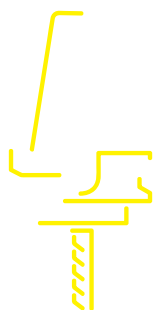


ERI Tooling Systems



CATÁLOGO



ERI Tooling Systems

ERI Tooling Systems empresa dedicada a la fabricación y distribución de porta herramientas, y elementos de medición.

En nuestras instalaciones disponemos de un showroom donde presentamos las últimas novedades del mercado. Además nuestro amplio almacén cuenta con más de 50.000 artículos a su disposición inmediata.

El programa incluye porta-herramientas tanto para centros de mecanizado como para tornos de control numérico. Disponemos de personal cualificado para una respuesta inmediata a las necesidades de hoy en día”

Valores

Los valores de la empresa se basan en una RSE (Responsabilidad Social Empresarial) que se define como la contribución activa de la empresa al mejoramiento social, económico y ambiental de todo aquello que está en su mano.

Visión

Nuestra visión es continuar trabajando para mejorar cada día, y así poder seguir creciendo, además queremos seguir ayudando a optimizar los procesos industriales de nuestros clientes con las soluciones mejor adaptadas para cada uno de ellos.

Misión

Nuestra misión es aportar a nuestros clientes las soluciones mejor ajustadas a sus necesidades en todas las actividades industriales que tengan. Para poder cumplir nuestra misión nos apoyamos en tres pilares fundamentales de la empresa, la calidad, el capital humano y la profesionalidad que siempre hemos tenido por bandera.

PORTA HERRAMIENTAS

**PINZAS TUERCAS
Y RECAMBIOS**

PAG. 6-93

1



**PORTA HERRAMIENTAS
CILINDRICO**

PAG. 94-119

2



**PORTA HERRAMIENTAS
CONO MORSE**

PAG. 120-143

3



**PORTA HERRAMIENTAS
MANGO ROSCADO DIN/6327**

PAG. 144-161

4



**ELEMENTOS DE VERIFICACION
Y CONTROL**

PAG. 162-187

5



**PORTA HERRAMIENTAS
JIS B6339 BT-AD / AD+B**

PAG. 188-229

6



**PORTA HERRAMIENTAS
DIN/69871-AD / AD+B**

PAG. 230-273

7



**PORTA HERRAMIENTAS
DIN/2080**

PAG. 274-285

8



PORTA HERRAMIENTAS

**PORTA HERRAMIENTAS
DIN/69893 - HSK-A-E-F**

PAG. 286-327

9



**PORTA HERRAMIENTAS
MADERA Y ALUMINIO**

PAG. 328-335

10



**PORTA HERRAMIENTAS
PSC-ISO 26623-1**

PAG. 336-355

11



**PORTA HERRAMIENTA ESTATICOS
TORNO CNC**

PAG. 356-437

12



**CASQUILLOS
PARA TORNO CNC**

PAG. 438-465

13



**PORTA HERRAMIENTAS
VDI DIN/69880**

PAG. 466-487

14



**PORTA HERRAMIENTAS
MODULARES**

PAG. 488-493

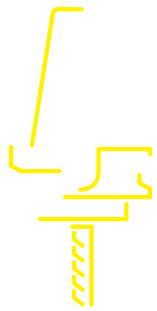
15



NOTAS

16





ERI Tooling Systems

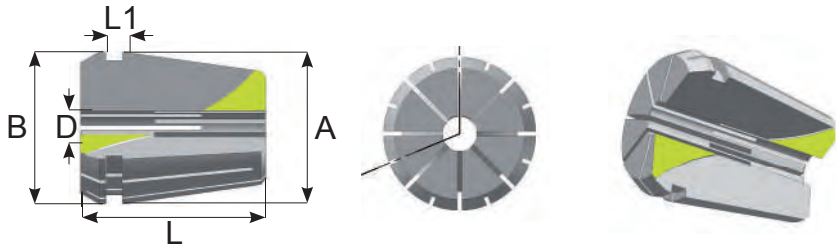




PINZAS CABECILLAS Y RECAMBIOS

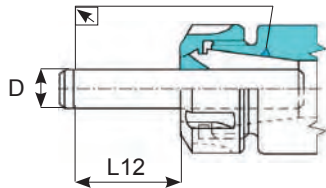
PROGRAMA

ER 	UP 	MP 	ERG 	BAR 	JET 	ER-SJ 
PAG. 4-8	PAG. 9-12	PAG. 13-14	PAG. 15-18	PAG. 19-20	PAG. 21	PAG. 22
ER-M 	ERG-M 	ER-COM 	ER-PA 			
PAG. 23	PAG. 24	PAG. 25	PAG. 26	PAG. 27	PAG. 28-29	PAG. 30
				ERD 	EOC 	EOC-RF 
PAG. 30	PAG. 31	PAG. 32	PAG. 33-34	PAG. 35-38	PAG. 39-42	PAG. 42-43
SKS 	DA 	TG 	BAKUER 	4SR 	6SR 	
PAG. 44-45	PAG. 46	PAG. 46	PAG. 46	PAG. 47	PAG. 47	PAG. 48-49
				SE 	SEF 	SES 
PAG. 50	PAG. 50	PAG. 51	PAG. 51	PAG. 52-56	PAG. 57	PAG. 58-63
SER 						
PAG. 63	PAG. 64	PAG. 65-79	PAG. 80	PAG. 81-83	PAG. 84-85	PAG. 86



CODIGO	D mm min-max	Campo de Apriete Clamping Range	A	B	L	L1
ER08 - 4004E	1 ÷ 5	0,5 mm	8	8,5	13,5	3,4
ER11 - 4008E	1 ÷ 7	0,5 mm	11	11,5	18	3,8
ER16 - 426E	1 ÷ 10	0,5 ÷ 1 mm	16	17	27,5	6,26
ER20 - 428E	1 ÷ 14	0,5 ÷ 1 mm	20	21	31,5	6,36
ER25 - 430E	1 ÷ 20	0,5 ÷ 1 mm	25	26	34	6,66
ER32 - 470E	2 ÷ 22	0,5 ÷ 1 mm	32	33	40	7,16
ER40 - 472E	3 ÷ 30	1 mm	40	41	46	7,66
ER50 - 477E	6 ÷ 34	2 mm	50	52	60	12,60
ER60 - 494E	10 ÷ 40	2 mm	60	61	60	7,64

Tolerancia de la rotación de la pinza
ER collet concentricity specification



D			S max		
mínimo	máximo	L2	Standard	UP Ultra precisión	MP Mega precisión
mm	mm	mm	mm	mm	mm
1	1.6	6	0.015	0.005	0.002
1.6	3	10	0.015	0.005	0.002
3	7	16	0.015	0.005	0.002
7	10	25	0.015	0.005	0.002
10	18	40	0.020	0.005	0.002
18	26	50	0.020	0.005	0.002
26	40	60	0.020	0.005	0.002

- ② El valor de la concetricidad se controla sobre el Ø nominal de la pinza
- ② This runout accuracy is valid only for the nominal size of the collets

Pinza de precisión standard
Standard precision collets

ER8


0,015

STANDARD
ER11


0,015

REFERENCIA	CAPACIDAD		
ER8D1	1	÷	0.5
ER8D1.5	1.5	÷	1
ER8D2	2	÷	1.5
ER8D2.5	2.5	÷	2
ER8D3	3	÷	2.5
ER8D3.5	3.5	÷	3
ER8D4	4	÷	3.5
ER8D4.5	4.5	÷	4
ER8D5	5	÷	4.5

REFERENCIA	CAPACIDAD		
ER11D1	1	÷	0.5
ER11D1.5	1.5	÷	1
ER11D2	2	÷	1.5
ER11D2.5	2.5	÷	2
ER11D3	3	÷	2.5
ER11D3.5	3.5	÷	3
ER11D4	4	÷	3.5
ER11D4.5	4.5	÷	4
ER11D5	5	÷	4.5
ER11D5.5	5.5	÷	5
ER11D6	6	÷	5.5
ER11D6.5	6.5	÷	6
ER11D7	7	÷	6.5

Kit de pinzas / Kit in Tray

REFERENCIA		
RER8-9	KIT	FIG. 1
D. 1 . 1.5 . 2 . 2.5 . 3 . 3.5 . 4 . 4.5 . 5		



Kit de pinzas / Kit in Tray

REFERENCIA		
RER11-13	KIT	FIG. 1
D. 1 . 1.5 . 2 . 2.5 . 3 . 3.5 . 4 . 4.5 . 5 . 5.5 . 6 . 6.5 . 7		



Estuche de pinzas / Kit in Box

REFERENCIA		
BER8-9	BOX	FIG. 2
D. 1 . 1.5 . 2 . 2.5 . 3 . 3.5 . 4 . 4.5 . 5		



Estuche de pinzas / Kit in Box

REFERENCIA		
BER11-13	BOX	FIG. 2
D. 1 . 1.5 . 2 . 2.5 . 3 . 3.5 . 4 . 4.5 . 5 . 5.5 . 6 . 6.5 . 7		



Pinza de precisión standard
Standard precision collets

Pinza de precisión standard
Standard precision collets

ER16

STANDARD

ER20



∇0,015



∇0,015

REFERENCIA	CAPACIDAD		
ER16D1	1	÷	0.5
ER16D2	2	÷	1
ER16D3	3	÷	2
ER16D4	4	÷	3
ER16D5	5	÷	4
ER16D6	6	÷	5
ER16D7	7	÷	6
ER16D8	8	÷	7
ER16D9	9	÷	8
ER16D10	10	÷	9
ER16D12	12	÷	11

Medios sobre pedido.

Kit de pinzas / Kit in Tray

REFERENCIA		FIG. 1
RER16-10	KIT	FIG. 1
D. 1 . 2 . 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10		

FIG. 1



Estuche de pinzas / Kit in Box

REFERENCIA		FIG. 2
BER16-10	BOX	FIG. 2
D. 1 . 2 . 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10		

FIG. 2



REFERENCIA	CAPACIDAD		
ER20D1	1	÷	0.5
ER20D2	2	÷	1.5
ER20D3	3	÷	2
ER20D4	4	÷	3
ER20D5	5	÷	4
ER20D6	6	÷	5
ER20D7	7	÷	6
ER20D8	8	÷	7
ER20D9	9	÷	8
ER20D10	10	÷	9
ER20D11	11	÷	10
ER20D12	12	÷	11
ER20D13	13	÷	12
ER20D14	14	÷	13.5

Medios sobre pedido.

Kit de pinzas / Kit in Tray

REFERENCIA		FIG. 1
RER20-12	KIT	FIG. 1
D. 2 . 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13		

FIG. 1



Estuche de pinzas / Kit in Box

REFERENCIA		FIG. 2
BER20-12	BOX	FIG. 2
D. 2 . 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13		

FIG. 2



Pinza de precisión standard
Standard precision collets

Pinza de precisión standard
Standard precision collets

ER25

STANDARD
ER32


0,015

0,015

REFERENCIA	CAPACIDAD		
ER25D1	1	÷	0.5
ER25D2	2	÷	1
ER25D3	3	÷	2
ER25D4	4	÷	3
ER25D5	5	÷	4
ER25D6	6	÷	5
ER25D7	7	÷	6
ER25D8	8	÷	7
ER25D9	9	÷	8
ER25D10	10	÷	9
ER25D11	11	÷	10
ER25D12	12	÷	11
ER25D13	13	÷	12
ER25D14	14	÷	13
ER25D15	15	÷	14
ER25D16	16	÷	15
ER25D17	17	÷	16
ER25D18	18	÷	17
ER25D19	19	÷	18
ER25D20	20	÷	19

Medios sobre pedido.

Kit de pinzas / Kit in Tray

REFERENCIA		
RER25-6	KIT	FIG. 1
D. 4 . 6 . 8 . 10 . 12 . 16		

Estuche de pinzas / Kit in Box

REFERENCIA		
RER25-15	KIT	FIG. 1
BER25-15	BOX	FIG. 2
D. 2 . 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13 .		
D. 14 . 15 . 16		

FIG. 1

FIG. 2


REFERENCIA	CAPACIDAD		
ER32D2	2	÷	1.5
ER32D3	3	÷	2
ER32D4	4	÷	3
ER32D5	5	÷	4
ER32D6	6	÷	5
ER32D7	7	÷	6
ER32D8	8	÷	7
ER32D9	9	÷	8
ER32D10	10	÷	9
ER32D11	11	÷	10
ER32D12	12	÷	11
ER32D13	13	÷	12
ER32D14	14	÷	13
ER32D15	15	÷	14
ER32D16	16	÷	15
ER32D17	17	÷	16
ER32D18	18	÷	17
ER32D19	19	÷	18
ER32D20	20	÷	19
ER32D21	21	÷	20
ER32D22	22	÷	21

Medios sobre pedido.

Kit de pinzas / Kit in Tray

REFERENCIA		
RER32-6	KIT	FIG. 1
D. 6 . 8 . 10 . 12 . 16 . 20		

Estuche de pinzas / Kit in Box

REFERENCIA		
RER32-18	KIT	FIG. 1
BER32-18	BOX	FIG. 2
D. 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13 . 14 .		
D. 15 . 16 . 17 . 18 . 19 . 20		

FIG. 1

FIG. 2


Pinza de precisión standard
Standard precision collets

Pinza de precisión standard
Standard precision collets

ER40

STANDARD

ER50



0,015



0,015

REFERENCIA	CAPACIDAD		
ER40D3	3	÷	2
ER40D4	4	÷	3
ER40D5	5	÷	4
ER40D6	6	÷	5
ER40D7	7	÷	6
ER40D8	8	÷	7
ER40D9	9	÷	8
ER40D10	10	÷	9
ER40D11	11	÷	10
ER40D12	12	÷	11
ER40D13	13	÷	12
ER40D14	14	÷	13
ER40D15	15	÷	14
ER40D16	16	÷	15
ER40D17	17	÷	16
ER40D18	18	÷	17
ER40D19	19	÷	18
ER40D20	20	÷	19
ER40D21	21	÷	20
ER40D22	22	÷	21
ER40D23	23	÷	22
ER40D24	24	÷	23
ER40D25	25	÷	24
ER40D26	26	÷	25
ER40D27	27	÷	26
ER40D28	28	÷	27
ER40D29	29	÷	28
ER40D30	30	÷	29

REFERENCIA	CAPACIDAD		
ER50D6	6	÷	5
ER50D7	7	÷	6
ER50D8	8	÷	7
ER50D9	9	÷	8
ER50D10	10	÷	9
ER50D11	11	÷	10
ER50D12	12	÷	10
ER50D13	13	÷	11
ER50D14	14	÷	12
ER50D15	15	÷	13
ER50D16	16	÷	14
ER50D17	17	÷	15
ER50D18	18	÷	16
ER50D19	19	÷	17
ER50D20	20	÷	18
ER50D21	21	÷	19
ER50D22	22	÷	20
ER50D23	23	÷	21
ER50D24	24	÷	22
ER50D25	25	÷	23
ER50D26	26	÷	24
ER50D27	27	÷	25
ER50D28	28	÷	26
ER50D29	29	÷	27
ER50D30	30	÷	28
ER50D31	31	÷	29
ER50D32	32	÷	30
ER50D33	33	÷	31
ER50D34	34	÷	32

Medios sobre pedido.

Kit de pinzas / Kit in Tray

REFERENCIA		
RER40-23	KIT	FIG. 1
BER40-23	BOX	FIG. 2
D. 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13 . 14 . 15		
D. 16 . 17 . 18 . 19 . 20 . 21 . 22 . 23 . 24 . 25 . 26		

Kit de pinzas / Kit in Tray

REFERENCIA		
RER50-12	KIT	FIG. 1
D. 12 . 14 . 16 . 18 . 20 . 22 . 24 . 26 . 28 . 30 . 32 . 34		

FIG. 2



FIG. 1



FIG. 1



Pinza de precisión standard
Standard precision collets

STANDARD

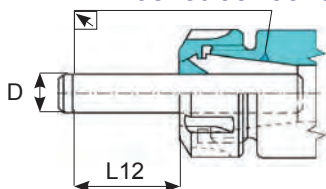
ER60



0.015

REFERENCIA	CAPACIDAD			REFERENCIA	CAPACIDAD		
ER60D10	10	÷	9	ER60D25	25	÷	23
ER60D11	11	÷	10	ER60D26	26	÷	24
ER60D12	12	÷	10	ER60D27	27	÷	25
ER60D13	13	÷	11	ER60D28	28	÷	26
ER60D14	14	÷	12	ER60D29	29	÷	27
ER60D15	15	÷	13	ER60D30	30	÷	28
ER60D16	16	÷	14	ER60D31	31	÷	29
ER60D17	17	÷	15	ER60D32	32	÷	30
ER60D18	18	÷	16	ER60D33	33	÷	31
ER60D19	19	÷	17	ER60D34	34	÷	32
ER60D20	20	÷	18	ER60D35	35	÷	33
ER60D21	21	÷	19	ER60D36	36	÷	34
ER60D22	22	÷	20	ER60D37	37	÷	35
ER60D23	23	÷	21	ER60D38	38	÷	36
ER60D24	24	÷	22	ER60D39	39	÷	37
				ER60D40	40	÷	38

Tolerancia de la rotación de la pinza
ER collet concentricity specification



D			S max		
mínimo	máximo	L2	Standard	UP Ultra precisión	MP Mega precisión
mm	mm	mm	mm	mm	mm
1	1.6	6	0.015	0.005	0.002
1.6	3	10	0.015	0.005	0.002
3	7	16	0.015	0.005	0.002
7	10	25	0.015	0.005	0.002
10	18	40	0.020	0.005	0.002
18	26	50	0.020	0.005	0.002
26	40	60	0.020	0.005	0.002

② El valor de la concetricidad se controla sobre el Ø nominal de la pinza

② This runout accuracy is valid only for the nominal size of the collets

Pinza ultra precisión
High precision collets

Pinza ultra precisión
High precision collets

ER8-UP

ULTRA

ER11-UP



∇0.005UP



∇0.005UP

REFERENCIA	CAPACIDAD		
ER8UPD1	1	÷	0.5
ER8UPD1.5	1.5	÷	1
ER8UPD2	2	÷	1.5
ER8UPD2.5	2.5	÷	2
ER8UPD3	3	÷	2.5
ER8UPD3.5	3.5	÷	3
ER8UPD4	4	÷	3.5
ER8UPD4.5	4.5	÷	4
ER8UPD5	5	÷	4.5

REFERENCIA	CAPACIDAD		
ER11UPD1	1	÷	0.5
ER11UPD1.5	1.5	÷	1
ER11UPD2	2	÷	1.5
ER11UPD2.5	2.5	÷	2
ER11UPD3	3	÷	2.5
ER11UPD3.5	3.5	÷	3
ER11UPD4	4	÷	3.5
ER11UPD4.5	4.5	÷	4
ER11UPD5	5	÷	4.5
ER11UPD5.5	5.5	÷	5
ER11UPD6	6	÷	5.5
ER11UPD6.5	6.5	÷	6
ER11UPD7	7	÷	6.5

Kit de pinzas / *Kit in Tray*

REFERENCIA		
RER8UP-9	KIT	FIG. 1
D. 1 . 1.5 . 2 . 2.5 . 3 . 3.5 . 4 . 4.5 . 5		

FIG. 1



Kit de pinzas / *Kit in Tray*

REFERENCIA		
RER11UP-13	KIT	FIG. 1
D. 1 . 1.5 . 2 . 2.5 . 3 . 3.5 . 4 . 4.5 . 5 . 5.5 . 6 . 6.5 . 7		

FIG. 1



Estuche de pinzas / *Kit in Box*

REFERENCIA		
BER8UP-9	BOX	FIG. 2
D. 1 . 1.5 . 2 . 2.5 . 3 . 3.5 . 4 . 4.5 . 5		

FIG. 2



Estuche de pinzas / *Kit in Box*

REFERENCIA		
BER11UP-13	BOX	FIG. 2
D. 1 . 1.5 . 2 . 2.5 . 3 . 3.5 . 4 . 4.5 . 5 . 5.5 . 6 . 6.5 . 7		

FIG. 2



Pinza ultra precisión
High precision collets

Pinza ultra precisión
High precision collets

ER16-UP

ULTRA

ER20-UP



✓0,005UP



✓0,005UP

REFERENCIA	CAPACIDAD		
ER16UPD1	1	÷	0.5
ER16UPD1.5	1.5	÷	1
ER16UPD2	2	÷	1
ER16UPD2.5	2.5	÷	2
ER16UPD3	3	÷	2
ER16UPD3.5	3.5	÷	2.5
ER16UPD4	4	÷	3
ER16UPD4.5	4.5	÷	3.5
ER16UPD5	5	÷	4
ER16UPD5.5	5.5	÷	4.5
ER16UPD6	6	÷	5
ER16UPD6.5	6.5	÷	5.5
ER16UPD7	7	÷	6
ER16UPD7.5	7.5	÷	6.5
ER16UPD8	8	÷	7
ER16UPD8.5	8.5	÷	7.5
ER16UPD9	9	÷	8
ER16UPD9.5	9.5	÷	8.5
ER16UPD10	10	÷	9

REFERENCIA	CAPACIDAD		
ER20UPD1	1	÷	0.5
ER20UPD1.5	1.5	÷	1
ER20UPD2	2	÷	1.5
ER20UPD2.5	2.5	÷	2
ER20UPD3	3	÷	2
ER20UPD3.5	3.5	÷	2.5
ER20UPD4	4	÷	3
ER20UPD4.5	4.5	÷	3.5
ER20UPD5	5	÷	4
ER20UPD5.5	5.5	÷	4.5
ER20UPD6	6	÷	5
ER20UPD6.5	6.5	÷	5.5
ER20UPD7	7	÷	6
ER20UPD7.5	7.5	÷	6.5
ER20UPD8	8	÷	7
ER20UPD8.5	8.5	÷	7.5
ER20UPD9	9	÷	8
ER20UPD9.5	9.5	÷	8.5
ER20UPD10	10	÷	9
ER20UPD10.5	10.5	÷	9.5
ER20UPD11	11	÷	10
ER20UPD11.5	11.5	÷	10.5
ER20UPD12	12	÷	11
ER20UPD12.5	12.5	÷	11.5
ER20UPD13	13	÷	12

Estuche de pinzas / Kit in Box

REFERENCIA		
BER16UP-10	BOX	FIG. 2
D. 1 . 2 . 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10		

FIG. 2



Estuche de pinzas / Kit in Box

REFERENCIA		
BER20UP-12	BOX	FIG. 2
D. 2 . 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13		

FIG. 2



Pinza ultra precisión
High precision collets

Pinza ultra precisión
High precision collets

ER25-UP

ULTRA

ER32-UP



0.005UP



0.005UP

REFERENCIA	CAPACIDAD		
ER25UPD1	1	÷	0.5
ER25UPD1.5	1.5	÷	1
ER25UPD2	2	÷	1.5
ER25UPD2.5	2.5	÷	2
ER25UPD3	3	÷	2
ER25UPD3.5	3.5	÷	2.5
ER25UPD4	4	÷	3
ER25UPD4.5	4.5	÷	3.5
ER25UPD5	5	÷	4
ER25UPD5.5	5.5	÷	4.5
ER25UPD6	6	÷	5
ER25UPD6.5	6.5	÷	5.5
ER25UPD7	7	÷	6
ER25UPD7.5	7.5	÷	6.5
ER25UPD8	8	÷	7
ER25UPD8.5	8.5	÷	7.5
ER25UPD9	9	÷	8
ER25UPD9.5	9.5	÷	8.5
ER25UPD10	10	÷	9
ER25UPD10.5	10.5	÷	9.5
ER25UPD11	11	÷	10
ER25UPD11.5	11.5	÷	10.5
ER25UPD12	12	÷	11
ER25UPD12.5	12.5	÷	11.5
ER25UPD13	13	÷	12
ER25UPD13.5	13.5	÷	12.5
ER25UPD14	14	÷	13
ER25UPD14.5	14.5	÷	13.5
ER25UPD15	15	÷	14
ER25UPD15.5	15.5	÷	14.5
ER25UPD16	16	÷	15

REFERENCIA	CAPACIDAD		
ER32UPD2	2	÷	1.5
ER32UPD2.5	2.5	÷	2
ER32UPD3	3	÷	2
ER32UPD3.5	3.5	÷	3
ER32UPD4	4	÷	3
ER32UPD4.5	4.5	÷	3.5
ER32UPD5	5	÷	4
ER32UPD5.5	5.5	÷	4.5
ER32UPD6	6	÷	5
ER32UPD6.5	6.5	÷	5.5
ER32UPD7	7	÷	6
ER32UPD7.5	7.5	÷	6.5
ER32UPD8	8	÷	7
ER32UPD8.5	8.5	÷	7.5
ER32UPD9	9	÷	8
ER32UPD9.5	9.5	÷	8.5
ER32UPD10	10	÷	9
ER32UPD10.5	10.5	÷	9.5
ER32UPD11	11	÷	10
ER32UPD11.5	11.5	÷	10.5
ER32UPD12	12	÷	11
ER32UPD12.5	12.5	÷	11.5
ER32UPD13	13	÷	12
ER32UPD13.5	13.5	÷	12.5
ER32UPD14	14	÷	13
ER32UPD14.5	14.5	÷	13.5
ER32UPD15	15	÷	14
ER32UPD15.5	15.5	÷	14.5
ER32UPD16	16	÷	15
ER32UPD16.5	16.5	÷	15.5
ER32UPD17	17	÷	16
ER32UPD17.5	17.5	÷	16.5
ER32UPD18	18	÷	17
ER32UPD18.5	18.5	÷	17.5
ER32UPD19	19	÷	18
ER32UPD19.5	19.5	÷	18.5
ER32UPD20	20	÷	19

Estuche de pinzas / Kit in Box

REFERENCIA	BOX	FIG. 2
BER25UP-15		
D. 2 . 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13		
D. 15 . 16		

FIG. 2



Estuche de pinzas / Kit in Box

REFERENCIA	BOX	FIG. 2
BER32UP-18		
D. 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13 . 14		
D. 15 . 16 . 17 . 18 . 19 . 20		

Pinza ultra precisión
High precision collets

ULTRA

ER40-UP

ULTRA



✓0,005UP

REFERENCIA	CAPACIDAD		
ER40UPD3	3	÷	2
ER40UPD3.5	3.5	÷	3
ER40UPD4	4	÷	3
ER40UPD4.5	4.5	÷	3.5
ER40UPD5	5	÷	4
ER40UPD5.5	5.5	÷	4.5
ER40UPD6	6	÷	5
ER40UPD6.5	6.5	÷	5.5
ER40UPD7	7	÷	6
ER40UPD7.5	7.5	÷	6.5
ER40UPD8	8	÷	7
ER40UPD8.5	8.5	÷	7.5
ER40UPD9	9	÷	8
ER40UPD9.5	9.5	÷	8.5
ER40UPD10	10	÷	9
ER40UPD10.5	10.5	÷	9.5
ER40UPD11	11	÷	10
ER40UPD11.5	11.5	÷	10.5
ER40UPD12	12	÷	11
ER40UPD12.5	12.5	÷	11.5
ER40UPD13	13	÷	12
ER40UPD13.5	13.5	÷	12.5
ER40UPD14	14	÷	13
ER40UPD14.5	14.5	÷	13.5
ER40UPD15	15	÷	14

REFERENCIA	CAPACIDAD		
ER40UPD15.5	15.5	÷	14.5
ER40UPD16	16	÷	15
ER40UPD16.5	16.5	÷	15.5
ER40UPD17	17	÷	16
ER40UPD17.5	17.5	÷	16.5
ER40UPD18	18	÷	17
ER40UPD18.5	18.5	÷	17.5
ER40UPD19	19	÷	18
ER40UPD19.5	19.5	÷	18.5
ER40UPD20	20	÷	19
ER40UPD20.5	20.5	÷	19.5
ER40UPD21	21	÷	20
ER40UPD21.5	21.5	÷	20.5
ER40UPD22	22	÷	21
ER40UPD22.5	22.5	÷	21.5
ER40UPD23	23	÷	22
ER40UPD23.5	23.5	÷	22.5
ER40UPD24	24	÷	23
ER40UPD24.5	24.5	÷	23.5
ER40UPD25	25	÷	24
ER40UPD25.5	25.5	÷	24.5
ER40UPD26	26	÷	25
ER40UPD27	27	÷	26
ER40UPD28	28	÷	27
ER40UPD29	29	÷	28
ER40UPD30	30	÷	29

Estuche de pinzas / Kit in Box

FIG. 2



REFERENCIA

BER40UP-23 **BOX** **FIG. 2**
D. 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13 . 14 .
D. 15 . 16 . 17 . 18 . 19 . 20 . 21 . 22 . 23 . 24
D. 25 . 26

Estuche de pinzas / Kit in Box

FIG. 2



REFERENCIA

BER40UP-28 **BOX** **FIG. 2**
D. 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13 . 14 .
D. 15 . 16 . 17 . 18 . 19 . 20 . 21 . 22 . 23 . 24
D. 25 . 26 . 27 . 28 . 29 . 30

Pinza mega precisión
High Mega precision collets

Pinza mega precisión
High Mega precision collets

ER25-MP

MEGA

ER32-MP



0.002MP



0.002MP

REFERENCIA	CAPACIDAD		
ER25MPD3	3	÷	2
ER25MPD4	4	÷	3
ER25MPD5	5	÷	4
ER25MPD6	6	÷	5
ER25MPD7	7	÷	6
ER25MPD8	8	÷	7
ER25MPD9	9	÷	8
ER25MPD10	10	÷	9
ER25MPD11	11	÷	10
ER25MPD12	12	÷	11
ER25MPD13	13	÷	12
ER25MPD14	14	÷	13
ER25MPD15	15	÷	14
ER25MPD16	16	÷	15

REFERENCIA	CAPACIDAD		
ER32MPD3	3	÷	2
ER32MPD4	4	÷	3
ER32MPD5	5	÷	4
ER32MPD6	6	÷	5
ER32MPD7	7	÷	6
ER32MPD8	8	÷	7
ER32MPD9	9	÷	8
ER32MPD10	10	÷	9
ER32MPD11	11	÷	10
ER32MPD12	12	÷	11
ER32MPD13	13	÷	12
ER32MPD14	14	÷	13
ER32MPD15	15	÷	14
ER32MPD16	16	÷	15
ER32MPD17	17	÷	16
ER32MPD18	18	÷	17
ER32MPD19	19	÷	18
ER32MPD20	20	÷	19

Kit de pinzas / Kit in Tray

REFERENCIA		
RER25MP-14	BOX	FIG. 1
D. 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13		
D. 14 . 15 . 16		

FIG. 1



Estuche de pinzas / Kit in Box

REFERENCIA		
BER25MP-14	BOX	FIG. 2
D. 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13		
D. 14 . 15 . 16		

FIG. 2



Kit de pinzas / Kit in Tray

REFERENCIA		
RER32MP-18	BOX	FIG. 1
D. 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13 . 14		
D. 15 . 16 . 17 . 18 . 19 . 20		

FIG. 1



Estuche de pinzas / Kit in Box

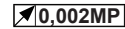
REFERENCIA		
BER32MP-18	BOX	FIG. 2
D. 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13 . 14		
D. 15 . 16 . 17 . 18 . 19 . 20		

FIG. 2



Pinza mega precisión
High Mega precision collets

MEGA
ER40-MP



REFERENCIA	CAPACIDAD		
ER40MPD3	3	÷	2
ER40MPD4	4	÷	3
ER40MPD5	5	÷	4
ER40MPD6	6	÷	5
ER40MPD7	7	÷	6
ER40MPD8	8	÷	7
ER40MPD9	9	÷	8
ER40MPD10	10	÷	9
ER40MPD11	11	÷	10
ER40MPD12	12	÷	11
ER40MPD13	13	÷	12
ER40MPD14	14	÷	13

REFERENCIA	CAPACIDAD		
ER40MPD15	15	÷	14
ER40MPD16	16	÷	15
ER40MPD17	17	÷	16
ER40MPD18	18	÷	17
ER40MPD19	19	÷	18
ER40MPD20	20	÷	19
ER40MPD21	21	÷	20
ER40MPD22	22	÷	21
ER40MPD23	23	÷	22
ER40MPD24	24	÷	23
ER40MPD25	25	÷	24
ER40MPD26	26	÷	25

Kit de pinzas / Kit in Tray

REFERENCIA		
RER40MP-23	BOX	FIG. 1
D. 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13 . 14		
D. 15 . 16 . 17 . 18 . 19 . 20 . 21 . 22 . 23 . 24		
D. 25 . 26		

Estuche de pinzas / Kit in Box

REFERENCIA		
BER40MP-23	BOX	FIG. 2
D. 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13 . 14		
D. 15 . 16 . 17 . 18 . 19 . 20 . 21 . 22 . 23 . 24		
D. 25 . 26		

FIG. 1

FIG. 2


Pinza refrigeración central
Rubber sealed collets

Pinza refrigeración central
Rubber sealed collets

ERG-11

Max. 40 BAR

ERG-16



0,008



0,008

Coolant

Coolant

REFERENCIA	CAPACIDAD
ERG11D3	3
ERG11D3.5	3.5
ERG11D4	4
ERG11D4.5	4.5
ERG11D5	5
ERG11D5.5	5.5
ERG11D6	6
ERG11D6.5	6.5
ERG11D7	7

REFERENCIA	CAPACIDAD
ERG16D3	3
ERG16D4	4
ERG16D5	5
ERG16D6	6
ERG16D7	7
ERG16D8	8
ERG16D9	9
ERG16D10	10

Kit de pinzas / *Kit in Tray*

Kit de pinzas / *Kit in Tray*

REFERENCIA		
RERG11-9	KIT	FIG. 1
D. 3 . 3.5 . 4 . 4.5 . 5 . 5.5 . 6 . 6.5 . 7		

REFERENCIA		
RERG16-8	KIT	FIG. 1
D. 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10		

FIG. 1



FIG. 1



Estuche de pinzas / *Kit in Box*

Estuche de pinzas / *Kit in Box*

REFERENCIA		
BERG11-9	BOX	FIG. 2
D. 3 . 3.5 . 4 . 4.5 . 5 . 5.5 . 6 . 6.5 . 7		

REFERENCIA		
BERG16-8	BOX	FIG. 2
D. 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10		

FIG. 2



FIG. 2



Cierra solo el diametro nominal
Only nominal size can be clamped

Cierra solo el diametro nominal
Only nominal size can be clamped

Pinza refrigeración central
Rubber sealed collets

ERG-20
Max. 40 BAR

Pinza refrigeración central
Rubber sealed collets

ERG-25


Coolant



0.008



Coolant



0.008

REFERENCIA	CAPACIDAD
ERG20D3	3
ERG20D4	4
ERG20D5	5
ERG20D6	6
ERG20D7	7
ERG20D8	8
ERG20D9	9
ERG20D10	10
ERG20D11	11
ERG20D12	12
ERG20D13	13

REFERENCIA	CAPACIDAD
ERG25D3	3
ERG25D4	4
ERG25D5	5
ERG25D6	6
ERG25D7	7
ERG25D8	8
ERG25D9	9
ERG25D10	10
ERG25D11	11
ERG25D12	12
ERG25D13	13
ERG25D14	14
ERG25D15	15
ERG25D16	16

Kit de pinzas / *Kit in Tray*

REFERENCIA	
RERG20-11	KIT FIG. 1
D. 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13	

FIG. 1



Estuche de pinzas / *Kit in Box*

REFERENCIA	
BERG20-11	BOX FIG. 2
D. 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13	

FIG. 2



Kit de pinzas / *Kit in Tray*

REFERENCIA	
RERG25-6	KIT FIG. 1
D. 4 . 6 . 8 . 10 . 12 . 16	

FIG. 1



Estuche de pinzas / *Kit in Box*

REFERENCIA	
RERG25-14	KIT FIG. 1
BERG25-14	BOX FIG. 2
D. 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13 . 14 . 15 . 16	

FIG. 2



Cierra solo el diametro nominal
Only nominal size can be clamped

Pinza refrigeración central
Rubber sealed collets

Pinza refrigeración central
Rubber sealed collets

ERG-32

Max. 40 BAR

ERG-40



Coolant



0.008



Coolant



0.008

REFERENCIA	CAPACIDAD
ERG32D3	3
ERG32D4	4
ERG32D5	5
ERG32D6	6
ERG32D7	7
ERG32D8	8
ERG32D9	9
ERG32D10	10
ERG32D11	11
ERG32D12	12
ERG32D13	13
ERG32D14	14
ERG32D15	15
ERG32D16	16
ERG32D17	17
ERG32D18	18
ERG32D19	19
ERG32D20	20

REFERENCIA	CAPACIDAD
ERG40D4	4
ERG40D5	5
ERG40D6	6
ERG40D7	7
ERG40D8	8
ERG40D9	9
ERG40D10	10
ERG40D11	11
ERG40D12	12
ERG40D13	13
ERG40D14	14
ERG40D15	15
ERG40D16	16
ERG40D17	17
ERG40D18	18
ERG40D19	19
ERG40D20	20
ERG40D21	21
ERG40D22	22
ERG40D23	23
ERG40D24	24
ERG40D25	25
ERG40D26	26

Kit de pinzas / Kit in Tray

REFERENCIA		
RERG32-6	KIT	FIG. 1
D. 6 . 8 . 10 . 12 . 16 . 20		

FIG. 1



Estuche de pinzas / Kit in Box

REFERENCIA		
RERG32-18	KIT	FIG. 1
BERG32-18	BOX	FIG. 2
D. 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13 . 14		
D. 15 . 16 . 17 . 18 . 19 . 20		

FIG. 2



Estuche de pinzas / Kit in Box

REFERENCIA		
RERG40-7	KIT	FIG. 1
D. 6 . 8 . 10 . 12 . 16 . 20 . 25		
RERG40-23	KIT	FIG. 1
BERG40-23	BOX	FIG. 2
D. 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13 . 14 . 15		
D. 16 . 17 . 18 . 19 . 20 . 21 . 22 . 23 . 24 . 25 . 26		

FIG. 1



FIG. 2



Pinza refrigeración central
Rubber sealed collets

ERG-50
Max. 40 BAR


Coolant


 0,008

REFERENCIA	CAPACIDAD
ERG50D10	10
ERG50D12	12
ERG50D14	14
ERG50D16	16
ERG50D18	18
ERG50D20	20
ERG50D22	22
ERG50D24	24
ERG50D26	26
ERG50D28	28
ERG50D30	30
ERG50D32	32
ERG50D34	34

Cierra solo el diametro nominal
Only nominal size can be clamped

 Kit de pinzas / *Kit in Tray*

FIG. 1



REFERENCIA		
RERG50-12	KIT	FIG. 1
D. 12 . 14 . 16 . 18 . 20 . 22 . 24 . 26 . 28 . 30		
D. 32 . 34		

 Estuche de pinzas / *Kit in Box*

FIG. 2



REFERENCIA		
BERG50-12	BOX	FIG. 2
D. 12 . 14 . 16 . 18 . 20 . 22 . 24 . 26 . 28 . 30		
D. 32 . 34		

Pinza de acero con refrigeración central a través de la herramienta
Steel sealed collets for coolant through tools

ER16-BAR

Max. 120 BAR

ER25-BAR



Coolant



0.008



Coolant



0.008

REFERENCIA	CAPACIDAD
ER16BARD1	1
ER16BARD2	2
ER16BARD3	3
ER16BARD4	4
ER16BARD5	5
ER16BARD6	6
ER16BARD7	7
ER16BARD8	8
ER16BARD9	9
ER16BARD10	10
ER16BARD12	12

REFERENCIA	CAPACIDAD
ER25BARD3	3
ER25BARD4	4
ER25BARD5	5
ER25BARD6	6
ER25BARD7	7
ER25BARD8	8
ER25BARD9	9
ER25BARD10	10
ER25BARD11	11
ER25BARD12	12
ER25BARD13	13
ER25BARD14	14
ER25BARD15	15
ER25BARD16	16
ER25BARD18	18

ER20-BAR



0.008

REFERENCIA	CAPACIDAD
ER20BARD3	3
ER20BARD4	4
ER20BARD5	5
ER20BARD6	6
ER20BARD7	7
ER20BARD8	8
ER20BARD9	9
ER20BARD10	10
ER20BARD11	11
ER20BARD12	12
ER20BARD13	13
ER20BARD14	14

Estuche de pinzas / *Kit in Box*

REFERENCIA	
BER16BAR-11	BOX FIG. 1 D. 1 . 2 . 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 12
BER20BAR-12	BOX FIG. 1 D. 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13 . 14 .
BER25BAR-15	BOX FIG. 1 D. 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13 . 14 . D. 15 . 16 . 18

FIG. 1



Pinza de acero con refrigeración Central a través de la herramienta
Steel sealed collets for coolant through tools

ER32-BAR
Max. 120 BAR
ER40-BAR


Coolant



0,008



Coolant



0,008

REFERENCIA	CAPACIDAD
ER32BARD3	3
ER32BARD4	4
ER32BARD5	5
ER32BARD6	6
ER32BARD7	7
ER32BARD8	8
ER32BARD9	9
ER32BARD10	10
ER32BARD11	11
ER32BARD12	12
ER32BARD13	13
ER32BARD14	14
ER32BARD15	15
ER32BARD16	16
ER32BARD17	17
ER32BARD18	18
ER32BARD19	19
ER32BARD20	20
ER32BARD21	21
ER32BARD22	22

REFERENCIA	CAPACIDAD
ER40BARD6	6
ER40BARD8	8
ER40BARD10	10
ER40BARD12	12
ER40BARD14	14
ER40BARD16	16
ER40BARD18	18
ER40BARD20	20
ER40BARD25	25
ER40BARD26	26
ER40BARD30	30

Kit de pinzas / Kit in Tray

REFERENCIA	
RER40BAR-11	KIT FIG. 1
D. 6 . 8 . 10 . 12 . 14 . 16 . 18 . 20 . 25 . 26 . 30	

FIG. 1



REFERENCIA	
RER32BAR-18	KIT FIG. 1
D. 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13 . 14 . 15 . 16 . 17 . 18 . 19 . 20	

FIG. 1


Estuche de pinzas / Kit in Box

REFERENCIA	
BER40BAR-11	BOX FIG. 2
D. 6 . 8 . 10 . 12 . 14 . 16 . 18 . 20 . 25 . 26 . 30	

FIG. 2


Estuche de pinzas / Kit in Box

REFERENCIA	
BER32BAR-18	BOX FIG. 2
D. 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13 . 14 . 15 . 16 . 17 . 18 . 19 . 20	

Pinza con taladros de refrigeración
Collets with coolant holes

ER-JET



Coolant

Max. 40 BAR



0.008



REFERENCIA	CAPACIDAD
ER16JETD3	3
ER16JETD4	4
ER16JETD5	5
ER16JETD6	6
ER16JETD7	7

REFERENCIA	CAPACIDAD
ER20JETD3	3
ER20JETD4	4
ER20JETD5	5
ER20JETD6	6
ER20JETD7	7
ER20JETD8	8
ER20JETD9	9
ER20JETD10	10

REFERENCIA	CAPACIDAD
ER25JETD3	3
ER25JETD4	4
ER25JETD5	5
ER25JETD6	6
ER25JETD7	7
ER25JETD8	8
ER25JETD9	9
ER25JETD10	10
ER25JETD11	11
ER25JETD12	12
ER25JETD13	13
ER25JETD14	14

REFERENCIA	CAPACIDAD
ER32JETD3	3
ER32JETD4	4
ER32JETD5	5
ER32JETD6	6
ER32JETD7	7
ER32JETD8	8
ER32JETD9	9
ER32JETD10	10
ER32JETD11	11
ER32JETD12	12
ER32JETD13	13
ER32JETD14	14
ER32JETD15	15
ER32JETD16	16
ER32JETD17	17
ER32JETD18	18
ER32JETD19	19
ER32JETD20	20

REFERENCIA	CAPACIDAD
ER40JETD4	4
ER40JETD5	5
ER40JETD6	6
ER40JETD7	7
ER40JETD8	8
ER40JETD9	9
ER40JETD10	10
ER40JETD11	11
ER40JETD12	12
ER40JETD13	13
ER40JETD14	14
ER40JETD15	15
ER40JETD16	16
ER40JETD17	17
ER40JETD18	18
ER40JETD19	19
ER40JETD20	20
ER40JETD21	21
ER40JETD22	22
ER40JETD23	23
ER40JETD24	24
ER40JETD25	25
ER40JETD26	26

Pinza con ranuras de refrigeración
Collets with coolant groove

ER-SJ



Coolant

Max. 120 BAR



✓0.008



REFERENCIA	CAPACIDAD
ER16SJD3	3
ER16SJD4	4
ER16SJD5	5
ER16SJD6	6
ER16SJD7	7
ER16SJD8	8
ER16SJD9	9
ER16SJD10	10

REFERENCIA	CAPACIDAD
ER20SJD3	3
ER20SJD4	4
ER20SJD5	5
ER20SJD6	6
ER20SJD7	7
ER20SJD8	8
ER20SJD9	9
ER20SJD10	10
ER20SJD11	11
ER20SJD12	12
ER20SJD13	13
ER20SJD14	14

REFERENCIA	CAPACIDAD
ER25SJD3	3
ER25SJD4	4
ER25SJD5	5
ER25SJD6	6
ER25SJD7	7
ER25SJD8	8
ER25SJD9	9
ER25SJD10	10
ER25SJD11	11
ER25SJD12	12
ER25SJD13	13
ER25SJD14	14
ER25SJD15	15
ER25SJD16	16

REFERENCIA	CAPACIDAD
ER32SJD3	3
ER32SJD4	4
ER32SJD5	5
ER32SJD6	6
ER32SJD7	7
ER32SJD8	8
ER32SJD9	9
ER32SJD10	10
ER32SJD11	11
ER32SJD12	12
ER32SJD13	13
ER32SJD14	14
ER32SJD15	15
ER32SJD16	16
ER32SJD17	17
ER32SJD18	18
ER32SJD19	19
ER32SJD20	20

REFERENCIA	CAPACIDAD
ER40SJD6	6
ER40SJD8	8
ER40SJD10	10
ER40SJD12	12
ER40SJD14	14
ER40SJD16	16
ER40SJD18	18
ER40SJD20	20
ER40SJD25	25
ER40SJD26	26

Pinza para macho con cuadradillo de Arrastre
Tapping collets with internal square



0.015



ER-16M

REFERENCIA	M	Ø	X	∇
ER16MD3.5	M 3	3.5	x	2.7
ER16MD4	M 3.5	4	x	3
ER16MD4.5	M 4	4.5	x	3.4
ER16MD5	M 5	5	x	4
ER16MD5.5	M 5	6	x	4.9
ER16MD6	M 5-6-8	6	x	4.9
ER16MD6.3	M 6-8	6.3	x	5
ER16MD7	M 7-10	7	x	5.5
ER16MD8	M 8	8	x	6.2

ER-20M

REFERENCIA	M	Ø	X	∇
ER20MD3.5	M 3	3.5	x	2.7
ER20MD4	M 3.5	4	x	3
ER20MD4.5	M 4	4.5	x	3.4
ER20MD5	M 5	5	x	4
ER20MD6	M 5-6-8	6	x	4.9
ER20MD6.3	M 6-8	6.3	x	5
ER20MD7	M 7-10	7	x	5.5
ER20MD8	M 8	8	x	6.2
ER20MD9	M 9-12	9	x	7
ER20MD10	M 10	10	x	8
ER20MD11	M 14	11	x	9
ER20MD12	M 16	12	x	9

ER-25M

REFERENCIA	M	Ø	X	∇
ER25MD3.5	M 3	3.5	x	2.7
ER25MD4	M 3.5	4	x	3
ER25MD4.5	M 4	4.5	x	3.4
ER25MD5	M5	5	x	4
ER25MD6	M 5-6-8	6	x	4.9
ER25MD6.3	M 6-8	6.3	x	5
ER25MD7	M 7-10	7	x	5.5
ER25MD8	M 8	8	x	6.2
ER25MD9	M 9-12	9	x	7
ER25MD10	M 10	10	x	8
ER25MD11	M 14	11	x	9
ER25MD12	M 16	12	x	9
ER25MD14	M 18	14	x	11
ER25MD16	M 20	16	x	12

ER-32M

REFERENCIA	M	Ø	X	∇
ER32MD3.5	M 3	3.5	x	2.7
ER32MD4	M 3.5	4	x	3
ER32MD4.5	M 4	4.5	x	3.4
ER32MD6	M 5-6-8	6	x	4.9
ER32MD7	M 7-10	7	x	5.5
ER32MD8	M 8	8	x	6.2
ER32MD9	M 9-12	9	x	7
ER32MD10	M 10	10	x	8
ER32MD11	M 14	11	x	9
ER32MD12	M 16	12	x	9
ER32MD14	M 18	14	x	11
ER32MD16	M 20	16	x	12
ER32MD18	M 24	18	x	14.5
ER32MD20	M 27	20	x	16

ER-40M

REFERENCIA	M	Ø	X	∇
ER40MD6	M 5-6-8	6	x	4.9
ER40MD7	M 7-10	7	x	5.5
ER40MD8	M 8	8	x	6.2
ER40MD9	M 9-12	9	x	7
ER40MD10	M 10	10	x	8
ER40MD11	M 14	11	x	9
ER40MD12	M 16	12	x	9
ER40MD14	M 18	14	x	11
ER40MD16	M 20	16	x	12
ER40MD18	M 24	18	x	14.5
ER40MD20	M 27	20	x	16

ER-50M

REFERENCIA	M	Ø	X	∇
ER50MD8	M 8	8	x	6.2
ER50MD9	M 9-12	9	x	7
ER50MD10	M 10	10	x	8
ER50MD11	M 14	11	x	9
ER50MD12	M 16	12	x	9
ER50MD14	M 18	14	x	11
ER50MD16	M 20	16	x	12
ER50MD18	M 24	18	x	14.5
ER50MD20	M 27	20	x	16
ER50MD22-24	M 30	22	x	18
ER50MD25	M 33	25	x	20
ER50MD28	M 36	28	x	22
ER50MD32	M 39-42	32	x	24

Pinza para macho con cuadradillo de arrastre con paso refrigerante
Rubber sealed tapping collets with internal square





Coolant

ERG-16M

REFERENCIA	M	Ø	X	∇
ERG16MD4	M 3.5	4	x	3
ERG16MD4.5	M 4	4.5	x	3.4
ERG16MD6	M 5-6-8	6	x	4.9
ERG16MD7	M 7-10	7	x	5.5
ERG16MD8	M 8	8	x	6.2



Coolant

ERG-32M

REFERENCIA	M	Ø	X	∇
ERG32MD4.5	M 4	4.5	x	3.4
ERG32MD6	M 5-6-8	6	x	4.9
ERG32MD7	M 7-10	7	x	5.5
ERG32MD8	M 8	8	x	6.2
ERG32MD9	M 9-12	9	x	7
ERG32MD10	M 10	10	x	8
ERG32MD11	M 14	11	x	9
ERG32MD12	M 16	12	x	9
ERG32MD14	M 18	14	x	11
ERG32MD16	M 20	16	x	12

ERG-20M

REFERENCIA	M	Ø	X	∇
ERG20MD4	M 3.5	4	x	3
ERG20MD4.5	M 4	4.5	x	3.4
ERG20MD5	M 5	5	x	4
ERG20MD5.5	M 5.5	5.5	x	4.3
ERG20MD6	M 5-6-8	6	x	4.9
ERG20MD7	M 7-10	7	x	5.5
ERG20MD8	M 8	8	x	6.2
ERG20MD9	M 9-12	9	x	7
ERG20MD10	M 10	10	x	8

ERG-40M

REFERENCIA	M	Ø	X	∇
ERG40MD6	M 5-6-8	6	x	4.9
ERG40MD7	M 7-10	7	x	5.5
ERG40MD8	M 8	8	x	6.2
ERG40MD9	M 9-12	9	x	7
ERG40MD10	M 10	10	x	8
ERG40MD11	M 14	11	x	9
ERG40MD12	M 16	12	x	9
ERG40MD14	M 18	14	x	11
ERG40MD16	M 20	16	x	12
ERG40MD18	M 24	18	x	14.5
ERG40MD20	M 27	20	x	16

ERG-25M

REFERENCIA	M	Ø	X	∇
ERG25MD4	M 3.5	4	x	3
ERG25MD4.5	M 4	4.5	x	3.4
ERG25MD6	M 5-6-8	6	x	4.9
ERG25MD7	M 7-10	7	x	5.5
ERG25MD8	M 8	8	x	6.2
ERG25MD9	M 9-12	9	x	7
ERG25MD10	M 10	10	x	8
ERG25MD11	M 14	11	x	9
ERG25MD12	M 16	12	x	9



Pinza para macho con cuadradillo de arrastre con compensacion axial
Tapping collets with axial compensation



T = Compensation

ER16-COM

REFERENCIA	Ø	X	∅	T
ER16COMD2.5	2.5	x	2.1	7 mm
ER16COMD2.8	2.8	x	2.1	
ER16COMD3.5	3.5	x	2.7	
ER16COMD4	4	x	3	
ER16COMD4.5	4.5	x	3.4	
ER16COMD6	6	x	4.9	

ER20-COM

REFERENCIA	Ø	X	∅	T
ER20COMD2.5	2.5	x	2.1	7mm
ER20COMD2.8	2.8	x	2.1	
ER20COMD3.5	3.5	x	2.7	
ER20COMD4	4	x	3.0	
ER20COMD4.5	4.5	x	3.4	
ER20COMD6	6	x	4.9	
ER20COMD7	7	x	5.5	

ER25-COM

REFERENCIA	Ø	X	∅	T
ER25COMD2.5	2.5	x	2.1	8mm
ER25COMD2.8	2.8	x	2.1	
ER25COMD3.5	3.5	x	2.7	
ER25COMD4	4	x	3.0	
ER25COMD4.5	4.5	x	3.4	
ER25COMD6	6	x	4.9	
ER25COMD7	7	x	5.5	
ER25COMD8	8	x	6.2	
ER25COMD9	9	x	7	
ER25COMD10	10	x	8	

ER32-COM

REFERENCIA	Ø	X	∅	T
ER32COMD4.5	4.5	x	3.4	10mm
ER32COMD6	6	x	4.9	
ER32COMD7	7	x	5.5	
ER32COMD8	8	x	6.2	
ER32COMD9	9	x	7	
ER32COMD10	10	x	8	
ER32COMD11	11	x	9	
ER32COMD12	12	x	9	

ER40-COM

REFERENCIA	Ø	X	∅	T
ER40COMD6	6	x	4.9	13mm
ER40COMD7	7	x	5.5	
ER40COMD8	8	x	6.2	
ER40COMD9	9	x	7	
ER40COMD10	10	x	8	
ER40COMD11	11	x	9	
ER40COMD12	12	x	9	
ER40COMD12.5	12.5	x	10	
ER40COMD14	14	x	11	
ER40COMD16	16	x	12	

Pinza para escariador con cuadradillo de arrastre flotante
Floating collets for reamers



Floating
 $R=0.5$



ER16-PA

REFERENCIA	Ø Mango
ER16PAD2	2
ER16PAD3	3
ER16PAD4	4
ER16PAD5	5
ER16PAD6	6
ER16PAD7	7

ER20-PA

REFERENCIA	Ø Mango
ER20PAD3	3
ER20PAD4	4
ER20PAD5	5
ER20PAD6	6
ER20PAD7	7
ER20PAD8	8

ER25-PA

REFERENCIA	Ø Mango
ER25PAD3	3
ER25PAD4	4
ER25PAD5	5
ER25PAD6	6
ER25PAD7	7
ER25PAD8	8
ER25PAD9	9
ER25PAD10	10

ER32-PA

REFERENCIA	Ø Mango
ER32PAD4	4
ER32PAD5	5
ER32PAD6	6
ER32PAD7	7
ER32PAD8	8
ER32PAD9	9
ER32PAD10	10
ER32PAD11	11
ER32PAD12	12
ER32PAD13	13

ER40-PA

REFERENCIA	Ø Mango
ER40PAD4	4
ER40PAD5	5
ER40PAD6	6
ER40PAD7	7
ER40PAD8	8
ER40PAD9	9
ER40PAD10	10
ER40PAD11	11
ER40PAD12	12
ER40PAD13	13
ER40PAD14	14
ER40PAD15	15
ER40PAD16	16



Tuerca de apriete mini preequilibrada
Prebalanced clamping nuts

Tuerca MINI

REFERENCIA	D	M x P	* Nm
G8M FIG. 1	12	M10 X 0.75	5 ÷ 6
G11M FIG. 1	16	M13 X 0.75	7 ÷ 17
G16M FIG. 1	22	M19 X 1	12 ÷ 24
G20M FIG. 1	28	M24 X 1	16 ÷ 28
G25M FIG. 1	35	M30 X 1	22 ÷ 32

FIG. 1



12000 rpm

Tuerca MINI - Izquierda

REFERENCIA	D	M x P	* Nm
G11ML FIG. 1	16	M13 X 0.75	7 ÷ 17
G16ML FIG. 1	22	M19 X 1.5	12 ÷ 24
G20ML FIG. 1	28	M24 X 1.5	16 ÷ 28
G25ML FIG. 1	35	M30 X 1.5	22 ÷ 32

FIG. 1



12000 rpm

Tuerca MINI - Hexagonal

REFERENCIA	D	M x P	* Nm
G11MSE FIG. 2	16	M13 X 0.75	7 ÷ 17
G16MSE FIG. 2	25	M19 X 1	12 ÷ 24
G20MSE FIG. 2	30	M24 X 1	16 ÷ 28
G25MSE FIG. 2	37	M30 X 1	22 ÷ 32

FIG. 2



12000 rpm

Llave tuerca
MINI

REFERENCIA	FIG.
CH8M	FIG. 1
CH11M	FIG. 1
CH16M	FIG. 1
CH20M	FIG. 1
CH25M	FIG. 1



Llave tuerca
MINI
Dinamométrica

REFERENCIA	FIG.
CD8M	FIG. 1
CD11M	FIG. 1
CD16M	FIG. 1
CD20M	FIG. 1
CD25M	FIG. 1



Llave tuerca
MINI
Hexagonal

REFERENCIA	FIG.
CHE14	FIG. 2
CHE22	FIG. 2
CHE27	FIG. 2
CHE34	FIG. 2



* Nm = Fuerza de apriete aconsejada
Recommended tightening torque

Tuerca de apriete STANDARD preequilibrada
Prebalanced clamping nuts

Tuerca Standard

REFERENCIA		D	M x P	* Nm
G16S	FIG. 1	32	M22 x 1,5	15 ÷ 50
G20S	FIG. 1	35	M25 x 1,5	16 ÷ 75
G25S	FIG. 1	42	M32 x 1,5	25 ÷ 100
G32S	FIG. 1	50	M40 x 1,5	25 ÷ 140
G40S	FIG. 1	63	M50 x 1,5	60 ÷ 170
G50S	FIG. 1	78	M64 x 2	120 ÷ 250

FIG. 1



12000 rpm

REFERENCIA		D	M x P	* Nm
G16SL Izquierda	FIG. 1	32	M22 x 1,5	15 ÷ 50
G20SL Izquierda	FIG. 1	35	M25 x 1,5	16 ÷ 75
G25SL Izquierda	FIG. 1	42	M32 x 1,5	25 ÷ 100
G32SL Izquierda	FIG. 1	50	M40 x 1,5	25 ÷ 140
G40SL Izquierda	FIG. 1	63	M50 x 1,5	60 ÷ 170

Tuerca Standard - Hexagonal

REFERENCIA		D	M x P	* Nm
G11SE	FIG. 2	19	M14 x 0.75	8 ÷ 24
G16SE	FIG. 2	28	M22 x 1.5	15 ÷ 50
G20SE	FIG. 2	34	M25 x 1.5	16 ÷ 75

FIG. 2



12000 rpm

REFERENCIA		D	M x P	* Nm
G11SEL Izquierda	FIG. 2	19	M14 x 0.75	8 ÷ 24
G16SEL Izquierda	FIG. 2	28	M22 x 1.5	15 ÷ 50
G20SEL Izquierda	FIG. 2	34	M25 x 1.5	16 ÷ 75

Llave tuerca
STANDARD

REFERENCIA	
CH16S	FIG. 1
CH20S	FIG. 1
CH25S	FIG. 1
CH32S	FIG. 1
CH40S	FIG. 1
CH50S	FIG. 1



Llave
STANDARD
 Dinamométrica

REFERENCIA	
CD16S	FIG. 1
CD20S	FIG. 1
CD25S	FIG. 1
CD32S	FIG. 1
CD40S	FIG. 1



Llave tuerca
HEXAGONAL

REFERENCIA	
CHE17	FIG. 2
CHE25	FIG. 2
CHE30	FIG. 2



* Nm = Fuerza de apriete aconsejada
Recommended tightening torque

Tuerca extracción concéntrica para ALTA VELOCIDAD
Nuts with concentric extractor for high speed

Tuerca Standard Mini / Alta Velocidad

REFERENCIA	D	M x P	* Nm
G16WDM FIG. 1	22	M19 x 1	12 ÷ 24
G20WDM FIG. 1	28	M24 x 1	16 ÷ 28
G25WDM FIG. 1	35	M30 x 1	22 ÷ 32

FIG. 1



Tuerca Standard - Hexagonal / Alta Velocidad

REFERENCIA	D	M x P	* Nm
G16WDE FIG. 2	28	M22 x 1.5	15 ÷ 50
G20WDE FIG. 2	34	M25 x 1.5	16 ÷ 75

FIG. 2



REFERENCIA	D	M x P	* Nm
G16WDEL Izquierda FIG. 2	28	M22 x 1.5	15 ÷ 50
G20WDEL Izquierda FIG. 2	34	M25 x 1.5	16 ÷ 75

Tuerca Standard / Alta Velocidad

REFERENCIA	D	M x P	* Nm
G16WD FIG. 3	32	M22 x 1.5	15 ÷ 50
G20WD FIG. 3	35	M25 x 1.5	16 ÷ 70
G25WD FIG. 3	42	M32 x 1.5	25 ÷ 100
G32WD FIG. 3	50	M40 x 1.5	25 ÷ 140
G40WD FIG. 3	63	M50 x 1.5	60 ÷ 170

FIG. 3



REFERENCIA	D	M x P	* Nm
G16WDL Izquierda FIG. 3	32	M22 x 1.5	15 ÷ 50
G20WDL Izquierda FIG. 3	35	M25 x 1.5	16 ÷ 70
G25WDL Izquierda FIG. 3	42	M32 x 1.5	25 ÷ 100
G32WDL Izquierda FIG. 3	50	M40 x 1.5	25 ÷ 140
G40WDL Izquierda FIG. 3	63	M50 x 1.5	60 ÷ 170

Llave tuerca
MINI

REFERENCIA	
CH16M FIG. 1	
CH20M FIG. 1	
CH25M FIG. 1	



Llave tuerca
MINI Hexagonal

REFERENCIA	
CHE14 FIG. 2	
CHE22 FIG. 2	
CHE27 FIG. 2	
CHE34 FIG. 2	



Llave tuerca
STANDARD

REFERENCIA	
CH16S FIG. 3	
CH20S FIG. 3	
CH25S FIG. 3	
CH32S FIG. 3	
CH40S FIG. 3	





Tuerca STANDARD pinza ER - ALTA VELOCIDAD
Notch-free STANDARD nuts for high speed

Tuerca Standard Alta Velocidad

REFERENCIA		D	M x P	* Nm
G16NF	FIG. 2	32	M22 x 1.5	15 ÷ 50
G20NF	FIG. 2	35	M25 x 1.5	16 ÷ 75
G25NF	FIG. 2	42	M32 x 1.5	25 ÷ 100
G32NF	FIG. 2	50	M40 x 1.5	25 ÷ 140
G40NF	FIG. 2	63	M50 x 1.5	60 ÷ 170

FIG. 2



20000 rpm

Llave
STANDARD
Alta Velocidad

REFERENCIA

CR16	FIG. 2
CR20	FIG. 2
CR25	FIG. 2
CR32	FIG. 2
CR40	FIG. 2



Llave
STANDARD
Alta Velocidad
Dinamométrica

REFERENCIA

C16NF	FIG. 2
C20NF	FIG. 2
C25NF	FIG. 2
C32NF	FIG. 2
C40NF	FIG. 2



* Nm = Fuerza de apriete aconsejada
Recommended tightening torque

Tuerca de apriete
con rosca Externa
Externally threaded nuts

FIG. 1



REFERENCIA		M x P	T
G11A	FIG. 1	M18 x 1	6
G16A	FIG. 1	M24 x 1	8
G20A	FIG. 1	M28 x 1.5	11
G25A	FIG. 1	M32 x 1.5	12
G32A	FIG. 1	M40 x 1.5	14
G40A	FIG. 1	M50 x 1.5	18

Tuerca de apriete Hexagonal
con rosca externa
Externally threaded EXAGONAL nuts

FIG. 2



REFERENCIA		M x P	T	SW
G11AEX	FIG. 2	M18 x 1	9	15
G16AEX	FIG. 2	M24 x 1	12	19
G20AEX	FIG. 2	M28 x 1.5	13	22
G25AEX	FIG. 2	M32 x 1.5	16.5	27
G32AEX	FIG. 2	M40 x 1.5	19	32
G40AEX	FIG. 2	M50 x 1.5	17	42

LLlave PIVOTE

REFERENCIA

CH11A	FIG. 1
CH16A	FIG. 1
CH20A	FIG. 1
CH25A	FIG. 1
CH32A	FIG. 1



Llave Hexagonal

REFERENCIA

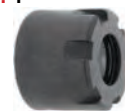
CHE15	FIG. 2
CHE19	FIG. 2
CHE22	FIG. 2
CHE27	FIG. 2
CHE32	FIG. 2
CHE42	FIG. 2



Tuerca MINI con disco de Retención paso refrigerante
Nuts with seal disks Mini type

REFERENCIA		D	M x P	* Nm
G16HTM	FIG. 1	22	M19 x 1	12 ÷ 24
G20HTM	FIG. 1	28	M24 x 1	16 ÷ 28
G25HTM	FIG. 1	35	M30 x 1	22 ÷ 32

FIG. 1



12000 rpm

Tuerca STANDARD con disco de Retención paso refrigerante
Nuts with seal disks STANDARD type

REFERENCIA		D	M x P	* Nm
G25HT	FIG. 2	42	M32 x 1.5	25 ÷ 100
G32HT	FIG. 2	50	M40 x 1.5	25 ÷ 140
G40HT	FIG. 2	63	M50 x 1.5	60 ÷ 170

FIG. 2



12000 rpm

Disco de Retención paso refrigerante
Sealed disc with viton-o-ring

REFERENCIA TUERCA	REFERENCIA DISCO	RANGO
G16HTM	DS16 Ø4 - Ø10	x 1mm
G20HTM	DS20 Ø4 - Ø13	x 1mm
G25HTM / G25HT	DS25 Ø4 - Ø16	x 1mm
G32HT	DS32 Ø4 - Ø20	x 1mm
G40HT	DS40 Ø4 - Ø26	x 1mm



Llave tuerca MINI

REFERENCIA

CH16M	FIG. 1
CH20M	FIG. 1
CH25M	FIG. 1



Llave tuerca STANDARD

REFERENCIA

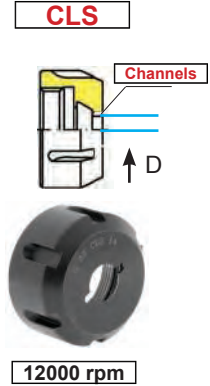
CH25S	FIG. 2
CH32S	FIG. 2
CH40S	FIG. 2



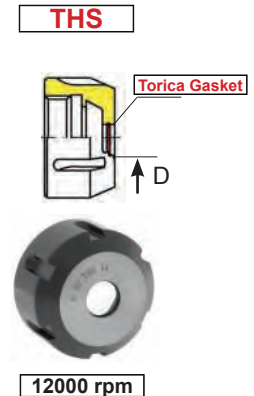
* Nm = Fuerza de apriete aconsejada
 Recommended tightening torque

Tuercas con canales de refrigeración
Nuts with coolant channels

REFERENCIA	A	F	* Nm
G32CLSD4	50	M40 x 1.5	25 ÷ 140
G32CLSD5	50	M40 x 1.5	25 ÷ 140
G32CLSD6	50	M40 x 1.5	25 ÷ 140
G32CLSD7	50	M40 x 1.5	25 ÷ 140
G32CLSD8	50	M40 x 1.5	25 ÷ 140
G32CLSD9	50	M40 x 1.5	25 ÷ 140
G32CLSD10	50	M40 x 1.5	25 ÷ 140
G32CLSD11	50	M40 x 1.5	25 ÷ 140
G32CLSD12	50	M40 x 1.5	25 ÷ 140
G32CLSD13	50	M40 x 1.5	25 ÷ 140
G32CLSD14	50	M40 x 1.5	25 ÷ 140
G32CLSD15	50	M40 x 1.5	25 ÷ 140
G32CLSD16	50	M40 x 1.5	25 ÷ 140
G32CLSD17	50	M40 x 1.5	25 ÷ 140
G32CLSD18	50	M40 x 1.5	25 ÷ 140
G32CLSD19	50	M40 x 1.5	25 ÷ 140
G32CLSD20	50	M40 x 1.5	25 ÷ 140


Tuerca refrigeración central con junta
Sealed nuts

REFERENCIA	A	F	* Nm
G32THSD4	50	M40 x 1.5	25 ÷ 140
G32THSD5	50	M40 x 1.5	25 ÷ 140
G32THSD6	50	M40 x 1.5	25 ÷ 140
G32THSD7	50	M40 x 1.5	25 ÷ 140
G32THSD8	50	M40 x 1.5	25 ÷ 140
G32THSD9	50	M40 x 1.5	25 ÷ 140
G32THSD10	50	M40 x 1.5	25 ÷ 140
G32THSD11	50	M40 x 1.5	25 ÷ 140
G32THSD12	50	M40 x 1.5	25 ÷ 140
G32THSD13	50	M40 x 1.5	25 ÷ 140
G32THSD14	50	M40 x 1.5	25 ÷ 140
G32THSD15	50	M40 x 1.5	25 ÷ 140
G32THSD16	50	M40 x 1.5	25 ÷ 140
G32THSD17	50	M40 x 1.5	25 ÷ 140
G32THSD18	50	M40 x 1.5	25 ÷ 140
G32THSD19	50	M40 x 1.5	25 ÷ 140
G32THSD20	50	M40 x 1.5	25 ÷ 140



Llave tuerca
STANDARD

REFERENCIA

CH32S



* Nm = Fuerza de apriete aconsejada
 Recommended tightening torque

Llave tuerca
MINI

REFERENCIA

- CH8M
- CH11M
- CH16M
- CH20M
- CH25M



Llave tuerca
MINI
Hexagonal

REFERENCIA

- CHE14
- CHE22
- CHE27
- CHE34



Llave tuerca
STANDARD

REFERENCIA

- CH16S
- CH20S
- CH25S
- CH32S
- CH40S
- CH50S



Llave
PIVOTE

REFERENCIA

- CH11A
- CH16A
- CH20A
- CH25A
- CH32A



Llave
STANDARD
Alta Velocidad

REFERENCIA

- CR16
- CR20
- CR25
- CR32
- CR40



Llave
GANCHO
SKS

REFERENCIA

- CH10SKS
- CH16SKS
- CH20SKS
- CH25SKS



Llave
Gancho

REFERENCIA

- CH6GOC
- CH8GOC
- CH10GOC
- CH12GOC
- CH16GOC
- CH20GOC
- CH25GOC
- CH32GOC
- CH40GOC



Llave tuerca
HEXAGONAL

REFERENCIA

- CHE15
- CHE17
- CHE19
- CHE25
- CHE28
- CHE30
- CHE32
- CHE36
- CHE38
- CHE42
- CHE50



Llave
Allen



REFERENCIA

- CHEX5
- CHEX6



Llave tuerca MINI Dinamométrica

REFERENCIA

CD8M
CD11M
CD16M
CD20M
CD25M



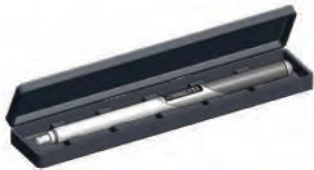
Llave STANDARD Dinamométrica

REFERENCIA

CD16S
CD20S
CD25S
CD32S
CD40S



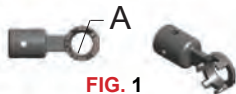
Llave Dinamométrica Digital Digital torque wrench



REFERENCIA	L	D	FUERZA DE APRIETE
WRDIG	540	16	20-200 Nm

Recambios llave digital Interchangeable Inserts

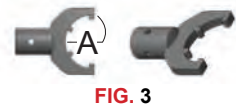
REFERENCIA	A
DIG16M	FIG. 1 22
DIG20M	FIG. 1 28
DIG25M	FIG. 1 35



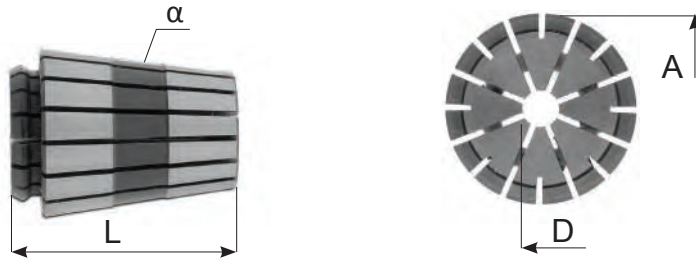
REFERENCIA	E
DIG16SE	FIG. 2 25
DIG20SE	FIG. 2 30



REFERENCIA	A
DIG25S	FIG. 3 42
DIG32S	FIG. 3 50
DIG40S	FIG. 3 63

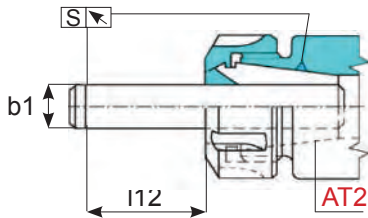


* Nm = Fuerza de apriete aconsejada
Recommended tightening torque



CODIGO CODE	D mm min-max	Campo de Apriete Clamping Range	A	B	L
ERD16	1 ÷ 10	0,5 ÷ 1 mm	16	17	24
ERD20	1 ÷ 13	0,5 ÷ 1 mm	20	21	31
ERD25	2 ÷ 16	0,5 ÷ 1 mm	25	26	34
ERD32	3 ÷ 20	0,5 ÷ 1 mm	32	33	40
ERD40	3 ÷ 26	1 mm	40	41	46

Tolerancia de la rotación de la pinza ERD
ERD collet concentricity specification

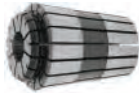


d1 - h5		l12	S max ①
<i>minimum</i>	<i>maximum</i>		
<i>mm</i>	<i>mm</i>	<i>mm</i>	<i>mm</i>
1	1.6	6	0.010
1.6	3	10	0.010
3	7	16	0.010
7	10	25	0.010
10	18	40	0.015
18	26	50	0.015
26	40	60	0.015

② El valor de la concetricidad se controla sobre el Ø nominal de la pinza
② This runout accuracy is valid only for the nominal size of the collets

Pinza de precisión
Precision collets

ERD16



∇0,010

REFERENCIA	CAPACIDAD		
ERD16D1	1	÷	0.5
ERD16D2	2	÷	1
ERD16D3	3	÷	2
ERD16D4	4	÷	3
ERD16D5	5	÷	4
ERD16D6	6	÷	5
ERD16D7	7	÷	6
ERD16D8	8	÷	7
ERD16D9	.9	÷	8
ERD16D10	10	÷	9

Kit de pinzas / *Kit in Tray*

REFERENCIA

RERD16-10 **KIT** **FIG. 1**
D. 1 . 2 . 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10

FIG. 1



Estuche de pinzas / *Kit in Box*

REFERENCIA

BERD16-10 **BOX** **FIG. 2**
D. 1 . 2 . 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10

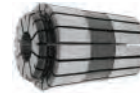
FIG. 2



* ERD = Compatible with clamp ER Din 6499

Pinza de precisión
Precision collets

ERD20



∇0,010

REFERENCIA	CAPACIDAD		
ERD20D2	2	÷	1
ERD20D3	3	÷	2
ERD20D4	4	÷	3
ERD20D5	5	÷	4
ERD20D6	6	÷	5
ERD20D7	7	÷	6
ERD20D8	8	÷	7
ERD20D9	9	÷	8
ERD20D10	10	÷	9
ERD20D11	11	÷	10
ERD20D12	12	÷	11
ERD20D13	13	÷	12

Kit de pinzas / *Kit in Tray*

REFERENCIA

RERD20-12 **KIT** **FIG. 1**
D. 2 . 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13

FIG. 1



Estuche de pinzas / *Kit in Box*

REFERENCIA

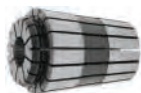
BERD20-12 **BOX**
D. 2 . 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13

FIG. 2



Pinza de precisión
Precision collets

ERD25



0,010

REFERENCIA	CAPACIDAD		
ERD25D2	2	÷	1.5
ERD25D3	3	÷	2
ERD25D4	4	÷	3
ERD25D5	5	÷	4
ERD25D6	6	÷	5
ERD25D7	7	÷	6
ERD25D8	8	÷	7
ERD25D9	9	÷	8
ERD25D10	10	÷	9
ERD25D11	11	÷	10
ERD25D12	12	÷	11
ERD25D13	13	÷	12
ERD25D14	14	÷	13
ERD25D15	15	÷	14
ERD25D16	16	÷	15

Kit de pinzas / *Kit in Tray*

REFERENCIA		
RERD25-6	KIT	FIG. 1
D. 4 . 6 . 8 . 10 . 12 . 16		
RERD25-15	KIT	FIG. 1
D. 2 . 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13		
D. 14 . 15 . 16		

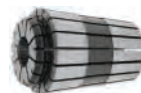
Estuche de pinzas / *Kit in Box*

REFERENCIA		
BERD25-15	BOX	FIG. 2
D. 2 . 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13		
D. 14 . 15 . 16		



Pinza de precisión
Precision collets

ERD32



0,010 ÷ 0,015

REFERENCIA	CAPACIDAD		
ERD32D3	3	÷	2
ERD32D4	4	÷	3
ERD32D5	5	÷	4
ERD32D6	6	÷	5
ERD32D7	7	÷	6
ERD32D8	8	÷	7
ERD32D9	9	÷	8
ERD32D10	10	÷	9
ERD32D11	11	÷	10
ERD32D12	12	÷	11
ERD32D13	13	÷	12
ERD32D14	14	÷	13
ERD32D15	15	÷	14
ERD32D16	16	÷	15
ERD32D17	17	÷	16
ERD32D18	18	÷	17
ERD32D19	19	÷	18
ERD32D20	20	÷	19

Kit de pinzas / *Kit in Tray*

REFERENCIA		
RERD32-6	KIT	FIG. 1
D. 6 . 8 . 10 . 12 . 16 . 20		
RERD32-18	KIT	FIG. 1
D. 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13 . 14		
D. 15 . 16 . 17 . 18 . 19 . 20		

Estuche de pinzas / *Kit in Box*

REFERENCIA		
BERD32-18	BOX	FIG. 2
D. 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13 . 14		
D. 15 . 16 . 17 . 18 . 19 . 20		



* ERD = Compatible con pinza ER Din 6499

Pinza de precisión
Precision collets

ERD40



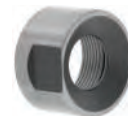
▽0,010 ÷ 0,015

REFERENCIA	CAPACIDAD			REFERENCIA	CAPACIDAD		
ERD40D3	3	÷	2	ERD40D15	15	÷	14
ERD40D4	4	÷	3	ERD40D16	16	÷	15
ERD40D5	5	÷	4	ERD40D17	17	÷	16
ERD40D6	6	÷	5	ERD40D18	18	÷	17
ERD40D7	7	÷	6	ERD40D19	19	÷	18
ERD40D8	8	÷	7	ERD40D20	20	÷	19
ERD40D9	9	÷	8	ERD40D21	21	÷	20
ERD40D10	10	÷	9	ERD40D22	22	÷	21
ERD40D11	11	÷	10	ERD40D23	23	÷	22
ERD40D12	12	÷	11	ERD40D24	24	÷	23
ERD40D13	13	÷	12	ERD40D25	25	÷	24
ERD40D14	14	÷	13	ERD40D26	26	÷	25

* ERD = Compatible con pinza ER Din 6499

TUERCA Mini

REFERENCIA	D	M x P	* Nm
G16ERDM	24	M19x1	12 ÷ 24
G20ERDM	30.5	M24x1	16 ÷ 28
G25ERDM	36	M30x1	22 ÷ 32



TUERCA Standard

REFERENCIA	D	M x P	* Nm
G16ERS	32	M22x1,5	15 ÷ 50
G20ERS	35	M25x1,5	16 ÷ 75
G25ERS	42	M32x1,5	25 ÷ 100
G32ERS	50	M40x1,5	25 ÷ 140
G40ERS	63	M50x1,5	60 ÷ 170



Tuerca standard ERD32 y ERD40 rosca izquierda sobre pedido.

Llave MINI
Hexagonal

REFERENCIA

CHE22
CHE28
CHE34

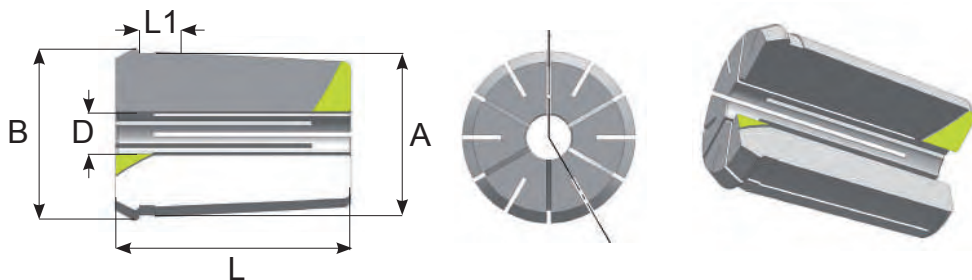


Llave
STANDARD

REFERENCIA

CH16S
CH20S
CH25S
CH32S
CH40S





CÓDIGO CODE	D mm min-max	Campo de Apriete Clamping Range	A	L
EOC6B - 400E	1 ÷ 6	0,5 mm	11.50	21
EOC8B - 401E	1 ÷ 8	0,5 mm	14.50	26
EOC10B - 404E	1 ÷ 10	0,5 mm	17.20	30
EOC12B - 407E	1 ÷ 12	0,5 mm	19.80	34
EOC16B - 415E	2 ÷ 16	0,5 mm	25.50	40
EOC20B - 4541E	2 ÷ 20	0,5 mm	29.80	45
EOC25B - 462E	2 ÷ 25	0,5 mm	35.05	52
EOC32B - 467E	3 ÷ 32	0,5 mm	43.70	60
EOC40B - 468E	8 ÷ 40	0,5 mm	52.20	68

Pinza de precisión standard
Standard precision collets

EOC



✓0,015

EOC06B / 08B / 10B / 12B

REFERENCIA	CAPACIDAD			CAMPO DE APRIETE
EOC6B	1	÷	6	0,5mm
EOC8B	1	÷	8	0,5mm
EOC10B	1	÷	10	0,5mm
EOC12B	1	÷	12	0,5mm

Pinza de precisión standard
Standard precision collets

EOC16



↗0,015

REFERENCIA	CAPACIDAD		
EOC16D2	2	÷	1.5
EOC16D3	3	÷	2.5
EOC16D4	4	÷	3.5
EOC16D5	5	÷	4.5
EOC16D6	6	÷	5.5
EOC16D7	7	÷	6.5
EOC16D8	8	÷	7.5
EOC16D9	9	÷	8.5
EOC16D10	10	÷	9.5
EOC16D11	11	÷	10.5
EOC16D12	12	÷	11.5
EOC16D13	13	÷	12.5
EOC16D14	14	÷	13.5
EOC16D15	15	÷	14.5
EOC16D16	16	÷	15.5

Medios sobre pedido.

Kit de pinzas / Kit in Tray

REFERENCIA

REOC16-15 **FIG. 1**
D. 2 . 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13 .
D. 14 . 15 . 16

FIG. 1



Estuche de pinzas / Kit in Box

REFERENCIA

BEOC16-15 **FIG. 2**
D. 2 . 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13 .
D. 14 . 15 . 16

FIG. 2



Pinza de precisión standard
Standard precision collets

EOC20



↗0,015

REFERENCIA	CAPACIDAD		
EOC20D2	2	÷	1.5
EOC20D3	3	÷	2.5
EOC20D4	4	÷	3.5
EOC20D5	5	÷	4.5
EOC20D6	6	÷	5.5
EOC20D8	8	÷	7.5
EOC20D10	10	÷	9.5
EOC20D12	12	÷	11.5
EOC20D14	14	÷	13.5
EOC20D16	16	÷	15.5
EOC20D18	18	÷	17.5
EOC20D20	20	÷	19.5

Medios sobre pedido.

Kit de pinzas / Kit in Tray

REFERENCIA

REOC20-12 **FIG. 1**
D. 2 . 3 . 4 . 5 . 6 . 8 . 10 . 12 . 14 . 16 . 18 . 20

FIG. 1



Estuche de pinzas / Kit in Box

REFERENCIA

BEOC20-12 **FIG. 2**
D. 2 . 3 . 4 . 5 . 6 . 8 . 10 . 12 . 14 . 16 . 18 . 20

FIG. 2



Pinza de precisión standard
Standard precision collets

Pinza de precisión standard
Standard precision collets

EOC25



◀0.015

EOC32



◀0.015

REFERENCIA	CAPACIDAD		
EOC25D2	2	÷	1.5
EOC25D3	3	÷	2.5
EOC25D4	4	÷	3.5
EOC25D5	5	÷	4.5
EOC25D6	6	÷	5.5
EOC25D7	7	÷	6.5
EOC25D8	8	÷	7.5
EOC25D9	9	÷	8.5
EOC25D10	10	÷	9.5
EOC25D11	11	÷	10.5
EOC25D12	12	÷	11.5
EOC25D13	13	÷	12.5
EOC25D14	14	÷	13.5
EOC25D15	15	÷	14.5
EOC25D16	16	÷	15.5
EOC25D17	17	÷	16.5
EOC25D18	18	÷	17.5
EOC25D19	19	÷	18.5
EOC25D20	20	÷	19.5
EOC25D21	21	÷	20.5
EOC25D22	22	÷	21.5
EOC25D23	23	÷	22.5
EOC25D24	24	÷	23.5
EOC25D25	25	÷	24.5

REFERENCIA	CAPACIDAD		
EOC32D3	3	÷	2.5
EOC32D4	4	÷	3.5
EOC32D5	5	÷	4.5
EOC32D6	6	÷	5.5
EOC32D7	7	÷	6.5
EOC32D8	8	÷	7.5
EOC32D9	9	÷	8.5
EOC32D10	10	÷	9.5
EOC32D11	11	÷	10.5
EOC32D12	12	÷	11.5
EOC32D13	13	÷	12.5
EOC32D14	14	÷	13.5
EOC32D15	15	÷	14.5
EOC32D16	16	÷	15.5
EOC32D17	17	÷	16.5
EOC32D18	18	÷	17.5
EOC32D19	19	÷	18.5
EOC32D20	20	÷	19.5
EOC32D21	21	÷	20.5
EOC32D22	22	÷	21.5
EOC32D23	23	÷	22.5
EOC32D24	24	÷	23.5
EOC32D25	25	÷	24.5
EOC32D26	26	÷	25.5
EOC32D27	27	÷	26.5
EOC32D28	28	÷	27.5
EOC32D29	29	÷	28.5
EOC32D30	30	÷	29.5
EOC32D31	31	÷	30.5
EOC32D32	32	÷	31.5

Medios sobre pedido.

