI30080C11R010 KCU25S	0.236	6	7	0.315	8	0.433	11	1.024	26	0.004	0.10	0.118	3.00	●
7221016	L7FI30080C20R010 KCU25S	0.236	6	7	0.315	8	0.787	20	1.378	35	0.004	0.10	0.118	3.00	●
7220982	R5FI05050C11R005 KCU25S	0.039	1	5	0.197	5	0.433	11	1.024	26	0.002	0.05	0.020	0.50	●
7220983	R5FI08050C11R005 KCU25S	0.079	2	5	0.197	5	0.433	11	1.024	26	0.002	0.05	0.032	0.80	●
7220984	R5FI10050C11R005 KCU25S	0.079	2	5	0.197	5	0.433	11	1.024	26	0.002	0.05	0.039	1.00	●
7220987	R5FI10050C20R005 KCU25S	0.079	2	5	0.197	5	0.787	20	1.378	35	0.002	0.05	0.039	1.00	●
7220985	R5FI15050C11R005 KCU25S	0.118	3	5	0.197	5	0.433	11	1.024	26	0.002	0.05	0.059	1.50	●
7220988	R5FI15050C20R005 KCU25S	0.118	3	5	0.197	5	0.787	20	1.378	35	0.002	0.05	0.059	1.50	●
7220986	R5FI20050C11R005 KCU25S	0.157	4	5	0.197	5	0.433	11	1.024	26	0.002	0.05	0.079	2.00	●
7220989	R5FI20050C20R005 KCU25S	0.157	4	5	0.197	5	0.787	20	1.378	35	0.002	0.05	0.079	2.00	●
7220990	R6FI10060C11R010 KCU25S	0.079	2	6	0.236	6	0.433	11	1.024	26	0.004	0.10	0.039	1.00	●
7220995	R6FI10060C20R010 KCU25S	0.079	2	6	0.236	6	0.787	20	1.378	35	0.004	0.10	0.039	1.00	●
7221000	R6FI10060C30R010 KCU25S	0.079	2	6	0.236	6	1.181	30	1.772	45	0.004	0.10	0.039	1.00	●
7220991	R6FI15060C11R010 KCU25S	0.118	3	6	0.236	6	0.433	11	1.024	26	0.004	0.10	0.059	1.50	●
7220996	R6FI15060C20R010 KCU25S	0.118	3	6	0.236	6	0.787	20	1.378	35	0.004	0.10	0.059	1.50	●
7221001	R6FI15060C30R010 KCU25S	0.118	3	6	0.236	6	1.181	30	1.772	45	0.004	0.10	0.059	1.50	●
7220992	R6FI20060C11R010 KCU25S	0.157	4	6	0.236	6	0.433	11	1.024	26	0.004	0.10	0.079	2.00	●
7220997	R6FI20060C20R010 KCU25S	0.157	4	6	0.236	6	0.787	20	1.378	35	0.004	0.10	0.079	2.00	●
7221002	R6FI20060C30R010 KCU25S	0.157	4	6	0.236	6	1.181	30	1.772	45	0.004	0.10	0.079	2.00	●
7220993	R6FI25060C11R010 KCU25S	0.197	5	6	0.236	6	0.433	11	1.024	26	0.004	0.10	0.098	2.50	●
7220998	R6FI25060C20R010 KCU25S	0.197	5	6	0.236	6	0.787	20	1.378	35	0.004	0.10	0.098	2.50	●
7221003	R6FI25060C30R010 KCU25S	0.197	5	6	0.236	6	1.181	30	1.772	45	0.004	0.10	0.098	2.50	●
7220994	R6FI30060C11R010 KCU25S	0.197	5	6	0.236	6	0.433	11	1.024	26	0.004	0.10	0.118	3.00	●
7220999	R6FI30060C20R010 KCU25S	0.236	6	6	0.236	6	0.787	20	1.378	35	0.004	0.10	0.118	3.00	●
7221004	R6FI30060C30R010 KCU25S	0.236	6	6	0.236	6	1.181	30	1.772	45	0.004	0.10	0.118	3.00	●
7221017	R7FI10080C11R010 KCU25S	0.079	2	7	0.315	8	0.433	11	1.024	26	0.004	0.10	0.039	1.00	●
7221023	R7FI10080C20R010 KCU25S	0.079	2	7	0.315	8	0.787	20	1.378	35	0.004	0.10	0.039	1.00	●
7221018	R7FI15080C11R010 KCU25S	0.118	3	7	0.315	8	0.433	11	1.024	26	0.004	0.10	0.059	1.50	●
7221024	R7FI15080C20R010 KCU25S	0.118	3	7	0.315	8	0.787	20	1.378	35	0.004	0.10	0.059	1.50	●

Continúa en la página siguiente





APLICACIONES



P	Blue	●
M	Yellow	●
K	Red	○
N	Green	○
S	Orange	○
H	Grey	○

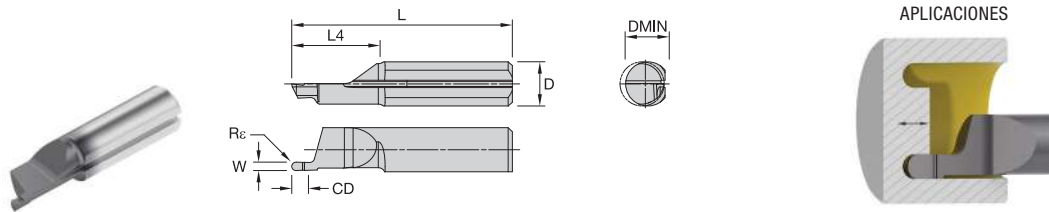
● Principal
○ Secundario

Ranurado frontal Continuación

Barrido interior • FI • Esquina de radio

Número de pedido	Número de catálogo	CD		D	DMIN		L4		L		Rε		W		●
		in	mm		in	mm	in	mm	in	mm	in	mm			
7221019	R7FI16080C11R010 KCU25S	0.118	3	7	0.315	8	0.433	11	1.024	26	0.004	0.10	0.063	1.60	●
7221020	R7FI20080C11R010 KCU25S	0.157	4	7	0.315	8	0.433	11	1.024	26	0.004	0.10	0.079	2.00	●
7221025	R7FI20080C20R010 KCU25S	0.157	4	7	0.315	8	0.433	11	1.024	26	0.004	0.10	0.079	2.00	●
7221026	R7FI24080C20R010 KCU25S	0.197	5	7	0.315	8	0.433	11	1.024	26	0.004	0.10	0.095	2.40	●
7221021	R7FI25080C11R010 KCU25S	0.197	5	7	0.315	8	0.433	11	1.024	26	0.004	0.10	0.098	2.50	●
7221027	R7FI25080C20R010 KCU25S	0.197	5	7	0.315	8	0.433	11	1.024	26	0.004	0.10	0.098	2.50	●
7221022	R7FI30080C11R010 KCU25S	0.236	6	7	0.315	8	0.433	11	1.024	26	0.004	0.10	0.118	3.00	●
7221028	R7FI30080C20R010 KCU25S	0.236	6	7	0.315	8	0.433	11	1.024	26	0.004	0.10	0.118	3.00	●

KCU25S

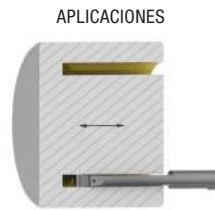
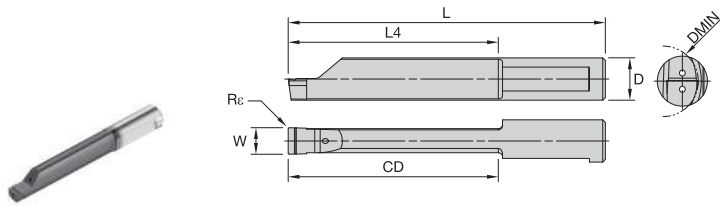


- Principal
 - Secundario
- | | |
|---|---|
| P | ● |
| M | ● |
| K | ○ |
| N | ○ |
| S | ○ |
| H | ○ |

Ranurado frontal

Barrido interior • FI • Radio de nariz completo

Número de pedido	Número de catálogo	CD		D	DMIN		L4		L		Rε		W		KCU25S
		in	mm		in	mm	in	mm	in	mm	in	mm			
7221031	L6FI10060C11R050 KCU25S	0.079	2	6	0.236	6	0.433	11	1.024	26	0.020	0.50	0.039	1.00	●
7221032	L6FI16060C11R080 KCU25S	0.118	3	6	0.236	6	0.433	11	1.024	26	0.032	0.80	0.063	1.60	●
7221033	L6FI20060C11R100 KCU25S	0.157	4	6	0.236	6	0.433	11	1.024	26	0.039	1.00	0.079	2.00	●
7221034	L6FI25060C11R125 KCU25S	0.197	5	6	0.236	6	0.433	11	1.024	26	0.049	1.25	0.098	2.50	●
7221035	L6FI30060C11R150 KCU25S	0.236	6	6	0.236	6	0.433	11	1.024	26	0.059	1.50	0.118	3.00	●
7221036	L6FI10060C22R050 KCU25S	0.079	2	6	0.236	6	0.787	20	1.378	35	0.020	0.50	0.039	1.00	●
7221037	L6FI16060C22R080 KCU25S	0.118	3	6	0.236	6	0.787	20	1.378	35	0.032	0.80	0.063	1.60	●
7221038	L6FI20060C22R100 KCU25S	0.157	4	6	0.236	6	0.787	20	1.378	35	0.039	1.00	0.079	2.00	●
7221039	L6FI25060C22R125 KCU25S	0.197	5	6	0.236	6	0.787	20	1.378	35	0.049	1.25	0.098	2.50	●
7221040	L6FI30060C22R150 KCU25S	0.236	6	6	0.236	6	0.787	20	1.378	35	0.059	1.50	0.118	3.00	●
7221061	L7FI10080C11R050 KCU25S	0.079	2	7	0.315	8	0.433	11	1.024	26	0.020	0.50	0.039	1.00	●
7221062	L7FI15080C11R078 KCU25S	0.118	3	7	0.315	8	0.433	11	1.024	26	0.031	0.78	0.059	1.50	●
7221063	L7FI16080C11R080 KCU25S	0.118	3	7	0.315	8	0.433	11	1.024	26	0.032	0.80	0.063	1.60	●
7221064	L7FI19080C11R099 KCU25S	0.157	4	7	0.315	8	0.433	11	1.024	26	0.039	0.99	0.075	1.90	●
7221065	L7FI20080C11R100 KCU25S	0.157	4	7	0.315	8	0.433	11	1.024	26	0.039	1.00	0.079	2.00	●
7221066	L7FI25080C11R125 KCU25S	0.197	5	7	0.315	8	0.433	11	1.024	26	0.049	1.25	0.098	2.50	●
7221067	L7FI30080C11R150 KCU25S	0.236	6	7	0.315	8	0.433	11	1.024	26	0.059	1.50	0.118	3.00	●
7221068	L7FI10080C22R050 KCU25S	0.079	2	7	0.315	8	0.866	22	1.378	35	0.020	0.50	0.039	1.00	●
7221069	L7FI16080C22R080 KCU25S	0.118	3	7	0.315	8	0.866	22	1.378	35	0.032	0.80	0.063	1.60	●
7221070	L7FI20080C22R100 KCU25S	0.157	4	7	0.315	8	0.866	22	1.378	35	0.039	1.00	0.079	2.00	●
7221091	L7FI25080C22R125 KCU25S	0.197	5	7	0.315	8	0.866	22	1.378	35	0.049	1.25	0.098	2.50	●
7221092	L7FI30080C22R150 KCU25S	0.236	6	7	0.315	8	0.866	22	1.378	35	0.059	1.50	0.118	3.00	●
7221041	R6FI10060C11R050 KCU25S	0.079	2	6	0.236	6	0.433	11	1.024	26	0.020	0.50	0.039	1.00	●
7221042	R6FI16060C11R080 KCU25S	0.118	3	6	0.236	6	0.433	11	1.024	26	0.032	0.80	0.063	1.60	●
7221043	R6FI20060C11R100 KCU25S	0.157	4	6	0.236	6	0.433	11	1.024	26	0.039	1.00	0.079	2.00	●
7221044	R6FI25060C11R125 KCU25S	0.197	5	6	0.236	6	0.433	11	1.024	26	0.049	1.25	0.098	2.50	●
7221045	R6FI30060C11R150 KCU25S	0.236	6	6	0.236	6	0.433	11	1.024	26	0.059	1.50	0.118	3.00	●
7221046	R6FI10060C22R050 KCU25S	0.079	2	6	0.236	6	0.787	20	1.378	35	0.020	0.50	0.039	1.00	●
7221047	R6FI16060C22R080 KCU25S	0.118	3	6	0.236	6	0.787	20	1.378	35	0.032	0.80	0.063	1.60	●
7221048	R6FI20060C22R100 KCU25S	0.157	4	6	0.236	6	0.787	20	1.378	35	0.039	1.00	0.079	2.00	●
7221049	R6FI25060C22R125 KCU25S	0.197	5	6	0.236	6	0.787	20	1.378	35	0.049	1.25	0.098	2.50	●
7221050	R6FI30060C22R150 KCU25S	0.236	6	6	0.236	6	0.787	20	1.378	35	0.059	1.50	0.118	3.00	●
7221093	R7FI10080C11R050 KCU25S	0.079	2	7	0.315	8	0.433	11	1.024	26	0.020	0.50	0.039	1.00	●
7221094	R7FI15080C11R078 KCU25S	0.118	3	7	0.315	8	0.433	11	1.024	26	0.031	0.78	0.059	1.50	●
7221095	R7FI16080C11R080 KCU25S	0.118	3	7	0.315	8	0.433	11	1.024	26	0.032	0.80	0.063	1.60	●
7221096	R7FI19080C11R099 KCU25S	0.157	4	7	0.315	8	0.433	11	1.024	26	0.039	0.99	0.075	1.90	●
7221097	R7FI20080C11R100 KCU25S	0.157	4	7	0.315	8	0.433	11	1.024	26	0.039	1.00	0.079	2.00	●
7221098	R7FI25080C11R125 KCU25S	0.197	5	7	0.315	8	0.433	11	1.024	26	0.049	1.25	0.098	2.50	●
7221099	R7FI30080C11R150 KCU25S	0.236	6	7	0.315	8	0.433	11	1.024	26	0.059	1.50	0.118	3.00	●
7221100	R7FI10080C22R050 KCU25S	0.079	2	7	0.315	8	0.866	22	1.378	35	0.020	0.50	0.039	1.00	●
7221111	R7FI16080C22R080 KCU25S	0.118	3	7	0.315	8	0.866	22	1.378	35	0.032	0.80	0.063	1.60	●
7221112	R7FI20080C22R100 KCU25S	0.157	4	7	0.315	8	0.866	22	1.378	35	0.039	1.00	0.079	2.00	●
7221113	R7FI25080C22R125 KCU25S	0.197	5	7	0.315	8	0.866	22	1.378	35	0.049	1.25	0.098	2.50	●
7221114	R7FI30080C22R150 KCU25S	0.236	6	7	0.315	8	0.866	22	1.378	35	0.059	1.50	0.118	3.00	●



P	●
M	●
K	○
N	○
S	○
H	○

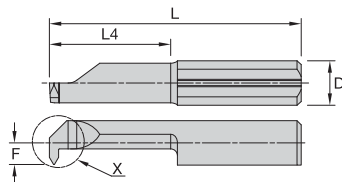
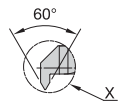
- Principal
- Secundario

Ranurado frontal

Barrido interior • FI • Profundidad de corte extendida • Esquina de radio

Número de pedido	Número de catálogo	CD		D	DMIN		L4		L		Rε		W		
		in	mm		in	mm	in	mm	in	mm	in	mm			
7219563	L8FI20120D10R020 KCU25S	0.394	10	8	0.472	12	0.394	10	1.181	30	0.008	0.20	0.079	2.00	●
7219565	L8FI20120D15R020 KCU25S	0.591	15	8	0.472	12	0.591	15	1.378	35	0.008	0.20	0.079	2.00	●
7219567	L8FI25120D10R020 KCU25S	0.394	10	8	0.472	12	0.394	10	1.181	30	0.008	0.20	0.098	2.50	●
7219569	L8FI25120D20R020 KCU25S	0.787	20	8	0.472	12	0.787	20	1.575	40	0.008	0.20	0.098	2.50	●
7219571	L8FI30160D10R020 KCU25S	0.394	10	8	0.630	16	0.394	10	1.181	30	0.008	0.20	0.118	3.00	●
7219573	L8FI30160D20R020 KCU25S	0.787	20	8	0.630	16	0.787	20	1.575	40	0.008	0.20	0.118	3.00	●
7219576	L8FI30200D25R020 KCU25S	0.984	25	8	0.787	20	0.984	25	1.772	45	0.008	0.20	0.118	3.00	●
7219577	L8FI30200D30R020 KCU25S	1.181	30	8	0.787	20	1.181	30	1.969	50	0.008	0.20	0.118	3.00	●
7219578	L8FI30200D35R020 KCU25S	1.378	35	8	0.787	20	1.378	35	2.165	55	0.008	0.20	0.118	3.00	●
7219579	L8FI30200D40R020 KCU25S	1.575	40	8	0.787	20	1.575	40	2.362	60	0.008	0.20	0.118	3.00	●
7219574	L8FI40160D10R020 KCU25S	0.394	10	8	0.630	16	0.394	10	1.181	30	0.008	0.20	0.158	4.00	●
7219575	L8FI40160D20R020 KCU25S	0.787	20	8	0.630	16	0.787	20	1.575	40	0.008	0.20	0.158	4.00	●
7219580	L8FI40200D25R020 KCU25S	0.984	25	8	0.787	20	0.984	25	1.772	45	0.008	0.20	0.158	4.00	●
7219581	L8FI40200D30R020 KCU25S	1.181	30	8	0.787	20	1.181	30	1.969	50	0.008	0.20	0.158	4.00	●
7219582	L8FI40200D35R020 KCU25S	1.378	35	8	0.787	20	1.378	35	2.165	55	0.008	0.20	0.158	4.00	●
7219583	L8FI40200D40R020 KCU25S	1.575	40	8	0.787	20	1.575	40	2.362	60	0.008	0.20	0.158	4.00	●
7219584	L8FI50200D20R020 KCU25S	0.787	20	8	0.787	20	0.787	20	1.575	40	0.008	0.20	0.197	5.00	●
7219585	L8FI50200D25R020 KCU25S	0.984	25	8	0.787	20	0.984	25	1.772	45	0.008	0.20	0.197	5.00	●
7219586	L8FI50200D30R020 KCU25S	1.181	30	8	0.787	20	1.181	30	1.969	50	0.008	0.20	0.197	5.00	●
7219587	L8FI50200D35R020 KCU25S	1.378	35	8	0.787	20	1.378	35	2.165	55	0.008	0.20	0.197	5.00	●
7219588	L8FI50200D40R020 KCU25S	1.575	40	8	0.787	20	1.575	40	2.362	60	0.008	0.20	0.197	5.00	●
7219589	R8FI20120D10R020 KCU25S	0.394	10	8	0.472	12	0.394	10	1.181	30	0.008	0.20	0.079	2.00	●
7219590	R8FI20120D15R020 KCU25S	0.591	15	8	0.472	12	0.591	15	1.378	35	0.008	0.20	0.079	2.00	●
7219591	R8FI25120D10R020 KCU25S	0.394	10	8	0.472	12	0.394	10	1.181	30	0.008	0.20	0.098	2.50	●
7219592	R8FI25120D20R020 KCU25S	0.787	20	8	0.472	12	0.787	20	1.575	40	0.008	0.20	0.098	2.50	●
7219593	R8FI30160D10R020 KCU25S	0.394	10	8	0.630	16	0.394	10	1.181	30	0.008	0.20	0.118	3.00	●
7219594	R8FI30160D20R020 KCU25S	0.787	20	8	0.630	16	0.787	20	1.575	40	0.008	0.20	0.118	3.00	●
7219597	R8FI30200D25R020 KCU25S	0.984	25	8	0.787	20	0.984	25	1.772	45	0.008	0.20	0.118	3.00	●
7219598	R8FI30200D30R020 KCU25S	1.181	30	8	0.787	20	1.181	30	1.969	50	0.008	0.20	0.118	3.00	●
7219599	R8FI30200D35R020 KCU25S	1.378	35	8	0.787	20	1.378	35	2.165	55	0.008	0.20	0.118	3.00	●
7219600	R8FI30200D40R020 KCU25S	1.575	40	8	0.787	20	1.575	40	2.362	60	0.008	0.20	0.118	3.00	●
7219595	R8FI40160D10R020 KCU25S	0.394	10	8	0.630	16	0.394	10	1.181	30	0.008	0.20	0.158	4.00	●
7219596	R8FI40160D20R020 KCU25S	0.787	20	8	0.630	16	0.787	20	1.575	40	0.008	0.20	0.158	4.00	●
7219621	R8FI40200D25R020 KCU25S	0.984	25	8	0.787	20	0.984	25	1.772	45	0.008	0.20	0.158	4.00	●
7219622	R8FI40200D30R020 KCU25S	1.181	30	8	0.787	20	1.181	30	1.969	50	0.008	0.20	0.158	4.00	●
7219623	R8FI40200D35R020 KCU25S	1.378	35	8	0.787	20	1.378	35	2.165	55	0.008	0.20	0.158	4.00	●
7219624	R8FI40200D40R020 KCU25S	1.575	40	8	0.787	20	1.575	40	2.362	60	0.008	0.20	0.158	4.00	●
7219625	R8FI50200D20R020 KCU25S	0.787	20	8	0.787	20	0.787	20	1.575	40	0.008	0.20	0.197	5.00	●
7219626	R8FI50200D25R020 KCU25S	0.984	25	8	0.787	20	0.984	25	1.772	45	0.008	0.20	0.197	5.00	●
7219627	R8FI50200D30R020 KCU25S	1.181	30	8	0.787	20	1.181	30	1.969	50	0.008	0.20	0.197	5.00	●
7219628	R8FI50200D35R020 KCU25S	1.378	35	8	0.787	20	1.378	35	2.165	55	0.008	0.20	0.197	5.00	●
7219629	R8FI50200D40R020 KCU25S	1.575	40	8	0.787	20	1.575	40	2.362	60	0.008	0.20	0.197	5.00	●

KCU25S



APLICACIONES

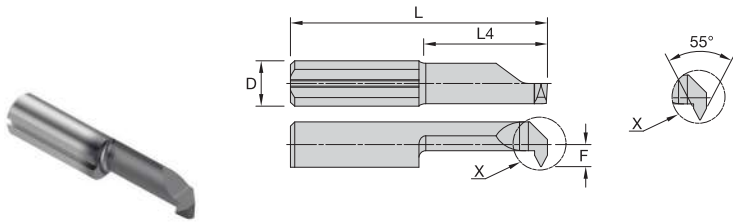


- Principal
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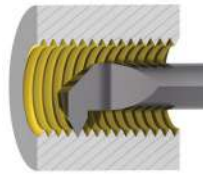
Roscado

Perfil parcial • TP

Número de pedido	Número de catálogo	D	DMIN		F		L4		L		KRx	Pitch	
			in	mm	in	mm	in	mm	in	mm			
7221187	L4TPME007H03T025 KCU25S	4	0.028	0.70	-	-	0.118	3	0.787	20	60°	0.25 - 0.30	●
7221189	L4TPME012H04T035 KCU25S	4	0.047	1.20	0.014	0.35	0.158	4	0.787	20	60°	0.35 - 0.40	●
7221223	L4TPME015C05T040 KCU25S	4	0.059	1.50	-	-	0.197	5	0.787	20	60°	0.40 - 0.45	●
7221224	L4TPME017C06T045 KCU25S	4	0.067	1.70	-	-	0.236	6	0.866	22	60°	0.45 - 0.50	●
7221225	L4TPME024C08T050 KCU25S	4	0.095	2.40	0.012	0.30	0.315	8	0.866	22	60°	0.50 - 0.70	●
7221226	L4TPME032C10T050 KCU25S	4	0.126	3.20	0.039	1.00	0.394	10	0.945	24	60°	0.50 - 0.75	●
7221227	L4TPME032C12T050 KCU25S	4	0.126	3.20	0.039	1.00	0.472	12	1.024	26	60°	0.50 - 0.75	●
7221229	L4TPME040C15T050 KCU25S	4	0.158	4.00	0.059	1.50	0.591	15	1.181	30	60°	0.50 - 0.70	●
7221228	L4TPME032C10T070 KCU25S	4	0.126	3.20	0.035	0.90	0.394	10	0.945	24	60°	0.70 - 0.80	●
7221230	L4TPME040C15T080 KCU25S	4	0.158	4.00	0.035	0.90	0.591	15	0.945	24	60°	0.80 - 1.0	●
7221231	L5TPME050C15T050 KCU25S	5	0.197	5.00	0.075	1.90	0.591	15	1.181	30	60°	0.50 - 0.75	●
7221232	L5TPME050C20T050 KCU25S	5	0.197	5.00	0.075	1.90	0.787	20	1.378	35	60°	0.50 - 0.75	●
7221233	L5TPME050C25T050 KCU25S	5	0.197	5.00	0.075	1.90	0.984	25	1.575	40	60°	0.50 - 0.75	●
7221234	L5TPME050C15T075 KCU25S	5	0.197	5.00	0.075	1.90	0.591	15	1.181	30	60°	0.75 - 1.0	●
7221235	L5TPME050C15T100 KCU25S	5	0.197	5.00	0.075	1.90	0.787	20	1.378	35	60°	0.75 - 1.0	●
7221236	L5TPME050C15T100 KCU25S	5	0.197	5.00	0.075	1.90	0.591	15	1.181	30	60°	1.0 - 1.25	●
7221237	L5TPME050C20T100 KCU25S	5	0.197	5.00	0.075	1.90	0.787	20	1.378	35	60°	1.0 - 1.25	●
7221238	L5TPME050C25T100 KCU25S	5	0.197	5.00	0.075	1.90	0.984	25	1.575	40	60°	1.0 - 1.25	●
7221239	L6TPME060C15T100 KCU25S	6	0.236	6.00	0.091	2.30	0.591	15	1.181	30	60°	1.0 - 1.25	●
7221240	L6TPME060C22T100 KCU25S	6	0.236	6.00	0.091	2.30	0.866	22	1.457	37	60°	1.0 - 1.25	●
7221241	L6TPME060C15T125 KCU25S	6	0.236	6.00	0.091	2.30	0.591	15	1.181	30	60°	1.25 - 1.50	●
7221242	L6TPME060C22T125 KCU25S	6	0.236	6.00	0.091	2.30	0.866	22	1.457	37	60°	1.25 - 1.50	●
7221243	L6TPME060C30T125 KCU25S	6	0.236	6.00	0.091	2.30	1.181	30	1.772	45	60°	1.25 - 1.50	●
7221244	L6TPME060C15T150 KCU25S	6	0.236	6.00	0.091	2.30	0.591	15	1.181	30	60°	1.50 - 1.75	●
7221245	L6TPME060C22T150 KCU25S	6	0.236	6.00	0.091	2.30	0.866	22	1.457	37	60°	1.50 - 1.75	●
7221246	L7TPME070C15T150 KCU25S	7	0.276	7.00	0.106	2.70	0.591	15	1.181	30	60°	1.50 - 1.75	●
7221247	L7TPME070C25T150 KCU25S	7	0.276	7.00	0.106	2.70	0.984	25	1.575	40	60°	1.50 - 1.75	●
7221248	R4TPME007H03T025 KCU25S	4	0.028	0.70	-	-	0.118	3	0.787	20	60°	0.25 - 0.30	●
7221249	R4TPME012H04T035 KCU25S	4	0.047	1.20	0.014	0.35	0.158	4	0.787	20	60°	0.35 - 0.40	●
7221250	R4TPME015C05T040 KCU25S	4	0.059	1.50	-	-	0.197	5	0.787	20	60°	0.40 - 0.45	●
7221251	R4TPME017C06T045 KCU25S	4	0.067	1.70	-	-	0.236	6	0.866	22	60°	0.45 - 0.50	●
7221252	R4TPME024C08T050 KCU25S	4	0.095	2.40	0.012	0.30	0.315	8	0.866	22	60°	0.50 - 0.70	●
7221253	R4TPME032C10T050 KCU25S	4	0.126	3.20	0.039	1.00	0.394	10	0.945	24	60°	0.50 - 0.75	●
7221254	R4TPME032C12T050 KCU25S	4	0.126	3.20	0.039	1.00	0.472	12	1.024	26	60°	0.50 - 0.75	●
7221256	R4TPME040C15T050 KCU25S	4	0.158	4.00	0.059	1.50	0.591	15	1.181	30	60°	0.50 - 0.70	●
7221255	R4TPME032C10T070 KCU25S	4	0.126	3.20	0.035	0.90	0.394	10	0.945	24	60°	0.70 - 0.80	●
7221257	R4TPME040C15T080 KCU25S	4	0.158	4.00	0.059	1.50	0.591	15	1.181	30	60°	0.80 - 1.0	●
7221258	R5TPME050C15T050 KCU25S	5	0.197	5.00	0.075	1.90	0.591	15	1.181	30	60°	0.50 - 0.75	●
7221259	R5TPME050C20T050 KCU25S	5	0.197	5.00	0.075	1.90	0.787	20	1.378	35	60°	0.50 - 0.75	●
7221260	R5TPME050C25T050 KCU25S	5	0.197	5.00	0.075	1.90	0.984	25	1.575	40	60°	0.50 - 0.75	●
7221261	R5TPME050C15T075 KCU25S	5	0.197	5.00	0.075	1.90	0.591	15	1.181	30	60°	0.75 - 1.0	●
7221262	R5TPME050C20T075 KCU25S	5	0.197	5.00	0.075	1.90	0.787	20	1.378	35	60°	0.75 - 1.0	●
7221263	R5TPME050C15T100 KCU25S	5	0.197	5.00	0.075	1.90	0.591	15	1.181	30	60°	1.0 - 1.25	●
7221264	R5TPME050C20T100 KCU25S	5	0.197	5.00	0.075	1.90	0.787	20	1.378	35	60°	1.0 - 1.25	●
7221265	R5TPME050C25T100 KCU25S	5	0.197	5.00	0.075	1.90	0.984	25	1.575	40	60°	1.0 - 1.25	●
7221266	R6TPME060C15T100 KCU25S	6	0.236	6.00	0.091	2.30	0.591	15	1.181	30	60°	1.0 - 1.25	●
7221267	R6TPME060C22T100 KCU25S	6	0.236	6.00	0.091	2.30	0.866	22	1.457	37	60°	1.0 - 1.25	●
7221268	R6TPME060C15T125 KCU25S	6	0.236	6.00	0.091	2.30	0.591	15	1.181	30	60°	1.25 - 1.50	●
7221269	R6TPME060C22T125 KCU25S	6	0.236	6.00	0.091	2.30	0.866	22	1.457	37	60°	1.25 - 1.50	●
7221270	R6TPME060C30T125 KCU25S	6	0.236	6.00	0.091	2.30	1.181	30	1.772	45	60°	1.25 - 1.50	●
7221271	R6TPME060C15T150 KCU25S	6	0.236	6.00	0.091	2.30	0.591	15	1.181	30	60°	1.50 - 1.75	●
7221272	R6TPME060C22T150 KCU25S	6	0.236	6.00	0.091	2.30	0.866	22	1.457	37	60°	1.50 - 1.75	●
7221273	R7TPME070C15T150 KCU25S	7	0.276	7.00	0.106	2.70	0.591	15	1.181	30	60°	1.50 - 1.75	●
7221274	R7TPME070C25T150 KCU25S	7	0.276	7.00	0.106	2.70	0.984	25	1.575	40	60°	1.50 - 1.75	●