Medios sobre pedido.

Estuche de pinzas / Kit in Box

REFERENCIA

REOC25-6 **FIG. 1**

D4 . 6 . 8 . 10 . 12 . 16

REOC25-24 **FIG. 1**

D2 . 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13 . 14

15 . 16 . 17 . 18 . 19 . 20 . 21 . 22 . 23 . 24 . 25 **FIG. 2**

BEOC25-24 **FIG. 2**

D2 . 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13 . 14

15 . 16 . 17 . 18 . 19 . 20 . 21 . 22 . 23 . 24 . 25

FIG. 1



FIG. 2



Estuche de pinzas / Kit in Box

REFERENCIA

REOC32-6 **FIG. 1**

D4 . 6 . 8 . 10 . 12 . 16

REOC32-30 **FIG. 1**

BEOC32-30 **FIG. 2**

D3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13

D14 . 15 . 16 . 17 . 18 . 19 . 20 . 21 . 22 . 23

D24 . 25 . 26 . 27 . 28 . 29 . 30 . 31 . 32

Pinza de precisión standard
Standard precision collets

EOC40


 0.015

REFERENCIA	CAPACIDAD			REFERENCIA	CAPACIDAD		
EOC40D8	8	÷	7.5	EOC40D25	25	÷	24.5
EOC40D9	9	÷	8.5	EOC40D26	26	÷	25.5
EOC40D10	10	÷	9.5	EOC40D27	27	÷	26.5
EOC40D11	11	÷	10.5	EOC40D28	28	÷	27.5
EOC40D12	12	÷	11.5	EOC40D29	29	÷	28.5
EOC40D13	13	÷	12.5	EOC40D30	30	÷	29.5
EOC40D14	14	÷	13.5	EOC40D31	31	÷	30.5
EOC40D15	15	÷	14.5	EOC40D32	32	÷	31.5
EOC40D16	16	÷	15.5	EOC40D33	33	÷	32.5
EOC40D17	17	÷	16.5	EOC40D34	34	÷	33.5
EOC40D18	18	÷	17.5	EOC40D35	35	÷	34.5
EOC40D19	19	÷	18.5	EOC40D36	36	÷	35.5
EOC40D20	20	÷	19.5	EOC40D37	37	÷	36.5
EOC40D21	21	÷	20.5	EOC40D38	38	÷	37.5
EOC40D22	22	÷	21.5	EOC40D39	39	÷	38.5
EOC40D23	23	÷	22.5	EOC40D40	40	÷	39.5
EOC40D24	24	÷	23.5				

PINZAS EOC REFRIGERANTES MAX. 40 BAR

Pinzas de precisión standard con refrigeración
Watertight EOC Collets



EOC-RF



EOC12RF / 16RF / 20RF / 25RF / 32RF

REFERENCIA	CAPACIDAD			D	L	CAMPO DE APRIETE
EOC12RF	1	÷	12	19.90	34	0.5 mm
EOC16RF	2	÷	16	25.50	40	0.5 mm
EOC20RF	3	÷	20	30.00	45	0.5 mm
EOC25RF	3	÷	25	35.05	52	0.5 mm
EOC32RF	4	÷	32	44.00	60	0.5 mm

Tuerca de apriete sin bolas
Nuts without friction bearing

REFERENCIA	D	M x P	Nm
GOC6	18	M14 x 1	-
GOC8	26	M20 x 1.5	-
GOC10	30	M22 x 1.5	-
GOC12	35	M27 x 1.5	-
GOC16	43	M33 x 1.5	85
GOC20	50	M42 x 2.0	-
GOC25	60	M48 x 2.0	140
GOC32	72	M60 x 2.5	170
GOC40	85	M68 x 2.5	-



Tuerca de apriete a bolas
Friction bearing nuts

REFERENCIA	M x P	M x P	Nm
GOC16S	43	M33 x 1.5	130
GOC25S	60	M48 x 2	200
GOC32S	72	M60 x 2.5	220

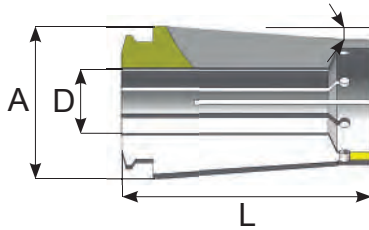


Llave Gancho

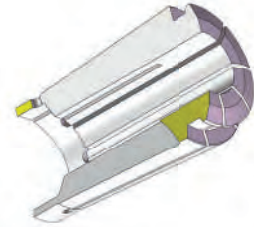
REFERENCIA
CH6GOC
CH8GOC
CH10GOC
CH12GOC
CH16GOC
CH20GOC
CH25GOC
CH32GOC
CH40GOC



Pinza ultra precisión
Ultra precision collets



0.005



CÓDIGO CODE	D mm min-max	A	L
SKS 10	2 ÷ 10	15.013	32
SKS 16	3 ÷ 16	23.939	46
SKS 20	3 ÷ 20	28.5	54.3
SKS 25	3 ÷ 25	35.029	58.2

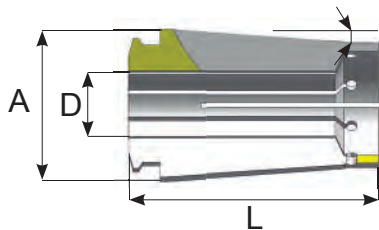
REFERENCIA	D	A	L
SKS10D2	2	15.013	32
SKS10D3	3		
SKS10D4	4		
SKS10D5	5		
SKS10D6	6		
SKS10D7	7		
SKS10D8	8		
SKS10D9	9		
SKS10D10	10		

REFERENCIA	D	A	L
SKS20D3	3	28.5	54.3
SKS20D4	4		
SKS20D5	5		
SKS20D6	6		
SKS20D7	7		
SKS20D8	8		
SKS20D9	9		
SKS20D10	10		
SKS20D11	11		
SKS20D12	12		
SKS20D13	13		
SKS20D14	14		
SKS20D15	15		
SKS20D16	16		
SKS20D17	17		
SKS20D18	18		
SKS20D19	19		
SKS20D20	20		

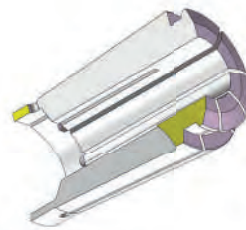
REFERENCIA	D	A	L
SKS16D3	3	23.939	46
SKS16D4	4		
SKS16D5	5		
SKS16D6	6		
SKS16D7	7		
SKS16D8	8		
SKS16D9	9		
SKS16D10	10		
SKS16D11	11		
SKS16D12	12		
SKS16D13	13		
SKS16D14	14		
SKS16D15	15		
SKS16D16	16		



Pinza ultra precisión
Ultra precision collets



0.005



REFERENCIA	D	A	L	REFERENCIA	D	A	L
SKS25D3	3	35.029	58.2	SKS25D14	14	35.029	58.2
SKS25D4	4			SKS25D15	15		
SKS25D5	5			SKS25D16	16		
SKS25D6	6			SKS25D17	17		
SKS25D7	7			SKS25D18	18		
SKS25D8	8			SKS25D19	19		
SKS25D9	9			SKS25D20	20		
SKS25D10	10			SKS25D21	16		
SKS25D11	11			SKS25D22	17		
SKS25D12	12			SKS25D23	18		
SKS25D13	13	SKS25D24	19				
		SKS25D25	20				

Tuerca de apriete para pinza SKS
Friction bearing nuts for collet SKS

REFERENCIA	A	F	* Nm
G10SKS	30	M21.5x1	30-55
G16SKS	40	M32x1	40-75
G20SKS	48.5	M40x1	60-85
G25SKS	55.1	M45x1.5	60-85



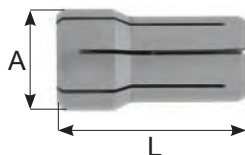
Llaves para pinza SKS
Keys Friction bearing nuts for collet SKS

REFERENCIA	A
CH10SKS	30-32
CH16SKS	40-42
CH20SKS	45-50
CH25SKS	52-55



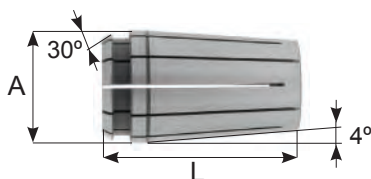
* Nm = Fuerza de apriete aconsejada
Recommended tightening torque

Pinza Tipo "DA"
Collets "DA" Type



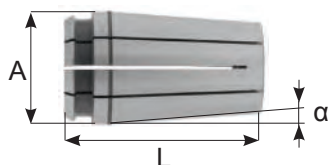
REFERENCIA	CAP			A	L	CAMPO DE APRIETE
DA300-416E	1.5	÷	6.0	9.5	25.4	0.5 mm
DA200-417E	1.5	÷	10.0	13.6	30.3	0.5 mm
DA100-418E	2.0	÷	14.5	19.4	36.7	0.5 mm
DA180-419E	2.0	÷	20.0	26.2	41.6	0.5 mm
DA400-465E	6.0	÷	25.5	36.9	51.0	0.5 mm

Pinza Tipo "TG"
Collets "TG" Type



REFERENCIA	A	L	Apriete
TG75-420E	27.0	46.9	0.5 mm
TG100-464E	35.0	60.4	0.5 mm
TG150-466E	50.8	76.2	0.5 mm

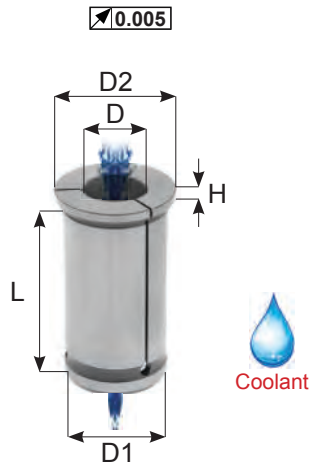
Pinza Tipo "BAKUER"
Collets "BAKUER" Type



REFERENCIA	CAP			A	L	α	CAMPO DE APRIETE
BAK-11	2	÷	6	11.1	23	4°	0.5 mm
BAK-15	3	÷	10	15.6	35	4°	0.5 mm
BAK-25	4	÷	16	25.6	48	3°	0.5 mm
BAK-29	6	÷	20	29.6	54	3°	0.5 mm
BAK-35	8	÷	25	35.7	60	3°	0.1 mm
BAK-44	10	÷	32	44.7	67	3°	0.1 mm

Pinza gran apriete mecánico para paso refrigerante
Collets for power milling chucks

**ULTRA
PRECISION**



D1 = 20	D2 = 25
L = 54	H = 4
REFERENCIA	

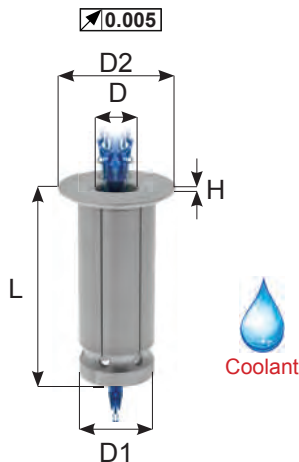
- 4SR20D3
- 4SR20D4
- 4SR20D5
- 4SR20D6
- 4SR20D7
- 4SR20D8
- 4SR20D9
- 4SR20D10
- 4SR20D11
- 4SR20D12
- 4SR20D13
- 4SR20D14
- 4SR20D15
- 4SR20D16
- 4SR20D17
- 4SR20D18

D1 = 32	D2 = 36
L = 63	H = 3
REFERENCIA	

- 4SR32D6
- 4SR32D7
- 4SR32D8
- 4SR32D9
- 4SR32D10
- 4SR32D11
- 4SR32D12
- 4SR32D13
- 4SR32D14
- 4SR32D15
- 4SR32D16
- 4SR32D17
- 4SR32D18
- 4SR32D19
- 4SR32D20
- 4SR32D21
- 4SR32D22
- 4SR32D23
- 4SR32D24
- 4SR32D25

Pinza cilíndrica apriete hidráulico para paso refrigerante
Collets for hydraulic expansion chucks

**ULTRA
PRECISION**



D = 12	D2 = 20
L = 47	H = 2
REFERENCIA	

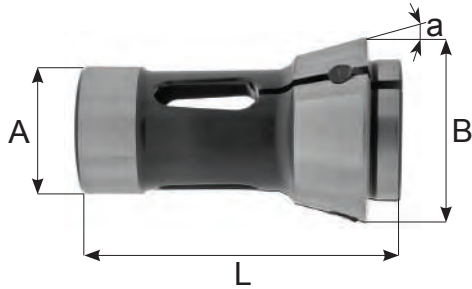
- 6SR12D3
- 6SR12D4
- 6SR12D5
- 6SR12D6
- 6SR12D7
- 6SR12D8
- 6SR12D10

D1 = 20	D2 = 30
L = 52.5	H = 2
REFERENCIA	

- 6SR20D3
- 6SR20D4
- 6SR20D5
- 6SR20D6
- 6SR20D7
- 6SR20D8
- 6SR20D9
- 6SR20D10
- 6SR20D11
- 6SR20D12
- 6SR20D13
- 6SR20D14
- 6SR20D15
- 6SR20D16
- 6SR20D17
- 6SR20D18

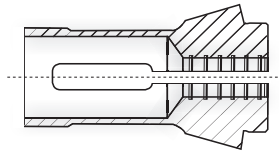
D1 = 32	D2 = 36
L = 63	
REFERENCIA	

- 6SR32D6
- 6SR32D8
- 6SR32D10
- 6SR32D12
- 6SR32D14
- 6SR32D16
- 6SR32D20
- 6SR32D25

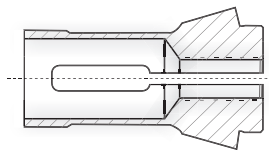


Pinza para torno DIN/6343
Collets for Single - Spindle lathes

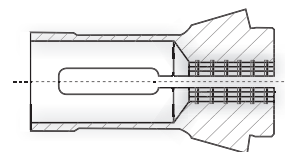
Tipo (Ranurada)
Type (Grooved)



Tipo "L" (Lisa)
Type "L" (Smooth)



Tipo "S" (Estriada)
Type "S" (Serrated)



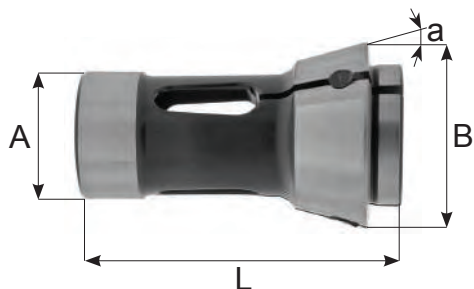
Ejemplo para este pedido: Ref. 0721
Example for order: Ref. 0721

Ejemplo para este pedido: Añadimos la letra "L" Ref. 0721L
Example for order: Add the letter "L" Ref. 0721L

Ejemplo para este pedido: Añadimos la letra "S" Ref. 0721S
Example for order: Add the letter "S" Ref. 0721S

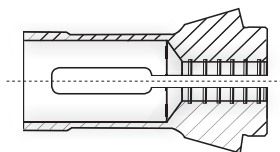


REF	REF	REF	COD	A	B	L	a	●max	⬡max	■max
1072	-	-	100E	6	10	30	15°	4.5	-	-
5293	-	-	1020E	7	10.7	26	15°	5.0	-	-
0721	-	-	101E	8	12	42	16°	6.5	-	-
0725	0949	5000	109E	10	15.5	47.5	20°	8.0	6.0	5.0
5232	-	-	110E	10	16.0	43	15°	7.0	-	-
0347	-	-	-	12	14.5	21	16°	8.0	-	-
0749	-	-	-	12	17	27	20°	10.0	-	-
1132	-	-	-	12	18	64	16°	10.0	8.0	7.0
0940	0941	0943	116E	13	19	64	16°	10.0	8.0	7.0
0740	0741	0742	117E	14	18	46	13°	10.0	9.0	8.0
0730	-	-	-	15	19.2	24	15°	12.0	-	-
0722	0723	0724	120E	15	21	64	16°	12.0	10.0	9.0
5308	5309	5310	121E	15	22	47	20°	11.0	9.0	8.0
0913	0914	0915	123E	16	22	55	15°	12.5	11.0	9.0
0813	-	-	125E	17.5	22	51	15°	14.0	10.0	8.0
5034	5577	-	1248E	18	24	64	16°	14.0	12.0	10.0
0867	0868	0869	127E	18	25	67	15°	13.0	10.0	9.0
0731	-	-	-	20	25.2	28	15°	18.0	-	-
0954	0955	0956	136E	20	26.0	54	15°	16.0	12.0	10.0
5299	5300	5301	1299E	20	27.5	60	15°	17.0	15.0	12.0
0937	0938	0939	138E	20	28	67	16°	16.0	14.0	11.0
0743	0744	0745	139E	22	28	67	13°	16.0	14.0	12.0
0705	0707	0706	140E	22	30	55	15°	18.0	14.0	13.0
5302	5303	5304	1323E	22	32	66	16°	17.0	14.0	12.0
0732	-	-	-	25	30	34	15°	20.0	17.0	14.0
0671	0672	0673	143E	25	31	54	15°	21.0	18.0	15.0
0846	0847	0848	144E	25	34	65	15°	20.0	17.0	14.0

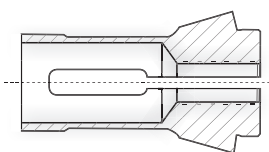


Pinza para torno DIN/6343
Collets for Single - Spindle lathes

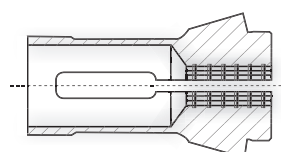
Tipo (Ranurada)
Type (Grooved)



Tipo "L" (Lisa)
Type "L" (Smooth)



Tipo "S" (Estriada)
Type "S" (Serrated)



Ejemplo para este pedido: Ref. 0721
Example for order: Ref. 0721

Ejemplo para este pedido: Añadimos la letra "L" Ref. 0721L
Example for order: Add the letter "L" Ref. 0721L

Ejemplo para este pedido: Añadimos la letra "S" Ref. 0721S
Example for order: Add the letter "S" Ref. 0721S



REF	REF	REF	COD	A	B	L	a	● max	⬠ max	■ max
0717	0719	0718	145E	25	35	77	16°	20.0	18.0	15.0
0746	0747	0748	146E	26	32	67	13°	20.0	18.0	15.0
0901	0902	0903	147E	27	38	72.7	15°	22.0	20.0	16.0
0713	0715	0714	148E	28	38	70	15°	23.0	20.0	17.0
0931	0932	0933	1446E	30	38	65	15°	26.0	22.0	18.0
0727	0728	0729	157E	30	42	80	16°	25.0	23.0	19.0
5305	5306	5307	1473E	32	40	65	15°	26.0	23.0	19.0
5435	-	-	-	32	42	80	15°	28.0	22.0	18.0
0701	0703	0702	161E	32	45	75	15°	26.0	24.0	20.0
0615	0616	0617	162E	35	43	70	15°	25.0	24.0	20.0
0764	0766	0765	163E	35	48	80	15°	30.0	27.0	22.0
0827	0828	0830	-	36	48	90	15°	30.0	27.0	22.0
0970	0972	0973	1536E	37	47	92	16°	32.0	27.0	22.0
0837	0839	0838	-	38	50.3	86	15°	32.0	28.0	25.0
0919	0920	0921	164E	38.1	49	107.5	15°	32.0	27.0	22.0
0861	0862	0863	171E	42	55	94	15°	37.0	32.0	26.0
0709	0711	0710	173E	48	60	94	15°	42.0	38.0	30.0
0666	0667	0668	-	52	63	92	15°	46.0	38.0	32.0
2424	2425	2426	177E	58	70	94	15°	52.0	45.0	36.0
0859	0870	0872	-	60	72	102	15°	52.0	46.0	36.0
0759	0760	0761	185E	66	84	110	15°	60.0	52.0	42.0
0647	0648	0649	-	80	98	115	15°	70.0	62.0	50.0
0826	0829	0831	190E	88	106	115	15°	80.0	68.0	56.0
0851	0852	0853	193E	90	107	130	15°	80.0	68.0	56.0
0681	0683	0684	-	95	117	125	15°	80.0	68.0	56.0
0959	0962	0964	-	115	135	140	15°	100.0	86.0	70.0

Pinza para torno morro alargado

Extended-nose collets

Ejemplo para este pedido: Ref. 028ML

Example for order: Ref. 028ML

Ejemplo para este pedido: Añadimos la letra "L" Ref. 028MLL

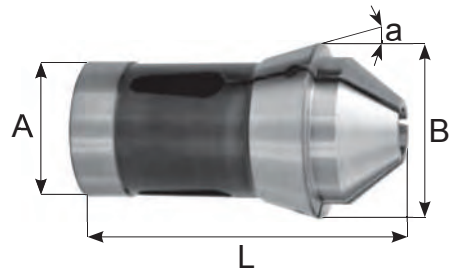
Example for order: Add the letter "L" Ref. 028MLL

Ejemplo para este pedido: Añadimos la letra "S" Ref. 028MLS

Example for order: Add the letter "S" Ref. 028MLS



Tipo (Ranurada)
Type (Grooved)



REFERENCIA	COD	A	B	L	a	●max	◆max	■max
028ML	116E	13	19	70	16°	10	8	7
029ML	120E	15	21	71	16°	12	10	9
031ML		16	21	71	16°	12	10	9
042ML	136E	20	26	62	15°	16	12	10
045ML	138E	20	28	75	16°	16	12	10
051ML	140E	22	30	63	15°	18	15	12
064ML	145E	25	35	85	16°	20	17	14
074ML	1446E	30	38	79	15°	25	22	18
084ML	161E	32	45	90	15°	26	22	18
101ML	1536E	37	47	107	16°	32	27	22
117ML	173E	48	60	113	15°	42	36	30
127ML	177E	58	70	114	15°	52	45	36
133ML	185E	66	84	132	15°	60	52	42

Sobre pedido / On request: Tipo Lisa "L", Tipo Estriada "S"

Ejemplo para este pedido: Ref. 028ML

Example for order: Ref. 028ML

Ejemplo para este pedido: Añadimos la letra "L" Ref. 028MLL

Example for order: Add the letter "L" Ref. 028MLL

Ejemplo para este pedido: Añadimos la letra "S" Ref. 028MLS

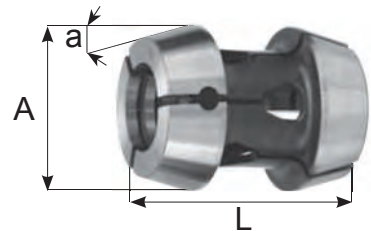
Example for order: Add the letter "S" Ref. 028MLS



Tipo (Ranurada)
Type (Grooved)

Pinza doble cono

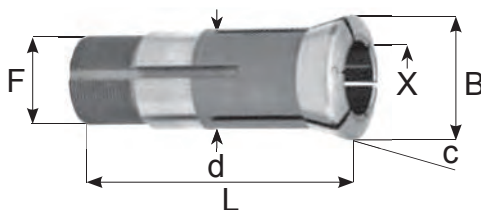
Double cone collets



REF	REF	REF	A	L	a	●max	◆max	■max
0843	0844	0845	26	55	25°	15	13	11
5337	5338	5339	34	56	17-30°	26	22	18
0704	0696	0697	34.5	74	25°	26	22	18
0916	0917	0918	40.5	75	25°	30	25	21
0883	0884	0885	42	82	17°	30	27	21
0753	0754	0755	50	80	20°	36	32	25
0739	0757	0758	60	80	17°	45	38	40
	0056		69.5	100	18°	60	52	42
0854	0855	0856	70	80	16°	52	45	35
0756	0762	0763	71.6	100	17°	55	46	38
	0057		72	100	17°	56	50	40
0822	0824	0825	81	90	17°	60	52	42
0927	0928	5053	91	100	17°	70	62	50
0892	0894	0899	108	105	17°	80	68	56
0934	0944	0946	130	120	17°	100	86	70
	0120		155	130	16.45°	120	105	95

Sobre pedido / On request: Tipo Lisa "L", Tipo Estriada "S"

Cañón de metal duro
Hard metal adjustable bushes



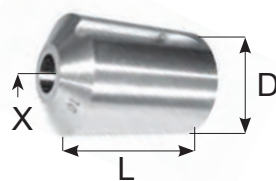
REF	d	D	L	C	F	max	REF	d	D	L	C	F	max
042.010	7	9.5	30	16°	6x0.5	3.5	042.220	24	30	61	30°	24x1	16
042.030	9	11.5	25	30°	6x0.5int	4.5	042.230	25	30	71	30°	25x1	16
042.040	9	12.5	44	16°	8x0.75	4.5	042.240	27	30	57	13°	24x1	16
042.050	9	13	52	30°	9x0.7	4.5	042.245	28	34	81	16°	25x1	20
042.060	10	14	57	36°	10x1	4.5	042.246	28	38	81	30°	25x1	20
042.070	11	14.5	53	16°	10x0.75	7	042.250	32	40	71	30°	32x1	21
042.080	12	15.5	50	16°	10x0.75	7	042.255	34	41	87.5	10°	34x1	25
042.090	12	15	52	30°	12x1	7	042.260	35	40	65	12°	34x1	26
042.100	13	16	41.5	15°	12.5x0.75	9	042.270	40	45	65	12°	38x1	26
042.110	13	17	68	5°	13x1	9	042.280	40	48	71	30°	40x1	26
042.120	14	18	64	16°	13x0.75	9	042.290	40	48	65	30°	40x1	26
042.130	16	19.8	58	16°	14x1	10	042.300	40	48	72	30°	36x1	25
042.140	16	20	55	30°	16x1	10	042.302	41	46	54	10°	38x1	32
042.150	18	24	69	36°	18x1	10	042.305	42	49	81	16°	40x1	32
042.160	18	22	60	30°	18x1	12.7	042.310	43	48	65	12°	42x1	32
042.170	18	22	60	30°	16x1	12.7	042.320	44	53	87	20°	40x1	32
042.180	20	25	55	30°	20x1	13	042.325	46	53	92	16°	45x1	38
042.200	21	24	57.4	12.5°	18x1	12	042.330	48	58	73	20°	48x1.25	32
042.210	22	29	68	16°	19x1	12	042.340	48	56	81	30°	48x1.25	32
042.212	22	29	68	16°	22x1								

Cañón de metal duro
Hard metal fixed bushes



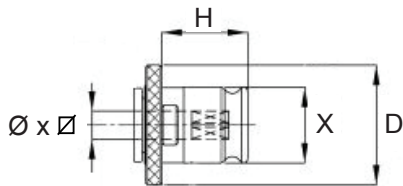
REF	d	D
041.108	8	30
041.116	16	40
041.120	20	40
041.130	30	60
041.134	34	60
041.142	42	72
041.148	48	73

Cañón de metal duro
Hard metal adjustable bushes



REF	d	D	L
040.011	10	18	4.5
040.020	13	30	8
040.031	15	30	10
040.040	16	30	10
040.050	20	30	13
040.051	22	35	13
040.060	25	35	18
040.073	32	45	24
040.080	35	45	22
040.090	40	45	30

Pinza porta machos de roscar sin embrague de cambio rápido
Quick change adaptors for tapping without safety clutch



SE



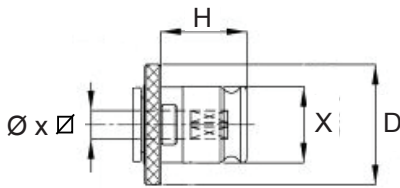
REFERENCIA	TIPO	CAP	Ø X Ø	X	H	D
SE0-2.5x2.1	0	M.1 - 1.8	2.5 x 2.1	13	19.5	22
SE0-2.8x2.1		M.2 - 2.5 - 3 - 4	2.8 x 2.1			
SE0-3.5x2.7		M.3	3.5 x 2.7			
SE0-4x3		M.3.5	4 x 3			
SE0-4.5x3.4		M.4	4.5 x 3.4			
SE0-6x4.9		M.5 - 6 - 8	6 x 4.9			
SE0-7x5.5		M.10	7 x 5.5			
SE0-8x6.2		M.8	8 x 6.2			

REFERENCIA	TIPO	CAP	Ø X Ø	X	H	D
SE1-2.5x2.1	1	M.1.6 - 1.8 - 2 - 2.5	2.5 x 2.1	19	21.5	30
SE1-2.8x2.1		M.2 - 2.5 - 3	2.8 x 2.1			
SE1-3.5x2.7		M.3	3.5 x 2.7			
SE1-4x3		M.3.5	4 x 3			
SE1-4.5x3.4		M.4	4.5 x 3.4			
SE1-6x4.9		M.5 - 6 - 8	6 x 4.9			
SE1-7x5.5		M.10	7 x 5.5			
SE1-8x6.2		M.8	8 x 6.2			
SE1-9x7		M.12	9 x 7			
SE1-10x8		M.10	10 x 8			
SE1-11x9		M.14	11 x 9			

REFERENCIA	TIPO	CAP	Ø X Ø	X	H	D
SE2-6x4.9	2	M.5 - 6 - 8	6 x 4.9	31	35	48
SE2-7x5.5		M.10	7 x 5.5			
SE2-8x6.2		M.8	8 x 6.2			
SE2-9x7		M.12	9 x 7			
SE2-10x8		M.10	10 x 8			
SE2-11x9		M.14	11 x 9			
SE2-12x9		M.16	12 x 9			
SE2-14x11		M.18	14 x 11			
SE2-16x12		M.20	16 x 12			
SE2-18x14.5		M.22 - 24	18 x 14.5			

Porta machos con norma ISO - JIS - ANSI son disponibles sobre pedido
On request we can supply the adaptors suitable for taps ISO - JIS - ANSI shank dimensions

Pinza porta machos de roscar sin embrague de cambio rápido
Quick change adaptors for tapping without safety clutch



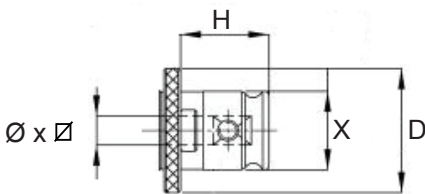
SE



REFERENCIA	TIPO	CAP	Ø x Ø	X	H	D
SE3-11x9	3	M.14	11 x 9	48	55.5	70
SE3-12x9		M.16	12 x 9			
SE3-14x11		M.18	14 x 11			
SE3-16x12		M.20	16 x 12			
SE3-18x14.5		M.22 - 24	18 x 14.5			
SE3-20x16		M.27	20 x 16			
SE3-22x18		M.30	22 x 18			
SE3-25x20		M.33	25 x 20			
SE3-28x22		M.36	28 x 22			

REFERENCIA	TIPO	CAP	Ø x Ø	X	H	D
SE4-18x14.5	4	M.22 - 24	18 x 14.5	60	63	92
SE4-20x16		M.27	20 x 16			
SE4-22x18		M.30	22 x 18			
SE4-25x20		M.33	25 x 20			
SE4-28x22		M.36	28 x 22			
SE4-32x24		M.39 - 42	32 x 24			
SE4-36x29		M.45 - 48	36 x 29			

Pinza porta machos de roscar sin embrague de cambio rápido sobredimensionado
Quick change adaptors for tapping without safety clutch

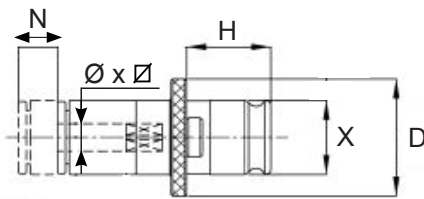


SEK



REFERENCIA	TIPO	CAP	Ø x Ø	X	H	D
SEK1-12x9	1	M.16	12 x 9	19	21.5	30
SEK2-20x16	2	M.27	20 x 16	31	35	48
SEK3-32x24	3	M.39 - 42	32 x 24	48	55.5	70
SEK3-36x29		M.45 - 48	36 x 29			
SEK4-40x32	4	M.52	40 x 32	60	63	92
SEK4-45x35		M.56 - 60	45 x 35			

Pinza porta machos de roscar sin embrague longitud ajustable
Quick change adaptors for tapping with length adjustment

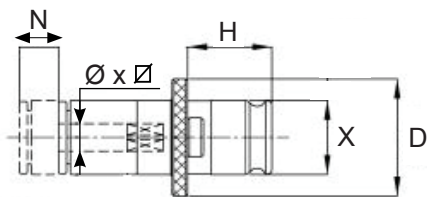

SEN


REFERENCIA	TIPO	CAP	Ø x Ø	X	H	D	N
SEN0-2.5x2.1	0	M.1 - 1.8	2.5 x 2.1	13	19.5	22	8
SEN0-2.8x2.1		M.2 - 2.5 - 3 - 4	2.8 x 2.1				
SEN0-3.5x2.7		M.3	3.5 x 2.7				
SEN0-4x3		M.3.5	4 x 3				
SEN0-4.5x3.4		M.4	4.5 x 3.4				
SEN0-6x4.9		M.5 - 6 - 8	6 x 4.9				
SEN0-7x5.5		M.10	7 x 5.5				

REFERENCIA	TIPO	CAP	Ø x Ø	X	H	D	N
SEN1-2.5x2.1	1	M.1 - 1.8	2.5 x 2.1	19	21.5	30	10
SEN1-2.8x2.1		M.2 - 2.5 - 3 - 4	2.8 x 2.1				
SEN1-3.5x2.7		M.3	3.5 x 2.7				
SEN1-4x3		M.3.5	4 x 3				
SEN1-4.5x3.4		M.4	4.5 x 3.4				
SEN1-6x4.9		M.5 - 6 - 8	6 x 4.9				
SEN1-7x5.5		M.10	7 x 5.5				
SEN1-8x6.2		M.8	8 x 6.2				
SEN1-9x7		M.12	9 x 7				
SEN1-10x8		M.10	10 x 8				
SEN1-11x9		M.14	11 x 9				

REFERENCIA	TIPO	CAP	Ø x Ø	X	H	D	N
SEN2-6x4.9	2	M.5 - 6 - 8	6 x 4.9	31	35	48	15
SEN2-7x5.5		M.10	7 x 5.5				
SEN2-8x6.2		M.8	8 x 6.2				
SEN2-9x7		M.12	9 x 7				
SEN2-10x8		M.10	10 x 8				
SEN2-11x9		M.14	11 x 9				
SEN2-12x9		M.16	12 x 9				
SEN2-14x11		M.18	14 x 11				
SEN2-16x12		M.20	16 x 12				
SEN2-18x14.5		M.22 - 24	18 x 14.5				

Pinza porta machos de roscar sin embrague longitud ajustable
 Quick change adaptors for tapping with length adjustment



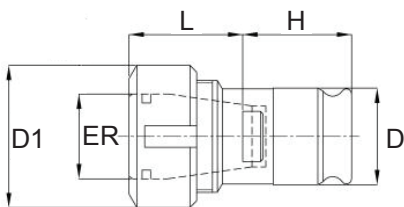
SEN



REFERENCIA	TIPO	CAP	Ø x Ø	X	H	D	N
SEN3-11x9	3	M.14	11 x 9	48	55.5	70	25
SEN3-12x9		M.16	12 x 9				
SEN3-14x11		M.18	14 x 11				
SEN3-16x12		M.20	16 x 12				
SEN3-18x14.5		M.22 - 24	18 x 14.5				
SEN3-20x16		M.27	20 x 16				
SEN3-22x18		M.30	22 x 18				
SEN3-25x20		M.33	25 x 20				
SEN3-28x22		M.36	28 x 22				

REFERENCIA	TIPO	CAP	Ø x Ø	X	H	D	N
SEN4-20x16	4	M.27	20 x 16	60	62.8	90	40
SEN4-22x18		M.30	22 x 18				
SEN4-25x20		M.33	25 x 20				
SEN4-28x22		M.36	28 x 22				
SEN4-32x24		M.39 - 42	32 x 24				
SEN4-36x29		M.45 - 48	36 x 29				

Adaptador porta pinzas ER
 Positive drive ER collet adapters



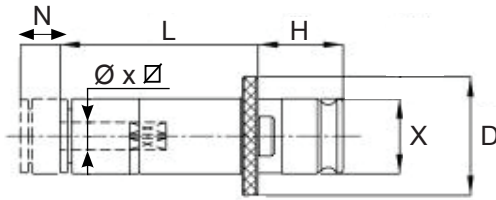
SEP



REFERENCIA	TIPO	CAP	PINZA	CAP	D	D1	H	L
SEP1-ERC16	1	M.3 a M.12	ER16	0.5-10	19	22	21.5	26
SEP1-ERC20		M.3 a M.12	ER20	1 - 13	19	34	21.5	46
SEP2-ERC25	2	M.8 a M.20	ER25	1 - 16	31	35	35	30
SEP2-ERC32		M.8 a M.20	ER32	2 - 20	31	50	35	54

Porta machos con norma ISO - JIS - ANSI están disponibles sobre pedido
 On request we can supply the adaptors suitable for taps ISO - JIS - ANSI shank dimensions

Pinza porta machos de roscar sin embrague longitud ajustable
Quick change adaptors for tapping with length adjustment



SENV



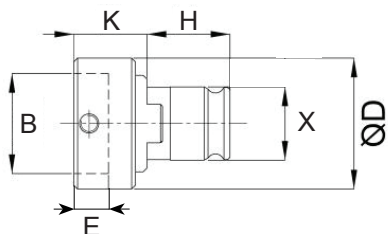
REFERENCIA	TIPO	CAP	Ø x Ø	X	H	D	N	L
SENV0-2.5x2.1	0	M.1 - 1.8	2.5 x 2.1	13	19.5	22	8	40 ÷ 120
SENV0-2.8x2.1		M.2 - 2.5 - 3 - 4	2.8 x 2.1					
SENV0-3.5x2.7		M.3	3.5 x 2.7					
SENV0-4x3		M.3.5	4 x 3					
SENV0-4.5x3.4		M.4	4.5 x 3.4					
SENV0-6x4.9		M.5 - 6 - 8	6 x 4.9					
SENV0-7x5.5		M.10	7 x 5.5					
SENV1-3.5x2.7	1	M.3	3.5 x 2.7	19	21.5	30	10	40 ÷ 140
SENV1-4x3		M.3.5	4 x 3					
SENV1-4.5x3.4		M.4	4.5 x 3.4					
SENV1-6x4.9		M.5 - 6 - 8	6 x 4.9					
SENV1-7x5.5		M.10	7 x 5.5					
SENV1-8x6.2		M.8	8 x 6.2					
SENV1-9x7		M.12	9 x 7					
SENV1-10x8	M.10	10 x 8	31	35	48	15	70 ÷ 160	
SENV2-6x4.9	M.5 - 6 - 8	6 x 4.9						
SENV2-7x5.5	M.10	7 x 5.5						
SENV2-8x6.2	M.8	8 x 6.2	48	55.5	70	25	100 ÷ 180	
SENV2-9x7	M.12	9 x 7						
SENV2-10x8	M.10	10 x 8						
SENV2-11x9	M.14	11 x 9						
SENV2-12x9	M.16	12 x 9						
SENV2-14x11	M.18	14 x 11						
SENV2-16x12	M.20	16 x 12						
SENV2-18x14.5	M.22 - 24	18 x 14.5						
SENV3-11x9	3	M.14	11 x 9	48	55.5	70	25	100 ÷ 180
SENV3-12x9		M.16	12 x 9					
SENV3-14x11		M.18	14 x 11					
SENV3-16x12		M.20	16 x 12					
SENV3-18x14.5		M.22 - 24	18 x 14.5					
SENV3-20x16		M.27	20 x 16					
SENV3-22x18		M.30	22 x 18					
SENV3-25x20		M.33	25 x 20					
SENV3-28x22		M.36	28 x 22					

L = 40 - 50 - 60 - 70 - 80 - 90 - 100 - 110 - 120 - 130 - 140 - 150 - 160 - 170 - 180

Porta machos con norma ISO - JIS - ANSI son disponibles sobre pedido

On request we can supply the adaptors suitable for taps ISO - JIS - ANSI shank dimensions

Pinza porta hileras de roscar de cambio rápido
Die holder adaptor

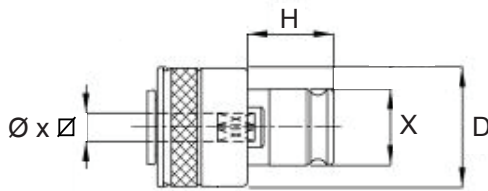


REFERENCIA	TIPO	B X E	X	H	K	D	B
SEF1-16x5	1	16 x 5	19	21.5	14	25	16
SEF1-20x5		20 x 5			14	30	20
SEF1-20x7		20 x 7			16	30	20
SEF1-25x9		25 x 9			19	35	25
SEF1-30x11		30 x 11			21	40	30
SEF1-38x10		38 x 10			20	48	38
SEF1-38x14		38 x 14			24	48	38

REFERENCIA	TIPO	B X E	X	H	K	D	B
SEF2-20x5	2	20 x 5	31	35	20	40	20
SEF2-20x7		20 x 7			21.5	40	20
SEF2-25x9		25 x 9			23.5	40	25
SEF2-30x11		30 x 11			22	40	30
SEF2-38x10		38 x 10			21	48	38
SEF2-38x14		38 x 14			25	48	38
SEF2-45x14		45 x 14			25	57	45
SEF2-45x18		45 x 18			29	57	45

REFERENCIA	TIPO	B X E	X	H	K	D	B
SEF3-30x11	3	30 x 11	48	55.5	30	60	30
SEF3-38x10		38 x 10			28	60	38
SEF3-38x14		38 x 14			32	60	38
SEF3-45x14		45 x 14			32	60	45
SEF3-45x18		45 x 18			36	60	45
SEF3-55x16		55 x 16			30	72	55
SEF3-55x22		55 x 22			35	72	55
SEF3-65x18		65 x 18			32	82	65
SEF3-65x25		65 x 25			38	82	65

Pinza porta machos de roscar con embrague de cambio rápido
Quick change adaptors for tapping with safety clutch


SES

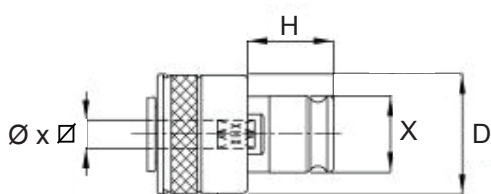

REFERENCIA	TIPO	CAP	Ø X Ø	X	H	D
SES0-2.5x2.1	0	M.1 - 1.8	2.5 x 2.1	13	19.5	24
SES0-2.8x2.1		M.2 - 2.5 - 3 - 4	2.8 x 2.1			
SES0-3.5x2.7		M.3	3.5 x 2.7			
SES0-4x3		M.3.5	4 x 3			
SES0-4.5x3.4		M.4	4.5 x 3.4			
SES0-6x4.9		M.5 - 6 - 8	6 x 4.9			
SES0-7x5.5		M.10	7 x 5.5			
SES0-8x6.2		M.8	8 x 6.2			

REFERENCIA	TIPO	CAP	Ø X Ø	X	H	D
SES1-2.5x2.1	1	M.1.6 - 1.8 - 2 - 2.5	2.5 x 2.1	19	21.5	32.5
SES1-2.8x2.1		M.2 - 2.5 - 3	2.8 x 2.1			
SES1-3.5x2.7		M.3	3.5 x 2.7			
SES1-4x3		M.3.5	4 x 3			
SES1-4.5x3.4		M.4	4.5 x 3.4			
SES1-6x4.9		M.5 - 6 - 8	6 x 4.9			
SES1-7x5.5		M.10	7 x 5.5			
SES1-8x6.2		M.8	8 x 6.2			
SES1-9x7		M.12	9 x 7			
SES1-10x8		M.10	10 x 8			
SES1-11x9		M.14	11 x 9			

REFERENCIA	TIPO	CAP	Ø X Ø	X	H	D
SES2-6x4.9	2	M.5 - 6 - 8	6 x 4.9	31	35	50.5
SES2-7x5.5		M.10	7 x 5.5			
SES2-8x6.2		M.8	8 x 6.2			
SES2-9x7		M.12	9 x 7			
SES2-10x8		M.10	10 x 8			
SES2-11x9		M.14	11 x 9			
SES2-12x9		M.16	12 x 9			
SES2-14x11		M.18	14 x 11			
SES2-16x12		M.20	16 x 12			
SES2-18x14.5		M.22 - 24	18 x 14.5			

Porta machos con norma ISO - JIS - ANSI son disponibles sobre pedido
On request we can supply the adaptors suitable for taps ISO - JIS - ANSI shank dimensions

Pinza porta machos de roscar con embrague de cambio rápido
Quick change adaptors for tapping with safety clutch



SES

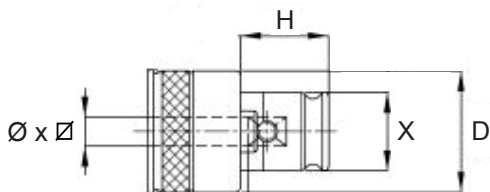


REFERENCIA	TIPO	CAP	Ø x Ø	X	H	D
SES3-11x9	3	M.14	11 x 9	48	55.5	72
SES3-12x9		M.16	12 x 9			
SES3-14x11		M.18	14 x 11			
SES3-16x12		M.20	16 x 12			
SES3-18x14.5		M.22 - 24	18 x 14.5			
SES3-20x16		M.27	20 x 16			
SES3-22x18		M.30	22 x 18			
SES3-25x20		M.33	25 x 20			
SES3-28x22		M.36	28 x 22			

REFERENCIA	TIPO	CAP	Ø x Ø	X	H	D
SES4-18x14.5	4	M.22 - 24	18 x 14.5	60	62.8	95
SES4-20x16		M.27	20 x 16			
SES4-22x18		M.30	22 x 18			
SES4-25x20		M.33	25 x 20			
SES4-28x22		M.36	28 x 22			
SES4-32x24		M.39 - 42	32 x 24			
SES4-36x29		M.45 - 48	36 x 29			

Pinza porta machos de roscar con embrague de cambio rápido
 sobredimensionado

Quick change adaptors for tapping with safety clutch

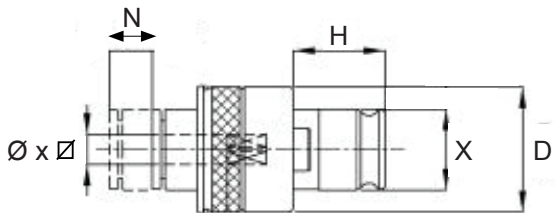


SESK



REFERENCIA	TIPO	CAP	Ø x Ø	X	H	D
SESK1-12x9	1	M.16	12 x 9	19	21.5	32.5
SESK2-20x16	2	M.27 - 30	20 x 16	31	35	50.5
SESK2-22x18		M.30	22 x 18			
SESK3-32x24	3	M.39 - 42	32 x 24	48	55.5	72
SESK3-36x29		M.45 - 48	36 x 29			
SESK4-40x32	4	M.52 - 56	40 x 32	60	62.8	95
SESK4-45x35		M.56 - 60	45 x 35			

Pinza porta machos de roscar con embrague longitud ajustable
Quick change adaptors for tapping with length adjustment


SESN


REFERENCIA	TIPO	CAP	Ø x ∅	X	H	D	N
SESN0-2.5x2.1	0	M.1 - 1.8	2.5 x 2.1	13	19.5	24	8
SESN0-2.8x2.1		M.2 - 2.5 - 3 - 4	2.8 x 2.1				
SESN0-3.5x2.7		M.3	3.5 x 2.7				
SESN0-4x3		M.3.5	4 x 3				
SESN0-4.5x3.4		M.4	4.5 x 3.4				
SESN0-6x4.9		M.5 - 6 - 8	6 x 4.9				
SESN0-7x5.5		M.10	7 x 5.5				

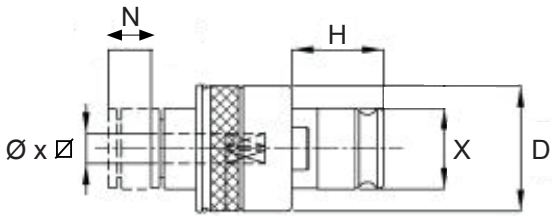
REFERENCIA	TIPO	CAP	Ø x ∅	X	H	D	N
SESN1-2.5x2.1	1	M.1 - 1.8	2.5 x 2.1	19	21.5	32.5	10
SESN1-2.8x2.1		M.2 - 2.2 - 2.5 - 4	2.8 x 2.1				
SESN1-3.5x2.7		M.3	3.5 x 2.7				
SESN1-4x3		M.3.5	4 x 3				
SESN1-4.5x3.4		M.4	4.5 x 3.4				
SESN1-6x4.9		M.5 - 6 - 8	6 x 4.9				
SESN1-7x5.5		M.10	7 x 5.5				
SESN1-8x6.2		M.8	8 x 6.2				
SESN1-9x7		M.12	9 x 7				
SESN1-10x8		M.10	10 x 8				
SESN1-11x9		M.14	11 x 9				

REFERENCIA	TIPO	CAP	Ø x ∅	X	H	D	N
SESN2-3.5x2.7	2	M.3	3.5 x 2.7	31	35	50.5	15
SESN2-4x3		M.3.5	4 x 3				
SESN2-4.5x3.4		M.4	4.5 x 3.4				
SESN2-6x4.9		M.5 - 6 - 8	6 x 4.9				
SESN2-7x5.5		M.10	7 x 5.5				
SESN2-8x6.2		M.8	8 x 6.2				
SESN2-9x7		M.12	9 x 7				
SESN2-10x8		M.10	10 x 8				
SESN2-11x9		M.14	11 x 9				
SESN2-12x9		M.16	12 x 9				
SESN2-14x11		M.18	14 x 11				
SESN2-16x12		M.20	16 x 12				
SESN2-18x14.5		M.22 - 24	18 x 14.5				

Porta machos con norma ISO - JIS - ANSI son disponibles sobre pedido

On request we can supply the adaptors suitable for taps ISO - JIS - ANSI shank dimensions

Pinza porta machos de roscar con embrague longitud ajustable
Quick change adaptors for tapping with length adjustment



SESN



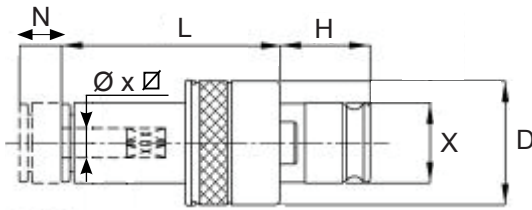
REFERENCIA	TIPO	CAP	Ø x ∅	X	H	D	N
SESN3-8x6.2	3	M.8	8 x 6.2	48	55.5	72	25
SESN3-9x7		M.12	9 x 7				
SESN3-10x8		M10	10 x 8				
SESN3-11x9		M.14	11 x 9				
SESN3-12x9		M.16	12 x 9				
SESN3-14x11		M.18	14 x 11				
SESN3-16x12		M.20	16 x 12				
SESN3-18x14.5		M.22 - 24	18 x 14.5				
SESN3-20x16		M.27	20 x 16				
SESN3-22x18		M.30	22 x 18				
SESN3-25x20		M.33	25 x 20				
SESN3-28x22		M.36	28 x 22				

REFERENCIA	TIPO	CAP	Ø x ∅	X	H	D	N
SESN4-16x12	4	M.20	16 x 12	60	62.8	95	40
SESN4-18x14.5		M.22 - 24	18 x 14.5				
SESN4-20x16		M.27	20 x 16				
SESN4-22x18		M.30	22 x 18				
SESN4-25x20		M.33	25 x 20				
SESN4-28x22		M.36	28 x 22				
SESN4-32x24		M.39 - 42	32 x 24				
SESN4-36x29		M.45 - 48	36 x 29				



Porta machos con norma ISO - JIS - ANSI son disponibles sobre pedido
On request we can supply the adaptors suitable for taps ISO - JIS - ANSI shank dimensions

Pinza porta machos de roscar con embrague longitud ajustable
Quick change adaptors for tapping with length adjustment


SESNV

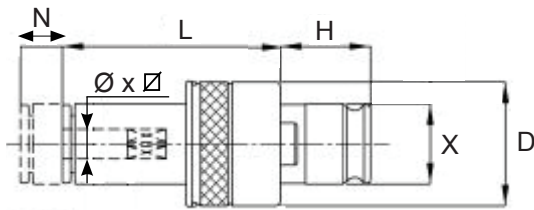

REFERENCIA	TIPO	CAP	Ø x Ø	X	H	D	N	L
SESNV0-2.5x2.1	0	M.1 - 1.8	2.5 x 2.1	13	19.5	24	8	40 ÷ 120
SESNV0-2.8x2.1		M.2 - 2.5 - 3 - 4	2.8 x 2.1					
SESNV0-3.5x2.7		M.3	3.5 x 2.7					
SESNV0-4x3		M.3.5	4 x 3					
SESNV0-4.5x3.4		M.4	4.5 x 3.4					
SESNV0-6x4.9		M.5 - 6 - 8	6 x 4.9					
SESNV0-7x5.5		M.10	7 x 5.5					

REFERENCIA	TIPO	CAP	Ø x Ø	X	H	D	N	L
SESNV1-2.5x2.1	1	M.1 - 1.8	2.5 x 2.1	19	21.5	32.5	10	40 ÷ 140
SESNV1-2.8x2.1		M.2 - 2.2 - 2.5 - 4	2.8 x 2.1					
SESNV1-3.5x2.7		M.3	3.5 x 2.7					
SESNV1-4x3		M.3.5	4 x 3					
SESNV1-4.5x3.4		M.4	4.5 x 3.4					
SESNV1-6x4.9		M.5 - 6 - 8	6 x 4.9					
SESNV1-7x5.5		M.10	7 x 5.5					
SESNV1-8x6.2		M.8	8 x 6.2					
SESNV1-9x7		M.12	9 x 7					
SESNV1-10x8		M.10	10 x 8					
SESNV1-11x9		M.14	11 x 9					

REFERENCIA	TIPO	CAP	Ø x Ø	X	H	D	N	L
SESNV2-3x2.7	2	M.3	3 x 2.7	31	35	50.5	15	70 ÷ 160
SESNV2-4.5x3.4		M.4	4.5 x 3.4					
SESNV2-6x4.9		M.5 - 6 - 8	6 x 4.9					
SESNV2-7x5.5		M.10	7 x 5.5					
SESNV2-8x6.2		M.8	8 x 6.2					
SESNV2-9x7		M.12	9 x 7					
SESNV2-10x8		M.10	10 x 8					
SESNV2-11x9		M.14	11 x 9					
SESNV2-12x9		M.16	12 x 9					
SESNV2-14x11		M.18	14 x 11					
SESNV2-16x12		M.20	16 x 12					
SESNV2-18x14.5		M.22 - 24	18 x 14.5					

Porta machos con norma ISO - JIS - ANSI son disponibles sobre pedido
On request we can supply the adaptors suitable for taps ISO - JIS - ANSI shank dimensions

Pinza porta machos de roscar con embrague longitud ajustable
Quick change adaptors for tapping with length adjustment



SESNV

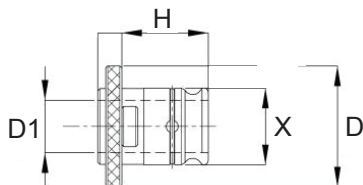


REFERENCIA	TIPO	CAP	Ø x Ø	X	H	D	N	L
SESNV3-8x6.2	3	M.8	8 x 6.2	48	55.5	72	25	100 ÷ 180
SESNV3-9x7		M.12	9 x 7					
SESNV3-10x8		M.10	10 x 8					
SESNV3-11x9		M.14	11 x 9					
SESNV3-12x9		M.16	12 x 9					
SESNV3-14x11		M.18	14 x 11					
SESNV3-16x12		M.20	16 x 12					
SESNV3-18x14.5		M.22-24	18 x 14.5					
SESNV3-20x16		M.27	20 x 16					
SESNV3-22x18		M.30	22 x 18					
SESNV3-25x20		M.33	25 x 20					
SESNV3-28x22		M.36	28 x 22					

L = 40 - 50 - 60 - 70 - 80 - 90 - 100 - 110 - 120 - 130 - 140 - 150 - 160 - 170 - 180

On request we can supply the adaptors suitable for taps ISO - JIS - ANSI shank dimensions

Reductor pinza porta machos
Tape collets reducers

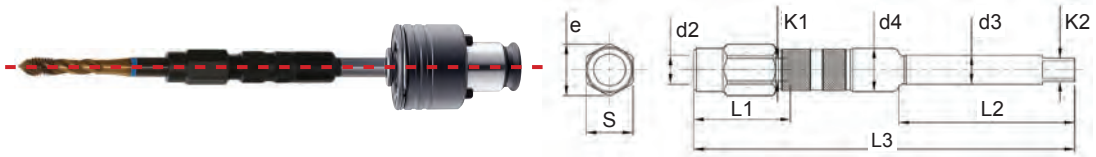


SER



REFERENCIA	TIPO	X	D1	H	D
SER-1/0	1 / 0	19	13	19.5	30
SER-2/1	2 / 1	48	19	55.5	70
SER-3/1	3 / 1		19		
SER-3/2	3 / 2	60	31	62.8	92
SER-4/2	4 / 2		31		
SER-4/3	4 / 3		48		

Reductor - Alargadera porta machos con paso refrigerante
Reduction coolant thru

**REDUCTOR**

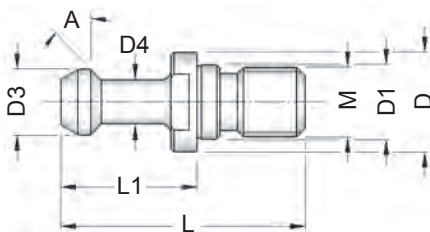
REFERENCIA	DIN 371	DIN 374 / 376	d2	K1	L1	d3	K2	d4	e	S	L2	L3
ABV1x28x21x130	M2		2.8	2.1	21	6	4.9	6.1	6.5	6	60	130
ABV1x28x21x230			2.8	2.1	21	6	4.9	6.1	6.5	6	70	230
ABV2x35x27x130	M3		3.5	2.7	24	6	4.9	7.5	9.0	8	60	130
ABV2x35x27x230			3.5	2.7	24	6	4.9	7.5	9.0	8	60	230
ABV3x45x34x130	M4		4.5	3.4	24	6	4.9	8.4	10.2	9	60	130
ABV3x45x34x230			4.5	3.4	24	6	4.9	8.4	10.2	9	60	230
ABV4x60x49x130	M6		6	4.9	27.5	7	5.5	12	14.8	13	60	130
ABV4x60x49x230			6	4.9	27.5	7	5.5	12	14.8	13	60	230

ALARGADERA

ABV5x70x55x130		M10	7	5.5	27.5	7	5.5	12	14.8	13	60	130
ABV5x70x55x230			7	5.5	27.5	7	5.5	12	14.8	13	60	230
ABV6x80x62x130	M8		8	6.2	30	8	6.2	13	15.6	14	60	130
ABV6x80x62x230			8	6.2	30	8	6.2	13	15.6	14	80	230
ABV7x90x70x130		M12	9	7	31	9	7	15	17.9	16	60	130
ABV7x90x70x230			9	7	31	9	7	15	17.9	16	80	230
ABV8x100x80x130	M10		10	8	33	10	8	15	17.9	16	60	130
ABV8x100x80x230			10	8	33	10	8	15	17.9	16	80	230
ABV9x110x90x130		M14	11	9	36	11	9	18	21.4	19	90	130
ABV9x110x90x230			11	9	36	11	9	18	21.4	19	90	230
ABV10x120x90x130		M16	12	9	36	12	9	19	21.4	19	90	130
ABV10x120x90x230			12	9	36	12	9	19	21.4	19	90	230
ABV11x140x110x200		M18	14	11	46	14	11	22	26	23	90	200
ABV11x140x110x330			14	11	46	14	11	22	26	23	100	330
ABV12x160x120x200		M20	16	12	46	16	12	22	26	23	90	200
ABV12x160x120x330			16	12	46	16	12	22	26	23	100	330
ABV13x180x145x200		M22	18	14.5	47	18	14.5	26	30.5	27	100	200
ABV13x180x145x330			M24	18	14.5	47	18	14.5	26	30.5	27	100
ABV14x200x160x200		M27	20	16	52	20	16	28	33.5	30	100	200
ABV14x200x160x330			20	16	52	20	16	28	33.5	30	100	330

Tirante sin Agujero
Without coolant hole (SOLID)

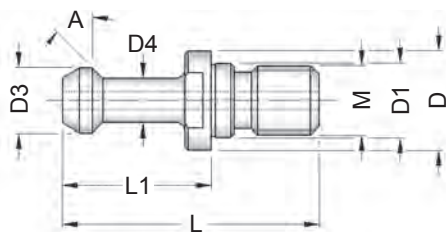
BT



REFERENCIA	COD	A	M	L	L1	D	D1	D3	D4
BT30-30°	3293287	30°	M12	43	23	16.5	12.5	11.0	7.0
BT30-45°	3293288	45°	M12	43	23	16.5	12.5	11.0	7.0
BT40-30°	3293293	30°	M16	60	35	23.0	17.0	15.0	10.0
BT40-45°	3293292	45°	M16	60	35	23.0	17.0	15.0	10.0
BT40-90°	3293294	90°	M16	60	35	23.0	17.0	15.0	10.0
BT50-30°	3293301	30°	M24	85	45	38.0	25.0	23.0	17.0
BT50-45°	3293300	45°	M24	85	45	38.0	25.0	23.0	17.0
BT50-90°	3293302	90°	M24	85	45	38.0	25.0	23.0	17.0

Tirante con Agujero PASANTE
With coolant hole (HOLLOW)

BT



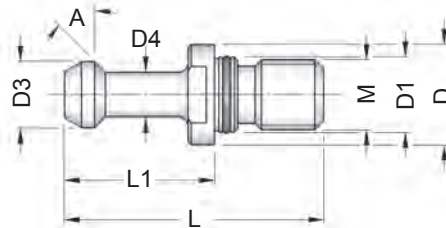
Refrigeración
Central
Coolant flow

REFERENCIA	COD	A	M	L	L1	D	D1	D3	D4	F
BT30-30°F	3293224	30°	M12	43	23	16.5	12.5	11	7	2.5
BT30-45°F	3293225	45°	M12	43	23	16.5	12.5	11	7	2.5
BT40-30°F	3293327	30°	M16	60	35	23	17	15	10	4
BT40-45°F	3293328	45°	M16	60	35	23	17	15	10	4
BT40-90°F	3293330	90°	M16	60	35	23	17	15	10	4
BT50-30°F	3293331	30°	M24	85	45	38	25	23	17	6
BT50-45°F	3293332	45°	M24	85	45	38	25	23	17	6
BT50-90°F	3293333	90°	M24	85	45	38	25	23	17	6

F= Agujero

Tirante sin Agujero y junta de alta presión

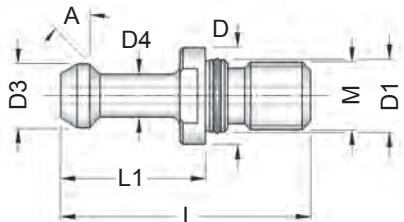
Pull stud bolts without hole with O-Ring

BT


REFERENCIA	COD	A	M	L	L1	D	D1	D3	D4
BT40-30°OR	3293315	30°	M16	60	35	23	17	15	10
BT40-45°OR	3293316	45°	M16	60	35	23	17	15	10
BT40-90°OR	3293318	90°	M16	60	35	23	17	15	10
BT50-30°OR	3293322	30°	M24	85	45	38	25	23	17
BT50-45°OR	3293325	45°	M24	85	45	38	25	23	17
BT50-90°OR	3293326	90°	M24	85	45	38	25	23	17

Tirante con Agujero PASANTE y junta de alta presión

Sealed pull studs with O-Ring for high pressure coolant

BT


Refrigeración
Central
Coolant flow

REFERENCIA	COD	A	M	L	L1	D	D1	D3	D4	F
BT40-30°F+OR	3293429	30°	M16	60	35	23	17	15	10	4
BT40-45°F+OR	3293430	45°	M16	60	35	23	17	15	10	4
BT40-90°F+OR	3293431	90°	M16	60	35	23	17	15	10	4
BT50-30°F+OR	3293500	30°	M24	85	45	38	25	23	17	6
BT50-45°F+OR	3293501	45°	M24	85	45	38	25	23	17	6
BT50-90°F+OR	3293502	90°	M24	85	45	38	25	23	17	6

F= Agujero

Tirante con Agujero **PASANTE** y doble junta de alta presión
Sealed pull studs with double O-Ring for high pressure coolant

BT

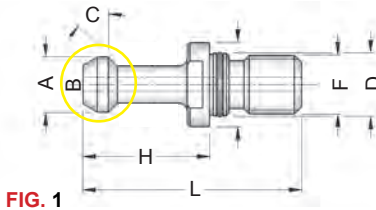


FIG. 1

DOBLE O-RING

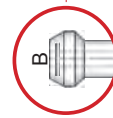


FIG. 2

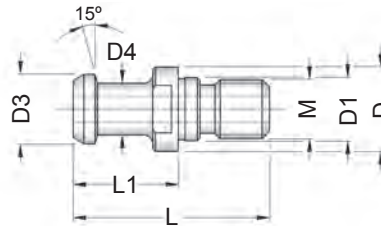
Refrigeración Central
Coolant flow

REFERENCIA	COD	M	C	A	H+/-	D	L	B	CONO	FIG
BT40-45°2OR	679	M16	45°	15	28	17	60	3	40	1
BT40-45°2OR-5	679	M16	45°	15	28	17	60	3	40	2
BT40-60°2OR	679	M16	60°	15	28	17	60	3	40	1
BT50-45°2OR	679	M24	45°	23	35	25	85	6	50	1
BT50-60°2OR	679	M24	60°	23	35	25	85	6	50	1
BT50-90°2OR	679	M24	90°	23	35	25	85	6	50	1

F= Agujero

Tirante con Agujero **PASANTE** JIS B 6339
JIS B 6339 Pull stud bolts

JIS-B/6339



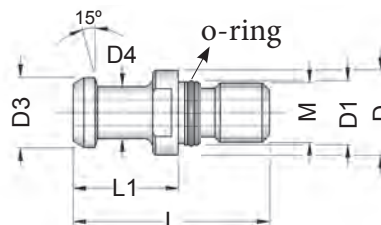
Refrigeración Central
Coolant flow

REFERENCIA	COD	M	D	D1	D3	D4	L	L1	F
6339ISO30-F4	3293334	M12	16.5	12.5	12	8	43	23.4	4
6339ISO40-F7	3294588	M16	23	17	19	14	54	29	7

F= Agujero

Tirante con Agujero **PASANTE** JIS B 6339 y junta de alta presión
Pull stud bolts JIS B 6339 with hole and O-Ring

JIS-B/6339



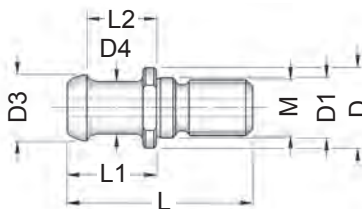
Refrigeración Central
Coolant flow

REFERENCIA	COD	M	D	D1	D3	D4	L	L1	F
6339ISO40F+OR4	3293097	M16	23	17	19	14	54	29	4
6339ISO40F+OR7	3293317	M16	23	17	19	14	54	29	7
6339ISO50F+OR10	3293335	M24	38	25	28	21	74	34	10

F= Agujero

Tirante CB FERRARI
Pull stud bolts CB FERRARI type

CB FERRARI

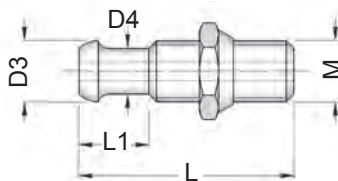


REFERENCIA	COD	M	D	D1	D3	D4	L	L1	L2	F
CBFERRARIISO40-M16	3294597	M16	23	17	19	15	54	26	20.31	5

F= Agujero

Tirante CB FERRARI CON DADO
Pull stud bolts CB FERRARI with nut type

CB FERRARI

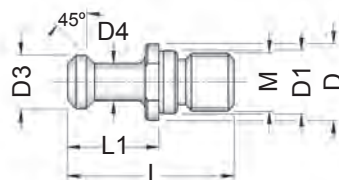


REFERENCIA	COD	M	D3	D4	L	L1	F
CBFERRARIISO40-M16D	3293493	M16	16	12	57	18.5	5

F= Agujero

Tirante CHIRON
Pull stud bolts CHIRON type

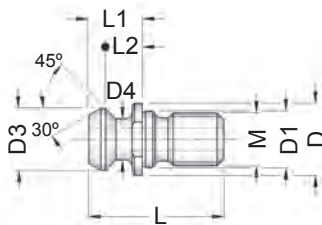
CHIRON



REFERENCIA	COD	M	D	D1	D3	D4	L	L1
CHIRONISO30-M12	3294593	M12	16	13	10	6	36	20

Tirante con Agujero **PASANTE** para Máquinas MAZAK
Pull stud bolts MAZAK type with hole

MAZAK



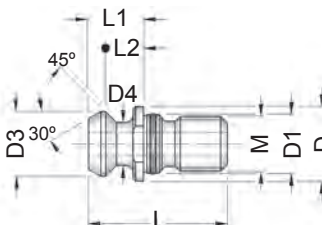
Refrigeración
 Central
 Coolant flow

REFERENCIA	COD	M	D	D1	D3	D4	L	L1	L2	F
MAZAKISO40M16-F1	3294589	M16	21.8	17	18.79	12.44	41.25	16.25	11.17	7
MAZAKISO40M16-F2	3294592	M16	22.0	17	18.79	12.44	44.10	19.10	14.02	7
MAZAKISO50M24-F1	3293269	M24	35.5	25	28.95	20.82	65.40	25.40	17.78	10

F= Agujero

Tirante con Agujero **PASANTE** Máquinas MAZAK y junta de alta presión
Pull stud bolts MAZAK type with hole and O-RING

MAZAK



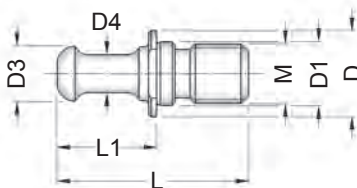
Refrigeración
 Central
 Coolant flow

REFERENCIA	COD	M	D	D1	D3	D4	L	L1	L2	F
MAZAKISO40M16-F1OR	3294772	M16	21.8	17	18.79	12.44	41.25	16.25	11.17	7
MAZAKISO40M16-F2OR	3294773	M16	22.0	17	18.79	12.44	44.10	19.10	14.02	7
MAZAKISO50M24-F1OR	3294774	M24	35.5	25	28.95	20.82	65.40	25.40	17.78	10

F= Agujero

Tirante **RAMBAUDI**
Pull stud bolts RAMBAUDI type

RAMBAUDI

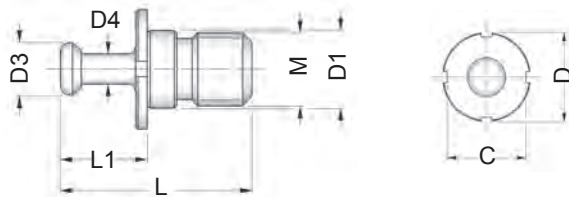


REFERENCIA	COD	M	D	D1	D3	D4	L	L1
RAMBAUDIISO40-M16	3294595	M16	24.0	17	14.6	10	52.0	27.0
RAMBAUDIISO50-M24	3294596	M24	35.8	25	20.0	16	79.5	39.5

Tirante SECMU

Pull stud bolts SECMU type

SECMU

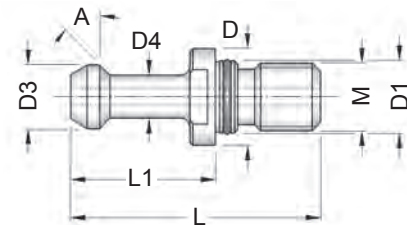


REFERENCIA	COD	M	D	D1	D3	D4	L	L1	C
SECMUIISO50-M24	3293496	M24	40	25	17.5	9.8	64	29	36

Tirante con Agujero PASANTE - HURCO

With coolant hole - HURCO

HURCO



Refrigeración
Central
Coolant flow

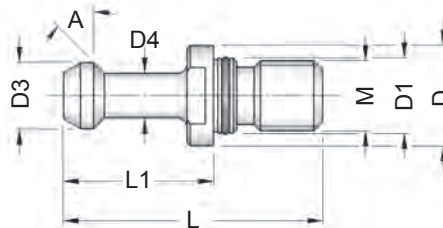
REFERENCIA	COD	A	M	L	L1	D	D1	D3	D4	F
SK40-30°FOR	3294637	30°	M16	57	32	23	17	15	10	3
SK40-45°FOR	3294638	45°	M16	57	32	23	17	15	10	3
SK40-90°FOR	3294639	90°	M16	57	32	23	17	15	10	3

F= Agujero

Tirantes sin Agujero - HURCO

Without coolant hole - HURCO

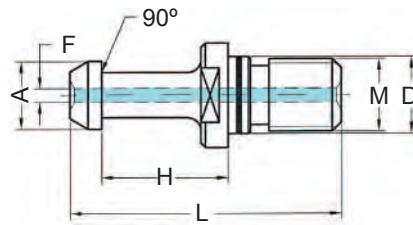
HURCO



REFERENCIA	COD	A	M	L	L1	D	D1	D3	D4
SK40-30°OR	3294631	30°	M16	57	32	23	17	15	10
SK40-45°OR	3294632	45°	M16	57	32	23	17	15	10
SK40-90°OR	3294633	90°	M16	57	32	23	17	15	10

Tirante con Agujero PASANTE - MITSUI SEIKI
With coolant hole - MITSUI SEIKI Type

MITSUI SEIKI



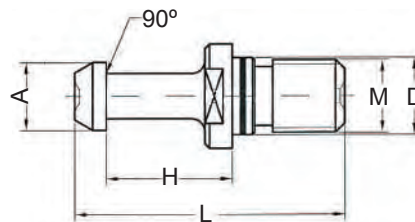
Refrigeración Central
Coolant flow

REFERENCIA	M	A	H±0.05	D	L	F
BT40-31F	M16	15	18	17	50	3
BT50-31F	M24	24	23	25	71	8

F= Agujero

Tirante sin Agujero - MITSUI SEIKI
Without coolant hole - MITSUI SEIKI Type

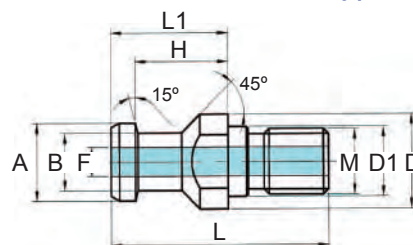
MITSUI SEIKI



REFERENCIA	M	A	H±0.05	D	L
BT40-31	M16	15	18	17	50
BT50-31	M24	24	23	25	71

Tirante con Agujero PASANTE - KITAMURA
With coolant hole - KITAMURA Type

KITAMURA



Refrigeración Central
Coolant flow

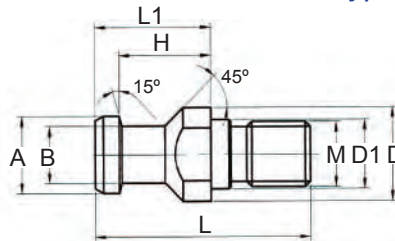
REFERENCIA	M	A	H±0.05	D1	D	B	L1	L	F
KITAMURA-M16F	M16	19	23	17	23	14	29	54	7

F= Agujero

Tirante sin Agujero - KITAMURA

Without coolant hole - KITAMURA Type

KITAMURA

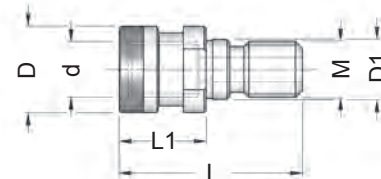


REFERENCIA	M	A	H±0.05	D1	D	B	L1	L
KITAMURA-M16SF	M16	19	23	17	23	14	29	54

Tirante PASANTE CONVERSOR (BT-DIN2080)

With coolant bore

OTT



Refrigeración
Central
Coolant flow

REFERENCIA	COD	M	d	D	D1	L1	L
OTTM16L53-TC40	3293487	M16	M16	25.3	17	25	53
OTTM16L56-BT40	3293466	M16	M16	25.3	17	28	56
OTTM24L65-Cono50	3290087	M24	M24	39.6	25	25	65

Llave de bloqueo de tirante

Quick ratchet



REFERENCIA	Q
CHSKT	1/2"

Casquillo intercambiable

Interchangeable socket



REFERENCIA	E	ISO	TIRANTE
SKT40BT	19	40	(MAS403/BT)
SKT50BT	30	50	(MAS403/BT)
SKTJS40	19	40	(JIS/6339-B)
SKTJS50	30	50	(JIS/6339-B)

Fuerza de Apriete recomendada

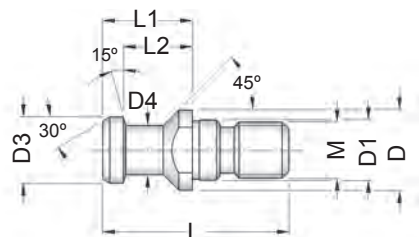
Recommended tighteniing torque for pull stud bolt

FUERZA

G.M12 = 20÷25 Nm
G.M16 = 60÷80 Nm
G.M24 = 200÷250 Nm

Tirantes sin Agujero (DIN/69872)
DIN/69872A Pull stud bolts without hole

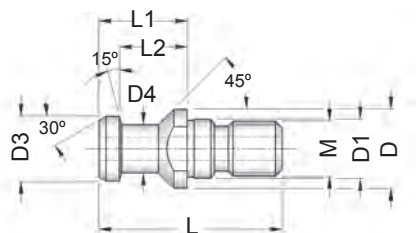
DIN/69872



REFERENCIA	COD	M	D	D1	D3	D4	L	L1	L2
69872-ISO30	3293489	M12	17	13	13	9	44	24	19
69872-ISO40	3294573	M16	23	17	19	14	54	26	20
69872-ISO50	3294575	M24	36	25	28	21	74	34	25

Tirantes con Agujero PASANTE (DIN/69872)
DIN/69872 Pull stud bolts with hole

DIN/69872



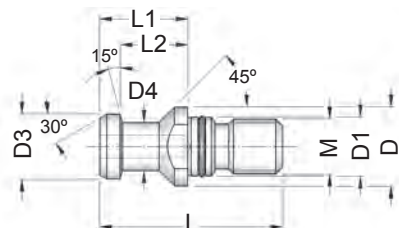
**Refrigeración
 Central
 Coolant flow**

REFERENCIA	COD	D	D1	D2	D3	D4	L	L1	L2	F
69872ISO30-F	3293423	M12	17	13	13	9	44	24	19	3.0
69872ISO40-F	3293476	M16	23	17	19	14	54	26	20	7.0
69872ISO50-F	3293478	M24	36	25	28	21	74	34	25	11.5

F= Agujero

Tirantes sin Agujero y junta de alta presión (DIN/69872)
DIN 69872 Pull stud bolts with watertight O-Ring

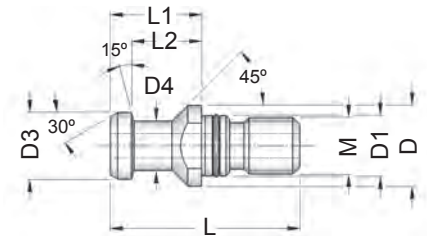
DIN/69872



REFERENCIA	COD	M	D	D1	D3	D4	L	L1	L2
69872ISO40-OR	3293268	M16	23	17	19	14	54	26	20
69872ISO50-OR	3293270	M24	36	25	28	21	74	34	25

Tirantes con Agujero **PASANTE** y junta de alta presión (DIN/69872)
DIN/69872 Pull stud bolts with hole and O-RING

DIN/69872



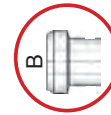
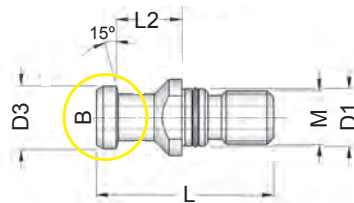
Refrigeración
Central
Coolant flow

REFERENCIA	COD	M	D	D1	D3	D4	L	L1	L2	F
69872ISO40F+OR	3293040	M16	23	17	19	14	54	26	20	7.0
69872ISO50F+OR	3293042	M24	36	25	28	21	74	34	25	113

F= Agujero

Tirantes con Agujero **PASANTE** y doble junta de alta presión (DIN/69872)
DIN/69872 Pull stud bolts with double hole and O-RING

DIN/69872



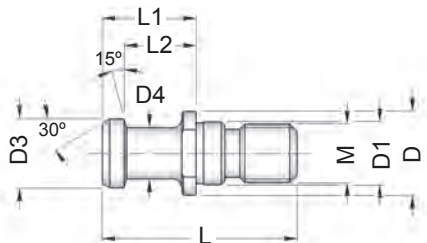
Refrigeración
Central
Coolant flow

REFERENCIA	COD	M	A	H+/-	D	L	B	CONO
DIN69872ISO40-2OR	679	M16	15°	20	17	54	7	40
DIN69872ISO40-2ORBT	679	M16	15°	23	17	54	7	40
DIN69872ISO50-2OR	679	M24	15°	25	25	74	11.5	50

F= Agujero

Tirante **sin Agujero** (ISO 7388/2A)
ISO 7388/2A Pull Stud bolts without hole

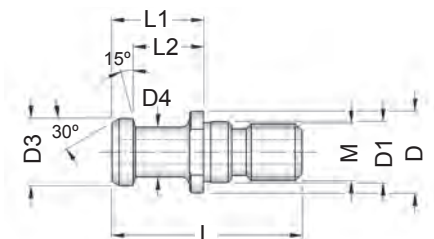
ISO 7388/2-A



REFERENCIA	COD	M	D	D1	D3	D4	L	L1	L2
7388/2A-ISO30	3293479	M12	16	13	12	8	44	24	19
7388/2A-ISO40	3294576	M16	23	17	19	14	54	26	20
7388/2A-ISO50	3294578	M24	36	25	28	21	74	34	25

Tirante con Agujero **PASANTE** (ISO 7388/2A)
ISO 7388/2A Pull stud bolts with hole

ISO 7388/2-A



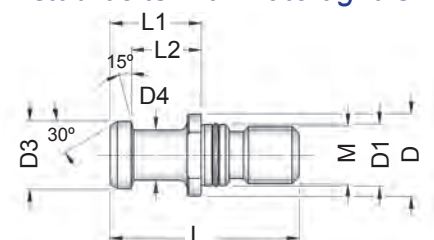
Refrigeración
 Central
 Coolant flow

REFERENCIA	COD	M	D	D1	D3	D4	L	L1	L2	F
7388/2A-ISO30F	3293425	M12	16	13	12	8	44	24	19	3.0
7388/2A-ISO40F	3293480	M16	23	17	19	14	54	26	20	7.0
7388/2A-ISO50F	3293482	M24	36	25	28	21	74	34	25	11.5

F= Agujero

Tirante **sin Agujero** (ISO 7388/2A) y junta de alta presión
ISO 7388/2A Pull stud bolts with watertight O-Ring

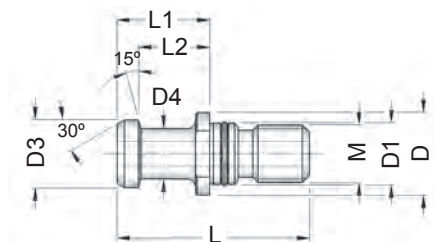
ISO 7388/2-A



REFERENCIA	COD	M	D	D1	D3	D4	L	L1	L2
7388/2A-ISO400R	3294582	M16	23	17	19	14	54	26	20
7388/2A-ISO500R	3294584	M24	36	25	28	21	74	34	25

Tirante con Agujero **PASANTE** (ISO 7388/2A) y junta de alta presión
ISO 7388/2A Pull stud bolts with hole and O-Ring

ISO 7388/2-A



Refrigeración
 Central
 Coolant flow

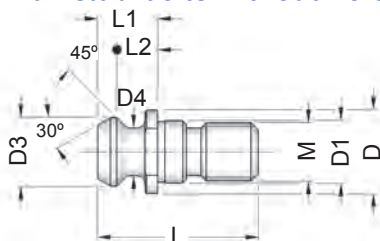
REFERENCIA	COD	M	D	D1	D3	D4	L	L1	L2	F
7388/2A-ISO40F+OR	3293047	M16	23	17	19	14	54	26	20	7.0
7388/2A-ISO50F+OR	3293049	M24	36	25	28	21	74	34	25	11.5

F= Agujero

Tirante sin Agujero (ISO 7388/2B)

ISO 7388/2B Pull stud bolts without hole

ISO 7388/2-B

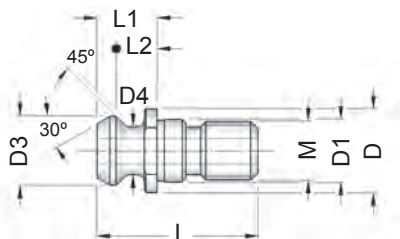


REFERENCIA	COD	M	D	D1	D3	D4	L	L1	L2
7388/2B-ISO30	3293483	M12	17.0	12.5	13.3	9.3	34.0	11.8	8.1
7388/2B-ISO40	3294579	M16	22.5	17.0	18.9	12.9	44.5	16.4	11.1
7388/2B-ISO50	3294581	M24	37.0	25.0	29.1	19.6	65.5	25.5	17.9