APLICACIONES



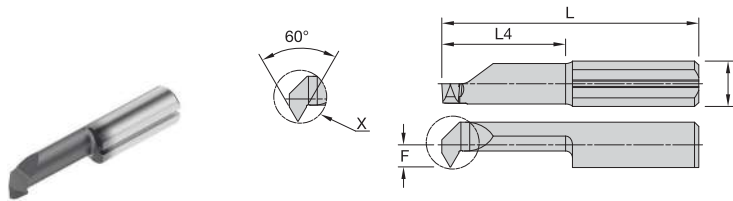
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● Principal
○ Secundario

Roscado

Perfil parcial • TP • Whitworth • WH

Número de pedido	Número de catálogo	D	DMIN		F		L4		L		KRx	Pitch	
			in	mm	in	mm	in	mm	in	mm			
7219435	L5TPWH048C15T024 KCU25S	5	0.189	4.80	0.075	1.90	0.591	15	1.181	30	55°	24 - 48	●
7219439	L6TPWH060C15T016 KCU25S	6	0.236	6.00	0.091	2.30	0.591	15	1.181	30	55°	16 - 24	●
7219437	L6TPWH060C15T024 KCU25S	6	0.236	6.00	0.091	2.30	0.591	15	1.181	30	55°	24 - 48	●
7219451	L7TPWH070C15T016 KCU25S	7	0.276	7.00	0.110	2.80	0.591	15	1.181	30	55°	16 - 24	●
7219453	R5TPWH048C15T024 KCU25S	5	0.189	4.80	0.075	1.90	0.591	15	1.181	30	55°	24 - 48	●
7219457	R6TPWH060C15T016 KCU25S	6	0.236	6.00	0.091	2.30	0.591	15	1.181	30	55°	16 - 24	●
7219455	R6TPWH060C15T024 KCU25S	6	0.236	6.00	0.091	2.30	0.591	15	1.181	30	55°	24 - 48	●
7219459	R7TPWH070C15T016 KCU25S	7	0.276	7.00	0.110	2.80	0.591	15	1.181	30	55°	16 - 24	●



APLICACIONES



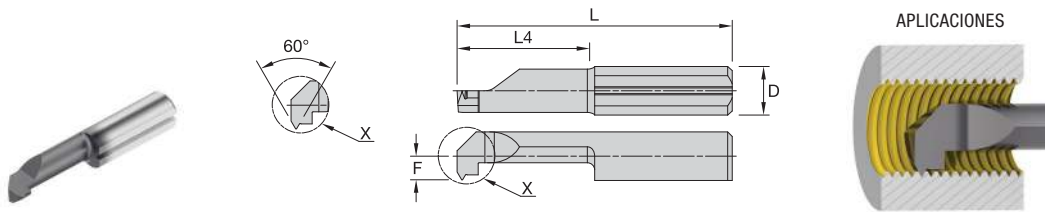
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● Principal
○ Secundario

Roscado

Perfil parcial • Rosca de tubería nacional TP • NPT

Número de pedido	Número de catálogo	D	DMIN		F		L4		L		KRx	Pitch	
			in	mm	in	mm	in	mm	in	mm			
7219476	L6TPNP060C15T018 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	60°	18	●
7219480	L6TPNP060C15T027 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	60°	27	●
7219477	L6TPNP060C22T018 KCU25S	6	0.236	6	0.091	2.30	0.866	22	1.457	37	60°	18	●
7219482	L6TPNP060C22T027 KCU25S	6	0.236	6	0.091	2.30	0.866	22	1.457	37	60°	27	●
7219484	R6TPNP060C15T018 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	60°	18	●
7219489	R6TPNP060C15T027 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	60°	27	●
7219486	R6TPNP060C22T018 KCU25S	6	0.236	6	0.091	2.30	0.866	22	1.457	37	60°	18	●
7219491	R6TPNP060C22T027 KCU25S	6	0.236	6	0.091	2.30	0.866	22	1.457	37	60°	27	●

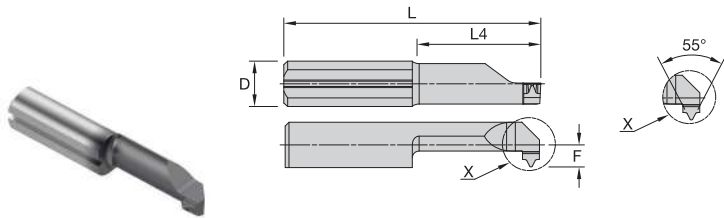


- Principal
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Roscado

Perfil completo • TF

Número de pedido	Número de catálogo	D	DMIN		F		L4		L		KRx	Pitch	
			in	mm	in	mm	in	mm	in	mm			
7221081	L4TFME024C10T050 KCU25S	4	0.095	2.40	0.008	0.20	0.394	10	0.984	25	60°	0.50	●
7221082	L4TFME024C15T050 KCU25S	4	0.095	2.40	0.008	0.20	0.591	15	1.181	30	60°	0.50	●
7221083	L4TFME032C15T070 KCU25S	4	0.126	3.20	0.035	0.90	0.591	15	1.181	30	60°	0.70	●
7221084	L4TFME032C20T070 KCU25S	4	0.126	3.20	0.035	0.90	0.787	20	1.378	35	60°	0.70	●
7221085	L4TFME040C15T050 KCU25S	4	0.158	4.00	0.059	1.50	0.591	15	1.181	30	60°	0.50	●
7221086	L4TFME040C15T080 KCU25S	4	0.158	4.00	0.059	1.50	0.591	15	1.181	30	60°	0.80	●
7221087	L4TFME040C25T080 KCU25S	4	0.158	4.00	0.059	1.50	0.984	25	1.575	40	60°	0.80	●
7221088	L5TFME050C15T050 KCU25S	5	0.197	5.00	0.075	1.90	0.591	15	1.181	30	60°	0.50	●
7221089	L5TFME050C15T075 KCU25S	5	0.197	5.00	0.075	1.90	0.591	15	1.181	30	60°	0.75	●
7221090	L5TFME050C30T100 KCU25S	5	0.197	5.00	0.075	1.90	0.591	15	1.181	30	60°	0.80	●
7221101	L5TFME050C15T100 KCU25S	5	0.197	5.00	0.075	1.90	0.591	15	1.181	30	60°	1.00	●
7221102	L5TFME050C20T100 KCU25S	5	0.197	5.00	0.075	1.90	0.787	20	1.378	35	60°	1.00	●
7221103	L5TFME050C25T100 KCU25S	5	0.197	5.00	0.075	1.90	0.984	25	1.575	40	60°	1.00	●
7221104	L5TFME050C30T100 KCU25S	5	0.197	5.00	0.075	1.90	1.181	30	1.772	45	60°	1.00	●
7221105	L6TFME060C15T100 KCU25S	6	0.236	6.00	0.091	2.30	0.591	15	1.181	30	60°	1.00	●
7221106	L6TFME060C15T125 KCU25S	6	0.236	6.00	0.091	2.30	0.591	15	1.181	30	60°	1.25	●
7221109	L6TFME060C15T150 KCU25S	6	0.236	6.00	0.091	2.30	0.591	15	1.181	30	60°	1.50	●
7221107	L6TFME060C20T125 KCU25S	6	0.236	6.00	0.091	2.30	0.787	20	1.378	35	60°	1.25	●
7221108	L6TFME060C30T125 KCU25S	6	0.236	6.00	0.091	2.30	1.181	30	1.772	45	60°	1.25	●
7221110	L7TFME070C15T150 KCU25S	7	0.276	7.00	0.110	2.80	0.591	15	1.181	30	60°	1.50	●
7221121	R4TFME024C10T050 KCU25S	4	0.095	2.40	0.008	0.20	0.394	10	0.984	25	60°	0.50	●
7221122	R4TFME024C15T050 KCU25S	4	0.095	2.40	0.008	0.20	0.591	15	1.181	30	60°	0.50	●
7221123	R4TFME032C15T070 KCU25S	4	0.126	3.20	0.035	0.90	0.591	15	1.181	30	60°	0.70	●
7221124	R4TFME032C20T070 KCU25S	4	0.126	3.20	0.035	0.90	0.787	20	1.378	35	60°	0.70	●
7221125	R4TFME040C15T050 KCU25S	4	0.158	4.00	0.059	1.50	0.591	15	1.181	30	60°	0.50	●
7221126	R4TFME040C15T080 KCU25S	4	0.158	4.00	0.059	1.50	0.591	15	1.181	30	60°	0.80	●
7221127	R4TFME040C25T080 KCU25S	4	0.158	4.00	0.059	1.50	0.984	25	1.575	40	60°	0.80	●
7221128	R5TFME050C15T050 KCU25S	5	0.197	5.00	0.075	1.90	0.591	15	1.181	30	60°	0.50	●
7221129	R5TFME050C15T075 KCU25S	5	0.197	5.00	0.075	1.90	0.591	15	1.181	30	60°	0.75	●
7221130	R5TFME050C15T080 KCU25S	5	0.197	5.00	0.075	1.90	0.591	15	1.181	30	60°	0.80	●
7221131	R5TFME050C15T100 KCU25S	5	0.197	5.00	0.075	1.90	0.591	15	1.181	30	60°	1.00	●
7221132	R5TFME050C20T100 KCU25S	5	0.197	5.00	0.075	1.90	0.787	20	1.378	35	60°	1.00	●
7221133	R5TFME050C25T100 KCU25S	5	0.197	5.00	0.075	1.90	0.984	25	1.575	40	60°	1.00	●
7221134	R5TFME050C30T100 KCU25S	5	0.197	5.00	0.075	1.90	1.181	30	1.772	45	60°	1.00	●
7221135	R6TFME060C15T100 KCU25S	6	0.236	6.00	0.091	2.30	0.591	15	1.181	30	60°	1.00	●
7221136	R6TFME060C15T125 KCU25S	6	0.236	6.00	0.091	2.30	0.591	15	1.181	30	60°	1.25	●
7221139	R6TFME060C15T150 KCU25S	6	0.236	6.00	0.091	2.30	0.591	15	1.181	30	60°	1.50	●
7221137	R6TFME060C20T125 KCU25S	6	0.236	6.00	0.091	2.30	0.787	20	1.378	35	60°	1.25	●
7221138	R6TFME060C30T125 KCU25S	6	0.236	6.00	0.091	2.30	1.181	30	1.772	45	60°	1.25	●
7221140	R7TFME070C15T150 KCU25S	7	0.276	7.00	0.110	2.80	0.591	15	1.181	30	60°	1.50	●



APLICACIONES



P	●
M	●
K	○
N	○
S	○
H	○

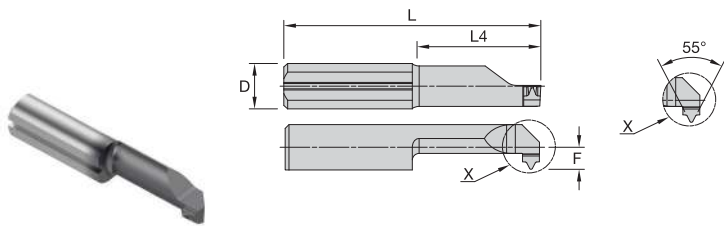
● Principal
○ Secundario

KCU25S

Roscado

Perfil completo • TF • Whitworth

Número de pedido	Número de catálogo	D	DMIN		F		L4		L		KRx	Pitch	
			in	mm	in	mm	in	mm	in	mm			
7219460	L6TFWH060C15T019 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	55°	19	●
7219471	L6TFWH060C15T022 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	55°	22	●
7219472	L6TFWH060C15T028 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	55°	28	●
7219473	R6TFWH060C15T019 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	55°	19	●
7219474	R6TFWH060C15T022 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	55°	22	●
7219475	R6TFWH060C15T028 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	55°	28	●



APLICACIONES



P	●
M	●
K	○
N	○
S	○
H	○

● Principal
○ Secundario

KCU25S

Roscado

Perfil completo • TF • Whitworth

Número de pedido	Número de catálogo	D	DMIN		F		L4		L		KRx	Pitch	
			in	mm	in	mm	in	mm	in	mm			
7219460	L6TFWH060C15T019 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	55°	19	●
7219471	L6TFWH060C15T022 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	55°	22	●
7219472	L6TFWH060C15T028 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	55°	28	●
7219473	R6TFWH060C15T019 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	55°	19	●
7219474	R6TFWH060C15T022 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	55°	22	●
7219475	R6TFWH060C15T028 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	55°	28	●

SELECCIONE LA VELOCIDAD DE CORTE

Aceros bajos en carbono (<0,3 % C) y de mecanizado libre		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
P0/P1	KCPM25S	40	260	130	850
	KCU25S	30	200	100	680
Aceros al carbono medios y altos (>0,3 % C)		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
P2	KCPM25S	20	180	60	590
	KCU25S	15	140	50	470
Aceros aleados y aceros para herramientas; <330 HB; <35 HRC		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
P3	KCPM25S	20	130	60	420
	KCU25S	15	100	50	330
Aceros aleados y aceros para herramientas; 350–450 HB; 35–48 HRC		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
P4	KCPM25S	10	130	30	425
	KCHS25S	10	130	30	425
	KCU25S	10	100	25	340
Aceros inoxidables ferríticos, martensíticos y PH; <330 HB; <35 HRC		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
P5	KCPM25S	20	160	60	520
	KCU25S	15	130	50	410
Aceros inoxidables ferríticos, martensíticos y PH; 350–450 HB; 35–48 HRC		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
P6	KCPM25S	10	100	30	330
	KCHS25S	10	100	30	330
	KCU25S	10	80	25	260

SELECCIONE LA VELOCIDAD DE CORTE

Aceros inoxidables austeníticos		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
M1	KCSM25S	30	180	100	590
	KCPM25S	30	180	100	590
	KCU25S	25	140	80	470

Aceros inoxidables fundidos e inoxidables austeníticos de alta resistencia		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
M2	KCSM25S	20	140	60	460
	KCPM25S	20	140	60	460
	KCU25S	15	110	50	370

Aceros inoxidables Duplex (mezcla de ferrítico y austenítico)		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
M3	KCSM25S	20	110	60	360
	KCPM25S	20	110	60	360
	KCU25S	15	90	50	290

SELECCIONE LA VELOCIDAD DE CORTE

Aleaciones a base de hierro resistentes al calor; 160-260 HB; 25-48 HRC;
resistencia a la tensión de 500-1200 Mpa

Grupo de materiales	Calidad	m/mín		SFM	
		MÍN.	MÁX.	MÍN.	MÁX.
S1	KCSM25S	10	100	30	330
	KCHS25S	10	100	30	330
	KCU25S	10	80	25	260

Aleaciones a base de cobalto resistentes al calor; 250-450 HB; 25-48 HRC;
resistencia a la tensión de 1000-1450

Grupo de materiales	Calidad	m/mín		SFM	
		MÍN.	MÁX.	MÍN.	MÁX.
S2	KCSM25S	10	60	30	200
	KCHS25S	10	60	30	200
	KCU25S	10	50	25	160

Aleaciones resistentes al calor a base de níquel 160-450HB; <48 HRC;
resistencia a la tensión de 600-1700

Grupo de materiales	Calidad	m/mín		SFM	
		MÍN.	MÁX.	MÍN.	MÁX.
S3	KCSM25S	10	100	30	330
	KCHS25S	10	100	30	330
	KCU25S	10	80	25	260

Titanio y aleaciones de titanio 300-400 HB; 33-48 HRC; resistencia a la tensión 900-1600

Grupo de materiales	Calidad	m/mín		SFM	
		MÍN.	MÁX.	MÍN.	MÁX.
S4	KCSM25S	10	100	30	330
	KCHS25S	10	100	30	330
	KCU25S	10	80	25	260

SELECCIONE LA VELOCIDAD DE CORTE

Materiales endurecidos; 44-48 HRC		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
H1	KCHS25S	10	90	30	290
	KCU25S	10	60	20	200

Materiales endurecidos; 48-55 HRC		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
H2	KCHS25S	10	90	30	290
	KCU25S	10	60	20	200

Materiales endurecidos; 55-60 HRC		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
H3	KCHS25S	10	80	30	260
	KCU25S	10	55	20	180

Materiales endurecidos; 60-66 HRC		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
H4	KCHS25S	10	60	30	200

SELECCIONE LA VELOCIDAD DE CORTE

Fundición gris		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
K1	KCU25S	15	180	50	600
	KCPM25S	20	230	60	750
	KCHS25S	20	230	60	750

Fundiciones dúctiles de resistencia media y baja (hierros nodulares) y hierros de grafito compactado (CGI)		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
K2	KCU25S	15	120	50	390
	KCPM25S	20	150	60	490
	KCHS25S	20	150	60	490

Fundición maleable de hierro dúctil y austenítico (ADI) de alta resistencia		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.
K3	KCU25S	25	180	80	600
	KCPM25S	30	230	100	750
	KCHS25S	30	230	100	750

SELECCIONE LA VELOCIDAD DE CORTE

Aleaciones de aluminio bajas en silicio y aleaciones de magnesio; 12,2 % Si

Grupo de materiales	Calidad	m/mín		SFM	
		MÍN.	MÁX.	MÍN.	MÁX.
N2	KCU25S	60	440	200	1450

Aluminio con alto contenido de silicona y aleaciones de magnesio; >12,2 % Si

Grupo de materiales	Calidad	m/mín		SFM	
		MÍN.	MÁX.	MÍN.	MÁX.
N3	KCU25S	30	290	100	950

Base cobre, bronce, cinc en un rango de índice de maquinabilidad de 70-100

Grupo de materiales	Calidad	m/mín		SFM	
		MÍN.	MÁX.	MÍN.	MÁX.
N4	KCU25S	40	390	130	1280

Nylon, plásticos, gomas, fenólicos, resinas y fibra de vidrio

Grupo de materiales	Calidad	m/mín		SFM	
		MÍN.	MÁX.	MÍN.	MÁX.
N5	KCU25S	40	290	130	950

AVANCE Y PROFUNDIDAD DE CORTE

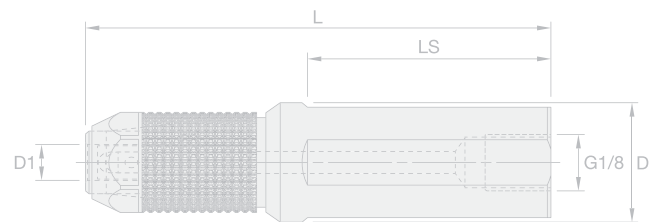
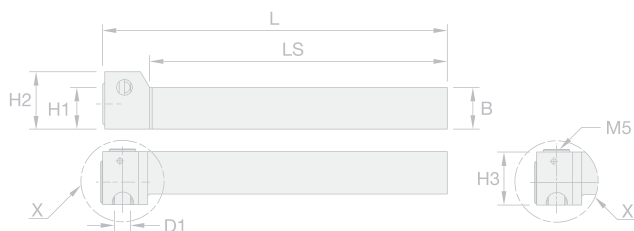
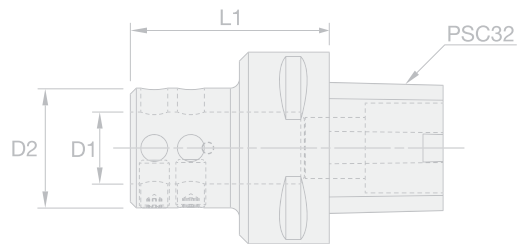
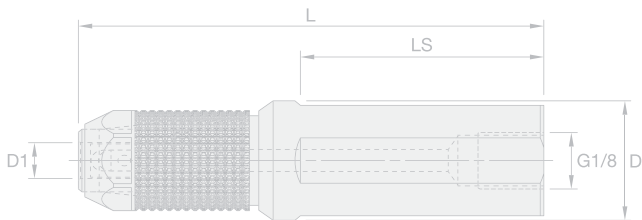
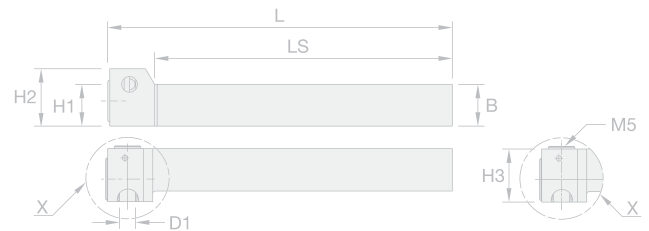
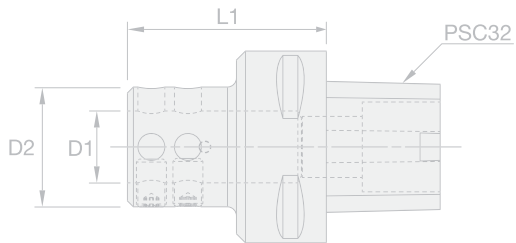
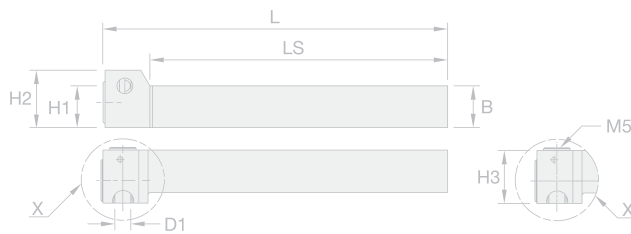
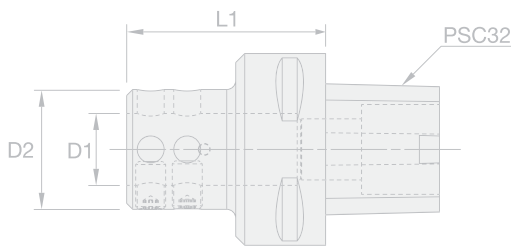
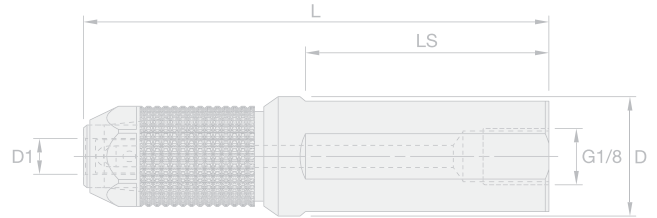
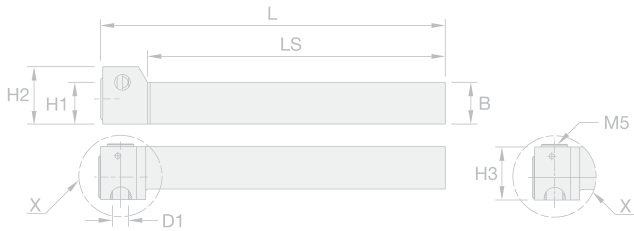
	Aplicaciones	Avance (mm/rev)		Profundidad de corte (mm)	
		MÍN.	MÁX.	MÍN.	MÁX.
Alto rendimiento Mandrinado y perfilado KCPM25S KCSM25S KCHS25S		0.005	0.25	0.005	0.77
Mandrinado y perfilado KCU25S		0.005	0.08	0.005	0.5
Ranurado interior KCU25S		0.01	0.03	0.03	0.05
Ranurado frontal KCU25S		0.02	0.05	0.03	0.05

VELOCIDAD DE ROSCADO Y NÚMERO DE PASADAS


Roscado interior KCU25S									
Material		P0	P1	P2	P3	P4	M	K	N
m/min		160	140	120	90	70	90	100	300
SFM		520	460	390	290	230	290	330	980
Paso de la rosca		Número de pasadas							
mm	TPI								
0.5	48	5	5	5	5	8	8	5	5
0.8	32	6	6	6	6	8	8	6	6
1	24	7	7	7	7	8	8	7	7
1.25	20	8	8	8	8	10	10	8	8
1.5	16	10	10	10	10	12	12	10	10
1.75	14	12	12	12	12	14	14	12	12
2	12	13	13	13	13	15	15	13	13
2.5	10	15	15	16	16	18	18	16	15
3	8	16	16	17	17	20	20	17	16
4	6	18	18	19	19	22	22	19	18
5	5	20	20	21	21	24	24	21	20
6	4	22	22	23	23	26	26	23	22

TopSwiss MBS


SOPORTE



SOPORTES DE MANGO REDONDOS DE NOMENCLATURA

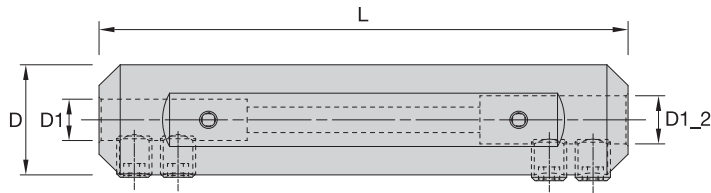
			<p>Ejemplo: A16RMBSSPD45M</p>				
A	16	R	MB	SP	D	45	M
Tipo de barra	Diámetro de barra	Longitud de la barra	Nombre de la familia	Tipo de herramienta	Estilo de la herramienta	Tamaño(s) de la(s) plaquita(s)	Unidad
A: Barra de acero con refrigerante	MÉTRICO: el número de dos dígitos indica la barra Ø en mm	A: 32 mm (30-35)	Sólido de micromandrinado	SP: rendimiento estándar	S: extremo único	4: plaquita de 4 mm	M = sistema métrico
E: barra de metal duro con refrigerante	08 = 8 mm 16 = 16 mm	B: 40 mm (40-45) D: 60 mm (60-65) E: 70 mm (70-75) G: 90 mm (3.5") (90-95) H: 100 mm (4.0") (100-105) J: 110 mm (4.5") (110-115) K: 125 mm (5.0") (120-135) M: 150 mm (6.0") (150-155)		PP: rendimiento premium HP: alto rendimiento DB: orificio de broca (multifunción) BS: estilo de casquillo	D: doble extremo	5: plaquita de 5 mm 6: plaquita de 6 mm 7: plaquita de 7 mm 8: plaquita de 8 mm 45: 4 mm y 5 mm 56: 5 mm y 6 mm 67: 6 mm y 7 mm 78: 7 mm y 8 mm 0: todos los tamaños de plaquita	I: pulgada
	PULGADAS: el número de dos dígitos indica la barra Ø en 1/16" 08: 8/16 o 1/2" 16: 16/16 o 1"						