Tirante con Agujero PASANTE (ISO 7388/2B)

ISO 7388/2B Pull stud bolts with hole

ISO 7388/2-B



Refrigeración
Central
Coolant flow

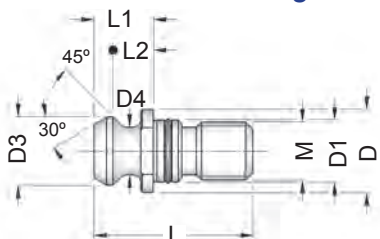
REFERENCIA	COD	M	D	D1	D3	D4	L	L1	L2	F
7388/2B-ISO40F	3293484	M16	22.5	17.0	18.9	12.9	44.5	16.4	11.1	7.3
7388/2B-ISO50F	3293486	M24	37.0	25.0	29.1	19.6	65.5	25.5	17.9	11.5

F= Agujero

Tirante sin Agujero (ISO 7388/2B) y junta de alta presión

ISO 7388/2B Pull stud bolts with watertight O-Ring

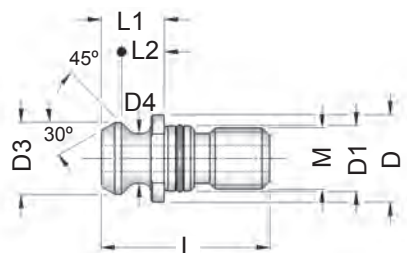
ISO 7388/2-B



REFERENCIA	COD	M	D	D1	D3	D4	L	L1	L2
7388/2B-ISO40OR	3294585	M16	22.5	17.0	18.9	12.9	44.5	16.4	11.1
7388/2B-ISO50OR	3294587	M24	37.0	25.0	29.1	19.6	65.5	25.5	17.9

Tirante con Agujero **PASANTE** (ISO 7388/2B) y junta de alta presión
ISO 7388/2B Pull stud bolts with hole and O-Ring

ISO 7388/2-B



Refrigeración
 Central
 Coolant flow

REFERENCIA	COD	M	D	D1	D3	D4	L	L1	L2	F
7388/2B-ISO40F+OR	3293050	M16	22.5	17.0	18.9	12.9	44.5	16.4	11.1	7.3
7388/2B-ISO50F+OR	3293052	M24	37.0	25.0	29.1	19.6	65.5	25.5	17.9	11.5

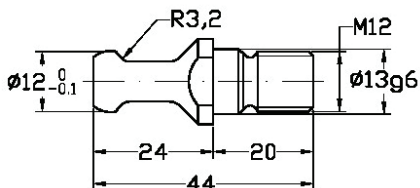
F= Agujero

Tirante **BIESSE**
Pull stud bolts BIESSE type

BIESSE

REFERENCIA

PSWD30-BS2

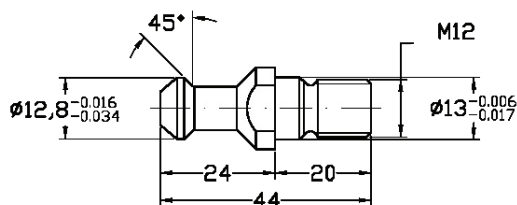


Tirante **ALBERTI**
Pull stud bolts ALBERTI type

ALBERTI

REFERENCIA

PSWD30-ALB

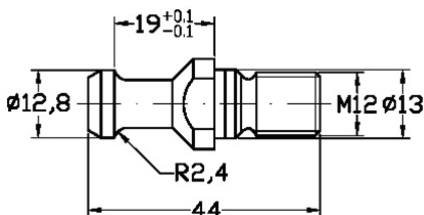


Tirante **CMS**
Pull stud bolts CMS type

CMS

REFERENCIA

PSWD30-CMS



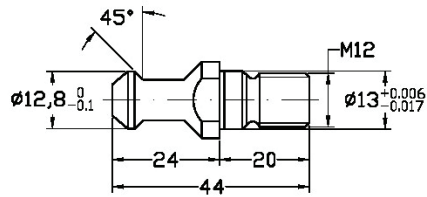
Tirante COLOMBO

Pull stud bolts COLOMBO type

COLOMBO

REFERENCIA

PSWD30-COL



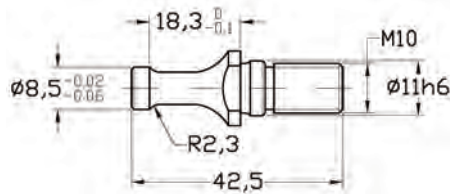
Tirante SCM

Pull stud bolts SCM type

SCM

REFERENCIA

PSWD30-SCM



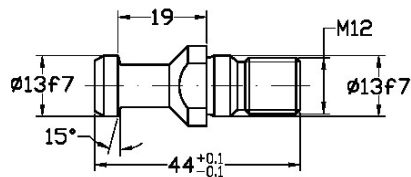
Tirante sin Agujero DIN69872/A

Pull stud bolts DIN69872/A type without hole

DIN/69872/A

REFERENCIA

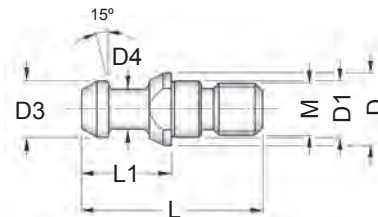
PSDIN30-SF



Tirante ALTA VELOCIDAD para ISO 20

High speed pull stud bolts for ISO 20 shank

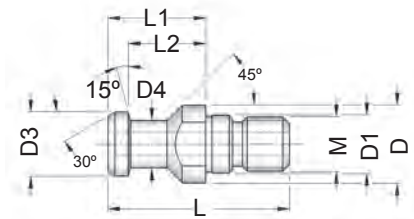
ALTA VELOCIDAD



REFERENCIA	COD	M	D	D1	D3	D4	L	L1
ISO20-M8L28	3293491	M8	11	8.5	8.5	6	28.0	14

Tirante tipo **BRIDGEPORT**
Pull stud bolts BRIDGEPORT type

BRIDGEPORT



Refrigeración
 Central
 Coolant flow

REFERENCIA	COD	M	D	D1	D3	D4	L	L1	L2	F
BRIDGEPORTISO40-M16	3293359	M16	23	17	19	14	54	29	23	7

F= Agujero

Llave de bloqueo de tirante
Quick ratchet



REFERENCIA	Q
CHSKT	1/2"

Casquillo intercambiable
Interchangeable socket



REFERENCIA	E	ISO	TIRANTE
SKTDIN40	19	40	(DIN/69871) - (ISO7388/2A)
SKTDIN50	30	50	(DIN/69871) - (ISO7388/2A)
SKTCAT40	19	40	(ISO7388/2B)
SKTCAT50	30	50	(ISO7388/2B)

Fuerza de Apriete recomendada
Recommended tightening torque for pull stud bolt

REFERENCIA
G.M12 = 20÷25 Nm
G.M16 = 60÷80 Nm
G.M24 = 200÷250 Nm



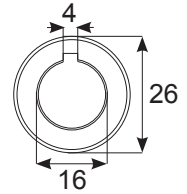
Anillo Distanciador Spacers

DIAMETRO X ESPESOR

D16X0.03	D16X0.1	D16X0.5	D16X3.0	D16X10.0
D16X0.04	D16X0.2	D16X0.6	D16X4.0	D16X20.0
D16X0.05	D16X0.3	D16X1.0	D16X5.0	D16X30.0
D16X0.06	D16X0.4	D16X2.0	D16X6.0	

Ø

16

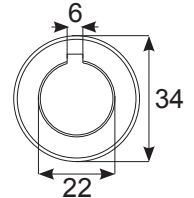


DIAMETRO X ESPESOR

D22X0.03	D22X0.1	D22X0.5	D22X3.0	D22X10.0
D22X0.04	D22X0.2	D22X0.6	D22X4.0	D22X20.0
D22X0.05	D22X0.3	D22X1.0	D22X5.0	D22X30.0
D22X0.06	D22X0.4	D22X2.0	D22X6.0	D22X60.0

Ø

22

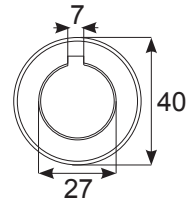


DIAMETRO X ESPESOR

D27X0.03	D27X0.1	D27X0.5	D27X3.0	D27X10.0
D27X0.04	D27X0.2	D27X0.6	D27X4.0	D27X20.0
D27X0.05	D27X0.3	D27X1.0	D27X5.0	D27X30.0
D27X0.06	D27X0.4	D27X2.0	D27X6.0	D27X60.0

Ø

27

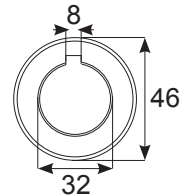


DIAMETRO X ESPESOR

D32X0.03	D32X0.1	D32X0.5	D32X3.0	D32X10.0
D32X0.04	D32X0.2	D32X0.6	D32X4.0	D32X20.0
D32X0.05	D32X0.3	D32X1.0	D32X5.0	D32X30.0
D32X0.06	D32X0.4	D32X2.0	D32X6.0	D32X60.0

Ø

32

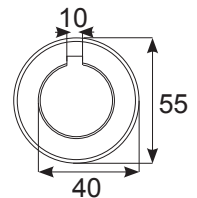


DIAMETRO X ESPESOR

D40X0.03	D40X0.1	D40X0.5	D40X3.0	D40X10.0
D40X0.04	D40X0.2	D40X0.6	D40X4.0	D40X20.0
D40X0.05	D40X0.3	D40X1.0	D40X5.0	D40X30.0
D40X0.06	D40X0.4	D40X2.0	D40X6.0	D40X60.0

Ø

40

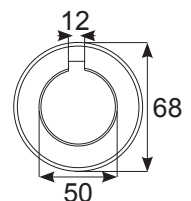


DIAMETRO X ESPESOR

-	D50X0.1	D50X0.5	D50X3.0	D50X10.0
-	D50X0.2	D50X0.6	D50X4.0	D50X20.0
D50X0.05	D50X0.3	D50X1.0	D50X5.0	D50X30.0
D50X0.06	D50X0.4	D50X2.0	D50X6.0	D50X60.0

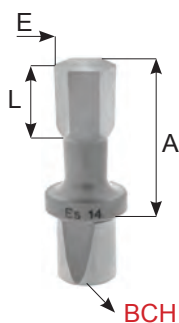
Ø

50



Brocha hexagonal
Broach exagonal

Brocha hexagonal
Broach exagonal



REFERENCIA	A	L
BCH5E1	10	2
BCH5E1.5		3
BCH5E2		3.5
BCH5E2.5		4
BCH5E3		5
BCH5E3.5		6
BCH5E4		6
BCH5E5		6
BCH5E5.5		6
BCH5E6		6

REFERENCIA	A	L
BCH8E1	18	2
BCH8E1.5		3
BCH8E2		3.5
BCH8E2.5		4
BCH8E3		5
BCH8E3.5		6
BCH8E4		6.5
BCH8E5		8.5
BCH8E5.5		9.5
BCH8E6		10.5
BCH8E7	12	
BCH8E8	12.5	

Brocha hexagonal
Broach exagonal

Brocha hexagonal
Broach exagonal

REFERENCIA	A	L
BCH12E1	25	2
BCH12E1.5		3
BCH12E2		3.5
BCH12E2.5		4
BCH12E3		5
BCH12E3.5		6
BCH12E4		6.5
BCH12E5		8.5
BCH12E5.5		9.5
BCH12E6		10.5
BCH12E6.5		10.5
BCH12E7		13
BCH12E8		15.5
BCH12E9		21
BCH12E10	21	
BCH12E11	21	
BCH12E12	21	
BCH12E13	21	
BCH12E14	21	

REFERENCIA	A	L
BCH16E3	40	5
BCH16E3.5		6
BCH16E4		6.5
BCH16E5		8.5
BCH16E6		10.5
BCH16E7		13
BCH16E8		15.5
BCH16E9		17.5
BCH16E10		18.5
BCH16E11		20
BCH16E12		20
BCH16E13		28
BCH16E14		32
BCH16E15		32
BCH16E16		32
BCH16E17		32
BCH16E18		32
BCH16E19		32
BCH16E20		32
BCH16E21		32
BCH16E22		32
BCH16E23		32
BCH16E24		32
BCH16E25		32

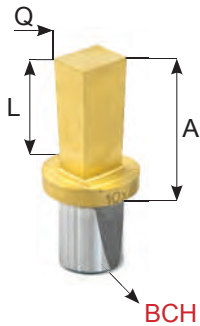


Brocha cuadrada Broach square

REFERENCIA	A	L
BCH5Q1	10	2
BCH5Q1.5		3
BCH5Q2		3.5
BCH5Q2.5		4
BCH5Q3		5
BCH5Q3.5		6
BCH5Q4		6
BCH5Q5		6
BCH5Q5.5		6
BCH5Q6		6

Brocha cuadrada Broach square

REFERENCIA	A	L
BCH8Q2	18	3.5
BCH8Q2.5		4
BCH8Q3		5
BCH8Q3.5		6
BCH8Q4		6.5
BCH8Q5		8.5
BCH8Q5.5		9.5
BCH8Q6		10.5
BCH8Q7		12



Brocha cuadrada Broach square

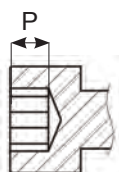
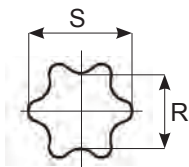
REFERENCIA	A	L
BCH12Q2	25	3.5
BCH12Q2.5		4
BCH12Q3		5
BCH12Q3.5		6
BCH12Q4		6.5
BCH12Q5		8.5
BCH12Q5.5		9.5
BCH12Q6		10.5
BCH12Q7		13
BCH12Q8		13.5
BCH12Q9		21
BCH12Q10		21
BCH12Q11		21
BCH12Q12	21	
BCH12Q13	21	

Brocha cuadrada Broach square

REFERENCIA	A	L
BCH16Q3	40	5
BCH16Q4		6.5
BCH16Q5		8.5
BCH16Q6		10.5
BCH16Q7		13
BCH16Q8		15.5
BCH16Q9		17.5
BCH16Q10		18.5
BCH16Q11		20
BCH16Q12		20
BCH16Q13		28
BCH16Q14		32
BCH16Q15		32
BCH16Q16		32
BCH16Q17		32
BCH16Q18		32
BCH16Q19		32
BCH16Q20		32
BCH16Q21		32
BCH16Q22		32
BCH16Q23	32	
BCH16Q24	32	
BCH16Q25	32	

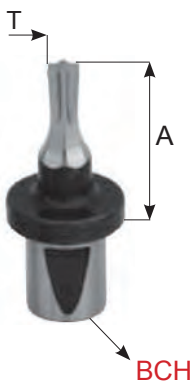


Brocha torx
Broach Torx



REFERENCIA	A	P	S	R	Torx
BCH8T5	18	0.40-0.60	1.80	1.29	6
BCH8T6		0.50-0.70	2.45	1.80	8
BCH8T7		0.60-0.90	2.85	2.07	10
BCH8T8		0.70-0.90	3.38	2.44	15
BCH8T10		1.00-1.30	3.96	2.86	20
BCH8T15		1.30-1.50	4.55	3.28	25
BCH8T20		1.50-1.60	5.10	3.65	27
BCH8T25		1.60-2.00	5.65	4.07	30
BCH8T27		2.00-2.40	6.80	4.88	40
BCH8T30		2.60-3.00	7.97	5.68	45
BCH8T40		3.00-3.30	8.99	6.50	50

Brocha torx
Broach Torx



REFERENCIA	A	P	S	R	Torx
BCH12T6	25	0.50-0.70	1.80	1.29	6
BCH12T7		0.60-0.90	2.08	1.49	7
BCH12T8		0.70-0.90	2.45	1.80	8
BCH12T10		1.00-1.30	2.85	2.07	10
BCH12T15		1.30-1.50	3.38	2.44	15
BCH12T20		1.50-1.60	3.96	2.86	20
BCH12T25		1.60-2.00	4.55	3.28	25
BCH12T27		2.00-2.40	5.10	3.65	27
BCH12T30		2.60-3.00	5.65	4.07	30
BCH12T40		3.00-3.30	6.80	4.88	40
BCH12T45		3.50-4.00	7.97	5.68	45
BCH12T50		4.00-4.50	8.99	6.50	50
BCH12T55	4.30-5.20	11.41	8.10	55	

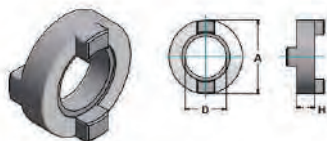
Brocha torx
Broach Torx



REFERENCIA	A	P	S	R	Torx
BCH16T10	40	1.00-1.30	1.80	1.29	6
BCH16T15		1.30-1.50	2.08	1.49	7
BCH16T20		1.50-1.60	2.45	1.80	8
BCH16T25		1.60-2.00	2.85	2.07	10
BCH16T27		2.00-2.40	3.38	2.44	15
BCH16T30		2.60-3.00	3.96	2.86	20
BCH16T40		3.00-3.30	4.55	3.28	25
BCH16T45		3.50-4.00	5.10	3.65	27
BCH16T50		4.00-4.50	5.65	4.07	30
BCH16T55		4.30-5.20	6.80	4.88	40

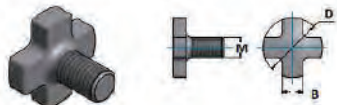
ACCESORIOS
ACCESSORIES

Anillo porta fresas DIN/6366
Cluth drive rings DIN/6366



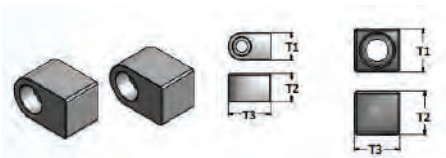
REFERENCIA	D	A	H
ATRD16	16	32	10
ATRD22	22	40	12
ATRD27	27	48	12
ATRD32	32	58	14
ATRD40	40	70	14

Tornillo de cruz DIN/6367
Cross retaining screw DIN/6367



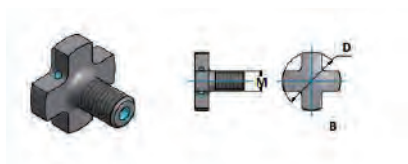
REFERENCIA	D	A	H
VTCD16	M8	20	8
VTCD22	M10	28	10
VTCD27	M12	35	12
VTCD32	M16	42	16
VTCD40	M20	52	20
VTCD60	M30	75	28

Tope de fijación
Drive key



REFERENCIA	T1	T2	T3	FIG
TTR16	8	8	14	1
TTR22	10	10	18	1
TTR27	12	12	18	1
TTR32	14	14	22	1
TTR40	16	16	25	1
TTR60	25.4	25	26.5	2

Tornillo de cruz DIN/6367
 paso refrigerante
*Cross retaining screw DIN/6367
 with coolant*



REFERENCIA	D	A	H
VTCS16	M8	20	8
VTCS22	M10	28	10
VTCS27	M12	35	12
VTCS32	M16	42	16
VTCS40	M20	52	20
VTCS60	M30	75	28

Llave tornillo de cruz DIN/6388
Spanners for cross screws DIN/6388



REFERENCIA	M	L
SP16C	8	180
SP22C	10	200
SP27C	12	225
SP32C	16	250
SP40C	20	280
SP60C	24	355



ACCESORIOS
ACCESSORIES

Tornillo para mandrino weldon
Screws for shell end mill holders



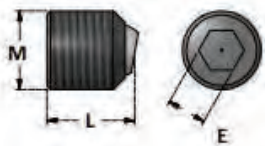
REFERENCIA	M	L	E
GRWE6M6	M6x1	9	3
GRWE8M8	M8x1.25	9	4
GRWE10M10	M10x1.5	12	5
GRWE12M12	M12x1.75	14	6
GRWE14M12	M12x1.75	14	6
GRWE16M14	M14x2	16	6
GRWE18M14	M14x2	16	6
GRWE20M16	M16x2	16	8
GRWE25M18	M18x2	20	10
GRWE32M20	M20x2	20	10
GRWE40M20	M20x2	20	10
GRWE50M24	M24x2	25	12

Tornillo para mandrino
weldon extracorto
Screws for end mill holders
weldon with stub length



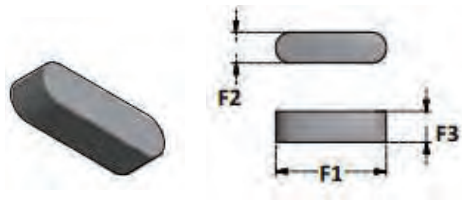
REFERENCIA	M	L	E
GRWEC16M14	M14x2	10	6
GRWEC20M16	M16x2	10	8
GRWEC25M16	M16x1	8	10
GRWEC25M18	M18x2	12	10
GRWEC32M16	M16x1	8	10
GRWEC32M20	M20x2	14	10
GRWEC40M20	M20x2	14	10

Tornillo para mandrino
weldon WISTLE-NOTCH
Locking screws with
half ball WHITLE-NOTCH



REFERENCIA	M	L	E
GRWHN6M6	M6x1	9	3
GRWHN8M8	M8x1.25	9	4
GRWHN10M10	M10x1.5	12	5
GRWHN12M12	M12x1.75	14	6
GRWHN14M12	M12x1.75	14	6
GRWHN16M14	M14x2	16	6
GRWHN18M14	M14x2	16	6
GRWHN20M16	M16x2	16	8
GRWHN25M18	M18x2	20	10
GRWHN32M20	M20x2	20	10
GRWHN40M20	M20x2	20	10

Chaveta para porta fresas
Drive Keys for combi shell mill holders



REFERENCIA	F1	F2	F3
CHVD16C	20	4	4
CHVD22C	25	6	6
CHVD27C	25	7	7
CHVD32C	28	8	7
CHVD40C	32	10	8

Cono limpiador interno
Spindle taper wipers



REFERENCIA	MODELO
TCLSK30	ISO30
TCLSK40	ISO40
TCLSK50	ISO50

Cono limpiador interno
Spindle taper wipers



REFERENCIA	MODELO
TCL1CM1	CM1
TCL2CM2	CM2
TCL3CM3	CM3
TCL4CM4	CM4
TCL5CM5	CM5

Cono limpiador interno
Spindle taper wipers



REFERENCIA	MODELO
TPHSK32	HSK-32 A / E
TPHSK40	HSK-40 A / E
TPHSK50	HSK-50 A / E
TPHSK63	HSK-63 A / E
TPHSK80	HSK-80 A
TPHSK100	HSK-100 A

Cono limpiador externo
Spindle taper wipers



REFERENCIA	MODELO
TPA-HSK40	HSK-40 A / E
TPA-HSK50	HSK-50 A / E
TPA-HSK63	HSK-63 A / E
TPA-HSK80	HSK-40 A / E
TPA-HSK100	HSK-50 A / E

Racor para el refrigerante
HSK- cooling tube



REFERENCIA	M	CONO
HSK40CFM12	12	HSK40
HSK50CFM16	16	HSK50
HSK63CFM18	18	HSK63
HSK80CFM20	20	HSK80
HSK100CFM24	24	HS100

Llave para racor
HSK- cooling tube



REFERENCIA	RACOR
HSK40SP11	HSK40.CFM12
HSK50SP15	HSK50.CFM16
HSK63SP17	HSK63.CFM18
HSK80SP19	HSK80.CFM20
HSK100SP22	HSK100.CFM24

Tabla de dimensiones DIN
Tap shank Dimensions to DIN

Ø x ▯	DIN	DIN	DIN	DIN	DIN	DIN	DIN
	352	353	371	374	376	2182	2183
2.5x2.1	M1		M1		M3.5	1/16"	
	M1.1		M1.1	M3.5			
	M1.2		M1.2				
	M1.4		M1.4				
	M1.6		M1.6				
2.8x2.1	M1.8		M1.8				
	M2		M2	M4	M4	3/32"	5/32"
	M2.2		M2.2				
3.5x2.7 4x3	M2.5		M2.5				
	M3		M3	M5	M5	1/8"	
4.5x3.4	M3.5		M3.5				
	M4		M4	M6	M6	5/32"	1/4"
6x4.9	M5		M5			7/32"	
	M6		M6				
	M8			M8	M8		
7x5.5	M10	G 1/8"		M10	M10	1/4"	3/8"
8x6.2			M8			5/16"	7/16"
9x7	M12			M12	M12	3/8"	1/2"
10x8			M10				
11x9	M14	G 1/4"		M14	M14		9/16"
12x9	M16	G 3/8"		M16	M16		5/8"
14x11	M18			M18	M18		11/16"
16x12	M20	G 1/2"		M20	M20		13/16"
18x14.5	M22	G 5/8"		M22	M22		7/8"
	M24			M24	M24		15/16"
20x16	M27	G 3/4"		M27	M27		1"
22x18	M30	G 7/8"		M30	M30		1 1/8"
25x20	M33	G 1"		M33	M33		1 1/4"
28x22	M36	G1 1/8"		M36	M36		1 3/8"
32x24	M39	G1 1/4"		M39	M39		1 1/2"
	M42			M42	M42		1 5/8"
36x29	M45	G1 3/8"		M45	M45		1 3/4"
	M48	G1 1/2"		M48	M48		1 7/8"
		G1 3/4"					
40x32		G2"					
	M56	G2 1/4"		M52	M56		2"
45x35		G2 1/2"					2 1/4"
	M60				M60		
50x39	M64	G2 3/4"			M64		2 1/2"
		G3"					
56x44	M68	G3 1/4"			M68		2 3/4"
							3"
56x45							

Tabla de dimensiones ISO
Tap shank Dimensions to ISO

Ø x L			ISO 529-1975									
	M		UNC		UNF		BSW		BSF		BA	
		●		●		●		●		●		●
2.24x1.8	M3		Nr.5-40		Nr.5-44					Nr.5		
2.5x2.0	M3.5	M2	Nr.6-32	Nr.1-64	Nr.6-40	Nr.0-80						Nr.11
						Nr.1-72						Nr.10
												Nr.9
2.8x2.24		M2.2		Nr.5-56		Nr.2-64						Nr.8
		M2.5		Nr.3-48		Nr.3-56						Nr.7
												Nr.6
3.15x2.24	M4	M3		Nr.4-40		Nr.4-48						Nr.5
			Nr.8-32	Nr.5-40	Nr.8-36	Nr.5-44					Nr.3	
3.55x2.8	M4.5	M3.5	Nr.10-24	Nr.6-32	Nr.10-32	Nr.6-40	3/16"-24		3/16"-32		Nr.2	Nr.4
4x3.15	M5	M4	Nr.12-24		Nr.12-28			7/32"-28		Nr.1		
4.5x3.55	M6		1/4"-20	Nr.8-32	1/4"-28	Nr.3-36	1/4"-20		1/4"-26		Nr.0	Nr.3
5x4		M5		Nr.10-24		Nr.10-32			3/16"-24		3/16"-32	Nr.2
5.6x4.5				Nr.12-24		Nr.12-28			9/32"-26	7/32"-28		Nr.1
6.3x5	M8	M6	5/16"-18	1/4"-20	5/16"-24	1/4"-28	5/16"-18	1/4"-20	5/16"-22	1/4"-26		Nr.0
7.1x5.6			3/8"-16		3/8"-24		3/8"-16		3/8"-20	9/32"-26		
8x6.3	M10	M8	7/16"-14	7/16"-18	7/16"-20		7/16"-14	5/16"-18	7/16"-18	5/16"-22		
9x7.1	M12		1/2"-13		1/2"-20		1/2"-12		1/2"-12			
10x8		M10		3/8"-16		3/8"-24		3/8"-16		3/8"-20		
11.2x9	M14		9/16"-12		9/16"-18		9/16"-12		9/16"-16			
12.5x10	M16		5/8"-11		5/8"-18		5/8"-11		3/8"-14			
14x11.2	M18		3/4"-10		3/4"-16		11/16"-14					
	M20						3/4"-10		3/4"-12			
16x12.5	M22		7/8"-9		7/8"-14		7/8"-9		7/8"-11			
18x14	M24		1"-8		1"-12		1"-8		1"-10			
20x16	M27		1 1/8"-7		1 1/8"-12	1 1/8"-7		1 1/8"-9				
	M30											
22.4x18	M33		1 1/4"-7		1 1/4"-12	1 1/4"-7		1 1/4"-9				
25x20	M36		1 3/8"-6		1 3/8"-12			1 3/8"-8				
28x22.4	M39		1 1/2"-6		1 1/2"-12	1 1/2"-6		1 1/2"-8				
	M42								1 1/2"-8			
31.5x25	M45		1 7/16"-5				1 3/4"-5		1 3/4"-7			
	M48											
35.5x28	M52		2"-4 1/2				2"-4 1/2		2"-7			
	M56											
40x31.5	M60		2 1/4"-4 1/4				2 1/4"-4		2 1/4"-6			
	M64		2 1/2"-4				2 1/2"-4		2 1/2"-6			
45x35.5	M68		2 3/4"-4				2 3/4"-3 1/2		2 3/4"-6			
			3"-4				3"-3 1/2		3"-5			
50x40			3 1/4"-4				3 1/4"-3 1/4	3 1/4"-5				
			3 1/2"-4				3 1/2"-3 1/4	3 1/2"-4 1/4				
56x45			3 3/4"-4				3 3/4"-3		3 3/4"-4 1/2			
			4"-4				4"-3		4"-4 1/2			

● Mango Reforzado



CILÍNDRICO

DIN/1835-A

PROGRAMA

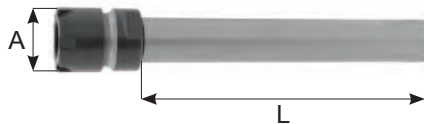
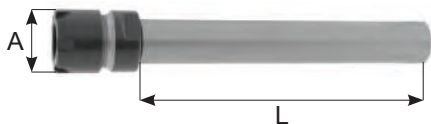
						
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PAG. 12	PAG. 13	PAG. 14	PAG. 15	PAG. 16	PAG. 17	PAG. 17
						
PAG. 18	PAG. 18	PAG. 19	PAG. 19	PAG. 20	PAG. 20	PAG. 21
						
PAG. 22	PAG. 22	PAG. 23	PAG. 23	PAG. 24	PAG. 24	PAG. 25
						
PAG. 25	PAG. 26	PAG. 26				

DIN/1835A

Porta pinzas cilíndrico
Straight shank collet chuck

ER8M

ER11M



CAP 1 ÷ 5mm

CAP 1 ÷ 7mm

REFERENCIA	CAP	L	A
D5L30ER8M *	1 ÷ 5	30	12
D5L45ER8M *		45	
D6L30ER8M *		30	
D6L45ER8M *		45	
D7L45ER8M *		60	
D8L55ER8M *		55	
D8L80ER8M *		80	
D8L100ER8M *		100	
D8L130ER8M *		130	
D10L80ER8M *		80	
D10L100ER8M *		100	
D12L80ER8M *		80	
D12L100ER8M *		100	
D12L130ER8M *		130	
D12L160ER8M *		160	
D12L200ER8M *		200	

Compatible con tuerca mini hexagonal

REFERENCIA	CAP	L	A
D6L45ER11M	1 ÷ 7	45	16
D7L45ER11M		45	
D8L55ER11M		55	
D10L60ER11M		60	
D10L100ER11M		100	
D12L70ER11M		70	
D12L100ER11M		100	
D12L140ER11M		140	
D16L40ER11M		40	
D16L60ER11M		60	
D16L100ER11M		100	
D16L130ER11M		130	
D16L160ER11M		160	
D16L200ER11M		200	
D16L250ER11M		250	
D16L300ER11M		300	
D20L70ER11M	70		
D20L100ER11M	100		
D20L130ER11M	130		
D20L160ER11M	160		
D25L100ER11M	100		
D25L160ER11M	160		

* Porta pinzas cilíndrico sin agujero pasante
Without coolant bore

Estuche
portapinzas
Straight shank
collet chuck kit



Estuche
portapinzas
Straight shank
collet chuck kit



REFERENCIA	CAP
BD12L100ER8M	1 ÷ 5 mm
BD12L130ER8M	
BD12L160ER8M	
BD12L200ER8M	

REFERENCIA	CAP
BD12L100ER11M	1 ÷ 7 mm
BD16L100ER11M	
BD16L130ER11M	
BD16L160ER11M	
BD20L160ER11M	
BD25L160ER11M	

COMPOSICION

Llave - CH8M
Pinzas - Ø 1 a Ø 5 x 0.5mm (9 Unidades)
Portapinzas - ER8M

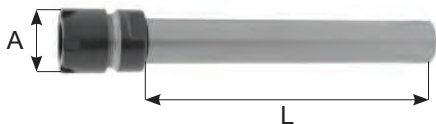
COMPOSICION

Llave - CH11M o CH11MSE
Pinzas - Ø 1 a Ø 7 x 0.5mm (13 Unidades)
Portapinzas - ER11M

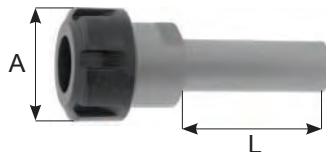
DIN/1835A

Porta pinzas cilíndrico
Straight shank collet chuck

ER16M



ER16



Compatible con tuerca mini hexagonal

CAP 1 ÷ 10mm

REFERENCIA	CAP	L	A
D10L80ER16M		80	
D12L80ER16M		80	
D16L35ER16M		35	
D16L80ER16M		80	
D16L100ER16M		100	
D16L130ER16M		130	
D16L160ER16M		160	
D16L200ER16M		200	
D20L60ER16M		60	
D20L100ER16M		100	
D20L130ER16M	1 ÷ 10	130	22
D20L160ER16M		160	
D20L200ER16M		200	
D20L270ER16M		270	
D20L300ER16M		300	
D22L80ER16M		80	
D25L60ER16M		60	
D25L100ER16M		100	
D25L130ER16M		130	
D25L160ER16M		160	
D32L90ER16M		90	

Compatible con tuerca hexagonal

CAP 1 ÷ 10mm

REFERENCIA	CAP	L	A
D16L35ER16		35	
D16L60ER16		60	
D16L160ER16		160	
D20L50ER16	1 ÷ 10	50	32
D20L60ER16		60	
D20L100ER16		100	
D20L160ER16		160	
D20L200ER16		200	

Estuche portapinzas
Straight shank collet chuck kit



REFERENCIA	CAP
BD20L100ER16M	
BD20L130ER16M	
BD20L160ER16M	
BD20L200ER16M	

1 ÷ 10

COMPOSICION

Llave - CH16M o CH16MSE
Pinzas - Ø 1 a Ø 10 x 1.0 mm (10 Unidades)
Portapinzas - ER16M

REFERENCIA	CAP
BD20L100ER16	
BD20L160ER16	

1 ÷ 10

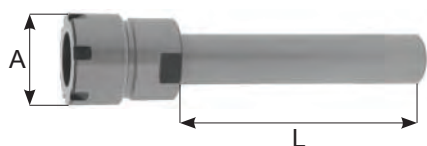
COMPOSICION

Llave - CH16S o CH16SE
Pinzas - Ø 1 a Ø 10 x 1.0 mm (10 Unidades)
Portapinzas - ER16

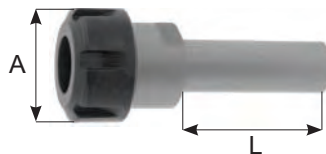
DIN/1835A

Porta pinzas cilíndrico
Straight shank collet chuck

ER20M



ER20



Compatible con tuerca mini hexagonal

CAP 1 ÷ 13mm

REFERENCIA	CAP	L	A
D16L100ER20M	1 ÷ 14	100	28
D16L130ER20M		130	
D16L160ER20M		160	
D20L46ER20M		46	
D20L60ER20M		60	
D20L100ER20M		100	
D20L130ER20M		130	
D20L160ER20M		160	
D20L200ER20M		200	
D25L60ER20M		60	
D25L130ER20M		130	
D25L160ER20M		160	
D25L240ER20M		240	
D25L300ER20M		300	
D32L95ER20M	95		

Compatible con tuerca hexagonal

CAP 1 ÷ 13mm

REFERENCIA	CAP	L	A
D20L50ER20	1 ÷ 14	50	35
D20L60ER20		60	
D20L100ER20		100	
D20L130ER20		130	
D20L160ER20		160	
D20L200ER20		200	
D25L100ER20		100	

Estuche portapinzas
Straight shank collet chuck kit



Estuche portapinzas
Straight shank collet chuck kit



REFERENCIA	CAP
BD20L100ER20M	2 ÷ 13
BD20L130ER20M	
BD20L160ER20M	
BD20L200ER20M	

REFERENCIA	CAP
BD20L100ER20	2 ÷ 13
BD20L200ER20	
BD25L100ER20	

COMPOSICION

Llave - CH20M o CH20MSE
Pinzas - Ø 2 a Ø 13 x 1.0 mm (12 Unidades)
Portapinzas - ER20M

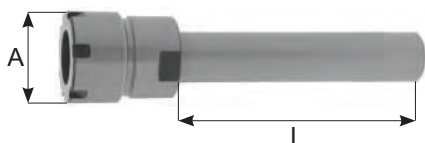
COMPOSICION

Llave - CH20S o CH20SE
Pinzas - Ø 2 a Ø 13 x 1.0 mm (12 Unidades)
Portapinzas - ER20

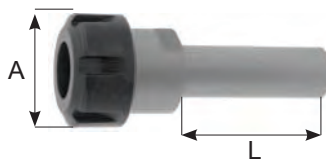
DIN/1835A

Porta pinzas cilíndrico
Straight shank collet chuck

ER25M



ER25



Compatible con tuerca mini hexagonal

CAP 1 ÷ 20mm

REFERENCIA	CAP	L	A
D20L46ER25M	1 ÷ 20	46	35
D20L60ER25M		60	
D20L100ER25M		100	
D20L130ER25M		130	
D20L160ER25M		160	
D20L200ER25M		200	
D25L70ER25M		70	
D25L100ER25M		100	
D25L130ER25M		130	
D25L160ER25M		160	
D25L260ER25M		260	

Compatible con tuerca hexagonal

CAP 1 ÷ 20mm

REFERENCIA	CAP	L	A
D20L50ER25	1 ÷ 20	50	42
D20L60ER25		60	
D20L100ER25		100	
D20L130ER25		130	
D20L160ER25		160	
D25L50ER25		50	
D25L70ER25		70	
D25L100ER25		100	
D25L130ER25		130	
D25L160ER25		160	
D32L80ER25		80	
D32L100ER25		100	
D40L80ER25		80	

Estuche portapinzas
Straight shank collet chuck kit



REFERENCIA	CAP
BD20L100ER25M	2 ÷ 1
BD20L130ER25M	
BD20L160ER25M	
BD20L200ER25M	
BD25L100ER25M	
BD25L160ER25M	

COMPOSICION

Llave - CH25M o CH25MSE
Pinzas - Ø 2 a Ø 16 x 1.0 mm (15 Unidades)
Portapinzas - ER25M

Estuche portapinzas
Straight shank collet chuck kit



REFERENCIA	CAP
BD20L50ER25	2 ÷ 16
BD25L100ER25	
BD32L80ER25	

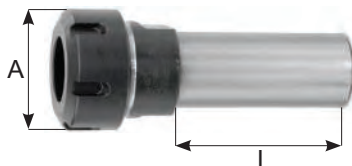
COMPOSICION

Llave - CH25S o CH25SE
Pinzas - Ø 2 a Ø 16 x 1.0 mm (15 Unidades)
Portapinzas - ER25

DIN/1835A

Porta pinzas cilíndrico
Straight shank collet chuck

ER32



CAP 2 ÷ 22mm

CAP 2 ÷ 22mm

REFERENCIA	CAP	L	A
D20L50ER32	2 ÷ 22	50	50
D20L100ER32		100	
D20L130ER32		130	
D20L160ER32		160	
D25L50ER32		50	
D25L70ER32		70	
D25L100ER32		100	
D25L130ER32		130	
D25L160ER32		160	
D32L50ER32		50	

REFERENCIA	CAP	L	A
D32L70ER32	2 ÷ 22	70	50
D32L100ER32		100	
D32L130ER32		130	
D32L160ER32		160	
D40L80ER32		80	
D40L130ER32		130	
D40L160ER32		160	
D50L160ER32		160	
D60L160ER32		160	

Estuche portapinzas
Straight shank collet chuck kit



Estuche portapinzas
Straight shank collet chuck kit



REFERENCIA	CAP
BD20L50ER32-6	6 ÷ 25
BD25L50ER32-6	
BD32L70ER32-6	

COMPOSICION

Llave - CH32S
Pinzas - Ø6 - Ø8 - Ø10 - Ø12 - 16 - Ø 20 - Ø25
(6 Unidades) + Portapinzas - ER32

REFERENCIA	CAP
BD20L50ER32-9	3 ÷ 20
BD25L50ER32-9	
BD32L70ER32-9	

COMPOSICION

Llave - CH32S
Pinzas - Ø3 - Ø4 - Ø5 - Ø6 - Ø8 - Ø10 - Ø12
Ø16 - Ø20 (9 Unidades) + Portapinzas

REFERENCIA	CAP
BD20L50ER32-18	3 ÷ 20
BD25L50ER32-18	
BD32L70ER32-18	

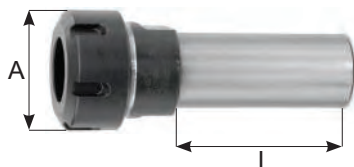
COMPOSICION

Llave - CH32S
Pinzas - Ø 3 a Ø 20 x 1.0 mm (18 Unidades)
Portapinzas - ER32

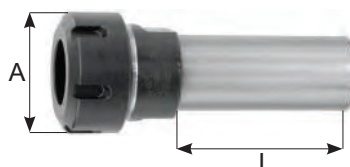
DIN/1835A

Porta pinzas cilíndrico
Straight shank collet chuck

ER40



ER50



CAP 3 ÷ 30mm

CAP 6 ÷ 34mm

REFERENCIA	CAP	L	A
D25L60ER40	3 ÷ 30	60	63
D25L100ER40		100	
D32L70ER40		70	
D32L100ER40		100	
D32L130ER40		130	
D40L80ER40		80	
D40L130ER40		130	
D40L160ER40		160	
D50L120ER40		120	
D50L160ER40		160	
D60L160ER40		160	

REFERENCIA	CAP	L	A
D40L160ER50	6 ÷ 34	160	78
D50L170ER50		170	
D60L170ER50		170	

DIN/1835A

Porta pinzas doble
Double ended collet chucks

TUERCA MINI DOBLE

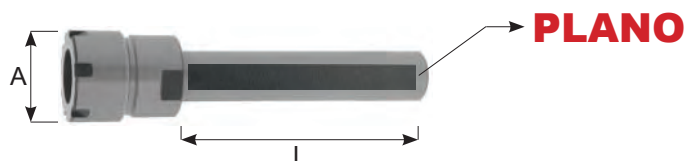


REFERENCIA	CAP	L	A	H
D20L42ER11MP	1 ÷ 7	42	16	70
D20L52ER11MP		52		80
D20L62ER11MP		62		90
D20L37ER16MP	1 ÷ 10	37	22	80
D20L57ER16MP		57		100
D20L67ER16MP		67		110
D20L122ER16MP		122		165
D22L47ER16MP		47		90
D22L67ER16MP		67		110
D22L102ER16MP		102		145
D25L27ER16MP		27		70
D25L47ER16MP		47		90
D25L67ER16MP		67		110
D25L82ER20MP	1 ÷ 14	82	28	130
D32L57ER20MP		57		105
D32L82ER20MP		82		130

DIN/1835A

Porta pinzas cilíndrico con plano de bloqueo
Collet chuck with flat

TUERCA MINI



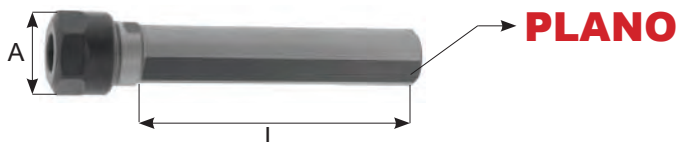
REFERENCIA	CAP	L	A	REFERENCIA	CAP	L	A		
D20PL50ER11M	1 ÷ 7	50	16	D20PL46ER20M	1 ÷ 14	46	28		
D20PL100ER11M		100		D20PL60ER20M		60			
D20PL130ER11M		130		D20PL100ER20M		100			
D20PL160ER11M		160		D20PL130ER20M		130			
D20PL200ER11M		200		D20PL160ER20M		160			
D25PL100ER11M		50		D20PL200ER20M		200			
D25PL130ER11M		100		D20PL250ER20M		250			
D25PL160ER11M	130	D25PL60ER20M	60						
D20PL60ER16M	1 ÷ 10	60	22	D25PL100ER20M		1 ÷ 20		100	35
D20PL100ER16M		100		D25PL130ER20M				130	
D20PL130ER16M		130		D25PL160ER20M				160	
D20PL160ER16M		160		D25PL200ER20M				200	
D20PL200ER16M		200		D32PL90ER20M				90	
D20PL250ER16M		250		D20PL46ER25M				46	
D25PL60ER16M		60		D20PL60ER25M	60				
D25PL100ER16M		100		D20PL100ER25M	100				
D25PL130ER16M		130		D20PL130ER25M	130				
D25PL160ER16M		160		D20PL160ER25M	160				
D25PL200ER16M		200		D25PL50ER25M	46				
D32PL90ER16M		60		D25PL70ER25M	60				
					D25PL100ER25M	100			
			D25PL130ER25M	130					
			D25PL160ER25M	160					
			D25PL200ER25M	200					



DIN/1835A

Porta pinzas cilíndrico con plano de bloqueo
Collet chuck with flat

TUERCA STANDARD

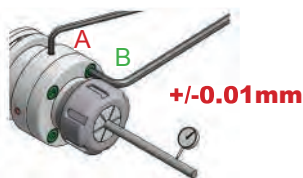
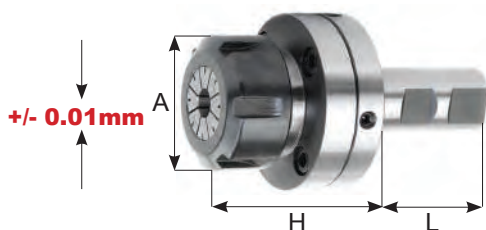


*Compatible con tuerca hexagonal

REFERENCIA	CAP	L	A	REFERENCIA	CAP	L	A
D20PL50ER16 *	1 ÷ 10	50	32	D20PL50ER32	2 ÷ 22	50	50
D20PL100ER16 *		100		D20PL100ER32		100	
D20PL130ER16 *		130		D20PL130ER32		130	
D20PL160ER16 *		160		D20PL160ER32		160	
D20PL200ER16 *		200		D25PL50ER32		50	
D25PL60ER16 *		60		D25PL70ER32		70	
D25PL100ER16 *		100		D25PL100ER32		100	
D25PL130ER16 *		130		D25PL130ER32		130	
D25PL160ER16 *		160		D25PL160ER32		160	
D25PL200ER16 *		200		D32PL50ER32		50	
D32PL100ER16 *		100		D32PL70ER32		70	
D32PL150ER16 *		150		D32PL100ER32		100	
D20PL46ER20 *		1 ÷ 14		46		35	
D20PL60ER20 *	60		D32PL150ER32	150			
D20PL100ER20 *	100		D40PL70ER32	70			
D20PL130ER20 *	130		D40PL100ER32	100			
D20PL160ER20 *	160		D40PL130ER32	130			
D20PL200ER20 *	200		D40PL160ER32	160			
D25PL60ER20 *	60		D50PL125ER32	125			
D25PL100ER20 *	100		D50PL160ER32	160			
D25PL130ER20 *	130		D60PL160ER32	160			
D25PL160ER20 *	160						
D32PL100ER20 *	100						
D32PL150ER20 *	150						
D20PL50ER25	1 ÷ 20		50	42	D25PL50ER40		3 ÷ 30
D20PL100ER25		100	D25PL100ER40		100		
D20PL130ER25		130	D32PL50ER40		50		
D20PL160ER25		160	D32PL70ER40		70		
D25PL50ER25		50	D32PL100ER40		100		
D25PL70ER25		70	D32PL130ER40		130		
D25PL100ER25		100	D40PL50ER40		50		
D25PL130ER25		130	D40PL80ER40		80		
D25PL160ER25		160	D40PL130ER40		130		
D32PL70ER25		70	D50PL125ER40		125		
D32PL100ER25		100	D50PL160ER40		160		
D32PL120ER25		120	D60PL160ER40		160		
D32PL150ER25		150					
D40PL70ER25	70						
D40PL120ER25	120						

DIN/1835B

Porta pinzas radial regulable
Adjustable collet chucks



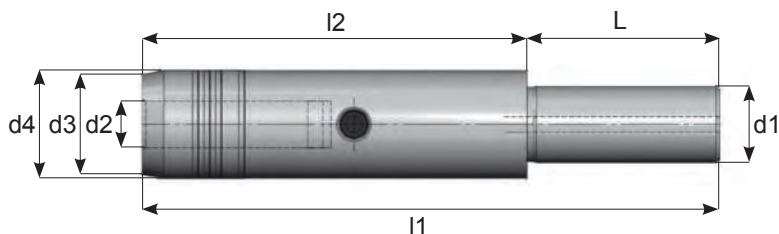
"Afloje los tornillos B y ajuste el centrado con los tornillos A"
"Loosen screws B and use screws A for radial adjustment"

REFERENCIA	CAP	L	A	AJUSTE
D25L70ER16RG	1 ÷ 10	70	28	+/-0.01
D32L70ER16RG				
D40L70ER16RG				
D25L70ER20RG	1 ÷ 14	70	34	+/-0.01
D32L70ER20RG				
D40L70ER20RG				
D25L70ER25RG	1 ÷ 20	70	42	+/-0.01
D32L70ER25RG				
D40L70ER25RG				
D25L70ER32RG	2 ÷ 22	70	50	+/-0.01
D32L70ER32RG				
D40L70ER32RG				
D25L70ER40RG	3 ÷ 30	70	63	+/-0.01
D32L70ER40RG				
D40L70ER40RG				

PORTA CILINDRICO HIDRAULICO

DIN/1835B

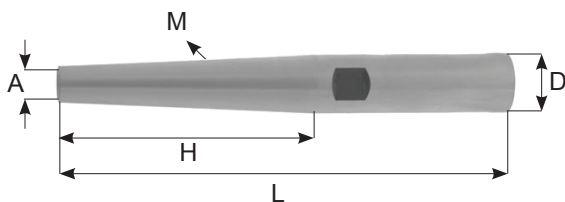
Porta cilindrico hidráulico
Hydraulic cylindrical holder



REFERENCIA	d1	d2	d3	d4	l1	l2	L
D12L46HD12	12	12	21	25	146	100	46
D20L50HD12	20	12	21	25	150	100	50
D20L50HD16	20	16	25	28	150	100	50
D20L50HD20	20	20	30	32	150	100	50
D22L50HD12	22	12	29	32	132.5	62.5	70
D32L60HD12	32	12	21	25	200	140	60
D32L60HD16	32	16	25	28	200	140	60
D32L60HD20	32	20	30	32	200	140	60

DIN/1835A

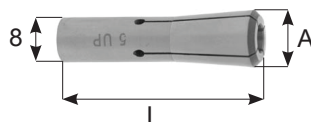
Porta pinzas cilíndrico MINI
Collet chuck extensions mini



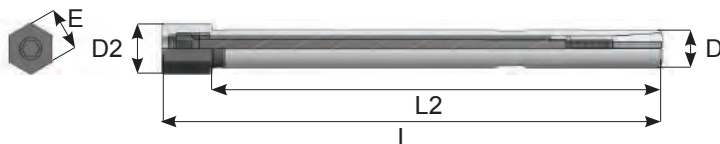
Se entrega con llave de bloqueo hexagonal 5mm
Are supplied with T-handle key exagonal 5 mm

REFERENCIA	D	A	L	L1
D16L120P8	16	12	120	48
D16L150P8			150	48
D16L200P8			200	48
D20L120P8	20	12	120	76.5
D20L150P8			150	86
D20L200P8			200	76.5
D25L120P8	25	14	120	60
D25L150P8			150	60
D25L200P8			200	60

Pinza P8
Collet P8



REFERENCIA	L	A
P8D3	36	10
P8D4		
P8D5		
P8D6		



REFERENCIA	D	D2	L	L2	E
D12L120P8	12	12	130	110	14
D12L150P8	12	12	160	114	14

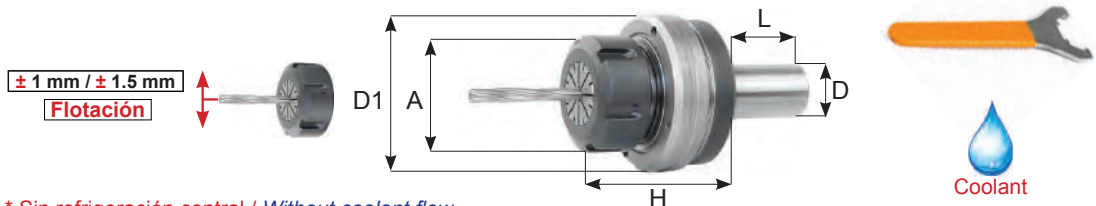
Kit - Porta pinzas - Llave - Pinza
Kit - Toolholder - Wrench and collets

REFERENCIA	Juego pinzas	Portapinzas + llave
BD12L120P8	P8 Ø 3-4-5-6	D12L120P8
BD12L150P8	P8 Ø 3-4-5-6	D12L150P8
BD16L120P8	P8 Ø 3-4-5-6	D16L120P8
BD16L150P8	P8 Ø 3-4-5-6	D16L150P8
BD16L200P8	P8 Ø 3-4-5-6	D16L200P8
BD20L120P8	P8 Ø 3-4-5-6	D20L120P8
BD20L150P8	P8 Ø 3-4-5-6	D20L150P8
BD20L200P8	P8 Ø 3-4-5-6	D20L200P8
BD25L120P8	P8 Ø 3-4-5-6	D25L120P8
BD25L150P8	P8 Ø 3-4-5-6	D25L150P8
BD25L200P8	P8 Ø 3-4-5-6	D25L200P8



DIN/1835A

Porta escariador flotante con paso refrigerante
Floating reamer holder with coolant flow



* Sin refrigeración central / *Without coolant flow*

REFERENCIA	D	PINZA	CAP	FLOT	A	H	D1	L
D10L46RM11 *	10	ER11	D1 ÷ 7	± 1 mm	16	40	42	46
D12L46RM11 *	12							
D14L46RM11 *	14							
D16L46RM11	16							
D20L46RM11	20							
D22L46RM11	22	ER16	D1 ÷ 10	± 1 mm	22	44	42	46
D25L46RM11	25							
D10L46RM16 *	10							
D12L46RM16 *	12							
D14L46RM16 *	14							
D16L46RM16	16	ER20	D1 ÷ 14	± 1 mm	28	50	50	46
D20L46RM16	20							
D22L46RM16	22							
D25L46RM16	25							
D16L46RM20	16				ER25			
D20L46RM20	20							
D22L46RM20	22							
D25L46RM20	25							
D16L46RM25	16	ER32	D2 ÷ 22	± 1.5 mm		42	58	69
D20L46RM25	20							
D22L46RM25	22							
D25L46RM25	25							
D32L46RM25	32				ER40	D3 ÷ 30		
D25L50RM32	25							
D30L50RM32	30							
D32L50RM32	32							
D25L50RM40	25							
D30L50RM40	30	ER40	D3 ÷ 30	± 1.5 mm	63	64	79	50
D32L50RM40	32							

Porta escariador flotante en pulgadas sobre pedido / *Floating reamer holder inch on request*



El escariador oscila sobre un rodamiento de bolas para compensar la desalineación entre el husillo de la máquina y la pieza de trabajo.

- El empuje del resorte 1 mantiene la herramienta centrada incluso en una posición horizontal.
- El tornillo 2 ajusta la presión del resorte para ajustar el movimiento radial.
- Al aflojar 0.1 / 0.2mm, la tuerca 3 permite que la fresa tenga un movimiento de péndulo (Fig2)

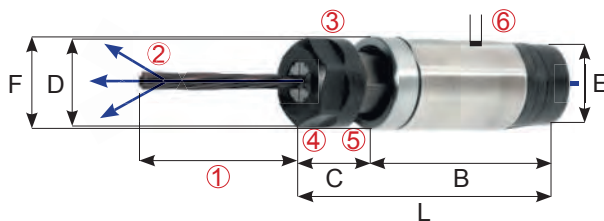
Free moving ball bearing drive, permit to reamer to follow drilled hole of workpiece.

- Pressure of spring 1 keeps reamer centered, even in horizontal position.
- Screw 2 allows adjustment of floating level.
- Unscrewing nut 3 for 0,1/0,2mm, the reamer has a pendulum float. (Fig 2)

Porta escariador flotante super precisión con paso refrigerante
Floating reamer holder with coolant flow - super precision

Para torno
 automático CNC
 For tool holders on CNC
 automatic lathes

± 0.2 mm
Flotación



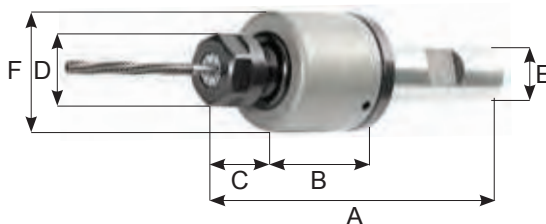
REFERENCIA	E	B	PINZA	CAP	FLOT	D	C	L	F
D3/4L65ER11HP	3/4"								19.05
D20L65ER11HP	20								20
D22L65ER11HP	22	45	ER11HP	1 ÷ 7	± 0.2 mm	19	20	65	22
D1"L65ER11HP	1"								25.4

- ① - Longitud de herramienta de 30-65 mm (según Ø)
- ② - Refrigeración Interior
- ③ - Plano de apriete - tuerca
- ④ - Tuerca y pinza oscilación 0.1-0.2 mm capacidad de 1-7 ER11 HP
- ⑤ - Tornillo de reglaje del escariador
- ⑥ - Tornillo de fijación máquina

- ① - Length of tool outside the tool holder 30 - 65 mm (depending Ø)
- ② - With through coolant, for blind or through hole
- ③ - Holding surface for nut
- ④ - Nut and collets ER11 HP Oscillation 0.1-0.2 mm Range 1-7 mm
- ⑤ - Screw to determine the fixing length of the reamer
- ⑥ - Screw to fix the PHA in the tool holder



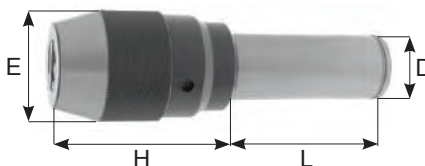
± 0.1 mm / ± 0.3 mm
Flotación



REFERENCIA	E	B	PINZA	CAP	FLOT	D	C	A	F
D10L90ER8HP	10	34	ER8 HP	1 ÷ 5	± 0.1 mm	13.5	16	90	19.5
D12L97ER11HP	12								97
D16L100ER11HP	16	32	ER11 HP	1 ÷ 7	± 0.3 mm	19	20	100	31
D20L102ER11HP	20								102
D16L85ER16HP	16								85
D20L85ER16HP	20	35	ER16 HP	1 ÷ 10	± 0.3 mm	35	20	85	50
D25L105ER16HP	25								105
D16L85ER20HP	16								85
D20L85ER20HP	20								85
D25L105ER20HP	25	35	ER20 HP	1 ÷ 13	± 0.3 mm	35	20	105	50
D1"L105ER20HP	1"								105

DIN/1835A

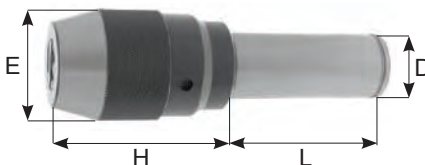
Porta brocas cilíndrico llave gancho - rotación derecha
Straight shank drill chucks hook wrench - Right spin



REFERENCIA	D	CAP	L	H	E
D20L60DCK13	20	1 ÷ 13	60	81	50
D25L80DCK13	25		80		
D32L60DCK13	32		60		
D40L70DCK13	40		70		
D32L60DCK16	32	3 ÷ 16	60	85	57
D40L70DCK16	40		70		

DIN/1835A

Porta brocas cilíndrico llave hexagonal
 rotación derecha e izquierda
Straight shank drill chucks right and left spin

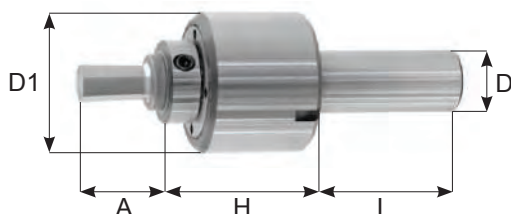


REFERENCIA	D	CAP	L	H	E
D25L70DCK13C	25	1 ÷ 13	70	82	50
D32L60DCK13C	32		60		
D40L70DCK13C	40		70		
D25L70DCK16C	25	3 ÷ 16	70	87	50
D32L60DCK16C	32		60		
D40L70DCK16C	40		70		



DIN/1835A

Porta brochas cilíndrico
Rotating broach toolholder



BCH



REFERENCIA	D	H	L	D1	A	* BCH
D8L35BCH5	8	34	35	22	10	5
D10L35BCH5	10	34	35	22	10	5
D12L35BCH5	12	34	35	22	10	5
D14L35BCH5	14	34	35	22	10	5
D16L35BCH5	16	34	35	22	10	5
D20L46BCH5	20	34	46	22	10	5
D22L46BCH5	22	34	46	22	10	5
D10L35BCH8	10	38	35	32	18	8
D12L35BCH8	12	38	35	32	18	8
D14L35BCH8	14	38	35	32	18	8
D16L35BCH8	16	38	35	32	18	8
D20L50BCH8	20	38	50	32	18	8
D22L50BCH8	22	38	50	32	18	8
D25L50BCH8	25	38	50	32	18	8
D16L50BCH12	16	46	50	44	25	12
D20L50BCH12	20	46	50	44	25	12
D22L50BCH12	22	46	50	44	25	12
D25L50BCH12	25	46	50	44	25	12
D32L50BCH12	32	46	50	44	25	12
D20L50BCH16	20	76	50	58	40	16
D25L50BCH16	25	76	50	58	40	16
D30L50BCH16	30	76	50	58	40	16
D32L50BCH16	32	76	50	58	40	16
D40L80BCH16	40	76	80	58	40	16

Porta Brochas Cilindrico en pulgadas sobre pedido / *Rotating broach toolholder inch on request*

INSTRUCCIONES

- DIÁMETRO DE PERFORACIÓN

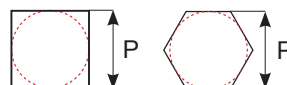
Haga un orificio de 0,2-0,3 mm más grande que el tamaño P de la brocha.

- VELOCIDAD DE ROTACIÓN 1000 - 1500 (rpm)

- Velocidad 0.01 - 0.03 (mm / rpm)

- Profundidad de brochado

En este portaherramientas, es importante usar brochas de longitud A.



INSTRUCTIONS

- DRILLING DIAMETER

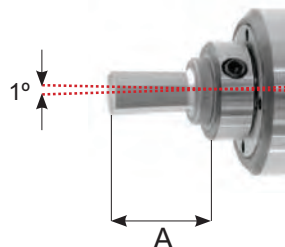
Make hole 0,2-0,3mm larger than size P of broach.

- ROTATION SPEED 1000 - 1500 (rpm)

- FEED 0,01 - 0,03 (mm/rpm)

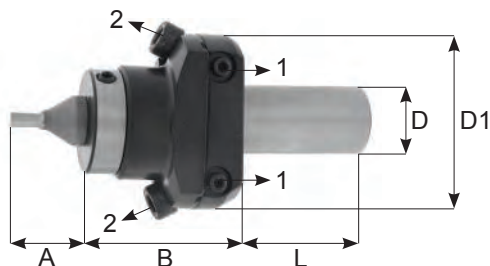
- BROACHING LENGHT

In this toolholder is important to use broaches with lengths A.



DIN/1835A

Porta brochas regulable
Adjustable broach toolholder



BCH



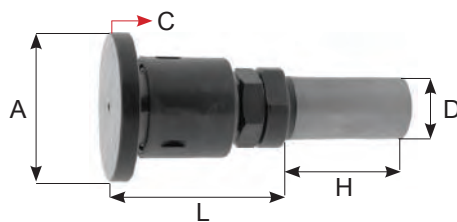
REFERENCIA	D	B	L	D1	A	* BCH
D10L35BCH8R	10	34	35	50	18	8
D12L35BCH8R	12	34	35	50	18	8
D14L35BCH8R	14	34	35	50	18	8
D16L35BCH8R	16	34	35	50	18	8
D20L46BCH8R	20	34	46	50	18	8
D22L46BCH8R	22	34	46	50	18	8
D25L46BCH8R	25	34	46	50	18	8

REFERENCIA	D	B	L	D1	A	* BCH
D20L50BCH12R	20	52	50	62	25	12
D22L50BCH12R	22	52	50	62	25	12
D25L50BCH12R	25	52	50	62	25	12
D30L50BCH12R	30	52	50	62	25	12
D32L50BCH12R	32	52	50	62	25	12

Porta Brochas Regulable en pulgadas sobre pedido / Adjustable broach toolholder inch on request

DIN/1835A

Topo de barras regulable con compensación
Revolving bar stop for lathes



C= Compensación

REFERENCIA	D	L	H	A	C
D20SAS35	20	100	46	35	3
D22SAS35	22	100	46	35	3
D25SAS35	25	100	50	35	3
D30SAS35	30	100	50	35	3
D32SAS35	32	100	50	35	3
D40SAS35	40	100	85	35	3
D25SAS56	25	100	50	56	3
D30SAS56	30	100	50	56	3
D32SAS56	32	100	50	56	3
D40SAS56	40	100	85	56	3

Topo de Barras Regulable cilíndrico con Compensación en pulgadas sobre pedido
Damped rotary adjustable bar-stop inch on request

DIN/1835A

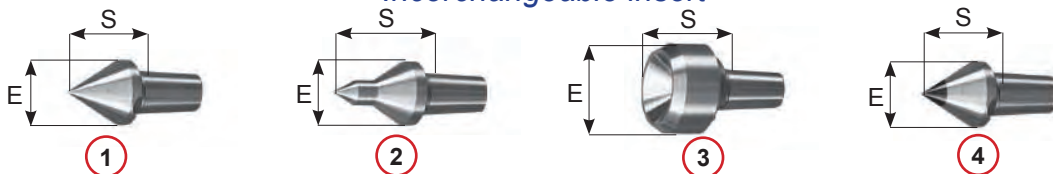
Punto cilíndrico rotativo
Revolving Tailstock



Nota: El punto cilíndrico Rotativo incluye la (Figura.1 E14S16.60°)
Note: The rotary cylindrical point includes the (Figure.1 E14S16.60°)

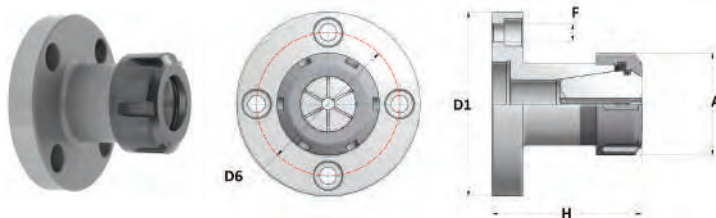
REFERENCIA	d	D	E	H	L	S
D8L35D14F	8	32	14	44	35	16
D10L35D14F	10	32	14	44	35	16
D12L35D14F	12	32	14	44	35	16
D14L35D14F	14	32	14	44	35	16
D16L35D14F	16	32	14	44	35	16
D20L35D14F	20	32	14	44	46	16
D22L35D14F	22	32	14	44	46	16
D25L35D14F	25	32	14	44	46	16

Recambios para punto cilíndrico rotativo
Interchangeable insert



REFERENCIA	E	S	G	F	S	FIG
E14S16	14	16	-	-	60°	1
E14S22	14	22	-	-	90°	1
E14S22B	14	22	7	-	60°	2
E14S26	14	26	8	-	60°	2
E20S12	20	12	12	10	60°	3
E14S16HM (Punta metal duro)	14	16	6	-	60°	4

Porta pinzas con flangia
Flangia Mounting

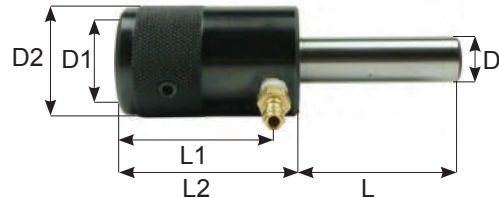


REFERENCIA	CAP	D1	D6	F	A	H
FLB50ERC32	2 ÷ 22	50	40	M6	50	58
FLB90ERC32	2 ÷ 22	90	70	M8.5	50	72
FLB110ERC40	3 ÷ 30	110	86	M8.5	63	87
FLB110ERC50	6 ÷ 34	110	86	M8.5	78	106

**DIN/1835A**

Dispositivo fijo de refrigeración central
Oil-feed holders

**Distribuidor fijo de refrigerante mango cilíndrico:
Torreta de torno - CNC**

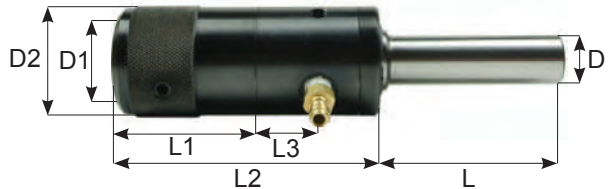


REFERENCIA	D	D1	L1	L2	D2	L
EVT316	16	16	40	55	33	47
EVT325	25	25	50	70	46	60
EVT335	35	35	60	80	58	70

DIN/1835A

Dispositivo rotativo de refrigeración central
Rotating oil-feed holders

Distribuidor Rotativo de refrigeración mango cilíndrico



REFERENCIA	D	D1	L1	L2	D2	L3
EVT616	16	16	40	85	32	24
EVT620	20	20	50	109	46	31
EVT625	25	25	50	109	46	31

Casquillo reductor
Reduction sleeves



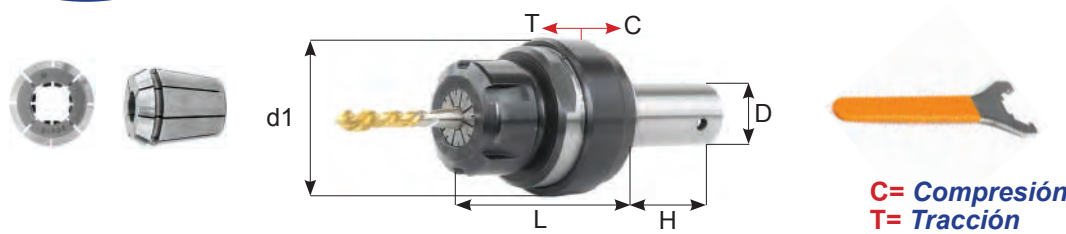
REFERENCIA	D1	D2	L
EVT25/16	16	25	50
EVT25/20	20	25	50
EVT35/25	25	35	60

Condiciones de trabajo
Using coolant

Ø	PRESION	RPM
16	Hasta 4 BAR	6740
	Max 17 BAR	2000
25	Hasta 5 BAR	4600
	Max 17 BAR	1350
35	Hasta 5 BAR	2700
	Max 17 BAR	850

DIN/1835A

Roscador con compresión y tracción pinza ER
Tension and compression tap holders collet ER

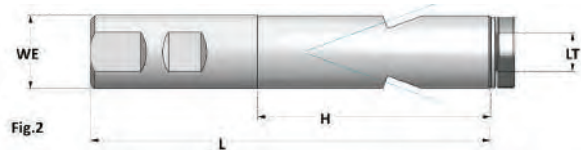
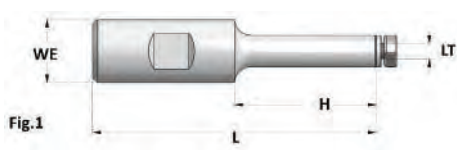


REFERENCIA	M	PINZA	D	H	L	d1	T	C
D16CTL48ER16A	M3.5 ÷ M10	ER16	16	32	48	29	5.5	2.5
D20CTL48ER16A			20					
D20CTL59ER20A	M3.5 ÷ M12	ER20	20	46	59	44	9	3
D22CTL59ER20A			22					
D25CTL59ER20A			25					
D20CTL73ER25A	M3.5 ÷ M16	ER25	20	46	73	44	9	3
D22CTL73ER25A			22					
D25CTL68ER25A	M3.5 ÷ M16	ER25	25	50	68	58	12	4
D30CTL68ER25A			30	50				
D32CTL68ER25A			32	50				
D40CTL68ER25A			40	85				
D25CTL70ER32A	M3.5 ÷ M20	ER32	25	50	70	58	12	4
D30CTL70ER32A			30	50				
D32CTL70ER32A			32	50				
D40CTL70ER32A			40	85				
D25CTL88ER40A	M5 ÷ M27	ER40	25	50	88	63	12	4
D30CTL88ER40A			30	50				
D32CTL88ER40A			32	50				
D40CTL88ER40A			40	85				

(Mango en pulgadas sobre pedido)
(Inch on request)

DIN/1835B

Porta sierras
Saw blade holder

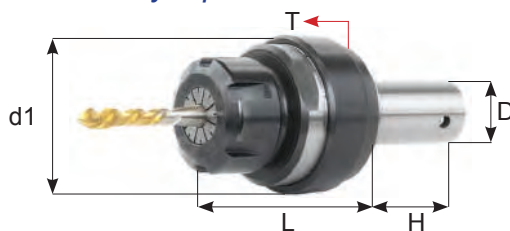
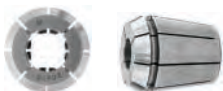


REFERENCIA	WE	A	L	H	FIG
WE20L905LT	20	5	90	40	1
WE20L1008LT	20	8	100	49	1
WE20L11010LT	20	10	110	59	1
WE25L13613LT *	25	13	136	79	2
WE25L13616LT *	25	16	136	79	2

* Con canal de refrigeración

DIN/1835A

Roscador solo tracción tuerca STANDARD pinza ER
Tension only tap holders ER collets STANDARD



T= Tracción

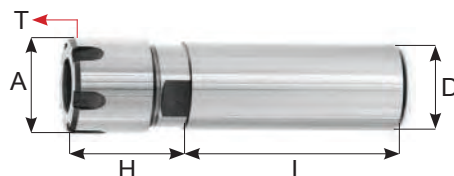
REFERENCIA	M	PINZA	D	H	L	d1	T
D16TL48ER16	M3.5 ÷ M10	ER16	16	32	48	29	8
D20TL48ER16			20				
D20TL56ER20	M3.5 ÷ M12	ER20	20	46	56	44	12
D22TL56ER20			22				
D25TL56ER20			25				
D20TL70ER25	M3.5 ÷ M16	ER25	20	46	70	44	12
D22TL70ER25			22				
D25TL64ER25	M3.5 ÷ M16	ER25	25	50	64	58	16
D30TL64ER25			30	50			
D32TL64ER25			32	50			
D40TL64ER25			40	85			
D25TL66ER32	M3.5 ÷ M20	ER32	25	50	66	58	16
D30TL66ER32			30	50			
D32TL66ER32			32	50			
D40TL66ER32			40	85			
D25TL84ER40	M5 ÷ M27	ER40	25	50	84	63	16
D30TL84ER40			30	50			
D32TL84ER40			32	50			
D40TL84ER40			40	85			



DIN/1835A

Roscador solo tracción Pinza ER MINI

Tension only tap holders ER collets MINI

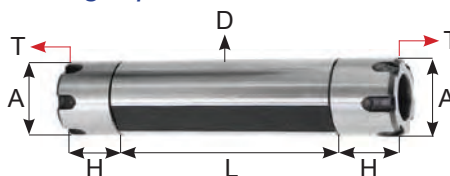


REFERENCIA	CAP	D	L	H	A	T
D16PMTL40ER16M	M3.5 ÷ M10	16	40	36	22	10
D20PMTL50ER16M		20	50	30	22	14
D20PMTL70ER16M		20	70	30	22	14
D20PMTL120ER16M		20	120	30	22	14
D22PMTL50ER16M		22	50	30	22	14
D22PMTL80ER16M		22	80	30	22	14
D22PMTL120ER16M		22	120	30	22	14
D25PMTL50ER16M		25	50	30	22	14
D25PMTL70ER16M		25	70	30	22	14
D25PMTL120ER16M		25	120	30	22	14
D20PMTL50ER20M	M3.5 ÷ M10	20	50	40	28	14
D20PMTL70ER20M		20	70	40	28	14
D20PMTL120ER20M		20	120	40	28	14
D22PMTL50ER20M		22	50	40	28	14
D22PMTL80ER20M		22	80	40	28	14
D22PMTL120ER20M		22	120	40	28	14
D25PMTL50ER20M	M3.5 ÷ M10	25	50	40	28	14
D25PMTL70ER20M		25	70	40	28	14
D25PMTL120ER20M		25	120	40	28	14
D20PMTL50ER25M		20	50	42	35	14
D20PMTL70ER25M		20	70	42	35	14
D20PMTL120ER25M		20	120	42	35	14
D22PMTL50ER25M		22	50	42	35	14
D22PMTL80ER25M	22	80	42	35	14	
D22PMTL120ER25M	22	120	42	35	14	
D25PMTL50ER25M	25	50	42	35	14	
D25PMTL70ER25M	25	70	42	35	14	
D25PMTL120ER25M	25	120	42	35	14	

DIN/1835A

Roscador solo tracción pinza ER MINI doble

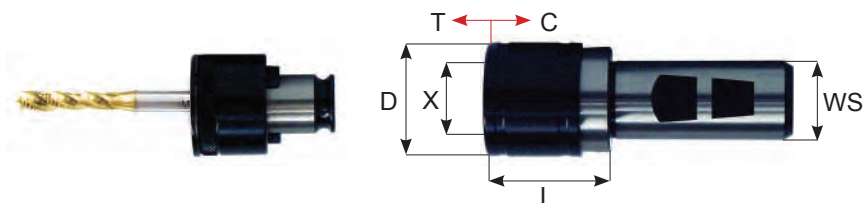
MINI Double - Seated floating tap holder with extension



REFERENCIA	CAP	PINZA	D	L	H	A	T
D22PMTL50ER16MD	M3.5 ÷ M10	ERC16	22	50	26	22	8
D22PMTL60ER16MD			22	60	26	22	8
D22PMTL95ER16MD			22	95	26	22	8
D25PMTL50ER16MD			25	50	26	22	8
D25PMTL60ER16MD			25	60	26	22	8

DIN/1835B

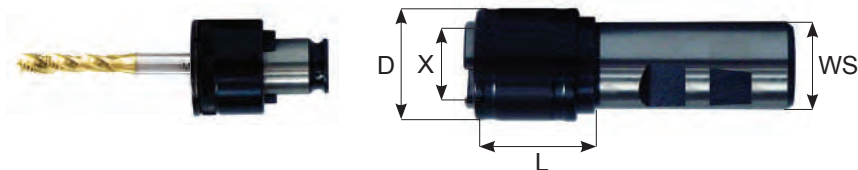
Rosgador con compresión y tracción Weldon Din 1835 B+E
 Weldon Din 1835 B+E - Tension / Compression Tap Holders



REFERENCIA	WS	CAP	X	D	L	C	T
WS16-THTC0-L37	16	M 1 ÷ M10	13	26	37	6.5	6.5
WS20-THTC0-L37	20						
WS20-THTC1-L40	20	M 3 ÷ M12	19	36	40	7.5	7.5
WS25-THTC1-L40	25						
WS32-THTC1-L40	32						
WS40-THTC1-L40	40						
WS25-THTC2-L63	25	M 8 ÷ M20	31	53	63	12.5	12.5
WS32-THTC2-L63	32						
WS40-THTC2-L63	40						
WS32-THTC3-L125	32	M14 ÷ M33	48	78	125	20.0	20.0
WS40-THTC3-L125	40						
WS40-THTC4-L126	40	M22 ÷ M48	60	96	126	22.5	22.5
WS50-THTC4-L126	50						
WS3/4"-THTC1-L40	3/4"	M 3 ÷ M12	19	36	40	7.5	7.5
WS1"-THTC1-L40	1"						
WS1"-THTC2-L63	1"	M 8 ÷ M20	31	53	63	12.5	12.5
WS1-1/2"-THTC3-L125	1-1/2"						

DIN/1835B

Rosgador rígido Weldon Din 1835 B+E
 Weldon Din 1835 B+E - Rigid tap holders



REFERENCIA	WS	CAP	X	D	L
WS16-TLR0-L37	16	M 1 ÷ M10	13	23	37
WS20-TLR0-L37	20				
WS20-TLR1-L37	20	M 3 ÷ M12	19	32	37
WS25-TLR1-L37	25				
WS25-TLR2-L56	25	M 8 ÷ M20	31	50	56
WS32-TLR3-L83	32				
WS32-TLR4-L106	32	M22 ÷ M48	60	95	106

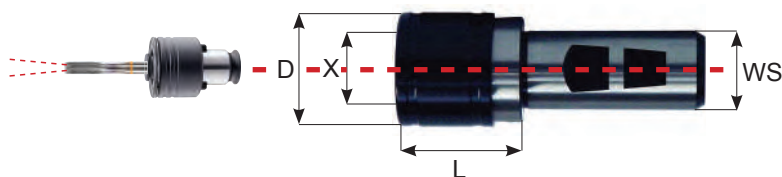
DIN/1835B

Roscadore weldon Din/1835 B+E con compresión y tracción
Synchro paso refrigerante
Weldon Din 1835 B+E - Tension / Compression Tap Holders
with coolant thru

Max. 50 BAR

SYNCHRO

SES
Refrigeración
Central



Refrigeración
Interna
Coolant flow



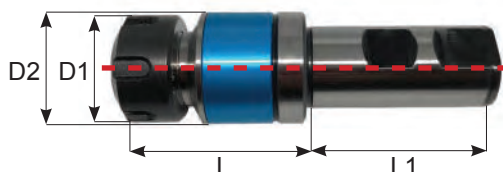
Coolant

REFERENCIA	WS	CAP	X	D	L	MODELO
WS16-THTC0-L27C	16	M 3 ÷ M12	13	26	27	SYNCHRO
WS20-THTC1-L46C	20	M 3 ÷ M12	19	36	46	SYNCHRO
WS25-THTC1-L46C	25	M 3 ÷ M12	19	36	46	SYNCHRO
WS25-THTC2-L74C	25	M 8 ÷ M20	31	53	74	SYNCHRO
WS32-THTC2-L74C	32	M 8 ÷ M20	31	53	74	SYNCHRO
WS25-THTC3-L107C	25	M14 ÷ M36	48	78	107	SYNCHRO
WS32-THTC3-L107C	32	M14 ÷ M36	48	78	107	SYNCHRO

DIN/1835A

Roscadore con compresión y tracción Synchro pinza ER
Tension and compression tap holders Synchro collet ER

SYNCHRO



Refrigeración
Interna
Coolant flow

Max. 50 BAR

Refrigeración interna
Coolant flow

(A)



Standard
Standard

(B)

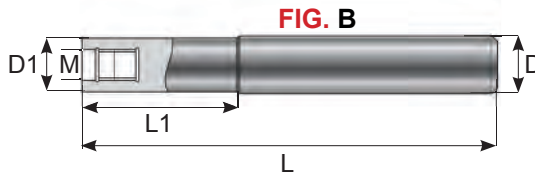
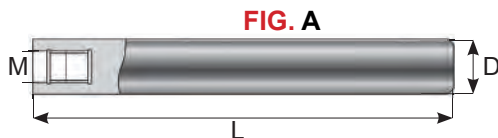


Coolant

REFERENCIA	COLLET	CAP	D	D1	D2	L1	L	C	T
WE20L58SYER16M	ER16M	M 3 ÷ M12	20	22	34	51	58	0.5	0.5
WE20L58SYER16	ER16	M 3 ÷ M12	20	32	34	51	58		
WE25L60SYER16M	ER16M	M 3 ÷ M12	25	22	34	56	60		
WE25L60SYER16	ER16	M 3 ÷ M12	25	32	34	56	60		
WE25L61SYER20	ER20	M 3 ÷ M16	25	35	34	56	61		
WE25L65SYER25	ER25	M 3 ÷ M20	25	42	45	56	65		
WE25L87SYER32	ER32	M 4 ÷ M27	25	50	45	56	87		
WE32L108SYER40	ER40	M 6 ÷ M33	32	63	62	61	108		

DIN/1835A

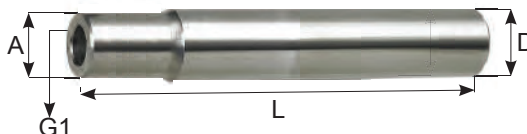
Alargadera "Metal Duro" mango roscado
"MD" Screw in mill extension



REFERENCIA	D	D1	L	L1	M	FIG	REFERENCIA	D	D1	L	L1	M	FIG
CY9L75M5	9	-	75	-	5	A	CY20L150M10	20	-	150	-	10	A
CY9L100M5	9	-	100	-	5		CY20L200M10	20	-	200	-	10	
CY9L150M5	9	-	150	-	5		CY20L250M10	20	-	250	-	10	
CY10L75M5	10	-	75	-	5		CY20L300M10	20	-	300	-	10	
CY10L100M5	10	-	100	-	5		CY20L350M10	20	-	350	-	10	
CY10L150M5	10	-	150	-	5	CY20L250M10	20	19	250	80	10	B	
CY10L75M5	10	9	75	20	5	CY20L300M10	20	19	300	100	10		
CY10L100M5	10	9	100	40	5	CY20L350M10	20	19	350	120	10	A	
CY10L150M5	10	9	150	40	5	CY24L100M12	24	-	100	-	12		
CY11L100M6	11	-	100	-	6	CY24L150M12	24	-	150	-	12		
CY11L150M6	11	-	150	-	6	CY24L200M12	24	-	200	-	12		
CY11L200M6	11	-	200	-	6	CY24L250M12	24	-	250	-	12		
CY12L100M6	12	-	100	-	6	CY24L300M12	24	-	300	-	12		
CY12L150M6	12	-	150	-	6	CY24L350M12	24	-	350	-	12		
CY12L200M6	12	-	200	-	6	CY25L100M12	25	-	100	-	12		
CY12L100M6	12	11	100	40	6	CY25L150M12	25	-	150	-	12		
CY12L150M6	12	11	150	40	6	CY25L200M12	25	-	200	-	12		
CY12L200M6	12	11	200	40	6	CY25L250M12	25	-	250	-	12		
CY15L100M8	15	-	100	-	8	CY25L300M12	25	-	300	-	12		
CY15L150M8	15	-	150	-	8	CY25L350M12	25	-	350	-	12		
CY15L200M8	15	-	200	-	8	CY25L100M12	25	24	100	40	12	B	
CY15L250M8	15	-	250	-	8	CY25L150M12	25	24	150	60	12		
CY15L300M8	15	-	300	-	8	CY25L200M12	25	24	200	60	12		
CY16L100M8	16	-	100	-	8	CY25L250M12	25	24	250	80	12		
CY16L150M8	16	-	150	-	8	CY25L300M12	25	24	300	120	12		
CY16L200M8	16	-	200	-	8	CY25L350M12	25	24	350	140	12		
CY16L250M8	16	-	250	-	8	CY31L150M16	31	-	150	-	16	A	
CY16L300M8	16	-	300	-	8	CY31L200M16	31	-	200	-	16		
CY16L100M8	16	15	100	40	8	CY31L250M16	31	-	250	-	16		
CY16L150M8	16	15	150	40	8	CY31L300M16	31	-	300	-	16		
CY16L200M8	16	15	200	60	8	CY31L350M16	31	-	350	-	16		
CY16L250M8	16	15	250	80	8	CY31L400M16	31	-	400	-	16		
CY16L300M8	16	15	300	100	8	CY32L150M16	32	-	150	-	16		
CY19L100M10	19	-	100	-	10	CY32L200M16	32	-	200	-	16		
CY19L150M10	19	-	150	-	10	CY32L250M16	32	-	250	-	16		
CY19L200M10	19	-	200	-	10	CY32L300M16	32	-	300	-	16		
CY19L250M10	19	-	250	-	10	CY32L350M16	32	-	350	-	16		
CY19L300M10	19	-	300	-	10	CY32L400M16	32	-	400	-	16		
CY19L350M10	19	-	350	-	10	CY32L150M16	32	31	150	60	16	B	
CY20L100M10	20	-	100	-	10	CY32L200M16	32	31	200	80	16		
CY20L100M10	20	19	100	40	10	CY32L250M16	32	31	250	100	16		
CY20L150M10	20	19	150	60	10	CY32L300M16	32	31	300	120	16		
CY20L200M10	20	19	200	60	10	CY32L350M16	32	31	350	140	16		
						CY32L400M16	32	31	400	160	16		

DIN/1835A

Alargadera "Acero" Mango Roscado
"Steel" Screw in mill extensions with flats



REFERENCIA	D	A	L	G1	REFERENCIA	D	A	L	G1
D12L65M5CPY	12	10	65	M5	D20L125M10CPY	20	17.8	125	M10
D20L75M6CPY	20	10	75	M6	D20L150M10CPY	20	17.8	150	M10
D20L100M6CPY	20	10	100	M6	D25L81M12CPY	25	20.8	81	M12
D20L125M6CPY	20	10	125	M6	D25L101M12CPY	25	20.8	101	M12
D16L88M8CPY	16	12.8	88	M8	D25L131M12CPY	25	20.8	131	M12
D20L75M8CPY	20	12.8	75	M8	D25L170M12CPY	25	20.8	170	M12
D20L100M8CPY	20	12.8	100	M8	D25L181M12CPY	25	20.8	181	M12
D20L125M8CPY	20	12.8	125	M8	D32L170M12CPY	32	28.8	170	M12
D20L150M8CPY	20	12.8	150	M8	D32L85M16CPY	32	28.8	85	M16
D20L75M10CPY	20	17.8	75	M10	D32L105M16CPY	32	28.8	105	M16
D20L80M10CPY	20	17.8	80	M10	D32L135M16CPY	32	28.8	135	M16
D20L100M10CPY	20	17.8	100	M10	D32L185M16CPY	32	28.8	185	M16

DIN/1835A

Porta cilíndrico inducción térmico
Thermo chucks cylindrical shanks



REFERENCIA	D	d1	d2	L	REFERENCIA	D	d1	d2	L
D12L150CL3	12	3	8	150	D20L150CL12	20	12	16	150
D12L150CL4	12	4	8	150	D25L150CL8	25	8	20	150
D16L150CL3	16	3	10	150	D25L150CL10	25	10	20	150
D16L150CL4	16	4	10	150	D25L150CL12	25	12	20	150
D16L150CL5	16	5	10	150	D25L150CL14	25	14	20	150
D16L150CL6	16	6	10	150	D25L150CL16	25	16	22	150
D20L150CL3	20	3	10	150	D32L150CL10	32	10	24	150
D20L150CL4	20	4	10	150	D32L150CL12	32	12	24	150
D20L150CL5	20	5	10	150	D32L150CL14	32	14	27	150
D20L150CL6	20	6	10	150	D32L150CL16	32	16	27	150
D20L150CL8	20	8	12	150	D32L150CL18	32	18	27	150
D20L150CL10	20	10	14	150	D32L150CL20	32	20	27	150

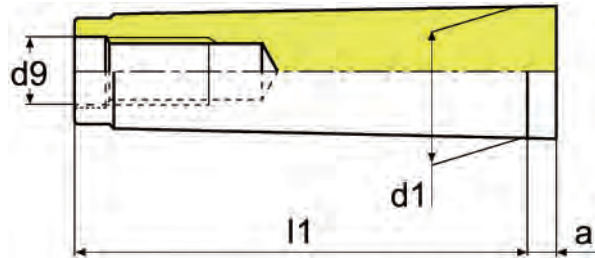


**CONO MORSE
DIN/228-A/B**

PROGRAMA

3

						
PAG. 4	PAG. 5	PAG. 5	PAG. 6	PAG. 6	PAG. 7	PAG. 7
						
PAG. 8	PAG. 8	PAG. 9	PAG. 9	PAG. 10-11	PAG. 12	PAG. 12
						
PAG. 13-14	PAG. 14	PAG. 15-16	PAG. 17	PAG. 17	PAG. 18-20	PAG. 21
						
PAG. 21	PAG. 22	PAG. 22	PAG. 23	PAG. 23	PAG. 24	PAG. 24



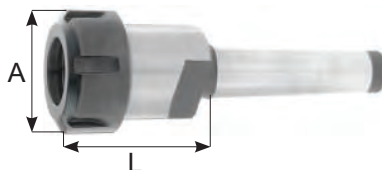
Morse	d_1	a	d_9 (1)	l_1
CM1	12.065	3.5	M 6	53.5
CM2	17.780	5	M10	64
CM3	23.825	5	M12	81
CM4	31.267	6.5	M16	102.5
CM5	44.399	6.5	M20	129.5



DIN/228-A

Porta pinzas cono morse STANDARD
Collet chucks cono morse STANDARD

TUERCA STANDARD



*Compatible con tuerca hexagonal

REFERENCIA	CAP	L	A
CM1L25ER11 *	1 ÷ 7	25	19
CM1L40ER16 *	1 ÷ 10	40	28
CM2L42ER16 *		42	
CM2L50ER20 *	1 ÷ 14	50	34
CM2L54ER25	1 ÷ 20	54	42
CM3L53ER25		53	
CM4L56ER25		56	
CM2L59ER32	2 ÷ 22	59	50
CM3L70ER32		70	
CM4L60ER32		60	
CM5L50ER32		50	
CM3L80ER40	3 ÷ 30	80	63
CM4L81ER40		81	
CM5L82ER40		82	
CM4L96ER50	6 ÷ 34	96	78
CM5L91ER50		91	

Estuche porta pinzas cono morse
Straight shank collet chuck kit

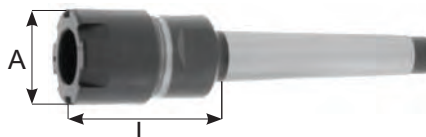


REFERENCIA	PINZAS	LLAVE	PORTA PINZAS
BCM2L54ER25	Ø2 a Ø16 x 1mm (15 unidades)	CH25S	CM2L54ER25
BCM3L53ER25			CM3L53ER25
BCM2L59ER32	Ø3 ÷ Ø20 x 1mm (18 unidades)	CH32S	CM2L59ER32
BCM3L70ER32			CM3L70ER32
BCM4L60ER32			CM4L60ER32
BCM3L80ER40	Ø4 ÷ Ø26 x 1mm (23 unidades)	CH40S	CM3L80ER40
BCM4L81ER40			CM4L81ER40

DIN/228-A

Porta pinzas con morse tuerca MINI
Collet chucks con morse MINI

TUERCA MINI



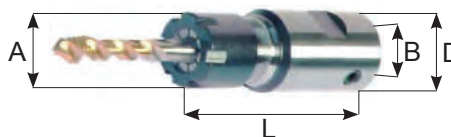
Compatible con tuerca mini hexagonal

REFERENCIA	CAP	L	A
CM1L25ER11M	1 ÷ 7	25	16
CM1L40ER16M	1 ÷ 10	40	22
CM2L42ER16M		42	
CM3L43ER16M		43	
CM2L50ER20M	1 ÷ 14	50	28
CM3L47ER20M		47	
CM2L54ER25M	1 ÷ 20	54	35
CM3L58ER25M		58	

DIN/238

Porta pinzas DIN238 tuerca MINI
Collet chucks DIN238 with MINI nut

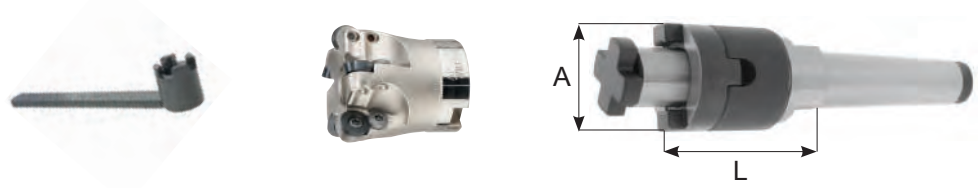
TUERCA MINI



REFERENCIA	L	A	D	B
B12L63ER11M	63	16	25	12.06
B12L55ER16M	55	22	25	12.06
B16L85ER16M	85	22	25	15.73
B12L67ER20M	67	28	25	12.06
B16L80ER20M	80	28	25	15.73
B18L74ER20M	74	28	28	17.78

DIN/228A

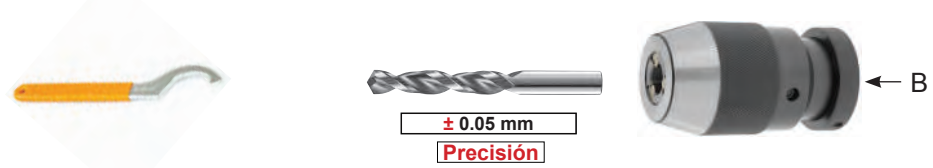
Porta fresas combinado cono morse
Combi shell end mill holders



REFERENCIA	L	A
CM3L48D16C	48	16
CM3L48D22C	48	22
CM3L48D27C	48	27
CM3L63D32C	63	32
CM4L55D16C	55	16
CM4L55D22C	55	22
CM4L55D27C	55	27
CM4L55D32C	55	32
CM5L75D22C	75	22
CM5L75D27C	75	27
CM5L75D32C	75	32
CM5L75D40C	75	40

DIN/238

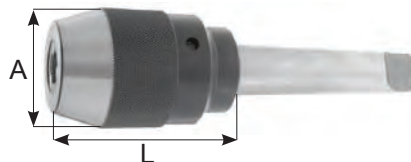
Porta brocas gran apriete de Alta Precisión DIN/238
High precision keyless drill chucks DIN/238



REFERENCIA	CAP	B
DCK8B10SP	1 ÷ 8	10
DCK10B10SP	1 ÷ 10	
DCK8B12SP	1 ÷ 8	12
DCK10B12SP	1 ÷ 10	
DCK13B12SP	1 ÷ 13	16
DCK10B16SP	1 ÷ 10	
DCK13B16SP	1 ÷ 13	18
DCK16B16SP	3 ÷ 16	
DCK16B18SP	3 ÷ 16	

DIN/228-B

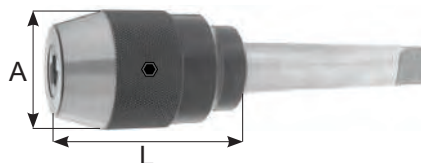
Porta brocas integral llave gancho - Rotacion Derecha
Integrated drill chucks - Right Spin



REFERENCIA	CAP	L	A
CM2L86DCK13	1 ÷ 13	86	50
CM3L86DCK13		86	
CM4L87DCK13		87	
CM3L90DCK16	3 ÷ 16	90	57
CM4L91DCK16		91	

DIN/228-B

Porta brocas gran apriete integral llave hexagonal
Rotacion Derecha e Izquierda
Integrated drill chucks - Right and Left Spin key Exagonal



REFERENCIA	CAP	L	A
CM2L87DCU13	1 ÷ 13	87	50
CM3L87DCU13		87	
CM4L88DCU13		88	
CM3L92DCU16	3 ÷ 16	92	56
CM4L94DCU16		94	

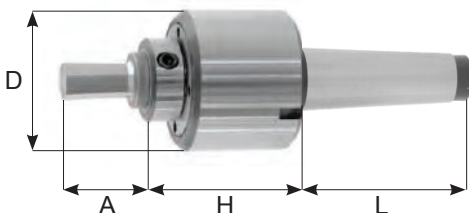
Tetón para cono morse
Removable tangs for morse taper



REFERENCIA	MORSE	METRICA (M)
TAG1M6	1	M6
TAG2M10	2	M10
TAG3M12	3	M12
TAG4M16	4	M16
TAG5M20	5	M20

DIN/228-B

Porta brochas cono morse
Rotating broach toolholder



BCH

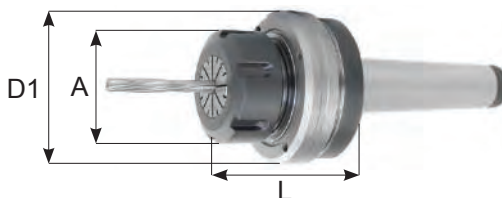


REFERENCIA	D	H	L	A	*BCH
CM2L69BCH8	32	38	69	18	8
CM2L69BCH12	44	46	69	25	12
CM3L85BCH16	58	76	85	40	16
CM4L109BCH16	58	76	109	40	16

DIN/228-A

Porta escariador flotante cono morse ER - DIN 6499
Floating reamer holders with ER - DIN 6499

± 1 mm
± 1.5 mm
Flotación

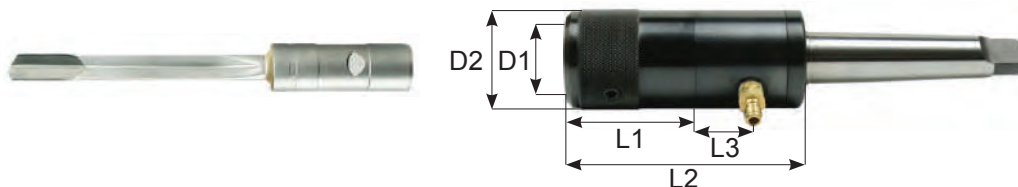


REFERENCIA	CM	PINZA	CAP	FLOT	A	L	D1
CM2L40RM11R	2	ER11	1 ÷ 7	± 1 mm	22	40	42
CM3L40RM11R	3						
CM2L44RM16R	2	ER16	1 ÷ 10	± 1 mm	28	44	42
CM3L44RM16R	3						
CM2L50RM20R	2	ER20	1 ÷ 14	± 1 mm	34	50	50
CM3L50RM20R	3						
CM2L53RM25R	2	ER25	1 ÷ 20	± 1 mm	42	53	57
CM3L53RM25R	3						
CM3L58RM32R	3	ER32	2 ÷ 22	± 1.5 mm	50	58	69
CM4L58RM32R	4						
CM3L64RM40R	3	ER40	3 ÷ 30	± 1.5 mm	63	64	79
CM4L64RM40R	4						

DIN/228-B

Dispositivo rotativo con morse de lubricación central
Rotating oil-feed holders

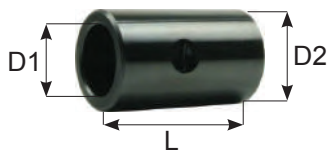
Distribuidor Rotativo con morse



REFERENCIA	CM	D1	L1	L2	D2	L3
EVT516/1	1	16	40	89	32	24
EVT525/2	2	25	50	113	46	31
EVT525/3	3	25	50	113	46	31
EVT535/4	4	35	60	123	58	28

Casquillo reductor
Reduction sleeves

Condiciones de trabajo
Using coolant

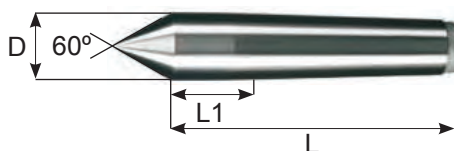


REFERENCIA	FAM	D1	D2	L
EVT25/16	15	16	25	50
EVT25/20		20	25	50
EVT35/25		25	35	60

Ø	PRESION	RPM
16	Hasta 4 BAR	6740
	Max 17 BAR	2000
25	Hasta 5 BAR	4600
	Max 17 BAR	1350
35	Hasta 5 BAR	2700
	Max 17 BAR	850

Punto con morse de acero
Steel type morse taper shank tailstocks

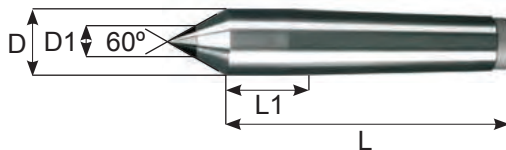
60°



REFERENCIA	D	L1	L
CM1L80D12A	12	26	80
CM2L100D18A	18	36	100
CM3L125D24A	24	44	125
CM4L160D32A	32	57	160
CM5L200D45A	45	70	200

Punto cono morse punta de metal duro
Morse taper shank tailstock with solid carbide

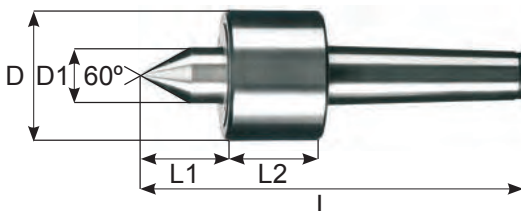
60°



REFERENCIA	D1	D	L1	L
CM1L80D12W	7	12	26	80
CM2L100D18W	7	18	36	100
CM3L125D24W	11	24	44	125
CM4L160D32W	14	32	57	160
CM5L200D45W	18	45	70	200

Punto rotativo cono morse - Tipo Standard
Morse taper shank rotary tailstocks - Type Standard

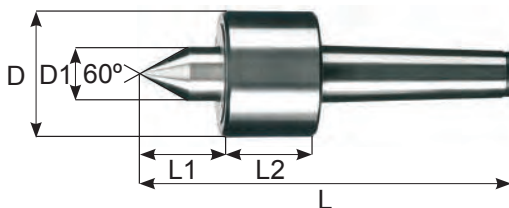
60°



REFERENCIA	D	D1	L1	L2	L	Rpm max	Kg. Max
CM1L114D10RS	36	15	17	43	114	7000	100
CM2L129D18RS	45	20	24	41	129	7000	200
CM3L160D23RS	60	25	31	48	160	5000	500
CM4L205D25RS	70	32	41	61	205	3800	800
CM5L258D38RS	90	40	50	78	258	3000	2000

Punto rotativo cono morse - Tipo A - Doble Esfera
Morse taper shank rotary tailstocks - Type A - Double spheres

60°

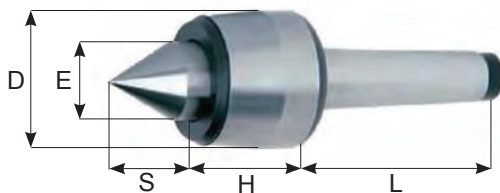


REFERENCIA	D	D1	L1	L2	L	Rpm max	Kg. Max
CM2L126D18RD	32	15	20	42	144	6000	200
CM3L144D23RD	34	15	20	43	175	6000	400
CM4L178D25RD	43	20	26	50	205	6000	800
CM5L234D38RD	58	30	39	66	267	4000	1200

DIN/228-B

Punto rotativo cono morse
Revolving Tailstock Cono morse

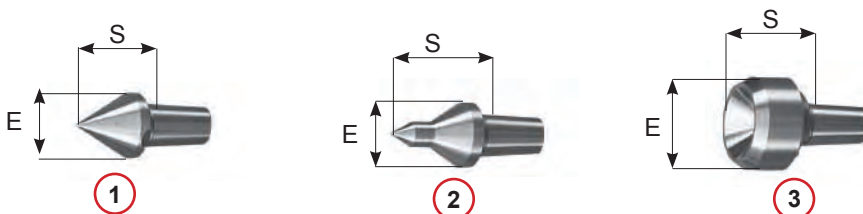
60°



Nota: El punto Rotativo cono morse incluye la (Figura.1 E14S16.60°)
Note: The rotary cono morse point includes the (Figure.1 E14S16.60°)

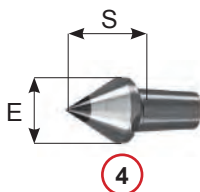
REFERENCIA	D	E	H	L	S
CM2L69D14F	32	14	44	69	16

Recambios para punto rotativo cono morse
Interchangeable insert cono morse



REFERENCIA	E	S	G	F	S	FIG
E14S16.60°	14	16	-	-	60°	1
E14S22.90°	14	22	-	-	90°	1
E14S22.60°	14	22	7	-	60°	2
E14S26.60°	14	26	8	-	60°	2
E20S12.60°	20	12	12	10	60°	3

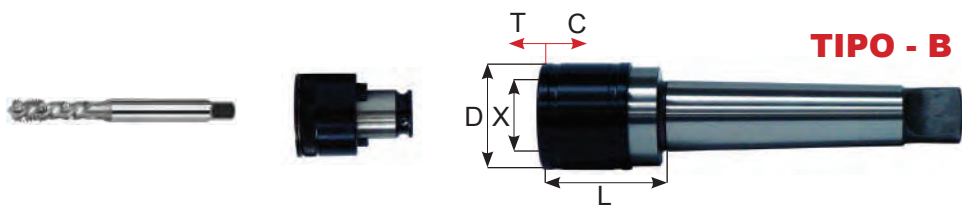
Recambios para punto rotativo cono morse con punta de metal duro
Interchangeable cono morse insert with hard metal



REFERENCIA	E	S	G	F	S	FIG
E14S16.60°HM	14	16	6	-	60°	4

DIN/228-B

Roscador Cono Morse con compresión y tracción
Quick change tapping chucks *Traccion / Compression*



REFERENCIA	CAP	CM	X	D	L	C	T
CM2B-THTC1-L47 CM3B-THTC1-L47	M 3 ÷ M12	CM2 CM3	19	36	47	7.5	7.5
CM3B-THTC2-L71 CM4B-THTC2-L72	M 8 ÷ M20	CM3 CM4	31	53	71 72	12.5	12.5
CM4B-THTC3-L105 CM5B-THTC3-L105	M14 ÷ M33	CM4 CM5	48	78	105	20	20
CM5B-THTC4-L117	M22 ÷ M48	CM5	60	96	117	22.5	22.5

DIN/228-A (On request)

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Roscador rígido Cono Morse
Quick change tapping chucks *Rigid*

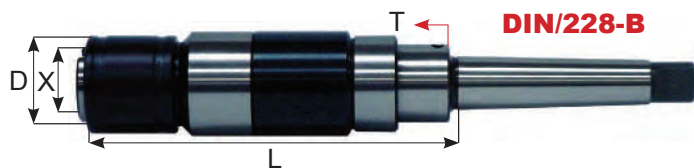
DIN/228-B



REFERENCIA	CAP	CM	X	D	L
CM1B-TLR0-L39 CM2B-TLR0-L40	M 1 ÷ M10	CM1 CM2	13	23	39 40
CM1B-TLR1-L43 CM2B-TLR1-L44 CM3B-TLR1-L44	M 3 ÷ M12	CM1 CM2 CM3	19	32	43 44 44
CM2B-TLR2-L61 CM3B-TLR2-L61 CM4B-TLR2-L62	M 8 ÷ M20	CM2 CM3 CM4	31	50	61 61 62
CM3B-TLR3-L90 CM4B-TLR3-L91	M14 ÷ M33	CM3 CM4	48	72	90 91
CM4B-TLR4-L110 CM5B-TLR4-L109	M22 ÷ M48	CM4 CM5	60	95	110 109

Roscador rígido con morse con compensación axial en tracción
Quick change tapping chucks with length compensation Axial in Tracción

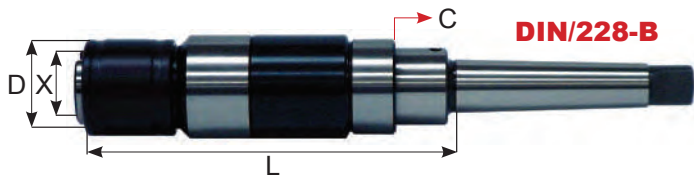
LINEA TRANSFER



REFERENCIA	CAP	CM	X	D	L	T
CM1B-TLT0-30	M 1 ÷ M10	CM1	13	23	91	30
CM2B-TLT0-30		CM2			92	30
CM1B-TLT1-40		CM1			113	40
CM2B-TLT1-40	M 3 ÷ M12	CM2	19	35	114	40
CM3B-TLT1-40		CM3			114	40
CM2B-TLT2-40		CM2			138	40
CM3B-TLT2-40	M 8 ÷ M20	CM3	31	50	138	40
CM4B-TLT2-40		CM4			139	40
CM3B-TLT3-30		CM3			184	40
CM4B-TLT3-40	M14 ÷ M33	CM4	48	72	185	40
CM4B-TLT4-60		CM4			229	60
CM5B-TLT4-60	M22 ÷ M48	CM5	60	95	230	60

Roscador rígido con morse con compensación axial en compresión
Quick change tapping chucks with length compensation Axial in Compression

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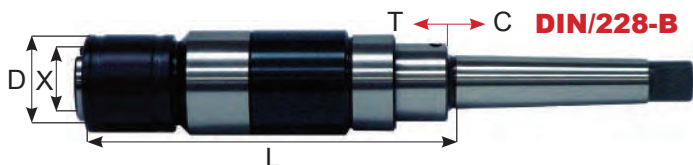


REFERENCIA	CAP	CM	X	D	L	C			
CM1B-TLC0-20	M 1 ÷ M10	CM1	13	23	101	20			
CM1B-TLC0-30		CM1			121	30			
CM2B-TLC0-20		CM2			102	20			
CM2B-TLC0-30		CM2			122	30			
CM1B-TLC1-30	M 3 ÷ M12	CM1	19	35	133	30			
CM1B-TLC1-40		CM1			153	40			
CM2B-TLC1-30		CM2			134	30			
CM2B-TLC1-40		CM2			154	40			
CM3B-TLC1-30		CM3			134	30			
CM3B-TLC1-40		CM3			154	40			
CM2B-TLC2-30	M 8 ÷ M20	CM2	31	50	151	30			
CM2B-TLC2-40		CM2			171	40			
CM3B-TLC2-30		CM3			151	30			
CM3B-TLC2-40		CM3			171	40			
CM4B-TLC2-30		CM4			166	30			
CM4B-TLC2-40		CM4			186	40			
CM3B-TLC3-30	M14 ÷ M33	CM3	48	72	197	30			
CM3B-TLC3-40		CM3			217	40			
CM4B-TLC3-30		CM4			197	30			
CM4B-TLC3-40		CM4			217	40			
CM4B-TLC4-60		M22 ÷ M48			CM4	60	95	289	60
CM5B-TLC4-60					CM5			290	60

Roscador rígido con morse con compensación axial / compresión y tracción
 Quick change tapping chucks with compesation Axial Tracción/Compression

3

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REFERENCIA	CAP	CM	X	D	L	C	T
CM1B-TLTC0-20/10	M 1 ÷ M10	CM1	13	23	111	20	10
CM1B-TLTC0-15/15		CM1			106	15	15
CM2B-TLTC0-20/10		CM2			112	20	10
CM2B-TLTC0-15/15		CM2			107	15	15
CM1B-TLTC1-30/10	M 3 ÷ M12	CM1	19	35	143	30	10
CM1B-TLTC1-20/20		CM1			133	20	20
CM2B-TLTC1-30/10		CM2			144	30	30
CM2B-TLTC1-20/20		CM2			134	20	20
CM3B-TLTC1-30/10	M 8 ÷ M20	CM3	31	50	144	30	10
CM3B-TLTC1-20/20		CM3			134	20	20
CM2B-TLTC2-30/10		CM2			168	30	10
CM2B-TLTC2-20/20		CM2			158	20	20
CM3B-TLTC2-30/10	M 14 ÷ M33	CM3	48	72	168	30	10
CM3B-TLTC2-20/20		CM3			158	20	20
CM4B-TLTC2-30/10		CM4			169	30	10
CM4B-TLTC2-20/20		CM4			159	20	20
CM3B-TLTC3-30/10	M25 ÷ M48	CM3	60	95	214	30	10
CM3B-TLTC3-20/20		CM3			204	20	20
CM4B-TLTC3-30/10		CM4			215	30	10
CM4B-TLTC3-20/20		CM4			205	20	20
CM4B-TLTC4-40/20		CM4			269	40	20
CM4B-TLTC4-30/30		CM4			259	30	30
CM5B-TLTC4-40/20		CM5			270	40	20
CM5B-TLTC4-30/30		CM5			260	30	30

Roscador rígido con morse y flotación radial
 Quick change tapping chucks / Radial floating - Rigid

**LINEA
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REFERENCIA	CAP	CM	X	D	FLOT	L
CM1B-TLRP0-L59	M 1 ÷ M10	CM1	13	23	0.75	59
CM2B-TLRP0-L60		CM2			0.25	60
CM1B-TLRP1-L64	M 3 ÷ M12	CM1	19	32	0.5	64
CM2B-TLRP1-L65		CM2				65
CM3B-TLRP1-L65		CM3				65
CM2B-TLRP2-L91	M 8 ÷ M20	CM2	31	50	1.0	91
CM3B-TLRP2-L91		CM3				91
CM4B-TLRP2-L92		CM4				92
CM3B-TLRP3-L131	M14 ÷ M33	CM3	48	72	1.5	131
CM4B-TLRP3-L132		CM4				132
CM5B-TLRP3-L133		CM5				133
CM4B-TLRP4-L161	M22 ÷ M48	CM4	60	95	2.0	161
CM5B-TLRP4-L162		CM5				162

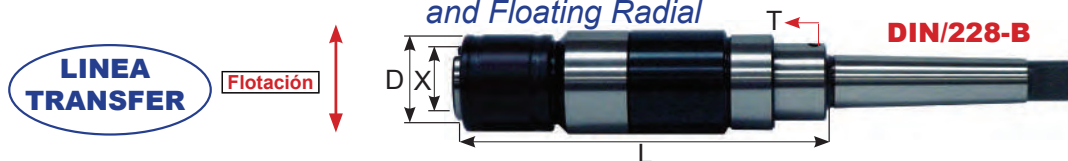
Roscador rígido con morse con compensación axial en compresión y flotación radial
 Quick change tapping chucks with length compensation in Compression and Floating Radial



REFERENCIA	CAP	CM	X	D	FLOT	C
CM1B-TLCP0-20	M 1 ÷ M10	CM1	13	23	0.25	20
CM1B-TLCP0-30		CM1				30
CM2B-TLCP0-20		CM2				20
CM2B-TLCP0-30		CM2				30
CM1B-TLCP1-30	M 3 ÷ M12	CM1	19	35	0.50	30
CM1B-TLCP1-40		CM1				40
CM2B-TLCP1-30		CM2				30
CM2B-TLCP1-40		CM2				40
CM3B-TLCP1-30	M 8 ÷ M20	CM3	31	50	1.00	30
CM3B-TLCP1-40		CM3				40
CM2B-TLCP2-30		CM2				30
CM2B-TLCP2-40		CM2				40
CM3B-TLCP2-30	M 14 ÷ M33	CM3	48	72	1.50	30
CM3B-TLCP2-40		CM3				40
CM4B-TLCP2-30		CM4				30
CM4B-TLCP2-40		CM4				40
CM3B-TLCP3-30	M22 ÷ M48	CM3	60	95	2.00	30
CM3B-TLCP3-40		CM3				40
CM4B-TLCP3-30		CM4				30
CM4B-TLCP3-40		CM4				40
CM4B-TLCP4-60	M22 ÷ M48	CM4	60	95	2.00	60
CM5B-TLCP4-60		CM5				60

Roscador rígido con morse con compensación axial en tracción y flotación radial

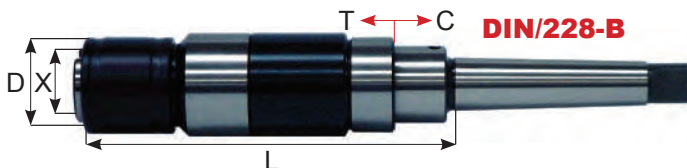
Quick change tapping chucks with length compensation in traction and Floating Radial



REFERENCIA	CAP	CM	X	D	FLOT	T
CM1B-TLTP0-30	M 1 ÷ M10	CM1	13	23	0.25	30
CM2B-TLTP0-30		CM2				30
CM1B-TLTP1-40	M 3 ÷ M12	CM1	19	35	0.50	40
CM2B-TLTP1-40		CM2				40
CM3B-TLTP1-40	M 8 ÷ M20	CM3	31	50	1.00	40
CM2B-TLTP2-40		CM2				40
CM3B-TLTP2-40		CM3				40
CM4B-TLTP2-40		CM4				40
CM3B-TLTP3-30	M14 ÷ M33	CM3	48	72	1.50	40
CM4B-TLTP3-40		CM4				40
CM4B-TLTP4-60	M22 ÷ M48	CM4	60	95	2.00	60
CM5B-TLTP4-60		CM5				60

Roscador rígido con morse con compensación axial en compresión y tracción y flotación radial
 Quick change tapping chucks with length compensation in Traccion / Compression and Floating Radial

3



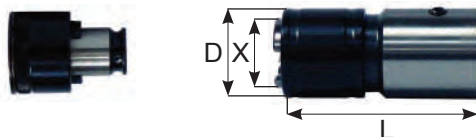
REFERENCIA	CAP	CM	X	D	L	FLOT	C	T	
CM1B-TLTCP0-20/10	M 1 ÷ M10	CM1	13	23	111	0.25	20	10	
CM1B-TLTCP0-15/15		CM1			106				15
CM2B-TLTCP0-20/10		CM2			112				20
CM2B-TLTCP0-15/15		CM2			107				15
CM1B-TLTCP1-30/10	M 3 ÷ M12	CM1	19	35	143	0.50	30	10	
CM1B-TLTCP1-20/20		CM1			133				20
CM2B-TLTCP1-30/10		CM2			144				30
CM2B-TLTCP1-20/20		CM2			134				20
CM3B-TLTCP1-30/10	M 8 ÷ M20	CM3	31	50	144	1.00	30	10	
CM3B-TLTCP1-20/20		CM3			134				20
CM2B-TLTCP2-30/10		CM2			168				30
CM2B-TLTCP2-20/20		CM2			158				20
CM3B-TLTCP2-30/10	M 14 ÷ M33	CM3	48	72	168	1.25	30	10	
CM3B-TLTCP2-20/20		CM3			158				20
CM4B-TLTCP2-30/10		CM4			169				30
CM4B-TLTCP2-20/20		CM4			159				20
CM3B-TLTCP3-30/10	M25 ÷ M48	CM3	60	95	214	2.00	40	20	
CM3B-TLTCP3-20/20		CM3			204				30
CM4B-TLTCP3-30/10		CM4			215				30
CM4B-TLTCP3-20/20		CM4			205				20
CM4B-TLTCP4-40/20		CM4			269		40	20	
CM4B-TLTCP4-30/30		CM4			259				30
CM5B-TLTCP4-40/20		CM5			270				40
CM5B-TLTCP4-30/30		CM5			260				30



Roscador rígido cono DIN/238
Quick change tapping chucks / Rigid

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DIN/238

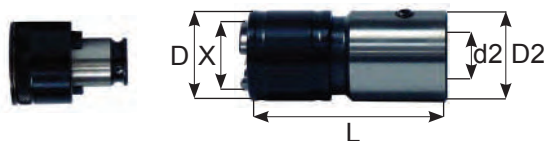


B
Cónica

REFERENCIA	CAP	B	X	D	L
B10-TLR0-L51	M 1 ÷ M10	B10	13	23	51
B12-TLR0-L55		B12			55
B12-TLR1-L59	M 3 ÷ M12	B12	19	32	59
B16-TLR2-L84	M 8 ÷ M20	B16	31	50	84
B18-TLR2-L92		B18			92
B22-TLR3-L126	M14 ÷ M33	B22	48	72	126
B24-TLR3-L136		B24			136

Roscador rígido
Quick change tapping chucks / Rigid

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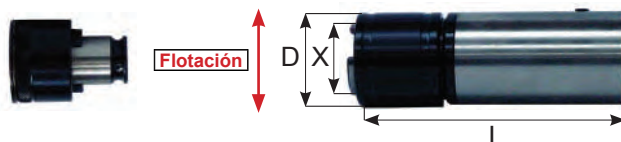
Conexión Cilíndrica

REFERENCIA	CAP	X	d2	D2	D	L
D16-TLR2-L86.5	M 8 ÷ M20	31	16	44.8	50	86.5
D25-TLR2-L103			25	44.8	50	103
D25-TLR3-L124.5	M14 ÷ M33	48	25	67.4	72	124.5
D35-TLR4-L139	M22 ÷ M48	60	35	84	92	139

Roscador rígido cono DIN/238 con flotación radial
Quick change tapping chucks / Radial floating - Rigid

LINEA TRANSFER

DIN/238



B
Cónica

REFERENCIA	CAP	B	X	D	L	FLOT
B10-TLRP0-L72	M 1 ÷ M10	B10	13	23	72	0.25
B12-TLRP0-L76		B12			76	
B12-TLRP1-L79	M 3 ÷ M12	B12	19	32	79	0.5
B16-TLRP1-L85		B16			85	
B18-TLRP1-L95	M 8 ÷ M20	B18	31	50	95	1
B16-TLRP2-L112		B16			112	
B18-TLRP2-L119	M 8 ÷ M20	B18	31	50	119	1
B22-TLRP2-L129		B22			129	
B22-TLRP3-L165	M14 ÷ M33	B22	48	72	165	1.5
B24-TLRP3-L175		B24			175	

Rosgador rígido DIN/238 con compensación axial en compresión
Quick change tapping DIN/238 chucks with length compensation Axial in Compression

3

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DIN/238



B
Cónica

REFERENCIA	CAP	B	X	D	L	C
B10-TLC0-20	M 1 ÷ M10	B10	13	23	117	20
B10-TLC0-30		B10			137	30
B12-TLC0-20		B12			121	20
B12-TLC0-30		B12			141	30
B12-TLC1-30	M 3 ÷ M12	B12	19	35	127	30
B12-TLC1-40		B12			147	40
B16-TLC1-30		B16			127	30
B16-TLC1-40		B16			147	40
B18-TLC1-30	M 8 ÷ M20	B18	31	50	142	30
B18-TLC1-40		B18			162	40
B16-TLC2-30		B16			151	30
B16-TLC2-40		B16			171	40
B18-TLC2-30	M 8 ÷ M20	B18	31	50	151	30
B18-TLC2-40		B18			171	40
B22-TLC2-30		B22			166	30
B22-TLC2-40		B22			186	40
B22-TLC3-30	M14 ÷ M33	B22	48	72	197	30
B22-TLC3-40		B22			217	40
B24-TLC3-30		B24			197	30
B24-TLC3-40		B24			217	40

Rosgador rígido DIN/238 con compensación axial en tracción
Quick change tapping DIN/238 chucks with length compensation Axial in traction

LINEA TRANSFER

DIN/238



B
Cónica

REFERENCIA	CAP	B	X	D	L	T
B10-TLT0-30	M 1 ÷ M10	B10	13	23	107	30
B12-TLT0-30		B12			111	30
B16-TLT1-40	M 3 ÷ M12	B16	19	35	135	40
B18-TLT1-40		B18			148	40
B18-TLT2-40	M 8 ÷ M20	B18	31	50	168	40
B22-TLT2-40		B22			177	40
B22-TLT3-40	M14 ÷ M33	B22	48	72	221	40
B24-TLT3-40		B24			231	40

Roscador rígido DIN/238 con compensación axial en tracción y compresión
Quick change tapping DIN/238 chucks with length compensation Axial in traction

LINEA TRANSFER
DIN/238



B
 Cónica

REFERENCIA	CAP	B	X	D	L	C	T
B10-TLTC0-20/10	M 1 ÷ M10	B10	13	23	127	20	10
B10-TLTC0-15/15		B10			122	15	15
B12-TLTC0-20/10		B12			131	20	10
B12-TLTC0-15/15		B12			126	15	15
B16-TLTC1-30/10	M 3 ÷ M12	B16	19	35	165	30	10
B16-TLTC1-20/20		B16			155	20	20
B18-TLTC1-30/10		B18			178	30	10
B18-TLTC1-20/20		B18			168	20	20
B18-TLTC2-30/10	M 8 ÷ M20	B18	31	50	198	30	10
B18-TLTC2-20/20		B18			188	20	20
B22-TLTC2-30/10		B22			207	30	10
B22-TLTC2-20/20		B22			197	20	20
B22-TLTC3-30/10	M14 ÷ M33	B22	48	72	251	30	10
B22-TLTC3-20/20		B22			241	20	20
B24-TLTC3-30/10		B24			161	30	10
B24-TLTC3-20/20		B24			251	20	20

Roscador rígido con compensación axial en compresión y flotación radial
Quick change tapping chucks with length compensation in Compression and Floating Radial

LINEA TRANSFER
DIN/238



B
 Cónica

REFERENCIA	CAP	B	X	D	L	FLOT	C
B10-TLCP0-20	M 1 ÷ M10	B10	13	23	139	0.25	20
B10-TLCP0-20		B10			159		30
B12-TLCP0-30		B12			143		20
B12-TLCP0-30		B12			163		30
B12-TLCP1-30	M 3 ÷ M12	B12	19	35	142	0.50	30
B12-TLCP1-40		B12			162		40
B16-TLCP1-30		B16			142		30
B16-TLCP1-40		B16			162		40
B18-TLCP1-30	M 8 ÷ M20	B16	31	50	157	1.00	30
B18-TLCP1-40		B18			162		40
B16-TLCP2-30		B16			176		30
B16-TLCP2-40		B16			196		40
B18-TLCP2-30	M 14 ÷ M33	B18	48	72	176	1.50	30
B18-TLCP2-40		B18			196		40
B22-TLCP2-30		B22			212		30
B22-TLCP2-40		B22			232		40
B22-TLCP3-30	M14 ÷ M33	B22	48	72	252	1.50	40
B22-TLCP3-40		B22			252		40
B24-TLCP3-30		B24			232		30
B24-TLCP3-40		B24			252		40

Roscador rígido DIN/238 con compensación axial en tracción y flotación radial

Quick change tapping chucks with length compensation in Traccion and Floating Radial



REFERENCIA	CAP	B	X	D	L	FLOT	T
B10-TLTP0-30	M 1 ÷ M10	B10	13	23	129	0.25	30
B12-TLTP0-30		B12			133		
B16-TLTP1-40	M 3 ÷ M12	B16	19	35	150	0.50	40
B18-TLTP1-40		B18			163		
B18-TLTP2-40	M 8 ÷ M20	B18	31	50	194	1.00	40
B22-TLTP2-40		B22			203		
B22-TLTP3-40	M14 ÷ M33	B22	48	72	256	1.50	40
B24-TLTP3-40		B24			266		

Roscador rígido DIN/238 con compensación axial en compresión / tracción y flotación radial

Quick change tapping chucks with length compensation in Compression / Traccion and Floating Radial



REFERENCIA	CAP	B	X	D	L	FLOT	C	T
B10-TLTCP0-20/10	M 1 ÷ M10	B10	13	23	149	0.25	20	10
B10-TLTCP0-15/15		B10			144		15	15
B12-TLTCP0-20/10		B12			153		20	10
B12-TLTCP0-15/15		B12			148		15	15
B16-TLTCP1-30/10	M 3 ÷ M12	B16	19	35	180	0.50	30	10
B16-TLTCP1-20/20		B16			170		20	20
B18-TLTCP1-30/10		B18			193		30	10
B18-TLTCP1-20/20	M 8 ÷ M20	B18	31	50	183	1.00	20	20
B18-TLTCP2-30/10		B18			224		30	10
B18-TLTCP2-20/20		B18			214		20	20
B22-TLTCP2-30/10		B22			233		30	10
B22-TLTCP2-20/20	M14 ÷ M33	B22	48	72	223	1.50	20	20
B22-TLTCP3-30/10		B22			286		30	10
B22-TLTCP3-20/20		B22			276		20	20
B24-TLTCP3-30/10		B24			296		30	10
B24-TLTCP3-20/20	B24	286	20	20				

Roscador automático con inversión de giro
Tapping attachments with automatic reversal



REFERENCIA	M	X	CM
HRF-2	M3 - M12	19	CM3
HRF-4	M14 - M30	48	CM4

Kit roscador automático con inversión de giro
Kit Tapping attachments with automatic reversal



REFERENCIA

KIT HRF2 (M3-M12)
 7 - SES-1 + REDUCTOR

Roscador automático con inversión de giro SERIE ECONOMICA
Tapping attachments with automatic reversal ECONOMIC SERIES



REFERENCIA	M	X	CM
TCNF-1	M3 - M12	19	CM2

DIN/6329

Cono pinza para broca
Mt collets for twist drills



REFERENCIA	DESCRIPCIÓN	CAP	D	L
CM0BROCA	CM0 - BROCA	1.5 ÷ 5.5	9.0	59.5
CM1BROCA	CM1 - BROCA	1.5 ÷ 10.0	12.2	65.5
CM2BROCA	CM2 - BROCA	3.0 ÷ 15.0	18.0	80.0
CM3BROCA	CM3 - BROCA	8.0 ÷ 20.0	24.0	99.0
CM4BROCA	CM4 - BROCA	12.0 ÷ 25.0	31.5	124.0
CM5BROCA	CM5 - BROCA	20.0 ÷ 36.0	44.5	156.2

DIN/6328

Cono pinza para macho
Mt collets for milling cutters



REFERENCIA	DESCRIPCIÓN	CAP	D	L
CM0MACHO	CM0 - MACHO	2.5 ÷ 4.5	9.0	59.5
CM1MACHO	CM1 - MACHO	2.5 ÷ 10.0	12.2	65.5
CM2MACHO	CM2 - MACHO	4.5 ÷ 14.0	18.0	80.0
CM3MACHO	CM3 - MACHO	8.0 ÷ 18.0	24.0	99.0
CM4MACHO	CM4 - MACHO	12.0 ÷ 25.0	31.5	124.0
CM5MACHO	CM5 - MACHO	18.0 ÷ 36.0	44.5	156.2

DIN/317

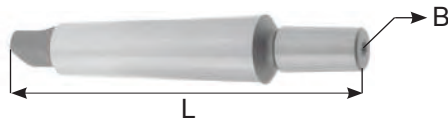
Cuña
Cone ejectors



REFERENCIA	L	S
CUÑACM0	90	2
CUÑACM1	140	5
CUÑACM2	140	5
CUÑACM3	190	7
CUÑACM4	225	10
CUÑACM5	265	15

DIN/238

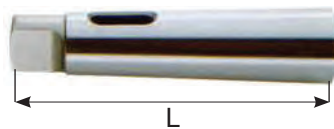
Reductor cono morse DIN/238
Morse taper adapters to DIN/238



REFERENCIA	CM	B	L
CM1B10	1	10	83
CM1B12		12	89
CM1B16		16	99
CM1B18		18	99
CM2B10	2	10	105
CM2B12		12	106
CM2B16		16	112
CM2B18		18	119
CM2B22	3	22	130
CM3B12		12	125
CM3B16		16	134
CM3B18		18	140
CM3B22	4	22	147
CM4B12		12	152
CM4B16		16	156
CM4B18		18	164
CM4B22	5	22	176
CM4B24		24	186
CM5B16		16	190
CM5B18		18	204
CM5D22	5	22	213
CM5B24		24	221

DIN/2185

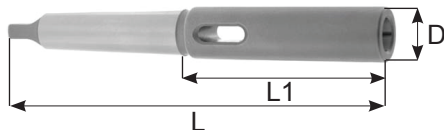
Reductor a cono morse - morse
Morse taper adapters



REFERENCIA	CM Exterior	CM Interior	L
BR1-0	1	0	80
BR2-1	2	1	92
BR3-1	3	1	99
BR3-2		2	112
BR4-1	4	1	124
BR4-2		2	124
BR4-3		3	140
BR5-1	5	1	156
BR5-2		2	156
BR5-3		3	156
BR5-4		4	171
BR6-2	6	2	218
BR6-3		3	218
BR6-4		4	218
BR6-5		5	218

DIN/2187

Reductor largo cono morse
Extended morse taper adapters



REFERENCIA	CM Exterior	CM Interior	L	Lt	D
BRL1-1	1	1	83	145	20
BRL1-2		2	98	160	30
BRL2-1	2	1	85	160	20
BRL2-2		2	100	175	30
BRL2-3		3	121	196	36
BRL3-1	3	1	81	175	20
BRL3-2		2	100	194	30
BRL3-3		3	121	215	36
BRL3-4		4	146	240	48
BRL4-1	4	1	82.5	200	20
BRL4-2		2	97.5	215	30
BRL4-3		3	122.5	240	36
BRL4-4		4	147.5	265	48
BRL4-5		5	182.5	300	63
BRL5-1	5	1	82.5	232	20
BRL5-2		2	97.5	247	30
BRL5-3		3	118.5	268	36
BRL5-4		4	150.5	300	48
BRL5-5		5	185.5	335	63
BRL6-3	6	3	120	330	36
BRL6-4		4	145	335	48
BRL6-5		5	180	390	63

Cono limpiador interno
Spindle taper wipers



REFERENCIA	MODELO
TCL1MT	CM1
TCL2MT	CM2
TCL3MT	CM3
TCL4MT	CM4
TCL5MT	CM5

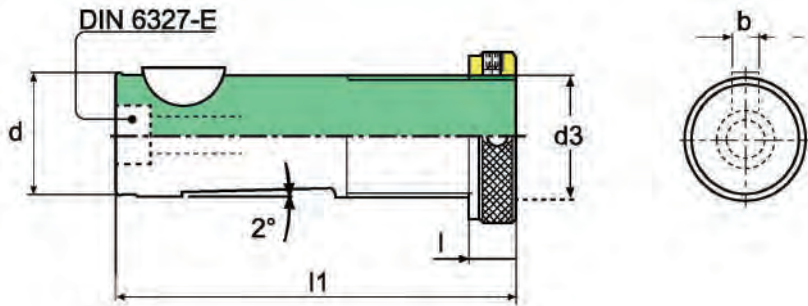


ROSCADO
DIN/6327

PROGRAMA

4

						
PAG. 4	PAG. 4	PAG. 5	PAG. 5	PAG. 6-8	PAG. 9	PAG. 10-12
						
PAG. 13	PAG. 14	PAG. 15	PAG. 15-16	PAG. 16	PAG. 17	PAG. 17
						
PAG. 18						



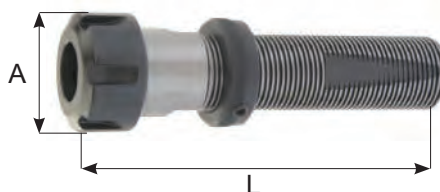
<i>d3</i>	<i>d</i>	<i>l1</i>	<i>b</i>	<i>l</i>
TR8 x 1	8	50	3	10
TR10 x 1.5	10	62	3	12
TR12 x 1.5	12	62	3	12
TR16 x 1.5	16	85	5	12
TR20 x 2	20	88	5	12
TR28 x 2	28	95	6	12
TR36 x 2	36	118	8	18
TR48 x 2	48	144	10	18



DIN/6327

Porta pinzas ER tuerca STANDARD
Collet chucks ER STANDARD nut

TUERCA STANDARD



*Compatible con tuerca standard

REFERENCIA	CAP	L	A
TR16L118ER11 *	1 ÷ 7	118	19
TR16L129ER16 *	1 ÷ 10	129	28
TR20L132ER16 *	1 ÷ 10	132	28
TR28L139ER16 *	1 ÷ 10	139	28
TR20L137ER20 *	1 ÷ 14	137	34
TR28L144ER20 *	1 ÷ 14	144	34

REFERENCIA	CAP	L	A
TR28L143ER25	1 ÷ 20	143	42
TR36L166ER25	1 ÷ 20	166	42
TR28L152ER32	2 ÷ 22	152	50
TR36L170ER32	2 ÷ 22	170	50
TR48L196ER32	2 ÷ 22	196	50
TR28L159ER40	3 ÷ 30	159	63
TR36L182ER40	3 ÷ 30	182	63
TR48L209ER40	3 ÷ 30	209	63

DIN/6327

Porta pinzas ER tuerca MINI
Collet chucks ER MINI nut

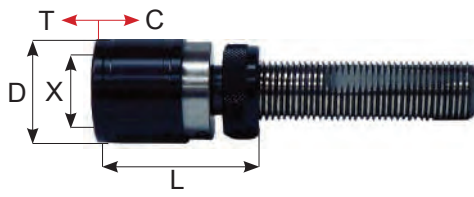
TUERCA MINI



REFERENCIA	CAP	L	A
TR8L75ER8M	1 ÷ 5	75	12
TR10L95ER11M	1 ÷ 7	95	16
TR12L95ER11M	1 ÷ 7	95	16
TR12L103ER16M	1 ÷ 10	103	22
TR16L120ER16M	1 ÷ 10	120	22
TR16L130ER20M	1 ÷ 14	130	28
TR20L135ER16M	1 ÷ 10	135	22
TR20L135ER20M	1 ÷ 14	135	28
TR20L135ER25M	1 ÷ 20	135	35

LINEA TRANSFER

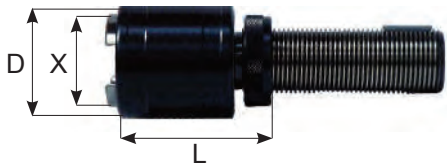
Roscador con compresión y tracción
Quick change tapping chucks with Tension / Compression



REFERENCIA	CAP	X	D	L	C	T
TR16-THTC0-L49	M1 ÷ M10	13	25.5	49	6.5	7.5
TR20-THTC0-L49				49		
TR16-THTC1-L51	M3 ÷ M12	19	36	51	7.5	7.5
TR20-THTC1-L51				51		
TR28-THTC1-L51				51		
TR36-THTC1-L53				53		
TR20-THTC2-L75	M8 ÷ M20	31	53	75	12.5	12.5
TR28-THTC2-L75				75		
TR36-THTC2-L77				77		
TR28-THTC3-L108	M14 ÷ M33	48	78	108	20	20
TR36-THTC3-L110				110		
TR48-THTC3-L114				114		
TR36-THTC4-L121	M22 ÷ M48	60	96	121	22.5	22.5
TR48-THTC4-L125				125		

LINEA TRANSFER

Roscador rígido
Quick change tapping chucks Rigid



REFERENCIA	CAP	X	D	L
TR16-TLR0-L45	M1 ÷ M10	13	23	45
TR20-TLR0-L45				
TR16-TLR1-L49	M3 ÷ M12	19	32	49
TR20-TLR1-L49				
TR28-TLR2-L66	M8 ÷ M20	31	50	66
TR28-TLR2-L66				
TR36-TLR2-L68				68
TR28-TLR3-L95	M14 ÷ M33	48	72	95
TR36-TLR3-L97				97
TR36-TLR4-L120	M22 ÷ M48	60	95	124
TR48-TLR4-L124				118

**LINEA
TRANSFER**

Roscador rígido con compensación axial
en tracción

*Quick change tapping chucks with compensation Axial
in Tension*

4



REFERENCIA	CAP	X	D	L	T
TR16-TLT0-30	M1 ÷ M10	13	23	86	30
TR20-TLT0-30				96	30
TR16-TLT1-40	M3 ÷ M12	19	35	108	40
TR20-TLT1-40				108	40
TR28-TLT1-40				118	40
TR20-TLT2-40	M8 ÷ M20	31	50	132	40
TR28-TLT2-40				132	40
TR36-TLT2-40				142	40
TR28-TLT3-40	M14 ÷ M33	48	72	180	40
TR36-TLT3-40				190	40
TR36-TLT4-60	M22 ÷ M48	60	95	235	60
TR48-TLT4-60				239	60



**LINEA
TRANSFER**

**Roscador rígido con compensación axial
en compresión**

*Quick change tapping chucks with compesation Axial
in Compression*



4

REFERENCIA	CAP	X	D	L	C
TR16-TLC0-20	M1 ÷ M10	13	23	107	20
TR16-TLC0-30				127	30
TR20-TLC0-20				107	20
TR20-TLC0-30				127	30
TR16-TLC1-30	M3 ÷ M12	19	35	139	30
TR16-TLC1-40				159	40
TR20-TLC1-30				139	30
TR20-TLC1-40				159	40
TR28-TLC1-30				139	30
TR28-TLC1-40				159	40
TR20-TLC2-30	M8 ÷ M20	31	50	163	30
TR20-TLC2-40				183	40
TR28-TLC2-30				163	30
TR28-TLC2-40				183	40
TR36-TLC2-30				165	30
TR36-TLC2-40				185	40
TR28-TLC3-30	M14 ÷ M33	48	72	209	30
TR28-TLC3-40				229	40
TR36-TLC3-30				211	30
TR36-TLC3-40				231	40
TR36-TLC4-60	M22 ÷ M48	60	95	295	60
TR48-TLC4-60				299	60





Roscador rígido con compensación axial
en tracción y compresión
*Quick change tapping chucks with compesation Axial
in Tension / Compression*

4



REFERENCIA	CAP	X	D	L	C	T
TR16-TLTC0-20/10	M1 ÷ M10	13	23	117	20	10
TR16-TLTC0-15/15				112	15	15
TR20-TLTC0-20/10				117	20	10
TR20-TLTC0-15/15				112	15	15
TR16-TLTC1-30/10	M3 ÷ M12	19	35	149	30	10
TR16-TLTC1-20/20				139	20	20
TR20-TLTC1-30/10				149	30	10
TR20-TLTC1-20/20				139	20	20
TR28-TLTC1-30/10				149	30	10
TR28-TLTC1-20/20				139	20	20
TR20-TLTC2-30/10	M8 ÷ M20	31	50	173	30	10
TR20-TLTC2-20/20				163	20	20
TR28-TLTC2-30/10				173	30	10
TR28-TLTC2-20/20				163	20	20
TR36-TLTC2-30/10				175	30	10
TR36-TLTC2-20/20				165	20	20
TR28-TLTC3-30/10	M14 ÷ M33	48	72	219	30	10
TR28-TLTC3-20/20				209	20	20
TR36-TLTC3-30/10				221	30	10
TR36-TLTC3-20/20				211	20	20
TR36-TLTC4-40/20	M22 ÷ M48	60	95	275	40	20
TR36-TLTC4-30/30				265	30	30
TR48-TLTC4-40/20				279	40	20
TR48-TLTC4-30/30				269	30	30



**LINEA
TRANSFER**

Roscador rígido con flotación Radial
Quick change tapping chucks with Floating Radial



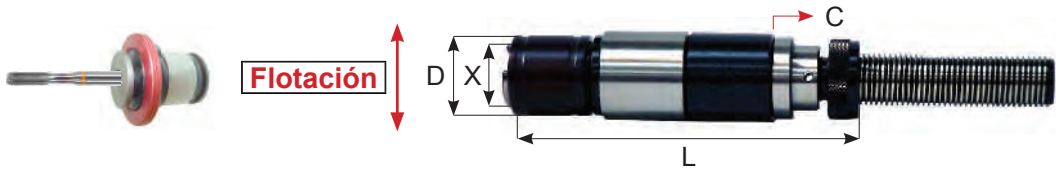
REFERENCIA	CAP	X	D	FLOT	L
TR16-TLRP0-L65	M1 ÷ M10	13	23	0.25	65
TR20-TLRP0-L65					65
TR16-TLRP1-L70	M3 ÷ M12	19	32	0.50	70
TR20-TLRP1-L70					70
TR28-TLRP1-L70					70
TR20-TLRP2-L96	M8 ÷ M20	31	50	1.00	96
TR28-TLRP2-L96					96
TR36-TLRP2-L98					98
TR28-TLRP3-L136	M14 ÷ M33	48	72	1.50	136
TR36-TLRP3-L138					138
TR48-TLRP3-L142					142
TR36-TLRP4-L167	M22 ÷ M48	60	95	2.00	167
TR48-TLRP4-L171					171



**LINEA
TRANSFER**

Roscador rígido con compensación axial
en compresión y flotación radial
*Quick change tapping chucks with compensation Axial
in Compression and Floating Radial*

4



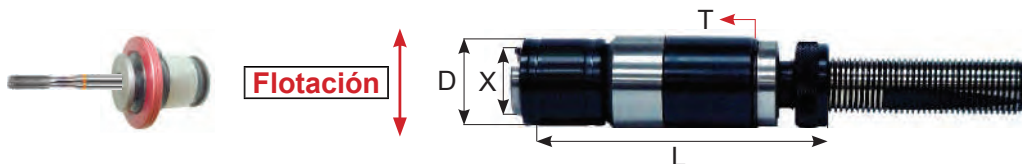
REFERENCIA	CAP	X	D	L	FLOT	C
TR16-TLCP0-20	M1 ÷ M10	13	23	129	0.25	20
TR16-TLCP0-30				149		30
TR20-TLCP0-20				129		20
TR20-TLCP0-30				149		30
TR16-TLCP1-30	M3 ÷ M12	19	35	154	0.50	30
TR16-TLCP1-40				174		40
TR20-TLCP1-30				154		30
TR20-TLCP1-40				174		40
TR28-TLCP1-30				154		30
TR28-TLCP1-40				174		40
TR20-TLCP2-30	M8 ÷ M20	31	50	188	1.00	30
TR20-TLCP2-40				208		40
TR28-TLCP2-30				188		30
TR28-TLCP2-40				208		40
TR36-TLCP2-30				190		30
TR36-TLCP2-40				210		40
TR28-TLCP3-30	M14 ÷ M33	48	72	244	1.50	30
TR28-TLCP3-40				264		40
TR36-TLCP3-30				246		30
TR36-TLCP3-40				266		40
TR36-TLCP4-60	M22 ÷ M48	60	95	342	2.00	60
TR48-TLCP4-60				346		60



**LINEA
TRANSFER**

Rosgador rígido con compensación axial
en tracción y flotación radial

*Quick change tapping chucks with compensation Axial
in Tension and Floating Radial*



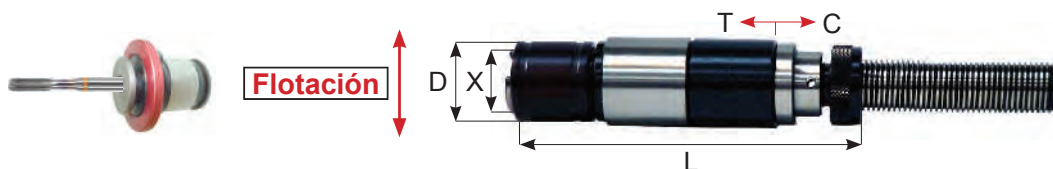
REFERENCIA	CAP	X	D	L	FLOT	T
TR16-TLTP0-30	M1 ÷ M10	13	23	119	0.25	30
TR20-TLTP0-30				119		30
TR16-TLTP1-40	M3 ÷ M12	19	35	134	0.50	40
TR20-TLTP1-40				134		40
TR28-TLTP1-40				134		40
TR20-TLTP2-40	M8 ÷ M20	31	50	168	1.00	40
TR28-TLTP2-40				168		40
TR36-TLTP2-40				170		40
TR28-TLTP3-40	M14 ÷ M33	48	72	224	1.50	40
TR36-TLTP3-40				226		40
TR36-TLTP4-60	M22 ÷ M48	60	95	282	2.00	60
TR48-TLTP4-60				286		60





Rosgador rígido con compensación axial en tracción / compresión y flotación radial
Quick change tapping chucks with compensation Axial in Tension / Compression and Floating Radial

4

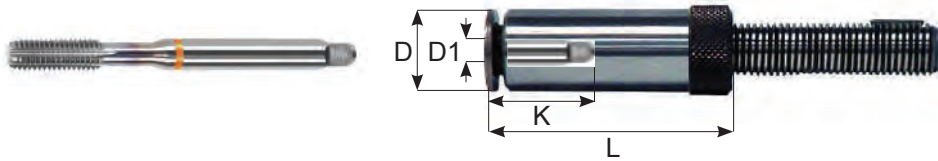


REFERENCIA	CAP	X	D	L	FLOT	C	T
TR16-TLTCP0-20/10	M1 ÷ M10	13	23	139	0.25	20	10
TR16-TLTCP0-15/15				134		15	15
TR20-TLTCP0-20/10				139		20	10
TR20-TLTCP0-15/15				134		15	15
TR16-TLTCP1-30/10	M3 ÷ M12	19	35	164	0.5	30	10
TR16-TLTCP1-20/20				154		20	20
TR20-TLTCP1-30/10				164		30	10
TR20-TLTCP1-20/20				154		20	20
TR28-TLTCP1-30/10				164		30	10
TR28-TLTCP1-20/20				154		20	20
TR20-TLTCP2-30/10	M8 ÷ M20	31	50	198	1.0	30	10
TR20-TLTCP2-20/20				188		20	20
TR28-TLTCP2-30/10				198		30	10
TR28-TLTCP2-20/20				188		20	20
TR36-TLTCP2-30/10				200		30	10
TR36-TLTCP2-20/20				190		20	20
TR28-TLTCP3-30/10	M14 ÷ M33	48	72	254	1.5	30	10
TR28-TLTCP3-20/20				244		20	20
TR36-TLTCP3-30/10				256		30	10
TR36-TLTCP3-20/20				246		20	20
TR36-TLTCP4-40/20	M22 ÷ M48	60	95	322	2.0	40	20
TR36-TLTCP4-30/30				312		30	30
TR48-TLTCP4-40/20				326		40	20
TR48-TLTCP4-30/30				316		30	30



LINEA TRANSFER

Cabecilla rígida mango roscado
Quick change tapping chuck with threaded shank

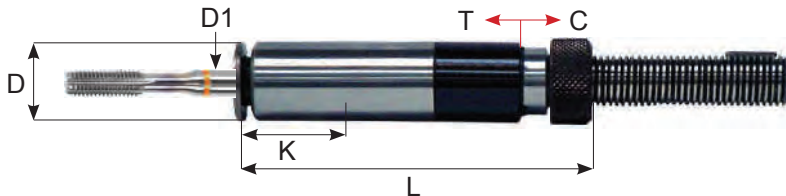


4

REFERENCIA	CAP	D1	K	D	L
TR10-TL0-L44	M1 ÷ M10	2.5 - 7.2	15	14	44
TR12-TL0-L44			15	14	44
TR12-TL1-L52	M3 ÷ M12	4.5 - 11.3	17	19	52
TR16-TL1-L52			17	19	52
TR20-TL2-L77	M8 ÷ M20	7 - 18	30	31	77
TR28-TL2-L77			30	31	77
TR28-TL3-L95	M8 ÷ M20	11 - 28	44	48	95
TR36-TL3-L97			44	48	97
TR36-TL4-L132	M8 ÷ M20	18 - 36	71	60	132
TR48-TL4-L136			71	60	136

LINEA TRANSFER

Cabecilla con compensación axial en compresión y tracción
Quick change tapping chuck with threaded shank with compensation Axial in Tension / Compression

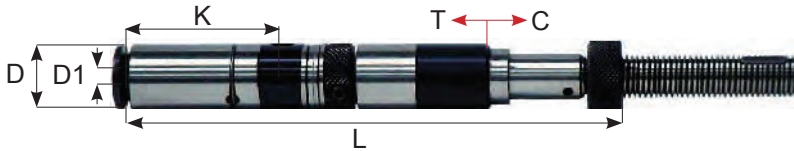


REFERENCIA	CAP	D1	K	D	L	C	T
TR8	M1 ÷ M6	2.5 - 6	15	13.5	109	20	0
					104	15	5
					99	10	10
					94	5	15
					89	0	20
TR10	M1 ÷ M8	2.5 - 8	17	15.5	116	20	0
					111	15	5
					106	10	10
					101	5	15
					96	0	20
TR12	M4 ÷ M12	4.5 - 10	17	19	107	20	0
					102	15	5
					97	10	10
					92	5	15
					87	0	20

**LINEA
TRANSFER**

Cabecilla con compensación axial en compresión y tracción
con embrague de seguridad

*Quick change tapping chuck with threaded shank with
compensation Axial in Tension / Compression and safety clutch*



REFERENCIA	CAP	D1	K	D	L	C	T
TR8S	M1 ÷ M6	2.5 - 6	15	13.5	109	20	0
					104	15	5
					99	10	10
					94	5	15
					89	0	20
TR10S	M1 ÷ M8	2.5 - 8	17	15.5	116	20	0
					111	15	5
					106	10	10
					101	5	15
					96	0	20
TR12S	M4 ÷ M12	4.5 - 10	17	19	107	20	0
					102	15	5
					97	10	10
					92	5	15
					87	0	20

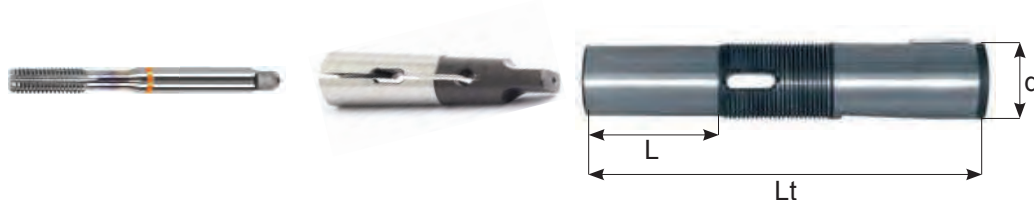


Casquillo de regulación corto
Adjustable Adaptors



REFERENCIA	d	L	Lt
E16CM1	16	40	85
E20CM1	20	40	88
E28CM1	28	42	95
E28CM2	28	42	95
E36CM1	36	50	118
E36CM2	36	50	118
E36CM3	36	50	118
E48CM2	48	65	144
E48CM3	48	65	144
E48CM4	48	65	144

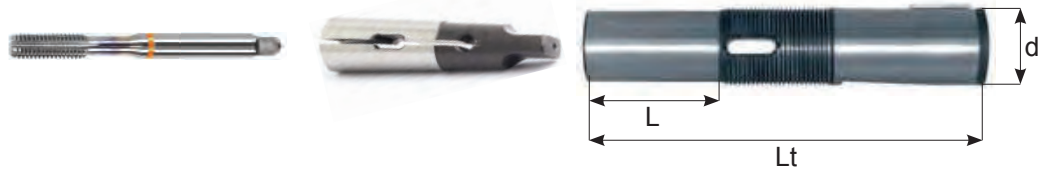
Casquillo de regulación largo
Adjustable Adaptors



REFERENCIA	d	L	Lt
G16CM125	16	25	110
G16CM150		50	135
G16CM175		75	160
G16CM1100		100	185
G20CM125	20	25	113
G20CM150		50	138
G20CM175		75	163
G20CM1100		100	188
G28CM125	28	25	120
G28CM150		50	145
G28CM175		75	170
G28CM1100		100	195

G28 / 36 / 48 →

Casquillo de regulación largo
Adjustable Adaptors

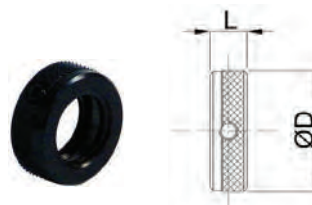


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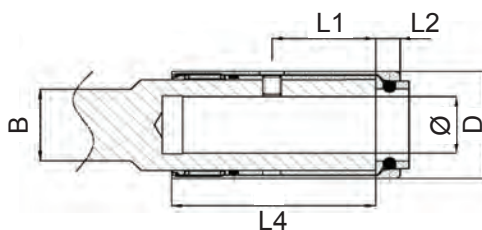
REFERENCIA	d	L	Lt
G28CM225	28	25	120
G28CM250		50	145
G28CM275		75	170
G28CM2100		100	195
G36CM230	36	30	148
G36CM260		60	178
G36CM290		90	208
G36CM2120		120	238
G36CM330	36	30	148
G36CM360		60	178
G36CM390		90	208
G36CM3120		120	238
G48CM340	48	40	184
G48CM380		80	224
G48CM3120		120	264
G48CM3160		160	304
G48CM440	48	40	184
G48CM480		80	224
G48CM4120		120	264
G48CM4160		160	304

Tuerca regulación
Regulating Nut

REFERENCIA	PASO	D	L
GH10	TR 10x1.5	16	12
GH12	TR 12x1.5	20	12
GH16	TR 16x1.5	24.6	12
GH20	TR 20x2	31.6	12
GH28	TR 28x2	39.6	12
GH36	TR 36X2	49.6	14
GH48	TR 48x2	66.6	18



Manguito cambio rápido DIN/55058
Quick change drilling chucks.



4

REFERENCIA	Ø	B	D	L1	L2	L4	M
RCTL12	12	20	24	22	9	42	M 5
RCTL16	16	25	30	34	9.5	65	M 6
RCTL20	20	32	38	34	11	72	M 6
RCTL25	25	37	45	38	12	79	M 8
RCTL28	28	40	48	38	12	81	M 8
RCTL32	32	45	55	45	14	83	M 8
RCTL36	36	50	60	45	16	99	M 8
RCTL48	48	67	80	57	20	100	M10

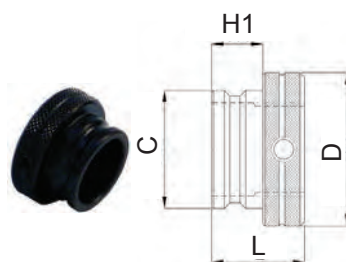
Tornillo para manguito cambio rápido
Screw Quick change drilling chucks

REFERENCIA	Ø	G	L
RCTL5S	12	M5	4
RCTL6S	16 - 20	M6	5.5
RCTL8S	25 - 28	M8	6.9
RCTL8LS	32 - 36	M8	7.5
RCTL10S	48	M10	9.5

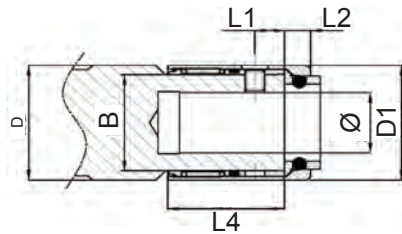


Tuerca cambio rápido
Quick change adjustable nut and reduced

REFERENCIA	CAP	D	C	H1	L
CRM12	TR 12x1.5	21.5	16.4	9	18
CRM16	TR 16x1.5	26	19.9	9.5	18.5
CRM20	TR 20x2	33	25.4	11	20
CRM25	TR 25x2	40	31.9	12	22
CRM28	TR 28x2	42	33.9	12	22
CRM32	TR 32x2	47	37.9	13.5	23.5
CRM36	TR 36x2	54	43.4	16	26
CRM48	TR 48x2	72	57.9	20	34



Manguito cambio rápido corto DIN/55058
Quick change drilling chucks.



4

REFERENCIA	Ø	B	D	D1	L1	L2	L4	M
RRCTL16	16	22	25	27	8	9.5	30	M 6
RRCTL20	20	28	32	34	8	11	30	M 6
RRCTL25	25	34.5	37	41	8	12	32	M 8
RRCTL28	28	37	40	44	8	12	32	M 8
RRCTL32	32	41	45	49	9	13.5	39	M 8
RRCTL36	36	46	50	55	9	16	39	M 8
RRCTL48	48	61	67	73	11	20	51	M10

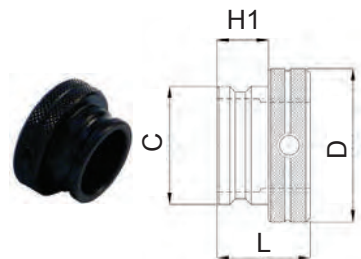
Tornillo para manguito cambio rápido corto
Screw Quick change drilling chucks short

REFERENCIA	Ø	G	L
RRCTL5S	16 - 20	M5	4
RRCTL6S	25 - 28 - 32 - 36	M6	5.5
RRCTL8S	48	M8	7.5



Tuerca cambio rápido
Quick change adjustable nut and reduced

REFERENCIA	CAP	D	C	H1	L
CRM12	TR 12x1.5	21.5	16.4	9	18
CRM16	TR 16x1.5	26	19.9	9.5	18.5
CRM20	TR 20x2	33	25.4	11	20
CRM25	TR 25x2	40	31.9	12	22
CRM28	TR 28x2	42	33.9	12	22
CRM32	TR 32x2	47	37.9	13.5	23.5
CRM36	TR 36x2	54	43.4	16	26
CRM48	TR 48x2	72	57.9	20	34





ELEMENTOS DE CONTROL

PROGRAMA

5

						
PAG. 3-4	PAG. 4	PAG. 5	PAG. 5	PAG. 6	PAG. 6	PAG. 7
						
PAG. 7	PAG. 8	PAG. 9	PAG. 9	PAG. 10	PAG. 10	PAG. 10
						
PAG. 10	PAG. 11	PAG. 11	PAG. 11	PAG. 11	PAG. 12	PAG. 12
						
PAG. 13	PAG. 14	PAG. 14	PAG. 15-16	PAG. 16	PAG. 16	PAG. 17
						
PAG. 18	PAG. 19	PAG. 20	PAG. 20	PAG. 21	PAG. 21	PAG. 22
						
PAG. 23	PAG. 23	PAG. 24	PAG. 24	PAG. 24	PAG. 25	PAG. 26

DIN/69893

Barra de control con certificado HSK
Test arbor with accuracy certificate HSK



HSK-A / 25 / 32 / 40 / 50 / 63 / 80 / 100 / 125

REFERENCIA	D	FORMA	L
HSK25AL100CK25	25	HSK25-A	100
HSK32AL200CK25	25	HSK32-A	200
HSK40AL200CK25	25	HSK40-A	200
HSK50AL246CK32	32	HSK50-A	246
HSK50AL346CK32	32	HSK50-A	346
HSK63AL200CK40	40	HSK63-A	200
HSK63AL346CK40	40	HSK63-A	346
HSK80AL346CK40	40	HSK80-A	346
HSK100AL349CK40	40	HSK100-A	349
HSK100AL349CK50	50	HSK100-A	349
HSK125AL349CK40	40	HSK125-A	349
HSK125AL349CK50	50	HSK125-A	349

HSK-E / 20 / 25 / 50

REFERENCIA	D	FORMA	L
HSK20EL90CK15	15	HSK20-E	90
HSK25EL140CK20	20	HSK25-E	140
HSK50EL150CK24	24	HSK40-E	150

HSK-F / 63 / 80

REFERENCIA	D	FORMA	L
HSK63FL250CK40	40	HSK63-F	250
HSK80FL346CK50	50	HSK80-F	346



ISO/26622-1

Barra de control con certificado KM
 Test arbor with accuracy certificate KM



5

TS / 32 / 40 / 50 / 63 / 80 / 100

REFERENCIA	D	FORMA	L
TS32L70CK32	32	TS32	70
TS40L80CK40	40	TS40	80
TS50L100CK50	50	TS50	100
TS63L120CK63	63	TS63	120
TS63L346CK50	50	TS63	346
TS80L120CK80	80	TS80	120
TS80L346CK50	50	TS80	346
TS100L120CK100	100	TS100	120
TS100L349CK50	50	TS100	349

ISO/26623-1

Barra de control cono poligonal - PSC
 Control bar Polygonal Taper - PSC



C40 / 50 / 63 / 80

REFERENCIA	D	FORMA	L
C40L179CK25	25	C40	179
C50L255CK32	32	C50	255
C63L322CK40	40	C63	322
C63L144CK40	40	C63	144
C80L330CK40	40	C80	330



MAS/403BT

Barra de control con certificado MAS/403BT
 Test arbor with accuracy certificate MAS/403BT



REFERENCIA	CK	L
BT30L300CK32	32	300
BT40L300CK40	40	300
BT50L300CK50	50	300

MAS/403BT

Barra de control con certificado MAS/403BT
 Test arbor with accuracy certificate MAS/403BT



DOBLE CONTACTO
DUAL CONTACT

REFERENCIA	CK	L
DBT30L300CK32	32	300
DBT40L300CK40	40	300
DBT50L300CK50	50	300

DIN/69871

Barra de control con certificado DIN/69871
 Test arbor with accuracy certificate DIN/69871



REFERENCIA	CK	L
TC30L300CK32	32	300
TC40L300CK40	40	300
TC40L400CK40	40	400
TC45L300CK40	40	300
TC50L300CK50	50	300
TC50L400CK50	50	400
TC50L500CK50	50	500
TC60L300CK60	60	300

ANSI/CAT (on request)

DIN/69893

Mandrino de control HSK (5 Ejes)
Runout test arbors HSK (5 Axis)

runout accuracy < 0.005mm

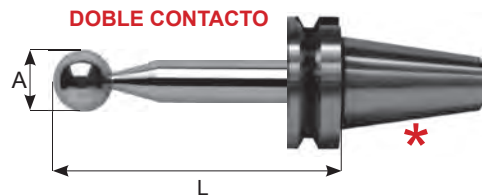
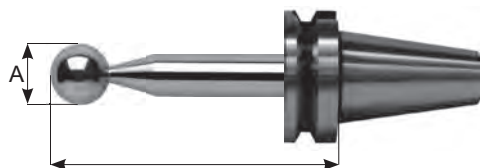


REFERENCIA	FORMA	A	L
HSK32AL125B25	HSK32-A	30	150
HSK40AL125B25	HSK40-A	30	150
HSK50AL150B30	HSK50-A	30	150
HSK63AL150B30	HSK63-A	30	150
HSK80AL200B40	HSK63-A	30	200
HSK100AL250B50	HSK100-A	30	150
HSK125AL250B50	HSK100-A	30	200

MAS/403BT

Mandrino de control para cono BT (5 Ejes)
Runout test arbors taper BT spindles (5 Axis)

runout accuracy < 0.005mm



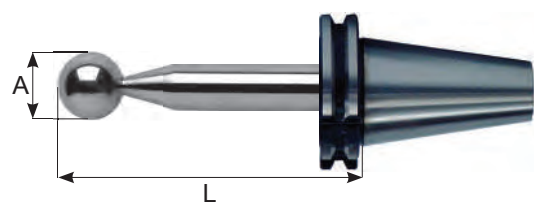
REFERENCIA	FORMA	A	L
BT30L150B30	BT30	30	150
BT40L150B30	BT40	30	150
BT50L200B40	BT50	40	200

* "Face contact" + "D"

DIN/69871

Mandrino de control para cono ISO (5 Ejes)
Runout test arbors for ISO taper spindles (5 Axis)

runout accuracy < 0.005mm



REFERENCIA	FORMA	A	L
TC40L150B30	TC40	30	150
TC50L150B30	TC50	30	150

ANSI/CAT (on request)

Medidor fuerza tracción analógico
Mechanical Pull Force Gauge with analog indicator



REFERENCIA

- HSK A/C/E 20
- HSK A/C/E 25
- HSK A/C/E 32
- HSK A/C/E 40
- HSK A/C/E 50
- HSK A/C/E 63
- HSK A/C/E 80
- HSK A/C/E 100

REFERENCIA

- SK30/CAT30
- BT30/DBT30 *
- SK40/CAT40
- BT40/DBT40 *
- SK50/CAT50
- BT50/DBT50 *



100% contact

* "Face contact"

Tablas de tracción de tiro y capacidad
Mechanical Pull Force Gauges

REFERENCIA	FUERZA MINIMA SUGERIDA DE TRACCION	CAPACIDAD
HSK20	1.2 kN	0 – 4.5 kN
HSK25	3.0 kN	0 – 18 kN
HSK32	5.0 kN	0 – 18 kN
HSK40	6.8 kN	0 – 18 kN
HSK50	11.0 kN	0 – 45 kN
HSK63	18.0 kN	0 – 45 kN
HSK80	28.0 kN	0 – 90 kN
HSK100	45.0 kN	0 – 90 kN
SK30/BT30/DBT30	4.5 kN	1 – 18 kN
SK40/BT40/DBT40	8.5 kN	2 – 18 kN
SK50/BT50/DBT50	18 kN	5 – 45 kN



KN= kilonewton

Dispositivo de centrado tridimensional
3D Estando Ø 12 alta precisión
3D Sensor waterproof
shank Ø 12

5

PRECISIÓN
0.01mm



Nota: Carcasa totalmente impermeable, incluso para las máquinas con refrigeración continua, el indicador y la sonda están completamente sellados.