SOPORTES DE MANGO CUADRADO DE NOMENCLATURA

			<p>Ejemplo: MBSAR1212M6C</p>			
MB	A	R	1212	M	6	C
Nombre de la familia	Estilo de la herramienta	Dirección	Tamaño del mango	Unidad	Tamaño(s) de la(s) plaquita(s)	Refrigerante
Sólido de micromandrinado	A: 90 grados	R = derecha L = izquierda	MÉTRICA = alto x ancho en mm 1212: 12 mm x 12 mm	M = sistema métrico I: pulgada	4: plaquita de 4 mm 5: plaquita de 5 mm 6: plaquita de 6 mm 7: plaquita de 7 mm 8: plaquita de 8 mm 0: todos los tamaños de plaquita	C: refrigeración interna
			PULGADA: alto x ancho en incrementos de 1/16" 0808: 1/2" x 1/2"			

SOPORTES DE CAMBIO RÁPIDO DE NOMENCLATURA

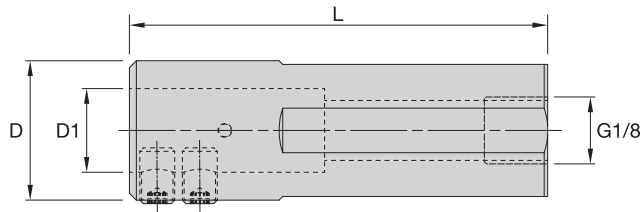
		<p>Ejemplo: PSC3MBSBS0</p>	
PSC3	MB	BS	0
Sistema y tamaño	Nombre de la familia	Estilo de la herramienta	Tamaño(s) de la(s) plaquita(s)
PSC3 PSC4 KM1612 KM2016	Sólido de micromandrinado	BS: estilo de casquillo	0: todos los tamaños de plaquita



Mango redondo • Rendimiento estándar

Precisión de la línea central $\pm 0,0008''$ (0,020 mm)

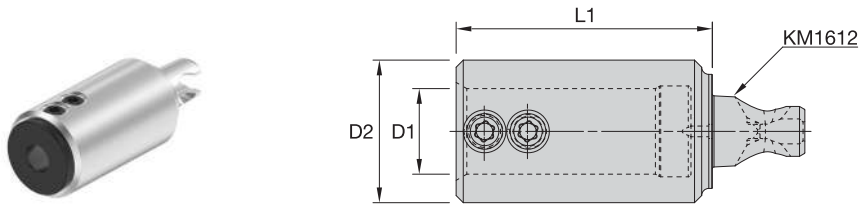
Número de pedido	Número de catálogo	D1		D		L	
		mm	mm	in	mm	in	mm
7187242	A12GMBSSPD45I	4	5	0.750	19.05	3.543	90
7187248	A12GMBSSPD67I	6	7	0.750	19.05	3.543	90
7187246	A16GMBSSPD45I	4	5	1.000	25.40	3.740	95
7187262	A16GMBSSPD67I	6	7	1.000	25.40	3.740	95
7187266	A16GMBSSPD78I	7	8	1.000	25.40	3.740	95
7187190	A12EMBSSPD45M	4	5	0.472	12.00	2.953	75
7187241	A16EMBSSPD45M	4	5	0.630	16.00	2.953	75
7187247	A16EMBSSPD67M	6	7	0.630	16.00	2.953	75
7187263	A16EMBSSPD78M	7	8	0.630	16.00	2.953	75
7187243	A20GMBSSPD45M	4	5	0.787	20.00	3.543	90
7187249	A20GMBSSPD67M	6	7	0.787	20.00	3.543	90
7187264	A20GMBSSPD78M	7	8	0.787	20.00	3.543	90
7187244	A22GMBSSPD45M	4	5	0.866	22.00	3.543	90
7187250	A22GMBSSPD67M	6	7	0.866	22.00	3.543	90
7187245	A25GMBSSPD45M	4	5	0.984	25.00	3.740	95
7187261	A25GMBSSPD67M	6	7	0.984	25.00	3.740	95
7187265	A25GMBSSPD78M	7	8	0.984	25.00	3.740	95



Mango redondo • Estilo de casquillo • Rendimiento estándar

Precisión de la línea central $\pm 0,0008''$ (0,020 mm)

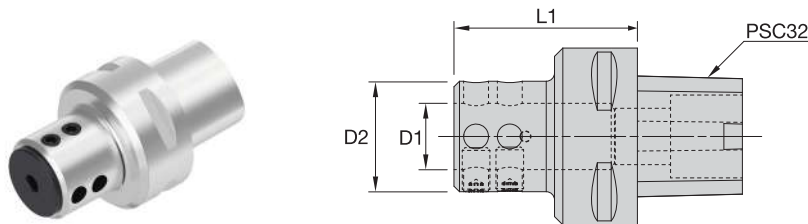
Número de pedido	Número de catálogo	D1	D		L		G3
		mm	in	mm	in	mm	
7188876	A12DMBSBSSOI	12	0.750	19.05	2.362	60	G 1/8
7188858	A12KMBSBSSOI	12	0.750	19.05	4.724	120	G 1/8
7188880	A16DMBSBSSOI	12	1.000	25.40	2.362	60	G 1/8
7188875	A16KMBSBSSOI	12	1.000	25.40	4.724	120	G 1/8
7188857	A16KMBSBSSOM	12	0.630	16.00	4.724	120	G 1/8
7188877	A20DMBSBSSOM	12	0.787	20.00	2.362	60	G 1/8
7188859	A20KMBSBSSOM	12	0.787	20.00	4.724	120	G 1/8
7188860	A20MMBSBSSOM	12	0.787	20.00	5.906	150	G 1/8
7188878	A22DMBSBSSOM	12	0.866	22.00	2.362	60	G 1/8
7188871	A22KMBSBSSOM	12	0.866	22.00	4.724	120	G 1/8
7188872	A22MMBSBSSOM	12	0.866	22.00	5.906	150	G 1/8
7188879	A25DMBSBSSOM	12	0.984	25.00	2.362	60	G 1/8
7188873	A25KMBSBSSOM	12	0.984	25.00	4.724	120	G 1/8
7188874	A25MMBSBSSOM	12	0.984	25.00	5.906	150	G 1/8



KM • Estilo de casquillo • Rendimiento estándar

Precisión de la línea central $\pm 0,0008''$ (0,020 mm)

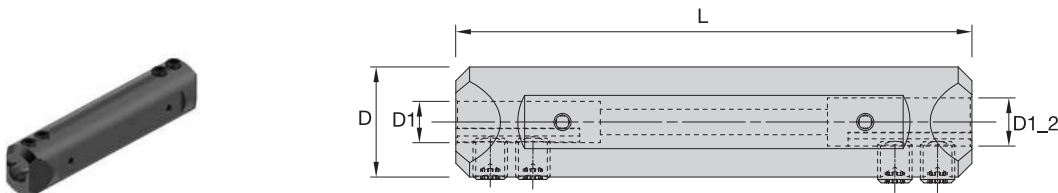
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			mm	in	mm	in	mm	in
7255887	KM1612MBSBS0	KM1612	12	0.787	20	1.417	36	
7255888	KM2016MBSBS0	KM2016	12	0.787	20	1.417	36	



PSC • Estilo de casquillo • Rendimiento estándar

Precisión de la línea central $\pm 0,0008''$ (0,020 mm)

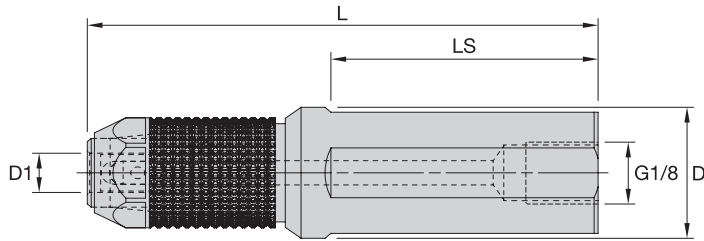
Número de pedido	Número de catálogo	CSMS	D1		D2		L1	
			mm	in	mm	in	mm	in
7188855	PSC3MBSBS0	PSC32	12	0.787	20	1.307	33.20	
7188856	PSC4MBSBS0	PSC40	12	0.787	20	1.504	38.20	



Mango redondo • Rendimiento premium

Precisión de la línea central $\pm 0,0004''$ (0,010 mm)

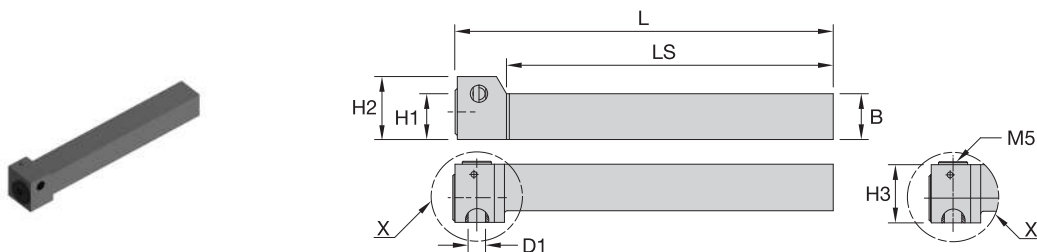
Número de pedido	Número de catálogo	D1		D		L	
		mm	mm	in	mm	in	mm
7187268	A08EMBSPPD45I	4	5	0.500	12.70	2.953	75
7187269	A10EMBSPPD45I	4	5	0.625	15.87	2.953	75
7187276	A10EMBSPPD67I	6	7	0.625	15.87	2.953	75
7187271	A12GMBSPPD45I	4	5	0.750	19.05	3.543	90
7187278	A12GMBSPPD67I	6	7	0.750	19.05	3.543	90
7187275	A16GMBSPPD45I	4	5	1.000	25.40	3.740	95
7187293	A16GMBSPPD67I	6	7	1.000	25.40	3.740	95
7187267	A12EMBSPPD45M	4	5	0.472	12.00	2.953	75
7187270	A16EMBSPPD45M	4	5	0.630	16.00	2.953	75
7187277	A16EMBSPPD67M	6	7	0.630	16.00	2.953	75
7187294	A16EMBSPPD78M	7	8	0.630	16.00	2.953	75
7187272	A20GMBSPPD45M	4	5	0.787	20.00	3.543	90
7187280	A20GMBSPPD67M	6	7	0.787	20.00	3.543	90
7187295	A20GMBSPPD78M	7	8	0.787	20.00	3.543	90
7187273	A22GMBSPPD45M	4	5	0.866	22.00	3.543	90
7187291	A22GMBSPPD67M	6	7	0.866	22.00	3.543	90
7187274	A25GMBSPPD45M	4	5	0.984	25.00	3.740	95
7187292	A25GMBSPPD67M	6	7	0.984	25.00	3.740	95



Mango redondo • Alto rendimiento

Precisión de la línea central $\pm 0,0002''$ (0,005 mm)

Número de pedido	Número de catálogo	D1		D		L		LS		G3
		mm	in	mm	in	mm	in	mm	in	
7188779	A12DMBSHPS4I	4	0.75	19.05	2.559	65	1.299	33.00	G 1/8	
7188780	A12DMBSHPS5I	5	0.75	19.05	2.559	65	1.299	33.00	G 1/8	
7188781	A12DMBSHPS6I	6	0.75	19.05	2.559	65	1.339	34.00	G 1/8	
7188782	A12DMBSHPS7I	7	0.75	19.05	2.559	65	1.508	38.30	G 1/8	
7188745	A12JMBSHPS4I	4	0.75	19.05	4.528	115	2.677	68.00	G 1/8	
7188746	A12JMBSHPS5I	5	0.75	19.05	4.528	115	2.677	68.00	G 1/8	
7188747	A12JMBSHPS6I	6	0.75	19.05	4.528	115	2.677	68.00	G 1/8	
7188748	A12JMBSHPS7I	7	0.75	19.05	4.528	115	2.677	68.00	G 1/8	
7188797	A16DMBSHPS4I	4	1.00	25.40	2.559	65	1.181	30.00	G 1/8	
7188798	A16DMBSHPS5I	5	1.00	25.40	2.559	65	1.173	29.80	G 1/8	
7188799	A16DMBSHPS6I	6	1.00	25.40	2.559	65	1.221	31.00	G 1/8	
7188800	A16DMBSHPS7I	7	1.00	25.40	2.559	65	1.221	31.00	G 1/8	
7188771	A16JMBSHPS4I	4	1.00	25.40	4.528	115	2.677	68.00	G 1/8	
7188772	A16JMBSHPS5I	5	1.00	25.40	4.528	115	2.677	68.00	G 1/8	
7188773	A16JMBSHPS6I	6	1.00	25.40	4.528	115	2.677	68.00	G 1/8	
7188774	A16JMBSHPS7I	7	1.00	25.40	4.528	115	2.677	68.00	G 1/8	
7188727	A12JMBSHPS4M	4	0.47	12.00	4.528	115	2.677	68.00	G 1/8	
7188728	A12JMBSHPS5M	5	0.47	12.00	4.528	115	2.677	68.00	G 1/8	
7188729	A12JMBSHPS6M	6	0.47	12.00	4.528	115	2.677	68.00	G 1/8	
7188730	A12JMBSHPS7M	7	0.47	12.00	4.528	115	2.835	72.00	G 1/8	
7188775	A16DMBSHPS4M	4	0.63	16.00	2.559	65	1.370	34.80	G 1/8	
7188776	A16DMBSHPS5M	5	0.63	16.00	2.559	65	1.370	34.80	G 1/8	
7188777	A16DMBSHPS6M	6	0.63	16.00	2.559	65	1.370	34.80	G 1/8	
7188778	A16DMBSHPS7M	7	0.63	16.00	2.559	65	1.476	37.50	G 1/8	
7188741	A16JMBSHPS4M	4	0.63	16.00	4.528	115	2.677	68.00	G 1/8	
7188742	A16JMBSHPS5M	5	0.63	16.00	4.528	115	2.677	68.00	G 1/8	
7188743	A16JMBSHPS6M	6	0.63	16.00	4.528	115	2.677	68.00	G 1/8	
7188744	A16JMBSHPS7M	7	0.63	16.00	4.528	115	2.677	68.00	G 1/8	
7188783	A20DMBSHPS4M	4	0.79	20.00	2.559	65	1.260	32.00	G 1/8	
7188785	A20DMBSHPS5M	5	0.79	20.00	2.559	65	1.299	33.00	G 1/8	
7188786	A20DMBSHPS6M	6	0.79	20.00	2.559	65	1.339	34.00	G 1/8	
7188787	A20DMBSHPS7M	7	0.79	20.00	2.559	65	1.339	34.00	G 1/8	
7188749	A20JMBSHPS4M	4	0.79	20.00	4.528	115	2.677	68.00	G 1/8	
7188750	A20JMBSHPS5M	5	0.79	20.00	4.528	115	2.677	68.00	G 1/8	
7188751	A20JMBSHPS6M	6	0.79	20.00	4.528	115	2.677	68.00	G 1/8	
7188752	A20JMBSHPS7M	7	0.79	20.00	4.528	115	2.677	68.00	G 1/8	
7188788	A22DMBSHPS4M	4	0.87	22.00	2.559	65	1.260	32.00	G 1/8	
7188789	A22DMBSHPS5M	5	0.87	22.00	2.559	65	1.260	32.00	G 1/8	
7188791	A22DMBSHPS6M	6	0.87	22.00	2.559	65	1.260	32.00	G 1/8	
7188792	A22DMBSHPS7M	7	0.87	22.00	2.559	65	1.339	34.00	G 1/8	
7188753	A22JMBSHPS4M	4	0.87	22.00	4.528	115	2.677	68.00	G 1/8	
7188754	A22JMBSHPS5M	5	0.87	22.00	4.528	115	2.677	68.00	G 1/8	
7188755	A22JMBSHPS6M	6	0.87	22.00	4.528	115	2.677	68.00	G 1/8	
7188756	A22JMBSHPS7M	7	0.87	22.00	4.528	115	2.677	68.00	G 1/8	
7188793	A25DMBSHPS4M	4	0.98	25.00	2.559	65	1.260	32.00	G 1/8	
7188794	A25DMBSHPS5M	5	0.98	25.00	2.559	65	1.260	32.00	G 1/8	
7188795	A25DMBSHPS6M	6	0.98	25.00	2.559	65	1.260	32.00	G 1/8	
7188796	A25DMBSHPS7M	7	0.98	25.00	2.559	65	1.260	32.00	G 1/8	
7188757	A25JMBSHPS4M	4	0.98	25.00	4.528	115	2.677	68.00	G 1/8	
7188758	A25JMBSHPS5M	5	0.98	25.00	4.528	115	2.677	68.00	G 1/8	
7188759	A25JMBSHPS6M	6	0.98	25.00	4.528	115	2.677	68.00	G 1/8	
7188760	A25JMBSHPS7M	7	0.98	25.00	4.528	115	2.677	68.00	G 1/8	



Mango cuadrado • Rendimiento estándar

Precisión de la línea central $\pm 0,0008''$ (0,020 mm)

Número de pedido	Número de catálogo	B		D1	F	H1		H2		H3		KAP	L		LS		CS
		in	mm	mm	mm	in	mm	in	mm	in	mm		in	mm	in	mm	
7188832	MBSAL0808I4C	0.500	12.70	4	20	0.500	12.70	0.709	18	-	-	90.000°	3.543	90	2.874	73	M5
7188834	MBSAL0808I5C	0.500	12.70	5	20	0.500	12.70	0.709	18	-	-	90.000°	3.543	90	2.874	73	M5
7188836	MBSAL0808I6C	0.500	12.70	6	20	0.500	12.70	0.827	21	0.118	3	90.000°	3.543	90	2.874	73	M5
7188841	MBSAL0808I7C	0.500	12.70	7	20	0.500	12.70	0.827	21	0.118	3	90.000°	3.543	90	2.874	73	M5
7188843	MBSAL1010I4C	0.625	15.88	4	20	0.625	15.88	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5
7188845	MBSAL1010I5C	0.625	15.88	5	20	0.625	15.88	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5
7188847	MBSAL1010I6C	0.625	15.88	6	20	0.625	15.88	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5
7188849	MBSAL1010I7C	0.625	15.88	7	20	0.625	15.88	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5
7188831	MBSAR0808I4C	0.500	12.70	4	20	0.500	12.70	0.709	18	-	-	90.000°	3.543	90	2.874	73	M5
7188833	MBSAR0808I5C	0.500	12.70	5	20	0.500	12.70	0.709	18	-	-	90.000°	3.543	90	2.874	73	M5
7188835	MBSAR0808I6C	0.500	12.70	6	20	0.500	12.70	0.827	21	0.118	3	90.000°	3.543	90	2.874	73	M5
7188839	MBSAR0808I7C	0.500	12.70	7	20	0.500	12.70	0.827	21	0.118	3	90.000°	3.543	90	2.874	73	M5
7188842	MBSAR1010I4C	0.625	15.88	4	20	0.625	15.88	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5
7188844	MBSAR1010I5C	0.625	15.88	5	20	0.625	15.88	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5
7188846	MBSAR1010I6C	0.625	15.88	6	20	0.625	15.88	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5
7188848	MBSAR1010I7C	0.625	15.88	7	20	0.625	15.88	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5
7188802	MBSAL1212M4C	0.472	12.00	4	20	0.472	12.00	0.709	18	-	-	90.000°	3.543	90	2.874	73	M5
7188806	MBSAL1212M5C	0.472	12.00	5	20	0.472	12.00	0.709	18	-	-	90.000°	3.543	90	2.874	73	M5
7188808	MBSAL1212M6C	0.472	12.00	6	20	0.472	12.00	0.827	21	0.118	3	90.000°	3.543	90	2.874	73	M5
7188810	MBSAL1212M7C	0.472	12.00	7	20	0.472	12.00	0.827	21	0.118	3	90.000°	3.543	90	2.874	73	M5
7188812	MBSAL1616M4C	0.630	16.00	4	20	0.630	16.00	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5
7188815	MBSAL1616M5C	0.630	16.00	5	20	0.630	16.00	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5
7188818	MBSAL1616M6C	0.630	16.00	6	20	0.630	16.00	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5
7188820	MBSAL1616M7C	0.630	16.00	7	20	0.630	16.00	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5
7188801	MBSAR1212M4C	0.472	12.00	4	20	0.472	12.00	0.709	18	-	-	90.000°	3.543	90	2.874	73	M5
7188805	MBSAR1212M5C	0.472	12.00	5	20	0.472	12.00	0.709	18	-	-	90.000°	3.543	90	2.874	73	M5
7188807	MBSAR1212M6C	0.472	12.00	6	20	0.472	12.00	0.827	21	0.118	3	90.000°	3.543	90	2.874	73	M5
7188809	MBSAR1212M7C	0.472	12.00	7	20	0.472	12.00	0.827	21	0.118	3	90.000°	3.543	90	2.874	73	M5
7188811	MBSAR1616M4C	0.630	16.00	4	20	0.630	16.00	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5
7188813	MBSAR1616M5C	0.630	16.00	5	20	0.630	16.00	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5
7188817	MBSAR1616M6C	0.630	16.00	6	20	0.630	16.00	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5
7188819	MBSAR1616M7C	0.630	16.00	7	20	0.630	16.00	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5



Casquillos

Soportes de estilo de casquillo

Número de pedido	Número de catálogo	D1	D	L	
		mm	mm	in	m
7206143	MBSBS004	4	12	0.858	21.80
7206144	MBSBS005	5	12	0.858	21.80
7206145	MBSBS006	6	12	0.858	21.80
7206146	MBSBS007	7	12	0.858	21.80
7206147	MBSBS008	8	12	0.858	21.80

Tornillos

Número de pedido	Número de catálogo	L		WST
		in	mm	
7206123	MBSS001	0.158	4	2.50
7206125	MBSS002	0.315	8	2.50
7206130	MBSS003	0.158	4	10.00
7206131	MBSS004	0.236	6	10.00
7206132	MBSS005	0.315	8	10.00
7206133	MBSS006	0.394	10	10.00
7206124	MBSS007	0.236	6	2.50
7206126	MBSS008	0.236	6	3.00

Elementos de bloqueo

Soportes de mangos cuadrados

Número de pedido	Número de catálogo	L	Shank Size	
			in	m
7206140	MBSLE001	0.532	0.5000	12mm
7206141	MBSLE002	0.551	0.6250	16mm

Tuerca de bloqueo

Tuercas de unión • Soportes de alto rendimiento

Número de pedido	Número de catálogo	L		
		in	mm	insert size
7206139	MBSLN001	0.366	9.30	4, 5, 6, 7
7206135	MBSUN001	0.906	23.00	4
7206136	MBSUN002	0.906	23.00	5
7206137	MBSUN003	0.906	23.00	6
7206138	MBSUN004	0.906	23.00	7

Llaves

Número de pedido	Número de catálogo	L		WSMS
		in	mm	
7206128	MBSW001	2.210	56.00	SW2.5
7206134	MBSW002	2.126	54.00	T10
7206142	MBSW003	3.260	83.00	SW5
7206129	MBSW004	2.590	66.00	SW3

CONJUNTOS MBS



Conjunto 1		MBSSET1MD		TopSwiss MBS, SET 1, extremo doble MÉTRICO (16 mm)
N.º de pedido 7179993	7187270	A16EMBSPPD45M		Soporte TopSwiss MBS, extremo doble, premium
	7187277	A16EMBSPPD67M		Soporte TopSwiss MBS, extremo doble, premium
	7219800	R4BPGA028C16R010	KCU25S	Plaquita TopSwiss MBS, mandrinado y perfilado
	7219818	R4BPGA040C16R010	KCU25S	Plaquita TopSwiss MBS, mandrinado y perfilado
	7219824	R5BPGA050C20R015	KCU25S	Plaquita TopSwiss MBS, mandrinado y perfilado
	7219830	R6BPGA060C22R015	KCU25S	Plaquita TopSwiss MBS, mandrinado y perfilado
	7221460	R4GS07030C10R000	KCU25S	Plaquita TopSwiss MBS, ranurado
	7220223	R4GR10040C16R010	KCU25S	Plaquita TopSwiss MBS, ranurado
	7220232	R5GR15050C20R010	KCU25S	Plaquita TopSwiss MBS, ranurado
	7220256	R6GR20060C22R010	KCU25S	Plaquita TopSwiss MBS, ranurado
7206134	MBSW002		Llave, TopSwiss MBS	

Conjunto 2		MBSSET2ID		TopSwiss MBS, SET 2, doble extremo PULGADA (0.625")
N.º de pedido 7179994	7187269	A10EMBSPPD45I		Soporte TopSwiss MBS, extremo doble, premium
	7187276	A10EMBSPPD67I		Soporte TopSwiss MBS, extremo doble, premium
	7219800	R4BPGA028C16R010	KCU25S	Plaquita TopSwiss MBS, mandrinado y perfilado
	7219818	R4BPGA040C16R010	KCU25S	Plaquita TopSwiss MBS, mandrinado y perfilado
	7219824	R5BPGA050C20R015	KCU25S	Plaquita TopSwiss MBS, mandrinado y perfilado
	7219830	R6BPGA060C22R015	KCU25S	Plaquita TopSwiss MBS, mandrinado y perfilado
	7221460	R4GS07030C10R000	KCU25S	Plaquita TopSwiss MBS, ranurado
	7220223	R4GR10040C16R010	KCU25S	Plaquita TopSwiss MBS, ranurado
	7220232	R5GR15050C20R010	KCU25S	Plaquita TopSwiss MBS, ranurado
	7220256	R6GR20060C22R010	KCU25S	Plaquita TopSwiss MBS, ranurado
7206134	MBSW002		Llave, TopSwiss MBS	

CONJUNTOS MBS

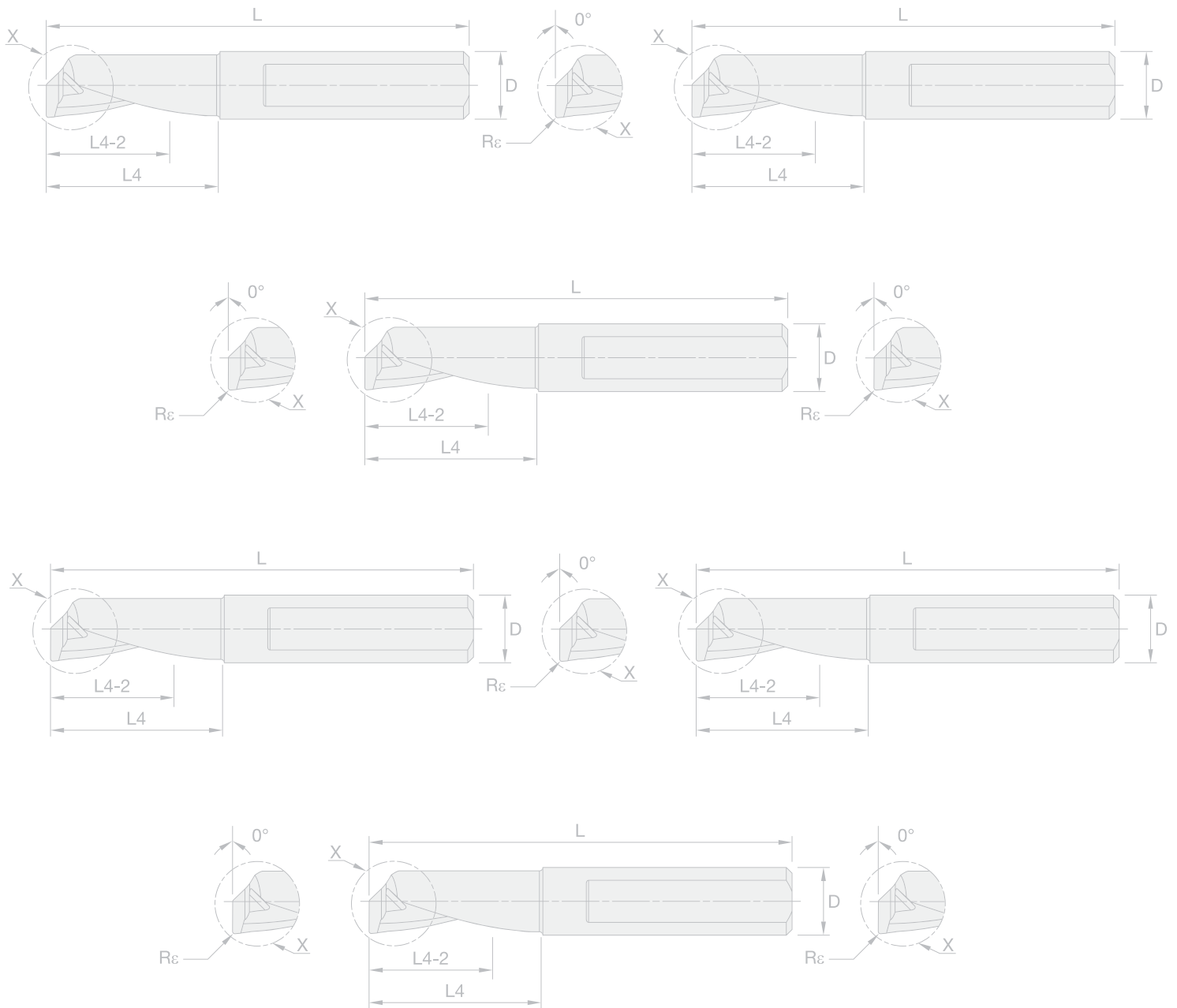


Conjunto 3		MBSSET3MB		TopSwiss MBS, SET 3, casquillo MÉTRICO (20 mm)
N.º de pedido 7179995	7188877	A20DMBSBSSOM		Soporte TopSwiss MBS, extremo sgl, BS corto
	7206143	MBSBS004		Casquillo, soporte TopSwiss MBS, tamaño 4
	7206144	MBSBS005		Casquillo, soporte TopSwiss MBS, tamaño 5
	7206145	MBSBS006		Casquillo, soporte TopSwiss MBS, tamaño 6
	7206146	MBSBS007		Casquillo, soporte TopSwiss MBS, tamaño 7
	7219818	R4BPGA040C16R010	KCU25S	Plaquita TopSwiss MBS, mandrinado y perfilado
	7219824	R5BPGA050C20R015	KCU25S	Plaquita TopSwiss MBS, mandrinado y perfilado
	7219830	R6BPGA060C22R015	KCU25S	Plaquita TopSwiss MBS, mandrinado y perfilado
	7219836	R7BPGA068C25R015	KCU25S	Plaquita TopSwiss MBS, mandrinado y perfilado
	7206134	MBSW002		Llave, TopSwiss MBS