REFERENCIA	D	H	L
3DPro	12	52	160

Dispositivo de centrado tridimensional 3D Ø 12 alta precisión
3D Sensor
shank Ø 12

PRECISIÓN
0.01mm



Punta sonda
Spare Probes



REFERENCIA	L	Ø
Sonda3	27	3
Sonda6	62	6

Estuche para dispositivo 3D
3D Edge Finder in Fitted-Case



REFERENCIA	D	H	L
3DEco	12	52	160

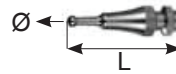
Dispositivo de centrado tridimensional 3D Ø 12
3D Sensor
shank Ø 12



REFERENCIA

3DTSCHVP

Recambio Ø 3
Short tips



REFERENCIA **L** **Ø**

3DLSC3 24 3

Recambio Ø 6
Short tips



REFERENCIA **L** **Ø**

3DLSC6 54 6

Dispositivo de centrado tridimensional 3D Ø 20
3D Sensor
shank Ø 20



REFERENCIA

3DPD

Recambio Ø 4
Short tips Ø 4



REFERENCIA **L** **Ø**

3DLCD4 27 4

Recambio Ø 8
Short tips Ø 8



REFERENCIA **L** **Ø**

3DLCD8 67 8

Dispositivo de centrado tridimensional 3D Ø 20 (3 Ejes) Luminoso y Sonoro
 3D Sensor - shank Ø 20 (3 Axis) Optical & Acoustic



REFERENCIA	D
00120060	20

Dispositivo de centrado 2D Ø 20 (2 Ejes)
 2D Sensor - shank Ø 20 (2 Axis)

Luminoso
 Optical



REFERENCIA

SOE20L

Luminoso y Sonoro
 Optical & Acoustic



REFERENCIA

SOE20LB

Centradores mecánicos flotante
 Floating position detectors

Acero
 Steel

FIG. 1



FIG. 2



REFERENCIA

SME1020 (10x10)	FIG. 1
SME420 (10x10x4)	FIG. 2

Antimagnético
 Antimagnetic

FIG. 1



FIG. 2



REFERENCIA

TN10 (10x10)	FIG. 1
TN410 (10x10x4)	FIG. 2

Cerámico
 Ceramic

FIG. 1



FIG. 2



REFERENCIA

MEP1020 (10x10)	FIG. 1
MEP420 (10x10x4)	FIG. 2



Muelles para centradores
 Replacement springs

REFERENCIA

MUELLE SME1020	L= 46mm
MUELLE SME420	L= 39mm

Dispositivo de altura mecánico-magnético con comparador
Mechanical - Magnetic height resetter with comparator



REFERENCIA

ZIP50



REFERENCIA

ZIP50A

Dispositivo de altura mecánico-magnético con comparador
Mechanical - Magnetic height resetter with comparator



REFERENCIA

ZOV50



RECAMBIO

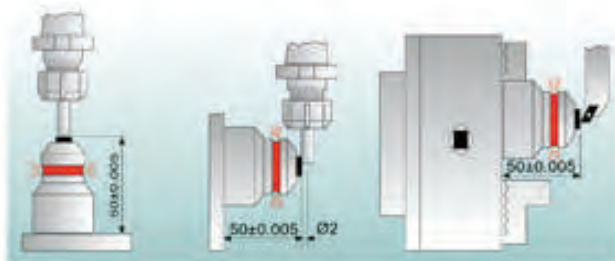
ZOV50R

Dispositivo axial magnético luminoso
Mechanical - Magnetic height resetter with comparator



REFERENCIA

ZOP50



Calibre pie de rey digital IP67
Digital caliper IP67 measuring system

- * Función ABS
- * Resolución 0.01mm
- * Nivel de protección IP67
- * Apagado automático



REFERENCIA	CAMPO	PRECISIÓN
112-006-13	0-150mm	+/-0.03mm
112-008-13	0-200mm	+/-0.03mm
112-012-13	0-300mm	+/-0.03mm

Calibre pie de rey digital
Digital caliper

- * Salida de datos
- * Resolución 0.01mm
- * Superficies de alta calidad al desplazamiento
- * Versión sin regulación fina



REFERENCIA	CAMPO	PRECISIÓN
111-006-12	0-150mm	+/-0.03mm
111-008-12	0-200mm	+/-0.03mm
111-012-12	0-300mm	+/-0.03mm

Calibre pie de rey con nonio
Caliper gauges with Nonio

- * Bloqueo de tornillo
- * Estructura de acero inoxidable
- * Diseño con mínimo error de paralaje



REFERENCIA	CAMPO	GRADUACIÓN	PRECISIÓN
120-006-12	0-150mm	0.02mm	+/-0.03mm
120-008-12	0-200mm	0.02mm	+/-0.03mm
120-012-12	0-300mm	0.02mm	+/-0.03mm
120-006-14	0-150mm	0.02mm	+/-0.05mm
120-008-14	0-200mm	0.02mm	+/-0.05mm
120-012-14	0-300mm	0.02mm	+/-0.05mm

Calibre pie de rey con reloj
Caliper with clock

- * Comparador a prueba de golpes
- * Estructura de acero inoxidable
- * Regulación fina
- * Diseño con acabado extra fino



REFERENCIA	CAMPO	LECTURA	PRECISIÓN
101-006-11	0-150mm	0.01mm	+/-0.03mm
101-008-11	0-200mm	0.01mm	+/-0.03mm
101-006-21	0-150mm	0.02mm	+/-0.03mm
101-008-21	0-200mm	0.02mm	+/-0.03mm
101-012-21	0-300mm	0.02mm	+/-0.04mm

Calibre pie de rey digital de profundidad
Digital depth caliper

- * Salida de datos
- * Resolución 0.01mm
- * Estructura de acero inoxidable



REFERENCIA	CAMPO	PRECISIÓN
171-006-11	0-150mm	+/-0.03mm
171-008-11	0-200mm	+/-0.03mm
171-012-11	0-300mm	+/-0.04mm

Calibre digital mini de profundidad para pequeños orificios
Ideal for depth measurements of small holes.

- * Salida de datos
- * Resolución 0.01mm
- * Ideal para medidas de profundidad de pequeños orificios.



REFERENCIA	CAMPO	PRECISIÓN
176-001-11	0-25mm	+/-0.03mm

Comparador digital IP65
Digital comparator IP65

- * Salida de datos
- * Mango Ø8
- * Protección IP65
- * Resolución 0.01mm
- * Parte trasera plana o con ojal
- * Medida absoluta o incrementable



REFERENCIA	CAMPO	PRECISIÓN
213-010-11	0-12.7mm	+/-0.02mm
213-025-11	0-25.4mm	+/-0.05mm

Comparador centesimal
Centesimal comparator

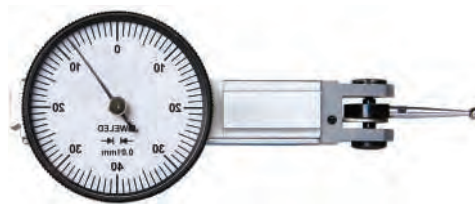
- * Contador alta calidad
- * Mango Ø8
- * Parte trasera plana
- * Escala 0-100 - L´art.226 es a prueba de golpes
- * Diámetro 58mm - tiene una lectura 0.01mm
- * L´art. 222-001-01 tiene una lectura de 0.001mm



REFERENCIA	CAMPO	PRECISIÓN
222-001-01	0-1mm	+/-0.005mm
226-010-12	0-10mm	+/-0.02mm
222-010-12	0-10mm	+/-0.02mm

Palpador universal con punta de sonda
Universal test indicator with lever

- * Lectura 0.01 mm
- * Escala 0 - 40 - 0
- * Cuadrante horizontal



REFERENCIA	CAMPO	CUADRANTE	PRECISIÓN
261-008-11	0-0.8mm	30mm	+/-0.013mm
261-008-12	0-0.8mm	37.5mm	+/-0.013mm

Micrómetro digital para exteriores IP65
External micrometers IP65

- * Embrague en el tambor
- * Resolución 0.001mm
- * Nivel de protección IP65
- * Superficie de metal duro
- * Medida absoluta o incremental



5

REFERENCIA	CAMPO	PRECISIÓN
313-001-02	0-25mm	+/-0.002mm
313-002-02	25-50mm	+/-0.002mm
313-003-02	50-75mm	+/-0.003mm
313-004-02	75-100mm	+/-0.003mm

Micrómetro para exteriores
Outside micrometer

- * Superficie de metal duro
- * Fricción en el vastago
- * Graduación 0.01mm



REFERENCIA	CAMPO	PRECISIÓN
321-001-01	0-25mm	+/-0.004mm
321-002-01	25-50mm	+/-0.004mm
321-003-01	50-75mm	+/-0.005mm
321-004-01	75-100mm	+/-0.005mm

Micrómetro digital para exteriores IP65 con palanca rápida
External micrometers with a quick lever

- * Salida de datos
- * Resolución 0.001mm
- * Palanca de medición rápida
- * Nivel de protección IP65
- * Superficie de metal duro



REFERENCIA	CAMPO	PRECISIÓN
314-001-02	0-25mm	+/-0.003mm
314-002-02	25-50mm	+/-0.003mm

Micrómetro para exteriores
Outside micrometer



- * Superficie de metal duro
- * Fricción en el tambor
- * Resolución 0.001mm

5

REFERENCIA	CAMPO	PRECISIÓN
312-001-02	0-25mm	+/-0.003mm
312-002-02	25-50mm	+/-0.003mm
312-003-02	50-75mm	+/-0.004mm
312-004-02	75-100mm	+/-0.004mm

Soporte para micrómetro
Micrometer supports



REFERENCIA

381-000-00

Base magnética con brazo articulado
Magnetic base with articulated arm



REFERENCIA

283-080-01

Calibre de rosca pasa y no pasa
Threaded pads passes / does not pass

- * Precisión 6H
- * ISO 1502
- * Dureza 60-62 HRC
- * Cuerpo de Aluminio
- * Otras dimensiones o precisiones sobre pedido



REF	PASO	REF	PASO	REF	PASO	REF	PASO
542-002-01	M2x0.4	542-007-01	M7x1	542-018-01	M18x2.5	542-039-01	M39x4
542-002-21	M2.2x0.45	542-008-01	M8x1.25	542-020-01	M20x2.5	542-042-01	M42x4.5
542-002-51	M2.5x0.45	542-009-01	M9x1.25	542-022-01	M22x2.5	542-045-01	M45x4.5
542-003-01	M3x0.5	542-010-01	M10x1.5	542-024-01	M24x3	542-048-01	M48x5
542-003-02	M3.5x0.6	542-011-01	M11x1.5	542-027-01	M27x3	542-052-01	M52x5
542-004-01	M4x0.7	542-012-01	M12x1.75	542-030-01	M30x3.5	542-056-01	M56x5.5
542-005-01	M5x0.8	542-014-01	M14x2	542-033-01	M33x3.5	542-060-01	M60x5.5
542-006-01	M6x1	542-016-01	M16x2	542-036-01	M36x4		

Calibre de rosca paso fino pasa y no pasa
Fine Thread plug gauge passes / does not pass

- * Precisión 6H
- * ISO 1502
- * Dureza 60-62 HRC
- * Cuerpo de Aluminio
- * Otras dimensiones o precisiones sobre pedido



PASO FINO

REF	PASO	REF	PASO	REF	PASO	REF	PASO	REF	PASO
543-002-01	M2x0.25	543-011-02	M11x0.75	543-020-02	M20x0.75	543-033-01	M33x0.75	543-045-05	M45x4
543-002-21	M2.2x0.25	543-011-03	M11x1	543-020-03	M20x1	543-033-02	M33x1	543-048-01	M48x1
543-002-31	M2.5x0.35	543-012-01	M12x0.5	543-020-04	M20x1.5	543-033-03	M33x1.5	543-048-02	M48x1.5
543-003-01	M3x0.35	543-012-02	M12x0.75	543-020-05	M20x2	543-033-04	M33x2	543-048-03	M48x2
543-003-02	M3.5x0.35	543-012-03	M12x1	543-022-01	M22x0.5	543-033-05	M33x3	543-048-04	M48x3
543-004-01	M4x0.5	543-012-04	M12x1.25	543-022-02	M22x0.75	543-036-01	M36x1	543-048-05	M48x4
543-005-01	M5x0.5	543-012-05	M12x1.5	543-022-03	M22x1	543-036-02	M36x1.5	543-052-01	M52x1
543-006-01	M6x0.5	543-014-01	M14x0.5	543-022-04	M22x1.5	543-036-03	M36x2	543-052-02	M52x1.5
543-006-02	M6x0.75	543-014-02	M14x0.75	543-022-05	M22x2	543-036-04	M36x3	543-052-03	M52x2
543-007-01	M7x0.5	543-014-03	M14x1	543-024-01	M24x0.75	543-039-01	M39x1	543-052-04	M52x3
543-007-02	M7x0.75	543-014-04	M14x1.25	543-024-02	M24x1	543-039-02	M39x1.5	543-052-05	M52x4
543-008-01	M8x0.5	543-014-05	M14x1.5	543-024-03	M24x1.5	543-039-03	M39x2	543-056-01	M56x1
543-008-02	M8x0.75	543-016-01	M16x0.5	543-024-04	M24x2	543-039-04	M39x3	543-056-02	M56x1.5
543-008-03	M8x1	543-016-02	M16x0.75	543-027-01	M27x0.75	543-042-01	M42x1	543-056-03	M56x2
543-009-01	M9x0.5	543-016-03	M16x1	543-027-02	M27x1	543-042-02	M42x1.5	543-056-04	M56x3
543-009-02	M9x0.75	543-016-04	M16x1.5	543-027-03	M27x1.5	543-042-03	M42x2	543-056-05	M56x4
543-009-03	M9x1	543-018-01	M18x0.5	543-027-04	M27x2	543-042-04	M42x3	543-060-01	M60x1
543-010-01	M10x0.5	543-018-02	M18x0.75	543-030-01	M30x0.75	543-042-05	M42x4	543-060-02	M60x1.5
543-010-02	M10x0.75	543-018-03	M18x1	543-030-02	M30x1	543-045-01	M45x1	543-060-03	M60x2
543-010-03	M10x1	543-018-04	M18x1.5	543-030-03	M30x1.5	543-045-02	M45x1.5	543-060-04	M60x3
543-010-04	M10x1.25	543-018-05	M18x2	543-030-04	M30x2	543-045-03	M45x2	543-060-05	M60x4
543-011-01	M11x0.5	543-020-01	M20x0.5	543-030-05	M30x3	543-045-04	M45x3		

Calibre de rosca pasa y no pasa
Threaded pads passes / does not pass

- * Precisión 6H
- * ISO 1502
- * Dureza 60-62 HRC
- * Cuerpo de Aluminio
- * Otras dimensiones o precisiones sobre pedido



532-020-01
534-020-01

533-020-01
535-039-01

PASO STANDARD

REFERENCIA		M	REFERENCIA		PASO	REFERENCIA		M
Go	No Go		Go	No Go		Go	No Go	
532-002-01	533-002-01	M2x0.4	532-010-01	533-010-01	M10x1.5	532-030-01	533-030-01	M30x3.5
532-002-21	533-002-21	M2.2x0.45	532-012-01	533-012-01	M12x1.75	532-033-01	533-033-01	M33x3.5
532-002-51	533-002-51	M2.5x0.45	532-014-01	533-014-01	M14x2	532-036-01	533-036-01	M36x4
532-003-01	533-003-01	M3x0.5	532-016-01	533-016-01	M16x2	532-042-01	533-042-01	M42x4.5
532-003-51	533-003-51	M3.5x0.6	532-018-01	533-018-01	M18x2.5	532-048-01	533-048-01	M48x5
532-004-01	533-004-01	M4x0.7	532-020-01	533-020-01	M20x2.5	532-052-01	533-052-01	M52x5
532-005-01	533-005-01	M5x0.8	532-022-01	533-022-01	M22x2.5	532-060-01	533-060-01	M60x5.5
532-006-01	533-006-01	M6x1	532-024-01	533-024-01	M24x3			
532-008-01	533-008-01	M8x1.25	532-027-01	533-027-01	M27x3			

PASO FINO

534-002-01	535-002-01	M2x0.25	534-018-01	535-018-01	M18x0.5	534-039-01	535-039-01	M39x1
534-002-21	535-002-21	M2.2x0.25	534-018-02	535-018-02	M18x0.75	534-039-02	535-039-02	M39x1.5
534-002-51	535-002-51	M2.5x0.35	534-018-03	535-018-03	M18x1	534-039-03	535-039-03	M39x2
534-003-01	535-003-01	M3x0.35	534-018-04	535-018-04	M18x1.5	534-039-04	535-039-04	M39x3
534-003-51	535-003-51	M3.5x0.35	534-018-05	535-018-05	M18x2	534-042-01	535-042-01	M42x1
534-004-01	535-004-01	M4x0.5	534-020-01	535-020-01	M20x0.5	534-042-02	535-042-02	M42x1.5
534-005-01	535-005-01	M5x0.5	534-020-02	535-020-02	M20x0.75	534-042-03	535-042-03	M42x2
534-006-01	535-006-01	M6x0.5	534-020-03	535-020-03	M20x1	534-042-04	535-042-04	M42x3
534-006-02	535-006-02	M6x0.75	534-020-04	535-020-04	M20x1.5	534-042-05	535-042-05	M42x4
534-007-01	535-007-01	M7x0.5	534-020-05	535-020-05	M20x2	534-045-01	535-045-01	M45x1
534-007-02	535-007-02	M7x0.75	534-022-01	535-022-01	M22x0.5	534-045-02	535-045-02	M45x1.5
534-008-01	535-008-01	M8x0.5	534-022-02	535-022-02	M22x0.75	534-045-03	535-045-03	M45x2
534-008-02	535-008-02	M8x0.75	534-022-03	535-022-03	M22x1	534-045-04	535-045-04	M45x3
534-008-03	535-008-03	M8x1	534-022-04	535-022-04	M22x1.5	534-045-05	535-045-05	M45x4
534-009-01	535-009-01	M9x0.5	534-022-05	535-022-05	M22x2	534-048-01	535-048-01	M48x1
534-009-02	535-009-02	M9x0.75	534-024-01	535-024-01	M24x0.75	534-048-02	535-048-02	M48x1.5
534-009-03	535-009-03	M9x1	534-024-02	535-024-02	M24x1	534-048-03	535-048-03	M48x2
534-010-01	535-010-01	M10x0.5	534-024-03	535-024-03	M24x1.5	534-048-04	535-048-04	M48x3
534-010-02	535-010-02	M10x0.75	534-024-04	535-024-04	M24x2	534-048-05	535-048-05	M48x4
534-010-03	535-010-03	M10x1	534-027-01	535-027-01	M27x0.75	534-052-01	535-052-01	M52x1
534-010-04	535-010-04	M10x1.25	534-027-02	535-027-02	M27x1	534-052-02	535-052-02	M52x1.5
534-011-02	535-011-02	M11x0.75	534-027-03	535-027-03	M27x1.5	534-052-03	535-052-03	M52x2
534-011-03	535-011-03	M11x1	534-027-04	535-027-04	M27x2	534-052-04	535-052-04	M52x3
534-012-01	535-012-01	M12x0.5	534-030-01	535-030-01	M30x0.75	534-052-05	535-052-05	M52x4
534-012-02	535-012-02	M12x0.75	534-030-02	535-030-02	M30x1	534-056-01	535-056-01	M56x1
534-012-03	535-012-03	M12x1	534-030-03	535-030-03	M30x1.5	534-056-02	535-056-02	M56x1.5
534-012-04	535-012-04	M12x1.25	534-030-04	535-030-04	M30x2	534-056-03	535-056-03	M56x2
534-012-05	535-012-05	M12x1.5	534-030-05	535-030-05	M30x3	534-056-04	535-056-04	M56x3
534-014-01	535-014-01	M14x0.5	534-033-01	535-033-01	M33x0.75	534-056-05	535-056-05	M56x4
534-014-02	535-014-02	M14x0.75	534-033-02	535-033-02	M33x1	534-060-01	535-060-01	M60x1
534-014-03	535-014-03	M14x1	534-033-03	535-033-03	M33x1.5	534-060-02	535-060-02	M60x1.5
534-014-04	535-014-04	M14x1.25	534-033-04	535-033-04	M33x2	534-060-03	535-060-03	M60x2
534-014-05	535-014-05	M14x1.5	534-033-05	535-033-05	M33x3	534-060-04	535-060-04	M60x3
534-016-01	535-016-01	M16x0.5	534-036-01	535-036-01	M36x1	534-060-05	535-060-05	M60x4
534-016-02	535-016-02	M16x0.75	534-036-02	535-036-02	M36x1.5			
534-016-03	535-016-03	M16x1	534-036-03	535-036-03	M36x2			
534-016-04	535-016-04	M16x1.5	534-036-04	535-036-04	M36x3			

Calibre liso pasa y no pasa
Smooth pads passes / does not pass

- * Tolerancia H7
- * Cuerpo de aluminio
- * Dureza 60 +/-2 HRC
- * Fabricación de alta calidad
- * Anilla rojo integrado para NP



5

REFERENCIA	DIMENSIÓN	REFERENCIA	DIMENSIÓN
541-002-17	2mm	541-017-17	17mm
541-003-17	3mm	541-018-17	18mm
541-004-17	4mm	541-019-17	19mm
541-005-17	5mm	541-020-17	20mm
541-006-17	6mm	541-021-17	21mm
541-007-17	7mm	541-022-17	22mm
541-008-17	8mm	541-023-17	23mm
541-009-17	9mm	541-024-17	24mm
541-010-17	10mm	541-025-17	25mm
541-011-17	11mm	541-026-17	26mm
541-012-17	12mm	541-027-17	27mm
541-013-17	13mm	541-028-17	28mm
541-014-17	14mm	541-029-17	29mm
541-015-17	15mm	541-030-17	30mm
541-016-17	16mm		

Calibres certificados según normas internacionales
Gauges with certificate according to international standards

Fabricaciones especiales bajo pedido
Special production of non standards under order

Según norma

according to norm

- CALIBRES DE ROSCA
- CALIBRES LISOS
- ANILLO COMPROBADOR
- TAMPON P/NP
- ANILLO P/NP
- M ISO-DIN13
- MJ DIN ISO 5855
- EG-M Din8140-2
- MF-DIN13
- BSW BS84
- G DIN ENB ISO228
- R,RC, RP
- UNC ASME B1.1
- UNJC ASME B1.15 - ISO 31
- EG-UNC ASME B1.1
- UNEF
- NPT
- NPTF
- UNF
- UNJF
- EG-UNF
- PG
- TR

Micrómetro para interiores con tres puntos
Internal micrometers with three points

- * Graduación 0.001mm hasta 12mm
- * Graduación 0.005mm a partir 12mm
- * Fricción en el vástago
- * Punta de metal duro intercambiable
- * Incluye anilla de retención a 100mm
- * Especial para medir diámetros internos



5

REFERENCIA	DIMENSIÓN	PRECISIÓN
TRC3PMIC6-8	2mm	+/-0.004mm
TRC3PMIC8-10	3mm	+/-0.004mm
TRC3PMIC10-12	4mm	+/-0.004mm
TRC3PMIC12-16	5mm	+/-0.004mm
TRC3PMIC16-20	6mm	+/-0.004mm
TRC3PMIC20-25	7mm	+/-0.004mm
TRC3PMIC25-30	8mm	+/-0.004mm
TRC3PMIC30-40	9mm	+/-0.004mm
TRC3PMIC40-50	10mm	+/-0.005mm
TRC3PMIC50-63	11mm	+/-0.005mm
TRC3PMIC62-75	12mm	+/-0.005mm
TRC3PMIC75-88	13mm	+/-0.005mm
TRC3PMIC87-100	14mm	+/-0.005mm
TRC3PMIC100-125	15mm	+/-0.005mm
TRC3PMIC125-150	16mm	+/-0.005mm
TRC3PMIC150-175	17mm	+/-0.005mm
TRC3PMIC175-200	18mm	+/-0.005mm

Micrómetro para interiores
Internal micrometers

- * Graduación 0.01mm
- * Fricción en el vástago
- * Superficie de metal duro



REFERENCIA	DIMENSIÓN	PRECISIÓN
351-001-01	5-30mm	+/-0.005mm
351-002-01	25-50mm	+/-0.006mm

Medidor de altura digital
Digital height gauges

- * Columna simple o doble
- * Medida absoluta o incremental
- * Función ABS
- * Resolución 0.01mm
- * Punta para trazar de metal duro
- * Estructura de acero inoxidable (sin base)
- * Modelo doble columna con maneta



SIMPLE

TRCHSC



DOBLE

TRCHDC

REFERENCIA	DIMENSION	PRECISION	COLUMNA
TRCHSC300	0-300mm	+/-0.04mm	SIMPLE
TRCHSC600	0-600mm	+/-0.05mm	SIMPLE
TRCHDC300	0-300mm	+/-0.04mm	DOBLE
TRCHDC600	0-600mm	+/-0.05mm	DOBLE

Calas paralelas para fresado
Set of precision parallels



REFERENCIA	A	L	B	UNID
PRL150-8/28	8	150	14-16-18-20-22-24-26-28-30-32-35-40-45-50	28
PRL150-10/28	10	150	14-16-18-20-22-24-26-28-30-32-35-40-45-50	28
PRL160-8/16	8	160	12-17-22-25-28-32-36-38	16
PRL200-8/16	8	200	17-22-26-28-32-36-38-42	16
PRL200-10/28	10	200	14-16-18-20-22-24-26-28-30-32-35-40-45-50	28

Juegos de bloques patrón paralelos acero
Steel gauge block set

- * Fabricación de alta calidad
- * Acabado espejo
- * Trazabilidad único de cada bloque
- * Certificado de inspección
- * Certificado de calibración acreditado (bajo pedido)



ACERO



CERÁMICO

REFERENCIA	MATERIAL	GRADO	DIMENSION
TRC321	ACERO	1	32 piezas - Compuesto de: 1pz(1.005) / 9pz(1.01-1.09) / 9pz(1.1-1.9) 9pz(1-9) / 3pz(10-30) 1pz(50)
TRC471		1	47 piezas - Compuesto de: 1pz(1.005) / 20pz(1.01-1.2) / 7pz(1.3-1.9) 9pz(1-9) / 10pz(10-100)
TRC871		1	87 piezas - Compuesto de: 9pz(1.001-1.009) / 49pz(1.01-1.49) 19pz(0.5-9.5) / 10pz(10-100)
TRC1031		1	103 piezas - Compuesto de: 1pz(1.005) / 49pz(1.01-1.49) 49pz(0.5-24.5) / 4pz(25-100)
TRC320		0	32 piezas - Compuesto de: 1pz(1.005) / 9pz (1.01-1.09) / 9pz (1.1-1.9) 9pz(1-9) / 3pz(10-30) 1pz(50)
TRC470		0	47 piezas - Compuesto de: 1pz(1.005) / 20pz (1.01-1.2) / 7pz (1.3-1.9) 9pz(1-9) / 10pz(10-100)
TRC870		0	87 piezas - Compuesto de: 9pz(1.001-1.009) / 49pz(1.01-1.49) 19pz(0.5-9.5) / 10pz(10-100)
TRC1030		0	103 piezas - Compuesto de: 1pz(1.005) / 49pz(1.01-1.49) 49pz(0.5-24.5) / 4pz(25-100)

Juegos de bloques patrón paralelos cerámica
Ceramic gauge block set

REFERENCIA	MATERIAL	GRADO	DIMENSION
TRC470C	CERÁMICA	0	47 piezas - Compuesto de: 1pz(1.005) / 20pz(1.01-1.2) / 7pz(1.3-1.9) 9pz(1-9) / 10pz(10-100)
TRC870C		0	87 piezas - Compuesto de: 9pz(1.001-1.009) / 49pz(1.01-1.49) 19pz(0.5-9.5) / 10pz(10-100)

Soporte de montaje con rodillos 90°
Tool assembly device with rollers 90°



REFERENCIA	D	B	L	MODELO
TBRL25	25	100	130	HSK25
TBRL32	32	100	130	HSK32-CAPTO C3
TBRL40	40	100	160	HSK40-CAPTO C4
TBRL46	46	100	160	BT30 -TCL30 FL46
TBRL49	49	100	160	TCL30 FL49
TBRL50	50	100	160	HSK50-TC30 ISO30-CAPTO C5
TBRL53	53	100	160	FL53
TBRL58	58	100	160	TCL30 FL58
TBRL63	63	100	160	HSK63-TC40 BT40-ISO40 CAPTO C6
TBRL80	80	150	240	HSK-80 CAPTO C8
TBRL85	85	150	230	HSK85
TBRL100	100	150	220	HSK100-BT50

Soporte de montaje orientable en vertical y horizontal
Indexable type the tool-head can be set in vertical and horizontal position



REFERENCIA	D	B	L	MODELO
TBK30	50	150	160	TC30- ISO30 BT30-CAT30 HSK50A CAPT C5
TBK40	63	150	160	TC40-ISO40 BT40-CAT40 HSK63A CAPTO C6
TBK50	100	200	210	TC50-ISO50 BT50-CAT50 HSK100A CAPTO C100

El rodamiento bloquea la flangia del porta herramientas sin ningun contacto con el cono
The toolholder's flange is clamped by the sliding-bearing. No contact with the taper.

Todo soporte de montaje debe estar fijado al banco de trabajo o al carro portamandrinos.
The tool assembly device must be fixed to a bench or to a tool cart

Soporte de montaje fijo para mango cilíndrico
Tool assembly device for cylindrical tooling



5

REFERENCIA	DESCRIPCION
TBRL1CIL	P.PINZAS CILICRICO Ø12 Ø16 Ø20
TBRL2CIL	PARA P.PINZAS CILICRICO Ø20 Ø25 Ø32
TBRL3CIL	PARA P.PINZAS CILICRICO Ø12 Ø16 Ø20 Ø25 Ø32

Soporte de montaje fijo ACERO
Steel tool assembly device



REFERENCIA	MODELO
THF30	TC30-BT30-CAT30-ISO30
THF40	TC40-BT40-CAT40-ISO40
THF50	TC50-BT50-CAT50-ISO50

Doble soporte de montaje fijo
Tool assembly device



REFERENCIA	MODELO
TB3SK30	SK30-DIN/69871
TB3SK40	SK40-DIN/69871
TB3SK50	SK50-DIN/69871
TB3BT30	BT30
TB3BT40	BT40
TB3BT50	BT50

Doble soporte de montaje fijo
Tool assembly device



REFERENCIA	MODELO
SMD-ISO30/DIN2080	ISO30
SMD-ISO40/DIN2080	ISO40
SMD-ISO50/DIN2080	ISO50
SMD-TC30/DIN/69871	TC30
SMD-TC40/DIN/69871	TC40
SMD-TC50/DIN/69871	TC50
SMD-BT30/MAS403	BT30
SMD-BT40/MAS403	BT40
SMD-BT50/MAS403	BT50


REFERENCIA	MODELO
SMD-HSK32A+C	HSK32A+C
SMD-HSK40A+C	HSK40A+C
SMD-HSK50A+C	HSK50A+C
SMD-HSK63A+C	HSK63A+C
SMD-HSK100A+C	HSK100A+C
SMD-HSK40E+F	HSK40E
SMD-HSK50E+F	HSK50E+F
SMD-HSK63E+F	HSK63E+F

REFERENCIA	MODELO
SMD-CAPTO C32-PSC32	C32-PSC32
SMD-CAPTO C40-PSC40	C40-PSC40
SMD-CAPTO C50-PSC50	C50-PSC50
SMD-CAPTO C63-PSC63	C63-PSC63
SMD-CAPTO C80-PSC80	C80-PSC80
SMD-CAPTO C100-PSC100	C100-PSC100

REFERENCIA	MODELO
SMD-VDI16/DIN/69880	VDI16
SMD-VDI20/DIN/69880	VDI20
SMD-VDI30/DIN/69880	VDI30
SMD-VDI40/DIN/69880	VDI40
SMD-VDI50/DIN/69880	VDI50
SMD-VDI60/DIN/69880	VDI60




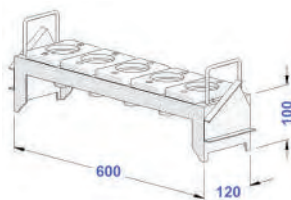
Porta conos
Plastic bushes

REFERENCIA	COD	
SOPORTE.ISO30	4416	0033
SOPORTE.ISO40	4417	
SOPORTE.ISO45	4418	
SOPORTE.ISO50	4419	
SOPORTE.HSK50-KM50-PSC50	4430	0033
SOPORTE.HSK63-KM63-PSC63	4431	
SOPORTE.HSK100-KM100-PSC100	5543	
SOPORTE.CM4	4400	0033
SOPORTE.CM5	4418	
SOPORTE.Ø32-VDI30	5531	0033
SOPORTE.Ø40-VDI40	5532	
SOPORTE.Ø50-VDI50	5533	




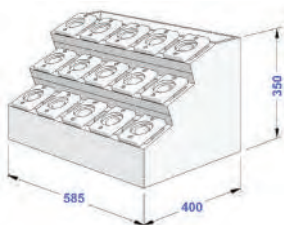
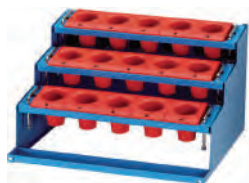
Unidad porta conos
Bench unities

REFERENCIA	COD		← N°
UNIDAD.ISO30	4404	4416	6
UNIDAD.ISO40	4405	4417	6
UNIDAD.ISO45	4330	4418	6
UNIDAD.ISO50	4406	4419	5
UNIDAD.HSK50-KM50-PSC50	4428	4430	6
UNIDAD.HSK63-KM63-PSC63	4429	4431	6
UNIDAD.HSK100-KM100-PSC100	4794	5543	5
UNIDAD.CM4	4329	4400	6
UNIDAD.CM5	4330	4418	6
UNIDAD.Ø32-VDI30	5369	5531	6
UNIDAD.Ø40-VDI40	5370	5532	6
UNIDAD.Ø50-VDI50	5371	5533	5



Expositor porta conos
Tools stores

REFERENCIA	COD		← N°
MAG.ISO30	3700	4416	15
MAG.ISO40	3701	4417	15
MAG.ISO45	3702	4418	15
MAG.ISO50	3703	4419	12
MAG.HSK50-KM50-PSC50	3750	4430	15
MAG.HSK63-KM63-PSC63	3751	4431	15
MAG.HSK100-KM100-PSC100	3875	5543	12
MAG.CM4	3696	4400	15
MAG.CM5	3702	4418	15
MAG.Ø32-VDI30	3705	5531	15
MAG.Ø40-VDI40	3706	5532	15
MAG.Ø50-VDI50	5557	5533	12





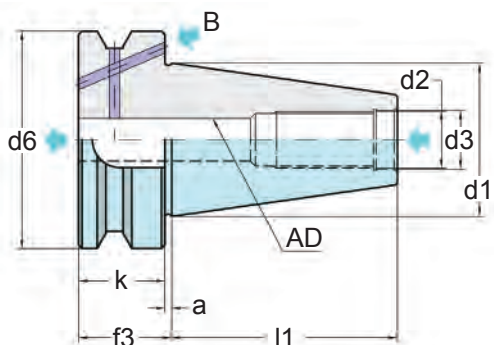
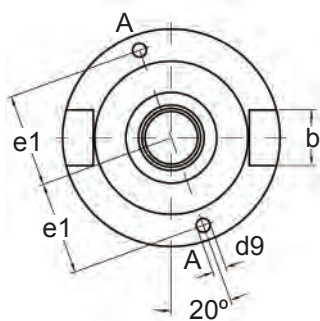
**CONO ISO
MAS403/BT**

PROGRAMA

6

						
PAG. 4-5	PAG. 6	PAG. 7	PAG. 7	PAG. 8	PAG. 8	PAG. 9
						
PAG. 10-11	PAG. 12	PAG. 12	PAG. 12	PAG. 13	PAG. 14-17	PAG. 18
						
PAG. 19	PAG. 19	PAG. 20-21	PAG. 22-24	PAG. 25	PAG. 26-27	PAG. 27
						
PAG. 28	PAG. 29	PAG. 30	PAG. 30	PAG. 31	PAG. 31	PAG. 32
	SYNCHRO 		SYNCHRO 			
PAG. 33	PAG. 34	PAG. 34	PAG. 35	PAG. 36	PAG. 37-39	PAG. 40
						
PAG. 41	PAG. 41	PAG. 42				

● Opcional **DOBLE CONTACTO**

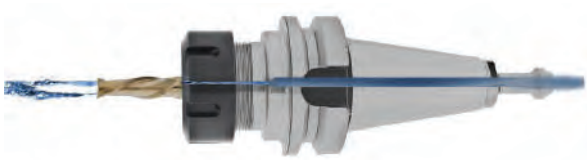


CONO TAPER	FORMA FORM	d1	d2	d3	d6	l1	a	k	f3	b	d9	e1
BT30	AD	31.75	M12	12.5	46	48.4	2	20	22	16.1	-	-
BT40	AD+B	44.45	M16	17	63	65.4	2	25	27	16.1	4	27
BT50	AD+B	69.85	M24	25	100	101.8	3	35	38	25.7	6	42

Forma AD+B = BTB



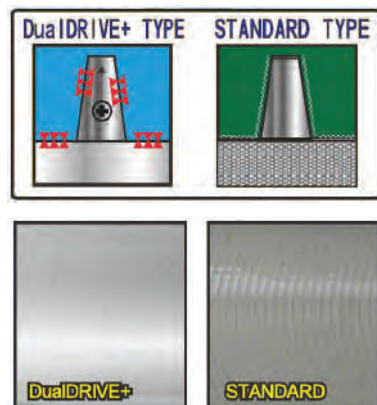
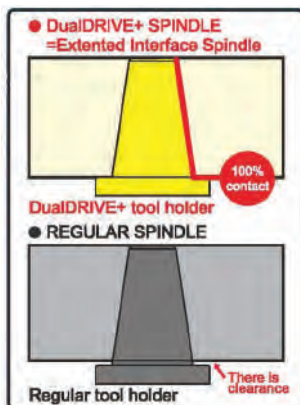
Forma AD = BT



DOBLE CONTACTO

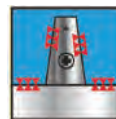
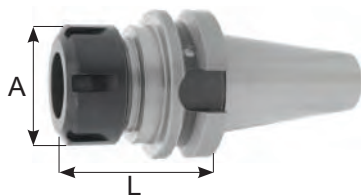


CONO TAPER	FORMA FORM
DBT30	AD
DBTB40	AD+B
DBTB50	AD+B



MAS/403BT

Porta pinzas ER tuerca STANDARD
Collet chucks ER STANDARD nut



100% contact

* G2.5 / 25.000rpm
G6.3 / 15.000rpm
Face contact

BT30

REFERENCIA	CAP	RPM	FORMA	L	A
BT30L55ER16 *	1 ÷ 10	15.000	AD	55	32
BT30L70ER16				70	
BT30L100ER16				100	
BT30L70ER20 *	1 ÷ 14			70	35
BT30L60ER25 *	1 ÷ 20			60	42
BT30L90ER25				90	
BT30L60ER32				60	
BT30L70ER32 *	2 ÷ 22			70	50
BT30L100ER32				100	
BT30L60ER40 *				3 ÷ 30	

* "Face contact" + "D" (DBT30L55ER16)

BT40

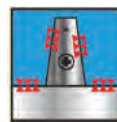
REFERENCIA	CAP	RPM	FORMA	L	A
BTB40L70ER16 *	1 ÷ 10	15.000	AD+B	70	32
BTB40L100ER16 *				100	
BTB40L120ER16				120	
BTB40L150ER16				150	
BTB40L200ER16				200	
BTB40L70ER20 *	1 ÷ 14	15.000	AD+B	70	35
BTB40L100ER20 *				100	
BTB40L160ER20				160	
BTB40L70ER25 *	1 ÷ 20	15.000	AD+B	70	42
BTB40L100ER25 *				100	
BTB40L130ER25				130	
BTB40L160ER25				160	
BTB40L200ER25				200	
BTB40L70ER32 *	2 ÷ 22	15.000	AD+B	70	50
BTB40L100ER32 *				100	
BTB40L130ER32				130	
BTB40L150ER32				150	
BTB40L200ER32				200	
BTB40L70ER40 *	3 ÷ 30	15.000	AD+B	70	63
BTB40L100ER40 *				100	
BTB40L130ER40				130	
BTB40L150ER40				150	
BTB40L200ER40				200	
BTB40L85ER50	6 ÷ 34	15.000	AD+B	85	78

* "Face contact" + "D" (DBTB40L70ER16)

BT50 →

MAS/403BT

Porta pinzas ER tuerca STANDARD
Collet chucks ER STANDARD nut



100% contact

* G2.5 / 25.000rpm
G6.3 / 15.000rpm
Face contact

BT50

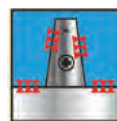
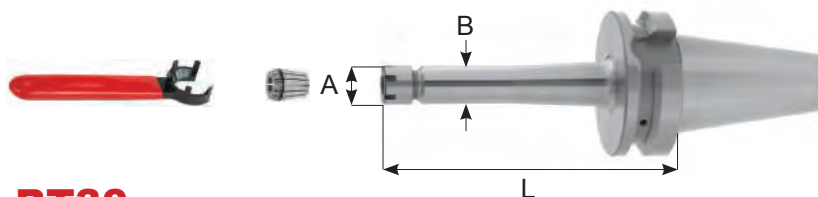
REFERENCIA	CAP	RPM	FORMA	L	A
BTB50L100ER16 *	1 ÷ 10	15.000	AD+B	100	32
BTB50L160ER16				160	
BTB50L200ER16				200	
BTB50L100ER20 *	1 ÷ 14	15.000	AD+B	100	35
BTB50L160ER20				160	
BTB50L80ER25 *	1 ÷ 20	15.000	AD+B	80	42
BTB50L100E25 *				100	
BTB50L130ER25				130	
BTB50L160ER25				160	
BTB50L200ER25				200	
BTB50L80ER32 *				2 ÷ 22	
BTB50L100ER32 *	100				
BTB50L120ER32 *	120				
BTB50L160ER32 *	160				
BTB50L200ER32 *	200				
BTB50L250ER32	250				
BTB50L80ER40 *	3 ÷ 30	15.000	AD+B	80	63
BTB50L100ER40 *				100	
BTB50L130ER40				130	
BTB50L160ER40				160	
BTB50L200ER40				200	
BTB50L300ER40				300	
BTB50L100ER50	6 ÷ 34	15.000	AD+B	100	78
BTB50L120ER50				120	
BTB50L160ER50				160	

* "Face contact" + "D" (DBTB50L100ER16)



MAS/403BT

Porta pinzas ER tuerca MINI
Collet chucks ER MINI nut



100% contact

* G2.5 / 25.000rpm
G6.3 / 15.000rpm
Face contact

BT30

REFERENCIA	CAP	RPM	FORMA	L	B	A
BT30L55ER11M	1 ÷ 7	15.000	AD	55	16	16
BT30L60ER11M *				60		
BT30L80ER11M *				80		
BT30L100ER11M *				100		
BT30L130ER11M				130		
BT30L60ER16M *	1 ÷ 10	15.000	AD	60	22	22
BT30L120ER16M *				120		

* "Face contact" + "D" (DBT30L60ER11M)

BT40

REFERENCIA	CAP	RPM	FORMA	L	B	A
BTB40L100ER11M *	1 ÷ 7	15.000	AD+B	100	16	16
BTB40L125ER11M				125		
BTB40L150ER11M				150		
BTB40L100ER16M *	1 ÷ 10	15.000	AD+B	100	22	22
BTB40L125ER16M				125		
BTB40L150ER16M				150		
BTB40L100ER20M *	1 ÷ 14	15.000	AD+B	100	28	28
BTB40L135ER20M				135		
BTB40L150ER20M				150		
BTB40L100ER25M	1 ÷ 20	15.000	AD+B	100	35	35
BTB40L150ER25M				150		
BTB40L200ER25M				200		

* "Face contact" + "D" (DBTB40L100ER11M)

BT50

REFERENCIA	CAP	RPM	FORMA	L	B	A
BTB50L135ER16M *	1 ÷ 10	15.000	AD+B	135	22	22
BTB50L160ER16M				160		
BTB50L200ER16M				200		
BTB50L135ER20M *	1 ÷ 14	15.000	AD+B	135	28	28

* "Face contact" + "D" (DBTB50L135ER16M)

MAS/403BT

Porta pinzas extra corto
Short Collet chucks



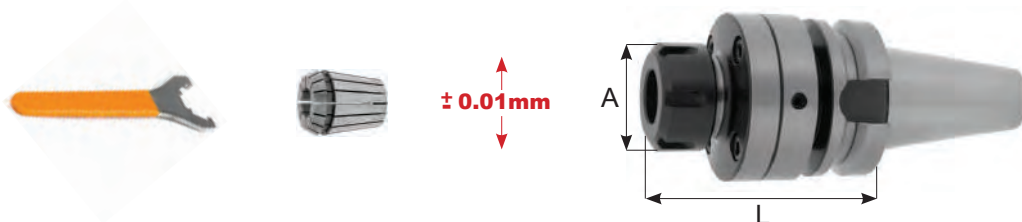
BT40 / BT50

REFERENCIA	CAP	RPM	FORMA	L	FIG
BT40L29ER32A	2 ÷ 22	15.000	AD	29	1
BTB40L50ER32A	2 ÷ 22	15.000	AD+B	50	2
BTB50L40ER32A	2 ÷ 22	15.000	AD+B	40	2

6

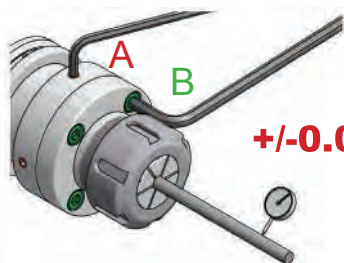
MAS/403BT

Porta pinzas ER regulación radial
Radial adjustable collet chucks



BT40 / BT50

REFERENCIA	CAP	FORMA	A	L
BTB40L93ER16RG	1 ÷ 10	AD+B	28	93
BTB40L95ER20RG	1 ÷ 14		34	95
BTB40L96ER25RG	1 ÷ 20		42	96
BTB40L97ER32RG	2 ÷ 22		50	97
BTB40L131ER40RG	3 ÷ 30		63	131
BTB50L103ER16RG	1 ÷ 10	AD+B	28	103
BTB50L105ER20RG	1 ÷ 14		34	105
BTB50L106ER25RG	1 ÷ 20		42	106
BTB50L107ER32RG	2 ÷ 22		50	107
BTB50L141ER40RG	3 ÷ 30		63	141



+/-0.01mm

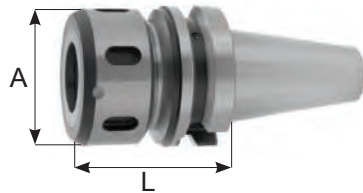
"Afloje los tornillos B y ajuste el centrado con los tornillos A"
"Loosen screws B and use screws A for radial adjustment"

MAS/403BT

Porta pinzas EOC DIN/6388 B
Collet chucks EOC DIN/6388 B



Coolant



BT30 / BT40 / BT50

REFERENCIA	CAP	RPM	FORMA	L	A
BT30L60EOC16	2 ÷ 16	12.000	AD	60	43
BT30L80EOC25	2 ÷ 25			80	60
BTB40L70EOC16	2 ÷ 16	12.000	AD+B	70	43
BTB40L70EOC25	2 ÷ 25			70	60
BTB40L90EOC32	3 ÷ 32			90	72
BTB50L85EOC25	2 ÷ 25	12.000	AD+B	85	60
BT50L90EOC32	3 ÷ 32		AD	90	72

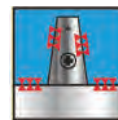
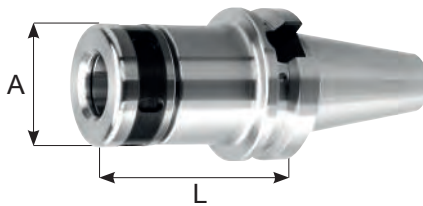
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MAS/403BT

Porta pinzas SKS
SKS - Collet chucks



Coolant



100% contact

* G2.5 / 25.000rpm
G6.3 / 15.000rpm
Face contact

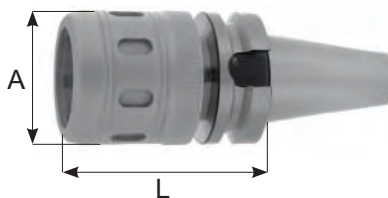
BT40 / BT50

REFERENCIA	CAP	RPM	FORMA	L	A
BT40L90SKS10 *	2 ÷ 10	25.000	AD+B	90	30
BT40L120SKS10	2 ÷ 10			120	30
BT40L90SKS16 *	3 ÷ 16			90	40
BT40L90SKS20 *	3 ÷ 20			90	48.5
BT40L120SKS20	3 ÷ 20			120	48.5
BT40L90SKS25 *	3 ÷ 25			90	55.1
BT50L105SKS10	2 ÷ 10	15.000	AD+B	105	30
BT50L165SKS10	2 ÷ 10			165	30
BT50L105SKS20	3 ÷ 20			105	48.5
BT50L165SKS20	3 ÷ 20			165	48.5

* "Face contact" + "D" (DBT40L90SKS10)

MAS/403BT

Porta pinzas gran apriete
Power milling chucks



Refrigeración
Interna
Coolant flow

BT30 / BT40 / BT50

REFERENCIA	CAP	RPM	FORMA	L	A
BT30L90FP20	3 ÷ 16	15.000	AD	90	46
BTB40L80FP20	3 ÷ 16	15.000	AD+B	80	46
BTB40L85FP32	3 ÷ 25			85	
BTB50L100FP20	3 ÷ 16	15.000	AD+B	100	46
BTB50L100FP32	3 ÷ 25			100	

6

Estuche porta pinzas Gran Apriete
Straight shank collet chuck kit



REFERENCIA	Capacidad
BBT30FP20	Pinza 4SR20 6 . 8 . 10 . 12 . 16
BBT40FP20	
BBT50FP20	
BBT40FP32	Pinza 4SR32 6 . 8 . 10 . 12 . 16 . 20 . 25
BBT50FP32	

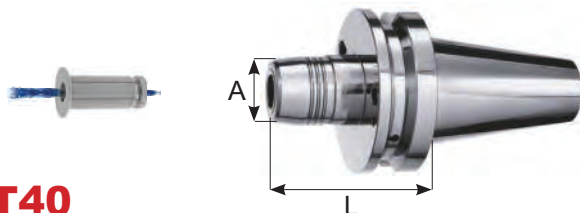


MAS/403BT

Porta herramientas hidráulico paso refrigerante
Hydraulic chucks with coolant feed



Coolant



100% contact

BT30 / BT40

6

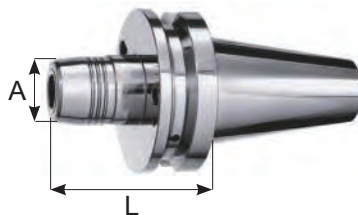
REFERENCIA	D	FORMA	L	A
BT30L60HD6 *	6	AD	60	26
BT30L64HD8 *	8	AD	64	28
BT30L64HD10 *	10	AD	64	30
BT30L72HD12 *	12	AD	72	32
BT30L70HD14 *	14	AD	70	34
BT30L90HD16 *	16	AD	90	38
BT30L90HD18 *	18	AD	90	40
BT30L90HD20 *	20	AD	90	42
BT30L110HD25 *	25	AD	110	50
BT40L90HD6 *	6	AD	90	26
BT40L150HD6	6	AD	150	26
BT40L200HD6	6	AD	200	26
BT40L90HD8 *	8	AD	90	28
BT40L150HD8	8	AD	150	28
BT40L200HD8	8	AD	200	28
BT40L90HD10 *	10	AD	90	30
BT40L150HD10	10	AD	150	30
BT40L200HD10	10	AD	200	30
BT40L90HD12 *	12	AD	90	32
BT40L150HD12	12	AD	150	32
BT40L200HD12	12	AD	200	32
BT40L90HD14 *	14	AD	90	34
BT40L150HD14	14	AD	150	34
BT40L200HD14	14	AD	200	34
BT40L90HD16 *	16	AD	90	38
BT40L150HD16	16	AD	150	38
BT40L200HD16	16	AD	200	38
BT40L90HD18 *	18	AD	90	40
BT40L150HD18	18	AD	150	40
BT40L200HD18	18	AD	200	40
BT40L90HD20 *	20	AD	90	42
BT40L150HD20	20	AD	150	42
BT40L200HD20	20	AD	200	42
BT40L90HD25 *	25	AD	90	50
BT40L150HD25	25	AD	150	50
BT40L200HD25	25	AD	200	50
BT40L110HD32 *	32	AD	110	60
BT40L150HD32	32	AD	150	60
BT40L200HD32	32	AD	200	60

AD+B (Sobre Pedido) AD+B (On request) * "Face contact" + "D" (DBT40L90HD6)

BT50 →

MAS/403BT

Porta herramientas hidráulico paso refrigerante
Hydraulic chucks with coolant feed



100%
contact

BT50

REFERENCIA	D	FORMA	L	A
BT50L110HD6 *	6	AD	110	26
BT50L160HD6	6	AD	160	26
BT50L110HD8 *	8	AD	110	28
BT50L160HD8	8	AD	160	28
BT50L110HD10 *	10	AD	110	30
BT50L160HD10	10	AD	160	30
BT50L110HD12 *	12	AD	110	32
BT50L160HD12	12	AD	160	32
BT50L110HD14 *	14	AD	110	34
BT50L160HD14	14	AD	160	34
BT50L110HD16 *	16	AD	110	38
BT50L160HD16	16	AD	160	38
BT50L110HD18 *	18	AD	110	40
BT50L160HD18	18	AD	160	40
BT50L110HD20 *	20	AD	110	42
BT50L160HD20	20	AD	160	42
BT50L110HD25 *	25	AD	110	50
BT50L160HD25	25	AD	160	50
BT50L110HD32 *	32	AD	110	60
BT50L160HD32	32	AD	160	60
BT50L130HD40 *	40	AD	130	60

AD+B (Sobre Pedido) AD+B (On request) * "Face contact" + "D" (DBT40L90HD6)



MAS/403BT

Mandriño porta brocas con llave de gancho
Drill chuck with hook wrench



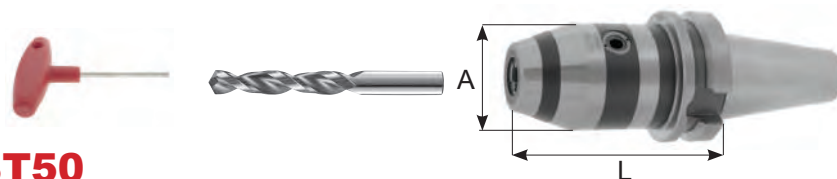
BT30 / BT40 / BT50

REFERENCIA	CAP	RPM	FORMA	L	A
BT30L100DCK13	1 ÷ 13	12.000	AD	100	50
BT40L95DCK13	1 ÷ 13			95	50
BT40L116DCK16	3 ÷ 16			116	57
BT50L110DCK13	1 ÷ 13			110	50
BT50L110DCK16	3 ÷ 16			110	57

6

MAS/403BT

Mandriño porta brocas llave hexagonal con paso refrigerante
Hexagonal key look drill chucks with coolant through



BT40 / BT50

REFERENCIA	CAP	RPM	FORMA	L	A
BT30L110HD13	1 ÷ 13	12.000	AD	110	50
BTB40L98HD13	1 ÷ 13			98	50
BTB40L103HD16	3 ÷ 16			103	50
BTB50L109HD13	1 ÷ 13			109	50
BTB50L114HD16	3 ÷ 16			114	50

MAS/403BT

Mandriño porta brocas
Drill chuck Arbors



BT30 / BT40 / BT50

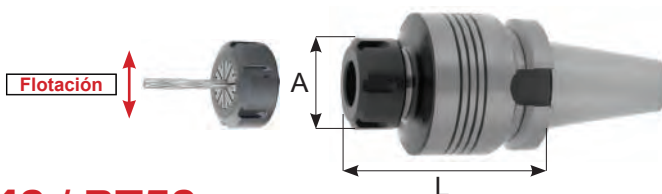
REFERENCIA	DIN	B	L
BT30L30B12	DIN/238	B12	30
BT30L30B16		B16	30
BT40L42B12		B12	42
BT40L42B16		B16	42
BT40L42B18		B18	42
BT50L45B16		B16	45
BT50L45B18		B18	45

MAS/403BT

Mandrino porta escariador flotante con paso refrigerante
 Floating reamer holder with coolant flow



Coolant



Refrigeración
 Interna
 Coolant flow

BT30 / BT40 / BT50

REFERENCIA	CAP	PINZA	FORMA	FLOT	L	A
BT30RM11	1 ÷ 7	ER11	AD	± 1 mm	75	9
BT30RM16	1 ÷ 10	ER16		± 1 mm	79	32
BT30RM20	1 ÷ 14	ER20		± 1 mm	80	35
BT30RM25	1 ÷ 20	ER25		± 1 mm	88	42
BT30RM32	2 ÷ 22	ER32		± 1.5 mm	93	50
BT30RM40	3 ÷ 30	ER40		± 1.5 mm	99	63
BT40RM11	1 ÷ 7	ER11	AD	± 1 mm	75	9
BT40RM16	1 ÷ 10	ER16		± 1 mm	79	32
BT40RM20	1 ÷ 14	ER20		± 1 mm	85	35
BT40RM25	1 ÷ 20	ER25		± 1 mm	88	42
BT40RM32	2 ÷ 22	ER32		± 1.5 mm	93	50
BT40RM40	3 ÷ 30	ER40		± 1.5 mm	99	63
BT50RM11	1 ÷ 7	ER11	AD	± 1 mm	84	9
BT50RM16	1 ÷ 10	ER16		± 1 mm	88	32
BT50RM20	1 ÷ 14	ER20		± 1 mm	94	35
BT50RM25	1 ÷ 20	ER25		± 1 mm	97	42
BT50RM32	2 ÷ 22	ER32		± 1.5 mm	102	50
BT50RM40	3 ÷ 30	ER40		± 1.5 mm	108	63

El escariador oscila radialmente con un sistema flotante y autocentrante regulable.

Se garantiza una perfecta alineación entre la herramienta y la pieza a mecanizar.

Está taladrado para permitir el paso de la refrigeración a través de la pinza o escariador.

The holder is designed with full floating and selfcentering movement.

The alignment of the reamer with a previously drilled hole is granted also to the high speeds.

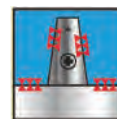
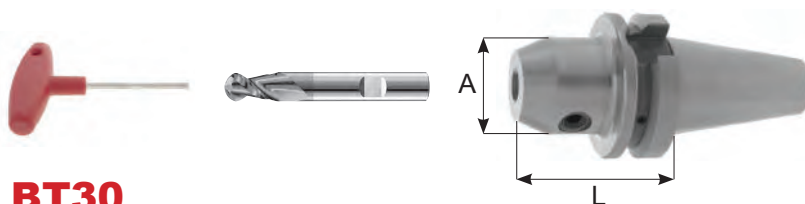
The floating of the reamer is easy adjustable.

The holder is full drilled for coolant or air supply through the collet slots or the reamer holes.



MAS/403BT

Porta fresas weldon DIN 1835-B
End mill holders for DIN 1835-B



100% contact

* G2.5 / 25.000rpm
G6.3 / 15.000rpm
Face contact

BT30

REFERENCIA	D	RPM	FORMA	L	A
BT30L50WE6 *	6	15.000	AD	50	25
BT30L100WE6				100	
BT30L50WE8 *	8		AD	50	28
BT30L100WE8				100	
BT30L50WE10 *	10		AD	50	35
BT30L100WE10				100	
BT30L50WE12 *	12		AD	50	42
BT30L100WE12				100	
BT30L50WE14	14		AD	50	44
BT30L100WE14				100	
BT30L63WE16 *	16	AD	63	48	
BT30L100WE16			100		
BT30L63WE18	18	AD	63	50	
BT30L100WE18			100		
BT30L63WE20 *	20	AD	63	52	
BT30L100WE20			100		

* "Face contact" + "D" (DBTB30L50WE12)

Whistle-Notch on request.

BT40

REFERENCIA	D	RPM	FORMA	H	A
BTB40L50WE6 *	6	15.000	AD+B	50	25
BTB40L100WE6				100	
BTB40L130WE6				130	
BTB40L160WE6				160	
BTB40L50WE8 *	8	15.000	AD+B	50	28
BTB40L100WE8				100	
BTB40L130WE8				130	
BTB40L160WE8				160	
BTB40L63WE10 *	10	15.000	AD+B	63	35
BTB40L100WE10				100	
BTB40L130WE10				130	
BTB40L160WE10				160	

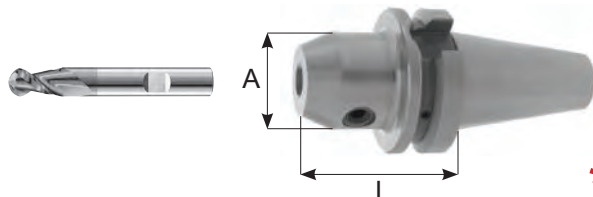
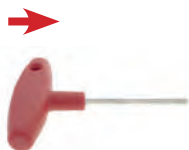
* "Face contact" + "D" (DBTB40L50WE6)

Whistle-Notch on request.

BT40 →

MAS/403BT

Porta fresas weldon DIN 1835-B
End mill holders for DIN 1835-B



100% contact

* G2.5 / 25.000rpm
G6.3 / 15.000rpm
Face contact

BT40

REFERENCIA	D	RPM	FORMA	L	A
BTB40L63WE12 *	12	15.000	AD+B	63	42
BTB40L100WE12				100	
BTB40L130WE12				130	
BTB40L160WE12				160	
BTB40L63WE14	14	15.000	AD+B	63	44
BTB40L100WE14				100	
BTB40L130WE14				130	
BTB40L160WE14				160	
BTB40L63WE16 *	16	15.000	AD+B	63	48
BTB40L100WE16				100	
BTB40L130WE16				130	
BTB40L160WE16				160	
BTB40L63WE18 *	18	15.000	AD+B	63	50
BTB40L100WE18				100	
BTB40L130WE18				130	
BTB40L160WE18				160	
BTB40L63WE20 *	20	15.000	AD+B	63	52
BTB40L100WE20				100	
BTB40L130WE20				130	
BTB40L160WE20				160	
BTB40L90WE25 *	25	15.000	AD+B	90	65
BTB40L130WE25				130	
BTB40L160WE25				160	
BTB40L100WE32 *	32	15.000	AD+B	100	72
BTB40L130WE32				130	
BTB40L160WE32				160	
BTB40L120WE40	40	15.000	AD+B	120	80

* "Face contact" + "D" (DBTB40L63WE12)

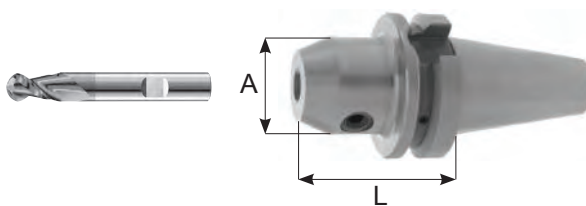
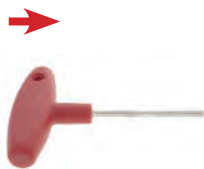
Whistle-Notch on request.

6

BT50 →

MAS/403BT

Porta fresas weldon DIN 1835-B
End mill holders for DIN 1835-B



100% contact

* G2.5 / 25.000rpm
G6.3 / 15.000rpm
Face contact

BT50

6

REFERENCIA	D	RPM	FORMA	L	A
BTB50L63WE6 *	6	15.000	AD+B	63	25
BTB50L100WE6				100	
BTB50L130WE6				130	
BTB50L160WE6				160	
BTB50L200WE6				200	
BTB50L63WE8 *	8	15.000	AD+B	63	28
BTB50L100WE8				100	
BTB50L130WE8				130	
BTB50L160WE8				160	
BTB50L200WE8				200	
BTB50L63WE10 *	10	15.000	AD+B	63	35
BTB50L100WE10				100	
BTB50L130WE10				130	
BTB50L160WE10				160	
BTB50L200WE10				200	
BTB50L80WE12 *	12	15.000	AD+B	80	42
BTB50L100WE12				100	
BTB50L130WE12				130	
BTB50L160WE12				160	
BTB50L200WE12				200	
BTB50L80WE14	14	15.000	AD+B	80	44
BTB50L100WE14				100	
BTB50L130WE14				130	
BTB50L160WE14				160	
BTB50L200WE14				200	
BTB50L80WE16 *	16	15.000	AD+B	80	48
BTB50L100WE16				100	
BTB50L130WE16				130	
BTB50L160WE16				160	
BTB50L200WE16				200	

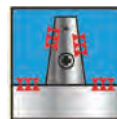
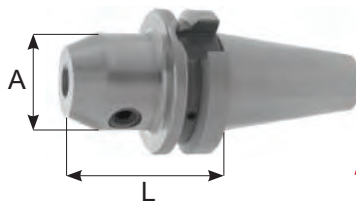
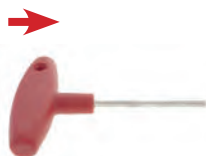
* "Face contact" + "D" (DBTB50L63WE6)

Whistle-Notch on request.

BT50 →

MAS/403BT

Porta fresas weldon DIN 1835-B
End mill holders for DIN 1835-B



100% contact

*

G2.5 / 25.000rpm
G6.3 / 15.000rpm
Face contact

BT50

REFERENCIA	D	RPM	FORMA	L	A
BTB50L80WE18	18	15.000	AD+B	80	50
BTB50L100WE18				100	
BTB50L130WE18				130	
BTB50L160WE18				160	
BTB50L200WE18				200	
BTB50L80WE20 *	20	15.000	AD+B	80	52
BTB50L100WE20				100	
BTB50L130WE20				130	
BTB50L160WE20				160	
BTB50L200WE20				200	
BTB50L100WE25 *	25	15.000	AD+B	100	65
BTB50L130WE25				130	
BTB50L160WE25				160	
BTB50L200WE25				200	
BTB50L105WE32 *	32	15.000	AD+B	105	72
BTB50L130WE32				130	
BTB50L160WE32				160	
BTB50L200WE32				200	
BTB50L120WE40 *	40	15.000	AD+B	120	80
BTB50L160WE40				160	
BTB50L200WE40				200	
BTB50L125WE50 *	50	15.000	AD+B	125	90

* "Face contact" + "D" (DBTB50L80WE20)

Whistle-Notch on request.

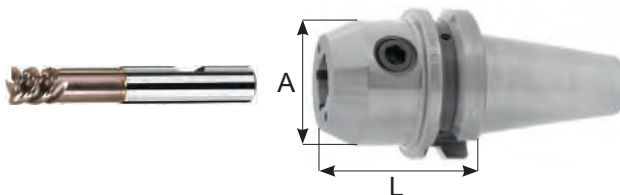


MAS/403BT

Porta fresas weldon con canal de refrigeración
End mill holders with coolant channels



Coolant



6

BT40

REFERENCIA	D	RPM	FORMA	L	A
BTB40L65WE6C	6	15.000	AD+B	65	25
BTB40L65WE8C	8			65	28
BTB40L65WE10C	10			65	35
BTB40L65WE12C	12			65	42
BTB40L65WE14C	14			65	44
BTB40L65WE16C	16			65	48
BTB40L65WE18C	18			65	50
BTB40L65WE20C	20			65	52
BTB40L100WE25C	25			100	65
BTB40L100WE32C	32			100	72

BT50

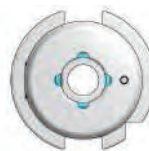
REFERENCIA	D	RPM	FORMA	L	A
BTB50L80WE6C	6	15.000	AD+B	80	25
BTB50L80WE8C	8			80	28
BTB50L80WE10C	10			80	35
BTB50L80WE12C	12			80	42
BTB50L80WE14C	14			80	44
BTB50L80WE16C	16			80	48
BTB50L80WE18C	18			80	50
BTB50L80WE20C	20			80	52
BTB50L100WE25C	25			100	65
BTB50L105WE32C	32			105	72
BTB50L120WE40C	40	120	90		

WE6 ÷ WE14



1 Tornillo
1 Screw

WE16 ÷ WE40



2 Tornillo
2 Screw

MAS/403BT

Porta fresas weldon extra corto DIN 1835-B
Short type end mill holders for DIN 1835-B shanks



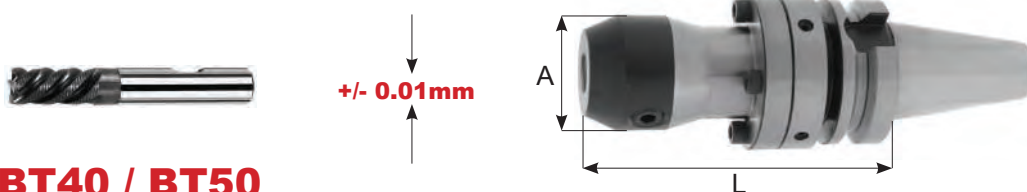
BT30 / BT40 / BT50

REFERENCIA	D	RPM	FORMA	L	A
BT30L32WE6	6	15.000	AD	32	25
BT30L32WE8	8			32	28
BT30L32WE10	10			32	32
BT30L32WE12	12			32	32
BT30L35WE16	16			35	32
BT30L35WE20	20			35	36
BT30L35WE25	25	35	52		
BTB40L35WE16	16	15.000	AD+B	35	44
BTB40L35WE20	20			35	44
BTB40L35WE25	25			35	44
BTB40L60WE25	25			60	50
BTB40L40WE32	32			40	50
BTB40L70WE32	32			70	72
BTB50L44WE16	16	15.000	AD+B	44	70
BTB50L44WE20	20			44	70
BTB50L44WE25	25			44	70
BTB50L44WE32	32			44	70
BTB50L44WE32	32			44	70
BTB50L44WE40	40			44	80

6

MAS/403BT

Porta fresas weldon regulación radial
Radial adjustable end mill holders



BT40 / BT50

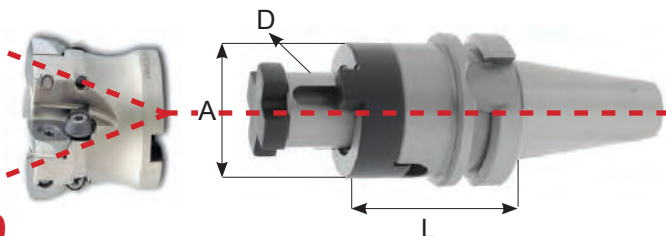
REFERENCIA	D	FORMA	L	A
BTB40L100WE6RG	6	AD+B	100	25
BTB40L100WE8RG	8		100	28
BTB40L100WE10RG	10		100	35
BTB40L110WE12RG	12		110	42
BTB40L130WE16RG	16		130	48
BTB40L130WE18RG	18		130	50
BTB40L135WE20RG	20	135	52	
BTB50L120WE12RG	12	AD+B	120	42
BTB50L140WE16RG	16		140	48
BTB50L140WE18RG	18		140	50
BTB50L145WE20RG	20		145	52

MAS/403BT

Porta fresas combinado con canal de refrigeración
Combi shell end mill holders with coolant channels



Coolant



BT30 / BT40

6

REFERENCIA	D	RPM	FORMA	L	A
BT30L50D13C	13	15.000	AD	50	28
BT30L43D16C	16			43	32
BT30L50D22C	22			50	40
BT30L50D27C	27			50	48
BT30L57D32C	32			57	58
BT40L100D13C	13	15.000	AD	100	28
BTB40L55D16C	16		AD+B	55	32
BTB40L100D16C				100	32
BTB40L130D16C				130	32
BTB40L160D16C				160	32
BTB40L200D16C		200		32	
BTB40L55D22C	22	15.000	AD+B	55	40
BTB40L100D22C				100	40
BTB40L130D22C				130	40
BTB40L160D22C				160	40
BTB40L200D22C				200	40
BTB40L55D27C	27	15.000	AD+B	55	48
BTB40L100D27C				100	48
BTB40L130D27C				130	48
BTB40L160D27C				160	48
BTB40L200D27C				200	48
BTB40L60D32C	32	15.000	AD+B	60	58
BTB40L100D32C				100	58
BTB40L130D32C				130	58
BTB40L160D32C				160	58
BTB40L200D32C				200	58
BTB40L60D40C	40	15.000	AD+B	60	70
BTB40L100D40C				100	70
BTB40L130D40C				130	70
BTB40L160D40C				160	70
BTB40L200D40C				200	70

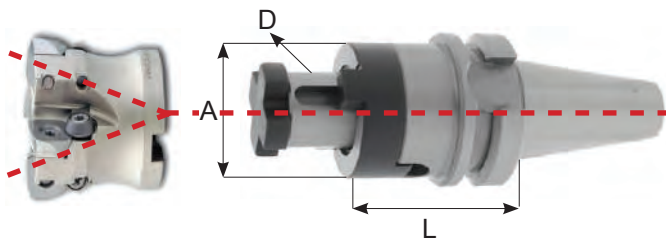
BT50 →

MAS/403BT



Coolant

Porta fresas combinado con canal de refrigeración
Combi shell end mill holders with coolant channels



BT50

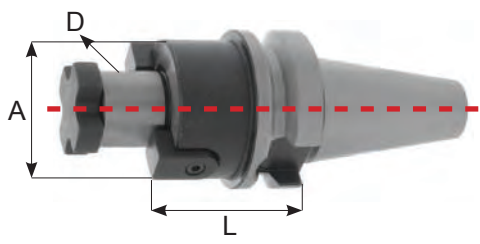
REFERENCIA	D	RPM	FORMA	L	A
BTB50L70D16C	16	15.000	AD+B	70	32
BTB50L100D16C				100	32
BTB50L130D16C				130	32
BTB50L160D16C				160	32
BTB50L200D16C				200	32
BTB50L70D22C	22	15.000	AD+B	70	40
BTB50L100D22C				100	40
BTB50L130D22C				130	40
BTB50L160D22C				160	40
BTB50L200D22C				200	40
BTB50L70D27C	27	15.000	AD+B	70	48
BTB50L100D27C				100	48
BTB50L130D27C				130	48
BTB50L160D27C				160	48
BTB50L200D27C				200	48
BTB50L70D32C	32	15.000	AD+B	70	58
BTB50L100D32C				100	58
BTB50L130D32C				130	58
BTB50L160D32C				160	58
BTB50L200D32C				200	58
BTB50L70D40C	40	15.000	AD+B	70	70
BTB50L100D40C				100	70
BTB50L130D40C				130	70
BTB50L160D40C				160	70
BTB50L200D40C				200	70



MAS/403BT



Porta fresas fijo con canal de refrigeración
Shell end mill holders with coolant channels



100% contact

* G2.5 / 25.000rpm
G6.3 / 15.000rpm
Face contact

BT30 / BT40

6

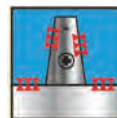
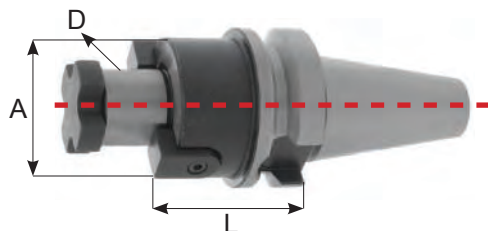
REFERENCIA	D	RPM	FORMA	L	A
BT30L43D16S *	16	15.000	AD	43	32
BT30L43D22S *				43	40
BT30L50D27S *				50	50
BT30L45D32S *				45	58
BTB40L35D16S	16	15.000	AD+B	35	38
BTB40L45D16S *				45	38
BTB40L100D16S				100	38
BTB40L130D16S				130	38
BTB40L160D16S				160	38
BTB40L200D16S				200	38
BTB40L35D22S	22	15.000	AD+B	35	48
BTB40L45D22S *				45	48
BTB40L100D22S				100	48
BTB40L130D22S				130	48
BTB40L160D22S				160	48
BTB40L200D22S				200	48
BTB40L35D27S	27	15.000	AD+B	35	58
BTB40L45D27S *				45	58
BTB40L100D27S				100	58
BTB40L130D27S				130	58
BTB40L160D27S				160	58
BTB40L200D27S				200	58
BTB40L50D32S	32	15.000	AD+B	50	78
BTB40L56D32S *				56	63
BTB40L100D32S				100	63
BTB40L130D32S				130	63
BTB40L160D32S				160	63
BTB40L200D32S				200	63
BTB40L50D40S	40	15.000	AD+B	50	88
BTB40L60D40S *				60	80
BTB40L100D40S				100	80
BTB40L130D40S				130	80
BTB40L160D40S				160	80
BTB40L200D40S				200	80

* "Face contact" + "D" (DBTB40L45D22S)

BT50 →

MAS/403BT

Porta fresas fijo con canal de refrigeración
Shell end mill holders with coolant channels



100% contact

* G2.5 / 25.000rpm
G6.3 / 15.000rpm
Face contact

BT50

REFERENCIA	D	RPM	FORMA	L	A
BTB50L50D16S *	16	15.000	AD+B	50	38
BTB50L75D16S				75	38
BTB50L100D16S				100	38
BTB50L130D16S				130	38
BTB50L160D16S				160	38
BTB50L200D16S				200	38
BTB50L250D16S				250	38
BTB50L300D16S				300	38
BTB50L350D16S				350	38
BTB50L55D22S *				22	15.000
BTB50L75D22S	75	48			
BTB50L100D22S	100	48			
BTB50L130D22S	130	48			
BTB50L160D22S	160	48			
BTB50L200D22S	200	48			
BTB50L250D22S	250	48			
BTB50L300D22S	300	48			
BTB50L350D22S	350	48			
BTB50L55D27S *	27	15.000	AD+B		
BTB50L75D27S				75	58
BTB50L100D27S				100	58
BTB50L130D27S				130	58
BTB50L160D27S				160	58
BTB50L200D27S				200	58
BTB50L250D27S				250	58
BTB50L300D27S				300	58
BTB50L350D27S				350	58
BTB50L55D32S *				32	15.000
BTB50L75D32S	75	78			
BTB50L100D32S	100	78			
BTB50L130D32S	130	78			
BTB50L160D32S	160	78			
BTB50L200D32S	200	78			
BTB50L250D32S	250	78			
BTB50L300D32S	300	78			
BTB50L350D32S	350	78			

6

* "Face contact" + "D" (DBTB50L50D16S)

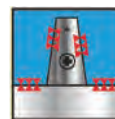
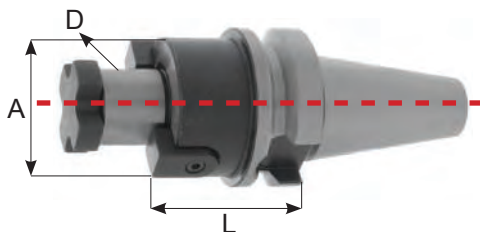
BT50 →

MAS/403BT

Porta fresas fijo con canal de refrigeración
Shell end mill holders with coolant channels



Coolant



100% contact

*

G2.5 / 25.000rpm
G6.3 / 15.000rpm
Face contact

BT50

6

REFERENCIA	D	RPM	FORMA	L	A
BTB50L55D40S *	40	15.000	AD+B	55	88
BTB50L75D40S				75	88
BTB50L100D40S				100	88
BTB50L130D40S				130	88
BTB50L160D40S				160	88
BTB50L200D40S				200	88

* "Face contact" + "D" (DBTB50L55D40S)



MAS/403BT

Porta fresas fijo antivibratorio conicidad DIN/138
 Antivibratory shell mill adaptors DIN/138



BT40

ANTIVIBRATORIO

REFERENCIA	D	L	A	B
BT40L150D16AV	16	150	38	50
BT40L200D16AV		200		
BT40L250D16AV		250		
BT40L300D16AV		300		
BT40L150D22AV	22	150	48	50
BT40L200D22AV		200		
BT40L250D22AV		250		
BT40L300D22AV		300		

BT50

REFERENCIA	D	L	A	B
BT50L150D16AV	16	150	38	80
BT50L200D16AV		200		
BT50L250D16AV		250		
BT50L300D16AV		300		
BT50L400D16AV		400		
BT50L200D22AV	22	200	48	80
BT50L250D22AV		250		
BT50L300D22AV		300		
BT50L400D22AV		400		
BT50L500D22AV		500		
BT50L200D27AV	27	200	58	80
BT50L250D27AV		250		
BT50L300D27AV		300		
BT50L400D27AV		400		
BT50L500D27AV		500		

Especial para moldistas y troquelistas, reduce las vibraciones en un 60% comparandolo con un porta standard.
 Special for mould and die makers, vibration reduced up to 60% compared to any other conventional shell mill adaptor.

6

MAS/403BT

Porta fresas fijo antivibratorio DIN/138
Antivibratory shell mill adaptors DIN/138



BT40

ANTIVIBRATORIO

REFERENCIA	D	L	A
BT40L150D16AV-38	16	150	38
BT40L200D16AV-38		200	
BT40L250D16AV-38		250	
BT40L300D16AV-38		300	
BT40L150D22AV-48	22	150	48
BT40L200D22AV-48		200	
BT40L250D22AV-48		250	
BT40L300D22AV-48		300	
BT40L150D27AV-58	27	150	54
BT40L200D27AV-58		200	
BT40L250D27AV-58		250	
BT40L300D27AV-58		300	

BT50

REFERENCIA	D	L	A
BT50L150D16AV-38	16	150	38
BT50L200D16AV-38		200	
BT50L250D16AV-38		250	
BT50L300D16AV-38		300	
BT50L400D16AV-38		400	
BT50L200D22AV-48	22	200	48
BT50L250D22AV-48		250	
BT50L300D22AV-48		300	
BT50L400D22AV-48		400	
BT50L500D22AV-48		500	
BT50L200D22AV-58	22	200	58
BT50L250D22AV-58		250	
BT50L300D22AV-58		300	
BT50L400D22AV-58		400	
BT50L500D22AV-58		500	

Especial para moldistas y troquelistas, reduce las vibraciones en un 60% comparandolo con un porta standard.

Special for mould and die makers, vibration reduced up to 60% compared to any other conventional shell mill adaptor.

BT50 →

MAS/403BT



Porta fresas fijo antivibratorio DIN/138
Antivibratory shell mill adaptors DIN/138

BT50

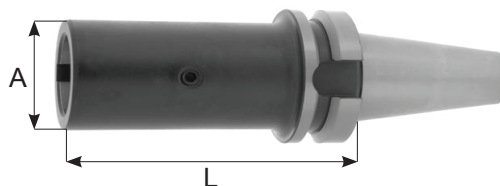
ANTIVIBRATORIO

REFERENCIA	D	L	A
BT50L200D27AV-58	27	200	60
BT50L250D27AV-58		250	
BT50L300D27AV-58		300	
BT50L400D27AV-58		400	
BT50L500D27AV-58		500	
BT50L200D32AV-78	32	200	76
BT50L250D32AV-78		250	
BT50L300D32AV-78		300	
BT50L400D32AV-78		400	
BT50L500D32AV-78		500	

Especial para moldistas y troquelistas, reduce las vibraciones en un 60% comparandolo con un porta standard.
Special for mould and die makers, vibration reduced up to 60% compared to any other conventional shell mill adaptor.

MAS/403BT

Porta herramientas para mango roscado DIN/6327
Holders for adjustable adapters DIN/6327

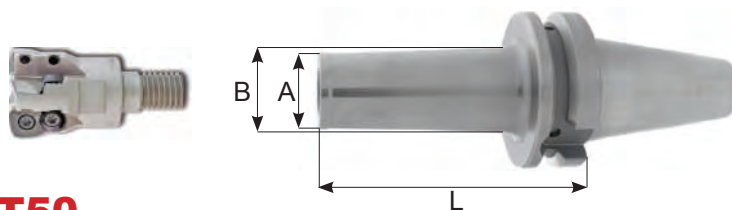


BT40 / BT50

REFERENCIA	TR	L	A
BT40L75TR16	16	75	25
BT40L80TR20	20	80	32
BT40L100TR28	28	100	40
BT40L115TR36	36	115	50
BT50L85TR16	16	85	25
BT50L85TR20	20	85	32
BT50L100TR28	28	100	40
BT50L100TR36	36	100	50
BT50L105TR48	48	105	67

MAS/403BT

Porta herramientas para fresa roscada
Tool holder for screwed milling cutters



BT40 / BT50

6

REFERENCIA	M	RPM	FORMA	L	A	B
BTB40L52M6CPY	M6	25.000	AD+B	52	10	13
BTB40L77M6CPY				77		20
BTB40L102M6CPY				102		23
BTB40L63M8CPY	M8	25.000	AD+B	63	13	15
BTB40L83M8CPY				83		23
BTB40L103M8CPY				103		23
BTB40L123M8CPY				123		25
BTB40L63M10CPY	M10	25.000	AD+B	63	18	20
BTB40L83M10CPY				83		25
BTB40L103M10CPY				103		28
BTB40L123M10CPY				123		28
BTB40L63M12CPY	M12	25.000	AD+B	63	21	24
BTB40L83M12CPY				83		24
BTB40L103M12CPY				103		31
BTB40L123M12CPY				123		31
BTB40L63M16CPY	M16	25.000	AD+B	63	29	34
BTB40L83M16CPY				83		34
BTB40L103M16CPY				103		34
BTB40L123M16CPY				123		39
BTB40L153M16CPY				153		39
BT50L88M8CPY	M8	25.000	AD	88	13	23
BT50L138M8CPY				138		25
BT50L188M8CPY				188		30
BT50L88M10CPY	M10	25.000	AD	88	18	23
BT50L138M10CPY				138		32
BT50L188M10CPY				188		36.5
BT50L88M12CPY	M12	25.000	AD	88	21	24
BT50L138M12CPY				138		33
BT50L188M12CPY				188		40
BT50L88M16CPY	M16	25.000	AD	88	29	34
BT50L138M16CPY				138		36
BT50L188M16CPY				188		42.5

MAS/403BT

Porta herramientas para fresa roscada antivibratorio
 Antivibratory for frontal end mills support screwed shanks



BT40

ANTIVIBRATORIO

REFERENCIA	M	L	A	B
BT40L200M10AV	M10	200	18	35
BT40L250M10AV		250		40
BT40L300M10AV		300		45
BT40L200M12AV	M12	200	21	38
BT40L250M12AV		250		43
BT40L300M12AV		300		44
BT40L200M16AV	M16	200	29	43
BT40L250M16AV		250		44
BT40L300M16AV		300		47

BT50

REFERENCIA	M	L	A	B
BT50L250M12AV	M12	250	21	42
BT50L300M12AV		300		47
BT50L400M12AV		400		57
BT50L300M16AV	M16	300	29	55
BT50L400M16AV		400		65
BT50L500M16AV		500		76

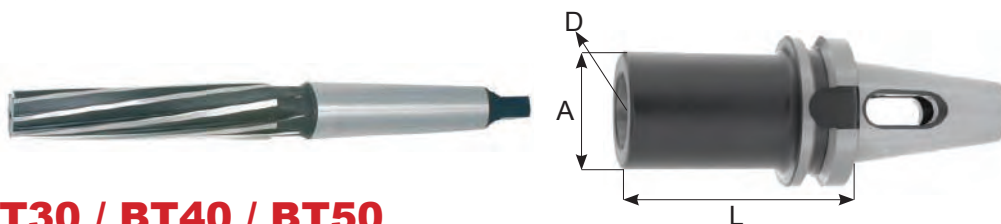
Especial para moldistas y troquelistas, reduce las vibraciones en un 60% comparandolo con un porta standard.

Special for mould and die makers, vibration reduced up to 60% compared to any other conventional shell mill adaptor.