Conjunto 4		MBSSET4IB		TopSwiss MBS, SET 4, casquillo PULGADAS (0.750")
N.º de pedido 7179996	7188876	A12DMBSBSSOI		Soporte TopSwiss MBS, extremo sgl, BS corto
	7206143	MBSBS004		Casquillo, soporte TopSwiss MBS, tamaño 4
	7206144	MBSBS005		Casquillo, soporte TopSwiss MBS, tamaño 5
	7206145	MBSBS006		Casquillo, soporte TopSwiss MBS, tamaño 6
	7206146	MBSBS007		Casquillo, soporte TopSwiss MBS, tamaño 7
	7219818	R4BPGA040C16R010	KCU25S	Plaquita TopSwiss MBS, mandrinado y perfilado
	7219824	R5BPGA050C20R015	KCU25S	Plaquita TopSwiss MBS, mandrinado y perfilado
	7219830	R6BPGA060C22R015	KCU25S	Plaquita TopSwiss MBS, mandrinado y perfilado
	7219836	R7BPGA068C25R015	KCU25S	Plaquita TopSwiss MBS, mandrinado y perfilado
	7206134	MBSW002		Llave, TopSwiss MBS

TopSwiss MBS

PLAQUITAS MULTIFUNCIÓN (MF)

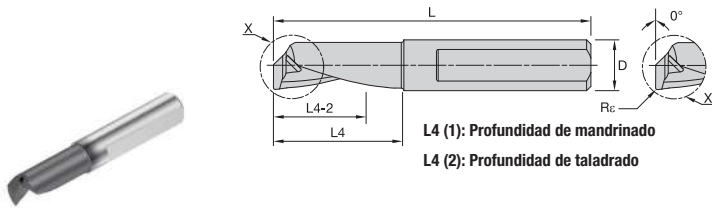


INSERTOS MULTIFUNCIÓN DE NOMENCLATURA



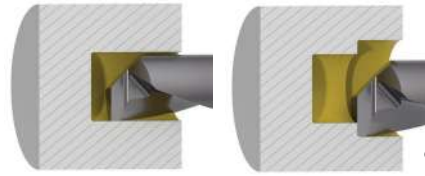
Ejemplo:
R4BPML003C01
R002 - KCSM25S

R	4	BP	ML	003	C	01	R002	-	KCSM25S
Dirección	Mango Diámetro	Áreas de aplicación	Estilo (ángulos de ataque y de alivio)	Min. Tamaño del orificio	Refrigerante	Profundidad de mecanizado	Radio de esquina	Separator	Calidad
R = derecha	4: 4 mm Ø	BP: mandrinado y perfilado	GA: geometría A (8° y 20°)	003: 0.3 mm	Canales de refrigerante	01: 1 mm	R000: 0.00 mm (0.0000")		KCU25S
L = izquierda	5: 5 mm Ø	MF: multifunción	GB: geometría B (0° y 20°)	005: 0.5 mm	Orificios de refrigerante	05: 5 mm	R002: 0.02 mm (0.0008")		KCPM25S
	6: 6 mm Ø		GC: geometría C (8° y 47°)	070: 7.0 mm	D: orificio de refrigerante doble	10 = 10 mm	R005: 0.05 mm (0.002")		KCSM25S
	7: 7 mm Ø		ML: línea médica (8° y 11°)	160: 16.0 mm		25 = 25 mm	R015: 0.15 mm (0.006")		KCHS25S
	8: 8 mm Ø		HP: alto rendimiento (6° y 7°)				R020: 0.2 mm (0.008")		
			HM: mecanizado duro (8° y 20°)				R150 = 1.5 mm (0.060")		
			DB: taladro y orificio (0° y 0°)						



L4 (1): Profundidad de mandrinado
L4 (2): Profundidad de taladrado

APLICACIONES



P	●
M	●
K	○
N	○
S	○
H	○

● Principal
○ Secundario

Multifunción MF

Número de pedido	Número de catálogo	D		DMIN		L		L4 (1)		L4 (2)		Rε		KRA	●
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in		
7221275	L4MFDB029H10R020 KCU25S	4	0.114	2.90	1.457	37	0.394	10	0.394	10	0.008	0.20	0.000 deg	●	
7221276	L4MFDB029H13R020 KCU25S	4	0.114	2.90	1.575	40	0.512	13	0.512	13	0.008	0.20	0.000 deg	●	
7221277	L4MFDB037H15R020 KCU25S	4	0.146	3.70	1.457	37	0.591	15	0.394	10	0.008	0.20	0.000 deg	●	
7221278	L4MFDB037H20R020 KCU25S	4	0.146	3.70	1.654	42	0.787	20	0.630	16	0.008	0.20	0.000 deg	●	
7221279	L5MFDB047H15R020 KCU25S	5	0.185	4.70	1.457	37	0.591	15	0.394	10	0.008	0.20	0.000 deg	●	
7221280	L5MFDB047H20R020 KCU25S	5	0.185	4.70	1.654	42	0.787	20	0.591	15	0.008	0.20	0.000 deg	●	
7221281	L5MFDB047H25R020 KCU25S	5	0.185	4.70	1.850	47	0.984	25	0.787	20	0.008	0.20	0.000 deg	●	
7221282	L6MFDB057H15R020 KCU25S	6	0.224	5.70	1.457	37	0.591	15	0.394	10	0.008	0.20	0.000 deg	●	
7221283	L6MFDB057H20R020 KCU25S	6	0.224	5.70	1.654	42	0.787	20	0.591	15	0.008	0.20	0.000 deg	●	
7221284	L6MFDB057H25R020 KCU25S	6	0.224	5.70	1.850	47	0.984	25	0.787	20	0.008	0.20	0.000 deg	●	
7221285	L6MFDB057H35R020 KCU25S	6	0.224	5.70	2.047	52	1.378	35	0.984	25	0.008	0.20	0.000 deg	●	
7221286	L7MFDB067H20R020 KCU25S	7	0.264	6.70	1.654	42	0.787	20	0.591	15	0.008	0.20	0.000 deg	●	
7221287	L7MFDB067H25R020 KCU25S	7	0.264	6.70	1.850	47	0.984	25	0.787	20	0.008	0.20	0.000 deg	●	
7221288	L7MFDB067H30R020 KCU25S	7	0.264	6.70	2.047	52	1.181	30	0.984	25	0.008	0.20	0.000 deg	●	
7221289	L7MFDB067H35R020 KCU25S	7	0.264	6.70	2.244	57	1.378	35	1.181	30	0.008	0.20	0.000 deg	●	
7221290	L8MFDB077H25R020 KCU25S	8	0.303	7.70	1.969	50	0.984	25	0.787	20	0.008	0.20	0.000 deg	●	
7221291	L8MFDB077H30R020 KCU25S	8	0.303	7.70	2.165	55	1.181	30	0.984	25	0.008	0.20	0.000 deg	●	
7221292	L8MFDB077H35R020 KCU25S	8	0.303	7.70	2.362	60	1.378	35	1.181	30	0.008	0.20	0.000 deg	●	
7221293	L8MFDB077H40R020 KCU25S	8	0.303	7.70	2.559	65	1.575	40	1.378	35	0.008	0.20	0.000 deg	●	
7221294	R4MFDB020H08R005 KCU25S	4	0.079	2.00	1.575	40	0.315	8	0.315	8	0.002	0.05	0.000 deg	●	
7221295	R4MFDB020H08R010 KCU25S	4	0.079	2.00	1.575	40	0.315	8	0.315	8	0.004	0.10	0.000 deg	●	
7221297	R4MFDB029H10R005 KCU25S	4	0.114	2.90	1.457	37	0.394	10	0.394	10	0.002	0.05	0.000 deg	●	
7221298	R4MFDB029H10R010 KCU25S	4	0.114	2.90	1.457	37	0.394	10	0.394	10	0.004	0.10	0.000 deg	●	
7221296	R4MFDB029H10R020 KCU25S	4	0.114	2.90	1.457	37	0.394	10	0.394	10	0.008	0.20	0.000 deg	●	
7221300	R4MFDB029H13R005 KCU25S	4	0.114	2.90	1.575	40	0.512	13	0.512	13	0.002	0.05	0.000 deg	●	
7221311	R4MFDB029H13R010 KCU25S	4	0.114	2.90	1.575	40	0.512	13	0.512	13	0.004	0.10	0.000 deg	●	
7221299	R4MFDB029H13R020 KCU25S	4	0.114	2.90	1.575	40	0.512	13	0.512	13	0.008	0.20	0.000 deg	●	
7221313	R4MFDB037H15R010 KCU25S	4	0.146	3.70	1.457	37	0.591	15	0.394	10	0.004	0.10	0.000 deg	●	
7221312	R4MFDB037H15R020 KCU25S	4	0.146	3.70	1.457	37	0.591	15	0.394	10	0.008	0.20	0.000 deg	●	
7221314	R4MFDB037H20R020 KCU25S	4	0.146	3.70	1.654	42	0.787	20	0.630	16	0.008	0.20	0.000 deg	●	
7221316	R5MFDB047H15R010 KCU25S	5	0.185	4.70	1.457	37	0.591	15	0.394	10	0.004	0.10	0.000 deg	●	
7221315	R5MFDB047H15R020 KCU25S	5	0.185	4.70	1.457	37	0.591	15	0.394	10	0.008	0.20	0.000 deg	●	
7221318	R5MFDB047H20R010 KCU25S	5	0.185	4.70	1.654	42	0.787	20	0.591	15	0.004	0.10	0.000 deg	●	
7221317	R5MFDB047H20R020 KCU25S	5	0.185	4.70	1.654	42	0.787	20	0.591	15	0.008	0.20	0.000 deg	●	
7221319	R5MFDB047H25R020 KCU25S	5	0.185	4.70	1.850	47	0.984	25	0.787	20	0.008	0.20	0.000 deg	●	
7221331	R6MFDB057H15R010 KCU25S	6	0.224	5.70	1.457	37	0.591	15	0.394	10	0.004	0.10	0.000 deg	●	
7221320	R6MFDB057H15R020 KCU25S	6	0.224	5.70	1.457	37	0.591	15	0.394	10	0.008	0.20	0.000 deg	●	
7221333	R6MFDB057H20R010 KCU25S	6	0.224	5.70	1.654	42	0.787	20	0.591	15	0.004	0.10	0.000 deg	●	
7221332	R6MFDB057H20R020 KCU25S	6	0.224	5.70	1.654	42	0.787	20	0.591	15	0.008	0.20	0.000 deg	●	
7221334	R6MFDB057H25R020 KCU25S	6	0.224	5.70	1.850	47	0.984	25	0.787	20	0.008	0.20	0.000 deg	●	
7221335	R6MFDB057H35R020 KCU25S	6	0.224	5.70	2.047	52	1.378	35	0.984	25	0.008	0.20	0.000 deg	●	
7221336	R7MFDB067H20R020 KCU25S	7	0.264	6.70	1.654	42	0.787	20	0.591	15	0.008	0.20	0.000 deg	●	
7221337	R7MFDB067H25R020 KCU25S	7	0.264	6.70	1.850	47	0.984	25	0.787	20	0.008	0.20	0.000 deg	●	
7221338	R7MFDB067H30R020 KCU25S	7	0.264	6.70	2.047	52	1.181	30	0.984	25	0.008	0.20	0.000 deg	●	
7221339	R7MFDB067H35R020 KCU25S	7	0.264	6.70	2.244	57	1.378	35	1.181	30	0.008	0.20	0.000 deg	●	
7221340	R8MFDB077H25R020 KCU25S	8	0.303	7.70	1.969	50	0.984	25	0.787	20	0.008	0.20	0.000 deg	●	
7221341	R8MFDB077H30R020 KCU25S	8	0.303	7.70	2.165	55	1.181	30	0.984	25	0.008	0.20	0.000 deg	●	
7221342	R8MFDB077H35R020 KCU25S	8	0.303	7.70	2.362	60	1.378	35	1.181	30	0.008	0.20	0.000 deg	●	
7221343	R8MFDB077H40R020 KCU25S	8	0.303	7.70	2.559	65	1.575	40	1.378	35	0.008	0.20	0.000 deg	●	

KCU25S

TALADRADO Y TORNEADO A VELOCIDAD DE AVANCE

Taladrado (sistema métrico) KCU25S multifunción		Avance (mm/rev)	
		MÍN.	MÁX.
Tamaño de la plaquita MF (mm)	Profundidad de taladrado (mm)		
Ø ≤ 3	10	0.0025	0.0125
	13	0.0025	0.0100
Ø 3 - 4	15	0.005	0.030
	20	0.005	0.015
Ø 4 - 5	15	0.005	0.040
	25	0.005	0.020
Ø 5 - 6	15	0.005	0.030
	30	0.005	0.020
Ø 6 - 7	20	0.005	0.035
	35	0.005	0.025
Ø 7 - 8	25	0.005	0.040
	40	0.005	0.030

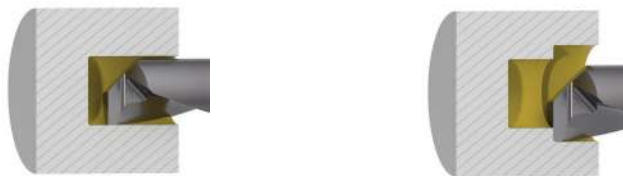
Torneado (sistema métrico) KCU25S multifunción		Avance (mm/rev)	
		MÍN.	MÁX.
Tamaño de la plaquita MF (mm)	Profundidad de torneado (mm)		
Ø ≤ 3	10	0.005	0.070
	13	0.005	0.050
Ø 3 - 4	15	0.010	0.100
	20	0.005	0.100
Ø 4 - 5	15	0.010	0.100
	25	0.005	0.100
Ø 5 - 6	15	0.010	0.100
	30	0.005	0.100
Ø 6 - 7	20	0.010	0.100
	35	0.010	0.100
Ø 7 - 8	25	0.010	0.100
	40	0.010	0.100

MULTIFUNCIÓN DE TALADRADO Y TORNEADO



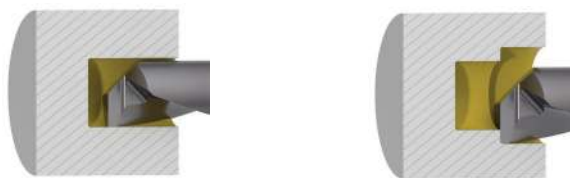
		Taladrado				Torneado			
		m/mín		SFM		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.
Aceros bajos en carbono (<0,3 % C) y de mecanizado libre									
P0/P1	KCU25S	80	110	260	360	80	260	260	850
Aceros al carbono medios y altos (>0,3 % C)									
P2	KCU25S	70	90	230	290	70	230	230	750
Aceros aleados y aceros para herramientas; <330 HB; <35 HRC									
P3	KCU25S	50	70	160	230	50	180	160	590
Aceros aleados y aceros para herramientas; 350–450 HB; 35–48 HRC									
P4	KCU25S	50	60	160	200	50	150	160	490
Aceros inoxidables ferríticos, martensíticos y PH; <330 HB; <35 HRC									
P5	KCU25S	50	60	160	200	50	160	160	520
Aceros inoxidables ferríticos, martensíticos y PH; 350–450 HB; 35–48 HRC									
P6	KCU25S	30	40	100	130	30	100	100	330

MULTIFUNCIÓN DE TALADRADO Y TORNEADO



Aceros inoxidables austeníticos		Taladrado				Torneado			
Grupo de materiales	Calidad	m/mín		SFM		m/mín		SFM	
		MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.
M1	KCU25S	50	70	160	230	50	180	160	590
Aceros inoxidables fundidos e inoxidables austeníticos de alta resistencia		m/mín		SFM		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.
M2	KCU25S	40	60	130	200	40	140	130	460
Aceros inoxidables Duplex (mezcla de ferrítico y austenítico)		m/mín		SFM		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.
M3	KCU25S	30	50	100	160	30	110	100	360

MULTIFUNCIÓN DE TALADRADO Y TORNEADO



		Taladrado				Torneado			
		m/mín		SFM		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.
Aleaciones a base de hierro resistentes al calor; 160-260 HB; 25-48 HRC; resistencia a la tensión de 500-1200									
S1	KCU25S	20	30	60	100	20	80	60	260
Aleaciones a base de cobalto resistentes al calor; 250-450 HB; 25-48 HRC; resistencia a la tensión de 1000-1450									
S2	KCU25S	20	30	60	100	20	60	60	200
Aleaciones resistentes al calor a base de níquel 160-450HB; <48 HRC; resistencia a la tensión de 600-1700									
S3	KCU25S	30	40	100	130	30	100	100	330
Titanio y aleaciones de titanio 300-400 HB; 33-48 HRC; resistencia a la tensión 900-1600									
S4	KCU25S	30	40	100	130	30	100	100	330

MULTIFUNCIÓN DE TALADRADO Y TORNEADO



		Taladrado				Torneado			
Materiales endurecidos; 44-48 HRC		m/mín		SFM		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.
H1	KCU25S	*	*	*	*	30	90	100	300
Materiales endurecidos; 48-55 HRC		m/mín		SFM		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.
H2	KCU25S	*	*	*	*	20	60	60	200

MULTIFUNCIÓN DE TALADRADO Y TORNEADO



		Taladrado				Torneado			
Fundición gris		m/mín		SFM		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.
K1	KCU25S	70	90	230	300	70	230	230	750
Fundiciones dúctiles de resistencia media y baja y hierros de grafito compactado (CGI)		m/mín		SFM		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.
K2	KCU25S	50	60	160	200	50	150	160	490
Fundiciones dúctiles de alta resistencia y austemperadas y fundiciones dúctiles maleables		m/mín		SFM		m/mín		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.
K3	KCU25S	60	80	200	260	60	190	200	620

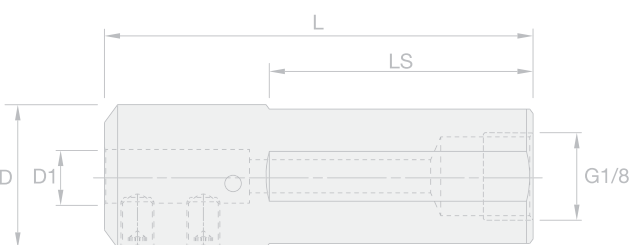
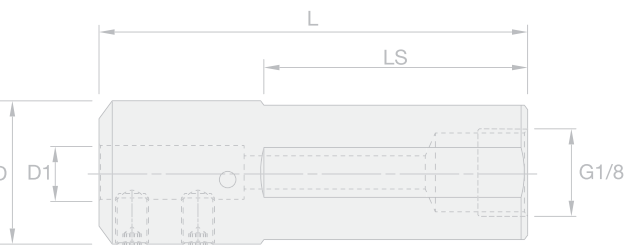
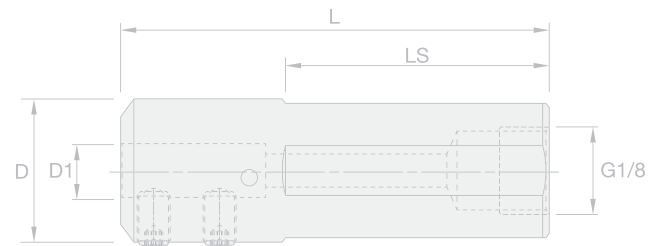
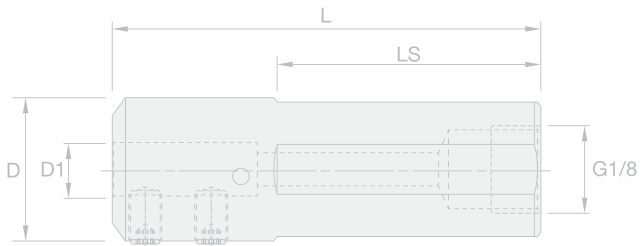
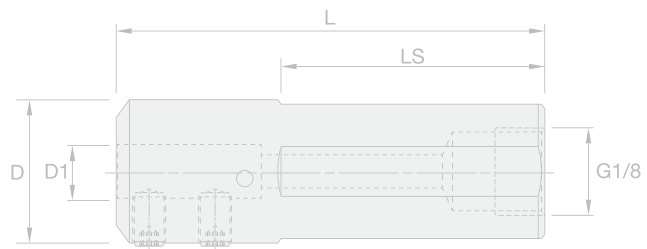
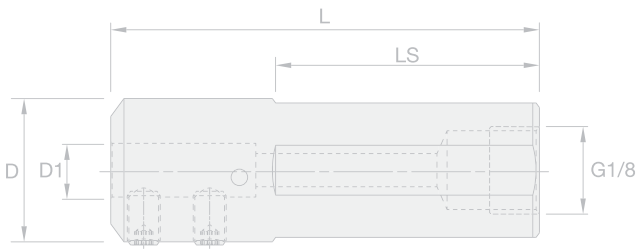
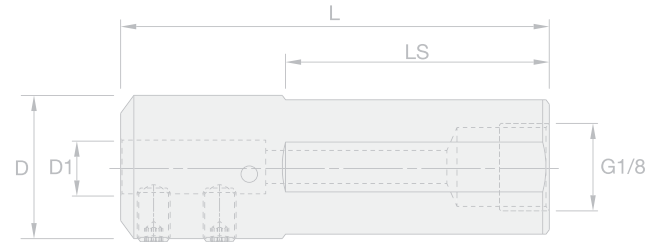
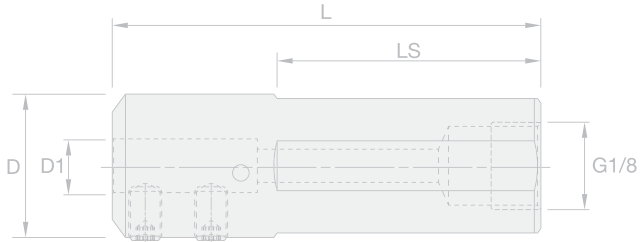
MULTIFUNCIÓN DE TALADRADO Y TORNEADO KCU25S



		Taladrado				Torneado			
		m/min		SFM		m/min		SFM	
Grupo de materiales	Calidad	MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.	MÍN.	MÁX.
Aleaciones de aluminio forjado									
N1	KCU25S	90	110	290	360	160	540	520	1770
Aleaciones de aluminio bajas en silicio y aleaciones de magnesio; 12,2 % Si									
N2	KCU25S	70	90	230	290	130	440	430	1440
Aluminio con alto contenido de silicona y aleaciones de magnesio; >12,2 % Si									
N3	KCU25S	20	60	60	200	30	290	100	950
Base cobre, bronce, cinc en un rango de índice de maquinabilidad de 70-100									
N4	KCU25S	60	80	200	260	120	390	390	1280
Nylon, plásticos, gomas, fenólicos, resinas y fibra de vidrio									
N5	KCU25S	50	70	160	230	100	330	330	1080

TopSwiss MBS

SOPORTES MF

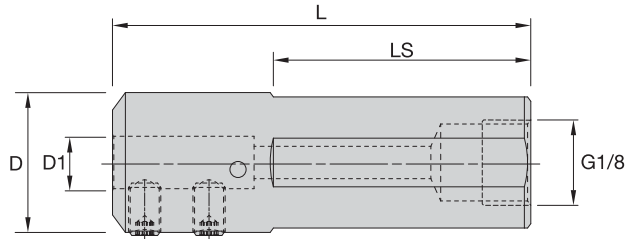


SOPORTES DE MANGO REDONDOS DE NOMENCLATURA



Ejemplo:
A16RMBSSPD45M

A	16	R	MB	SP	D	45	M
Tipo de barra	Diámetro de barra	Longitud de la barra	Nombre de la familia	Tipo de herramienta	Estilo de la herramienta	Tamaño(s) de la(s) plaquita(s)	Unidad
A: Barra de acero con refrigerante	MÉTRICO: el número de dos dígitos indica la barra \varnothing en mm	A: 32 mm (30-35)	Sólido de micromandrinado	SP: rendimiento estándar	S: extremo único	4: plaquita de 4 mm	M = sistema métrico
E: barra de metal duro con refrigerante	08 = 8 mm	B: 40 mm (40-45)		PP: rendimiento premium	D: doble extremo	5: plaquita de 5 mm	I: pulgada
	16 = 16 mm	D: 60 mm (60-65)		HP: alto rendimiento		6: plaquita de 6 mm	
		E: 70 mm (70-75)		DB: orificio de broca (multifunción)		7: plaquita de 7 mm	
		G: 90 mm (3.5") (90-95)		BS: estilo de casquillo		8: plaquita de 8 mm	
		H: 100 mm (4.0") (100-105)				45: 4 mm y 5 mm	
		J: 110 mm (4.5") (110-115)				56: 5 mm y 6 mm	
		K: 125 mm (5.0") (120-135)				67: 6 mm y 7 mm	
		M: 150 mm (6.0") (150-155)				78: 7 mm y 8 mm	
						0: todos los tamaños de plaquita	
	PULGADAS: el número de dos dígitos indica la barra \varnothing en 1/16"						
	08: 8/16 o 1/2"						
	16: 16/16 o 1"						



Mango redondo

Multifunción • MF • Precisión de línea central $\pm 0,0004''$ (0,010 mm)

Número de pedido	Número de catálogo	D1		D		L		LS		G3
		mm	in	mm	in	mm	in	mm	in	
7188895	A12DMBSDBS4I	4	0.750	19.05	2.559	65	1.575	40	G 1/8	
7188911	A12DMBSDBS5I	5	0.750	19.05	2.559	65	1.575	40	G 1/8	
7188917	A12DMBSDBS6I	6	0.750	19.05	2.559	65	1.575	40	G 1/8	
7188933	A12DMBSDBS7I	7	0.750	19.05	2.559	65	1.575	40	G 1/8	
7188939	A12DMBSDBS8I	8	0.750	19.05	2.559	65	1.575	40	G 1/8	
7188899	A16DMBSDBS4I	4	1.000	25.40	2.559	65	1.575	40	G 1/8	
7188915	A16DMBSDBS5I	5	1.000	25.40	2.559	65	1.575	40	G 1/8	
7188931	A16DMBSDBS6I	6	1.000	25.40	2.559	65	1.575	40	G 1/8	
7188937	A16DMBSDBS7I	7	1.000	25.40	2.559	65	1.575	40	G 1/8	
7188943	A16DMBSDBS8I	8	1.000	25.40	2.559	65	1.575	40	G 1/8	
7188894	A16DMBSDBS4M	4	0.630	16.00	2.559	65	1.575	40	G 1/8	
7188900	A16DMBSDBS5M	5	0.630	16.00	2.559	65	1.575	40	G 1/8	
7188916	A16DMBSDBS6M	6	0.630	16.00	2.559	65	1.575	40	G 1/8	
7188932	A16DMBSDBS7M	7	0.630	16.00	2.559	65	1.575	40	G 1/8	
7188938	A16DMBSDBS8M	8	0.630	16.00	2.559	65	1.575	40	G 1/8	
7188896	A20DMBSDBS4M	4	0.787	20.00	2.559	65	1.575	40	G 1/8	
7188912	A20DMBSDBS5M	5	0.787	20.00	2.559	65	1.575	40	G 1/8	
7188918	A20DMBSDBS6M	6	0.787	20.00	2.559	65	1.575	40	G 1/8	
7188934	A20DMBSDBS7M	7	0.787	20.00	2.559	65	1.575	40	G 1/8	
7188940	A20DMBSDBS8M	8	0.787	20.00	2.559	65	1.575	40	G 1/8	
7188897	A22DMBSDBS4M	4	0.866	22.00	2.559	65	1.575	40	G 1/8	
7188913	A22DMBSDBS5M	5	0.866	22.00	2.559	65	1.575	40	G 1/8	
7188919	A22DMBSDBS6M	6	0.866	22.00	2.559	65	1.575	40	G 1/8	
7188935	A22DMBSDBS7M	7	0.866	22.00	2.559	65	1.575	40	G 1/8	
7188941	A22DMBSDBS8M	8	0.866	22.00	2.559	65	1.575	40	G 1/8	
7188898	A25DMBSDBS4M	4	0.984	25.00	2.559	65	1.575	40	G 1/8	
7188914	A25DMBSDBS5M	5	0.984	25.00	2.559	65	1.575	40	G 1/8	
7188920	A25DMBSDBS6M	6	0.984	25.00	2.559	65	1.575	40	G 1/8	
7188936	A25DMBSDBS7M	7	0.984	25.00	2.559	65	1.575	40	G 1/8	
7188942	A25DMBSDBS8M	8	0.984	25.00	2.559	65	1.575	40	G 1/8	

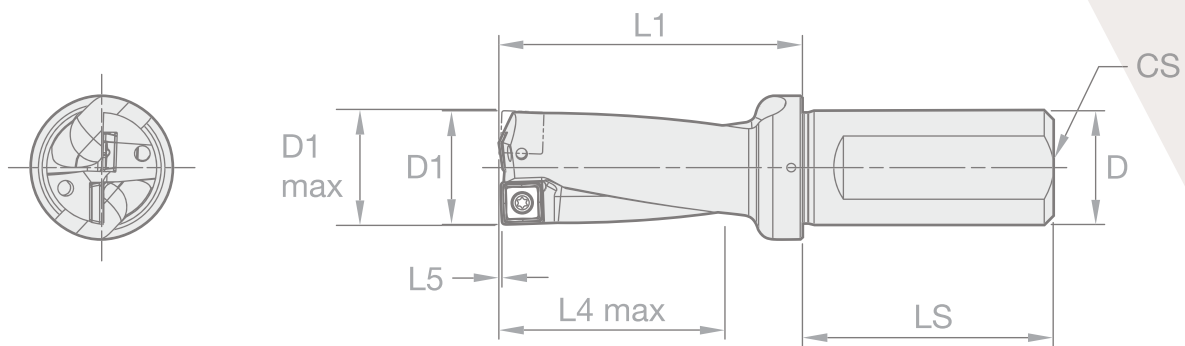
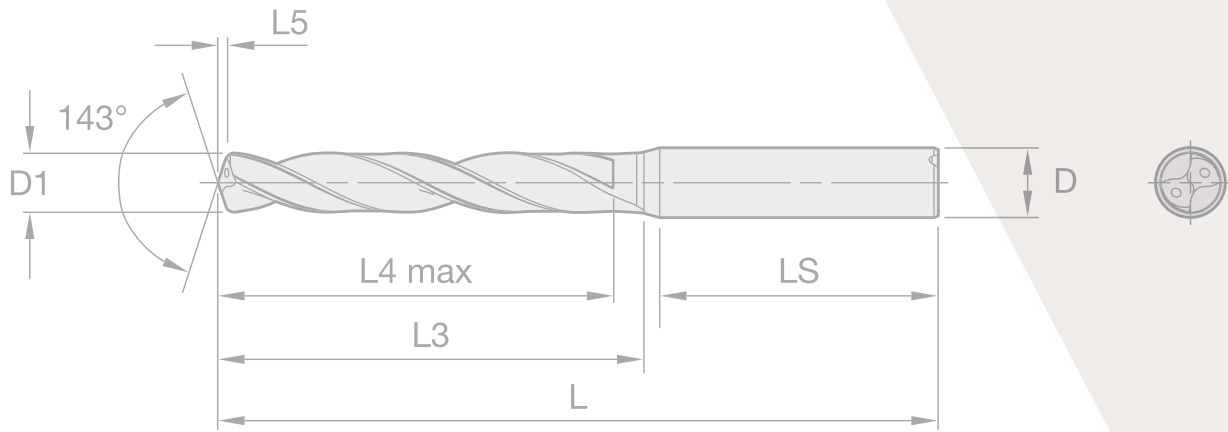
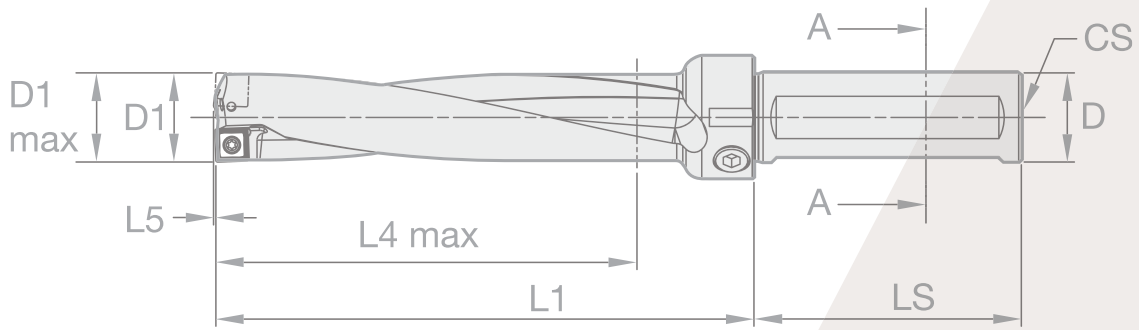
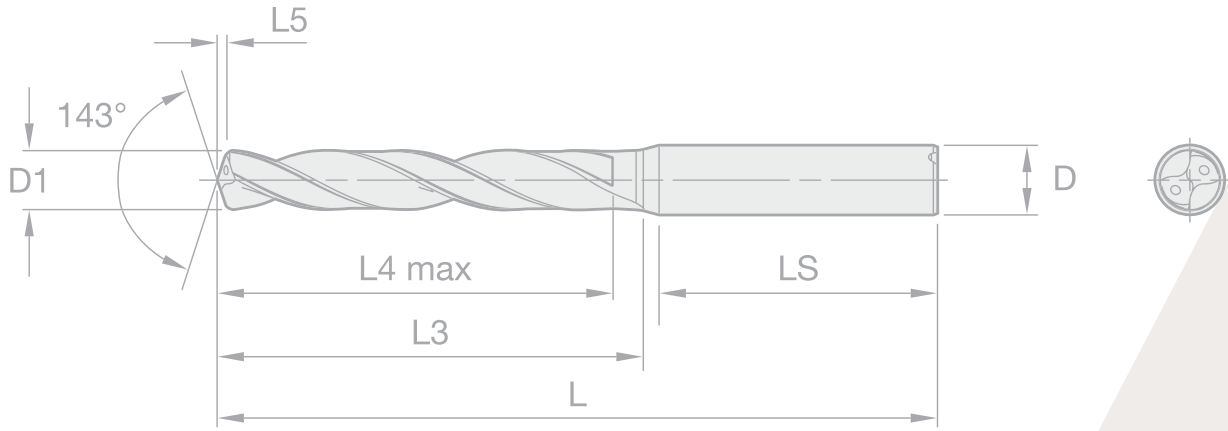
TopSwiss MBS



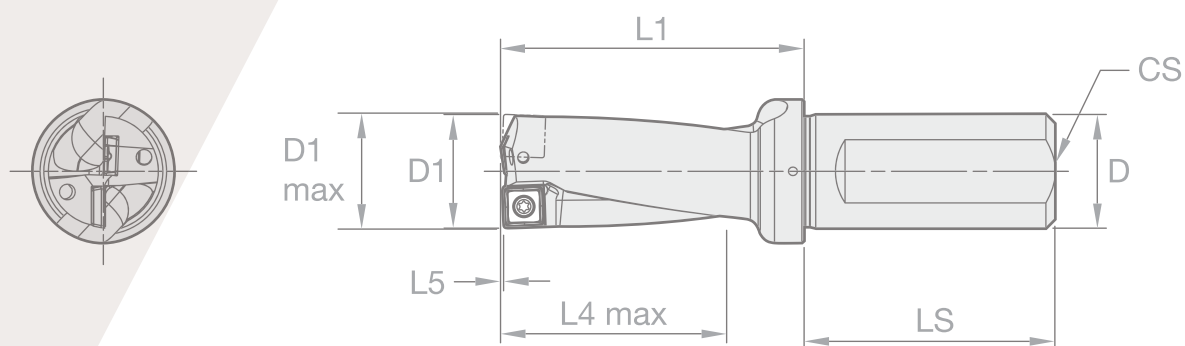
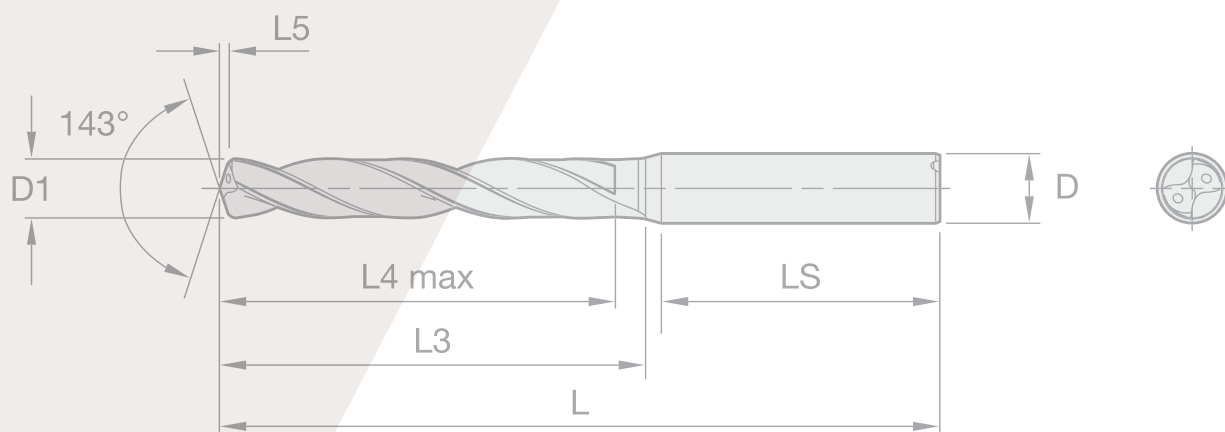
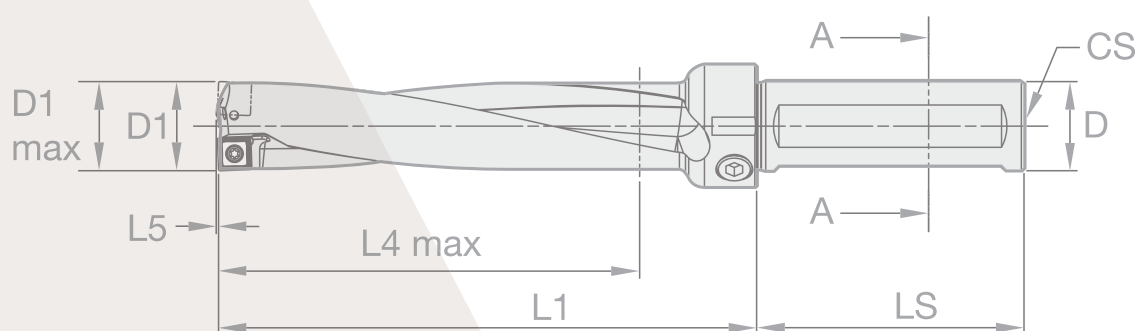
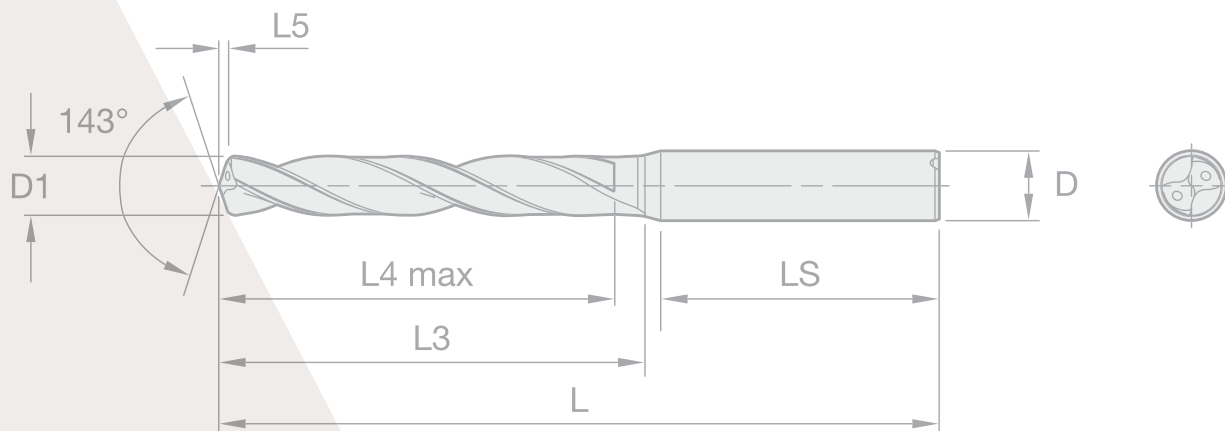
**MECANIZADO
DE PRECISI3N
PULIDO**

LLEVE SU
FABRICACI3N AL
SIGUIENTE NIVEL

kennametal.com/TopSwissMBS



TALADRADO














Drill Fix PRO™

TALADRADO INTERCAMBIABLE

¡NOVEDAD! Mangos cilíndricos más pequeños
Brocas KM adicionales

Aplicaciones

-  Taladrado
-  Entradas convexas
-  Entradas inclinadas
-  Platos apilados
-  Fondo plano
-  Medio cilindro
-  Salidas inclinadas
-  Agujeros transversales
-  Salto X
-  Taladrado en cadena
-  Taladrado de esquina 45°

Materiales

- P** Aceros
- M** Aceros inoxidables
- K** Fundición
- S** Aleaciones de alta temperatura

Mejore su mecanizado con nuestra nueva Drill Fix PRO

Nuestra plataforma de taladrado intercambiable Drill Fix PRO viene de serie con plaquita rascadora incluida en cada plaquita exterior. La versatilidad de la plataforma también aumenta con cuatro filos de corte en sus plaquitas interior y exterior, lo que da como resultado una mayor gama de aplicaciones que hace que Drill Fix PRO sea increíblemente rentable. También cuenta con canales de refrigeración más grandes para un flujo de refrigerante de mayor volumen. Este innovador elemento de diseño ofrece a los clientes no solo una experiencia de taladrado sólida y silenciosa, sino una vida más prolongada de la herramienta.

- **Taladrado intercambiable asequible y versátil:** Drill Fix PRO ofrece una plataforma de taladrado económica que cubre un amplio espectro de materiales y aplicaciones
- **Diseño resistente del portaherramientas:** Rigidez extrema que da menos desviaciones, vibraciones y ruido
- **Geometría de plaquitas rascadoras en todas las plaquitas exteriores:** Creación de un acabado superficial y una calidad de orificio superiores
- **Sistema de suministro de refrigerante optimizado:** Los grandes canales de refrigerante dobles proporcionan un mejor flujo de refrigerante, lo que da como resultado mayores tasas de evacuación del metal, vida de la herramienta y productividad

Industrias



Ingeniería general



Automoción



Petróleo y gas

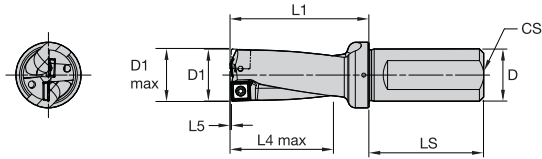


Energía eólica y solar



Sector aeroespacial



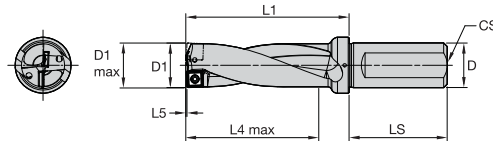


Drill Fix PRO

Cuerpo de broca • 2xD • Mango WB

Diámetro de mango más pequeño

Número de pedido	Número de catálogo	D1	D1 Max	L5	L1	L4 Max	LS	D	CS	Plaquita 1 exterior	Plaquita 2 interior
7214601	DFPR265R2WB32M	26.50	27.50	0.78	77.00	53.00	60.00	32.00	1/4-18 NPT	DFPR090305_0	DFPR100305_I
7214527	DFPR450R2WB40M	45.00	46.00	1.50	116.00	90.00	70.00	40.00	1/4-18 NPT	DFPR140408_0	DFPR140406_I
7214769	DFPR460R2WB40M	46.00	47.00	1.20	120.00	92.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214770	DFPR470R2WB40M	47.00	48.00	1.28	122.00	94.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214811	DFPR480R2WB40M	48.00	49.00	1.36	125.00	96.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214812	DFPR490R2WB40M	49.00	50.00	1.44	126.00	98.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214813	DFPR500R2WB40M	50.00	51.00	1.52	128.00	100.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214814	DFPR510R2WB40M	51.00	52.00	1.60	132.00	102.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214815	DFPR520R2WB40M	52.00	53.00	1.69	134.00	104.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214816	DFPR530R2WB40M	53.00	54.00	1.77	136.00	106.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214817	DFPR540R2WB40M	54.00	55.00	1.85	138.00	108.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214653	DFPR550R2WB40M	55.00	56.00	1.37	142.00	110.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214654	DFPR560R2WB40M	56.00	57.00	1.45	144.00	112.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214655	DFPR570R2WB40M	57.00	58.00	1.53	146.00	114.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214656	DFPR580R2WB40M	58.00	59.00	1.61	148.00	116.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214657	DFPR590R2WB40M	59.00	60.00	1.70	152.00	118.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214659	DFPR600R2WB40M	60.00	61.00	1.78	154.00	120.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214660	DFPR610R2WB40M	61.00	62.00	1.86	156.00	122.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214671	DFPR620R2WB40M	62.00	63.00	1.94	158.00	124.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214672	DFPR630R2WB40M	63.00	64.00	2.02	161.00	126.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214673	DFPR640R2WB40M	64.00	65.00	2.10	163.00	128.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214674	DFPR650R2WB40M	65.00	66.00	2.19	165.00	130.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I

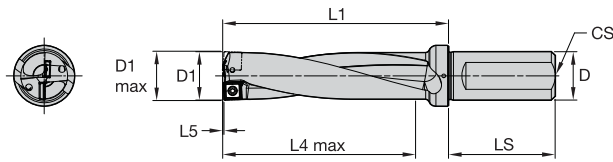


Drill Fix PRO

Cuerpo de broca • 3xD • Mango WB

Diámetro de mango más pequeño

Número de pedido	Número de catálogo	D1	D1 Max	L5	L1	L4 Max	LS	D	CS	Plaquita 1 exterior	Plaquita 2 interior
7214602	DFPR265R3WB32M	26.50	27.50	0.78	103.50	79.50	60.00	32.00	1/4-18 NPT	DFPR090305_0	DFPR100305_I
7214528	DFPR450R3WB40M	45.00	46.00	1.50	161.00	135.00	70.00	40.00	1/4-18 NPT	DFPR140408_0	DFPR140406_I
7214818	DFPR460R3WB40M	46.00	47.00	1.20	166.00	138.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214819	DFPR470R3WB40M	47.00	48.00	1.28	169.00	141.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214820	DFPR480R3WB40M	48.00	49.00	1.36	173.00	144.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214821	DFPR490R3WB40M	49.00	50.00	1.44	175.00	147.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214822	DFPR500R3WB40M	50.00	51.00	1.52	178.00	150.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214823	DFPR510R3WB40M	51.00	52.00	1.60	183.00	153.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214824	DFPR520R3WB40M	52.00	53.00	1.69	186.00	156.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214825	DFPR530R3WB40M	53.00	54.00	1.77	189.00	159.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214826	DFPR540R3WB40M	54.00	55.00	1.85	192.00	162.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214675	DFPR550R3WB40M	55.00	56.00	1.37	197.00	165.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214676	DFPR560R3WB40M	56.00	57.00	1.45	200.00	168.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214678	DFPR570R3WB40M	57.00	58.00	1.53	203.00	171.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214679	DFPR580R3WB40M	58.00	59.00	1.61	206.00	174.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214680	DFPR590R3WB40M	59.00	60.00	1.70	211.00	177.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214681	DFPR600R3WB40M	60.00	61.00	1.78	214.00	180.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214683	DFPR610R3WB40M	61.00	62.00	1.86	217.00	183.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214684	DFPR620R3WB40M	62.00	63.00	1.94	220.00	186.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214685	DFPR630R3WB40M	63.00	64.00	2.02	224.00	189.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214686	DFPR640R3WB40M	64.00	65.00	2.10	227.00	192.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214687	DFPR650R3WB40M	65.00	66.00	2.19	230.00	195.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I

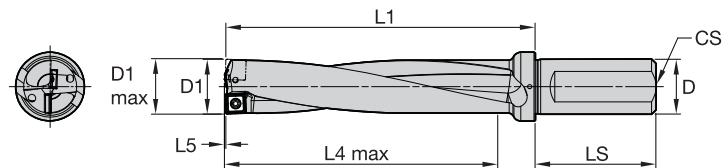


Drill Fix PRO

Cuerpo de broca • 4xD • Mango WB

Más pequeño Mango Diámetro

Número de pedido	Número de catálogo	D1	D1 Max	L5	L1	L4 Max	LS	D	CS	Plaquita 1 exterior	Plaquita 2 interior
7214603	DFPR265R4WB32M	26.50	27.50	0.78	130.00	106.00	60.00	32.00	1/4-18 NPT	DFPR090305_0	DFPR100305_I
7214529	DFPR450R4WB40M	45.00	46.00	1.50	206.00	180.00	70.00	40.00	1/4-18 NPT	DFPR140408_0	DFPR140406_I
7214536	DFPR460R4WB40M	46.00	47.00	1.20	189.00	184.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214538	DFPR470R4WB40M	47.00	48.00	1.28	193.00	188.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214539	DFPR480R4WB40M	48.00	49.00	1.36	221.00	192.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214540	DFPR490R4WB40M	49.00	50.00	1.44	224.00	196.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214611	DFPR500R4WB40M	50.00	51.00	1.52	228.00	200.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214612	DFPR510R4WB40M	51.00	52.00	1.60	234.00	204.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214613	DFPR520R4WB40M	52.00	53.00	1.69	238.00	208.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214614	DFPR530R4WB40M	53.00	54.00	1.77	242.00	212.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214615	DFPR540R4WB40M	54.00	55.00	1.85	246.00	216.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214597	DFPR550R4WB40M	55.00	56.00	1.37	252.00	220.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214598	DFPR560R4WB40M	56.00	57.00	1.45	256.00	224.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214599	DFPR570R4WB40M	57.00	58.00	1.53	260.00	228.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214600	DFPR580R4WB40M	58.00	59.00	1.61	264.00	232.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214701	DFPR590R4WB40M	59.00	60.00	1.70	270.00	236.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214702	DFPR600R4WB40M	60.00	61.00	1.78	274.00	240.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214703	DFPR610R4WB40M	61.00	62.00	1.86	278.00	244.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214704	DFPR620R4WB40M	62.00	63.00	1.94	282.00	248.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214705	DFPR630R4WB40M	63.00	64.00	2.02	287.00	252.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214706	DFPR640R4WB40M	64.00	65.00	2.10	291.00	256.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214707	DFPR650R4WB40M	65.00	66.00	2.19	295.00	260.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I



Drill Fix PRO

Cuerpo de broca • 5xD • Mango WB

Más pequeño Mango Diámetro

Número de pedido	Número de catálogo	D1	D1 Max	L5	L1	L4 Max	LS	D	CS	Plaquita 1 exterior	Plaquita 2 interior
7214604	DFPR265R5WB32M	26.50	27.50	0.78	156.50	132.50	60.00	32.00	1/4-18 NPT	DFPR090305_0	DFPR100305_I
7214530	DFPR450R5WB40M	45.00	46.00	1.50	251.00	225.00	70.00	40.00	1/4-18 NPT	DFPR140408_0	DFPR140406_I
7214616	DFPR460R5WB40M	46.00	47.00	1.20	258.00	230.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214617	DFPR470R5WB40M	47.00	48.00	1.28	263.00	235.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214618	DFPR480R5WB40M	48.00	49.00	1.36	269.00	240.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214619	DFPR490R5WB40M	49.00	50.00	1.44	273.00	245.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214620	DFPR500R5WB40M	50.00	51.00	1.52	278.00	250.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214621	DFPR510R5WB40M	51.00	52.00	1.60	285.00	255.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214622	DFPR520R5WB40M	52.00	53.00	1.69	290.00	260.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214623	DFPR530R5WB40M	53.00	54.00	1.77	295.00	265.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214624	DFPR540R5WB40M	54.00	55.00	1.85	300.00	270.00	70.00	40.00	1/4-18 NPT	DFPR150508_0	DFPR170508_I
7214708	DFPR550R5WB40M	55.00	56.00	1.37	307.00	275.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214709	DFPR560R5WB40M	56.00	57.00	1.45	312.00	280.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214710	DFPR570R5WB40M	57.00	58.00	1.53	317.00	285.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214711	DFPR580R5WB40M	58.00	59.00	1.61	322.00	290.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214712	DFPR590R5WB40M	59.00	60.00	1.70	329.00	295.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214713	DFPR600R5WB40M	60.00	61.00	1.78	334.00	300.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214714	DFPR610R5WB40M	61.00	62.00	1.86	339.00	305.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214715	DFPR620R5WB40M	62.00	63.00	1.94	344.00	310.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214716	DFPR630R5WB40M	63.00	64.00	2.02	350.00	315.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214717	DFPR640R5WB40M	64.00	65.00	2.10	355.00	320.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I
7214718	DFPR650R5WB40M	65.00	66.00	2.19	360.00	325.00	70.00	40.00	1/4-18 NPT	DFPR180610_0	DFPR200608_I

Drill Fix PRO DATOS DE APLICACIÓN - VELOCIDAD VC EN M/MÍN Y AVANCE FZ EN MM/REV

MG = Grupo de materiales CC = Condición de corte S = Estable U = Inestable I = Interrumpido IP = Posición de plaquita O = Exterior I = Interno GEO = Geometría de plaquita