MAS/403BT

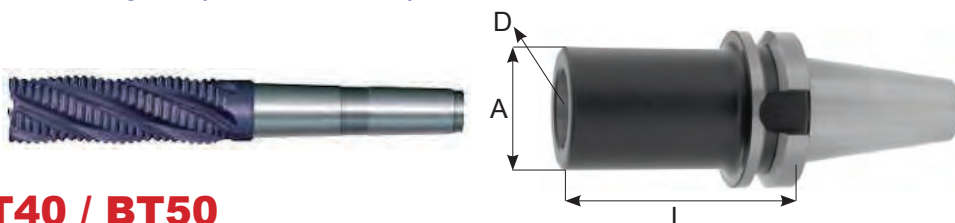
Reductor cono morse DIN/228-B
Morse taper adapters DIN/228-B



BT30 / BT40 / BT50

REFERENCIA	D	RPM	FORMA	L	A
BT30L45CM1P	CM1	15.000	AD	45	25
BT30L60CM2P	CM2			60	32
BT30L75CM3P	CM3			75	40
BT40L50CM1P	CM1	15.000	AD	50	25
BT40L50CM2P	CM2			50	32
BT40L70CM3P	CM3			70	40
BT40L95CM4P	CM4			95	48
BT50L45CM1P	CM1	15.000	AD	45	25
BT50L60CM2P	CM2			60	32
BT50L65CM3P	CM3			65	40
BT50L95CM4P	CM4			95	48
BT50L105CM5P	CM5			105	63

Reductor cono morse DIN/228-A con tornillo tirante
Reducing adaptors morse taper shank and drawbar thread DIN/228-A

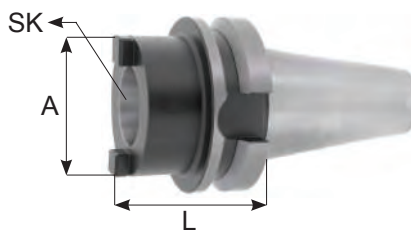


BT40 / BT50

REFERENCIA	D	RPM	FORMA	L	A
BT40L50CM1F	CM1	15.000	AD	50	25
BT40L50CM2F	CM2			50	32
BT40L70CM3F	CM3			70	40
BT40L95CM4F	CM4			95	48
BT40L110CM4F	CM4			110	48
BT50L45CM1F	CM1	15.000	AD	45	25
BT50L60CM2F	CM2			60	32
BT50L65CM3F	CM3			65	40
BT50L70CM4F	CM4			70	48
BT50L85CM4F	CM4			85	48
BT50L100CM5F	CM5			100	63
BT50L118CM5F	CM5			118	63

MAS/403BT

Reductor BT a ISO DIN/2080 - DIN/69871- BT
Reducing adaptors BT a ISO DIN/2080 - DIN/698871 - BT



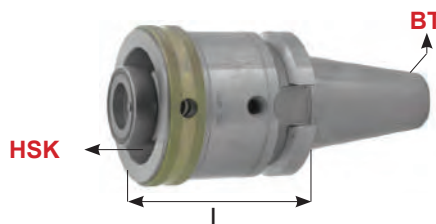
BT40 / BT50

REFERENCIA	ISO	FORMA	L	A
BT40L60TB30	TC30/BT30	AD	60	50
BT40L95TB40	TC40/BT40		95	70
BT40L60ISO30	ISO30	AD	60	50
BT40L95ISO40	ISO40		95	70
BT50L70TB40	TC40/BT40	AD	70	70
BT50L130TB50	TC50/BT50		130	90
BT50L70ISO40	ISO40	AD	70	70
BT50L130ISO50	ISO50		130	90

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MAS/403BT

Cono reductor de BT a HSK - A/C
Adapters from BT shank to HSK - A/C

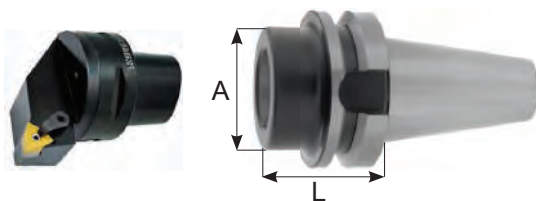


BT30 / BT40 / BT50

REFERENCIA	CONO	FORMA	REDUCTOR	L
BT30L50HSK32AC	BT30	AD	HSK32A/C	50
BT30L60HSK40AC			HSK40A/C	60
BT30L75HSK50AC			HSK50A/C	75
BT40L70HSK32AC	BT40	AD	HSK32A/C	70
BT40L80HSK40AC			HSK40A/C	80
BT40L80HSK50AC			HSK50A/C	80
BT40L80HSK63AC			HSK63A/C	90
BT40L100HSK80AC			HSK80A/C	100
BT50L70HSK32AC	BT50	AD	HSK32A/C	70
BT50L70HSK40AC			HSK40A/C	70
BT50L80HSK50AC			HSK50A/C	80
BT50L100HSK63AC			HSK63A/C	100
BT50L110HSK80AC			HSK80A/C	110
BT50L110HSK100AC			HSK100A/C	110
BT50L140HSK125AC			HSK125A/C	140

MAS/403BT

Cono reductor de BT a PSC - ISO 26623-1
Adapters from BT shank to PSC - ISO 26623-1



PSC-ECA ISO 26623-1

BT-C3

REFERENCIA	CONO	REDUCTOR	FORMA	L	A
BTB30L30C3	BT30	PSC-C3	AD+B	30	32
BTB30L60C3	BT30	PSC-C3		60	32
BTB40L30C3	BT40	PSC-C3		30	32
BTB40L60C3	BT40	PSC-C3		60	32
BTB50L40C3	BT50	PSC-C3		40	32
BTB50L70C3	BT50	PSC-C3		70	32

BT-C4

REFERENCIA	CONO	REDUCTOR	FORMA	L	A
BTB40L30C4	BT40	PSC-C4	AD+B	30	40
BTB40L60C4	BT40	PSC-C4		60	40
BTB50L40C4	BT50	PSC-C4		40	40
BTB50L70C4	BT50	PSC-C4		70	40

BT-C5

REFERENCIA	CONO	REDUCTOR	FORMA	L	A
BTB40L30C5	BT40	PSC-C5	AD+B	30	50
BTB40L70C5	BT40	PSC-C5		70	50
BTB50L40C5	BT50	PSC-C5		40	50
BTB50L80C5	BT50	PSC-C5		80	50

BT-C6

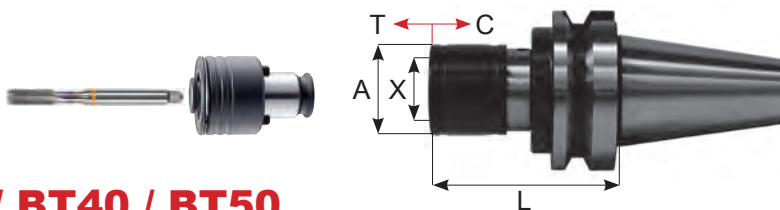
REFERENCIA	CONO	REDUCTOR	FORMA	L	A
BTB40L75C6	BT40	PSC-C6	AD+B	75	63
BTB50L40C6	BT50	PSC-C6		40	63
BTB50L90C6	BT50	PSC-C6		90	63

BT-C8

REFERENCIA	CONO	REDUCTOR	FORMA	L	A
BTB50L70C8	BT50	PSC-C8	AD+B	70	80
BTB50L120C8	BT50	PSC-C8		120	80

MAS/403BT

Roscador con compresión y tracción
Tension and compression tap holders



BT30 / BT40 / BT50

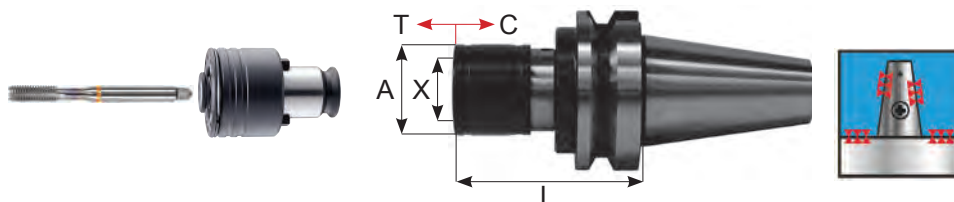
REFERENCIA	CAP	X	A	L	C	T
BT30-THTC0-L59	M 1 ÷ M10	13	26	59.5	6.5	6.5
BT40-THTC0-L62				62.5		
BT50-THTC0-L71				71.5		
BT30-THTC1-L64	M 3 ÷ M18	19	36	64	7.5	7.5
BT40-THTC1-L67				67.5		
BT50-THTC1-L77				77		
BT30-THTC2-L98	M 8 ÷ M30	31	53	98	12.5	12.5
BT40-THTC2-L94				94.5		
BT50-THTC2-L102				102.5		
BT40-THTC3-L164	M14 ÷ M48	48	78	164.5	20.0	20.0
BT50-THTC3-L142				142.5		
BT50-THTC4-L164	M22 ÷ M60	60	96	164.5	22.5	22.5

BT45 (Sobre Pedido) / BT45 (On request)

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MAS/403BT

Roscador con compresión y tracción Doble Contacto BBT
Quick change tapping chucks - Double Contact BBT



100% contact

DBT30 / DBT40 / DBT50

REFERENCIA	CAP	X	A	L	C	T
DBT30-THTC1-L64	M 3 ÷ M12	19	36	64.0	7.5	7.5
DBT40-THTC1-L67				67.5		
DBT50-THTC1-L77				77.0		
DBT40-THTC2-L94	M 8 ÷ M20	31	53	94.5	12.5	12.5
DBT50-THTC2-L102				102.5		
DBT40-THTC3-L164				164.5		
DBT50-THTC3-L142	M14 ÷ M33	48	78	142.5	20.0	20.0
DBT40-THTC4-L180				180.0		
DBT50-THTC4-L164	M22 ÷ M48	60	96	164.5	22.5	22.5

(Sobre Pedido) / (On request)

MAS/403BT

Roscador con compresión y tracción con paso refrigerante
Tension and compression tap holders with coolant thru

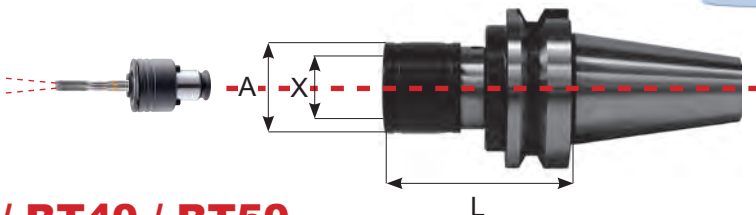


Coolant
SES
Refrigeración Central

SYNCHRO

Max. 50 BAR

Refrigeración Interna
Coolant flow



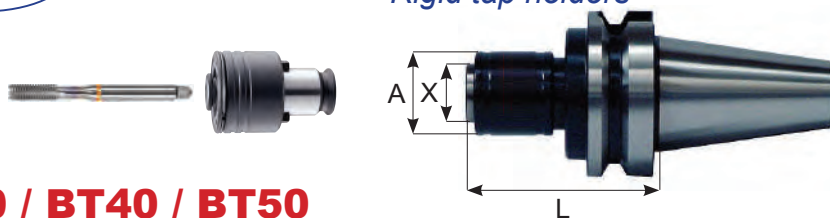
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BT30 / BT40 / BT50

REFERENCE	CAP	X	A	L	MODELO
BT30-THTC0-L62C	M 1 ÷ M10	13	26	62.5	SYNCHRO
BT40-THTC0-L62C				62.5	
BT50-THTC0-L71C				71.5	
BT30-THTC1-L81C	M 3 ÷ M12	19	36	81	SYNCHRO
BT40-THTC1-L81C				81	
BT50-THTC1-L90C				90	
BT30-THTC2-L109C	M 8 ÷ M20	31	53	151.5	SYNCHRO
BT40-THTC2-L109C				109	
BT50-THTC2-L118C				118	
BT40-THTC3-L142C	M14 ÷ M33	48	78	142.5	SYNCHRO
BT50-THTC3-L151C				151.5	

MAS/403BT

Roscador Rígido
Rigid tap holders



BT30 / BT40 / BT50

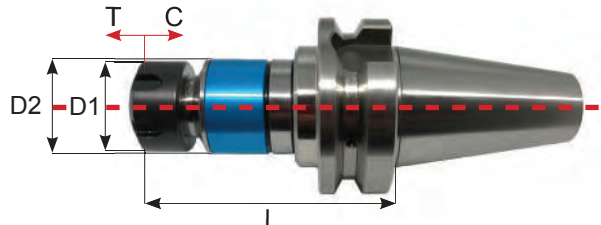
REFERENCE	CAP	X	A	L
BT30-TLR0-L65	M 1 ÷ M10	13	26	65
BT40-TLR0-L65				65
BT30-TLR1-L72	M 3 ÷ M12	19	36	72
BT40-TLR1-L72				72
BT50-TLR1-L81				81
BT40-TLR2-L91	M 8 ÷ M20	31	53	91
BT50-TLR2-L100				100
BT40-TLR3-L123	M14 ÷ M33	48	78	123
BT50-TLR3-L127				127
BT40-TLR4-L146	M22 ÷ M48	60	95	146
BT50-TLR4-L150				150

MAS/403BT

Roscador Synchro con compresión y tracción
con paso refrigerante
Synchro - Tension / Compression Tap Holders collet ER
coolant flow

SYNCHRO

Max. 50 BAR



Refrigeración
Interna
Coolant flow

Coolant flow

(A)



(B)

Standard

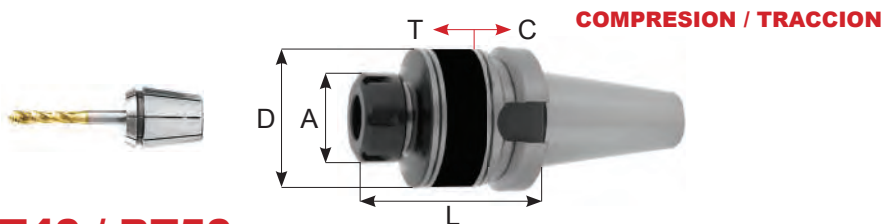


BT30 / BT40 / BT50

REFERENCE	CAP	PINZA	D1	D2	L	C	T	MODELO
BT30L95SYER16M	3 ÷ 8	ER16	22	34	95	0.5	0.5	SYNCHRO
BT30L95SYER16	3 ÷ 8	ER16	32	34	95			
BT30L96SYER20	3 ÷ 16	ER20	35	34	96			
BT30L100SYER25	3 ÷ 20	ER25	42	45	100			
BT30L122SYER32	3 ÷ 27	ER32	50	45	122			
BT40L95SYER16M	3 ÷ 8	ER16	22	34	95	0.5	0.5	SYNCHRO
BT40L95SYER16	3 ÷ 8	ER16	32	34	95			
BT40L96SYER20	3 ÷ 16	ER20	35	34	96			
BT40L100SYER25	3 ÷ 20	ER25	42	45	100			
BT40L122SYER32	3 ÷ 27	ER32	50	45	122			
BT40L152SYER40	3 ÷ 27	ER40	63	62	152			
BT50L104SYER16M	3 ÷ 8	ER16	22	34	104	0.5	0.5	SYNCHRO
BT50L104SYER16	3 ÷ 8	ER16	32	34	104			
BT50L105SYER20	3 ÷ 16	ER20	35	34	105			
BT50L109SYER25	3 ÷ 20	ER25	42	45	109			
BT50L131SYER32	3 ÷ 27	ER32	50	45	131			
BT50L152SYER40	3 ÷ 27	ER40	63	62	152			

MAS/403BT

Roscador con compresión y tracción pinza ER
Tension and compression tap holders collet ER

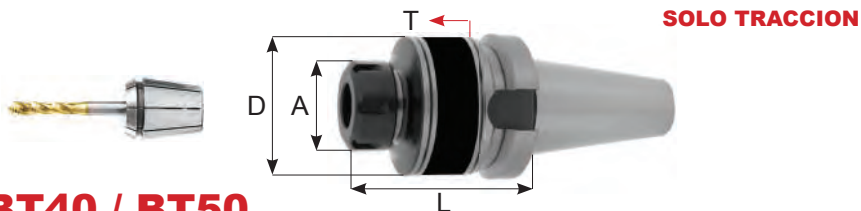


BT30 / BT40 / BT50

REFERENCIA	PINZA	L	A	D	C	T
BT30CTL83ER16	ER16	68	32	29	2.5	5.5
BT30CTL94ER20	ER20	94	35	44	3	9
BT30CTL103ER25	ER25	103	42	58	4	12
BT40CTL83ER16	ER16	73	32	29	2.5	5.5
BT40CTL94ER20	ER20	84	35	44	3	9
BT40CTL103ER25	ER25	93	42	58	4	12
BT40CTL110ER32	ER32	95	50	58	4	12
BT50CTL92ER16	ER16	83	32	29	2.5	5.5
BT50CTL103ER20	ER20	94	35	44	3	9
BT50CTL112ER25	ER25	103	42	58	4	12
BT50CTL114ER32	ER32	105	50	58	4	12

MAS/403BT

Roscador solo tracción pinza ER
Tension tap holders collet ER

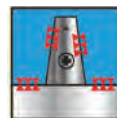
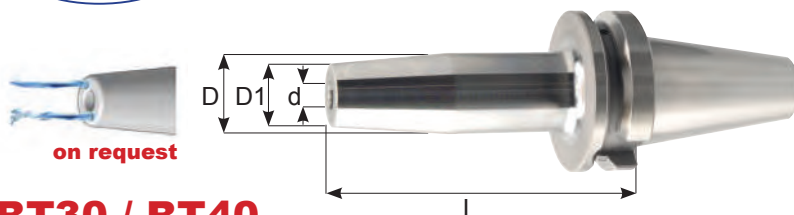


BT30 / BT40 / BT50

REFERENCIA	PINZA	L	A	D	T
BT30TL83ER16	ER16	83	32	29	8
BT30TL94ER20	ER20	94	35	44	12
BT30TL103ER25	ER25	103	42	58	16
BT40TL83ER16	ER16	83	32	29	8
BT40TL94ER20	ER20	94	35	44	12
BT40TL103ER25	ER25	103	42	58	16
BT40TL110ER32	ER32	110	50	58	16
BT50TL92ER16	ER16	92	32	29	8
BT50TL103ER20	ER20	103	35	44	12
BT50TL112ER25	ER25	112	42	58	16
BT50TL114ER32	ER32	114	50	58	16

MAS/403BT

Porta herramientas inducción térmica
Shrink Fit holders



100% contact

* G2.5 / 25.000rpm
G6.3 / 15.000rpm
Face contact

BT30 / BT40

REFERENCIA	d	RPM	FORMA	D1	D	L		
BT30L80CL3	3	25.000	AD	10	20	80		
BT30L80CL4 *	4			15	24	80		
BT30L80CL5 *	5			15	24	80		
BT30L80CL6 *	6			20	27	80		
BT30L80CL8 *	8			20	27	80		
BT30L80CL10 *	10			24	31	80		
BT30L80CL12 *	12			24	31	80		
BT30L80CL14	14			27	34	80		
BT30L80CL16 *	16			27	34	80		
BT30L90CL18	18			33	40	90		
BT30L90CL20 *	20			33	40	90		
BTB40L90CL3 *	3			25.000	AD+B	10	20	90
BTB40L120CL3	3					10	20	120
BTB40L160CL3	3					10	20	160
BTB40L90CL4 *	4	15	22			90		
BTB40L120CL4	4	15	22			120		
BTB40L160CL4	4	15	22			160		
BTB40L90CL5 *	5	15	22			90		
BTB40L120CL5	5	15	22			120		
BTB40L160CL5	5	15	22			160		
BTB40L90CL6 *	6	21	27			90		
BTB40L130CL6	6	21	27			130		
BTB40L160CL6	6	21	27			160		
BTB40L90CL8 *	8	21	27			90		
BTB40L130CL8	8	21	27			130		
BTB40L160CL8	8	21	27			160		
BTB40L90CL10 *	10	24	32			90		
BTB40L130CL10	10	24	32			130		
BTB40L160CL10	10	24	32			160		
BTB40L90CL12 *	12	24	32			90		
BTB40L130CL12	12	24	32			130		
BTB40L160CL12	12	24	32	160				
BTB40L90CL14 *	14	27	34	90				
BTB40L130CL14	14	27	34	130				
BTB40L160CL14	14	27	34	160				

* "Face contact" + "D" (DBT30L80CL3)

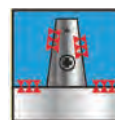
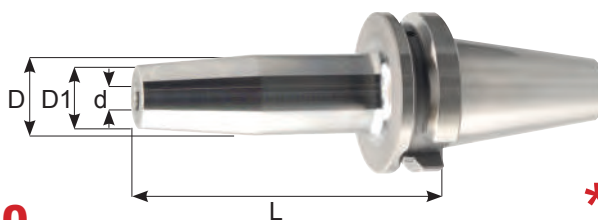
BT40 / BT50 →

MAS/403BT

Porta herramientas inducción térmica
Shrink Fit holders



on request



100% contact

* G2.5 / 25.000rpm
G6.3 / 15.000rpm
Face contact

BT40 / BT50

6

REFERENCIA	d	RPM	FORMA	D1	D	L
BTB40L90CL16 *	16	25.000	AD+B	27	34	90
BTB40L130CL16	16			27	34	130
BTB40L160CL16	16			27	34	160
BTB40L90CL18 *	18			33	42	90
BTB40L130CL18	18			33	42	130
BTB40L160CL18	18			33	42	160
BTB40L90CL20 *	20			33	42	90
BTB40L130CL20	20			33	42	130
BTB40L160CL20	20			33	42	160
BTB40L100CL25 *	25			44	44	100
BTB40L130CL25	25			44	44	130
BTB40L160CL25	25			44	44	160
BTB40L100CL32 *	32			44	44	100
BTB40L130CL32	32			44	44	130
BTB40L160CL32	32			44	44	160
BTB50L100CL3 *	3			10	20	100
BTB50L120CL3	3			10	20	120
BTB50L160CL3	3			10	20	160
BTB50L100CL4 *	4			15	25	100
BTB50L120CL4	4			15	22	120
BTB50L160CL4	4			15	22	160
BTB50L100CL5 *	5			15	25	100
BTB50L120CL5	5			15	22	120
BTB50L160CL5	5			15	22	160
BTB50L100CL6 *	6			20	27	100
BTB50L120CL6	6			20	27	120
BTB50L160CL6	6			20	27	160
BTB50L100CL8 *	8			20	27	100
BTB50L120CL8	8			20	27	120
BTB50L160CL8	8			20	27	160
BTB50L100CL10 *	10			24	31	100
BTB50L120CL10	10			24	31	120
BTB50L160CL10	10	24	31	160		
BTB50L100CL12 *	12	24	31	100		
BTB50L120CL12	12	24	31	120		
BTB50L160CL12	12	24	31	160		

* "Face contact" + "D" (DBTB40L90CL18)

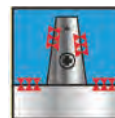
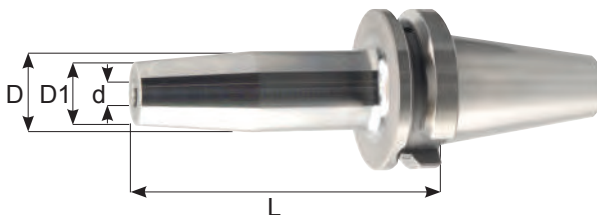
BT40 / BT50 →

MAS/403BT

Porta herramientas inducción térmica
Shrink Fit holders



on request



100% contact

* G2.5 / 25.000rpm
G6.3 / 15.000rpm
Face contact

BT50

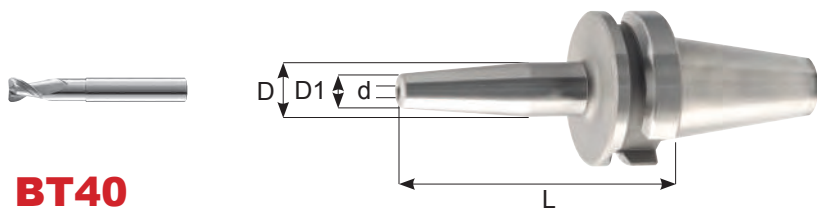
REFERENCIA	d	RPM	FORMA	D1	D	L
BTB50L100CL14 *	14	25.000	AD+B	27	34	100
BTB50L120CL14	14			27	34	120
BTB50L160CL14	14			27	34	160
BTB50L100CL16 *	16			27	34	100
BTB50L120CL16	16			27	34	120
BTB50L160CL16	16			27	34	160
BTB50L100CL18 *	18			33	40	100
BTB50L120CL18	18			33	40	120
BTB50L160CL18	18			33	40	160
BTB50L100CL20 *	20			33	40	90
BTB50L120CL20	20			33	40	120
BTB50L160CL20	20			33	40	160
BTB50L110CL25 *	25			44	53	110
BTB50L120CL25	25			44	53	120
BTB50L160CL25	25			44	53	160
BTB50L110CL32	32			44	53	110
BTB50L120CL32	32			44	53	120
BTB50L160CL32	32			44	53	160

* "Face contact" + "D" (DBTB50L100CL18)



MAS/403BT

Porta herramientas inducción térmica - Slim
Shrink Fit holders - Slim execution



SLIM

BT40

6

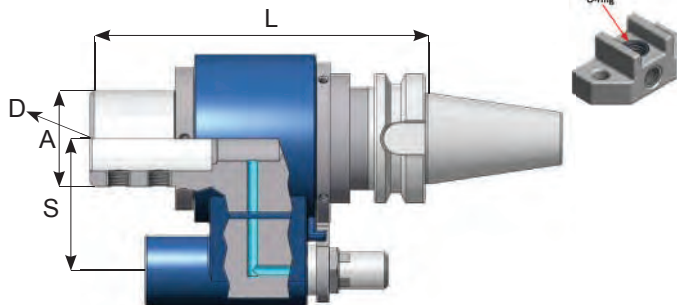
REFERENCIA	d	RPM	FORMA	d	D1	D	L
BTB40L90CL3SL	3	25.000	AD+B	3	9	13	90
BTB40L120CL3SL	3			3	9	16	120
BTB40L90CL4SL	4			4	10	15	90
BTB40L120CL4SL	4			4	10	15	120
BTB40L90CL5SL	5			5	11	16	90
BTB40L120CL5SL	5			5	11	20	120
BTB40L90CL6SL	6			6	12	17	90
BTB40L130CL6SL	6			6	12	19	130
BTB40L160CL6SL	6			6	12	19	160
BTB40L90CL8SL	8			8	14	19	90
BTB40L130CL8SL	8			8	14	21	130
BTB40L160CL8SL	8			8	14	21	160
BTB40L90CL10SL	10			10	16	21	90
BTB40L130CL10SL	10			10	16	23	130
BTB40L160CL10SL	10			10	16	23	160
BTB40L90CL12SL	12			12	18	23	90
BTB40L130CL12SL	12			12	18	25	130
BTB40L160CL12SL	12			12	18	25	160
BTB40L90CL14SL	14			14	22	25	90
BTB40L130CL14SL	14			14	22	27	130
BTB40L160CL14SL	14	14	22	27	160		
BTB40L90CL16SL	16	16	24	29	90		
BTB40L130CL16SL	16	16	21	31	130		
BTB40L160CL16SL	16	16	24	31	160		
BTB40L90CL20SL	20	20	28	33	90		
BTB40L130CL20SL	20	20	28	35	130		
BTB40L160CL20SL	20	20	28	35	160		



MAS/403BT



Distribuidor rotante de refrigeración
Side lock oil hole holders



BT40 / BT50

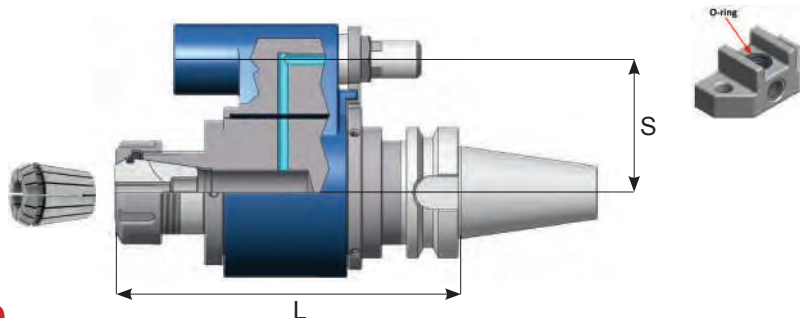
REFERENCIA	D	S	L	A
BT40D16DR	16	65	165	46.5
BT40D20DR	20	65	165	46.5
BT40D25DR	25	65	165	46.5
BT40D32DR	32	65	165	47
BT50D16DR	16	80	165	56
BT50D20DR	20	80	165	56
BT50D25DR	25	80	165	56
BT50D32DR	32	80	165	56
BT50D40DR	40	80	170	56

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MAS/403BT



Distribuidor rotante de refrigeración pinza ER
ER oil hole holders collet chucks



BT40 / BT50

REFERENCIA	CAP	S	L
BT40ER16DR	1 ÷ 10	65	160
BT40ER20DR	1 ÷ 14	65	160
BT40ER25DR	1 ÷ 20	65	160
BT40ER32DR	2 ÷ 22	65	160
BT50ER16DR	1 ÷ 10	80	160
BT50ER20DR	1 ÷ 14	80	160
BT50ER25DR	1 ÷ 20	80	160
BT50ER32DR	2 ÷ 22	80	160
BT50ER40DR	3 ÷ 30	80	160

MAS/403BT

Barra mecanizable MAS/403BT
Machinable blank Arbors MAS/BT

Material : 16MnCr5
600/800 Nm



6

BT30 / BT40 / BT50

REFERENCIA	D	L
BT30L160D40BL	40.5	160
BT40L100D40BL	40.5	100
BT40L160D40BL	40.5	160
BT40L100D50BL	50.5	100
BT40L160D50BL	50.5	160
BT40L160D63BL	63.5	160
BT40L250D63BL	63.5	250
BT50L100D40BL	40.5	100
BT50L160D40BL	40.5	160
BT50L100D50BL	50.5	100
BT50L200D50BL	50.5	200
BT50L200D63BL	63.5	200
BT50L315D63BL	63.5	315
BT50L200D95BL	95.5	200
BT50L315D97BL	97	315

MAS/403BT

Barra mecanizable MAS/403BT "Doble Contacto"
Machinable blank Arbors MAS/BT "Face contact"



100% contact

BT30 / BT40 / BT50

REFERENCIA	D	L
DBT30L80D40BL	40.5	80
DBT30L160D40BL	40.5	160
DBT40L160D63BL	63.5	160
DBT40L250D63BL	63.5	250
DBT40L90D70BL	70	90
DBT50L315D63BL	63.5	315
DBT50L200D95BL	95.5	200
DBT50L315D95BL	95.5	315



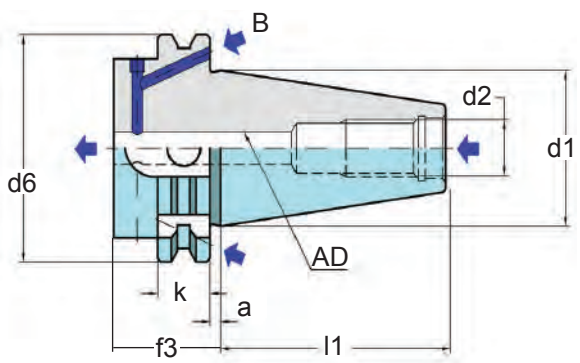
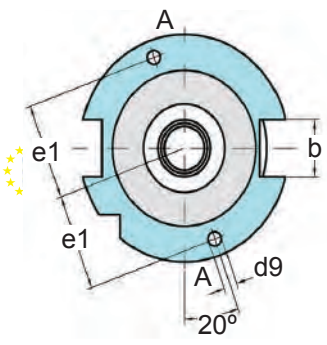
**CONO ISO
DIN/69871**

PROGRAMA

7

						
PAG. 4-5	PAG. 6	PAG. 7	PAG. 7	PAG. 8	PAG. 8	PAG. 9
						
PAG. 10-11	PAG. 12	PAG. 12	PAG. 12	PAG. 13	PAG. 14-17	PAG. 18
						
PAG. 19	PAG. 19	PAG. 20-21	PAG. 22-24	PAG. 24	PAG. 25	PAG. 26-27
						
PAG. 27	PAG. 28	PAG. 29	PAG. 29	PAG. 30	PAG. 30	PAG. 31
						
PAG. 31-32	PAG. 33	PAG. 34	PAG. 34	PAG. 35	PAG. 36	PAG. 37
						
PAG. 38-40	PAG. 41	PAG. 42	PAG. 42	PAG. 43		

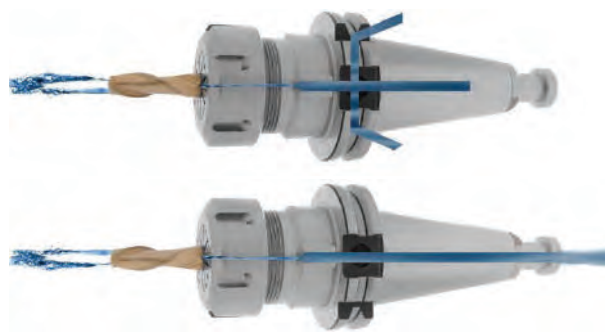
● Opcional **DOBLE CONTACTO**



CONO TAPER	FORMA FORM	d1	d2	d6	l1	a	k	f3	b	d9	e1
TC30	AD	31.75	M12	50	47.8	3.2	15.9	35	16.1	-	-
TCB40	AD+B	44.45	M16	63.55	68.40	3.2	15.9	35	16.1	4	27
TCB45	AD+B	57.15	M20	82.55	82.7	3.2	15.9	35	19.3	5	35
TCB50	AD+B	69.85	M24	97.50	101.75	3.2	15.9	35	25.7	6	42

Forma AD+B = TCB

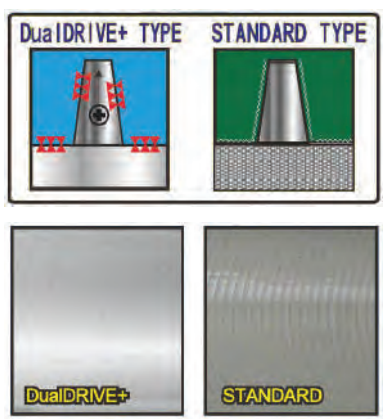
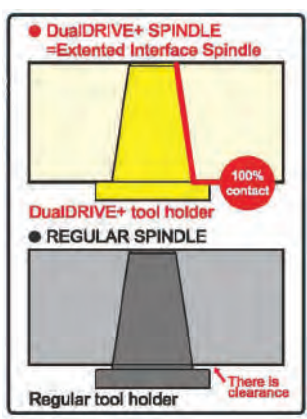
Forma AD = TC



DOBLE CONTACTO

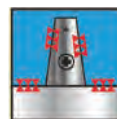
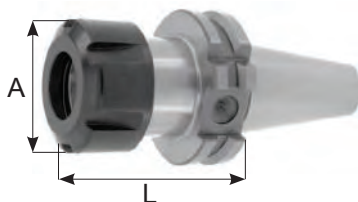


CONO TAPER	FORMA FORM
DTC40	AD
DTC50	AD



DIN/69871

Porta pinzas ER tuerca STANDARD
Collet chucks ER STANDARD nut



100% contact

* G2.5 / 25.000rpm
G6.3 / 15.000rpm
Face contact

TC30

REFERENCIA	CAP	RPM	FORMA	L	A
TC30L63ER16	1 ÷ 10	15.000	AD	63	32
TC30L100ER16	1 ÷ 14			100	
TC30L63ER20				63	35
TC30L63ER25	1 ÷ 20			63	42
TC30L90ER25				90	
TC30L63ER32	2 ÷ 22			63	50
TC30L100ER32		100			

TC40

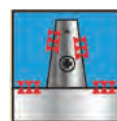
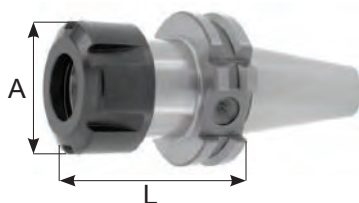
REFERENCIA	CAP	RPM	FORMA	L	A
TCB40L70ER16 *	1 ÷ 10	15.000	AD+B	70	32
TCB40L100ER16 *				100	
TCB40L120ER16				120	
TCB40L130ER16				130	
TCB40L150ER16				150	
TCB40L160ER16				160	
TCB40L200ER16	200				
TCB40L70ER20 *	1 ÷ 14	15.000	AD+B	70	35
TCB40L100ER20 *				100	
TCB40L130ER20				130	
TCB40L160ER20				160	
TCB40L70ER25 *	1 ÷ 20	15.000	AD+B	70	42
TCB40L100ER25 *				100	
TCB40L130ER25				130	
TCB40L160ER25				160	
TCB40L200ER25				200	
TCB40L47ER32	2 ÷ 22	15.000	AD+B	47	50
TCB40L70ER32 *				70	
TCB40L100ER32 *				100	
TCB40L130ER32				130	
TCB40L160ER32				160	
TCB40L200ER32				200	
TCB40L70ER40 *	3 ÷ 30	15.000	AD+B	70	63
TCB40L100ER40 *				100	
TCB40L130ER40				130	
TCB40L160ER40				160	
TCB40L200ER40				200	
TCB40L85ER50	6 ÷ 34	15.000	AD+B	85	78

* "Face contact" + "D" (DTCB40L70ER16)

TC45 - TC50 →

DIN/69871

Porta pinzas ER tuerca STANDARD
Collet chucks ER STANDARD nut



100% contact

* G2.5 / 25.000rpm
G6.3 / 15.000rpm
Face contact

TC45

REFERENCIA	CAP	RPM	FORMA	L	A
TCB45L80ER32	2 ÷ 22	15.000	AD+B	80	50
TCB45L100ER32				100	
TCB45L80ER40	3 ÷ 30	15.000	AD+B	80	63

TC50

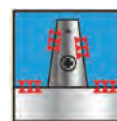
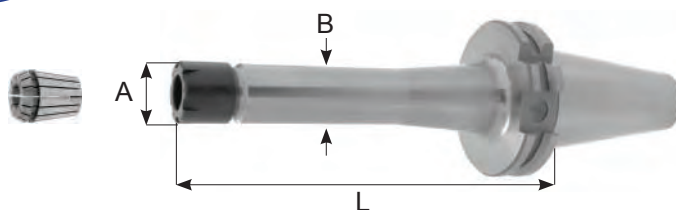
REFERENCIA	CAP	RPM	FORMA	L	A
TCB50L100ER16 *	1 ÷ 10	15.000	AD+B	100	28
TCB50L160ER16				160	
TCB50L200ER16				200	
TCB50L100ER20 *	1 ÷ 14	15.000	AD+B	100	34
TCB50L160ER20				160	
TCB50L80ER25 *	1 ÷ 20	15.000	AD+B	80	42
TCB50L100ER25 *				100	
TCB50L130ER25				130	
TCB50L160ER25				160	
TCB50L200ER25				200	
TCB50L80ER32 *	2 ÷ 22	15.000	AD+B	80	50
TCB50L100ER32 *				100	
TCB50L130ER32 *				130	
TCB50L160ER32 *				160	
TCB50L200ER32 *				200	
TCB50L250ER32				250	
TCB50L80ER40 *	3 ÷ 30	15.000	AD+B	80	63
TCB50L100ER40 *				100	
TCB50L130ER40 *				130	
TCB50L160ER40				160	
TCB50L200ER40				200	
TCB50L100ER50	6 ÷ 34	15.000	AD+B	100	78
TCB50L130ER50				130	
TCB50L160ER50				160	

* "Face contact" + "D" (DTCB50L100ER16)

7

DIN/69871

Porta pinzas ER tuerca MINI
Collet chucks ER MINI nut



100% contact

* G2.5 / 25.000rpm
G6.3 / 15.000rpm
Face contact

TC40

REFERENCIA	CAP	RPM	FORMA	L	B	A
TCB40L130ER8M	1 ÷ 5	15.000	AD+B	130	12	12
TCB40L100ER11M *				100		
TCB40L125ER11M	1 ÷ 7	15.000	AD+B	125	16	16
TCB40L150ER11M				150		
TCB40L70ER16M				70		
TCB40L100ER16M *	1 ÷ 10	15.000	AD+B	100	22	22
TCB40L125ER16M				125		
TCB40L150ER16M				150		
TCB40L100ER20M *	1 ÷ 14	15.000	AD+B	100	28	28
TCB40L135ER20M				135		
TCB40L150ER20M				150		
TCB40L100ER25M	1 ÷ 20	15.000	AD+B	100	35	35
TCB40L150ER25M				150		
TCB40L200ER25M				200		

* "Face contact" + "D" (DTCB40L100ER11M)

TC50

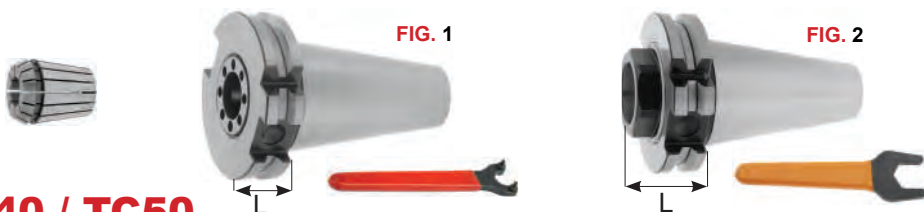
REFERENCIA	CAP	RPM	FORMA	L	B	A
TCB50L100ER11M *	1 ÷ 7	15.000	AD+B	100	16	16
TCB50L130ER16M *	1 ÷ 10	15.000	AD+B	130	22	22
TCB50L160ER16M				160		
TCB50L200ER16M				200		
TCB50L130ER20M *	1 ÷ 14	15.000	AD+B	130	28	28
TCB50L130ER25M	1 ÷ 20	15.000	AD+B	130	35	35
TCB50L160ER25M				160		

* "Face contact" + "D" (DTCB50L100ER11M)



DIN/69871

Porta pinzas extra corto
Shorty Collet chucks

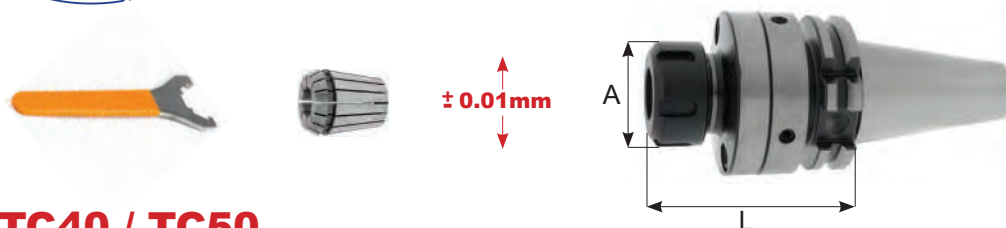


TC40 / TC50

REFERENCIA	CAP	RPM	FORMA	L	FIG
TC40L21ER25A	1 ÷ 20	12.000	AD	21	1
TC40L21ER32A	2 ÷ 22		AD	21	1
TC50L21ER32A	2 ÷ 22		AD	21	1
TCB40L40ER32A	2 ÷ 22		AD+B	40	1
TCB40L47ER32AEX			AD+B	47	2
TCB50L40ER32A	2 ÷ 22		AD+B	40	1
TCB50L47ER32AEX		AD+B	47	2	

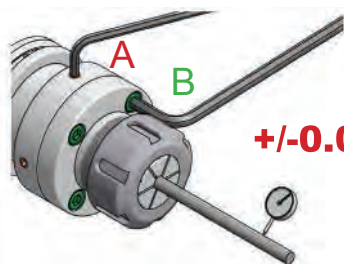
DIN/69871

Porta pinzas ER regulación radial
Radial adjustable collet chucks



TC40 / TC50

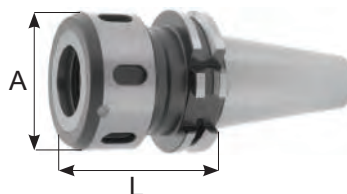
REFERENCIA	CAP	FORMA	A	L
TCB40L93ER16RG	1 ÷ 10	AD+B	32	93
TCB40L95ER20RG	1 ÷ 14		35	95
TCB40L96ER25RG	1 ÷ 20		42	96
TCB40L97ER32RG	2 ÷ 22		50	97
TCB40L131ER40RG	3 ÷ 30		63	131
TCB50L93ER16RG	1 ÷ 10	AD+B	32	93
TCB50L95ER20RG	1 ÷ 14		35	95
TCB50L96ER25RG	1 ÷ 20		42	96
TCB50L97ER32RG	2 ÷ 22		50	97
TCB50L131ER40RG	3 ÷ 30		63	131



+/-0.01mm

"Afloje los tornillos B y ajuste el centrado con los tornillos A"
"Loosen screws B and use screws A for radial adjustment"

Porta pinzas para pinza EOC DIN/6388 B
Collet chucks EOC DIN/6388 B



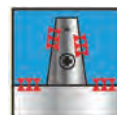
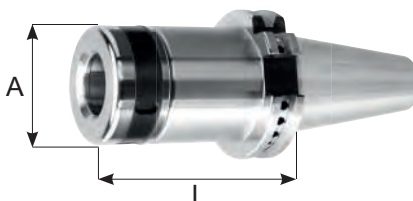
TC30 / TC40 / TC50

REFERENCIA	CAP	RPM	FORMA	L	A
TC30L60EOC16	2 ÷ 16	15.000	AD	60	43
TC30L80EOC25	2 ÷ 25			80	60
TCB40L70EOC16	2 ÷ 16	15.000	AD+B	70	43
TCB40L100EOC16				100	43
TCB40L70EOC25	2 ÷ 25			70	60
TCB40L100EOC25				100	60
TCB40L90EOC32	3 ÷ 32	90	72		
TCB50L70EOC16	2 ÷ 16	15.000	AD+B	70	43
TCB50L70EOC25	2 ÷ 25			70	60
TCB50L80EOC32	3 ÷ 32			80	72
TCB50L100EOC32				100	72

7

MAS/403BT

Porta pinzas SKS
SKS - Collet chucks



100% contact

*

G2.5 / 25.000rpm
G6.3 / 15.000rpm
Face contact

TC40 / TC50

REFERENCIA	CAP	RPM	FORMA	L	A
TC40L90SKS10 *	2 ÷ 10	15.000	AD	90	30
TC40L120SKS10	2 ÷ 10			120	30
TC40L90SKS16 *	3 ÷ 16			90	40
TC40L90SKS20 *	3 ÷ 20			90	48.5
TC40L120SKS20	3 ÷ 20			120	48.5
TC40L90SKS25 *	3 ÷ 25			90	55.1
TC50L105SKS10	2 ÷ 10	15.000	AD	105	30
TC50L165SKS10	2 ÷ 10			165	30
TC50L105SKS20	3 ÷ 20			105	48.5
TC50L165SKS20	3 ÷ 20			165	48.5

* "Face contact" + "D" (DTC40L90SKS10)

MAS/403BT



Coolant



Porta pinzas gran apriete
Power milling chucks



Refrigeración
Interna
Coolant flow

TC30 / TC40 / TC50

REFERENCIA	CAP	RPM	FORMA	L	A
TC30L100FP20	3 ÷ 16	15.000	AD	100	46
TCB40L75FP20	3 ÷ 16	15.000	AD+B	75	46
TCB40L95FP32	3 ÷ 25			95	
TCB50L85FP20	3 ÷ 16	15.000	AD+B	85	46
TCB50L85FP32	3 ÷ 25			85	

Estuche porta pinzas gran apriete
Straight shank collet chuck kit



REFERENCIA	Capacidad
BTC30FP20	Pinza 4SR20 6 . 8 . 10 . 12 . 16
BTC40FP20	
BTC50FP20	
BTC40FP32	Pinza 4SR32 6 . 8 . 10 . 12 . 16 . 20 . 25
BTC50FP32	

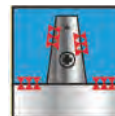
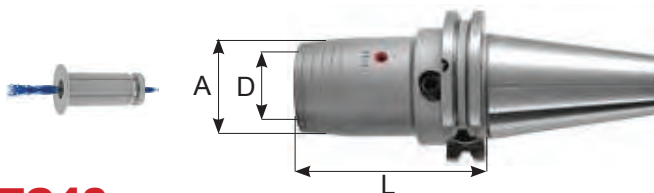


DIN/69871

Porta herramientas hidráulico paso refrigerante
Hydraulic chucks with coolant feed



Coolant



100% contact

TC30 / TC40

REFERENCIA	D	FORMA	L	A
TC30L60HD6 *	6	AD	60	45
TC30L64HD8 *	8		64	45
TC30L64HD10 *	10		64	45
TC30L72HD12 *	12		72	45
TC30L72HD14 *	14		72	45
TC30L72HD16 *	16		72	45
TC30L72HD18 *	18		72	45
TC30L90HD20 *	20		90	42
TC30L105HD25	25		105	45
TC30L135HD25	25		135	45
TC40L68HD6 *	6	AD	68	26
TC40L110HD6			110	
TC40L150HD6	8	AD	150	28
TC40L68HD8 *			68	
TC40L110HD8	110	30		
TC40L150HD8	150			
TC40L72HD10 *	10	AD	72	32
TC40L110HD10			110	
TC40L150HD10	150	34		
TC40L77HD12 *	12		AD	77
TC40L110HD12		110		
TC40L150HD12	150	42		
TC40L77HD14 *	14		AD	77
TC40L110HD14		110		
TC40L150HD14	150	60		
TC40L80HD16 *	16		AD	80
TC40L110HD16		110		
TC40L150HD16	150	40		
TC40L80HD18 *	18		AD	80
TC40L110HD18		110		
TC40L150HD18	150	42		
TC40L82HD20 *	20		AD	82
TC40L110HD20		110		
TC40L150HD20	150	50		
TC40L117HD25 *	25		AD	117
TC40L150HD25		150		
TC40L117HD32 *	32	AD	117	

AD+B (Sobre Pedido) AD+B (On request)

* "Face contact" + "D" (DTC40L68HD6)

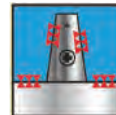
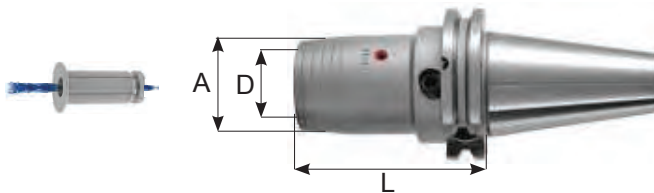
TC50 →

DIN/69871

Porta herramientas hidráulico paso refrigerante
Hydraulic chucks with coolant feed



Coolant



100% contact

TC50

REFERENCIA	D	FORMA	L	A
TC50L68HD6 *			68	
TC50L110HD6	6	AD	110	26
TC50L150HD6			150	
TC50L200HD6			200	
TC50L68HD8 *			68	
TC50L110HD8	8	AD	110	28
TC50L150HD8			150	
TC50L200HD8			200	
TC50L72HD10 *			72	
TC50L110HD10	10	AD	110	30
TC50L150HD10			150	
TC50L200HD10			200	
TC50L77HD12 *			77	
TC50L110HD12	12	AD	110	32
TC50L150HD12			150	
TC50L200HD12			200	
TC50L77HD14 *			77	
TC50L110HD14	14	AD	110	34
TC50L150HD14			150	
TC50L200HD14			200	
TC50L80HD16 *			80	
TC50L110HD16	16	AD	110	38
TC50L150HD16			150	
TC50L200HD16			200	
TC50L80HD18 *			80	
TC50L110HD18	18	AD	110	40
TC50L150HD18			150	
TC50L200HD18			200	
TC50L82HD20 *			82	
TC50L110HD20	20	AD	110	42
TC50L150HD20			150	
TC50L160HD20			160	
TC50L200HD20			200	
TC50L87HD25 *			87	
TC50L110HD25	25	AD	110	50
TC50L150HD25			150	
TC50L160HD25			160	
TC50L200HD25			200	
TC50L91HD32 *			91	
TC50L110HD32	32	AD	110	60
TC50L150HD32			150	
TC50L200HD32			200	
TC50L120HD40 *	40	AD	120	70
TC50L150HD40			150	
TC50L120HD50 *	50	AD	120	78

DIN/69871

Porta brocas con llave de gancho
Drill chuck with hook wrench



TC30 / TC40 / TC50

REFERENCIA	CAP	RPM	FORMA	L	A
TC30L110DCK13	1 ÷ 13	12.000	AD	110	50
TC40L100DCK13	1 ÷ 13			100	50
TC40L115DCK16	3 ÷ 16			115	57
TC50L100DCK13	1 ÷ 13			100	50
TC50L105DCK16	3 ÷ 16			105	57

7

DIN/69871

Porta brocas llave hexagonal con paso refrigerante
Exagonal key look drill chucks with coolant through

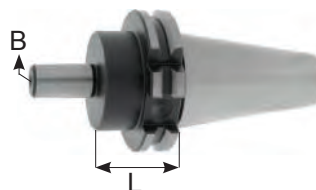


TC40 / TC50

REFERENCIA	CAP	RPM	FORMA	L	A
TC30L120DCK13	1 ÷ 13	12.000	AD	120	50
TCB40L90HD13	1 ÷ 13		AD+B	90	50
TCB40L95HD16	3 ÷ 16			95	50
TCB50L90DCK13	1 ÷ 13		90	50	
TCB50L95DCK16	3 ÷ 16		95	50	

DIN/69871

Porta brocas
Drill chuck Arbors



TC30 / TC40 / TC50

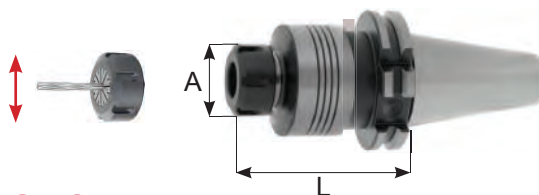
REFERENCIA	DIN	B	L
TC30L25B12	DIN/238	B12	25
TC30L25B16	DIN/238	B16	25
TC40L40B12	DIN/238	B12	40
TC40L40B16	DIN/238	B16	40
TC40L40B18	DIN/238	B18	40
TC50L40B16	DIN/238	B16	40
TC50L40B18	DIN/238	B18	40

DIN/69871

Porta escariador flotante con paso refrigerante
Floating reamer holder with coolant flow



Flotación



Refrigeración
Interna
Coolant flow

TC30 / TC40 / TC50

REFERENCIA	CAP	PINZA	FORMA	FLOT	L	A
TC30RM11	1 ÷ 7	ER11	AD	± 1 mm	75	19
TC30RM16	1 ÷ 10	ER16		± 1 mm	79	32
TC30RM20	1 ÷ 14	ER20		± 1 mm	85	35
TC30RM25	1 ÷ 20	ER25		± 1 mm	88	42
TC30RM32	2 ÷ 22	ER32		± 1.5 mm	93	50
TC30RM40	3 ÷ 30	ER40		± 1.5 mm	99	63
TC40RM11	1 ÷ 7	ER11	AD	± 1 mm	75	19
TC40RM16	1 ÷ 10	ER16		± 1 mm	79	32
TC40RM20	1 ÷ 14	ER20		± 1 mm	85	35
TC40RM25	1 ÷ 20	ER25		± 1 mm	88	42
TC40RM32	2 ÷ 22	ER32		± 1.5 mm	93	50
TC40RM40	3 ÷ 30	ER40		± 1.5 mm	99	63
TC50RM11	1 ÷ 7	ER11	AD	± 1 mm	84	19
TC50RM16	1 ÷ 10	ER16		± 1 mm	88	32
TC50RM20	1 ÷ 14	ER20		± 1 mm	94	35
TC50RM25	1 ÷ 20	ER25		± 1 mm	97	42
TC50RM32	2 ÷ 22	ER32		± 1.5 mm	102	50
TC50RM40	3 ÷ 30	ER40		± 1.5 mm	108	63

El escariador oscila radialmente con un sistema flotante y autocentrante regulable.

Se garantiza un perfecto alineamiento entre la herramienta y la pieza a mecanizar.

Está taladrado para permitir el paso de la refrigeración a través de la pinza o escariador.

The holder is designed with full floating and self centering movement.

The alignment of the reamer with a previously drilled hole is granted also to the high speeds.

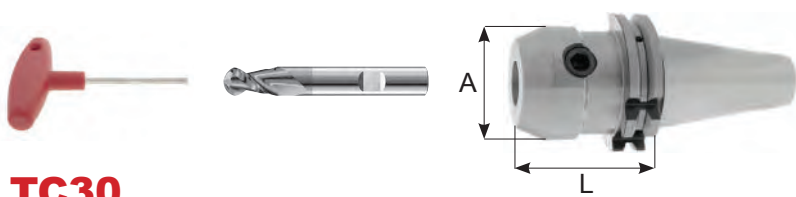
The floating of the reamer is easy adjustable.

The holder is full drilled for coolant or air supply y through the collet slots or the reamer holes.



DIN/69871

Porta fresas weldon DIN 1835-B
End mill holders for DIN 1835-B



100% contact

* G2.5 / 25.000rpm
G6.3 / 15.000rpm
Face contact

TC30

REFERENCIA	D	RPM	FORMA	L	A
TC30L50WE6	6	15.000	AD	50	25
TC30L100WE6				100	
TC30L50WE8	50			28	
TC30L100WE8	100				
TC30L50WE10	50			35	
TC30L100WE10	100				
TC30L50WE12	50			42	
TC30L100WE12	100				
TC30L50WE14	50			44	
TC30L100WE14	100				
TC30L63WE16	63			48	
TC30L100WE16	100				
TC30L63WE18	63	50			
TC30L100WE18	100				
TC30L63WE20	63	52			
TC30L100WE20	100				

TC40

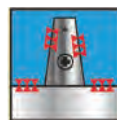
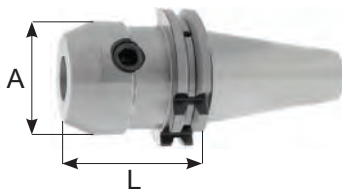
REFERENCIA	D	RPM	FORMA	L	A
TCB40L50WE6 *	6	15.000	AD+B	50	25
TCB40L100WE6				100	
TCB40L130WE6				130	
TCB40L160WE6				160	
TCB40L200WE6				200	
TCB40L50WE8 *	8	15.000	AD+B	50	28
TCB40L100WE8				100	
TCB40L130WE8				130	
TCB40L160WE8				160	
TCB40L200WE8				200	
TCB40L50WE10 *	10	15.000	AD+B	63	35
TCB40L100WE10				100	
TCB40L130WE10				130	
TCB40L160WE10				160	
TCB40L200WE10				200	

* "Face contact" + "D" (DTCB40L50WE6)
Whistle-Notch on request.

TC40 →

DIN/69871

Porta fresas weldon DIN 1835-B
End mill holders for DIN 1835-B



100% contact

*

G2.5 / 25.000rpm
G6.3 / 15.000rpm
Face contact

TC40

REFERENCIA	D	RPM	FORMA	L	A
TCB40L50WE12 *	12	15.000	AD+B	50	42
TCB40L100WE12				100	
TCB40L130WE12				130	
TCB40L160WE12				160	
TCB40L200WE12				200	
TCB40L50WE14	14	15.000	AD+B	50	44
TCB40L100WE14				100	
TCB40L130WE14				130	
TCB40L160WE14				160	
TCB40L200WE14				200	
TCB40L63WE16 *	16	15.000	AD+B	63	48
TCB40L100WE16				100	
TCB40L130WE16				130	
TCB40L160WE16				160	
TCB40L200WE16				200	
TCB40L63WE18	18	15.000	AD+B	63	50
TCB40L100WE18				100	
TCB40L130WE18				130	
TCB40L160WE18				160	
TCB40L200WE18				200	
TCB40L63WE20 *	20	15.000	AD+B	63	52
TCB40L100WE20				100	
TCB40L130WE20				130	
TCB40L160WE20				160	
TCB40L200WE20				200	
TCB40L100WE25 *	25	15.000	AD+B	100	65
TCB40L130WE25				130	
TCB40L160WE25				160	
TCB40L100WE32 *	32	15.000	AD+B	100	72
TCB40L130WE32				130	
TCB40L160WE32				160	
TCB40L120WE40	40	15.000	AD+B	120	80

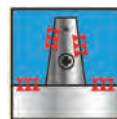
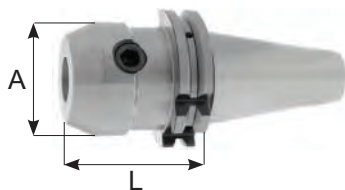
* "Face contact" + "D" (DTCB40L50WE12)

Whistle-Notch on request.

TC50 →

DIN/69871

Porta fresas weldon DIN 1835-B
End mill holders for DIN 1835-B



100% contact

*

G2.5 / 25.000rpm
G6.3 / 15.000rpm
Face contact

TC50

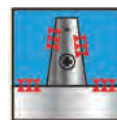
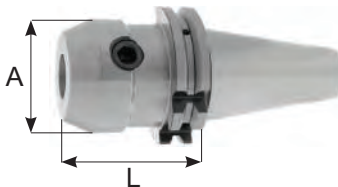
REFERENCIA	D	RPM	FORMA	L	A
TCB50L63WE6 *	6	15.000	AD+B	63	25
TCB50L100WE6				100	
TCB50L130WE6				130	
TCB50L160WE6				160	
TCB50L200WE6				200	
TCB50L63WE8 *	8	15.000	AD+B	63	28
TCB50L100WE8				100	
TCB50L130WE8				130	
TCB50L160WE8				160	
TCB50L200WE8				200	
TCB50L63WE10 *	10	15.000	AD+B	63	35
TCB50L100WE10				100	
TCB50L130WE10				130	
TCB50L160WE10				160	
TCB50L200WE10				200	
TCB50L63WE12 *	12	15.000	AD+B	63	42
TCB50L100WE12				100	
TCB50L130WE12				130	
TCB50L160WE12				160	
TCB50L200WE12				200	
TCB50L63WE14	14	15.000	AD+B	63	44
TCB50L100WE14				100	
TCB50L130WE14				130	
TCB50L160WE14				160	
TCB50L200WE14				200	
TCB50L63WE16 *	16	15.000	AD+B	63	48
TCB50L100WE16				100	
TCB50L130WE16				130	
TCB50L160WE16				160	
TCB50L200WE16				200	

* "Face contact" + "D" (DTCB50L63WE6)

Whistle-Notch on request.

DIN/69871

Porta fresas weldon DIN 1835-B
End mill holders for DIN 1835-B



100% contact

TC50

* G2.5 / 25.000rpm
G6.3 / 15.000rpm
Face contact

REFERENCIA	D	RPM	FORMA	L	A
TCB50L63WE18	18	15.000	AD+B	63	50
TCB50L100WE18				100	
TCB50L130WE18				130	
TCB50L160WE18				160	
TCB50L200WE18				200	
TCB50L63WE20 *	20	15.000	AD+B	63	52
TCB50L100WE20				100	
TCB50L130WE20				130	
TCB50L160WE20				160	
TCB50L200WE20				200	
TCB50L250WE20				250	
TCB50L80WE25 *	25	15.000	AD+B	80	65
TCB50L100WE25				100	
TCB50L130WE25				130	
TCB50L160WE25				160	
TCB50L200WE25				200	
TCB50L250WE25				250	
TCB50L100WE32 *	32	15.000	AD+B	100	72
TCB50L130WE32				130	
TCB50L160WE32				160	
TCB50L200WE32				200	
TCB50L250WE32				250	
TCB50L112WE40 *	40	15.000	AD+B	112	80
TCB50L130WE40				130	
TCB50L160WE40				160	
TCB50L200WE40				200	
TCB50L130WE50 *	50	15.000	AD+B	130	90

* "Face contact" + "D" (DTCB50L63WE18)

Whistle-Notch on request.

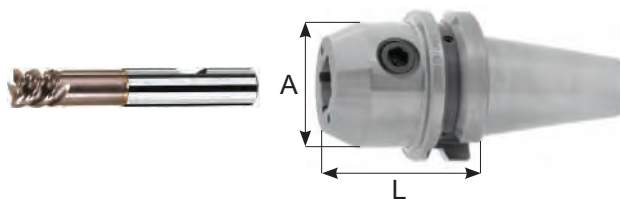
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DIN/69871

Porta fresas weldon con canal de refrigeración
End mill holders with coolant channels



Coolant



TC40

REFERENCIA	D	RPM	FORMA	L	A
TCB40L65WE6C	6	15.000	AD+B	65	25
TCB40L65WE8C	8			65	28
TCB40L65WE10C	10			65	35
TCB40L65WE12C	12			65	42
TCB40L65WE14C	14			65	44
TCB40L65WE16C	16			65	48
TCB40L65WE18C	18			65	50
TCB40L65WE20C	20			65	52
TCB40L100WE25C	25			100	65
TCB40L100WE32C	32			100	72

TC50

REFERENCIA	D	RPM	FORMA	L	A
TCB50L63WE6C	6	15.000	AD+B	63	25
TCB50L63WE8C	8			63	28
TCB50L63WE10C	10			63	35
TCB50L63WE12C	12			63	42
TCB50L63WE14C	14			63	44
TCB50L63WE16C	16			63	48
TCB50L63WE18C	18			63	50
TCB50L63WE20C	20			63	52
TCB50L100WE25C	25			100	65
TCB50L100WE32C	32			100	72
TCB50L100WE40C	40	100	90		

WE6 + WE14



WE16 + WE40



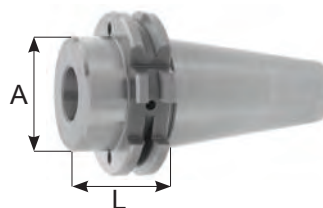
1 Tornillo
1 Screw



2 Tornillo
2 Screw

DIN/69871

Porta fresas weldon extra corto DIN 1835-B
Short type end mill holders for DIN 1835-B shanks



TC30 / TC40 / TC50

REFERENCIA	D	RPM	FORMA	L	A
TC30L35WE16	16	15.000	AD	35	32
TC30L35WE20	20			35	36
TCB40L35WE16	16	15.000	AD+B	35	44
TCB40L35WE20	20			35	44
TCB40L35WE25	25			35	44
TCB40L60WE25	25			60	50
TCB40L40WE32	32			40	72
TCB40L70WE32	32			70	72
TCB50L35WE16	16	15.000	AD+B	35	70
TCB50L35WE20	20			35	70
TCB50L35WE25	25			35	70
TCB50L35WE32	32			35	70
TCB50L35WE40	32			35	70
TCB50L35WE40	40			35	80

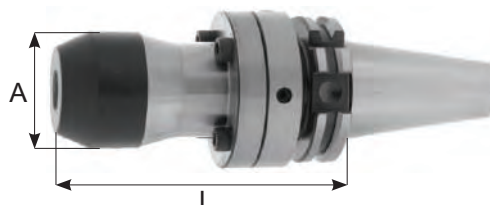
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DIN/69871

Porta fresas weldon regulación radial
Radial adjustable end mill holders



+/- 0.01mm



TC40 / TC50

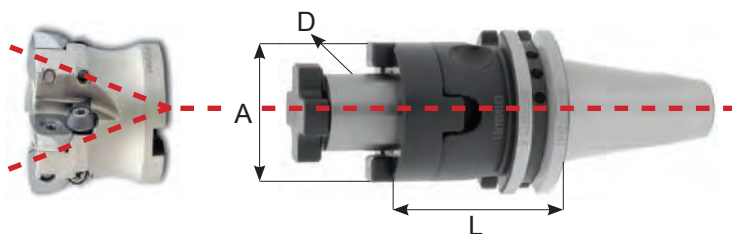
REFERENCIA	D	FORMA	L	A
TCB40L100WE6RG	6	AD+B	100	25
TCB40L100WE8RG	8		100	28
TCB40L100WE10RG	10		100	35
TCB40L110WE12RG	12		110	42
TCB40L130WE16RG	16		130	48
TCB40L130WE18RG	18		130	50
TCB40L135WE20RG	20		135	52
TCB50L100WE6RG	6	AD+B	100	25
TCB50L100WE8RG	8		100	28
TCB50L100WE10RG	10		100	35
TCB50L110WE12RG	12		110	42
TCB50L130WE16RG	16		130	48
TCB50L130WE18RG	18		130	50
TCB50L135WE20RG	20		135	52

DIN/69871

Porta fresas combinado con canal de refrigeración
Combi shell end mill holders with coolant channels



Coolant



TC30

REFERENCIA	D	RPM	FORMA	L	A
TC30L50D16C	16	15.000	AD	50	32
TC30L50D22C	22			50	40
TC30L55D27C	27			55	48
TC30L60D32C	32			60	58

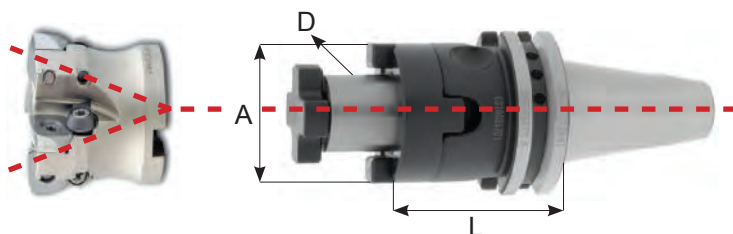
TC40

REFERENCIA	D	RPM	FORMA	L	A
TCB40L55D16C	16	15.000	AD+B	55	32
TCB40L100D16C				100	32
TCB40L130D16C				130	32
TCB40L160D16C				160	32
TCB40L200D16C				200	32
TCB40L55D22C	22	15.000	AD+B	55	40
TCB40L100D22C				100	40
TCB40L130D22C				130	40
TCB40L160D22C				160	40
TCB40L200D22C				200	40
TCB40L55D27C	27	15.000	AD+B	55	48
TCB40L100D27C				100	48
TCB40L130D27C				130	48
TCB40L160D27C				160	48
TCB40L200D27C				200	48
TCB40L60D32C	32	15.000	AD+B	60	58
TCB40L100D32C				100	58
TCB40L130D32C				130	58
TCB40L160D32C				160	58
TCB40L200D32C				200	58
TCB40L60D40C	40	15.000	AD+B	60	70
TCB40L100D40C				100	70
TCB40L130D40C				130	70
TCB40L160D40C				160	70
TCB40L200D40C				200	70

TC50 →

DIN/69871

Porta fresas combinado con canal de refrigeración
Combi shell end mill holders with coolant channels



TC50

REFERENCIA	D	RPM	FORMA	L	A
TCB50L55D16C	16	15.000	AD+B	55	32
TCB50L100D16C				100	32
TCB50L130D16C				130	32
TCB50L160D16C				160	32
TCB50L55D22C	22	15.000	AD+B	55	40
TCB50L100D22C				100	40
TCB50L130D22C				130	40
TCB50L160D22C				160	40
TCB50L55D27C	27	15.000	AD+B	55	48
TCB50L100D27C				100	48
TCB50L130D27C				130	48
TCB50L160D27C				160	48
TCB50L55D32C	32	15.000	AD+B	55	58
TCB50L100D32C				100	58
TCB50L130D32C				130	58
TCB50L160D32C				160	58
TCB50L55D40C	40	15.000	AD+B	55	70
TCB50L100D40C				100	70
TCB50L130D40C				130	70
TCB50L160D40C				160	70



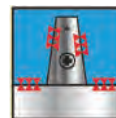
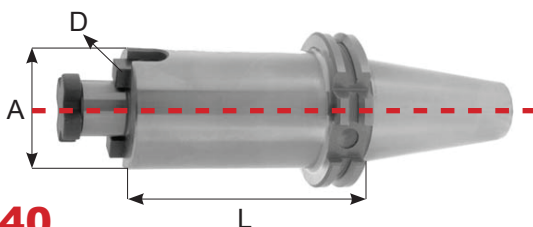
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DIN/69871

Porta fresas fijo con canal de refrigeración
Shell end mill holders with coolant channels



Coolant



100% contact

* G2.5 / 25.000rpm
G6.3 / 15.000rpm
Face contact

TC30 / TC40

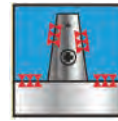
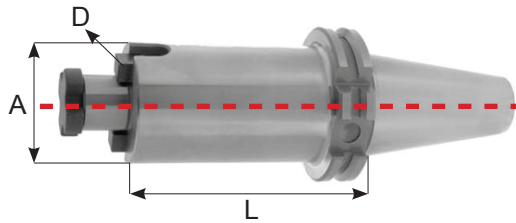
REFERENCIA	D	RPM	FORMA	L	A
TC30L35D16S	16	15.000	AD	35	32
TC30L35D22S				35	40
TC30L60D27S				60	50
TC30L60D32S				60	58
TCB40L35D16S *	16	15.000	AD+B	35	38
TCB40L50D16S				50	38
TCB40L100D16S				100	38
TCB40L130D16S				130	38
TCB40L160D16S				160	38
TCB40L200D16S				200	38
TCB40L35D22S *	22	15.000	AD+B	35	48
TCB40L45D22S				45	48
TCB40L100D22S				100	48
TCB40L130D22S				130	48
TCB40L160D22S				160	48
TCB40L200D22S				200	48
TCB40L35D27S	27	15.000	AD+B	35	58
TCB40L50D27S *				50	58
TCB40L100D27S				100	58
TCB40L130D27S				130	58
TCB40L160D27S				160	58
TCB40L200D27S				200	58
TCB40L50D32S	32	15.000	AD+B	50	78
TCB40L55D32S *				55	78
TCB40L100D32S				100	78
TCB40L130D32S				130	78
TCB40L160D32S				160	78
TCB40L200D32S				200	78
TCB40L50D40S	40	15.000	AD+B	50	88
TCB40L60D40S *				60	88
TCB40L100D40S				100	88
TCB40L130D40S				130	88
TCB40L160D40S				160	88
TCB40L200D40S				200	88

* "Face contact" + "D" (DTCB40L35D16S)

TC50 →

DIN/69871

Porta fresas fijo con canal de refrigeración
Shell end mill holders with coolant channels



100% contact

* G2.5 / 25.000rpm
G6.3 / 15.000rpm
Face contact

TC50

REFERENCIA	D	RPM	FORMA	L	A
TCB50L35D16S *	16	15.000	AD+B	35	38
TCB50L45D16S				45	38
TCB50L100D16S				100	38
TCB50L130D16S				130	38
TCB50L160D16S				160	38
TCB50L200D16S				200	38
TCB50L250D16S				250	38
TCB50L300D16S				300	38
TCB50L350D16S				350	38
TCB50L35D22S *	22	15.000	AD+B	35	48
TCB50L45D22S				45	48
TCB50L100D22S				100	48
TCB50L130D22S				130	48
TCB50L160D22S				160	48
TCB50L200D22S				200	48
TCB50L250D22S				250	48
TCB50L300D22S				300	48
TCB50L350D22S				350	48
TCB50L400D22S	400	48			
TCB50L35D27S *	27	15.000	AD+B	35	58
TCB50L45D27S				45	58
TCB50L100D27S				100	58
TCB50L130D27S				130	58
TCB50L160D27S				160	58
TCB50L200D27S				200	58
TCB50L250D27S				250	58
TCB50L300D27S				300	58
TCB50L350D27S				350	58
TCB50L400D27S	400	58			

* "Face contact" + "D" (DBTB40L45D22S)

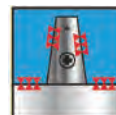
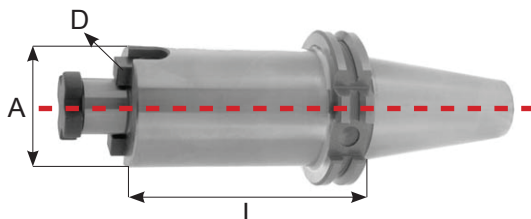
TC50 →

DIN/69871

Porta fresas fijo con canal de refrigeración
Shell end mill holders with coolant channels



Coolant



100% contact

*

G2.5 / 25.000rpm
G6.3 / 15.000rpm
Face contact

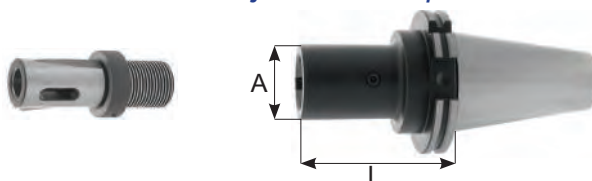
TC50

REFERENCIA	D	RPM	FORMA	L	A
TCB50L35D32S *	32	15.000	AD+B	35	78
TCB50L50D32S				50	78
TCB50L100D32S				100	78
TCB50L130D32S				130	78
TCB50L160D32S				160	78
TCB50L200D32S				200	78
TCB50L250D32S				250	78
TCB50L300D32S				300	78
TCB50L350D32S				350	78
TCB50L35D40S				40	15.000
TCB50L50D40S *	50	88			
TCB50L100D40S	100	88			
TCB50L130D40S	130	88			
TCB50L160D40S	160	88			
TCB50L200D40S	200	88			

* "Face contact" + "D" (DBTB40L45D22S)

DIN/69871

Porta herramientas para mango roscado DIN/6327
Holders for adjustable adapters DIN/6327



TC40 / TC50

REFERENCIA	TR	FORMA	L	A
TC40L75TR16	16	AD	75	25
TC40L80TR20	20		80	32
TC40L100TR28	28		100	40
TC40L115TR36	36		115	50
TC50L85TR16	16	AD	85	25
TC50L85TR20	20		85	32
TC50L100TR28	28		100	40
TC50L100TR36	36		100	50
TC50L105TR48	48		105	67

DIN/69871

Porta fresas fijo antivibratorio conicidad DIN/138
Antivibratory shell mill adaptors DIN/138



TC40

ANTIVIBRATORIO

REFERENCIA	D	L	A	B
TC40L150D16AV	16	150	38	50
TC40L200D16AV		200		
TC40L250D16AV		250		
TC40L300D16AV		300		
TC40L150D22AV	22	150	48	50
TC40L200D22AV		200		
TC40L250D22AV		250		
TC40L300D22AV		300		

TC50

REFERENCIA	D	L	A	B
TC50L150D16AV	16	150	38	80
TC50L200D16AV		200		
TC50L250D16AV		250		
TC50L300D16AV		300		
TC50L400D16AV		400		
TC50L200D22AV	22	200	48	80
TC50L250D22AV		250		
TC50L300D22AV		300		
TC50L400D22AV		400		
TC50L500D22AV		500		
TC50L200D27AV	27	200	58	80
TC50L250D27AV		250		
TC50L300D27AV		300		
TC50L400D27AV		400		
TC50L500D27AV		500		

Especial para moldistas y troquelistas, reduce las vibraciones en un 60% comparandolo con un porta standard.

Special for mould and die makers, vibration reduced up to 60% compared to any other conventional shell mill adaptor.

7

DIN/69871

Porta fresas fijo antivibratorio DIN/138
Antivibratory shell mill adaptors DIN/138



TC40

ANTIVIBRATORIO

REFERENCIA	D	L	A
TC40L150D16AV-38	16	150	38
TC40L200D16AV-38		200	
TC40L250D16AV-38		250	
TC40L300D16AV-38		300	
TC40L150D22AV-48	22	150	48
TC40L200D22AV-48		200	
TC40L250D22AV-48		250	
TC40L300D22AV-48		300	
TC40L150D27AV-58	27	150	58
TC40L200D27AV-58		200	
TC40L250D27AV-58		250	
TC40L300D27AV-58		300	

TC50

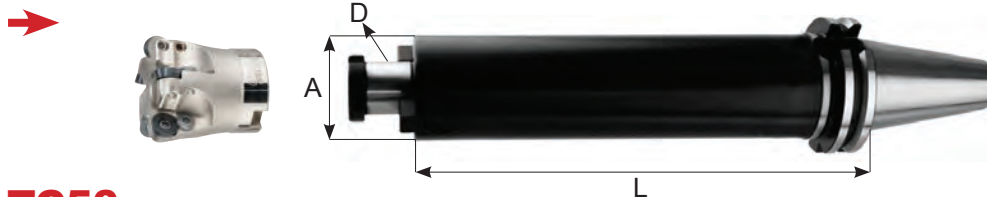
REFERENCIA	D	L	A
TC50L150D16AV-38	16	150	38
TC50L200D16AV-38		200	
TC50L250D16AV-38		250	
TC50L300D16AV-38		300	
TC50L400D16AV-38		400	
TC50L200D22AV-48	22	200	48
TC50L250D22AV-48		250	
TC50L300D22AV-48		300	
TC50L400D22AV-48		400	
TC50L500D22AV-48		500	
TC50L200D22AV-60	22	200	60
TC50L250D22AV-60		250	
TC50L300D22AV-60		300	
TC50L400D22AV-60		400	
TC50L500D22AV-60		500	

Especial para moldistas y troquelistas, reduce las vibraciones en un 60% comparandolo con un porta standard.
Special for mould and die makers, vibration reduced up to 60% compared to any other conventional shell mill adaptor.

TC50 →

DIN/69871

Porta fresas fijo antivibratorio DIN/138
Antivibratory shell mill adaptors DIN/138



TC50

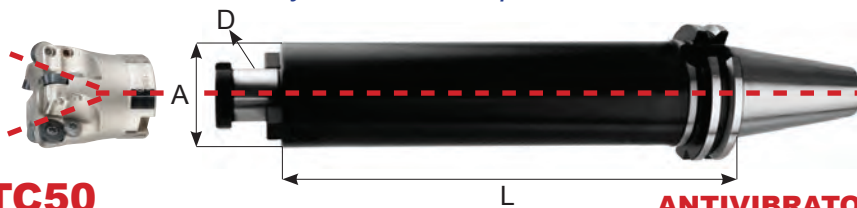
ANTIVIBRATORIO

REFERENCIA	D	L	A
TC50L200D27AV-58	27	200	58
TC50L250D27AV-58		250	
TC50L300D27AV-58		300	
TC50L400D27AV-58		400	
TC50L500D27AV-58		500	
TC50L200D32AV-78	32	200	78
TC50L250D32AV-78		250	
TC50L300D32AV-78		300	
TC50L400D32AV-78		400	
TC50L500D32AV-78		500	

Especial para moldistas y troquelistas, reduce las vibraciones en un 60% comparandolo con un porta standard.
Special for mould and die makers, vibration reduced up to 60% compared to any other conventional shell mill adaptor.

DIN/69871

Porta fresas fijo antivibratorio DIN/138 con refrigeración
Antivibratory shell mill adaptors DIN/138 coolant



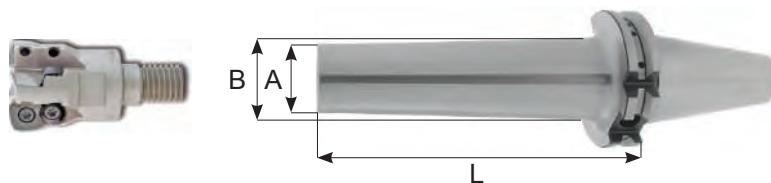
TC40 / TC50

ANTIVIBRATORIO

REFERENCIA	D	FORMA	L	A
TC40L200D16AV-38R	16	AD	200	38
TC40L300D16AV-38R	16		300	38
TC40L200D22AV-48R	22		200	48
TC40L300D22AV-48R	22		300	48
TC40L200D27AV-58R	27		200	58
TC50L200D16AV-38R	16	AD	200	38
TC50L300D16AV-38R	16		300	38
TC50L200D22AV-48R	22		200	48
TC50L300D22AV-48R	22		300	48
TC50L200D27AV-58R	27		200	58
TC50L300D27AV-58R	27		300	58
TC50L300D32AV-78R	32		300	78

DIN/69871

Porta herramientas para fresa roscada
Tool holder for screwed milling cutters

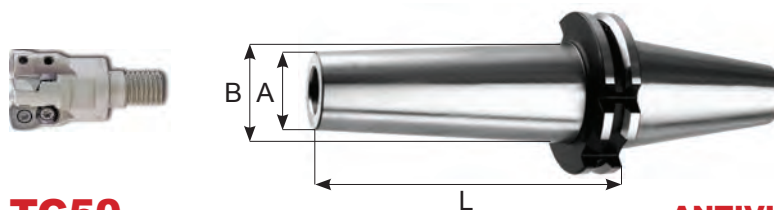


TC40 / TC50

REFERENCIA	M	RPM	FORMA	L	A	B
TCB40L44M6CPY	M6	25.000	AD+B	44	10	13
TCB40L69M6CPY				69		20
TCB40L94M6CPY				94		23
TCB40L55M8CPY	M8	25.000	AD+B	55	13	15
TCB40L75M8CPY				75		23
TCB40L95M8CPY				95		23
TCB40L115M8CPY	M10	25.000	AD+B	115	18	25
TCB40L55M10CPY				55		20
TCB40L75M10CPY				75		25
TCB40L95M10CPY	M12	25.000	AD+B	95	21	28
TCB40L105M10CPY				105		28
TCB40L145M10CPY				145		34
TCB40L55M12CPY	M16	25.000	AD+B	55	29	24
TCB40L75M12CPY				75		34
TCB40L95M12CPY				95		34
TCB40L115M12CPY	M8	25.000	AD+B	115	13	31
TCB40L145M12CPY				145		38
TCB40L175M12CPY				175		42
TCB40L55M16CPY	M10	25.000	AD+B	55	18	34
TCB40L75M16CPY				75		34
TCB40L95M16CPY				95		34
TCB40L115M16CPY	M12	25.000	AD+B	115	21	39
TCB40L145M16CPY				145		39
TCB40L175M16CPY				175		39
TCB50L69M8CPY	M8	25.000	AD+B	69	13	23
TCB50L119M8CPY				119		25
TCB50L169M8CPY				169		30
TCB50L85M10CPY	M10	25.000	AD+B	85	18	23
TCB50L135M10CPY				135		32
TCB50L185M10CPY				185		36.5
TCB50L85M12CPY	M12	25.000	AD+B	85	21	24
TCB50L135M12CPY				135		33
TCB50L185M12CPY				185		40
TCB50L85M16CPY	M16	25.000	AD+B	85	29	34
TCB50L135M16CPY				135		36
TCB50L185M16CPY				185		42.5

DIN/69871

Porta herramientas para fresa roscada antivibratorio
 Antivibratory for frontal end mills support screwed shanks

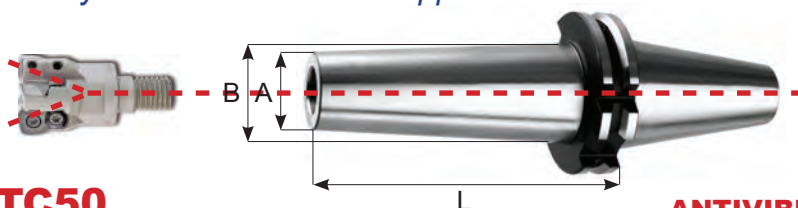


TC40 / TC50

ANTIVIBRATORIO

REFERENCIA	M	L	A	B
TC40L200M10AV	M10	200	18	35
TC40L250M10AV		250		41
TC40L300M10AV		300		46
TC40L200M12AV	M12	200	21	38
TC40L250M12AV		250		44
TC40L300M12AV		300		49
TC40L200M16AV	M16	200	29	46
TC40L250M16AV		250		48
TC40L300M16AV		300		50
TC50L250M12AV	M12	250	21	44
TC50L300M12AV		300		49
TC50L400M12AV		400		60
TC50L250M16AV	M16	250	29	52
TC50L300M16AV		300		57
TC50L400M16AV		400		68
TC50L500M16AV		500		78

Porta herramientas para fresa roscada antivibratorio refrigerante
 Antivibratory for frontal end mills support screwed shanks coolant



TC40 / TC50

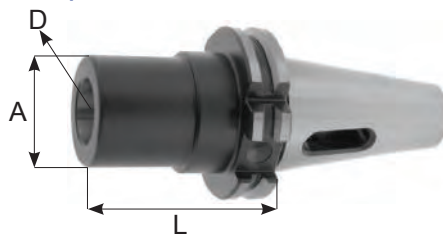
ANTIVIBRATORIO

REFERENCIA	M	FORMA	L	A	B
TC40L200M10AVR	M10	AD	200	18	35
TC40L250M10AVR	M10		250	18	41
TC40L200M12AVR	M12		200	21	38
TC40L250M12AVR	M12		250	21	44
TC40L250M16AVR	M16		250	29	48
TC50L300M12AVR	M12	AD	300	21	49
TC50L300M16AVR	M16		300	29	57

Especial para moldistas y troquelistas, reduce las vibraciones en un 60% comparandolo con un porta standard.
 Special for mould and die makers, vibration reduced up to 60% compared to any other conventional shell mill adaptor.

DIN/69871

Reductor cono morse DIN/228-B
Morse taper adapters DIN/228-B



TC30 / TC40 / TC50

REFERENCIA	D	FORMA	L	A
TC30L50CM1P	CM1	AD	50	25
TC30L65CM2P	CM2		65	32
TC30L80CM3P	CM3		80	40
TCB40L50CM1P	CM1	AD+B	50	25
TCB40L50CM2P	CM2		50	32
TCB40L70CM3P	CM3		70	40
TCB40L95CM4P	CM4		95	48
TCB50L45CM1P	CM1	AD+B	45	25
TCB50L60CM2P	CM2		60	32
TCB50L65CM3P	CM3		65	40
TCB50L95CM4P	CM4		95	48
TCB50L105CM5P	CM5		105	63

Reductor cono morse DIN/228-A con tornillo tirante
Reducing adaptors morse taper shank and drawbar thread DIN/228-A

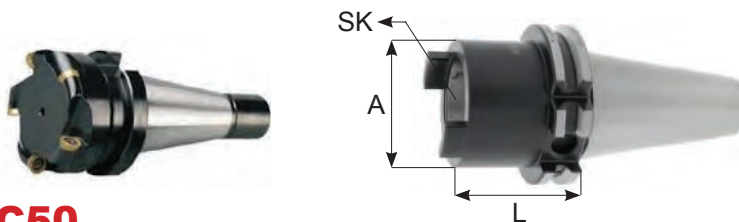


TC40 / TC50

REFERENCIA	D	FORMA	L	A
TC40L50CM1F	CM1	AD	50	25
TC40L50CM2F	CM2		50	32
TC40L70CM3F	CM3		70	40
TC40L95CM4F	CM4		95	48
TC50L45CM1F	CM1	AD	45	25
TC50L60CM2F	CM2		60	32
TC50L65CM3F	CM2		65	40
TC50L70CM4F	CM2		70	48
TC50L85CM4F	CM3		85	48
TC50L100CM4F	CM4		100	63
TC50L118CM5F	CM5		118	63

DIN/69871

Reductor TC a ISO DIN/2080 - DIN/69871
Reducing adaptors TC a ISO DIN/2080 - DIN/69871



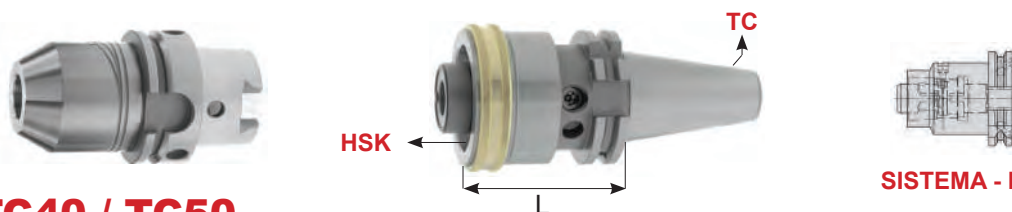
TC40 / TC50

REFERENCIA	ISO	FORMA	L	A
TC40L60TB30	TC30	AD	60	50
TC40L95TB40	TC40		95	70
TC40L60ISO30	ISO30	AD	60	50
TC40L95ISO40	ISO40		95	70
TC50L70TB40	TC40	AD	70	70
TC50L120TB50	TC50		120	90
TC50L70ISO40	ISO40	AD	70	70
TC50L120ISO50	ISO50		120	90

7

DIN/69871

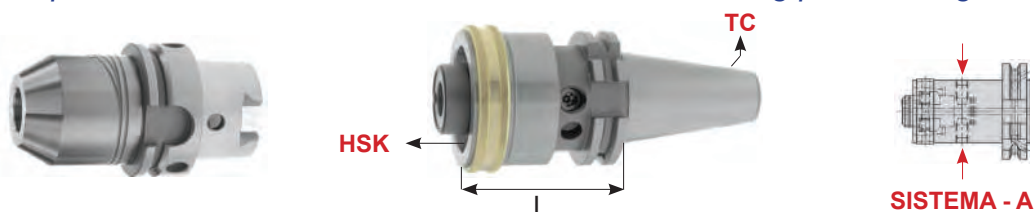
Cono reductor DIN/69871 a HSK - A/C/E/F con RACOR
Adaptors DIN/69871 shank to HSK - A/C/E/F with cooling tube



TC40 / TC50

REFERENCIA	CONO	FORMA	REDUCTOR	L
TC40BL45HSK25	TC40	AD	HSK25-A/C/E/F	45
TC40BL55HSK32			HSK32-A/C/E/F	55
TC40BL75HSK40			HSK40-A/C/E/F	75
TC40BL95HSK50			HSK50-A/C/E/F	95
TC40BL110HSK63			HSK63-A/C/E/F	110
TC40BL150HSK80			HSK80-A/C/E/F	150
TC40BL150HSK100			HSK100-A/C/E/F	150
TC50BL75HSK32	TC50	AD	HSK32-A/C/E/F	75
TC50BL75HSK40			HSK40-A/C/E/F	75
TC50BL75HSK50			HSK50-A/C/E/F	75
TC50BL75HSK63			HSK63-A/C/E/F	75
TC50BL100HSK80			HSK80-A/C/E/F	100
TC50BL150HSK100			HSK100-A/C/E/F	150

Cono reductor DIN/69871 a HSK - A/C con Pistón de tensar y junta
Adapters DIN/69871 shank to HSK - A/C with tensioning piston and gasket



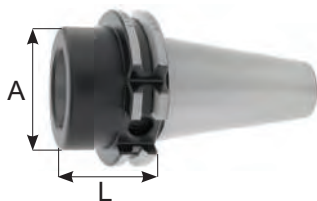
TC30 / TC40 / TC50

REFERENCIA	CONO	FORMA	REDUCTOR	L
TC30BL55HSK32AC	TC30	AD	HSK32-A/C	55
TC30BL60HSK40AC			HSK40-A/C	60
TC30BL75HSK50AC			HSK50-A/C	75
TC40BL55HSK25AC	TC40	AD	HSK25-A/C	55
TC40BL55HSK32AC			HSK32-A/C	55
TC40BL60HSK40AC			HSK40-A/C	60
TC40BL65HSK50AC			HSK50-A/C	65
TC40BL75HSK63AC			HSK63-A/C	75
TC40BL105HSK80AC			HSK80-A/C	105
TC40BL110HSK100AC			HSK100-A/C	110
TC0BL50HSK25AC	TC50	AD	HSK25-A/C	50
TC50BL55HSK32AC			HSK32-A/C	55
TC50BL60HSK40AC			HSK40-A/C	60
TC50BL65HSK50AC			HSK50-A/C	65
TC50BL75HSK63AC			HSK63-A/C	75
TC50BL120HSK63AC			HSK63-A/C	120
TC50BL150HSK63AC			HSK63-A/C	150
TC50BL500HSK63AC			HSK63-A/C	500
TC50BL80HSK80AC			HSK80-A/C	80
TC50BL100HSK100AC			HSK100-A/C	100
TC50BL140HSK125AC			HSK125-A/C	140
TC50BL160HSK160AC			HSK160-A/C	160



DIN/69871

Cono Reductor de TC a PSC - ISO 26623-1
Adapters from TC shank to PSC - ISO 26623-1



PSC-ECA ISO 26623-1

TCB-C3

REFERENCIA	CONO	REDUCTOR	FORMA	L	A
TCB30L30C3	TC30	PSC-C3	AD+B	30	32
TCB30L60C3	TC30	PSC-C3		60	32
TCB40L30C3	TC40	PSC-C3		30	32
TCB40L60C3	TC40	PSC-C3		60	32
TCB50L40C3	TC50	PSC-C3		30	32
TCB50L70C3	TC50	PSC-C3		60	32

TCB-C4

REFERENCIA	CONO	REDUCTOR	FORMA	L	A
TCB40L30C4	TC40	PSC-C4	AD+B	30	40
TCB40L60C4	TC40	PSC-C4		60	40
TCB50L40C4	TC50	PSC-C4		30	40
TCB50L70C4	TC50	PSC-C4		60	40

TCB-C5

REFERENCIA	CONO	REDUCTOR	FORMA	L	A
TCB40L30C5	TC40	PSC-C5	AD+B	30	50
TCB40L70C5	TC40	PSC-C5		70	50
TCB50L40C5	TC50	PSC-C5		30	50
TCB50L80C5	TC50	PSC-C5		70	50

TCB-C6

REFERENCIA	CONO	REDUCTOR	FORMA	L	A
TCB40L85C6	TC40	PSC-C6	AD+B	85	63
TCB50L30C6	TC50	PSC-C6		30	63
TCB50L80C6	TC50	PSC-C6		80	63

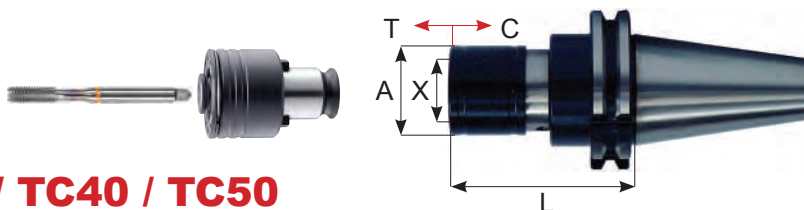
TCB-C8

REFERENCIA	CONO	REDUCTOR	FORMA	L	A
TCB50L70C8	TC50	PSC-C8	AD+B	70	80
TCB50L120C8	TC50	PSC-C8		120	80

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DIN/69871

Rosgador con compresión y tracción
Tension and compression tap holders-



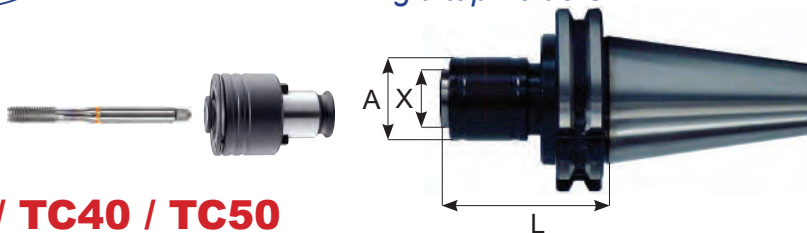
TC30 / TC40 / TC50

REFERENCE	CAP	X	A	L	C	T
TC30-THTC0-L72	M 1 ÷ M10	13	26	72	6.5	6.5
TC40-THTC0-L72				72		
TC50-THTC0-L72				72		
TC30-THTC1-L75	M 3 ÷ M18	19	36	75	7.5	7.5
TC40-THTC1-L75				75		
TC50-THTC1-L75				75		
TC30-THTC2-L98	M 8 ÷ M30	31	53	98	12.5	12.5
TC40-THTC2-L98				98		
TC50-THTC2-L98				98		
TC40-THTC3-L165	M14 ÷ M48	48	78	165	20.0	20.0
TC50-THTC3-L160				160		
TC50-THTC4-L161	M22 ÷ M60	60	96	161	22.5	22.5

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DIN/69871

Rosgador Rígido
Rigid tap holders



TC30 / TC40 / TC50

REFERENCE	CAP	X	A	L
TC30-TLR0-L72	M 1 ÷ M10	13	26	72
TC40-TLR0-L72				72
TC30-TLR1-L72	M 3 ÷ M18	19	36	72
TC40-TLR1-L72				72
TC50-TLR1-L72				72
TC40-TLR2-L91	M 8 ÷ M30	31	53	91
TC50-TLR2-L91				91
TC40-TLR3-L123	M14 ÷ M48	48	78	123
TC50-TLR3-L118				118

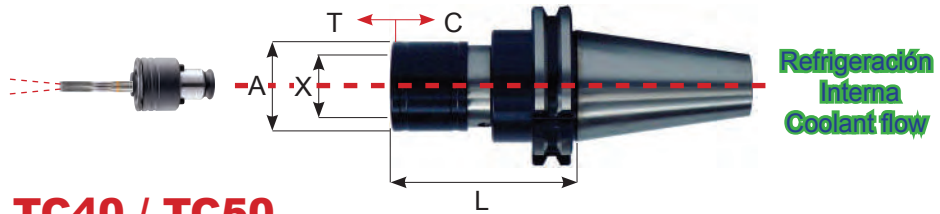
DIN/69871

Roscador con compresión y tracción con paso refrigerante
Tension and compression tap holders with coolant thru



SYNCHRO

Max. 50 BAR



TC30 / TC40 / TC50

REFERENCE	CAP	FORMA	X	A	L	MODELO
TC30-THTC0-L62C	M 1 ÷ M10	AD	13	26	62	SYNCHRO
TC40-THTC0-L62C					62	
TC50-THTC0-L62C					62	
TC30-THTC1-L81C	M 3 ÷ M18	AD	19	36	81	SYNCHRO
TC40-THTC1-L81C					81	
TC50-THTC1-L81C					81	
TC40-THTC2-L109C	M 8 ÷ M30	AD	31	53	109	SYNCHRO
TC50-THTC2-L109C					109	
TC40-THTC3-L147C	M22 ÷ M60	AD	60	96	147	SYNCHRO
TC50-THTC3-L142C					142	

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DIN/69871

Roscador synchro con compresión y tracción
con paso refrigerante

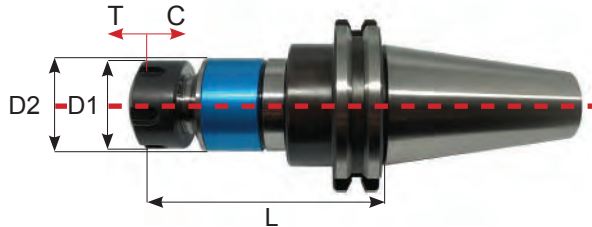
*Synchro - Tension / Compression Tap Holders collet ER
coolant flow*

SYNCHRO

Max. 50 BAR



Coolant



Refrigeración
Interna
Coolant flow

Coolant flow

(A)



RG

HT / HTE

ERXGM



Standard

(B)



GS

ERXM

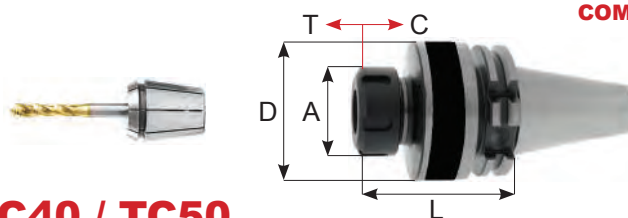


TC30 / TC40 / TC50

REFERENCE	CAP	FORMA	COLLET	D1	D2	L	C	T
TC30L79SYER16M	3 ÷ 8	AD	ER-16M	22	34	79	0.5	0.5
TC30L79SYER16	3 ÷ 8		ER-16	32	34	79		
TC40L79SYER16M	3 ÷ 8	AD	ER-16M	22	34	79	0.5	0.5
TC40L79SYER16	3 ÷ 8		ER-16	32	34	79		
TC40L80SYER20	3 ÷ 16		ER-20	35	34	80		
TC40L84SYER25	3 ÷ 20		ER-25	42	45	84		
TC40L95SYER32	3 ÷ 27		ER-32	50	45	95		
TC40L120SYER16	3 ÷ 27		ER-40	63	62	120		
TC50L79SYER16M	3 ÷ 8	AD	ER-16M	22	34	79	0.5	0.5
TC50L79SYER16	3 ÷ 8		ER-16	32	34	79		
TC50L80SYER20	3 ÷ 16		ER-20	35	34	80		
TC50L84SYER16	3 ÷ 20		ER-25	42	45	84		
TC50L95SYER16	3 ÷ 27		ER-32	50	45	95		
TC50L105SYER16	3 ÷ 27		ER-40	63	62	105		

DIN/69871

Roscador con compresión y tracción pinza ER
Tension and compression tap holders collet ER



COMPRESION / TRACCION

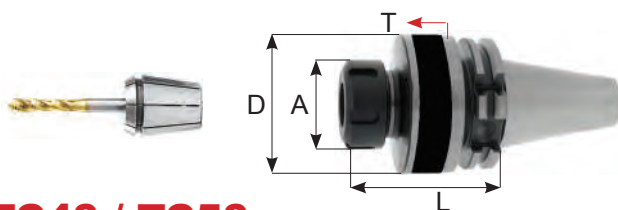
TC30 / TC40 / TC50

REFERENCIA	PINZA	L	A	D	C	T
TC30CTL83ER16	ER16	83	32	29	2.5	5.5
TC30CTL94ER20	ER20	94	35	44	3	9
TC30CTL103ER25	ER25	103	42	58	3	9
TC40CTL83ER16	ER16	83	32	29	2.5	5.5
TC40CTL94ER20	ER20	94	35	44	3	9
TC40CTL103ER25	ER25	103	42	58	3	9
TC40CTL105ER32	ER32	105	50	58	4	12
TC50CTL83ER16	ER16	83	32	29	2.5	5.5
TC50CTL94ER20	ER20	94	35	44	3	9
TC50CTL103ER25	ER25	103	42	58	3	9
TC50CTL105ER32	ER32	105	50	48	4	12

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DIN/69871

Roscador solo tracción pinza ER
Tension and compression tap holders collet ER



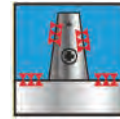
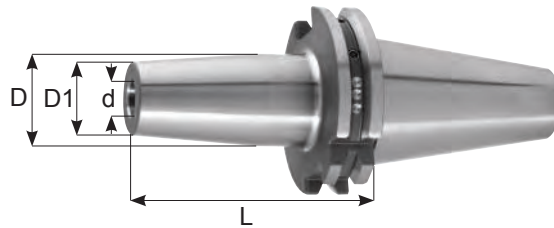
SOLO TRACCION

TC30 / TC40 / TC50

REFERENCIA	PINZA	L	A	D	T
TC30TL83ER16	ER16	83	32	29	8
TC30TL94ER20	ER20	94	35	44	12
TC30TL103ER25	ER25	103	42	58	12
TC40TL83ER16	ER16	83	32	29	8
TC40TL94ER20	ER20	94	35	44	12
TC40TL103ER25	ER25	103	42	58	16
TC40TL105ER32	ER32	105	50	58	16
TC50TL83ER16	ER16	83	32	29	8
TC50TL94ER20	ER20	94	35	44	12
TC50TL103ER25	ER25	103	42	58	16
TC50TL105ER32	ER32	105	50	58	16

DIN/69871

Porta herramientas inducción Térmica
Shrink Fit holders



100% contact

* G2.5 / 25.000rpm
G6.3 / 15.000rpm
Face contact

TC30 / TC40

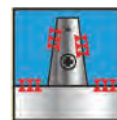
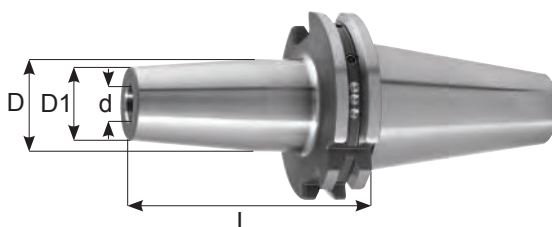
REFERENCIA	d	RPM	FORMA	D1	D	L	
TC30L80CL3	3	25.000	AD	10	20	80	
TC30L80CL4	4			15	24	80	
TC30L80CL5	5			15	24	80	
TC30L80CL6	6			20	27	80	
TC30L80CL8	8			20	27	80	
TC30L80CL10	10			24	31	80	
TC30L80CL12	12			24	31	80	
TC30L80CL14	14			27	34	80	
TC30L80CL16	16			27	34	80	
TC30L80CL18	18			33	40	90	
TC30L80CL20	20		33	40	90		
TCB40L80CL3 *	3		25.000	AD+B	10	20	80
TCB40L120CL3	3				10	20	120
TCB40L160CL3	3				10	20	160
TCB40L80CL4 *	4				15	22	80
TCB40L120CL4	4				15	22	120
TCB40L160CL4	4				15	22	160
TCB40L80CL5 *	5				15	22	80
TCB40L120CL5	5				15	22	120
TCB40L160CL5	5				15	22	160
TCB40L80CL6 *	6	21			27	80	
TCB40L130CL6	6	21		27	130		
TCB40L160CL6	6	21		27	160		
TCB40L80CL8 *	8	21		27	80		
TCB40L130CL8	8	21		27	130		
TCB40L160CL8	8	21		27	160		
TCB40L80CL10 *	10	24		32	80		
TCB40L130CL10	10	24		32	130		
TCB40L160CL10	10	24		32	160		
TCB40L80CL12 *	12	24		32	80		
TCB40L130CL12	12	24		32	130		
TCB40L160CL12	12	24	32	160			
TCB40L80CL14 *	14	27	34	80			
TCB40L130CL14	14	27	34	130			
TCB40L160CL14	14	27	34	160			

* "Face contact" + "D" (DTCB40L80CL3)

TC40 / TC50 →

DIN/69871

Porta herramientas Inducción Térmica
Shrink Fit holders



100% contact

* G2.5 / 25.000rpm
G6.3 / 15.000rpm
Face contact

TC40 / TC50

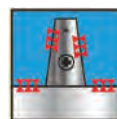
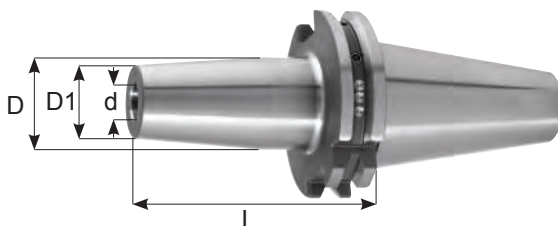
REFERENCIA	d	RPM	FORMA	D1	D	L		
TCB40L80CL16 *	16	25.000	AD+B	27	34	80		
TCB40L130CL16	16			27	34	130		
TCB40L160CL16	16			27	34	160		
TCB40L80CL18 *	18			33	42	80		
TCB40L130CL18	18			33	42	130		
TCB40L160CL18	18			33	42	160		
TCB40L80CL20 *	20			33	42	80		
TCB40L130CL20	20			33	42	130		
TCB40L160CL20	20			33	42	160		
TCB40L100CL25 *	25			44	44	100		
TCB40L130CL25	25			44	44	130		
TCB40L160CL25	25			44	44	160		
TCB40L100CL32 *	32			44	44	100		
TCB40L130CL32	32			44	44	130		
TCB40L160CL32	32			44	44	160		
TCB50L80CL3 *	3			25.000	AD+B	10	20	80
TCB50L120CL3	3					10	20	120
TCB50L160CL3	3					10	20	160
TCB50L80CL4 *	4					15	25	80
TCB50L120CL4	4					15	22	120
TCB50L160CL4	4	15	22			160		
TCB50L80CL5 *	5	15	25			80		
TCB50L120CL5	5	15	22			120		
TCB50L160CL5	5	15	22			160		
TCB50L80CL6 *	6	20	27			80		
TCB50L120CL6	6	20	27			120		
TCB50L160CL6	6	20	27			160		
TCB50L80CL8 *	8	20	27			80		
TCB50L120CL8	8	20	27			120		
TCB50L160CL8	8	20	27			160		
TCB50L80CL10 *	10	24	31			80		
TCB50L120CL10	10	24	31			120		
TCB50L160CL10	10	24	31			160		
TCB50L80CL12 *	12	24	31			80		
TCB50L120CL12	12	24	31			120		
TCB50L160CL12	12	24	31	160				

* "Face contact" + "D" (DTCB40L80CL18)

TC50 →

DIN/69871

Porta herramientas inducción térmica
Shrink Fit holders



100% contact

* G2.5 / 25.000rpm
G6.3 / 15.000rpm
Face contact

TC50

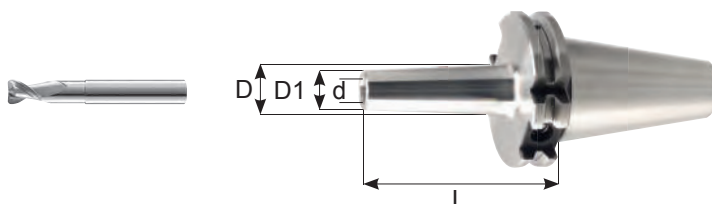
REFERENCIA	d	RPM	FORMA	D1	D	L
TCB50L80CL14 *	14	25.000	AD+B	27	34	80
TCB50L120CL14	14			27	34	120
TCB50L160CL14	14			27	34	160
TCB50L80CL16 *	16			27	34	80
TCB50L120CL16	16			27	34	120
TCB50L160CL16	16			27	34	160
TCB50L80CL14 *	14			27	34	80
TCB50L120CL14	14			27	34	120
TCB50L160CL14	14			27	34	160
TCB50L80CL16 *	16			27	34	80
TCB50L120CL16	16			27	34	120
TCB50L160CL16	16			27	34	160
TCB50L80CL18 *	18			33	40	80
TCB50L120CL18	18			33	40	120
TCB50L160CL18	18			33	40	160
TCB50L80CL20 *	20			33	40	80
TCB50L120CL20	20			33	40	120
TCB50L160CL20	20			33	40	160
TCB50L100CL25 *	25			44	53	100
TCB50L120CL25	25			44	53	120
TCB50L160CL25	25			44	53	160
TCB50L100CL32 *	32			44	53	100
TCB50L120CL32	32			44	53	120
TCB50L160CL32	32			44	53	160

* "Face contact" + "D" (DTCB50L80CL18)



DIN/69871

Porta herramientas inducción térmica - Slim
Shrink Fit holders - Slim execution



SLIM

TC40

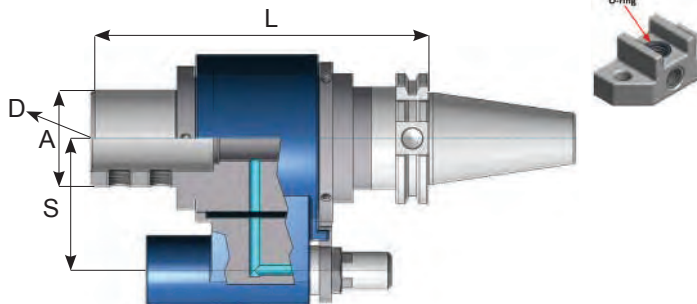
REFERENCIA	d	RPM	FORMA	D1	D	L
TCB40L80CL3SL	3	25.000	AD+B	9	13	80
TCB40L120CL3SL	3			9	16	120
TCB40L80CL4SL	4			10	15	80
TCB40L120CL4SL	4			10	15	120
TCB40L80CL5SL	5			11	16	80
TCB40L120CL5SL	5			11	20	120
TCB40L80CL6SL	6			12	17	80
TCB40L130CL6SL	6			12	19	130
TCB40L160CL6SL	6			12	19	160
TCB40L80CL8SL	8			14	19	80
TCB40L130CL8SL	8			14	21	130
TCB40L160CL8SL	8			14	21	160
TCB40L80CL10SL	10			16	21	80
TCB40L130CL10SL	10			16	23	130
TCB40L160CL10SL	10			16	23	160
TCB40L80CL12SL	12			18	23	80
TCB40L130CL12SL	12			18	25	130
TCB40L160CL12SL	12			18	25	160
TCB40L80CL14SL	14			22	25	80
TCB40L130CL14SL	14			22	27	130
TCB40L160CL14SL	14			22	27	160
TCB40L80CL16SL	16			24	29	80
TCB40L130CL16SL	16			21	31	130
TCB40L160CL16SL	16			24	31	160
TCB40L80CL20SL	20			28	33	80
TCB40L130CL20SL	20			28	35	130
TCB40L160CL20SL	20			28	35	160

7



DIN/69871

Distribuidor rotante de refrigeración
Side lock oil hole holders



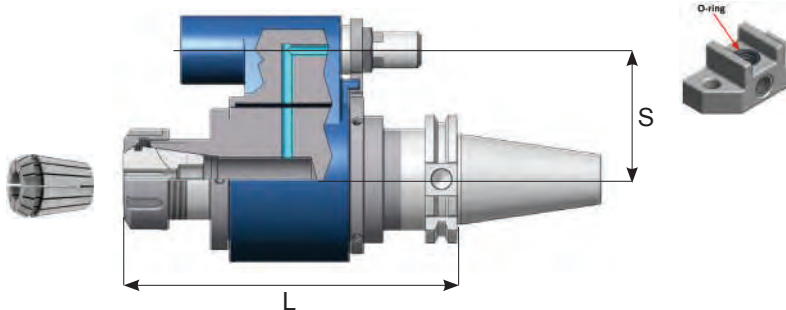
TC40 / TC50

REFERENCIA	D	S	L	A
TC40D16DR	16	65	165	46.5
TC40D20DR	20	65	165	46.5
TC40D25DR	25	65	165	46.5
TC40D32DR	32	65	165	47
TC50D16DR	16	80	165	56
TC50D20DR	20	80	165	56
TC50D25DR	25	80	165	56
TC50D32DR	32	80	170	56
TC50D40DR	40	80	170	56

7

DIN/69871

Distribuidor rotante de refrigeración pinza ER
ER oil hole holders collet chucks



TC40 / TC50

REFERENCIA	CAP	S	L
TC40ER16DR	1 ÷ 10	65	160
TC40ER20DR	1 ÷ 14	65	160
TC40ER25DR	1 ÷ 20	65	160
TC40ER32DR	2 ÷ 22	65	160
TC50ER16DR	1 ÷ 10	80	160
TC50ER20DR	1 ÷ 14	80	160
TC50ER25DR	1 ÷ 20	80	160
TC50ER32DR	2 ÷ 22	80	160
TC50ER40DR	3 ÷ 30	80	160

DIN/69871

Barra mecanizable DIN/69871
Machinable blank Arbors DIN/69871

**Material : 16MnCr5
600/800 Nm**



TC30 / TC40 / TC50

REFERENCIA	D	L
TC30L160D40BL	40.5	160
TC40L250D63BL	63.5	250
TC50L315D95BL	95.5	315



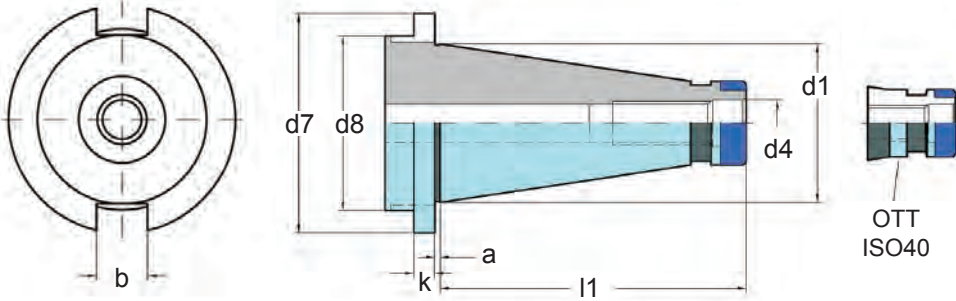




**CONO ISO
DIN/2080**

PROGRAMA

						
PAG. 4	PAG. 4	PAG. 5	PAG. 5	PAG. 6	PAG. 7	PAG. 7
						
PAG. 8	PAG. 9	PAG. 9	PAG. 10	PAG. 10	PAG. 10	PAG. 11
						
PAG. 11	PAG. 12	PAG. 12				



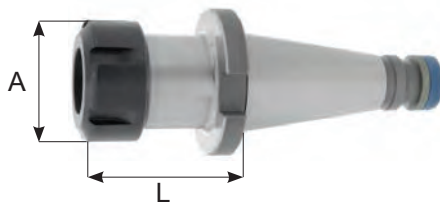
CONO TAPER	FORMA FORM	d1	d4	a	b	l1	d7	k	d8
ISO30	AD	31.75	M12	1.6	16.1	68.4	50	8	32.4
ISO40 *	AD	44.45	M16	1.6	16.1	93.4	63	10	45
ISO50	AD	69.85	M24	3.2	25.7	126.8	97.5	12	70.6

* ISO 40 con regata MAHO-OTT
ISO 40 with MAHO-OTT groove



DIN/2080

Porta pinzas ER tuerca STANDARD
Collet chucks ER STANDARD nut



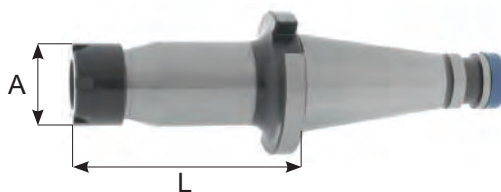
ISO30 / ISO40 / ISO50

REFERENCIA	CAP	RPM	FORMA	L	A
ISO30L50ER25	1 ÷ 20	12.000	AD	50	42
ISO30L50ER32	2 ÷ 22			50	50
ISO30L70ER40	3 ÷ 30			70	63
ISO40L47ER16	1 ÷ 10	12.000	AD	47	32
ISO40L47ER25	1 ÷ 20			47	42
ISO40L49ER32	2 ÷ 22			49	50
ISO40L70ER40	3 ÷ 30			70	63
ISO50L80ER25	1 ÷ 20	12.000	AD	80	42
ISO50L69ER32	2 ÷ 22			69	50
ISO50L63ER40	3 ÷ 30			63	63

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DIN/2080

Porta pinzas ER tuerca MINI
Collet chucks ER MINI nut

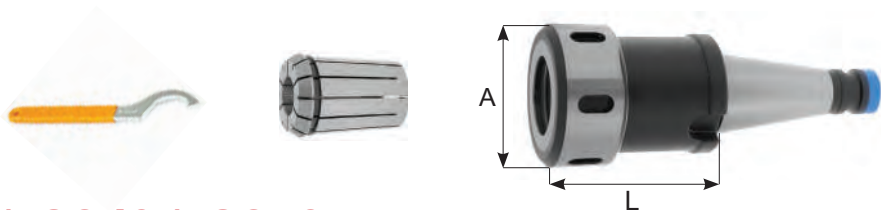


ISO30 / ISO40

REFERENCIA	CAP	RPM	FORMA	L	A
ISO30L100ER8M	1 ÷ 5	8.000	AD	100	12
ISO30L100ER11M	1 ÷ 7			100	16
ISO30L100ER16M	1 ÷ 10			100	22
ISO30L100ER20M	1 ÷ 14			100	28
ISO30L100ER25M	1 ÷ 20			100	35
ISO40L100ER11M	1 ÷ 7	8.000	AD	100	16
ISO40L100ER16M	1 ÷ 10			100	22
ISO40L100ER20M	1 ÷ 14			100	28
ISO40L100ER25M	1 ÷ 20			100	35

DIN/2080

Porta pinzas EOC DIN/6388 B
Collet chucks EOC DIN/6388 B

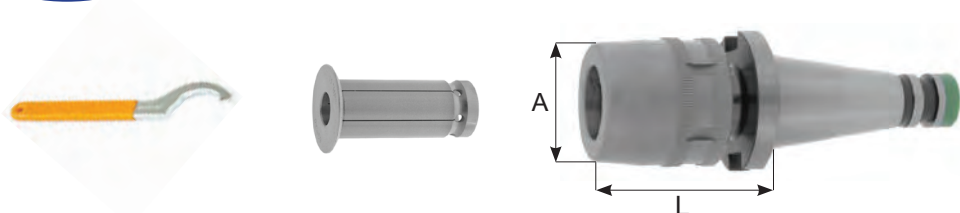


ISO30 / ISO40 / ISO50

REFERENCIA	CAP	RPM	FORMA	L	A
ISO30L50EOC16	2 ÷ 16	12.000	AD	50	43
ISO30L80EOC25	2 ÷ 25			80	60
ISO40L55EOC16	2 ÷ 16	12.000	AD	55	43
ISO40L66EOC25	2 ÷ 25			66	60
ISO40L95EOC32	3 ÷ 32			95	72
ISO50L71EOC25	2 ÷ 25	12.000	AD	71	60
ISO50L73EOC32	3 ÷ 32			73	72

DIN/2080

Porta pinzas gran apriete
Power milling chucks



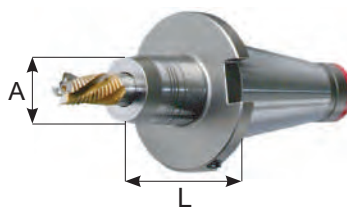
ISO30 / ISO40 / ISO50

REFERENCIA	CAP	RPM	FORMA	L	A
ISO40L78MC32	3 ÷ 32	12.000	AD	78	74
ISO50L85MC32	3 ÷ 32	12.000	AD	85	74



DIN/2080

Porta pinzas hidráulico
Hydraulic Collet chucks



ISO40

REFERENCIA	D	FORMA	L	A
ISO40L49HD6	6	AD	49	26
ISO40L49HD8	8	AD	49	28
ISO40L53HD10	10	AD	53	30
ISO40L58HD12	12	AD	58	32
ISO40L58HD14	14	AD	58	34
ISO40L61HD16	16	AD	61	38
ISO40L61HD18	18	AD	61	40
ISO40L63HD20	20	AD	63	42
ISO40L70LD25	25	AD	70	50
ISO40L75HD32	32	AD	75	60

ISO50

REFERENCIA	D	FORMA	L	A
ISO50L53HD6	6	AD	53	26
ISO50L53HD8	8	AD	53	28
ISO50L57HD10	10	AD	57	30
ISO50L62HD12	12	AD	62	32
ISO50L62HD14	14	AD	62	34
ISO50L65HD16	16	AD	65	38
ISO50L65HD18	18	AD	65	40
ISO50L67HD20	20	AD	67	42
ISO50L72HD25	25	AD	72	50
ISO50L76HD32	32	AD	76	60
ISO50L90LD40	40	AD	90	70
ISO50L115HD50	50	AD	115	78
ISO50L130LD60	60	AD	130	97.5

DIN/2080

Porta brocas con llave de gancho
Drill chucks with hook wrench

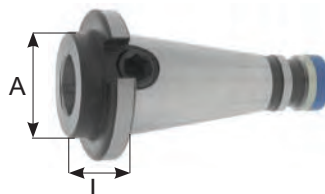


ISO40 / ISO50

REFERENCIA	CAP	RPM	FORMA	L	A
ISO40L88DCK13	1 ÷ 13	12.000	AD	88	50
ISO40L100DCK16	3 ÷ 16			100	58
ISO50L80DCK13	1 ÷ 13	12.000	AD	80	50
ISO50L90DCK16	3 ÷ 16			90	58

DIN/2080

Porta fresas weldon extra corto DIN 1835-B
Short type end mill holders for DIN 1835-B shanks



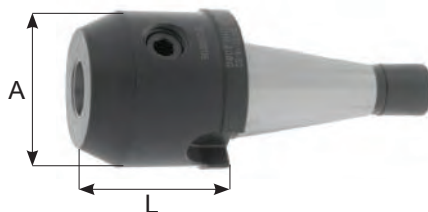
ISO40 / ISO50

REFERENCIA	D	FORMA	L	A
ISO40L22WE16	16	AD	22	44
ISO40L22WE20	20		22	
ISO40L22WE25	25		22	
ISO40L40WE32	32		40	
ISO50L20WE16	16	AD	20	66
ISO50L20WE20	20		20	
ISO50L20WE25	25		20	
ISO50L20WE32	32		20	



DIN/2080

Porta fresas weldon DIN 1835-B
End mill holders for DIN 1835-B



ISO30 / ISO40 / ISO50

REFERENCIA	D	RPM	FORMA	L	A		
ISO30L40WE6	6	12.000	AD	40	25		
ISO30L40WE8	8			40	28		
ISO30L40WE10	10			40	35		
ISO30L40WE12	12			40	42		
ISO30L50WE14	14			50	44		
ISO30L50WE16	16			50	48		
ISO30L50WE18	18			50	50		
ISO30L63WE20	20			63	52		
ISO40L50WE6	6			12.000	AD	50	25
ISO40L50WE8	8					50	28
ISO40L50WE10	10	50	35				
ISO40L50WE12	12	50	42				
ISO40L50WE14	14	50	44				
ISO40L63WE16	16	63	48				
ISO40L63WE18	18	63	50				
ISO40L63WE20	20	63	52				
ISO40L80WE25	25	80	63				
ISO40L80WE32	32	80	72				
ISO40L90WE40	40	90	90				
ISO50L63WE6	6	12.000	AD			63	25
ISO50L63WE8	8			63	28		
ISO50L63WE10	10			63	35		
ISO50L63WE12	12			63	42		
ISO50L63WE14	14			63	44		
ISO50L63WE16	16			63	48		
ISO50L63WE18	18			63	50		
ISO50L63WE20	20			63	52		
ISO50L80WE25	25			80	65		
ISO50L80WE32	32			80	72		
ISO50L90WE40	40			90	90		

Whistle-Notch on request.



DIN/2080

Porta fresas combinado
Combi shell end mill holders



ISO30 / ISO40 / ISO50

REFERENCIA	D	RPM	FORMA	L	A
ISO30L35D16C	16	12.000	AD	35	32
ISO30L35D22C	22			35	40
ISO30L35D27C	27			35	48
ISO30L50D32C	32	12.000	AD	50	58
ISO40L52D16C	16			52	32
ISO40L52D22C	22			52	40
ISO40L52D27C	27			52	48
ISO40L52D32C	32	12.000	AD	52	58
ISO40L52D40C	40			52	70
ISO50L55D16C	16			12.000	AD
ISO50L55D22C	22	55	40		
ISO50L55D27C	27	55	48		
ISO50L55D32C	32	55	58		
ISO50L55D40C	40	55	70		

DIN/2080

Porta fresas fijo
Shell end mill holders



ISO30 / ISO40 / ISO50

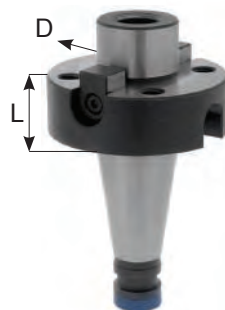
REFERENCIA	D	RPM	FORMA	L	A
ISO30L35D16S	16	12.000	AD	35	32
ISO30L35D22S	22			35	40
ISO30L35D27S	27			35	48
ISO30L35D32S	32	12.000	AD	35	58
ISO40L30D16S	16			30	38
ISO40L35D22S	22			35	48
ISO40L35D27S	27			35	58
ISO40L35D32S	32	12.000	AD	35	63
ISO40L35D40S	40			35	79
ISO50L45D16S	16			12.000	AD
ISO50L45D22S	22	45	48		
ISO50L45D27S	27	45	58		
ISO50L45D32S	32	45	65		
ISO50L45D40S	40	45	80		

DIN/2080

Porta fresas fijo gran diámetro
Face mill holders

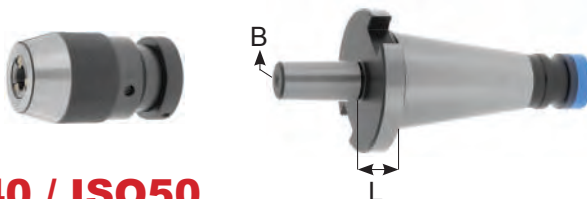
ISO40 / ISO50

REFERENCIA	D	FORMA	L
ISO40L20D40FM	40	AD	20
ISO40L30D60FM	60	AD	30
ISO50L30D40FM	40	AD	30
ISO50L30D60FM	60	AD	30



DIN/2080

Mandrino porta brocas
Drill chuck Arbors

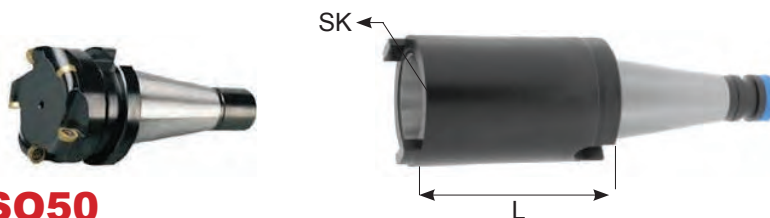


ISO30 / ISO40 / ISO50

REFERENCIA	DIN	B	L
ISO30L15B12	DIN/238	B12	15
ISO30L15B16	DIN/238	B16	15
ISO40L17B12	DIN/238	B12	17
ISO40L17B16	DIN/238	B16	17
ISO40L17B18	DIN/238	B18	17
ISO50L20B16	DIN/238	B16	20
ISO50L20B18	DIN/238	B18	20

DIN/2080

Reductor ISO a ISO DIN/2080
Reducing adaptors ISO a ISO DIN/2080

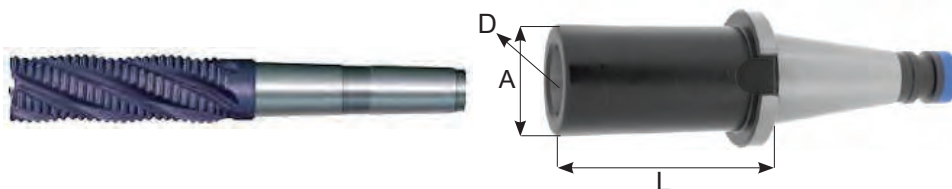


ISO40 / ISO50

REFERENCIA	ISO	FORMA	L	M
ISO40L13ISO30	ISO30	AD	13	M12
ISO40L50ISO30	ISO30		50	M12
ISO40L85ISO40	ISO40		85	M16
ISO50L16ISO30	SK30	AD	16	M12
ISO50L16ISO40	SK40		16	M16
ISO50L60ISO40	SK40		60	M16
ISO50L115ISO50	SK50		115	M24

DIN/2080

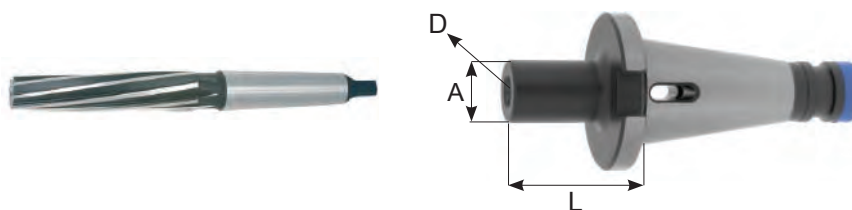
Reductor a cono morse DIN/228-A con tornillo tirante
Reducing morse taper shank and drawbar thread DIN/228-A



ISO40 / ISO50

REFERENCIA	D	RPM	FORMA	L	A
ISO40L50CM1F	CM1	12.000	AD	50	25
ISO40L50CM2F	CM2			50	32
ISO40L65CM3F	CM3			65	40
ISO40L95CM4F	CM4			95	48
ISO40L110CM4F	CM4			110	63
ISO50L60CM1F	CM1	12.000	AD	60	25
ISO50L60CM2F	CM2			60	32
ISO50L65CM3F	CM3			65	40
ISO50L65CM4F	CM4			65	48
ISO50L80CM4F	CM4			80	63
ISO50L120CM5F	CM5			120	63
ISO50L138CM5F	CM5			138	78

Reductor a cono morse DIN/228-B
Morse taper adapters DIN/228-B

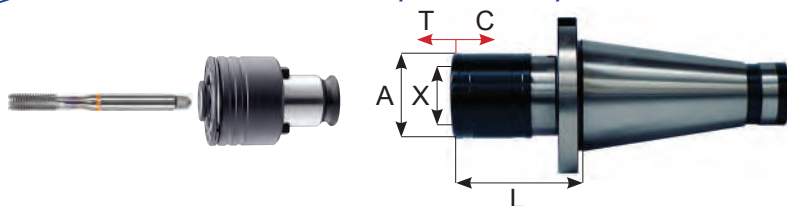


ISO30 / ISO40 / ISO50

REFERENCIA	D	RPM	FORMA	L	A
ISO30L50CM1P	CM1	12.000	AD	50	25
ISO30L50CM2P	CM2			50	32
ISO30L75CM3P	CM3			75	40
ISO40L50CM1P	CM1	12.000	AD	50	25
ISO40L50CM2P	CM2			50	32
ISO40L65CM3P	CM3			65	40
ISO40L95CM4P	CM4			95	48
ISO50L45CM1P	CM1	12.000	AD	45	25
ISO50L60CM2P	CM2			60	32
ISO50L65CM3P	CM3			65	40
ISO50L70CM4P	CM4			70	48
ISO50L105CM5P	CM4			105	63

DIN/2080

Roscador con compresión y tracción DIN/2080
Tension and compression tap holders DIN/2080

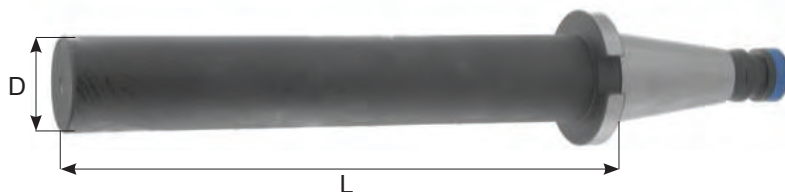


ISO40 / ISO50

REFERENCIA	CAP	X	A	L	C	T
SK40-THTC1-L50	M 3 ÷ M12	19	36	50	7.5	7.5
SK50-THTC1-L59				59		
SK40-THTC2-L78	M 8 ÷ M20	31	53	78	12.5	12.5
SK50-THTC2-L80				80		
SK40-THTC3-L143	M14 ÷ M33	48	78	143	20	20
SK50-THTC3-L130				130		
SK50-THTC4-L152	M22 ÷ M48	60	96	152	22.5	22.5

DIN/2080

Barra mecanizable DIN/2080
Machinable blank Arbors DIN/2080



ISO40 / ISO50

REFERENCIA	D	FORMA	L
ISO40L250D63BL	63	AD	250
ISO50L315D97BL	97	AD	315





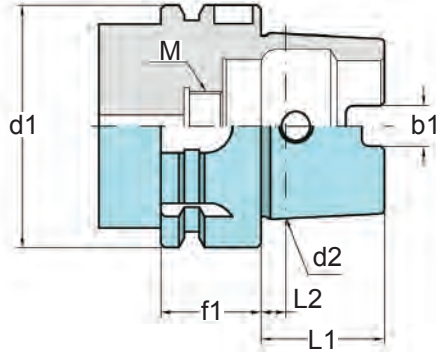
DIN/69893
HSK A / E / F

PROGRAMA

						
PAG. 4	PAG. 5	PAG. 5	PAG. 6	PAG. 6	PAG. 6	PAG. 7-9
						
PAG. 9	PAG. 10-11	PAG. 12	PAG. 13	PAG. 14	PAG. 15	PAG. 16-17
						
PAG. 18	PAG. 18	PAG. 19	PAG. 19-20	PAG. 20	PAG. 21-25	PAG. 26
						
PAG. 27						

FORMA = A

A

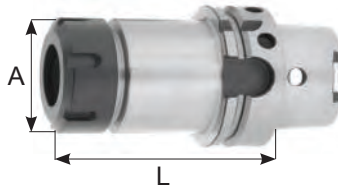


FORMA FORM	d1	d2	L1	L2	M	f1	b1
HSK-A	32	24.007	16	-	M10 x 1	20	7.05
	40	30.007	20	4.0	M12 x 1	20	8.05
	50	38.009	25	5.0	M16 x 1	26	10.54
	63	48.010	32	6.3	M18 x 1	26	12.54
	80	60.012	40	8.0	M20 x 1.5	26	16.04
	100	75.013	50	10.0	M24 x 1.5	29	20.02



DIN/69893

Porta pinzas ER tuerca STANDARD
Collet chucks ER STANDARD nut

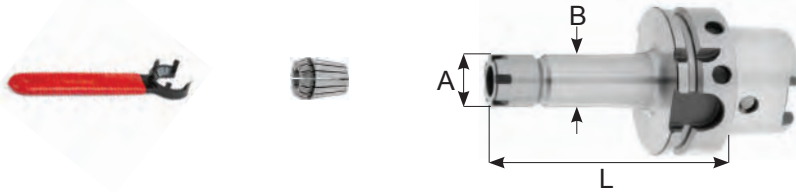


HSK-A / 32 / 40 / 50 / 63 / 80 / 100

REFERENCIA	CAP	RPM	L	A
HSK32AL80ER16	1 ÷ 10	18.000	80	32
HSK32AL80ER25	2 ÷ 22		80	42
HSK40AL80ER16	1 ÷ 10	18.000	80	32
HSK40AL80ER25	1 ÷ 20		80	42
HSK40AL100ER32	2 ÷ 22		100	50
HSK50AL100ER16	1 ÷ 10	18.000	100	32
HSK50AL100ER25	1 ÷ 20		100	42
HSK50AL100ER32	2 ÷ 22		100	50
HSK63AL100ER16	1 ÷ 10	18.000	100	32
HSK63AL160ER16			160	
HSK63AL200ER16	200			
HSK63AL100ER20	1 ÷ 14		100	35
HSK63AL100ER25	1 ÷ 20		100	42
HSK63AL160ER25			160	
HSK63AL200ER25			200	
HSK63AL70ER32	2 ÷ 22		70	50
HSK63AL80ER32			80	
HSK63AL100ER32			100	
HSK63AL120ER32			120	
HSK63AL130ER32			130	
HSK63AL160ER32		160		
HSK63AL200ER32		200		
HSK63AL65ER40	3 ÷ 30	65	63	
HSK63AL120ER40		120		
HSK63AL160ER40		160		
HSK80AL100ER32	2 ÷ 22	18.000	100	50
HSK80AL120ER40	3 ÷ 30		120	63
HSK100AL100ER16	1 ÷ 10	18.000	100	32
HSK100AL160ER16			160	
HSK100AL100ER20	1 ÷ 14		100	35
HSK100AL100ER25	1 ÷ 20		100	42
HSK100AL160ER25			160	
HSK100AL200ER25			200	
HSK100AL80ER32	2 ÷ 22		80	50
HSK100AL100ER32			100	
HSK100AL160ER32			160	
HSK100AL200ER32			200	
HSK100AL100ER40	3 ÷ 30		100	63
HSK100AL160ER40			160	
HSK100AL200ER40		200		

DIN/69893

Porta pinzas ER tuerca MINI
Collet chucks ER MINI nut

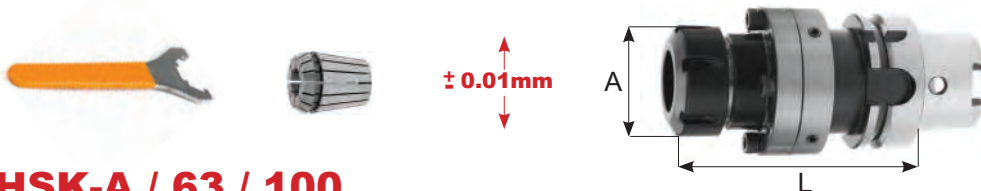


HSK-A / 32 / 40 / 50 / 63 / 100

REFERENCIA	CAP	RPM	L	B	A
HSK32AL80ER11M	1 ÷ 7	18.000	80	16	16
HSK32AL80ER16M	1 ÷ 10		80	22	22
HSK40AL80ER11M	1 ÷ 7	18.000	80	16	16
HSK40AL80ER16M	1 ÷ 10		80	22	22
HSK40AL80ER25M	1 ÷ 20		80	35	35
HSK50AL100ER11M	1 ÷ 7	18.000	100	16	16
HSK50AL100ER16M	1 ÷ 10		100	22	22
HSK63AL100ER11M	1 ÷ 7	18.000	100	16	16
HSK63AL160ER11M			160		
HSK63AL100ER16M	1 ÷ 10		100	22	22
HSK63AL160ER16M			160		
HSK63AL110ER20M	1 ÷ 14		110	28	28
HSK63AL100ER25M	1 ÷ 20		100	35	35
HSK63AL160ER25M		160			
HSK100AL160ER16M	1 ÷ 10	18.000	160	22	22

DIN/69893

Porta pinzas ER regulación radial
Radial adjustable collet chucks

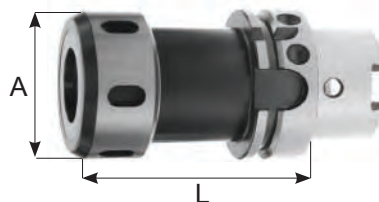


HSK-A / 63 / 100

REFERENCIA	CAP	FORMA	L	A
HSK63AL100ER16RG	1 ÷ 10	HSK63-A	100	28
HSK63AL102ER20RG	1 ÷ 14		102	34
HSK63AL103ER25RG	1 ÷ 20		103	42
HSK63AL104ER32RG	2 ÷ 22		104	50
HSK63AL138ER40RG	3 ÷ 30		138	63
HSK100AL103ER16RG	1 ÷ 10	HSK100-A	103	28
HSK100AL105ER20RG	1 ÷ 14		105	34
HSK100AL106ER25RG	1 ÷ 20		106	42
HSK100AL107ER32RG	2 ÷ 22		107	50
HSK100AL141ER40RG	3 ÷ 30		141	63

DIN/69893

Porta pinzas EOC DIN/6388 B
Collet chucks EOC DIN/6388 B

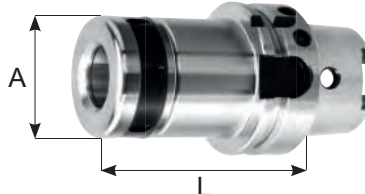


HSK-A / 50 / 63 / 100

REFERENCIA	CAP	RPM	L	A
HSK50AL100EOC16	2 ÷ 16	15.000	100	43
HSK50AL100EOC25	2 ÷ 25		100	60
HSK63AL100EOC16	2 ÷ 16	15.000	100	43
HSK63AL100EOC25	2 ÷ 25		100	60
HSK63AL120EOC32	3 ÷ 32		120	72
HSK100AL100EOC16	2 ÷ 16	15.000	100	43
HSK100AL100EOC25	2 ÷ 25		100	60
HSK100AL120EOC32	3 ÷ 32		120	72

DIN/69893

Porta pinzas SKS
SKS - Collet chucks



HSK-A / 63

REFERENCIA	CAP	RPM	L	A
HSK63AL90SKS10	2 ÷ 10	25.000	90	30
HSK63AL120SKS10	2 ÷ 10		120	30
HSK63AL90SKS20	3 ÷ 16		90	40
HSK63AL135SKS20	3 ÷ 20		90	48.5

DIN/69893

Porta pinzas gran apriete
Power milling chucks

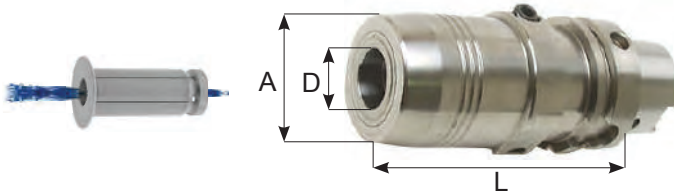


HSK-A / 63 / 100

REFERENCIA	CAP	RPM	L	A
HSK63AL85FP20	3 ÷ 16	15.000	120	56.5
HSK63AL110FP32	3 ÷ 25		130	71
HSK100L120FP20	3 ÷ 16	15.000	120	55
HSK100L120FP32	3 ÷ 25		120	69

DIN/69893

Porta pinzas hidráulico paso refrigerante
Sealed collets Hydraulic Collet chucks



Refrigeración
Interna
Coolant flow

HSK-A / 32 / 40 / 50 / 63

REFERENCIA	D	RPM	L	A
HSK32AL80HD6	6	15.000	80	26
HSK32AL80HD8	8		80	28
HSK32AL85HD10	10		85	30
HSK32AL90HD12	12		90	32
HSK32AL95HD14	14		95	34
HSK32AL100HD16	16		100	38
HSK32AL100HD20	20		100	42
HSK40AL80HD6	6	15.000	80	26
HSK40AL80HD8	8		80	28
HSK40AL85HD10	10		85	30
HSK40AL90HD12	12		90	32
HSK40AL90HD14	14		90	34
HSK40AL90HD16	16		90	38
HSK40AL90HD18	18		90	40
HSK40AL90HD20	20	90	42	
HSK50AL80HD6	6	15.000	80	26
HSK50AL80HD8	8		80	28
HSK50AL85HD10	10		85	30
HSK50AL90HD12	12		90	32
HSK50AL90HD14	14		90	34
HSK50AL95HD16	16		95	38
HSK50AL95HD18	18		95	40
HSK50AL100HD20	20	100	42	
HSK50AL120HD25	25	125	50	
HSK63AL80HD6	6	15.000	80	26
HSK63AL150HD6			150	
HSK63AL200HD6			200	
HSK63AL80HD8	8	15.000	80	28
HSK63AL150HD8			150	
HSK63AL200HD8			200	
HSK63AL85HD10	10	15.000	85	30
HSK63AL150HD10			150	
HSK63AL200HD10			200	
HSK63AL90HD12	12	15.000	90	32
HSK63AL150HD12			150	
HSK63AL200HD12			200	

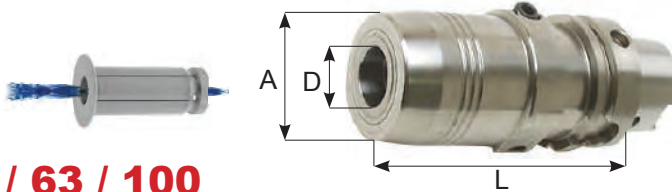
HSK-A / 63 / 100 →

DIN/69893

Porta pinzas hidráulico paso refrigerante
Sealed collets Hydraulic Collet chucks



Coolant



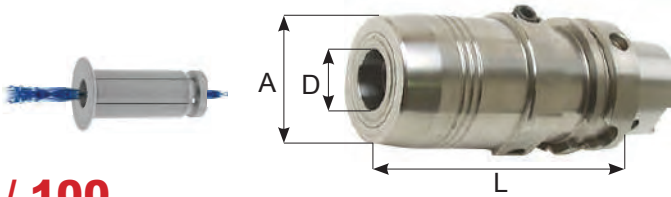
Refrigeración
Interna
Coolant flow

HSK-A / 63 / 100

REFERENCIA	D	RPM	L	A
HSK63AL90HD14	14	15.000	90	34
HSK63AL150HD14			150	
HSK63AL200HD14			200	
HSK63AL95HD16	16	15.000	95	38
HSK63AL150HD16			150	
HSK63AL200HD16			200	
HSK63AL95HD18	18	15.000	95	40
HSK63AL150HD18			150	
HSK63AL200HD18			200	
HSK63AL100HD20	20	15.000	100	42
HSK63AL150HD20			150	
HSK63AL200HD20			200	
HSK63AL120HD25	25	15.000	120	50
HSK63AL150HD25			150	
HSK63AL200HD25			200	
HSK100AL85HD6	6	10.000	85	26
HSK100AL150HD6			150	
HSK100AL200HD6			200	
HSK100AL85HD8	8	10.000	85	28
HSK100AL150HD8			150	
HSK100AL200HD8			200	
HSK100AL90HD10	10	10.000	90	30
HSK100AL150HD10			150	
HSK100AL200HD10			200	
HSK100AL95HD12	12	10.000	95	32
HSK100AL150HD12			150	
HSK100AL200HD12			200	
HSK100AL95HD14	14	10.000	95	34
HSK100AL150HD14			150	
HSK100AL200HD14			200	
HSK100AL100HD16	16	10.000	100	38
HSK100AL150HD16			150	
HSK100AL200HD16			200	

DIN/69893

Porta pinzas hidráulico paso refrigerante
Sealed collets Hydraulic Collet chucks



Refrigeración
Interna
Coolant flow

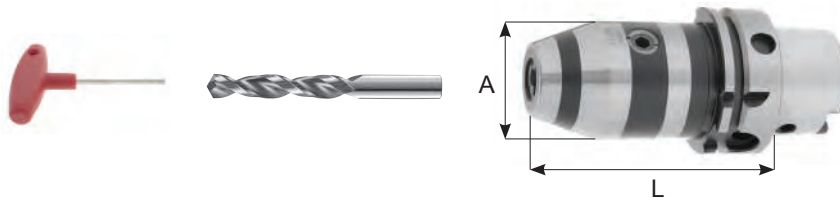
HSK-A / 100

REFERENCIA	D	RPM	L	A
HSK100AL100HD18	18	10.000	100	40
HSK100AL150HD18			150	
HSK100AL200HD18			200	
HSK100AL105HD20	20	10.000	105	42
HSK100AL150HD20			150	
HSK100AL200HD20			200	
HSK100AL115HD25	25	10.000	115	50
HSK100AL150HD25			150	
HSK100AL200HD25			200	
HSK100AL120HD32	32	10.000	120	60
HSK100AL150HD32			150	
HSK100AL200HD32			200	
HSK100AL150HD40	40	10.000	150	70

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DIN/69893

Porta brocas integral gran apriete paso refrigerante
Drill chucks with coolant feed

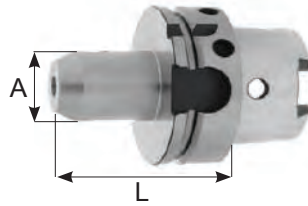


HSK-A / 50 / 63 / 100

REFERENCIA	CAP	RPM	L	A
HSK50AL105HD13	1 ÷ 13	12.000	105	50
HSK63AL130HD13	1 ÷ 13		130	50
HSK63AL140HD16	3 ÷ 16		140	57
HSK100AL108HD13	1 ÷ 13		108	50
HSK100AL113HD16	3 ÷ 16		113	57

DIN/69893

Porta fresas weldon DIN 1835-B
End mill holders for DIN 1835-B



HSK-A / 32 / 40 / 50 / 63

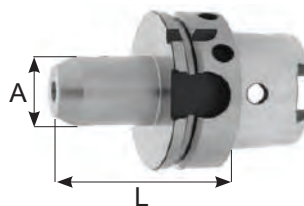
REFERENCIA	D	RPM	FORMA	L	A
HSK32AL60WE6	6	15.000	HSK32-A	60	25
HSK32AL60WE8	8			60	28
HSK32AL65WE10	10			65	35
HSK32AL65WE12	12			65	42
HSK40AL60WE6	6	15.000	HSK40-A	60	25
HSK40AL60WE8	8			60	28
HSK40AL60WE10	10			60	35
HSK40AL70WE12	12			70	42
HSK40AL75WE16	16			75	48
HSK50AL65WE6	6			15.000	HSK50-A
HSK50AL65WE8	8	65	28		
HSK50AL65WE10	10	65	35		
HSK50AL80WE12	12	80	42		
HSK50AL80WE14	14	80	44		
HSK50AL80WE16	16	80	48		
HSK50AL80WE18	18	80	50		
HSK50AL80WE20	20	80	52		
HSK63AL65WE6	6	15.000	HSK63-A	65	25
HSK63AL100WE6				100	
HSK63AL160WE6				160	
HSK63AL65WE8	8	15.000	HSK63-A	65	28
HSK63AL100WE8				100	
HSK63AL160WE8				160	
HSK63AL65WE10	10	15.000	HSK63-A	65	35
HSK63AL100WE10				100	
HSK63AL160WE10				160	
HSK63AL80WE12	12	15.000	HSK63-A	80	42
HSK63AL100WE12				100	
HSK63AL160WE12				160	
HSK63AL80WE14	14	15.000	HSK63-A	80	44
HSK63AL100WE14				100	
HSK63AL160WE14				160	

Whistle-Notch sobre pedido / Whistle-Notch on request.

HSK-A / 63 / 80 / 100 →

DIN/69893

Porta fresas weldon DIN 1835-B
End mill holders for DIN 1835-B



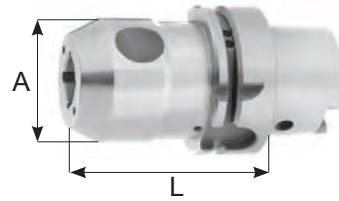
HSK-A / 63 / 80 / 100

REFERENCIA	D	RPM	FORMA	L	A		
HSK63AL80WE16	16	15.000	HSK63-A	80	48		
HSK63AL100WE16				100			
HSK63AL160WE16				160			
HSK63AL80WE18	18	15.000	HSK63-A	80	48		
HSK63AL100WE18				100			
HSK63AL160WE18				160			
HSK63AL80WE20	20	15.000	HSK63-A	80	52		
HSK63AL100WE20				100			
HSK63AL160WE20				160			
HSK63AL110WE25	25	15.000	HSK63-A	110	65		
HSK63AL160WE25				160			
HSK63AL110WE32	32	15.000	HSK63-A	110	72		
HSK63AL160WE32				160			
HSK80AL80WE6	6	15.000	HSK80-A	80	25		
HSK80AL80WE8	8			80	28		
HSK80AL80WE10	10			80	35		
HSK80AL80WE12	12			80	42		
HSK80AL80WE14	14			80	44		
HSK80AL100WE16	16			100	48		
HSK80AL100WE18	18			100	50		
HSK80AL100WE20	20			100	52		
HSK80AL100WE25	25			100	65		
HSK80AL110WE32	32			100	72		
HSK100AL80WE6	6			15.000	HSK100-A	80	25
HSK100AL80WE8	8					80	28
HSK100AL80WE10	10	80	35				
HSK100AL100WE12	12	80	42				
HSK100AL100WE14	14	80	44				
HSK100AL100WE16	16	100	48				
HSK100AL100WE18	18	100	50				
HSK100AL100WE20	20	100	52				
HSK100AL100WE25	25	100	65				
HSK100AL100WE32	32	100	72				
HSK100AL105WE40	40	105	80				

Whistle-Notch sobre pedido / Whistle-Notch on request.

DIN/69893

Porta fresas weldon con canal de refrigeración
End mill holders with coolant channels



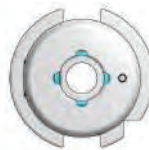
HSK-A / 63 / 100

REFERENCIA	D	RPM	FORMA	L	A
HSK63AL75WE6C	6	15.000	HSK63-A	75	27
HSK63AL75WE8C	8			75	28
HSK63AL75WE10C	10			75	35
HSK63AL80WE12C	12			80	42
HSK63AL80WE14C	14			80	44
HSK63AL80WE16C	16			80	48
HSK63AL80WE18C	18			80	50
HSK63AL80WE20C	20			80	52
HSK63AL110WE25C	25			110	65
HSK63AL110WE32C	32			110	72
HSK63AL120WE40C	40			120	90
HSK100AL75WE6C	6			15.000	HSK100-A
HSK100AL75WE8C	8	75	28		
HSK100AL80WE10C	10	80	35		
HSK100AL90WE12C	12	90	42		
HSK100AL90WE14C	14	90	44		
HSK100AL100WE16C	16	100	48		
HSK100AL100WE18C	18	100	50		
HSK100AL100WE20C	20	100	52		
HSK100AL100WE25C	25	100	65		
HSK100AL100WE32C	32	100	72		
HSK100AL120WE40C	40	120	90		

WE6 + WE14



WE16 + WE40

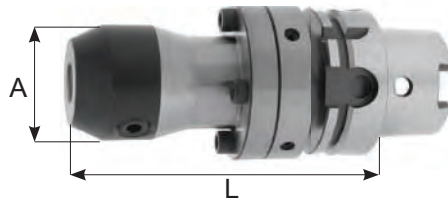


DIN/69871

Porta fresas weldon regulación radial
Radial adjustable end mill holders



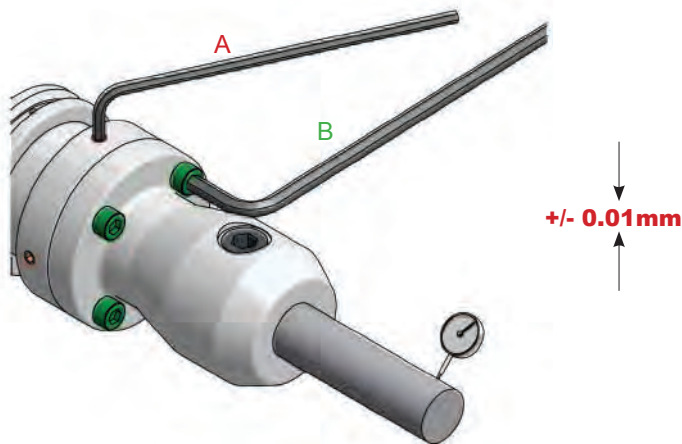
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HSK-A / 63 / 100

REFERENCIA	D	FORMA	L	A
HSK63AL107WE6RG	6	HSK63-A	107	25
HSK63AL107WE8RG	8		107	28
HSK63AL107WE10RG	10		107	35
HSK63AL117WE12RG	12		117	42
HSK63AL117WE14RG	14		117	44
HSK63AL137WE16RG	16		137	48
HSK63AL137WE18RG	18		137	50
HSK63AL142WE20RG	20		137	52
HSK100AL110WE6RG	6	HSK100-A	110	25
HSK100AL110WE8RG	8		110	28
HSK100AL110WE10RG	10		110	35
HSK100AL120WE12RG	12		120	42
HSK100AL120WE14RG	14		120	44
HSK100AL140WE16RG	16		140	48
HSK100AL140WE18RG	18		140	50
HSK100AL145WE20RG	20		145	52

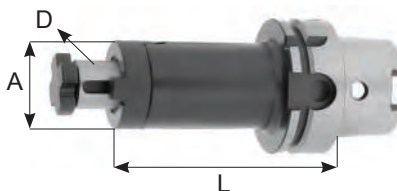
9



“Aloje los tornillos B y ajuste el centrado con los tornillos A”
“Loosen screws B and use screws A for radial adjustment”

DIN/69893

Porta fresas combinado
Combi shell end mill holders



HSK-A / 32 / 40 / 50 / 63 / 80 / 100

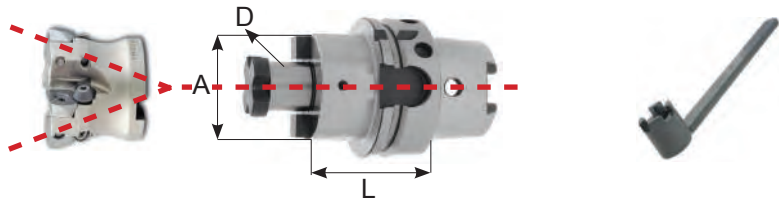
REFERENCIA	D	RPM	FORMA	L	A
HSK32AL55D16C	16			55	32
HSK32AL55D22C	22	18.000	HSK32-A	55	40
HSK32AL65D27C	27			65	48
HSK40AL50D16C	16			50	32
HSK40AL50D22C	22	18.000	HSK40-A	50	40
HSK40AL65D27C	27			65	48
HSK50AL50D16C	16			50	32
HSK50AL50D22C	22	18.000	HSK50-A	50	40
HSK50AL65D27C	27			65	48
HSK50AL65D32C	32			65	58
HSK63AL60D16C	16	18.000	HSK63-A	60	32
HSK63AL100D16C				100	
HSK63AL160D16C				160	
HSK63AL60D22C	22	18.000	HSK63-A	60	40
HSK63AL100D22C				100	
HSK63AL160D22C				160	
HSK63AL60D27C	27	18.000	HSK63-A	60	48
HSK63AL100D27C				100	
HSK63AL160D27C				160	
HSK63AL60D32C	32	18.000	HSK63-A	60	58
HSK63AL100D32C				100	
HSK63AL160D32C				160	
HSK63AL70D40C	40	18.000	HSK100-A	70	70
HSK63AL100D40C				100	
HSK63AL160D40C				160	
HSK80AL60D16C	16	18.000	HSK100-A	60	32
HSK80AL60D22C	22			60	40
HSK80AL60D27C	27			60	48
HSK80AL60D32C	32			60	58
HSK80AL70D40C	40			70	70
HSK100AL60D16C	16	18.000	HSK100-A	60	32
HSK100AL60D22C	22			60	40
HSK100AL60D27C	27			60	48
HSK100AL60D32C	32			60	58
HSK100AL70D40C	40			70	70

DIN/69893

Porta fresas fijo con canal de refrigeración
Shell end mill holders with coolant channels



Coolant

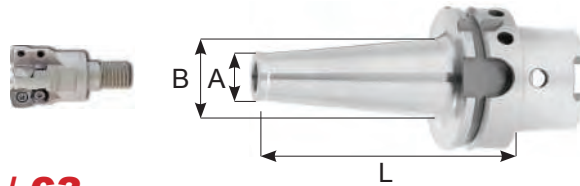


HSK-A / 50 / 63 / 80 / 100

REFERENCIA	D	RPM	FORMA	L	A		
HSK50AL50D16S	16	18.000	HSK50-A	50	38		
HSK50AL60D22S	22			60	48		
HSK50AL60D27S	27			60	58		
HSK50AL60D32S	32			60	78		
HSK63AL50D16S	16	18.000	HSK63-A	50	38		
HSK63AL100D16S				100			
HSK63AL160D16S				160			
HSK63AL50D22S	22			50	48		
HSK63AL100D22S				100			
HSK63AL160D22S				160			
HSK63AL60D27S	27			60	58		
HSK63AL100D27S				100			
HSK63AL160D27S				160			
HSK63AL60D32S	32			60	78		
HSK63AL100D32S						100	
HSK63AL160D32S						160	
HSK63AL60D40S	40	60	88				
HSK80AL50D22S	22			18.000	HSK80-A	50	48
HSK80AL50D27S	27					50	58
HSK80AL60D32S	32					60	78
HSK80AL60D40S	40	60	88				
HSK100AL50D16S	16	18.000	HSK100-A	50	38		
HSK100AL100D16S				100			
HSK100AL160D16S				160			
HSK100AL50D22S	22			50	48		
HSK100AL100D22S				100			
HSK100AL160D22S				160			
HSK100AL50D27S	27			50	58		
HSK100AL100D27S				100			
HSK100AL160D27S				160			
HSK100AL50D32S	32			50	66		
HSK100AL100D32S						100	
HSK100AL160D32S						160	
HSK100AL60D40S	40			60	80		
HSK100AL100D40S						100	
HSK100AL160D40S						160	

DIN/69893

Porta herramientas para fresa roscada
Tool holder for screwed milling cutters



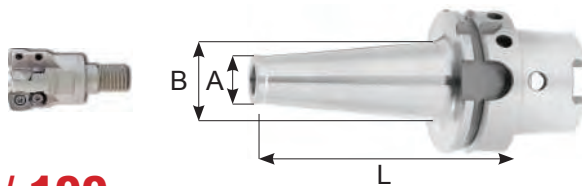
HSK-A / 50 / 63

REFERENCIA	M	RPM	FORMA	L	A	B
HSK50AL59M6CPY	M6	25.000	HSK50-A	59	9.7	13
HSK50AL84M6CPY				84		20
HSK50AL109M6CPY				109		23
HSK50AL59M8CPY	M8	25.000		59	13	15
HSK50AL84M8CPY				84		23
HSK50AL109M8CPY				109		23
HSK50AL134M8CPY	M10	25.000		134	18	25
HSK50AL59M10CPY				59		20
HSK50AL84M10CPY				84		25
HSK50AL109M10CPY	M12	25.000		109	21	28
HSK50AL134M10CPY				134		30
HSK50AL59M12CPY				59		24
HSK50AL84M12CPY	M12	25.000		84	21	24
HSK50AL109M12CPY				109		31
HSK50AL134M12CPY				134		31
HSK63AL59M8CPY	M8	25.000	HSK63-A	59	13	15
HSK63AL84M8CPY				84		23
HSK63AL109M8CPY				109		23
HSK63AL134M8CPY	M10	25.000	HSK63-A	134	18	25
HSK63AL59M10CPY				59		19.5
HSK63AL84M10CPY				84		25
HSK63AL109M10CPY	M10	25.000	HSK63-A	109	18	28
HSK63AL134M10CPY				134		28
HSK63AL159M10CPY				159		34
HSK63AL176M10CPY	M12	25.000	HSK63-A	176	21	36.5
HSK63AL59M12CPY				59		24
HSK63AL84M12CPY				84		24
HSK63AL109M12CPY	M12	25.000	HSK63-A	109	21	31
HSK63AL134M12CPY				134		31
HSK63AL159M12CPY				159		31
HSK63AL176M12CPY	M16	25.000	HSK63-A	176	29	40
HSK63AL59M16CPY				59		34
HSK63AL84M16CPY				84		34
HSK63AL109M16CPY	M16	25.000	HSK63-A	109	29	34
HSK63AL134M16CPY				134		39
HSK63AL159M16CPY				159		39
HSK63AL176M16CPY				176		42.5

HSK-A / 80 / 100 ➔

DIN/69893

Porta herramientas para fresa roscada
Tool holder for screwed milling cutters

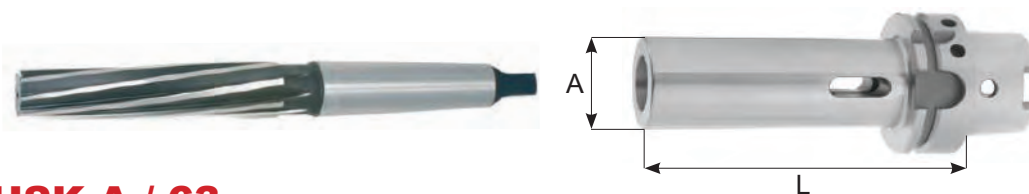


HSK-A / 80 / 100

REFERENCIA	M	RPM	FORMA	L	A	B
HSK80AL84M6CPY	M6	25.000	HSK80-A	84	9.7	20
HSK80AL109M6CPY				109		23
HSK80AL84M8CPY	M8	25.00		84	13	23
HSK80AL109M8CPY				109		23
HSK80AL134M8CPY				134		25
HSK80AL84M10CPY	M10	25.000		84	18	25
HSK80AL109M10CPY				109		28
HSK80AL134M10CPY				134		30
HSK80AL84M12CPY	M12	25.000		84	21	24
HSK80AL109M12CPY				109		31
HSK80AL134M12CPY				134		31
HSK80AL84M16CPY	M16	25.000		84	29	15
HSK80AL109M16CPY				109		23
HSK80AL134M16CPY				134		23
HSK80AL159M16CPY			159	25		
HSK80AL184M16CPY			184			
HSK100AL79M8CPY	M8	25.000	HSK100-A	59	13	23
HSK100AL79M10CPY	M10			84		23
HSK100AL129M10CPY				109	18	32
HSK100AL179M10CPY				134	36.5	
HSK100AL79M12CPY	M12	25.000	HSK100-A	59	21	24
HSK100AL87M12CPY				84		24
HSK100AL129M12CPY				109		33
HSK100AL137M12CPY				134		47
HSK100AL179M12CPY				159		40
HSK100AL187M12CPY	176	55				
HSK100AL79M16CPY	M16	25.000	HSK100-A	59	29	34
HSK100AL87M16CPY				84		31.5
HSK100AL129M16CPY				109		36
HSK100AL137M16CPY				134		47
HSK100AL179M16CPY				159		42.5
HSK100AL187M16CPY				176		55
HSK100AL208M16CPY				79		55

DIN/69893

Reductor cono morse DIN/228-B
Morse taper adapters DIN/228-B



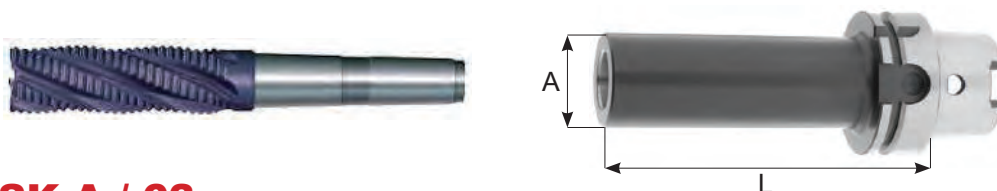
HSK-A / 63

REFERENCIA	D	FORMA	L	A
HSK63AL100CM1P	CM1	HSK63-A	100	25
HSK63AL120CM2P	CM2		120	32
HSK63AL140CM3P	CM3		140	40
HSK63AL160CM4P	CM4		160	48

HSK-A / 100

REFERENCIA	D	FORMA	L	A
HSK100AL110CM1P	CM1	HSK100-A	110	25
HSK100AL120CM2P	CM2		120	32
HSK100AL150CM3P	CM3		150	40
HSK100AL170CM4P	CM4		170	48
HSK100AL200CM5P	CM5		200	63

Reductor cono morse DIN/228-A con tornillo tirante
Reducing adaptors morse taper shank and drawbar thread DIN/228-A



HSK-A / 63

REFERENCIA	D	FORMA	L	A
HSK63AL100CM1F	CM1	HSK63-A	100	32
HSK63AL120CM2F	CM2		120	40
HSK63AL140CM3F	CM3		140	48
HSK63AL160CM4F	CM4		160	63

HSK-A / 100

REFERENCIA	D	FORMA	L	A
HSK100AL120CM2F	CM2	HSK100-A	120	32
HSK100AL150CM3F	CM3		150	40
HSK100AL170CM4F	CM4		170	48
HSK100AL200CM5F	CM5		200	63

DIN/69893

Cono reductor HSK - HSK con pistón tensor y junta
Reducers HSK-HSK with draw-in collet and covering ring