MG	CC	IP	GEO	Calidad	Mín	Máx	Ø 12-13,99mm		Ø 14-16,49mm		Ø 16,5-19,99mm	
							Mín	Máx	Mín	Máx	Mín	Máx
P0												
	S	O	LC	KCMS35	310	360	0,05	0,10	0,05	0,12	0,05	0,13
	S	I	LC	KCMS40	310	360	0,05	0,10	0,05	0,12	0,05	0,13
	U	O	LC	KCMS35	200	240	0,04	0,07	0,04	0,08	0,04	0,09
	U	I	LC	KCMS40	200	240	0,04	0,07	0,04	0,08	0,04	0,09
	I	O	LC	KCMS35	125	145	0,04	0,06	0,04	0,07	0,04	0,08
	I	I	LC	KCMS40	125	145	0,04	0,06	0,04	0,07	0,04	0,08
P1												
	S	O	PK	KCPK10	310	360	0,06	0,16	0,07	0,18	0,07	0,20
	S	I	PK	KC7140	310	360	0,06	0,16	0,07	0,18	0,07	0,20
	U	O	PK	KCU25	200	240	0,05	0,11	0,06	0,13	0,06	0,14
	U	I	PK	KC7140	200	240	0,05	0,11	0,06	0,13	0,06	0,14
	I	O	PK	KCU40	125	145	0,05	0,10	0,06	0,11	0,06	0,12
	I	I	PK	KC7140	125	145	0,05	0,10	0,06	0,11	0,06	0,12
P2												
	S	O	PK	KCPK10	310	360	0,06	0,16	0,07	0,18	0,07	0,20
	S	I	PK	KC7140	310	360	0,06	0,16	0,07	0,18	0,07	0,20
	U	O	PK	KCU25	200	240	0,05	0,11	0,06	0,13	0,06	0,14
	U	I	PK	KC7140	200	240	0,05	0,11	0,06	0,13	0,06	0,14
	I	O	PK	KCU40	125	145	0,05	0,10	0,06	0,11	0,06	0,12
	I	I	PK	KC7140	125	145	0,05	0,10	0,06	0,11	0,06	0,12
P3												
	S	O	PK	KCPK10	260	320	0,06	0,16	0,07	0,18	0,07	0,20
	S	I	PK	KC7140	260	320	0,06	0,16	0,07	0,18	0,07	0,20
	U	O	PK	KCU25	170	210	0,05	0,11	0,06	0,13	0,06	0,14
	U	I	PK	KC7140	170	210	0,05	0,11	0,06	0,13	0,06	0,14
	I	O	PK	KCU40	105	135	0,05	0,10	0,06	0,11	0,06	0,12
	I	I	PK	KC7140	105	135	0,05	0,10	0,06	0,11	0,06	0,12
P4												
	S	O	PK	KCPK10	220	300	0,06	0,16	0,07	0,18	0,07	0,20
	S	I	PK	KC7140	220	300	0,06	0,16	0,07	0,18	0,07	0,20
	U	O	PK	KCU25	145	195	0,05	0,11	0,06	0,13	0,06	0,14
	U	I	PK	KC7140	145	195	0,05	0,11	0,06	0,13	0,06	0,14
	I	O	PK	KCU40	90	120	0,05	0,10	0,06	0,11	0,06	0,12
	I	I	PK	KC7140	90	120	0,05	0,10	0,06	0,11	0,06	0,12
P5												
	S	O	PK	KCU25	180	220	0,06	0,16	0,07	0,18	0,07	0,20
	S	I	PK	KC7140	180	220	0,06	0,16	0,07	0,18	0,07	0,20
	U	O	PK	KCU40	115	145	0,05	0,11	0,06	0,13	0,06	0,14
	U	I	PK	KC7140	115	145	0,05	0,11	0,06	0,13	0,06	0,14
	I	O	PK	KC7140	70	90	0,05	0,10	0,06	0,11	0,06	0,12
	I	I	PK	KC7140	70	90	0,05	0,10	0,06	0,11	0,06	0,12
P6												
	S	O	PK	KCU25	180	220	0,06	0,16	0,07	0,18	0,07	0,20
	S	I	PK	KC7140	180	220	0,06	0,16	0,07	0,18	0,07	0,20
	U	O	PK	KCU40	115	145	0,05	0,11	0,06	0,13	0,06	0,14
	U	I	PK	KC7140	115	145	0,05	0,11	0,06	0,13	0,06	0,14
	I	O	PK	KC7140	70	90	0,05	0,10	0,06	0,11	0,06	0,12
	I	I	PK	KC7140	70	90	0,05	0,10	0,06	0,11	0,06	0,12

MG = Grupo de materiales CC = Condición de corte S = Estable U = Inestable I = Interrumpido IP = Posición de plaquita O = Exterior I = Interno GEO = Geometría de plaquita

MG	CC	IP	GEO	Calidad	Min	Máx	Ø 20–24,49mm		Ø 25–30,49mm		Ø 30,5–37,49mm	
							Min	Máx	Min	Máx	Min	Máx
P0												
	S	O	LC	KCMS35	310	360	0,05	0,14	0,06	0,16	0,07	0,18
	S	I	LC	KCMS40	310	360	0,05	0,14	0,06	0,16	0,07	0,18
	U	O	LC	KCMS35	200	240	0,04	0,10	0,05	0,11	0,06	0,13
	U	I	LC	KCMS40	200	240	0,04	0,10	0,05	0,11	0,06	0,13
	I	O	LC	KCMS35	125	145	0,04	0,08	0,05	0,10	0,06	0,11
	I	I	LC	KCMS40	125	145	0,04	0,08	0,05	0,10	0,06	0,11
P1												
	S	O	PK	KCPK10	310	360	0,08	0,22	0,08	0,25	0,09	0,28
	S	I	PK	KC7140	310	360	0,08	0,22	0,08	0,25	0,09	0,28
	U	O	PK	KCU25	200	240	0,06	0,15	0,06	0,18	0,07	0,20
	U	I	PK	KC7140	200	240	0,06	0,15	0,06	0,18	0,07	0,20
	I	O	PK	KCU40	125	145	0,06	0,13	0,06	0,15	0,07	0,17
	I	I	PK	KC7140	125	145	0,06	0,13	0,06	0,15	0,07	0,17
P2												
	S	O	PK	KCPK10	310	360	0,08	0,22	0,08	0,25	0,09	0,28
	S	I	PK	KC7140	310	360	0,08	0,22	0,08	0,25	0,09	0,28
	U	O	PK	KCU25	200	240	0,06	0,15	0,06	0,18	0,07	0,20
	U	I	PK	KC7140	200	240	0,06	0,15	0,06	0,18	0,07	0,20
	I	O	PK	KCU40	125	145	0,06	0,13	0,06	0,15	0,07	0,17
	I	I	PK	KC7140	125	145	0,06	0,13	0,06	0,15	0,07	0,17
P3												
	S	O	PK	KCPK10	260	320	0,08	0,22	0,08	0,25	0,09	0,28
	S	I	PK	KC7140	260	320	0,08	0,22	0,08	0,25	0,09	0,28
	U	O	PK	KCU25	170	210	0,06	0,15	0,06	0,18	0,07	0,20
	U	I	PK	KC7140	170	210	0,06	0,15	0,06	0,18	0,07	0,20
	I	O	PK	KCU40	105	135	0,06	0,13	0,06	0,15	0,07	0,17
	I	I	PK	KC7140	105	135	0,06	0,13	0,06	0,15	0,07	0,17
P4												
	S	O	PK	KCPK10	220	300	0,08	0,22	0,08	0,25	0,09	0,28
	S	I	PK	KC7140	220	300	0,08	0,22	0,08	0,25	0,09	0,28
	U	O	PK	KCU25	145	195	0,06	0,15	0,06	0,18	0,07	0,20
	U	I	PK	KC7140	145	195	0,06	0,15	0,06	0,18	0,07	0,20
	I	O	PK	KCU40	90	120	0,06	0,13	0,06	0,15	0,07	0,17
	I	I	PK	KC7140	90	120	0,06	0,13	0,06	0,15	0,07	0,17
P5												
	S	O	PK	KCU25	180	220	0,08	0,22	0,08	0,25	0,09	0,28
	S	I	PK	KC7140	180	220	0,08	0,22	0,08	0,25	0,09	0,28
	U	O	PK	KCU40	115	145	0,06	0,15	0,06	0,18	0,07	0,20
	U	I	PK	KC7140	115	145	0,06	0,15	0,06	0,18	0,07	0,20
	I	O	PK	KC7140	70	90	0,06	0,13	0,06	0,15	0,07	0,17
	I	I	PK	KC7140	70	90	0,06	0,13	0,06	0,15	0,07	0,17
P6												
	S	O	PK	KCU25	180	220	0,08	0,22	0,08	0,25	0,09	0,28
	S	I	PK	KC7140	180	220	0,08	0,22	0,08	0,25	0,09	0,28
	U	O	PK	KCU40	115	145	0,06	0,15	0,06	0,18	0,07	0,20
	U	I	PK	KC7140	115	145	0,06	0,15	0,06	0,18	0,07	0,20
	I	O	PK	KC7140	70	90	0,06	0,13	0,06	0,15	0,07	0,17
	I	I	PK	KC7140	70	90	0,06	0,13	0,06	0,15	0,07	0,17

MG = Grupo de materiales CC = Condición de corte S = Estable U = Inestable I = Interrumpido IP = Posición de plaquita O = Exterior I = Interno GEO = Geometría de plaquita

MG	CC	IP	GEO	Calidad	Mín	Máx	Ø 37,5–45,49mm		Ø 45,5–54,49mm		Ø 54,5–65mm	
							Mín	Máx	Mín	Máx	Mín	Máx
P0												
	S	0	LC	KCMS35	310	360	0,07	0,20	0,08	0,21	0,08	0,23
	S	1	LC	KCMS40	310	360	0,07	0,20	0,08	0,21	0,08	0,23
	U	0	LC	KCMS35	200	240	0,06	0,14	0,06	0,15	0,06	0,16
	U	1	LC	KCMS40	200	240	0,06	0,14	0,06	0,15	0,06	0,16
	I	0	LC	KCMS35	125	145	0,06	0,12	0,06	0,13	0,06	0,14
	I	1	LC	KCMS40	125	145	0,06	0,12	0,06	0,13	0,06	0,14
P1												
	S	0	PK	KCPK10	310	360	0,10	0,31	0,10	0,33	0,11	0,36
	S	1	PK	KC7140	310	360	0,10	0,31	0,10	0,33	0,11	0,36
	U	0	PK	KCU25	200	240	0,08	0,22	0,08	0,23	0,09	0,25
	U	1	PK	KC7140	200	240	0,08	0,22	0,08	0,23	0,09	0,25
	I	0	PK	KCU40	125	145	0,08	0,19	0,08	0,20	0,09	0,22
	I	1	PK	KC7140	125	145	0,08	0,19	0,08	0,20	0,09	0,22
P2												
	S	0	PK	KCPK10	310	360	0,10	0,31	0,10	0,33	0,11	0,36
	S	1	PK	KC7140	310	360	0,10	0,31	0,10	0,33	0,11	0,36
	U	0	PK	KCU25	200	240	0,08	0,22	0,08	0,23	0,09	0,25
	U	1	PK	KC7140	200	240	0,08	0,22	0,08	0,23	0,09	0,25
	I	0	PK	KCU40	125	145	0,08	0,19	0,08	0,20	0,09	0,22
	I	1	PK	KC7140	125	145	0,08	0,19	0,08	0,20	0,09	0,22
P3												
	S	0	PK	KCPK10	260	320	0,10	0,31	0,10	0,33	0,11	0,36
	S	1	PK	KC7140	260	320	0,10	0,31	0,10	0,33	0,11	0,36
	U	0	PK	KCU25	170	210	0,08	0,22	0,08	0,23	0,09	0,25
	U	1	PK	KC7140	170	210	0,08	0,22	0,08	0,23	0,09	0,25
	I	0	PK	KCU40	105	135	0,08	0,19	0,08	0,20	0,09	0,22
	I	1	PK	KC7140	105	135	0,08	0,19	0,08	0,20	0,09	0,22
P4												
	S	0	PK	KCPK10	220	300	0,10	0,31	0,10	0,33	0,11	0,36
	S	1	PK	KC7140	220	300	0,10	0,31	0,10	0,33	0,11	0,36
	U	0	PK	KCU25	145	195	0,08	0,22	0,08	0,23	0,09	0,25
	U	1	PK	KC7140	145	195	0,08	0,22	0,08	0,23	0,09	0,25
	I	0	PK	KCU40	90	120	0,08	0,19	0,08	0,20	0,09	0,22
	I	1	PK	KC7140	90	120	0,08	0,19	0,08	0,20	0,09	0,22
P5												
	S	0	PK	KCU25	180	220	0,10	0,31	0,10	0,33	0,11	0,36
	S	1	PK	KC7140	180	220	0,10	0,31	0,10	0,33	0,11	0,36
	U	0	PK	KCU40	115	145	0,08	0,22	0,08	0,23	0,09	0,25
	U	1	PK	KC7140	115	145	0,08	0,22	0,08	0,23	0,09	0,25
	I	0	PK	KC7140	70	90	0,08	0,19	0,08	0,20	0,09	0,22
	I	1	PK	KC7140	70	90	0,08	0,19	0,08	0,20	0,09	0,22
P6												
	S	0	PK	KCU25	180	220	0,10	0,31	0,10	0,33	0,11	0,36
	S	1	PK	KC7140	180	220	0,10	0,31	0,10	0,33	0,11	0,36
	U	0	PK	KCU40	115	145	0,08	0,22	0,08	0,23	0,09	0,25
	U	1	PK	KC7140	115	145	0,08	0,22	0,08	0,23	0,09	0,25
	I	0	PK	KC7140	70	90	0,08	0,19	0,08	0,20	0,09	0,22
	I	1	PK	KC7140	70	90	0,08	0,19	0,08	0,20	0,09	0,22

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MG	CC	IP	GEO	Calidad	Mín	Máx	Ø 12–13,99mm		Ø 14–16,49mm		Ø 16,5–19,99mm	
							Mín	Máx	Mín	Máx	Mín	Máx
M1												
	S	O	MS	KCMS35	150	230	0,05	0,10	0,05	0,12	0,05	0,14
	S	I	MS	KCMS40	150	230	0,05	0,10	0,05	0,12	0,05	0,14
	U	O	MS	KCMS40	100	150	0,04	0,07	0,04	0,08	0,04	0,10
	U	I	MS	KCMS40	100	150	0,04	0,07	0,04	0,08	0,04	0,10
	I	O	MS	KCMS40	60	90	0,04	0,06	0,04	0,07	0,04	0,08
	I	I	MS	KCMS40	60	90	0,04	0,06	0,04	0,07	0,04	0,08
M2												
	S	O	MS	KCMS35	150	210	0,05	0,10	0,05	0,12	0,05	0,14
	S	I	MS	KCMS40	150	210	0,05	0,10	0,05	0,12	0,05	0,14
	U	O	MS	KCMS40	100	140	0,04	0,07	0,04	0,08	0,04	0,10
	U	I	MS	KCMS40	100	140	0,04	0,07	0,04	0,08	0,04	0,10
	I	O	MS	KCMS40	60	90	0,04	0,06	0,04	0,07	0,04	0,08
	I	I	MS	KCMS40	60	90	0,04	0,06	0,04	0,07	0,04	0,08
M3												
	S	O	MS	KCMS35	100	160	0,04	0,09	0,04	0,10	0,04	0,12
	S	I	MS	KCMS40	100	160	0,04	0,09	0,04	0,10	0,04	0,12
	U	O	MS	KCMS40	65	105	0,03	0,06	0,03	0,07	0,03	0,08
	U	I	MS	KCMS40	65	105	0,03	0,06	0,03	0,07	0,03	0,08
	I	O	MS	KCMS40	40	70	0,03	0,05	0,03	0,06	0,03	0,07
	I	I	MS	KCMS40	40	70	0,03	0,05	0,03	0,06	0,03	0,07

MG	CC	IP	GEO	Calidad	Mín	Máx	Ø 20–24,49mm		Ø 25–30,49mm		Ø 30,5–37,49mm	
							Mín	Máx	Mín	Máx	Mín	Máx
M1												
	S	O	MS	KCMS35	150	230	0,05	0,15	0,06	0,16	0,07	0,18
	S	I	MS	KCMS40	150	230	0,05	0,15	0,06	0,16	0,07	0,18
	U	O	MS	KCMS40	100	150	0,04	0,11	0,05	0,11	0,06	0,13
	U	I	MS	KCMS40	100	150	0,04	0,11	0,05	0,11	0,06	0,13
	I	O	MS	KCMS40	60	90	0,04	0,09	0,05	0,10	0,06	0,11
	I	I	MS	KCMS40	60	90	0,04	0,09	0,05	0,10	0,06	0,11
M2												
	S	O	MS	KCMS35	150	210	0,05	0,15	0,06	0,16	0,07	0,18
	S	I	MS	KCMS40	150	210	0,05	0,15	0,06	0,16	0,07	0,18
	U	O	MS	KCMS40	100	140	0,04	0,11	0,05	0,11	0,06	0,13
	U	I	MS	KCMS40	100	140	0,04	0,11	0,05	0,11	0,06	0,13
	I	O	MS	KCMS40	60	90	0,04	0,09	0,05	0,10	0,06	0,11
	I	I	MS	KCMS40	60	90	0,04	0,09	0,05	0,10	0,06	0,11
M3												
	S	O	MS	KCMS35	100	160	0,04	0,13	0,05	0,14	0,06	0,15
	S	I	MS	KCMS40	100	160	0,04	0,13	0,05	0,14	0,06	0,15
	U	O	MS	KCMS40	65	105	0,03	0,09	0,04	0,10	0,05	0,11
	U	I	MS	KCMS40	65	105	0,03	0,09	0,04	0,10	0,05	0,11
	I	O	MS	KCMS40	40	70	0,03	0,08	0,04	0,08	0,05	0,09
	I	I	MS	KCMS40	40	70	0,03	0,08	0,04	0,08	0,05	0,09

MG	CC	IP	GEO	Calidad	Mín	Máx	Ø 37,5–45,49mm		Ø 45,5–54,49mm		Ø 54,5–65mm	
							Mín	Máx	Mín	Máx	Mín	Máx
M1												
	S	O	MS	KCMS35	150	230	0,07	0,20	0,08	0,22	0,08	0,24
	S	I	MS	KCMS40	150	230	0,07	0,20	0,08	0,22	0,08	0,24
	U	O	MS	KCMS40	100	150	0,06	0,14	0,06	0,15	0,06	0,17
	U	I	MS	KCMS40	100	150	0,06	0,14	0,06	0,15	0,06	0,17
	I	O	MS	KCMS40	60	90	0,06	0,12	0,06	0,13	0,06	0,14
	I	I	MS	KCMS40	60	90	0,06	0,12	0,06	0,13	0,06	0,14
M2												
	S	O	MS	KCMS35	150	210	0,07	0,20	0,08	0,22	0,08	0,24
	S	I	MS	KCMS40	150	210	0,07	0,20	0,08	0,22	0,08	0,24
	U	O	MS	KCMS40	100	140	0,06	0,14	0,06	0,15	0,06	0,17
	U	I	MS	KCMS40	100	140	0,06	0,14	0,06	0,15	0,06	0,17
	I	O	MS	KCMS40	60	90	0,06	0,12	0,06	0,13	0,06	0,14
	I	I	MS	KCMS40	60	90	0,06	0,12	0,06	0,13	0,06	0,14
M3												
	S	O	MS	KCMS35	100	160	0,06	0,17	0,07	0,19	0,07	0,20
	S	I	MS	KCMS40	100	160	0,06	0,17	0,07	0,19	0,07	0,20
	U	O	MS	KCMS40	65	105	0,05	0,12	0,05	0,13	0,05	0,14
	U	I	MS	KCMS40	65	105	0,05	0,12	0,05	0,13	0,05	0,14
	I	O	MS	KCMS40	40	70	0,05	0,10	0,05	0,11	0,05	0,12
	I	I	MS	KCMS40	40	70	0,05	0,10	0,05	0,11	0,05	0,12

MG = Grupo de materiales CC = Condición de corte S = Estable U = Inestable I = Interrumpido IP = Posición de plaquita O = Exterior I = Interno GEO = Geometría de plaquita

MG	CC	IP	GEO	Calidad	Mín	Máx	Ø 12-13,99mm		Ø 14-16,49mm		Ø 16,5-19,99mm	
							Mín	Máx	Mín	Máx	Mín	Máx
K1												
	S	O	PK	KCPK10	200	300	0,07	0,18	0,08	0,20	0,08	0,22
	S	I	PK	KC7140	200	300	0,07	0,18	0,08	0,20	0,08	0,22
	U	O	PK	KCU25	130	200	0,05	0,12	0,06	0,14	0,06	0,15
	U	I	PK	KC7140	130	200	0,05	0,12	0,06	0,14	0,06	0,15
	I	O	PK	KCU40	80	120	0,05	0,11	0,06	0,12	0,06	0,13
	I	I	PK	KC7140	80	120	0,05	0,11	0,06	0,12	0,06	0,13
K2												
	S	O	PK	KCPK10	180	260	0,07	0,18	0,08	0,20	0,08	0,22
	S	I	PK	KC7140	180	260	0,07	0,18	0,08	0,20	0,08	0,22
	U	O	PK	KCU25	120	170	0,05	0,12	0,06	0,14	0,06	0,15
	U	I	PK	KC7140	120	170	0,05	0,12	0,06	0,14	0,06	0,15
	I	O	PK	KCU40	70	110	0,05	0,11	0,06	0,12	0,06	0,13
	I	I	PK	KC7140	70	110	0,05	0,11	0,06	0,12	0,06	0,13
K3												
	S	O	PK	KCPK10	180	260	0,07	0,18	0,08	0,20	0,08	0,22
	S	I	PK	KC7140	180	260	0,07	0,18	0,08	0,20	0,08	0,22
	U	O	PK	KCU25	120	170	0,05	0,12	0,06	0,14	0,06	0,15
	U	I	PK	KC7140	120	170	0,05	0,12	0,06	0,14	0,06	0,15
	I	O	PK	KCU40	70	110	0,05	0,11	0,06	0,12	0,06	0,13
	I	I	PK	KC7140	70	110	0,05	0,11	0,06	0,12	0,06	0,13

MG	CC	IP	GEO	Calidad	Mín	Máx	Ø 20-24,49mm		Ø 25-30,49mm		Ø 30,5-37,49mm	
							Mín	Máx	Mín	Máx	Mín	Máx
K1												
	S	O	PK	KCPK10	200	300	0,09	0,24	0,09	0,28	0,10	0,31
	S	I	PK	KC7140	200	300	0,09	0,24	0,09	0,28	0,10	0,31
	U	O	PK	KCU25	130	200	0,07	0,17	0,07	0,19	0,08	0,22
	U	I	PK	KC7140	130	200	0,07	0,17	0,07	0,19	0,08	0,22
	I	O	PK	KCU40	80	120	0,07	0,15	0,07	0,17	0,08	0,18
	I	I	PK	KC7140	80	120	0,07	0,15	0,07	0,17	0,08	0,18
K2												
	S	O	PK	KCPK10	180	260	0,09	0,24	0,09	0,28	0,10	0,31
	S	I	PK	KC7140	180	260	0,09	0,24	0,09	0,28	0,10	0,31
	U	O	PK	KCU25	120	170	0,07	0,17	0,07	0,19	0,08	0,22
	U	I	PK	KC7140	120	170	0,07	0,17	0,07	0,19	0,08	0,22
	I	O	PK	KCU40	70	110	0,07	0,15	0,07	0,17	0,08	0,18
	I	I	PK	KC7140	70	110	0,07	0,15	0,07	0,17	0,08	0,18
K3												
	S	O	PK	KCPK10	180	260	0,09	0,24	0,09	0,28	0,10	0,31
	S	I	PK	KC7140	180	260	0,09	0,24	0,09	0,28	0,10	0,31
	U	O	PK	KCU25	120	170	0,07	0,17	0,07	0,19	0,08	0,22
	U	I	PK	KC7140	120	170	0,07	0,17	0,07	0,19	0,08	0,22
	I	O	PK	KCU40	70	110	0,07	0,15	0,07	0,17	0,08	0,18
	I	I	PK	KC7140	70	110	0,07	0,15	0,07	0,17	0,08	0,18

MG	CC	IP	GEO	Calidad	Mín	Máx	Ø 37,5-45,49mm		Ø 45,5-54,49mm		Ø 54,5-65mm	
							Mín	Máx	Mín	Máx	Mín	Máx
K1												
	S	O	PK	KCPK10	200	300	0,11	0,34	0,11	0,36	0,12	0,40
	S	I	PK	KC7140	200	300	0,11	0,34	0,11	0,36	0,12	0,40
	U	O	PK	KCU25	130	200	0,09	0,24	0,09	0,25	0,10	0,28
	U	I	PK	KC7140	130	200	0,09	0,24	0,09	0,25	0,10	0,28
	I	O	PK	KCU40	80	120	0,09	0,20	0,09	0,22	0,10	0,24
	I	I	PK	KC7140	80	120	0,09	0,20	0,09	0,22	0,10	0,24
K2												
	S	O	PK	KCPK10	180	260	0,11	0,34	0,11	0,36	0,12	0,40
	S	I	PK	KC7140	180	260	0,11	0,34	0,11	0,36	0,12	0,40
	U	O	PK	KCU25	120	170	0,09	0,24	0,09	0,25	0,10	0,28
	U	I	PK	KC7140	120	170	0,09	0,24	0,09	0,25	0,10	0,28
	I	O	PK	KCU40	70	110	0,09	0,20	0,09	0,22	0,10	0,24
	I	I	PK	KC7140	70	110	0,09	0,20	0,09	0,22	0,10	0,24
K3												
	S	O	PK	KCPK10	180	260	0,11	0,34	0,11	0,36	0,12	0,40
	S	I	PK	KC7140	180	260	0,11	0,34	0,11	0,36	0,12	0,40
	U	O	PK	KCU25	120	170	0,09	0,24	0,09	0,25	0,10	0,28
	U	I	PK	KC7140	120	170	0,09	0,24	0,09	0,25	0,10	0,28
	I	O	PK	KCU40	70	110	0,09	0,20	0,09	0,22	0,10	0,24
	I	I	PK	KC7140	70	110	0,09	0,20	0,09	0,22	0,10	0,24

MG = Grupo de materiales CC = Condición de corte S = Estable U = Inestable I = Interrumpido IP = Posición de plaquita O = Exterior I = Interno GEO = Geometría de plaquita

MG	CC	IP	GEO	Calidad	Min	Máx	Ø 37,5-45,49mm		Ø 45,5-54,49mm		Ø 54,5-65mm	
							Min	Máx	Min	Máx	Min	Máx
N1												
	S	O	MS	KCMS35	350	650	0,10	0,31	0,10	0,33	0,11	0,36
	S	I	MS	KCMS40	350	650	0,10	0,31	0,10	0,33	0,11	0,36
	U	O	MS	KCMS35	300	550	0,08	0,22	0,08	0,23	0,09	0,25
	U	I	MS	KCMS40	300	550	0,08	0,22	0,08	0,23	0,09	0,25
	I	O	MS	KCMS40	210	390	0,08	0,19	0,08	0,20	0,09	0,22
	I	I	MS	KCMS40	210	390	0,08	0,19	0,08	0,20	0,09	0,22
N2												
	S	O	MS	KCMS35	300	500	0,10	0,31	0,10	0,33	0,11	0,36
	S	I	MS	KCMS40	300	500	0,10	0,31	0,10	0,33	0,11	0,36
	U	O	MS	KCMS35	250	420	0,08	0,22	0,08	0,23	0,09	0,25
	U	I	MS	KCMS40	250	420	0,08	0,22	0,08	0,23	0,09	0,25
	I	O	MS	KCMS40	180	300	0,08	0,19	0,08	0,20	0,09	0,22
	I	I	MS	KCMS40	180	300	0,08	0,19	0,08	0,20	0,09	0,22
N3												
	S	O	MS	KCMS35	300	500	0,10	0,31	0,10	0,33	0,11	0,36
	S	I	MS	KCMS40	300	500	0,10	0,31	0,10	0,33	0,11	0,36
	U	O	MS	KCMS35	250	420	0,08	0,22	0,08	0,23	0,09	0,25
	U	I	MS	KCMS40	250	420	0,08	0,22	0,08	0,23	0,09	0,25
	I	O	MS	KCMS40	180	300	0,08	0,19	0,08	0,20	0,09	0,22
	I	I	MS	KCMS40	180	300	0,08	0,19	0,08	0,20	0,09	0,22
N4												
	S	O	MS	KCMS35	300	500	0,10	0,31	0,10	0,33	0,11	0,36
	S	I	MS	KCMS40	300	500	0,10	0,31	0,10	0,33	0,11	0,36
	U	O	MS	KCMS35	250	420	0,08	0,22	0,08	0,23	0,09	0,25
	U	I	MS	KCMS40	250	420	0,08	0,22	0,08	0,23	0,09	0,25
	I	O	MS	KCMS40	180	300	0,08	0,19	0,08	0,20	0,09	0,22
	I	I	MS	KCMS40	180	300	0,08	0,19	0,08	0,20	0,09	0,22
N5												
	S	O	MS	KCMS35	300	500	0,10	0,31	0,10	0,33	0,11	0,36
	S	I	MS	KCMS40	300	500	0,10	0,31	0,10	0,33	0,11	0,36
	U	O	MS	KCMS35	250	420	0,08	0,22	0,08	0,23	0,09	0,25
	U	I	MS	KCMS40	250	420	0,08	0,22	0,08	0,23	0,09	0,25
	I	O	MS	KCMS40	180	300	0,08	0,19	0,08	0,20	0,09	0,22
	I	I	MS	KCMS40	180	300	0,08	0,19	0,08	0,20	0,09	0,22
N6												
	S	O	MS	KCMS35	400	500	0,10	0,31	0,10	0,33	0,11	0,36
	S	I	MS	KCMS40	400	500	0,10	0,31	0,10	0,33	0,11	0,36
	U	O	MS	KCMS35	340	420	0,08	0,22	0,08	0,23	0,09	0,25
	U	I	MS	KCMS40	340	420	0,08	0,22	0,08	0,23	0,09	0,25
	I	O	MS	KCMS40	240	300	0,08	0,19	0,08	0,20	0,09	0,22
	I	I	MS	KCMS40	240	300	0,08	0,19	0,08	0,20	0,09	0,22

MG = Grupo de materiales **CC** = Condición de corte **S** = Estable **U** = Inestable **I** = Interrumpido **IP** = Posición de plaquita **O** = Exterior **I** = Interno **GEO** = Geometría de plaquita

MG	CC	IP	GEO	Calidad	Mín	Máx	Ø 12–13,99mm		Ø 14–16,49mm		Ø 16,5–19,99mm	
							Mín	Máx	Mín	Máx	Mín	Máx
S1												
	S	O	MS	KCMS35	60	80	0,05	0,08	0,05	0,10	0,05	0,11
	S	I	MS	KCMS40	60	80	0,05	0,08	0,05	0,10	0,05	0,11
	U	O	MS	KCMS40	40	50	0,04	0,06	0,04	0,07	0,04	0,08
	U	I	MS	KCMS40	40	50	0,04	0,06	0,04	0,07	0,04	0,08
	I	O	MS	KCMS40	25	40	0,04	0,05	0,04	0,06	0,04	0,07
	I	I	MS	KCMS40	25	40	0,04	0,05	0,04	0,06	0,04	0,07
S2												
	S	O	MS	KCMS35	50	70	0,05	0,08	0,05	0,10	0,05	0,11
	S	I	MS	KCMS40	50	70	0,05	0,08	0,05	0,10	0,05	0,11
	U	O	MS	KCMS40	30	50	0,04	0,06	0,04	0,07	0,04	0,08
	U	I	MS	KCMS40	30	50	0,04	0,06	0,04	0,07	0,04	0,08
	I	O	MS	KCMS40	25	40	0,04	0,05	0,04	0,06	0,04	0,07
	I	I	MS	KCMS40	25	40	0,04	0,05	0,04	0,06	0,04	0,07
S3												
	S	O	MS	KCMS35	70	90	0,05	0,08	0,05	0,10	0,05	0,11
	S	I	MS	KCMS40	70	90	0,05	0,08	0,05	0,10	0,05	0,11
	U	O	MS	KCMS40	50	70	0,04	0,06	0,04	0,07	0,04	0,08
	U	I	MS	KCMS40	50	70	0,04	0,06	0,04	0,07	0,04	0,08
	I	O	MS	KCMS40	30	40	0,04	0,05	0,04	0,06	0,04	0,07
	I	I	MS	KCMS40	30	40	0,04	0,05	0,04	0,06	0,04	0,07
S4												
	S	O	MS	KCMS35	70	90	0,05	0,08	0,05	0,10	0,05	0,11
	S	I	MS	KCMS40	70	90	0,05	0,08	0,05	0,10	0,05	0,11
	U	O	MS	KCMS40	45	65	0,04	0,06	0,04	0,07	0,04	0,08
	U	I	MS	KCMS40	45	65	0,04	0,06	0,04	0,07	0,04	0,08
	I	O	MS	KCMS40	30	50	0,04	0,05	0,04	0,06	0,04	0,07
	I	I	MS	KCMS40	30	50	0,04	0,05	0,04	0,06	0,04	0,07

MG = Grupo de materiales **CC** = Condición de corte **S** = Estable **U** = Inestable **I** = Interrumpido **IP** = Posición de plaquita **O** = Exterior **I** = Interno **GEO** = Geometría de plaquita

MG	CC	IP	GEO	Calidad	Mín	Máx	Ø 20–24,49mm		Ø 25–30,49mm		Ø 30,5–37,49mm	
							Mín	Máx	Mín	Máx	Mín	Máx
S1												
	S	O	MS	KCMS35	60	80	0,05	0,12	0,06	0,13	0,07	0,14
	S	I	MS	KCMS40	60	80	0,05	0,12	0,06	0,13	0,07	0,14
	U	O	MS	KCMS40	40	50	0,04	0,08	0,05	0,09	0,06	0,10
	U	I	MS	KCMS40	40	50	0,04	0,08	0,05	0,09	0,06	0,10
	I	O	MS	KCMS40	25	40	0,04	0,07	0,05	0,08	0,06	0,09
	I	I	MS	KCMS40	25	40	0,04	0,07	0,05	0,08	0,06	0,09
S2												
	S	O	MS	KCMS35	50	70	0,05	0,12	0,06	0,13	0,07	0,14
	S	I	MS	KCMS40	50	70	0,05	0,12	0,06	0,13	0,07	0,14
	U	O	MS	KCMS40	30	50	0,04	0,08	0,05	0,09	0,06	0,10
	U	I	MS	KCMS40	30	50	0,04	0,08	0,05	0,09	0,06	0,10
	I	O	MS	KCMS40	25	40	0,04	0,07	0,05	0,08	0,06	0,09
	I	I	MS	KCMS40	25	40	0,04	0,07	0,05	0,08	0,06	0,09
S3												
	S	O	MS	KCMS35	70	90	0,05	0,12	0,06	0,13	0,07	0,14
	S	I	MS	KCMS40	70	90	0,05	0,12	0,06	0,13	0,07	0,14
	U	O	MS	KCMS40	50	70	0,04	0,08	0,05	0,09	0,06	0,10
	U	I	MS	KCMS40	50	70	0,04	0,08	0,05	0,09	0,06	0,10
	I	O	MS	KCMS40	30	40	0,04	0,07	0,05	0,08	0,06	0,09
	I	I	MS	KCMS40	30	40	0,04	0,07	0,05	0,08	0,06	0,09
S4												
	S	O	MS	KCMS35	70	90	0,05	0,12	0,06	0,13	0,07	0,14
	S	I	MS	KCMS40	70	90	0,05	0,12	0,06	0,13	0,07	0,14
	U	O	MS	KCMS40	45	65	0,04	0,08	0,05	0,09	0,06	0,10
	U	I	MS	KCMS40	45	65	0,04	0,08	0,05	0,09	0,06	0,10
	I	O	MS	KCMS40	30	50	0,04	0,07	0,05	0,08	0,06	0,09
	I	I	MS	KCMS40	30	50	0,04	0,07	0,05	0,08	0,06	0,09

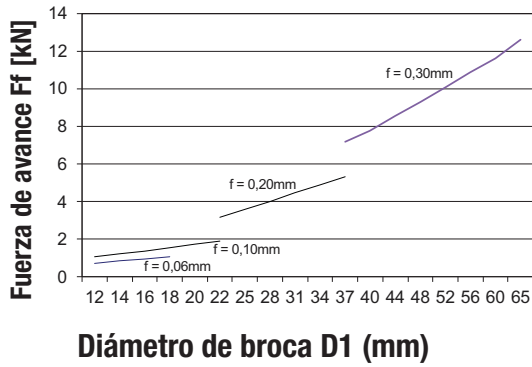
MG = Grupo de materiales CC = Condición de corte S = Estable U = Inestable I = Interrumpido IP = Posición de plaquita O = Exterior I = Interno GEO = Geometría de plaquita

MG	CC	IP	GEO	Calidad	Min	Máx	Ø 37,5–45,49mm		Ø 45,5–54,49mm		Ø 54,5–65mm	
							Min	Máx	Min	Máx	Min	Máx
S1												
	S	O	MS	KCMS35	60	80	0,07	0,16	0,08	0,18	0,08	0,19
	S	I	MS	KCMS40	60	80	0,07	0,16	0,08	0,18	0,08	0,19
	U	O	MS	KCMS40	40	50	0,06	0,11	0,06	0,12	0,06	0,13
	U	I	MS	KCMS40	40	50	0,06	0,11	0,06	0,12	0,06	0,13
	I	O	MS	KCMS40	25	40	0,06	0,10	0,06	0,11	0,06	0,12
	I	I	MS	KCMS40	25	40	0,06	0,10	0,06	0,11	0,06	0,12
S2												
	S	O	MS	KCMS35	50	70	0,07	0,16	0,08	0,18	0,08	0,19
	S	I	MS	KCMS40	50	70	0,07	0,16	0,08	0,18	0,08	0,19
	U	O	MS	KCMS40	30	50	0,06	0,11	0,06	0,12	0,06	0,13
	U	I	MS	KCMS40	30	50	0,06	0,11	0,06	0,12	0,06	0,13
	I	O	MS	KCMS40	25	40	0,06	0,10	0,06	0,11	0,06	0,12
	I	I	MS	KCMS40	25	40	0,06	0,10	0,06	0,11	0,06	0,12
S3												
	S	O	MS	KCMS35	70	90	0,07	0,16	0,08	0,18	0,08	0,19
	S	I	MS	KCMS40	70	90	0,07	0,16	0,08	0,18	0,08	0,19
	U	O	MS	KCMS40	50	70	0,06	0,11	0,06	0,12	0,06	0,13
	U	I	MS	KCMS40	50	70	0,06	0,11	0,06	0,12	0,06	0,13
	I	O	MS	KCMS40	30	40	0,06	0,10	0,06	0,11	0,06	0,12
	I	I	MS	KCMS40	30	40	0,06	0,10	0,06	0,11	0,06	0,12
S4												
	S	O	MS	KCMS35	70	90	0,07	0,16	0,08	0,18	0,08	0,19
	S	I	MS	KCMS40	70	90	0,07	0,16	0,08	0,18	0,08	0,19
	U	O	MS	KCMS40	45	65	0,06	0,11	0,06	0,12	0,06	0,13
	U	I	MS	KCMS40	45	65	0,06	0,11	0,06	0,12	0,06	0,13
	I	O	MS	KCMS40	30	50	0,06	0,10	0,06	0,11	0,06	0,12
	I	I	MS	KCMS40	30	50	0,06	0,10	0,06	0,11	0,06	0,12

REQUISITO DE FUERZA DE AVANCE

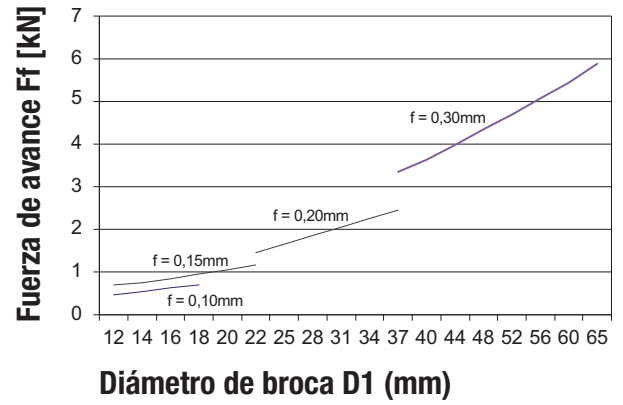
P

Acero 42CrMo4



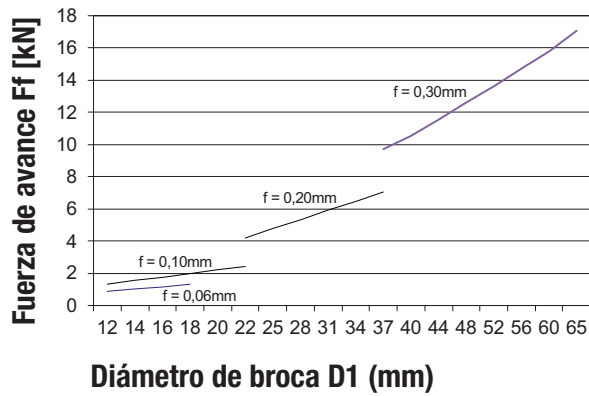
N

Material no ferroso 1,3535 AlMg3



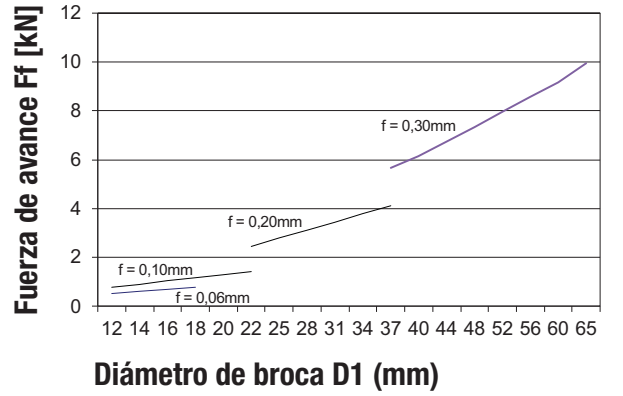
M

Acero inoxidable 1.4301 (304H)



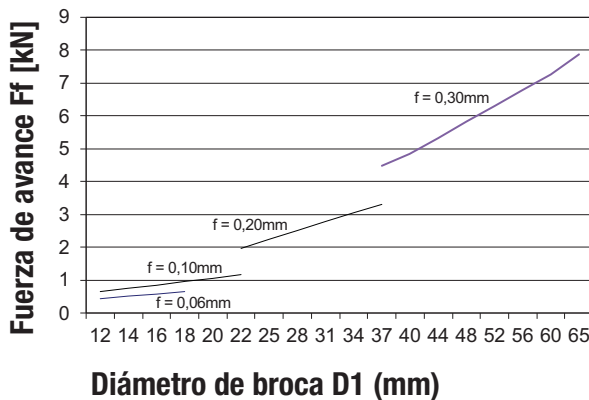
S

Aleaciones de alta temperatura 3,7164 TiAl6V4

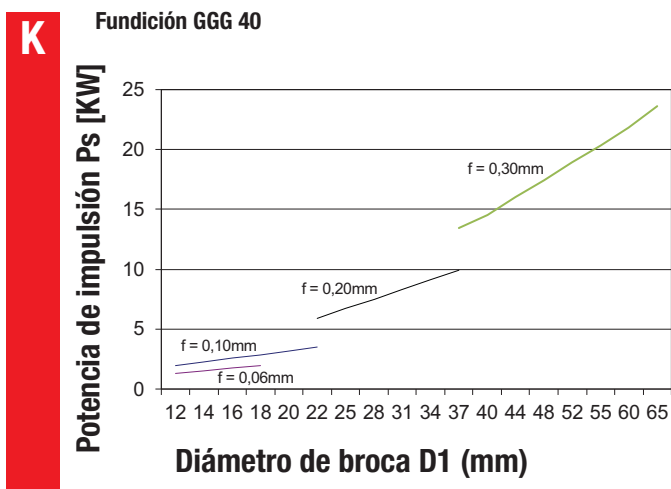
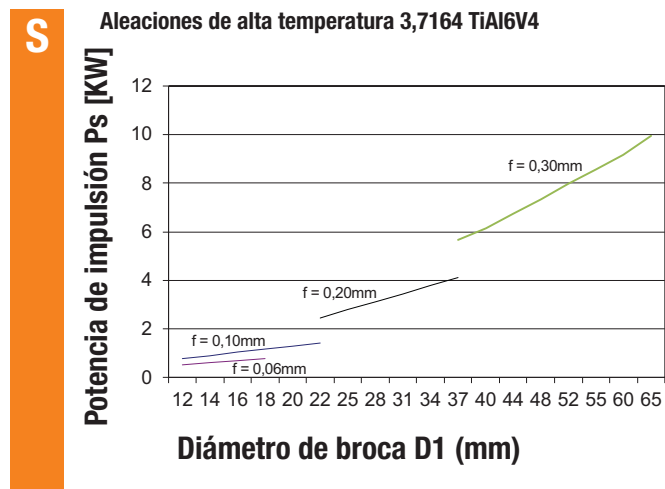
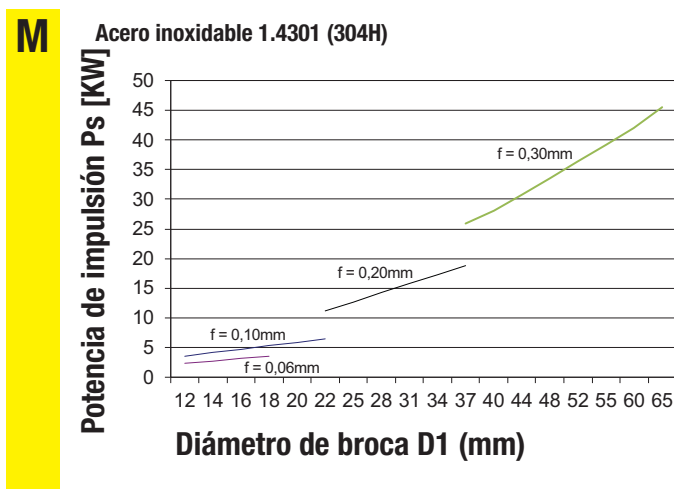
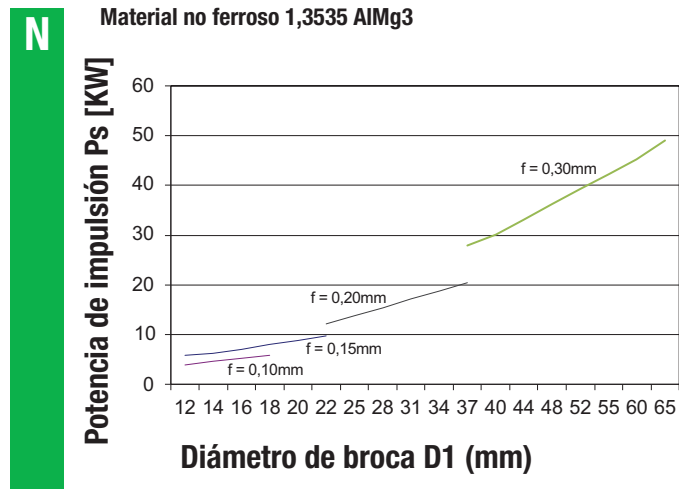
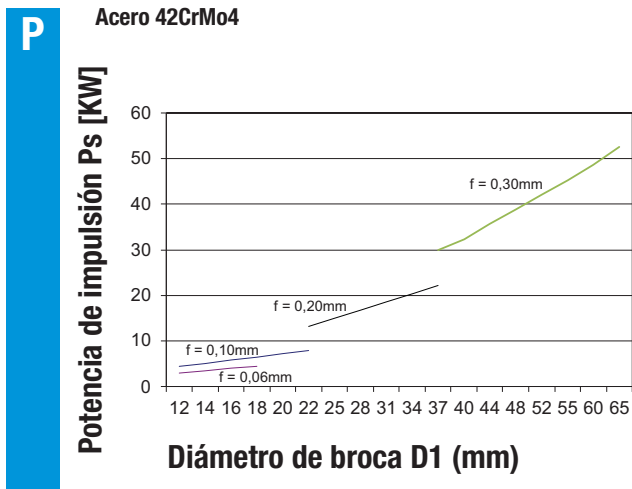


K

Fundición GGG 40

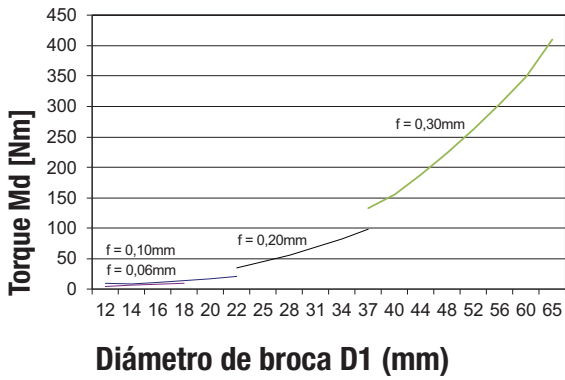


RECOMENDACIÓN DE POTENCIA

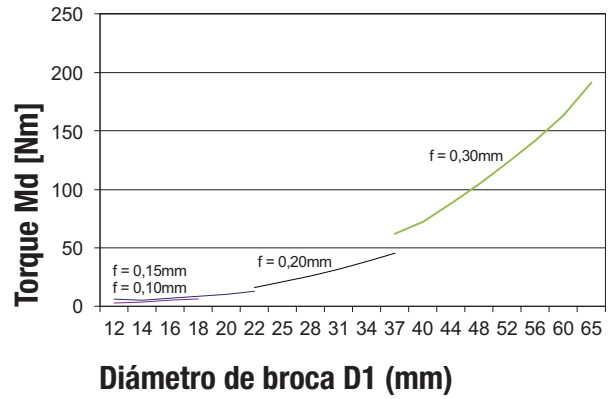


RECOMENDACIÓN DE TORQUE

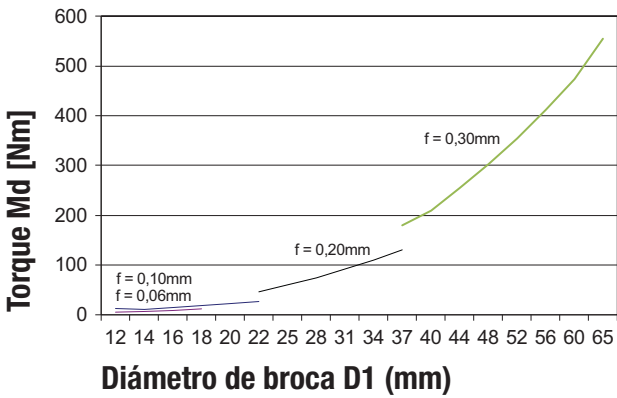
P Acero 42CrMo4



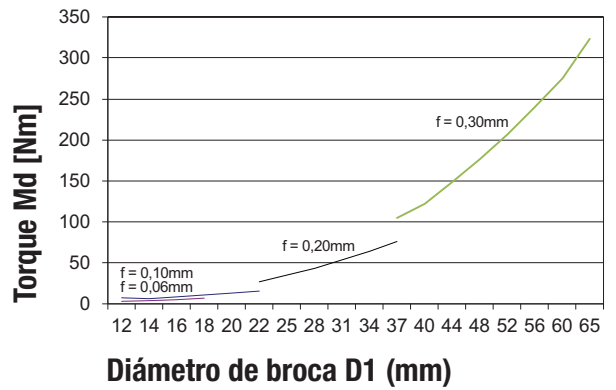
N Material no ferroso 1,3535 AlMg3



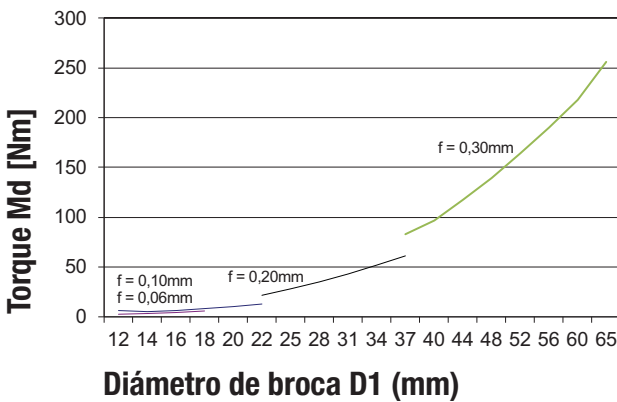
M Acero inoxidable 1.4301 (304H)



S Aleaciones de alta temperatura 3,7164 TiAl6V4



K Fundición GGG 40



Drill Fix PRO



**NUESTRA
PLATAFORMA
DE TALADRADO
INTERCAMBIABLE MÁS
SÓLIDA, VERSÁTIL Y
ECONÓMICA**

LLEVE SU
FABRICACIÓN AL
SIGUIENTE NIVEL
kenametal.com/DFP

KenDrill™ HPR

TALADRADO DE METAL
DURO INTEGRAL

Aplicaciones



Taladrado



Salida inclinada



Refrigeración interna:
Radial: Taladrado



MQL (cantidad mínima de lubricante): Taladrado



Taladrado de agujero transversal



Platos apilados



Ángulo de la hélice de 30°



Mango liso: $\leq h6$



2 canales/
4 márgenes/
Refrigerante



DIN 6535

Materiales



Fundición



Aceros



La última adición de Kennametal a su plataforma de taladrado HPR completa la gama de capacidades de la línea con soluciones de taladrado 12xD y 50xD para aceros y fundición.

- Punta HPR de 135° con diseño de radio en la esquina de filo de corte para una larga vida de la herramienta a mayores avances, menor coste por pieza y salidas de orificios de mejor calidad
- La acanaladura patentada proporciona menos calor y choques térmicos para una mayor integridad del filo de corte
- Con calidad KCK10A con sustrato de grano ultrafino para una vida más prolongada de la herramienta en materiales de acero y fundición y un menor riesgo de fallo catastrófico
- Diseño de 4 márgenes para una buena precisión y rectitud del orificio (incluso en orificios en X o salidas inclinadas)
- Las superficies altamente pulidas aseguran una excelente evacuación de virutas, incluso cuando se aplica un refrigerante de baja presión

Industrias



Automoción



Ingeniería general



Energía eólica y solar

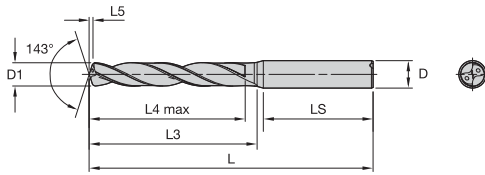


Petróleo y gas



Sector aeroespacial





P	Blue
M	Yellow
K	Red
N	Green
S	Orange
H	Grey

- Principal
- Secundario

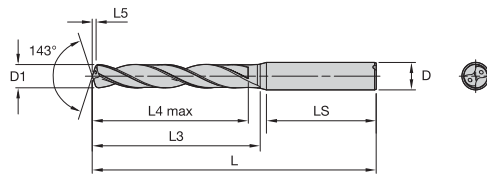
HPR

B269 • 12xD • Refrigerante interno

Número de pedido	Número de catálogo	D1	L	L3	L4 Max	L5	LS	D	
7214128	B269A02400KMR	2.40	75	42	35	0.4	28	4	●
7214129	B269A02500KMR	2.50	75	42	35	0.5	28	4	●
7214130	B269A02600KMR	2.60	75	42	35	0.5	28	4	●
7214211	B269A02800KMR	2.80	75	43	36	0.5	28	4	●
7214212	B269A02900KMR	2.90	75	43	36	0.5	28	4	●
7214213	B269A03000KMR	3.00	93	52	44	0.6	36	6	●
7214215	B269A03264KMR	3.26	93	53	44	0.6	36	6	●
7214216	B269A03300KMR	3.30	93	53	44	0.6	36	6	●
7214217	B269A03400KMR	3.40	93	53	44	0.6	36	6	●
7214218	B269A03500KMR	3.50	93	53	44	0.7	36	6	●
7214219	B269A03600KMR	3.60	93	54	45	0.7	36	6	●
7214220	B269A03700KMR	3.70	93	54	45	0.7	36	6	●
7214221	B269A03800KMR	3.80	107	65	55	0.7	36	6	●
7214222	B269A03970KMR	3.97	107	66	56	0.8	36	6	●
7214223	B269A04000KMR	4.00	107	66	56	0.8	36	6	●
7214224	B269A04100HPR	4.10	107	66	56	1.4	36	6	●
7214225	B269A04200HPR	4.20	107	67	56	1.4	36	6	●
7214226	B269A04300HPR	4.30	107	67	56	1.4	36	6	●
7214227	B269A04500HPR	4.50	107	67	56	1.5	36	6	●
7214228	B269A04550HPR	4.55	107	68	57	1.5	36	6	●
7214229	B269A04600HPR	4.60	107	68	57	1.5	36	6	●
7214230	B269A04700HPR	4.70	107	68	57	1.6	36	6	●
7214242	B269A04800HPR	4.80	125	82	70	1.6	36	6	●
7214243	B269A05000HPR	5.00	125	83	70	1.7	36	6	●
7214244	B269A05100HPR	5.10	125	83	70	1.7	36	6	●
7214245	B269A05200HPR	5.20	125	83	70	1.7	36	6	●
7214246	B269A05300HPR	5.30	125	84	71	1.8	36	6	●
7214247	B269A05410HPR	5.41	125	84	71	1.8	36	6	●
7214248	B269A05500HPR	5.50	125	84	71	1.8	36	6	●
7214249	B269A05558HPR	5.56	125	84	71	1.9	36	6	●
7214250	B269A05600HPR	5.60	125	85	72	1.9	36	6	●
7214251	B269A05700HPR	5.70	125	85	72	1.9	36	6	●
7214252	B269A05800HPR	5.80	125	85	72	1.9	36	6	●
7214253	B269A06000HPR	6.00	125	86	72	2.0	36	6	●
7214254	B269A06100HPR	6.10	139	97	82	2.0	36	8	●
7214255	B269A06200HPR	6.20	139	97	82	2.1	36	8	●
7214257	B269A06400HPR	6.40	139	98	83	2.1	36	8	●
7214258	B269A06500HPR	6.50	139	98	83	2.2	36	8	●
7214259	B269A06528HPR	6.53	139	98	83	2.2	36	8	●
7214260	B269A06600HPR	6.60	139	99	84	2.2	36	8	●
7214261	B269A06746HPR	6.75	139	99	83	2.3	36	8	●
7214262	B269A06800HPR	6.80	139	99	83	2.3	36	8	●
7214263	B269A06909HPR	6.91	139	100	84	2.3	36	8	●
7214264	B269A07000HPR	7.00	139	100	84	2.3	36	8	●
7214265	B269A07145HPR	7.15	153	111	94	2.4	36	8	●
7214266	B269A07500HPR	7.50	153	112	95	2.5	36	8	●
7214268	B269A07700HPR	7.70	153	113	96	2.6	36	8	●
7214269	B269A07800HPR	7.80	153	113	95	2.6	36	8	●
7214271	B269A08000HPR	8.00	153	114	96	2.7	36	8	●
7214272	B269A08100HPR	8.10	185	136	116	2.7	40	10	●
7214273	B269A08200HPR	8.20	185	136	116	2.7	40	10	●
7214275	B269A08433HPR	8.43	185	137	117	2.8	40	10	●
7214276	B269A08500HPR	8.50	185	137	117	2.8	40	10	●
7214277	B269A08525HPR	8.53	185	137	117	2.9	40	10	●
7214278	B269A08600HPR	8.60	185	138	118	2.9	40	10	●
7214279	B269A08700HPR	8.70	185	138	118	2.9	40	10	●
7214280	B269A08733HPR	8.73	185	138	117	2.9	40	10	●
7214281	B269A08800HPR	8.80	185	138	117	2.9	40	10	●
7214282	B269A09000HPR	9.00	185	139	118	3.0	40	10	●
7214283	B269A09100HPR	9.10	185	139	118	3.0	40	10	●
7214284	B269A09129HPR	9.13	185	139	118	3.1	40	10	●
7214285	B269A09500HPR	9.50	185	140	119	3.2	40	10	●
7214287	B269A09800HPR	9.80	185	141	119	3.3	40	10	●
7214288	B269A09921HPR	9.92	185	142	120	3.3	40	10	●

KCK10A

Continúa en la página siguiente



- Principal
- Secundario

P	Blue
M	Yellow
K	Red
N	Green
S	Orange
H	Grey



HPR Continuación

B269 • 12xD • Refrigerante interno

Número de pedido	Número de catálogo	D1	L	L3	L4 Max	L5	LS	D	
7214289	B269A1000HPR	10.00	185	142	120	3.3	40	10	●
7214290	B269A10200HPR	10.20	218	164	140	3.4	45	12	●
7214291	B269A10300HPR	10.30	218	165	141	3.4	45	12	●
7214292	B269A10320HPR	10.32	218	165	141	3.5	45	12	●
7214293	B269A10500HPR	10.50	218	165	141	3.5	45	12	●
7214295	B269A10800HPR	10.80	218	166	141	3.6	45	12	●
7214296	B269A11000HPR	11.00	218	167	142	3.7	45	12	●
7214298	B269A11200HPR	11.20	218	167	142	3.7	45	12	●
7214300	B269A11500HPR	11.50	218	168	143	3.8	45	12	●
7214301	B269A11700HPR	11.70	218	169	144	3.9	45	12	●
7214302	B269A11800HPR	11.80	218	169	143	3.9	45	12	●
7214303	B269A12000HPR	12.00	218	170	144	4.0	45	12	●
7214304	B269A12100HPR	12.10	246	192	164	4.0	45	14	●
7214305	B269A12200HPR	12.20	246	192	164	4.1	45	14	●
7214306	B269A12304HPR	12.30	246	193	165	4.1	45	14	●
7214307	B269A12500HPR	12.50	246	193	165	4.2	45	14	●
7214309	B269A13000HPR	13.00	246	195	166	4.3	45	14	●
7214310	B269A13100HPR	13.10	246	195	166	4.4	45	14	●
7214311	B269A13500HPR	13.50	246	196	167	4.5	45	14	●
7214312	B269A13800HPR	13.80	246	197	168	4.6	45	14	●
7214313	B269A14000HPR	14.00	246	198	168	4.7	45	14	●
7214314	B269A14100HPR	14.10	277	220	188	4.7	48	16	●
7214317	B269A14500HPR	14.50	277	221	189	4.8	48	16	●
7214319	B269A15000HPR	15.00	277	223	190	5.0	48	16	●
7214320	B269A15200HPR	15.20	277	223	190	5.1	48	16	●
7214331	B269A15500HPR	15.50	277	224	191	5.2	48	16	●
7214333	B269A16000HPR	16.00	277	226	192	5.4	48	16	●
7214334	B269A16500HPR	16.50	305	249	213	5.5	48	18	●
7214335	B269A17000HPR	17.00	305	250	214	5.7	48	18	●
7214337	B269A17100HPR	17.10	305	251	214	5.7	48	18	●
7214339	B269A17500HPR	17.50	305	252	215	5.9	48	18	●
7214340	B269A17600HPR	17.60	305	252	215	5.9	48	18	●
7214351	B269A18000HPR	18.00	305	253	216	6.0	48	18	●
7214352	B269A18500HPR	18.50	334	277	237	6.2	50	20	●
7214354	B269A19000HPR	19.00	334	278	238	6.4	50	20	●
7214356	B269A19500HPR	19.50	334	280	239	6.5	50	20	●
7214357	B269A20000HPR	20.00	334	281	240	6.7	50	20	●

KCK10A

DATOS DE APLICACIÓN DE BROCAS HPR

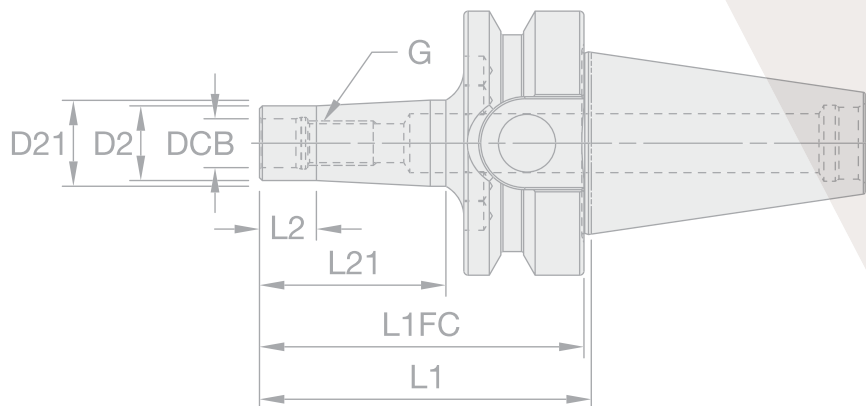
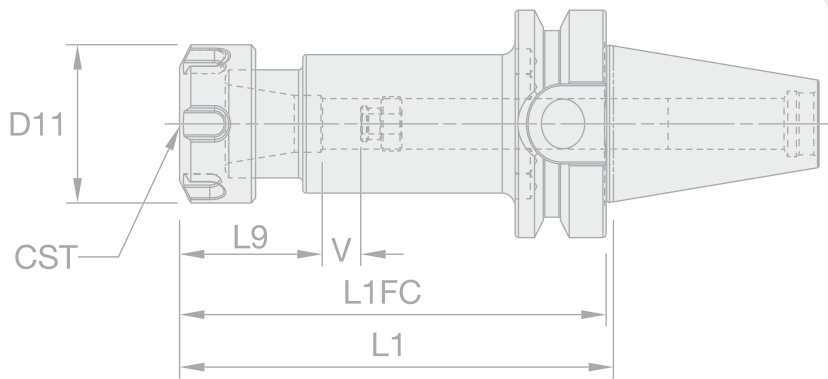
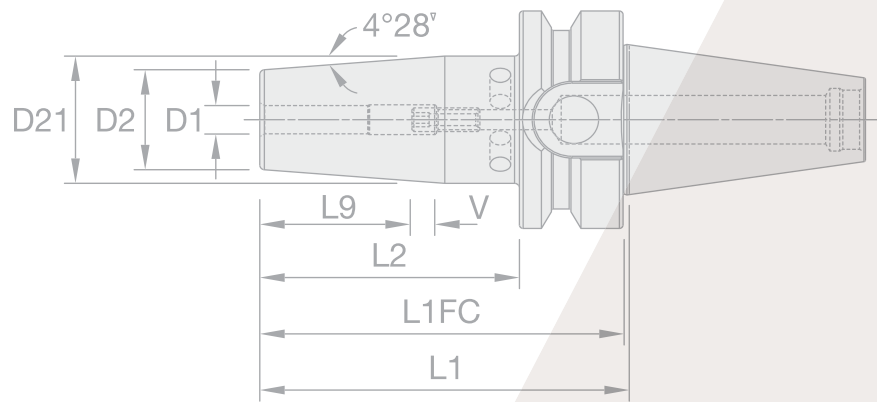
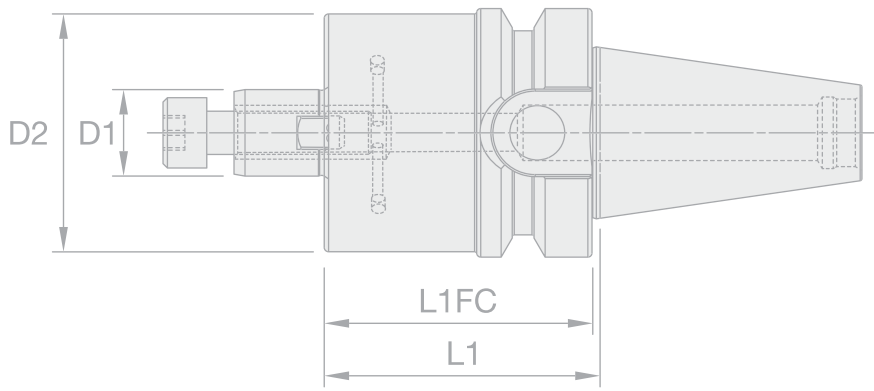
Grupo de materiales													
	Velocidad de corte — vc			Métrico									
	Rango — m/mín			Avance recomendado por revolución									
	Mín	Máx		3.0	4.0	6.0	8.0	10.0	12.0	16.0	20.0		
P	P0	140	290	mm/r	0.13 - 0.24	0.14 - 0.26	0.15 - 0.30	0.17 - 0.34	0.19 - 0.38	0.21 - 0.42	0.24 - 0.50	0.28 - 0.58	
	P1	130	290	mm/r	0.15 - 0.30	0.16 - 0.33	0.18 - 0.39	0.20 - 0.45	0.22 - 0.51	0.24 - 0.57	0.28 - 0.69	0.32 - 0.81	
	P2	190	270	mm/r	0.14 - 0.29	0.15 - 0.32	0.18 - 0.38	0.21 - 0.43	0.24 - 0.49	0.27 - 0.55	0.33 - 0.66	0.39 - 0.77	
	P3	130	190	mm/r	0.15 - 0.30	0.17 - 0.33	0.20 - 0.38	0.23 - 0.44	0.26 - 0.50	0.29 - 0.56	0.36 - 0.67	0.42 - 0.79	
	P4	110	170	mm/r	0.13 - 0.25	0.15 - 0.27	0.19 - 0.33	0.22 - 0.38	0.26 - 0.43	0.30 - 0.48	0.37 - 0.59	0.44 - 0.69	
	P5	70	110	mm/r	0.11 - 0.21	0.13 - 0.24	0.15 - 0.28	0.18 - 0.33	0.21 - 0.38	0.24 - 0.42	0.29 - 0.51	0.35 - 0.61	
K	P6	60	100	mm/r	0.11 - 0.21	0.13 - 0.24	0.15 - 0.28	0.18 - 0.33	0.21 - 0.38	0.24 - 0.42	0.29 - 0.51	0.35 - 0.61	
	K1	130	210	mm/r	0.12 - 0.27	0.15 - 0.33	0.21 - 0.43	0.26 - 0.51	0.30 - 0.59	0.34 - 0.65	0.41 - 0.77	0.47 - 0.87	
	K2	90	180	mm/r	0.12 - 0.27	0.15 - 0.33	0.21 - 0.43	0.26 - 0.51	0.30 - 0.59	0.34 - 0.65	0.41 - 0.77	0.47 - 0.87	
	K3	70	130	mm/r	0.10 - 0.22	0.13 - 0.27	0.18 - 0.36	0.23 - 0.43	0.27 - 0.49	0.31 - 0.55	0.37 - 0.65	0.43 - 0.74	

KenDrill HPR

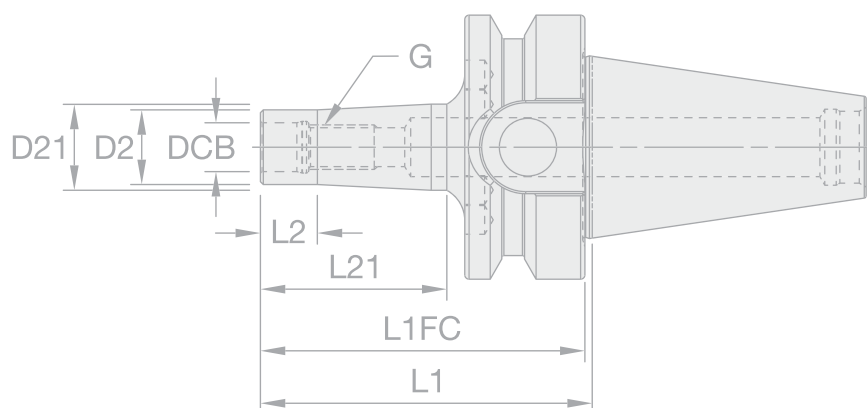
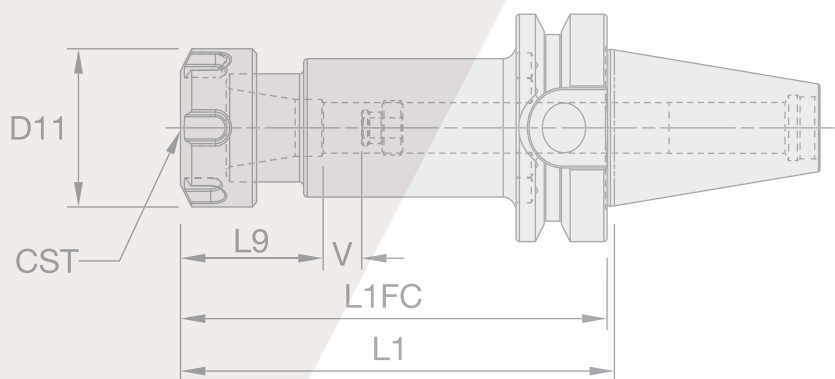
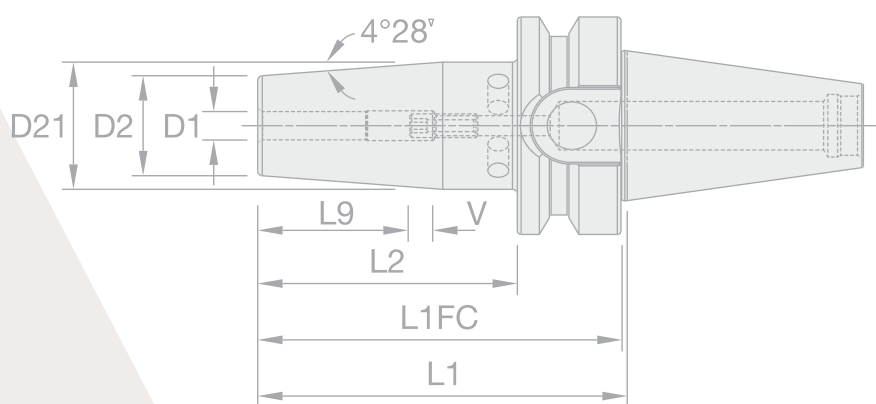
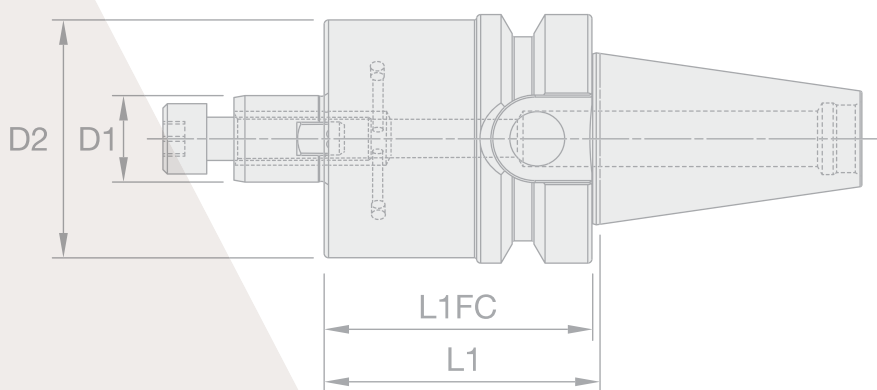
CON
CAPACIDADES
DE RANGO
DESDE **3xD**
HASTA **50xD**



LLEVE SU
FABRICACIÓN AL
SIGUIENTE NIVEL
kenmetal.com/HPR



SISTEMAS



BTKV30

ERICKSON™

HERRAMIENTAS DE CONTACTO DE CARA CÓNICA

Aplicaciones

PRINCIPAL



Taladrado



Fresado

SECUNDARIO



Escariado



Roscado

Materiales

Universal



Diseñado para aumentar el rendimiento en máquinas de menor tamaño

Descubra una rigidez y precisión mejoradas en sus aplicaciones de mecanizado de piezas pequeñas más exigentes.

Con:

- Adaptadores hidráulicos
- Adaptadores de ajuste por dilatación térmica
- Adaptadores de fresa de plato
- Adaptadores Screw-On
- Adaptadores de pinza ER con tuerca de cojinete ER mejorada

Industrias



Ingeniería general



Medicina



Automoción



Sector aeroespacial



Petróleo y gas



CON

2 anchos de llave de
impulsión controlados

Contacto
frontal

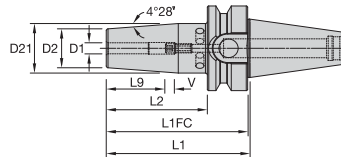
Ataque biselado
grande



Cambiador de
herramientas con
ranura en V

Perilla de
retención métrica

Contacto: cono 7/24



BTKV30

Portaherramientas con ajuste por dilatación térmica

EQUILIBRADO G2.5 A 25000 R/MÍN

- Ajuste de precisión con tornillos de fijación M6 opcionales.
- Adecuado para herramientas de corte HSS y metal duro.
- No caliente en exceso. Un exceso de calor destruirá la precisión y funcionalidad del portaherramientas.
- Suministrado con tornillo de tope.
- Capacidad RFID: 10 mm de diámetro

Número de pedido	Número de catálogo	D1	D2	D21	L1	L1FC	L2	L9	V	Tornillo de tope	Tornillo tope tamaño de llave	kg
7195533	BTKV30HPVTT06075M	6	21	26.9	75.0	74.0	52.9	26	10	TTSS05014M	2,5mm	0.56
7195534	BTKV30HPVTT08075M	8	21	26.9	75.0	74.0	52.9	26	10	TTSS06014M	3mm	0.547
7195535	BTKV30HPVTT10075M	10	24	31	75.0	74.0	52.9	31	10	TTSS08014M	4mm	0.591
7195536	BTKV30HPVTT12075M	12	24	31	75.0	74.0	52.9	36	10	TTSS10014M	5mm	0.578
7195537	BTKV30HPVTT16075M	16	27	31.9	75.0	74.0	52.9	39	10	TTSS12014M	6mm	0.591
7195538	BTKV30HPVTT20090M	20	33	40.92	90.0	89.0	67.9	41	10	TTSS16014M	8mm	0.813

Tornillos de tope

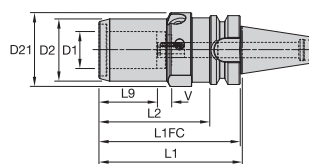
Número de pedido	Número de catálogo
3960479	TTSS05014M
3960480	TTSS06014M
3960481	TTSS08014M
3960482	TTSS10014M
3960493	TTSS12014M
3960494	TTSS16014M

Otras piezas de repuesto

Descripción	Número de pedido	Número de catálogo
TORNILLOS DE EQUILIBRADO (M5-0.8p x 4)	4107495	MS-1937

Requisito de tolerancia del mango de la herramienta: h6 (según la norma ISO para un ajuste de precisión)

Herramienta de corte Diámetro del mango	Tolerancia, mm
6 mm	0,000/-0,008
8 mm, 10 mm	0,000/-0,009
12 mm, 16 mm	0,000/-0,011
20 mm	0,000/-0,013



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Adaptadores hidráulicos • HP

EQUILIBRADO G2.5 A 25000 R/MÍN

- No apriete en exceso el tornillo de accionamiento. Ajuste manualmente hasta que se sienta el tope.
- Las llaves deben solicitarse por separado.
- Suministrado con tornillo de tope.
- Hay disponibles manguitos reductores, que deben pedirse por separado.
- Capacidad RFID: 10 mm de diámetro

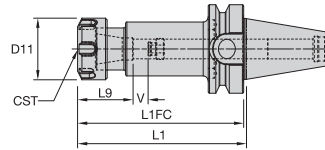
Número de pedido	Número de catálogo	D1	D2	D21	L1	L2	L9	V	Llave de accionamiento	Tornillo de accionamiento tamaño de llave	Llave del tornillo tope	Tornillo tope tamaño de llave	kg
7195563	BTKV30HC12085M	12	31.54	31.85	85	40	36	10	170.135	5 mm	170.002	2.5 mm	0.686
7195564	BTKV30HC20100M	20	41.54	49,85	100	48	42	10	170.135	5 mm	170.003	3 mm	1.091

Llave de accionamiento

Descripción	Número de pedido	Número de catálogo
DESTORNILLADOR SW5	1138748	170.135

Llave del tornillo tope

Descripción	Número de pedido	Número de catálogo
LLAVE DIN 911 SW 2.5	1138297	170.002
LLAVE DIN 911 SW 3	1138307	170.003



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Mandriles con boquilla ER

EQUILIBRADO G2.5 A 20000 R/MÍN

- Debe cargarse primero la boquilla en la tuerca de apriete. Antes de cargar en el cuerpo del mandril, inserte la herramienta de corte y a continuación apriete según las recomendaciones de par motor.
- Suministrado con tornillo de bloqueo y tornillo de tope.
- Debe pedirse la llave de tuerca de apriete por separado.
- Capacidad RFID: 10 mm de diámetro

Número de pedido	Número de catálogo	Serie de boquillas	D11	L1	L1FC	L9	V	kg
7195558	BTKV30ER16100M	ER16	32	100	99	32	48	0.668
7195559	BTKV30ER20100M	ER20	35	100	99	36	44	0.723
7195560	BTKV30ER25100M	ER25	42	100	99	40	40	0.732
7195561	BTKV30ER32100M	ER32	50	100	99	46	34	0.937
7195562	BTKV30ER40100M	ER40	63	100	99	52	10	1.159

Recambios

Número de catálogo	Tuerca de apriete	Llave	Torque de boquilla regular	Tornillo de tope	Cabezas cónicas de tornillo tope	Tornillo tope tamaño de llave
BTKV30ER16100M	LNSRER16M	ER16WM	56	SS044038G	1021138	4 mm y 5/32
BTKV30ER20100M	LNSRER20M	ER20WM	80	SS056041G	1021142	4 mm y 5/32
BTKV30ER25100M	LNSRER25M	ER25WM	104	SS075041G	1021154	4 mm y 5/32
BTKV30ER32100M	LNSRER32M	ER32WM	136	SS075041G	1021154	4 mm y 5/32
BTKV30ER40100M	LNSRER40M	ER40WM	175	SS112041G	1021160	4 mm y 5/32

Tuercas de apriete redondas sólidas

Descripción	Número de pedido	Número de catálogo
Tuerca de bloqueo integral ER16	6459219	LNSRER16M
Tuerca de bloqueo integral ER20	6459251	LNSRER20M
Tuerca de bloqueo integral ER25	6459253	LNSRER25M
Tuerca de bloqueo integral ER32	6459254	LNSRER32M
Tuerca de bloqueo integral ER40	6459274	LNSRER40M

Tapa del refrigerante

Descripción	Número de pedido	Número de catálogo
Tapón cónico de refrigerante de sellado del mango para tornillo de tope MM# 1019977	1021138	SSCC044
Tapón cónico de refrigerante de sellado del mango para tornillo de tope MM# 1019981	1021142	SSCC056
Tapón cónico de refrigerante de sellado del mango para tornillo de tope MM# 1019985	1021154	SSCC075
Tapón cónico de refrigerante de sellado del mango para tornillo de tope MM# 1019991	1021160	SSCC112

Llaves

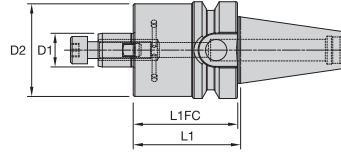
Descripción	Número de pedido	Número de catálogo
LLAVE	1136106	ER16WM
LLAVE	1024641	ER20WM
LLAVE	1136113	ER25WM
LLAVE	1136087	ER32WM
LLAVE	1136096	ER40WM

Tuercas de apriete de rodamientos

Descripción	Número de pedido	Número de catálogo
Tuerca de apriete de rodamientos ER25	6459271	LNAGRER25M
Tuerca de apriete de rodamientos ER32	6459273	LNAGRER32M
Tuerca de apriete de rodamientos ER40	6465674	LNAGRER40M

Tornillos de tope

Descripción	Número de pedido	Número de catálogo
Tuerca de apriete de rodamientos ER25	6459271	LNAGRER25M
Tuerca de apriete de rodamientos ER32	6459273	LNAGRER32M
Tuerca de apriete de rodamientos ER40	6465674	LNAGRER40M



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Adaptadores de fresa de plato

Calidad de equilibrio a G2.5 a 15000 r/min

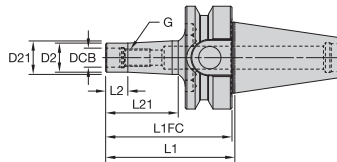
Agujeros pasantes en la superficie del piloto

- No apriete en exceso el tornillo de bloqueo.
- Suministrado con tornillo de bloqueo y llaves de accionamiento.
- No se incluye la llave de tornillo de bloqueo.
- Capacidad RFID: 10 mm de diámetro

Número de pedido	Número de catálogo	D1	D2	L1	L1FC	Tornillo de bloqueo	Llave de accionamiento	Tamaño de llave Tornillo de bloqueo	kg
7195460	BTKV30SMC16050M	16	44	50	49	MS-1294	KDK16M	6 mm	0.732
7195531	BTKV30SMC22040M	22	49	40	39	125.025	KDK22M	8 mm	0.679

Recambios

Descripción	Número de pedido	Número de catálogo
Tornillo de bloqueo de 6 mm	MS-1294	1905810
Tornillo de bloqueo de 8 mm	125.025	1136777
Llave de accionamiento de 6 mm	KDK16M	1020606
Llave de accionamiento de 8 mm	KDK22M	1243417



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Adaptadores Screw-On

EQUILIBRADO POR DISEÑO

Equilibrar calidad G6.3 a 15000 r/min

- Capacidad de refrigeración interna.
- Alta precisión – bajo salto.
- Sistema estable para la hélice, fresado de alojamientos, cortes de contornos y fresado descendente.
- Capacidad RFID: 10 mm de diámetro

Número de pedido	Número de catálogo	DCB	G	D2	L1	L2	L21
7195565	BTKV30ST08058M	8.5080	M8	13	58	10	30
7195566	BTKV30ST10078M	10.5090	M10	18	78	10	50
7195569	BTKV30ST16078M	12.5090	M12	21	78	10	50
7195568	BTKV30ST12078M	17.0090	M16	29	78	10	50

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Hemos estado mecanizando metal desde 1938.



Nuestra historia es de innovación continua

Comienza en 1938 con nuestro fundador, el metalúrgico Philip M. McKenna, quien, después de años de investigación, creó revolucionarias herramientas de corte de aleación de carburo de tungsteno y titanio específicamente para trabajar con acero. Ese único desarrollo no solo condujo a una nueva clase de herramientas de mecanizado que cortaban más rápido, duraban más tiempo e impulsaban la productividad en todo, desde el automóvil hasta el avión, sino que también llevó a la apertura de McKenna Metals Company en Latrobe, Pensilvania, Estados Unidos. Hoy en día, esa empresa es Kennametal Inc., líder reconocido en trabajo de los metales que atiende a clientes de todos los continentes e industrias, como las de transporte, construcción, aeroespacial, defensa, mecanizado y corte, energía e ingeniería general. Tenemos la reputación de crear soluciones innovadoras para las aplicaciones más difíciles de nuestros clientes. El nombre Kennametal es sinónimo de herramientas de alta calidad y alto rendimiento que pueden soportar las condiciones más exigentes y facilitar una amplia gama de operaciones de mecanizado. Ayudamos a que las operaciones de nuestros clientes duren más, sean más rápidas y con mayor precisión. No recortamos presupuestos. Cortamos metal. Sus materiales más duros no tendrán ninguna posibilidad.



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