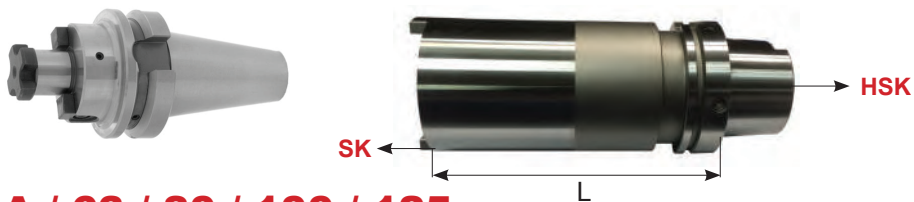


HSK-A / 40 / 50 / 63 / 80 / 100

REFERENCIA	CONO	REDUCTOR	L
HSK40AL60HSK32AP	HSK40-A	HSK32-A	60
HSK50AL50HSK32AP	HSK50-A	HSK32-A	50
HSK50AL60HSK40AP		HSK40-A	60
HSK50AL70HSK40AP		HSK40-A	70
HSK63AL55HSK25AP	HSK63-A	HSK25-A	55
HSK63AL70HSK32AP		HSK32-A	70
HSK63AL80HSK40AP		HSK40-A	80
HSK63AL80HSK50AP		HSK50-A	80
HSK80AL75HSK32AP	HSK80-A	HSK32-A	75
HSK80AL80HSK40AP		HSK40-A	80
HSK80AL80HSK50AP		HSK50-A	80
HSK80AL90HSK63AP		HSK63-A	90
HSK100AL70HSK40AP	HSK100-A	HSK40-A	70
HSK100AL80HSK50AP		HSK50-A	80
HSK100AL100HSK63AP		HSK63-A	100
HSK100AL100HSK80AP		HSK80-A	100
HSK100AL70HSK63AP		HSK63-A	70
HSK100AL200HSK50AP		HSK50-A	200
HSK100AL775HSK63AP		HSK63-A	775

DIN/69893

Cono reductor HSK - SK / BT / DIN
Reducers HSK - SK / BT / DIN

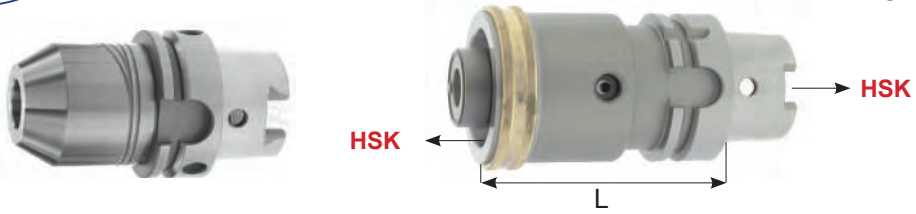


HSK-A / 63 / 80 / 100 / 125

REFERENCIA	CONO	CONO	L
HSK63AL115SK30	HSK63A	SK30/BT	115
HSK63AL117SK40		SK40/BT	117
HSK80AL155SK40	HSK80A	SK40/BT	155
HSK100AL120SK30	HSK100A	SK30/BT	120
HSK100AL150SK40		SK40/BT	150
HSK100AL205SK50		SK50/BT	205
HSK125AL125SK50		SK50/BT	125

DIN/69893

Prolongador HSK - HSK con Pistón tensor y junta
Tool extension HSK - HSK with draw-in collet and covering ring



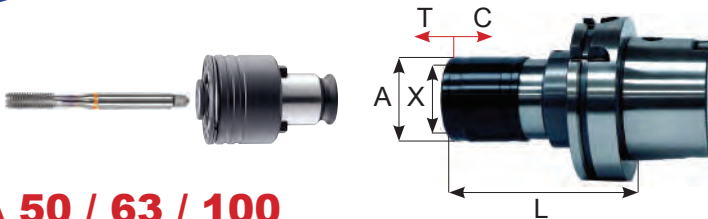
HSK-A / 32 / 40 / 50 / 63 / 80 / 100

REFERENCIA	CONO	CONO	L
HSK32AL55HSK32AC	HSK32-A	HSK32-A	55
HSK32AL70HSK32AC			70
HSK40AL60HSK40AC	HSK40-A	HSK40-A	60
HSK40AL80HSK40AC			80
HSK50AL80HSK50AC	HSK50-A	HSK50-A	80
HSK50AL100HSK50AC			100
HSK63AL80HSK63AC	HSK63-A	HSK63-A	80
HSK63AL90HSK63AC			90
HSK63AL100HSK63AC			100
HSK63AL120HSK63AC			120
HSK63AL160HSK63AC			160
HSK63AL200HSK63AC	HSK80-A	HSK80-A	200
HSK80AL100HSK80AC			100
HSK80AL120HSK80AC			120
HSK80AL160HSK80AC			160
HSK100AL115HSK100AC	HSK100-A	HSK100-A	115
HSK100AL140HSK100AC			140
HSK100AL160HSK100AC			160
HSK100AL200HSK100AC			200

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DIN/69893

Rosgador con compresión y tracción
Tension and compression tap holders



HSK-A 50 / 63 / 100

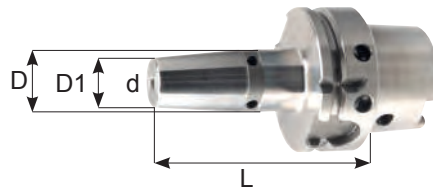
REFERENCE	CAP	X	A	L	C	T
HSK50A-THTC1-L76	M3 ÷ M18	19	36	76	7.5	7.5
HSK63A-THTC1-L81				81		
HSK100A-THTC1-L90				90		
HSK50A-THTC2-L123	M8 ÷ M30	31	53	123	12.5	12.5
HSK63A-THTC2-L119				119		
HSK100A-THTC2-L138				138		
HSK63A-THTC3-L176	M14 ÷ M48	48	78	176	20.0	20.0
HSK100A-THTC3-L190				190		
HSK100A-THTC4-L225				225		
	M22 ÷ M60	60	96	225	22.5	22.5

DIN/69893

Porta herramientas inducción térmica
Shrink Fit holders



on request



HSK-A / 32 / 40

REFERENCIA	d	D1	D	L
HSK32AL60CL3	3	10	16	60
HSK32AL60CL4	4	10	21	60
HSK32AL60CL5	5	10	21	60
HSK32AL70CL6	6	20	25	70
HSK32AL70CL8	8	20	25	70
HSK32AL70CL10	10	24	29	70
HSK32AL80CL12	12	24	29	80
HSK32AL90CL14	14	27	34	90
HSK32AL90CL16	16	27	34	90
HSK32AL100CL20	20	33	40	100
HSK40AL60CL3	3	10	16	60
HSK40AL120CL3	3	10	20	120
HSK40AL160CL3	3	10	20	160
HSK40AL60CL4	4	10	16	60
HSK40AL120CL4	4	15	22	120
HSK40AL160CL4	4	15	22	160
HSK40AL60CL5	5	10	16	60
HSK40AL120CL5	5	15	22	120
HSK40AL160CL5	5	15	22	160
HSK40AL80CL6	6	20	27	80
HSK40AL120CL6	6	20	27	120
HSK40AL160CL6	6	20	27	160
HSK40AL80CL8	8	20	27	80
HSK40AL120CL8	8	20	27	120
HSK40AL160CL8	8	20	27	160
HSK40AL80CL10	10	24	31	80
HSK40AL120CL10	10	24	31	120
HSK40AL160CL10	10	24	31	160
HSK40AL90CL12	12	24	31	90
HSK40AL120CL12	12	24	31	120
HSK40AL160CL12	12	24	31	160
HSK40AL90CL14	14	27	34	90
HSK40AL120CL14	14	27	34	120
HSK40AL160CL14	14	27	34	160
HSK40AL90CL16	16	27	34	90
HSK40AL120CL16	16	27	34	120
HSK40AL160CL16	16	27	34	160

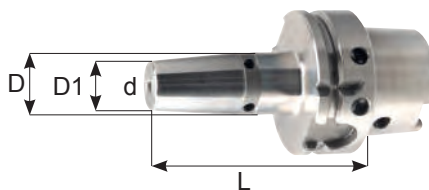
HSK-A / 50 →

DIN/69893

Porta herramientas inducción térmica
Shrink Fit holders



on request

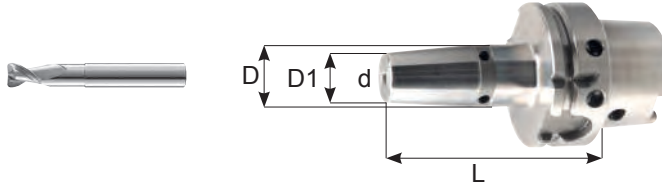


HSK-A / 50

REFERENCIA	d	D1	D	L
HSK50AL80CL3	3	10	15	80
HSK50AL120CL3	3	10	20	120
HSK50AL160CL3	3	10	20	160
HSK50AL80CL4	4	15	22	80
HSK50AL120CL4	4	15	22	120
HSK50AL160CL4	4	15	22	160
HSK50AL80CL5	5	15	22	80
HSK50AL120CL5	5	15	22	120
HSK50AL160CL5	5	15	22	160
HSK50AL80CL6	6	20	27	80
HSK50AL120CL6	6	20	27	120
HSK50AL160CL6	6	20	27	160
HSK50AL80CL8	8	20	27	80
HSK50AL120CL8	8	20	27	120
HSK50AL160CL8	8	20	27	160
HSK50AL85CL10	10	24	31	85
HSK50AL120CL10	10	24	31	120
HSK50AL160CL10	10	24	31	160
HSK50AL90CL12	12	24	31	90
HSK50AL120CL12	12	24	31	120
HSK50AL160CL12	12	24	31	160
HSK50AL90CL14	14	27	34	90
HSK50AL120CL14	14	27	34	120
HSK50AL160CL14	14	27	34	160
HSK50AL95CL16	16	27	34	95
HSK50AL120CL16	16	27	34	120
HSK50AL160CL16	16	27	34	160
HSK50AL95CL18	18	33	40	95
HSK50AL120CL18	18	33	40	120
HSK50AL160CL18	18	33	40	160
HSK50AL100CL20	20	33	40	100
HSK50AL120CL20	20	33	40	120
HSK50AL160CL20	20	33	40	160

DIN/69893

Porta herramientas inducción térmica
Shrink Fit holders



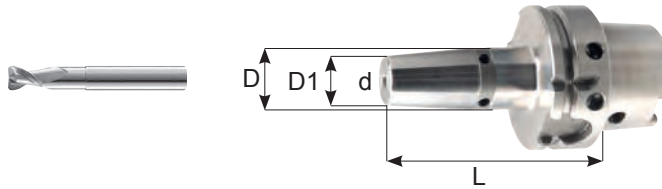
HSK-A / 63

REFERENCIA	d	D1	D	L
HSK63AL80CL3	3	10	15	80
HSK63AL120CL3	3	10	20	120
HSK63AL160CL3	3	10	20	160
HSK63AL80CL4	4	15	22	80
HSK63AL120CL4	4	15	22	120
HSK63AL160CL4	4	15	22	160
HSK63AL80CL5	5	15	22	80
HSK63AL120CL5	5	15	22	120
HSK63AL160CL5	5	15	22	160
HSK63AL90CL6	6	20	27	90
HSK63AL130CL6	6	20	27	130
HSK63AL160CL6	6	20	27	160
HSK63AL90CL8	8	20	27	90
HSK63AL130CL8	8	20	27	130
HSK63AL160CL8	8	20	27	160
HSK63AL90CL10	10	24	32	90
HSK63AL130CL10	10	24	32	130
HSK63AL160CL10	10	24	32	160
HSK63AL90CL12	12	24	32	90
HSK63AL130CL12	12	24	32	130
HSK63AL160CL12	12	24	32	160
HSK63AL90CL14	14	27	34	90
HSK63AL130CL14	14	27	34	130
HSK63AL160CL14	14	27	34	160
HSK63AL90CL16	16	27	34	90
HSK63AL130CL16	16	27	34	130
HSK63AL160CL16	16	27	34	160
HSK63AL95CL18	18	33	42	95
HSK63AL130CL18	18	33	42	130
HSK63AL160CL18	18	33	42	160
HSK63AL100CL20	20	32	42	100
HSK63AL130CL20	20	32	42	130
HSK63AL160CL20	20	32	42	160
HSK63AL115CL25	25	44	53	115
HSK63AL130CL25	25	44	53	130
HSK63AL160CL25	25	44	53	160
HSK63AL120CL32	32	44	53	120
HSK63AL160CL32	32	44	53	160

HSK-A / 80 →

Porta herramientas inducción térmica
Shrink Fit holders

DIN/69893



HSK-A / 80

REFERENCIA	d	D1	D	L
HSK80AL85CL6	6	20	27	85
HSK80AL120CL6	6	20	27	120
HSK80AL160CL6	6	20	27	160
HSK80AL85CL8	8	20	27	85
HSK80AL120CL8	8	20	27	120
HSK80AL160CL8	8	20	27	160
HSK80AL90CL10	10	24	31	90
HSK80AL120CL10	10	24	31	120
HSK80AL160CL10	10	24	31	160
HSK80AL95CL12	12	24	31	95
HSK80AL120CL12	12	24	31	120
HSK80AL160CL12	12	24	31	160
HSK80AL95CL14	14	27	34	95
HSK80AL120CL14	14	27	34	120
HSK80AL160CL14	14	27	34	160
HSK80AL100CL16	16	27	34	100
HSK80AL120CL16	16	27	34	120
HSK80AL160CL16	16	27	34	160
HSK80AL100CL18	18	33	40	100
HSK80AL120CL18	18	33	40	120
HSK80AL160CL18	18	33	40	160
HSK80AL105CL20	20	33	40	105
HSK80AL120CL20	20	33	40	120
HSK80AL160CL20	20	33	40	160
HSK80AL115CL25	25	44	53	115
HSK80AL120CL25	25	44	53	120
HSK80AL160CL25	25	44	53	160
HSK80AL120CL32	32	44	53	120
HSK80AL160CL32	32	44	53	160



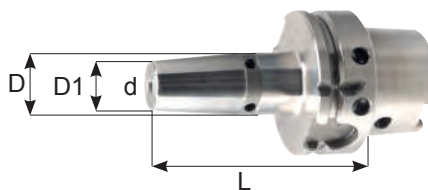
HSK-A / 100 →

Porta herramientas inducción térmica
Shrink Fit holders

DIN/69893



on request



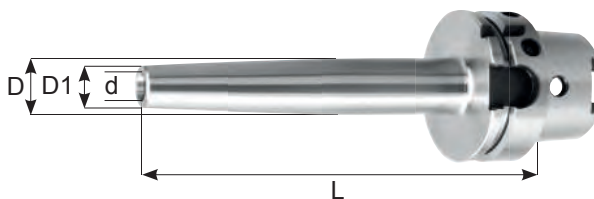
HSK-A / 100

REFERENCIA	d	D1	D	L
HSK100AL85CL6	6	20	27	85
HSK100AL120CL6	6	20	27	120
HSK100AL160CL6	6	20	27	160
HSK100AL85CL8	8	20	27	85
HSK100AL120CL8	8	20	27	120
HSK100AL160CL8	8	20	27	160
HSK100AL90CL10	10	24	31	90
HSK100AL120CL10	10	24	31	120
HSK100AL160CL10	10	24	31	160
HSK100AL95CL12	12	24	31	95
HSK100AL120CL12	12	24	31	120
HSK100AL160CL12	12	24	31	160
HSK100AL95CL14	14	27	34	95
HSK100AL120CL14	14	27	34	120
HSK100AL160CL14	14	27	34	160
HSK100AL100CL16	16	27	34	100
HSK100AL120CL16	16	27	34	120
HSK100AL160CL16	16	27	34	160
HSK100AL100CL18	18	33	40	100
HSK100AL120CL18	18	33	40	120
HSK100AL160CL18	18	33	40	160
HSK100AL105CL20	20	33	40	105
HSK100AL120CL20	20	33	40	120
HSK100AL160CL20	20	33	40	160
HSK100AL115CL25	25	44	53	115
HSK100AL120CL25	25	44	53	120
HSK100AL160CL25	25	44	53	160
HSK100AL120CL32	32	44	53	120
HSK100AL160CL32	32	44	53	160



DIN/69893

Porta herramientas inducción térmica
Shrink Fit holders



SLIM

HSK-A / 63

REFERENCIA	d	D1	D	L
HSK63AL80CL3SL	3	9	13	80
HSK63AL120CL3SL	3	9	16	120
HSK63AL80CL4SL	4	10	15	80
HSK63AL120CL4SL	4	10	20	120
HSK63AL80CL5SL	5	11	16	80
HSK63AL120CL5SL	5	11	16	120
HSK63AL90CL6SL	6	12	17	90
HSK63AL130CL6SL	6	12	19	130
HSK63AL160CL6SL	6	12	19	160
HSK63AL90CL8SL	8	14	19	90
HSK63AL130CL8SL	8	14	21	130
HSK63AL160CL8SL	8	14	21	160
HSK63AL90CL10SL	10	16	21	90
HSK63AL130CL10SL	10	16	23	130
HSK63AL160CL10SL	10	16	23	160
HSK63AL90CL12SL	12	18	23	90
HSK63AL130CL12SL	12	18	25	130
HSK63AL160CL12SL	12	18	25	160
HSK63AL90CL14SL	14	18	23	90
HSK63AL130CL14SL	14	18	25	130
HSK63AL160CL14SL	14	18	25	160
HSK63AL90CL16SL	16	24	29	90
HSK63AL130CL16SL	16	24	31	130
HSK63AL160CL16SL	16	24	31	160
HSK63AL95CL18SL	18	24	29	95
HSK63AL130CL18SL	18	24	31	130
HSK63AL160CL18SL	18	24	31	160
HSK63AL100CL20SL	20	32	39	100
HSK63AL130CL20SL	20	32	39	130
HSK63AL160CL20SL	20	32	39	160



DIN/69893

Barra mecanizable
Machinable blank Arbors



HSK-A / 25 / 32 / 40 / 50 / 63 / 80 / 100

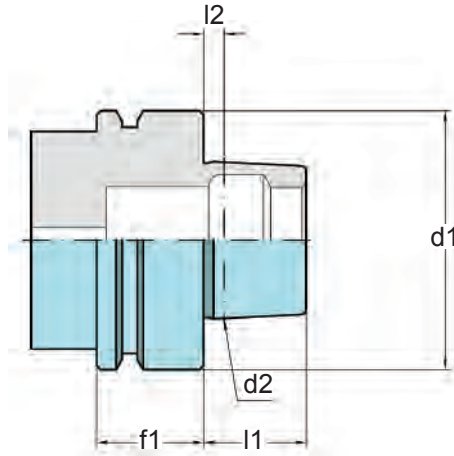
REFERENCIA	D	FORMA	L
HSK25AL100D25BL	25	HSK25A	100
HSK32AL150D25BL	25	HSK32A	150
HSK32AL100D32BL	32		100
HSK32AL120D40BL	40		120
HSK40AL100D40BL	40	HSK40A	100
HSK40AL150D40BL	40		150
HSK40AL160D40BL	40		160
HSK50AL100D50BL	50	HSK50A	100
HSK50AL150D50BL	50		150
HSK50AL200D50BL	50		200
HSK50AL200D52BL	52		200
HSK50AL160D63BL	63		160
HSK50AL200D63BL	63		200
HSK63AL100D63BL	63	HSK63A	100
HSK63AL140D63BL	63		140
HSK63AL160D63BL	63		160
HSK63AL200D63BL	63		200
HSK63AL250D63BL	63		250
HSK63AL350D63BL	63		350
HSK63AL160D80BL	80	HSK80A	160
HSK63AL250D80BL	80		250
HSK63AL140D108BL	108		140
HSK80AL160D80BL	80	HSK100A	160
HSK80AL250D80BL	80		250
HSK100AL200D63BL	63		200
HSK100AL250D80BL	80		250
HSK100AL300D90BL	90		300
HSK100AL330D92BL	92		330
HSK100AL250D93BL	93		250
HSK100AL250D97BL	97		250
HSK100AL160D100BL	100		160
HSK100AL250D100BL	100		250
HSK100AL160D103BL	103	160	
HSK100AL200D103BL	103	200	
HSK100AL315D103BL	103	315	
HSK100AL160D182BL	182	160	

PROGRAMA

						
PAG. 30	PAG. 30	PAG. 31	PAG. 31	PAG. 32	PAG. 33	PAG. 33
						
PAG. 34-36	PAG. 37					

FORMA = E

E



FORMA FORM	<i>d1</i>	<i>d2</i>	<i>l1</i>	<i>l2</i>	<i>M</i>	<i>f1</i>
HSK-E	25	19	13	2.5	M8 x 1	10
	32	24	16	3.2	M10 x 1	20
	40	30	20	4	M12 x 1	20
	50	38	25	5	M16 x 1	26
	63	40	32	6.3	M18 x 1	26

9



Porta pinzas ER tuerca STANDARD
Collet chucks ER STANDARD nut



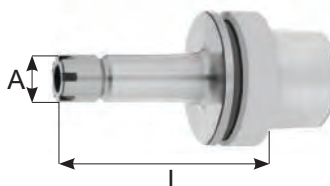
HSK-E / 32 / 40 / 50 / 63

REFERENCIA	CAP	RPM	L	A
HSK32EL60ER16	1 ÷ 10	24.000	60	32
HSK32EL80ER25	1 ÷ 20		80	42
HSK40EL60ER16	1 ÷ 10	24.000	60	32
HSK40EL70ER25	1 ÷ 20		70	42
HSK50EL100ER16	1 ÷ 10	24.000	100	32
HSK50EL70ER25	1 ÷ 20		70	42
HSK50EL73ER32DX	2 ÷ 22		73	50
HSK50EL73ER32SX	2 ÷ 22		73	50
HSK50EL75ER40DX	3 ÷ 30		75	63
HSK50EL75ER40SX	3 ÷ 30		75	63
HSK63EL73ER32DX	2 ÷ 22	24.000	73	50
HSK63EL73ER32SX	2 ÷ 22		73	50
HSK63EL78ER40DX	3 ÷ 30		78	63
HSK63EL78ER40SX	3 ÷ 30		78	63

9

DIN/69893

Porta pinzas ER tuerca MINI
Collet chucks ER MINI nut



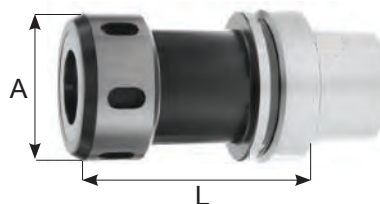
HSK-E / 25 / 32 / 40 / 50

REFERENCIA	CAP	RPM	L	A
HSK25EL55ER11M	1 ÷ 7	24.000	55	16
HSK25EL55ER16M	1 ÷ 10		55	22
HSK32EL80ER11M	1 ÷ 7		80	16
HSK32EL80ER16M	1 ÷ 10		80	22
HSK40EL80ER11M	1 ÷ 7		80	16
HSK40EL80ER16M	1 ÷ 10		80	22
HSK50EL100ER11M	1 ÷ 7		100	16

HSK20E (On request)

DIN/69893

Porta pinzas EOC DIN/6388 B
Collet chucks EOC DIN/6388 B

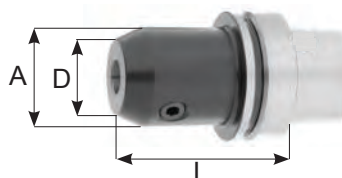


HSK-E / 63

REFERENCIA	CAP	RPM	L	A
HSK63EL80EOC25DX	2 ÷ 25	24.000	80	60
HSK63EL80EOC25SX	2 ÷ 25		80	60

DIN/69893

Porta fresas weldon DIN 1835-B
End mill holders for DIN 1835-B



HSK-E / 32 / 40 / 50 / 63

REFERENCIA	D	RPM	FORMA	L	A
HSK32EL55WE6	6	24.000	HSK32-A	55	25
HSK32EL55WE8	8			55	28
HSK32EL60WE10	10			60	35
HSK32EL65WE12	12			65	42
HSK40EL60WE6	6	24.000	HSK40-A	60	25
HSK40EL60WE8	8			60	28
HSK40EL60WE10	10			60	35
HSK40EL70WE12	12			70	42
HSK40EL70WE14	14	24.000	HSK50-A	70	44
HSK40EL75WE16	16			75	48
HSK50EL65WE6	6			65	25
HSK50EL65WE8	8	24.000	HSK63-A	65	28
HSK50EL65WE10	10			65	35
HSK50EL80WE12	12			80	42
HSK50EL80WE14	14			80	44
HSK50EL80WE16	16	24.000	HSK63-A	80	48
HSK63EL65WE6	6			65	25
HSK63EL65WE8	8			65	28
HSK63EL65WE10	10			65	35
HSK63EL80WE12	12	24.000	HSK63-A	80	42
HSK63EL80WE14	14			80	44
HSK63EL80WE16	16			80	48
HSK63EL80WE18	18			80	50
HSK63EL80WE20	20			80	52

DIN/69893

Porta pinzas hidraulico paso refrigerante
Sealed collets Hydraulic Collet chucks



Coolant



Refrigeración
Interna
Coolant flow

HSK-E / 25 / 32

REFERENCIA	D	RPM	L	A
HSK25EL70HD6	6	30.000	70	26
HSK25EL80HD8	8		80	28
HSK25EL85HD10	10		85	30
HSK25EL90HD12	12		90	32
HSK32EL80HD6	6	30.000	80	26
HSK32EL80HD8	8		80	28
HSK32EL85HD10	10		85	30
HSK32EL90HD12	12		90	32

HSK-E / 40 / 50

REFERENCIA	D	RPM	L	A
HSK40EL80HD6	6	30.000	80	26
HSK40EL80HD8	8		80	28
HSK40EL85HD10	10		85	30
HSK40EL90HD12	12		90	32
HSK40EL90HD14	14		90	34
HSK40EL100HD16	16		100	38
HSK40EL100HD20	20	100	42	
HSK50EL80HD6	6	30.000	80	26
HSK50EL80HD8	8		80	28
HSK50EL85HD10	10		85	30
HSK50EL90HD12	12		90	32
HSK50EL90HD14	14		90	34
HSK50EL95HD16	16		95	38
HSK50EL95HD18	18		95	40
HSK50EL100HD20	20		100	42

HSK-E / 63

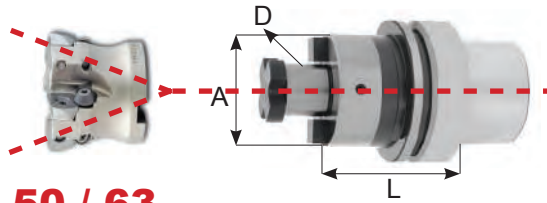
REFERENCIA	D	RPM	L	A
HSK63EL80HD6	6	30.000	80	26
HSK63EL80HD8	8		80	28
HSK63EL85HD10	10		85	30
HSK63EL90HD12	12		90	32
HSK63EL90HD14	14		90	34
HSK63EL95HD16	16		95	38
HSK63EL95HD18	18		95	40
HSK63EL100HD20	20		100	42
HSK63EL120HD25	25		120	50
HSK63EL125HD32	32		125	60

DIN/69893

Porta fresas fijo con canal de refrigeración
Shell end mill holders with coolant channels



Coolant



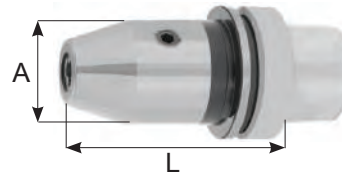
Refrigeración
Interna
Coolant flow

HSK-E / 40 / 50 / 63

REFERENCIA	D	FORMA	L	A
HSK40EL50D16S	16	HSK40-E	50	38
HSK50EL50D16S	16	HSK50-E	50	38
HSK50EL60D22S	22		60	48
HSK63EL50D16S	16	HSK63-E	50	38
HSK63EL50D22S	22		60	48

DIN/69893

Mandrino porta brocas
Drill chucks

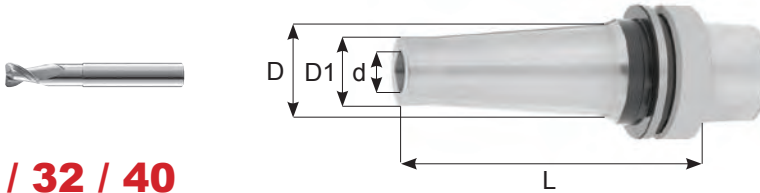


HSK-E / 25 / 32 / 40 / 50 / 63

REFERENCIA	CAP	FORMA	L	A
HSK25EL70DCK8	0.5 ÷ 8	HSK25-E	70	36
HSK32EL75DCK8	0.5 ÷ 8	HSK32-E	75	36
HSK40EL80DCK8	0.5 ÷ 8	HSK40-E	80	36
HSK40EL119DCK13	1 ÷ 13		119	50
HSK40EL124DCK16	2.5 ÷ 16		124	50
HSK50EL80DCK8	0.5 ÷ 8	HSK50-E	80	36
HSK50EL121DCK13	1 ÷ 13		121	50
HSK50EL126DCK16	2.5 ÷ 16		126	50
HSK63EL123DCK13	1 ÷ 13	HSK63-E	123	50
HSK63EL129DCK16	2.5 ÷ 16		129	50

DIN/69893

Porta herramientas inducción térmica
Shrink Fit holders



HSK-E / 32 / 40

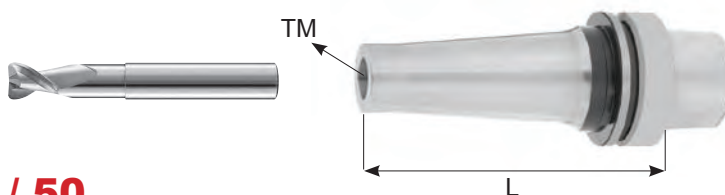
REFERENCIA	d	D1	D	L
HSK32EL60CL3	3	10	16	60
HSK32EL60CL4	4	10	16	60
HSK32EL60CL5	5	10	16	60
HSK32EL70CL6	6	20	25	70
HSK32EL70CL8	8	20	25	70
HSK32EL70CL10	10	24	29	70
HSK32EL80CL12	12	24	29	80
HSK32EL90CL14	14	27	34	90
HSK32EL90CL16	16	27	34	90
HSK32EL100CL20	20	33	40	100
HSK40EL60CL3	3	10	16	60
HSK40EL120CL3	3	10	20	120
HSK40EL160CL3	3	10	20	160
HSK40EL60CL4	4	10	16	60
HSK40EL120CL4	4	15	22	120
HSK40EL160CL4	4	15	22	160
HSK40EL60CL5	5	10	16	60
HSK40EL120CL5	5	15	22	120
HSK40EL160CL5	5	15	22	160
HSK32EL80CL6	6	20	27	80
HSK40EL120CL6	6	20	27	120
HSK40EL160CL6	6	20	27	160
HSK40EL80CL8	8	20	27	80
HSK40EL120CL8	8	20	27	120
HSK40EL160CL8	8	20	27	160
HSK40EL80CL10	10	24	31	80
HSK40EL120CL10	10	24	31	120
HSK40EL160CL10	10	24	31	160
HSK40EL90CL12	12	24	31	90
HSK40EL120CL12	12	24	31	120
HSK40EL160CL12	12	24	31	160
HSK40EL90CL14	14	27	34	90
HSK40EL120CL14	14	27	34	120
HSK40EL160CL14	14	27	34	160
HSK40EL90CL16	16	27	34	90
HSK40EL120CL16	16	27	34	120
HSK40EL160CL16	16	27	34	160

HSK20E (On request)

HSK-A / 50 →

DIN/69893

Porta herramientas inducción térmica
Shrink Fit holders



HSK-E / 50

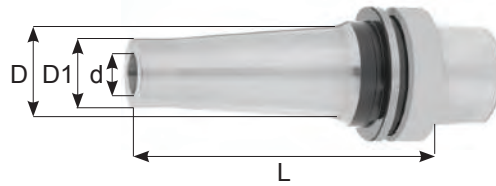
REFERENCIA	d	D1	D	L
HSK50EL80CL3	3	10	15	80
HSK50EL120CL3	3	10	20	120
HSK50EL160CL3	3	10	20	160
HSK50EL80CL4	4	15	22	80
HSK50EL120CL4	4	15	22	120
HSK50EL160CL4	4	15	22	160
HSK50EL80CL5	5	15	22	80
HSK50EL120CL5	5	15	22	120
HSK50EL160CL5	5	15	22	160
HSK32EL80CL6	6	20	27	80
HSK50EL120CL6	6	20	27	120
HSK50EL160CL6	6	20	27	160
HSK50EL80CL8	8	20	27	80
HSK50EL120CL8	8	20	27	120
HSK50EL160CL8	8	20	27	160
HSK50EL85CL10	10	24	31	85
HSK50EL120CL10	10	24	31	120
HSK50EL160CL10	10	24	31	160
HSK50EL90CL12	12	24	31	90
HSK50EL120CL12	12	24	31	120
HSK50EL160CL12	12	24	31	160
HSK50EL90CL14	14	27	34	90
HSK50EL120CL14	14	27	34	120
HSK50EL160CL14	14	27	34	160
HSK50EL95CL16	16	27	34	95
HSK50EL120CL16	16	27	34	120
HSK50EL160CL16	16	27	34	160
HSK50EL95CL18	18	33	40	95
HSK50EL120CL18	18	33	40	120
HSK50EL160CL18	18	33	40	160
HSK50EL100CL20	20	33	40	100
HSK50EL120CL20	20	33	40	120
HSK50EL160CL20	20	33	40	160

9

HSK-A / 63 →

DIN/69893

Porta herramientas inducción térmica
Shrink Fit holders



HSK-E / 63

REFERENCIA	d	D1	D	L
HSK63EL80CL3	3	10	15	80
HSK63EL120CL3	3	10	20	120
HSK63EL160CL3	3	10	20	160
HSK63EL80CL4	4	15	22	80
HSK63EL120CL4	4	15	22	120
HSK63EL160CL4	4	15	22	160
HSK63EL80CL5	5	15	22	80
HSK63EL120CL5	5	15	22	120
HSK63EL160CL5	5	15	22	160
HSK32EL80CL6	6	20	27	80
HSK63EL120CL6	6	20	27	120
HSK63EL160CL6	6	20	27	160
HSK63EL80CL8	8	20	27	80
HSK63EL120CL8	8	20	27	120
HSK63EL160CL8	8	20	27	160
HSK63EL85CL10	10	24	31	85
HSK63EL120CL10	10	24	31	120
HSK63EL160CL10	10	24	31	160
HSK63EL90CL12	12	24	31	90
HSK63EL120CL12	12	24	31	120
HSK63EL160CL12	12	24	31	160
HSK63EL90CL14	14	27	34	90
HSK63EL120CL14	14	27	34	120
HSK63EL160CL14	14	27	34	160
HSK63EL95CL16	16	27	34	95
HSK63EL120CL16	16	27	34	120
HSK63EL160CL16	16	27	34	160
HSK63EL95CL18	18	33	40	95
HSK63EL120CL18	18	33	40	120
HSK63EL160CL18	18	33	40	160
HSK63EL100CL20	20	33	40	100
HSK63EL120CL20	20	33	40	120
HSK63EL160CL20	20	33	40	160
HSK63EL115CL25	25	44	53	115
HSK63EL120CL25	25	44	53	120
HSK63EL160CL25	25	44	53	160
HSK63EL120CL32	32	44	53	120
HSK63EL160CL32	32	44	53	160

DIN/69893

Barra mecanizable
Machinable blank Arbors



HSK-E / 25 / 32 / 40 / 50 / 63

REFERENCIA	D	FORMA	L
HSK25EL105D16BL	16	HSK25-E	105
HSK25EL100D25BL	25		100
HSK25EL40D30BL	30		40
HSK25EL50D30BL	30		50
HSK25EL70D30BL	30		70
HSK25EL50D40BL	40		50
HSK25EL50D50BL	50		50
HSK25EL100D50BL	50		100
HSK25EL100D60BL	60		100
HSK32EL35D24BL	24	HSK32-E	35
HSK32EL100D32.5BL	32.5		100
HSK32EL45D60BL	60		45
HSK32EL70D65BL	65		70
HSK32EL94D65BL	65		94
HSK40EL125D40.5BL	40.5	HSK40-E	125
HSK40EL125D50BL	50		125
HSK40EL50D40BL	40		50
HSK50EL176D40BL	40	HSK50-E	176
HSK50EL125D50.5BL	50.5		125
HSK50EL100D50BL	50		100
HSK50EL160D50BL	50		160
HSK50EL160D60BL	60		160
HSK50EL135D63BL	63		135
HSK50EL72D70BL	70		72
HSK63EL125D63BL	63	HSK63-E	125
HSK63EL250D63.5BL	63.5		250

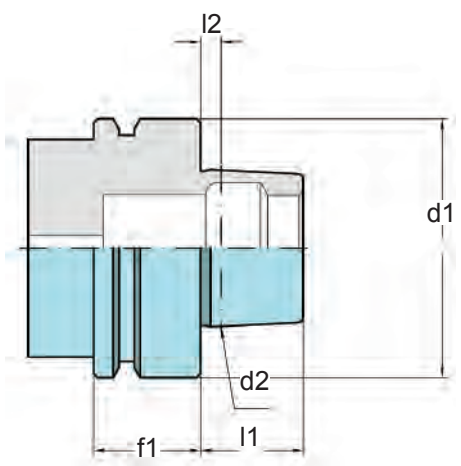


PROGRAMA

						
PAG. 40	PAG. 40	PAG. 40	PAG. 41	PAG. 41	PAG. 42	PAG. 42
						
PAG. 42						

FORMA = F

F



FORMA <i>FORM</i>	d1	d2	l1	l2	f1
HSK-F	40	24	16	3.2	20
	50	30	20	4	26
	63	38	25	5	26

9



DIN/69893

Porta pinzas ER tuerca STANDARD
Collet chucks ER STANDARD nut

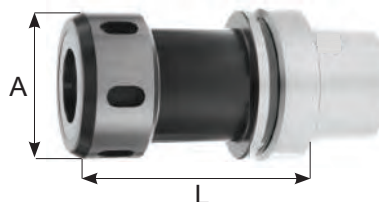


HSK-F / 50 / 63

REFERENCIA	CAP	RPM	L	A
HSK50FL73ER32DX	2 ÷ 22	15.000	73	50
HSK50FL73ER32SX			73	
HSK50FL75ER40DX	3 ÷ 30		75	63
HSK50FL75ER40SX			75	
HSK63FL73ER32DX	2 ÷ 22	15.000	73	50
HSK63FL73ER32SX			73	
HSK63FL78ER40DX	3 ÷ 30		78	63
HSK63FL78ER40SX			78	

DIN/69893

Porta pinzas EOC DIN/6388 B
Collet chucks EOC DIN/6388 B

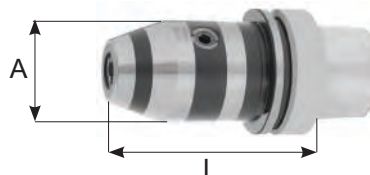


HSK-F / 50 / 63

REFERENCIA	CAP	RPM	L	A
HSK50FL80EOC25DX	2 ÷ 22	15.000	80	60
HSK50FL80EOC25SX			80	
HSK63FL78EOC25DX	2 ÷ 22	15.000	80	60
HSK63FL78EOC25SX			80	

DIN/69893

Mandrino porta brocas
Drill chuck Arbors

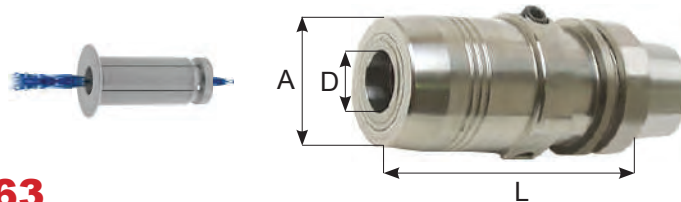


HSK-F / 63

REFERENCIA	CAP	FORMA	L	A
HSK63FL42DCK16	1 ÷ 16	HSK63-F	42	50
HSK63FL123DCK13	1 ÷ 13		123	50
HSK63FL129DCK16	2.5 ÷ 16		129	50

DIN/69893

Porta pinzas hidráulico paso refrigerante
Sealed collets Hydraulic Collet chucks



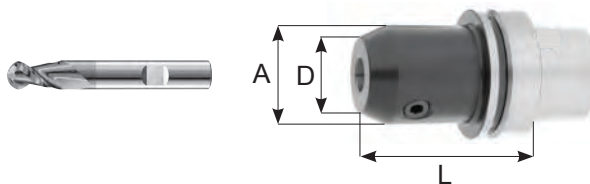
Refrigeración
Interna
Coolant flow

HSK-F / 63

REFERENCIA	D	FORMA	L	A
HSK63FL100HD6	6	HSK63-F	100	26
HSK63FL100HD8	8		100	28
HSK63FL100HD10	10		100	30
HSK63FL100HD12	12		100	32
HSK63FL100HD14	14		100	34
HSK63FL100HD16	16		100	38
HSK63FL100HD18	18		100	40
HSK63FL100HD20	20		100	42
HSK63FL120HD25	25		120	50
HSK63FL125HD32	32		125	60

DIN/69893

Porta fresas weldon DIN 1835-B
End mill holders for DIN 1835-B

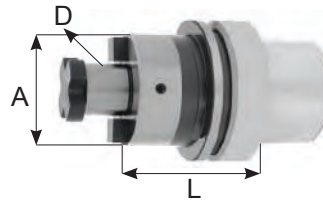


HSK-F / 63

REFERENCIA	D	FORMA	L	A
HSK63FL65WE6	6	HSK63-F	65	25
HSK63FL65WE8	8		65	28
HSK63FL65WE10	10		65	35
HSK63FL80WE12	12		80	42
HSK63FL80WE14	14		80	44
HSK63FL80WE16	16		80	48
HSK63FL80WE18	18		80	50
HSK63FL80WE20	20		80	52
HSK63FL110WE25	25		110	65
HSK63FL110WE32	32		110	72

DIN/69893

Porta fresas fijo
Shell end mill holders

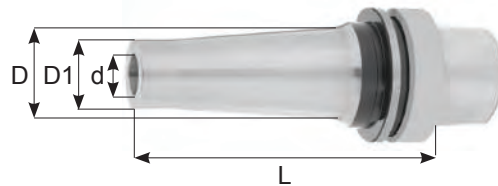


HSK-F / 63

REFERENCIA	D	FORMA	L	A
HSK63FL50D16S	16	HSK63-F	50	50
HSK63FL50D22S	22		50	50
HSK63FL60D27S	22		100	50
HSK63FL60D32S	22		160	50
HSK63FL60D40S	27		60	60

DIN/69893

Porta herramientas inducción térmica
Shrink Fit holders

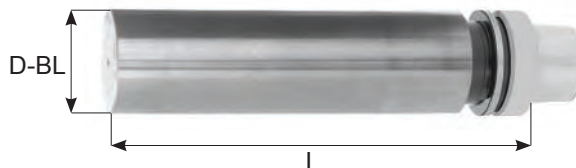


HSK-F / 63

REFERENCIA	d	D1	D	L
HSK63FL76CL6	6	21	29	76
HSK63FL76CL8	8	21	29	76
HSK63FL76CL10	10	24	32	76
HSK63FL76CL12	12	24	32	76
HSK63FL76CL16	16	27	34	76
HSK63FL76CL20	20	33	42	76
HSK63FL76CL25	25	44	53	76
HSK63FL76CL32	32	44	53	76

DIN/69893

Barra mecanizable
Machinable blank Arbors



HSK-F / 63

REFERENCIA	D	FORMA	L
HSK63FL250D40BL	40	HSK63-F	250



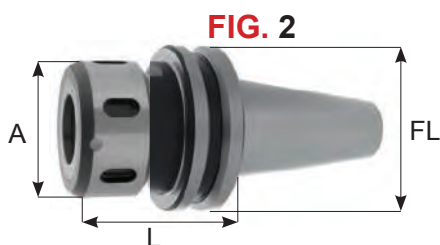
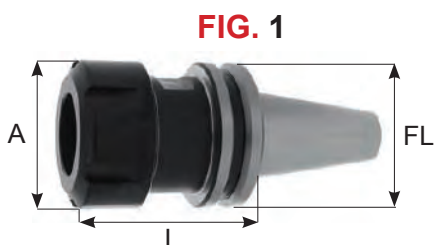
ALUMINIO Y MADERA

PROGRAMA

						
PAG. 3	PAG. 3	PAG. 4	PAG. 4	PAG. 5	PAG. 5	PAG. 6
						
PAG. 6	PAG. 7	PAG. 8				

**MADERA
ALUMINIO**

Porta pinzas ER tuerca STANDARD
Collet chucks without driving Slots



FLANGIA 46mm

ROTACION DERECHA

REFERENCIA	CAP	RPM	FL	L	A
TCL30L60ER32DXFL46	FIG. 1	2 ÷ 22	46	60	50
TCL30L65ER40DXFL46	FIG. 1	3 ÷ 30		65	63
TCL30L80EOC25DXFL46	FIG. 2	2 ÷ 25		80	60

FLANGIA 46mm

ROTACION IZQUIERDA

REFERENCIA	CAP	RPM	FL	L	A
TCL30L60ER32SXFL46	FIG. 1	2 ÷ 22	46	60	50
TCL30L65ER40SXFL46	FIG. 1	3 ÷ 30		65	63
TCL30L80EOC25SXFL46	FIG. 2	2 ÷ 25		80	60

**MADERA
ALUMINIO**

Mandrino porta fresas TCL30
Collet chucks TCL30



FLANGIA 46mm Ø EJE 30

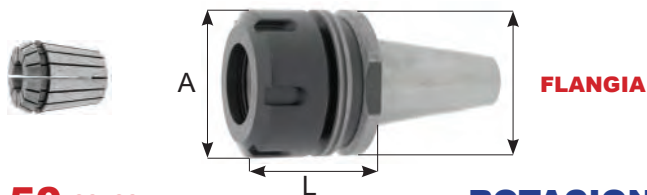
REFERENCIA	RPM	FL	H1	D	L	D1
TCL30L80D30FL46	24.000	46	35	30	80	45
TCL30L100D30FL46					100	
TCL30L150D30FL46					150	
TCL30L200D30FL46					200	

FLANGIA 46mm Ø EJE 35

REFERENCIA	RPM	FL	H1	D	L	D1
TCL30L80D35FL46	24.000	46	35	35	80	50
TCL30L100D35FL46					100	
TCL30L150D35FL46					150	
TCL30L200D35FL46					200	

MADERA
ALUMINIO

Porta pinzas ER tuerca STANDARD
Collet chucks without driving Slots



FLANGIA 50mm

ROTACION DERECHA

REFERENCIA	CAP	RPM	FL	L	A
TCL30L50ER16FL50	1 ÷ 10	24.000	50	50	32
TCL30L50ER32DXFL50	2 ÷ 22			50	50
TCL30L67ER32DXFL50				67	50
TCL30L57ER40DXFL50	3 ÷ 30			57	63
TCL30L65ER40DXFL50				65	63
TCL30L70EOC25DXFL50	2 ÷ 25			70	60
TCL30L80EOC25DXFL50		80	60		

FLANGIA 50mm

ROTACION IZQUIERDA

REFERENCIA	CAP	RPM	FL	L	A
TCL30L50ER32SXFL50	2 ÷ 22	24.000	50	50	50
TCL30L67ER32SXFL50				67	50
TCL30L57ER40SXFL50	3 ÷ 30			57	63
TCL30L65ER40SXFL50				65	63
TCL30L80EOC25SXFL50	2 ÷ 25			80	60

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MADERA
ALUMINIO

Mandrino porta fresas TCL30
Collet chucks TCL30



FLANGIA 50mm Ø EJE 30

REFERENCIA	RPM	FL	H1	D	L	D1
TCL30L80D30FL50	24.000	50	35	30	80	45
TCL30L100D30FL50					100	
TCL30L150D30FL50					150	
TCL30L200D30FL50					200	

FLANGIA 50mm Ø EJE 35

REFERENCIA	RPM	FL	H1	D	L	D1
TCL30L80D35FL50	24.000	50	35	35	80	48
TCL30L100D35FL50					100	
TCL30L150D35FL50					150	
TCL30L200D35FL50					200	

**MADERA
ALUMINIO**

Porta pinzas ER tuerca STANDARD
Collet chucks without driving Slots



FLANGIA 58mm

ROTACION DERECHA

REFERENCIA	CAP	RPM	FL	L	A
TCL30L50ER32DXFL58	2 ÷ 22	24.000	58	50	50
TCL30L57ER40DXFL58	3 ÷ 30			57	63

FLANGIA 58mm

ROTACION IZQUIERDA

REFERENCIA	CAP	RPM	FL	L	A
TCL30L50ER32SXFL58	2 ÷ 22	24.000	58	50	50
TCL30L57ER40SXFL58	3 ÷ 30			57	63

**MADERA
ALUMINIO**

Mandrino porta fresas TCL30
Collet chucks TCL30



FLANGIA 58mm Ø EJE 30

REFERENCIA	RPM	FL	H1	D	L	D1
TCL30L80D30FL58	24.000	58	35	30	80	45
TCL30L100D30FL58					100	
TCL30L150D30FL58					150	
TCL30L200D30FL58					200	

FLANGIA 58mm Ø EJE 35

REFERENCIA	RPM	FL	H1	D	L	D1
TCL30L80D35FL58	24.000	58	35	35	80	50
TCL30L100D35FL58					100	
TCL30L150D35FL58					150	
TCL30L200D35FL58					200	

MACHO

REFERENCIA

FLM30
FLM35
FLM40



HEMBRA

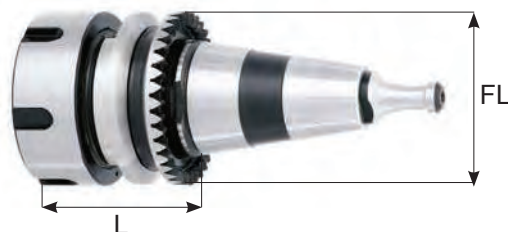
REFERENCIA

FLF30
FLF35
FLF40



**MADERA
ALUMINIO**

Mandrino porta pinzas TCL30 SCM
Collet chucks TCL30 SCM



FLANGIA 49mm

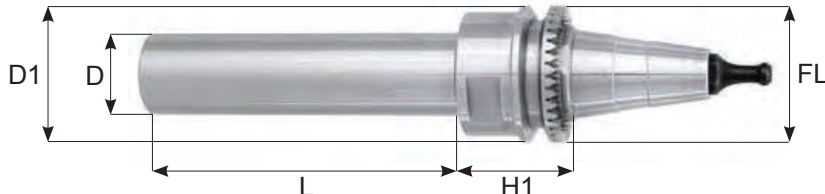
DX= DERECHA

SX= IZQUIERDA

REFERENCIA	CAP	RPM	L	FL
TCL30L55ER32DXSCM	2 ÷ 22	24.000	55	49
TCL30L55ER32SXSCM				
TCL30L74ER40DXSCM	3 ÷ 30	24.000	74	49
TCL30L74ER40SXSCM				
TCL30L70EOC25DXSCM	2 ÷ 25	24.000	70	49
TCL30L70EOC25SXSCM				

**MADERA
ALUMINIO**

Mandrino porta fresas TCL30 SCM
Collet chucks TCL30 SCM



FLANGIA 49mm Ø EJE 30 / 35 / 40

REFERENCIA	RPM	FL	H1	D	L	D1
TCL30L80D30SCM	24.000	49	41	30	80	45
TCL30L100D30SCM					100	
TCL30L150D30SCM					150	
TCL30L200D30SCM					200	
REFERENCIA	RPM	FL	H1	D	L	D1
TCL30L80D35SCM	24.000	49	41	35	80	50
TCL30L100D35SCM					100	
TCL30L150D35SCM					150	
TCL30L200D35SCM					200	
REFERENCIA	RPM	FL	H1	D	L	D1
TCL30L80D40SCM	24.000	49	41	40	80	53
TCL30L100D40SCM					100	
TCL30L150D40SCM					150	
TCL30L200D40SCM					200	

**MADERA
ALUMINIO**

Flangia de recambio
Flangia

MACHO

REFERENCIA

- FLM30
- FLM35
- FLM40



HEMBRA

REFERENCIA

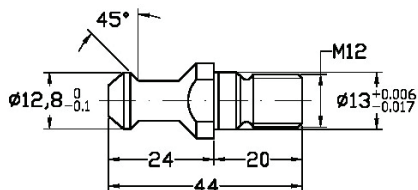
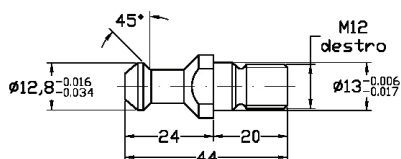
- FLF30
- FLF35
- FLF40



Tirantes
Pull studs

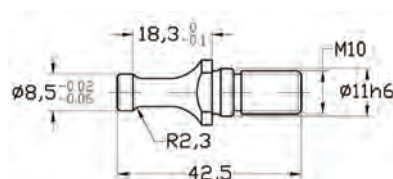
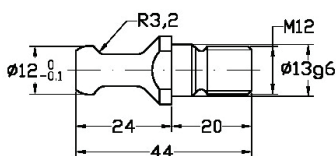
Tirante Tipo Alberti PS.WD30-ALB
Alberti type PS.WD30-ALB

Tirante Tipo COLOMBO PS.WD30-COL
Colombo type PS.WD30-COL



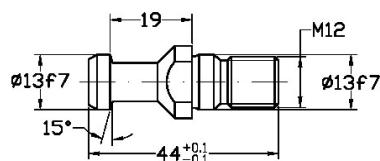
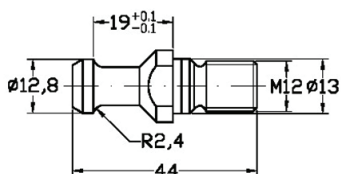
Tirante Tipo Biesse PS.WD30-BS2
Biesse type PS.WD30-BS2

Tirante Tipo SCM PS.WD30-SCM
SCM type PS.WD30-SCM



Tirante Tipo CMS PS.WD30-CMS
CMS type PS.WD30-CMS

Tirante tipo DIN/69872 PS.WD30SF
DIN/69872 PS.WD30SF



**MADERA
ALUMINIO**

Porta pinzas ER tuerca STANDARD
Collet chucks ER STANDARD nut



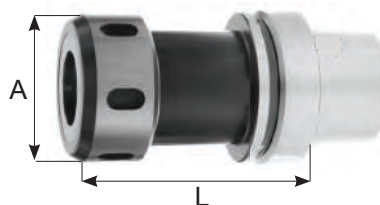
HSK-F / 50 / 63

REFERENCIA	CAP	RPM	L	A
HSK50FL73ER32DX	2 ÷ 22	15.000	73	50
HSK50FL73ER32SX			73	
HSK50FL75ER40DX	3 ÷ 30		75	63
HSK50FL75ER40SX			75	
HSK63FL73ER32DX	2 ÷ 22	15.000	73	50
HSK63FL73ER32SX			73	
HSK63FL78ER40DX	3 ÷ 30		78	63
HSK63FL78ER40SX			78	

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**MADERA
ALUMINIO**

Porta pinzas EOC DIN/6388 B
Collet chucks EOC DIN/6388 B



HSK-F / 50 / 63

REFERENCIA	CAP	RPM	L	A
HSK50FL80EOC25DX	2 ÷ 22	15.000	80	60
HSK50FL80EOC25SX			80	
HSK63FL78EOC25DX	2 ÷ 22		78	60
HSK63FL78EOC25SX			78	



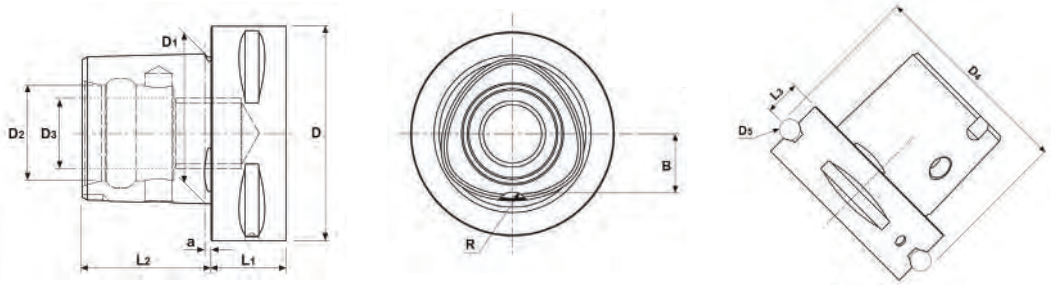


SISTEMA PSC

ISO 26623-1

PROGRAMA

						
PAG. 4	PAG. 4	PAG. 5	PAG. 5	PAG. 6	PAG. 7	PAG. 8
						
PAG. 8	PAG. 9	PAG. 10	PAG. 10	PAG. 11	PAG. 11	PAG. 11
						
PAG. 12	PAG. 12	PAG. 13	PAG. 14	PAG. 14	PAG. 15	PAG. 15
						
PAG. 16	PAG. 16	PAG. 17-20				

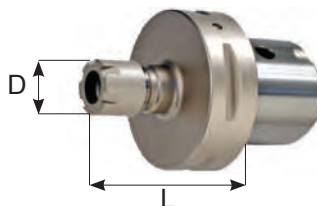
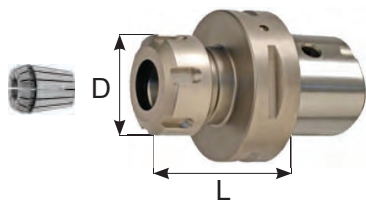


PSC	D	D1	D2	D3	D4	D5	L1 min	L2	L3	a	B	R
32	32	22	15	M12 x 1.5	39.0	5	15	19	6	2.5	9.0	3
40	40	28	18	M14 x 1.5	46.0	5	20	24	8	2.5	11.0	3
50	50	35	21	M16 x 1.5	59.3	7	20	30	10	3.0	14.0	4
63	63	44	28	M20 x 2.0	70.7	7	22	38	12	3.0	18.0	5
80	80	55	32	M20 x 2.0	86.0	7	30	48	12	3.0	22.2	6
100	100	72	43	M24 x 2.0	110.0	10	32	60	16	3.0	29.2	6



ISO/26623-1

Porta pinzas DIN 6499 para pinzas ER
Collet chucks for DIN 6499 collet ER

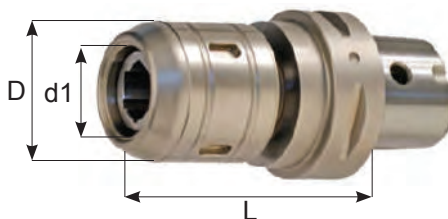


C40 / C50 / C63 / C80 / C100

REFERENCIA	CAP	D	L
C40L60ER16	1 ÷ 10	28	60
C40L60ER20	1 ÷ 14	34	60
C40L60ER25	1 ÷ 20	42	60
C40L60ER32	2 ÷ 22	50	60
C50L60ER16	1 ÷ 10	28	60
C50L100ER16	1 ÷ 10	28	100
C50L60ER20	1 ÷ 14	34	60
C50L100ER20	1 ÷ 14	34	100
C50L60ER25	1 ÷ 20	42	60
C50L100ER25	1 ÷ 20	42	100
C50L60ER32	2 ÷ 22	50	60
C50L100ER32	2 ÷ 22	50	100
C50L65ER40	3 ÷ 30	63	60
C50L100ER40	3 ÷ 30	63	100
C63L60ER16M	1 ÷ 10	22	60
C63L100ER16M	1 ÷ 10	22	100
C63L60ER16	1 ÷ 10	28	60
C63L100ER16	1 ÷ 10	28	100
C63L60ER20M	1 ÷ 14	28	60
C63L100ER20M	1 ÷ 14	28	100
C63L60ER20	1 ÷ 14	34	60
C63L100ER20	1 ÷ 14	34	100
C63L60ER25	1 ÷ 20	42	60
C63L100ER25	1 ÷ 20	42	100
C63L60ER32	2 ÷ 22	50	60
C63L100ER32	2 ÷ 22	50	100
C63L70ER40	3 ÷ 30	63	70
C63L120ER40	3 ÷ 30	63	120
C80L70ER32	2 ÷ 22	50	70
C80L160ER32	2 ÷ 22	50	160
C80L70ER40	3 ÷ 30	63	70
C80L160ER40	3 ÷ 30	63	160
C100L100ER32	2 ÷ 22	50	100
C100L160ER32	2 ÷ 22	50	160
C100L100ER40	3 ÷ 30	63	100
C100L160ER40	3 ÷ 30	63	160
C100L100ER50	6 ÷ 34	78	100
C100L160ER50	6 ÷ 34	78	160

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Porta pinzas gran apriete
Milling chuck

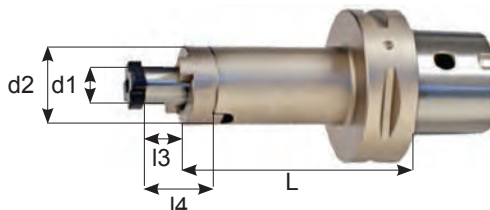


C63 / C80 / C100

REFERENCIA	d1	D	L
C63L93MC20	20	54	93
C80L89MC20	20	72	89
C80L101MC32	32	72	101
C100L120MC32	32	72	120

ISO/26623-1

Porta fresas combinado
Combi-Shell mill adaptors

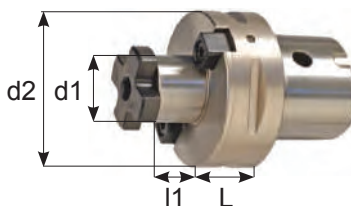


C40 / C50 / C63 / C80 / C100

REFERENCIA	d1	L	l3	l4	d2
C40L50D16C	16	50	17	27	32
C40L50D22C	22	50	19	31	40
C50L50D16C	16	50	17	27	32
C50L50D22C	22	50	19	31	40
C50L50D27C	27	50	21	33	48
C50L60D32C	32	60	24	38	58
C63L90D16C	16	90	17	27	32
C63L90D22C	22	90	19	31	40
C63L90D27C	27	90	21	33	48
C63L90D32C	32	90	24	38	58
C63L90D40C	40	90	27	41	70
C80L100D16C	16	100	17	27	32
C80L100D22C	22	100	19	31	40
C80L100D27C	27	100	21	33	48
C80L100D32C	32	100	24	38	58
C80L100D40C	40	100	27	41	70
C80L100D50C	50	100	30	46	90
C100L100D16C	16	100	17	27	32
C100L100D22C	22	100	19	31	40
C100L100D27C	27	100	21	33	48
C100L100D32C	32	100	24	38	58
C100L100D40C	40	100	27	41	70
C100L100D50C	50	100	30	46	90

ISO/26623-1

Porta fresas fijo
Shell mill adaptors

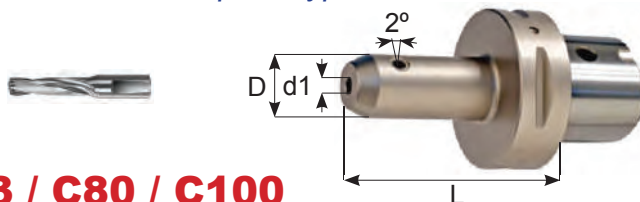


C40 / C50 / C63 / C80 / C100

REFERENCIA	d1	L	l1	d2
C40L55D16S	16	55	17	37
C40L55D22S	22	55	19	47
C50L60D16S	16	60	17	37
C50L60D22S	22	60	19	47
C50L60D27S	27	60	21	58
C50L60D32S	32	60	24	63
C63L63D16S	16	63	17	37
C63L25D22S	22	25	19	47
C63L100D22S	22	100	19	47
C63L25D27S	27	25	21	58
C63L100D27S	27	100	21	58
C63L25D32S	32	25	24	63
C63L100D32S	32	100	24	63
C63L40D40S	40	40	27	89
C63L100D40S	40	100	27	70
C80L50D16S	16	50	17	37
C80L30D22S	22	30	19	47
C80L100D22S	22	100	19	47
C80L30D27S	27	30	21	58
C80L100D27S	27	100	21	58
C80L30D32S	32	30	24	63
C80L100D32S	32	100	24	63
C80L40D40S	40	40	27	63
C80L100D40S	40	100	27	70
C80L60D60S	60	60	40	130
C100L50D16S	16	50	17	37
C100L50D22S	22	50	19	47
C100L100D22S	22	100	19	47
C100L50D27S	27	50	21	58
C100L100D27S	27	100	21	58
C100L50D32S	32	50	24	63
C100L100D32S	32	100	24	63
C100L50D40S	40	50	27	63
C100L100D40S	40	100	27	63
C100L70D60S	60	70	40	130

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Porta fresas weldon / whistle-notch
 Combined end mill adaptors type Weldon / Whistle-Notch

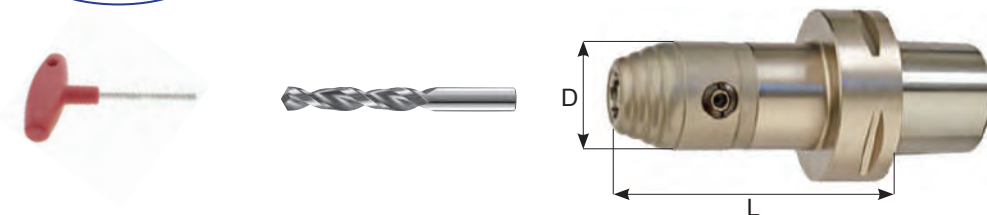


C40 / C50 / C63 / C80 / C100



REFERENCIA	d1	D	L
C40L50WHN6	6	25	50
C40L50WHN8	8	28	50
C40L50WHN10	10	35	50
C40L55WHN12	12	42	55
C40L55WHN16	16	48	55
C50L55WHN6	6	25	55
C50L55WHN8	8	28	55
C50L65WHN10	10	35	65
C50L65WHN12	12	42	65
C50L65WHN14	14	42	65
C50L65WHN16	16	48	65
C50L65WHN18	18	48	65
C50L65WHN20	20	52	65
C50L80WHN25	25	65	80
C63L80WHN6	6	25	80
C63L80WHN8	8	28	80
C63L80WHN10	10	35	80
C63L80WHN12	12	42	80
C63L80WHN14	14	42	80
C63L80WHN16	16	48	80
C63L80WHN18	18	48	80
C63L80WHN20	20	52	80
C63L90WHN25	25	65	90
C63L90WHN32	32	72	90
C63L95WHN40	40	80	95
C80L80WHN6	6	25	80
C80L80WHN8	8	28	80
C80L80WHN10	10	35	80
C80L80WHN12	12	42	80
C80L80WHN14	14	42	80
C80L80WHN16	16	48	80
C80L80WHN20	20	52	80
C80L90WHN25	25	65	90
C80L90WHN32	32	72	90
C80L110WHN40	40	80	110
C80L120WHN50	50	100	120
C100L100WHN12	12	42	100
C100L100WHN16	16	48	100
C100L100WHN20	20	52	100
C100L100WHN25	25	65	100
C100L100WHN32	32	72	100
C100L120WHN40	40	80	120
C100L130WHN50	50	100	130

ISO/26623-1

Porta brocas universal de precisión
Cnc-Universal precision keyless drill chucks

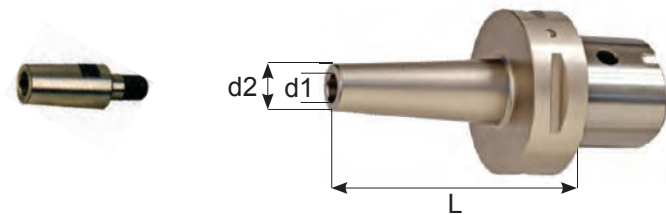


C40 / C50 / C63 / C80 / C100

REFERENCIA	CAP	D	L		3 x 
C40L112HD13	1 ÷ 13	50	112	50706	60313
C50L112HD13	1 ÷ 13	50	112	50706	60313
C63L112HD13	1 ÷ 13	50	112	50706	60313
C63L112HD16	3 ÷ 16	57	112	50706	60313
C80L125HD13	1 ÷ 13	50	125	50706	60313
C80L125HD16	3 ÷ 16	57	125	50706	60313
C100L135HD13	1 ÷ 13	50	135	50706	60313
C100L135HD16	3 ÷ 16	57	135	50706	60313

ISO/26623-1

Porta herramientas para fresa roscada
Tool holder for screwed milling cutters

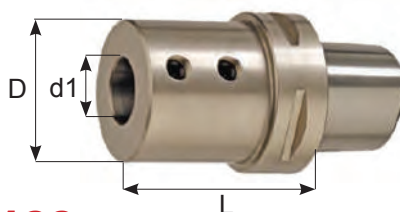


C40 / C50 / C63 / C80 / C100

REFERENCIA	d1	d2	L
C40L70M8CPY	M 8	13	70
C40L80M10CPY	M10	18	80
C40L80M12CPY	M12	21	80
C50L70M8CPY	M 8	13	70
C50L80M10CPY	M10	18	80
C50L80M12CPY	M12	21	80
C50L80M16CPY	M16	29	80
C63L70M8CPY	M 8	13	70
C63L90M10CPY	M10	18	90
C63L100M12CPY	M12	21	100
C63L100M16CPY	M16	29	100
C80L100M12CPY	M12	21	100
C80L100M16CPY	M16	29	100
C100L120M12CPY	M12	21	120
C100L120M16CPY	M16	29	120

ISO/26623-1

Porta herramientas para barra de mandrinar
Boring bar holders



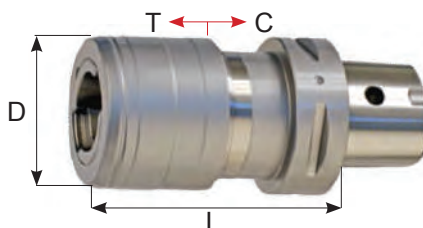
C40 / C50 / C63 / C80 / C100

REFERENCIA	d1	D	L
C40L50BH8	8	44	50
C40L50BH10	10	44	50
C40L50BH12	12	44	50
C40L50BH16	16	44	50
C50L52BH8	8	44	52
C50L52BH10	10	44	52
C50L52BH12	12	44	52
C50L52BH16	16	44	52
C50L52BH20	20	50	52
C50L60BH25	25	55	60
C63L60BH8	8	44	60
C63L60BH10	10	44	60
C63L60BH12	12	44	60
C63L60BH16	16	44	60
C63L60BH20	20	50	60
C63L72BH25	25	55	72
C63L75BH32	32	55	75
C63L85BH40	40	65	85
C80L85BH16	16	44	85
C80L85BH20	20	50	85
C80L85BH25	25	55	85
C80L85BH32	32	72	85
C80L95BH40	40	65	95
C80L100BH50	50	75	100
C100L100BH16	16	44	100
C100L100BH20	20	50	100
C100L100BH25	25	55	100
C100L100BH32	32	55	100
C100L110BH40	40	65	110
C100L120BH50	50	75	120



ISO/26623-1

Rosgador con compresión y tracción PSC
Tension and compression tap holders PSC



C40 / C50 / C63 / C80 / C100

REFERENCIA	CAP	D	L	T	C
C40-THTC1-L65	M 3 ÷ M12	38	65	9	9
C50-THTC1-L65	M 3 ÷ M12	38	65	9	9
C63-THTC1-L70	M 3 ÷ M12	38	70	9	9
C63-THTC2-L95	M 8 ÷ M20	55	95	15	15
C63-THTC3-L140	M14 ÷ M33	79	140	24	24
C80-THTC1-L80	M 3 ÷ M12	38	80	9	9
C80-THTC2-L100	M 8 ÷ M20	55	100	15	15
C80-THTC3-L150	M14 ÷ M33	79	150	24	24
C100-THTC1-L90	M 3 ÷ M12	38	90	9	9
C100-THTC2-L110	M 8 ÷ M20	55	110	15	15
C100-THTC3-L160	M14 ÷ M33	79	160	24	24

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ISO/26623-1

Prolongador PSC
Extension PSC

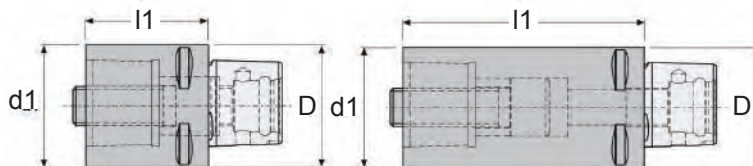


FIG. 1

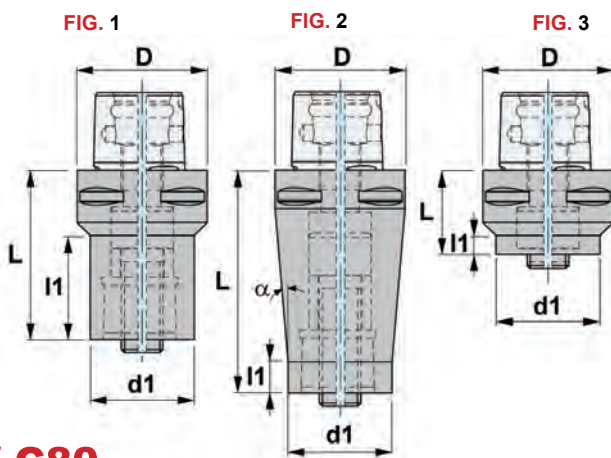
FIG. 2

C32 / C40 / C50 / C63 / C80

REFERENCIA	Extensión	d1	D	l1	FIG	
C32L35RC32	C3	C3	32	32	35	1
C32L60RC32	C3	C3	32	32	60	2
C32L80RC32	C3	C3	32	32	80	2
C40L40RC40	C4	C4	40	40	40	1
C40L60RC40	C4	C4	40	40	60	2
C40L80RC40	C4	C4	40	40	80	2
C50L50RC50	C5	C5	50	50	50	1
C50L80RC50	C5	C5	50	50	80	2
C50L100RC50	C5	C5	50	50	100	2
C63L60RC63	C6	C6	63	63	60	1
C63L100RC63	C6	C6	63	63	100	2
C63L140RC63	C6	C6	63	63	140	2
C80L65RC80	C8	C8	80	80	65	1
C80L100RC80	C8	C8	80	80	100	2
C80L125RC80	C8	C8	80	80	125	2

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Reductor PSC
Reducers PSC



C40 / C50 / C63 / C80

REFERENCIA	Reductor		D	d1	L	l1	°	FIG
C40L55RL32A	C4	C3	40	32	55	31.0	-	1
C40L70RL32A	C4	C3	40	32	70	12.0	6°	2
C50L60RL32A	C5	C3	50	32	60	34.8	-	1
C50L65RL40A	C5	C4	50	40	65	40.0	-	1
C50L85RL40A	C5	C4	50	40	85	12.0	5.4°	2
C50L33RL32A	C5	C3	50	32	33	10.0	-	3
C50L40RL40A	C5	C4	50	40	40	18.0	-	3
C63L70RL32A	C6	C3	63	32	70	39.0	-	1
C63L80RL40A	C6	C4	63	40	80	51.4	-	1
C63L80RL50A	C6	C5	63	50	80	51.5	-	1
C63L110RL50A	C6	C5	63	50	110	12.0	4.9°	2
C63L32RL32A	C6	C3	63	32	32	6.0	-	3
C63L40RL40A	C6	C4	63	40	40	11.0	-	3
C63L50RL50A	C6	C5	63	50	50	26.5	-	3
C80L60RL32A	C8	C3	80	32	60	29.3	-	1
C80L70RL40A	C8	C4	80	40	70	36.5	-	1
C80L80RL50A	C8	C5	80	50	80	49.3	-	1
C80L80RL63A	C8	C6	80	63	80	53.1	-	1
C80L120RL63A	C8	C6	80	63	120	12.0	6.2°	2
C80L45RL50A	C8	C5	80	50	45	10.0	-	3
C80L55RL63A	C8	C6	80	63	55	20.0	-	3

Tapón manual
Manual stopper



REFERENCIA	D
PSC32MC	32
PSC40MC	40
PSC50MC	50
PSC63MC	63
PSC80MC	80

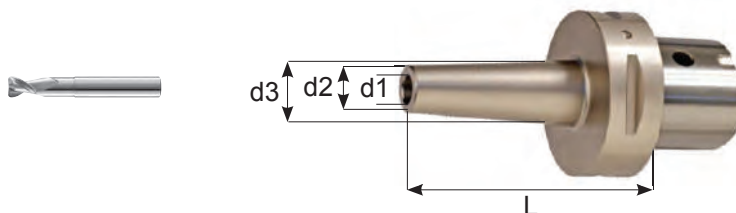
Tapón automático
Automatic stopper



REFERENCIA	D
PSC40AC	40
PSC50AC	50
PSC63AC	63
PSC80AC	80

ISO/26623-1

Porta herramientas inducción térmica
Shrink Fit holders



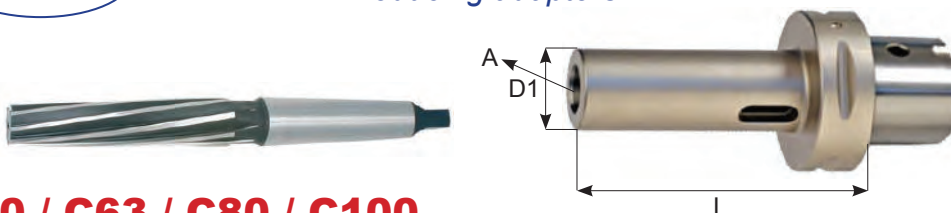
C63

REFERENCIA	d1	d2	d3	L
C63L80CL6	6	20	26	80
C63L80CL8	8	20	26	80
C63L80CL10	10	24	32	80
C63L80CL12	12	24	32	80
C63L85CL14	14	27	34	85
C63L85CL16	16	27	34	85
C63L85CL18	18	33	42	85
C63L85CL20	20	33	42	85
C63L90CL25	25	44	53	90
C63L95CL32	32	44	53	95

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Reductor con morse
Reducing adaptors



C50 / C63 / C80 / C100

REFERENCIA	A	L	D1
C50L110CM2B	CM2	110	32
C50L130CM3B	CM3	130	40
C63L110CM2B	CM2	110	32
C63L130CM3B	CM3	130	40
C63L150CM4B	CM4	150	52
C80L120CM3B	CM3	120	40
C80L140CM4B	CM4	140	52
C80L160CM5B	CM5	160	63
C100L130CM3B	CM3	130	40
C100L150CM4B	CM4	150	52
C100L175CM5B	CM5	175	63

ISO/26623-1

Barra mecanizable PSC
Machinable blank Arbors PSC

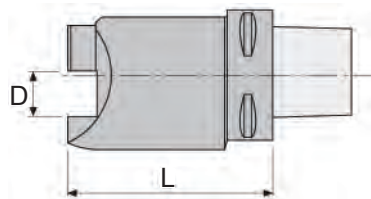


C32 / C40 / C50 / C63 / C80 / C100

REFERENCIA	D	L
C32L90D32BL	32	90
C32L90D60BL	60	90
C32L110D40BL	40	110
C32L125D50BL	50	125
C32L60D70BL	70	60
C32L70D90BL	90	70
C40L95DB40L	40	95
C40L120D40BL	40	120
C40L165D60BL	60	165
C40L75D80BL	80	75
C40L120D80BL	80	120
C40L85D100BL	100	85
C50L125D50BL	50	125
C50L150D50BL	50	150
C50L175D75BL	75	175
C50L80D90BL	90	80
C50L150D95BL	95	150
C50L180D63BL	63	180
C50L90D110BL	110	90
C63L120D110BL	110	120
C63L180D63BL	63	180
C63L195D75BL	75	195
C63L85D110BL	110	85
C63L180D120BL	120	180
C63L95D130BL	130	95
C80L200D80BL	80	200
C80L200D100BL	100	200
C80L160D120BL	120	160
C80L90D130BL	130	90
C80L200D150BL	150	200
C80L120D160BL	160	120
C100L100D100BL	100	100
C100L200D100BL	100	200
C100L100D150BL	150	100
C100L200D150BL	150	200
C100L100D200BL	200	100

ISO/26623-1

Porta herramientas axial - radial
Axial - Radial holders



C50 / C63 / C80 / C100

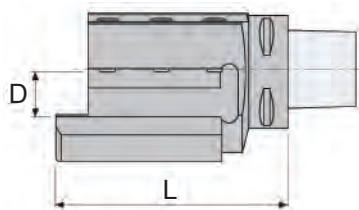
R= DERECHA

L= IZQUIERDA

REFERENCIA	D	L	R= DERECHA	L= IZQUIERDA
C50L97ARD20R/L	20	97	17110	29708
C63L99ARD20R/L	20	99	17110	29708
C63L130ARD25R/L	25	130	17012	29708
C80L135ARD32R/L	32	135	17012	29710
C100L145ARD32R/L	32	145	17012	29710

ISO/26623-1

Porta herramientas axial
Axial holders



C50 / C63 / C80 / C100

R= DERECHA

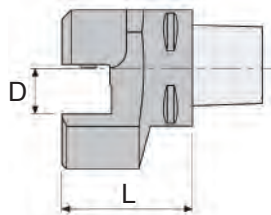
L= IZQUIERDA

REFERENCIA	D	L	R= DERECHA	L= IZQUIERDA
C50L98AD20R/L	20	98	17010	29708
C63L100AD20R/L	20	100	17110	29708
C63L130AD25R/L	25	130	17012	29708
C63L134AD32R/L	32	134	17012	29708
C80L140AD32R/L	32	140	17012	29710
C100L150AD32R/L	32	150	17012	29710





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Porta herramientas radial
Radial holder

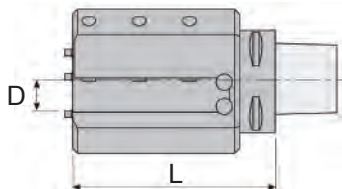


C50 / C63 / C80 / C100



REFERENCIA	D	L		
C50L58RD20	20	58	17112	29708
C63L60RD20	20	60	17112	29708
C63L71RD25	25	71	17012	29708
C63L71RD32	32	71	17012	29708
C80L85RD32	32	85	17012	29710
C100L90RD32	32	90	17012	29710

ISO/26623-1

Porta herramientas multiposición
Multi turning holder



C50 / C63 / C80 / C100

REFERENCIA	D	L		
C50L123MTD20R/L	20	123	17012	29708
C63L125MTD20R/L	20	125	17012	29708
C63L130MTD25R/L	25	130	17012	29708
C80L150MTD32R/L	32	150	17012	29710
C100L160MTD32R/L	32	160	17012	29710

R= DERECHA

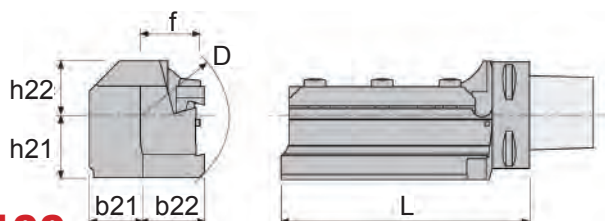
L= IZQUIERDA



ISO/26623-1





Porta herramientas axial
Axial holder



R= DERECHA

L= IZQUIERDA

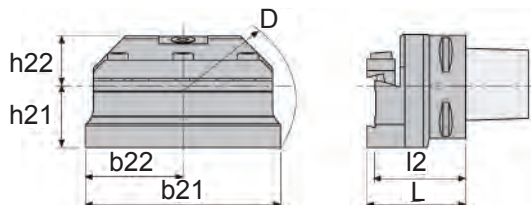
C50 / C63 / C80 / C100

REFERENCIA	D	b21	b22	f	h21	h22	L		
C50L95AD88R/L	88	25.0	32.0	27.0	30.0	26.0	95	80526	11308
C63L147AD106R/L	106	32.0	39.5	32.0	38.0	32.0	147	80632	11308
C80L155AD126R/L	126	40.5	48.0	40.5	40.5	40.5	155	80632	11308
C100L160AD145R/L	145	50.0	58.0	50.5	50.5	50.0	160	80632	11308
C100L200AD175R/L	175	50.0	58.0	50.5	65.0	50.0	200	81052	11308



ISO/26623-1



Porta herramientas radial
Radial holder



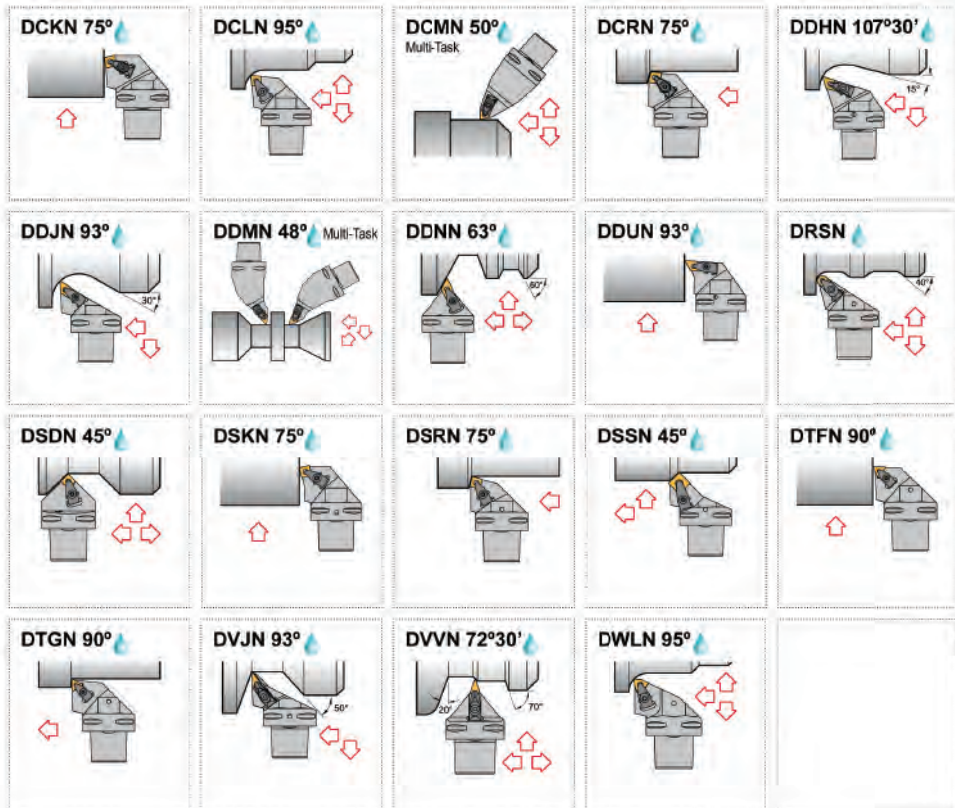
C50 / C63 / C80 / C100

REFERENCIA	D	b21	b22	h21	h22	L	L2		
C50L58RD100	100	80	40.0	30.0	25.2	58	53	80526	11308
C63L63RD141	141	120	60.0	37.0	32.0	63	55.5	80632	11308
C80L71RD145	145	120	60.0	40.5	40.0	71	63.5	80632	11308
C100L75RD145	145	120	60.0	50.5	50.0	75	67.5	80632	11308
C100L75RD195	195	160	80.0	65.0	50.0	75	67.5	81052	11308

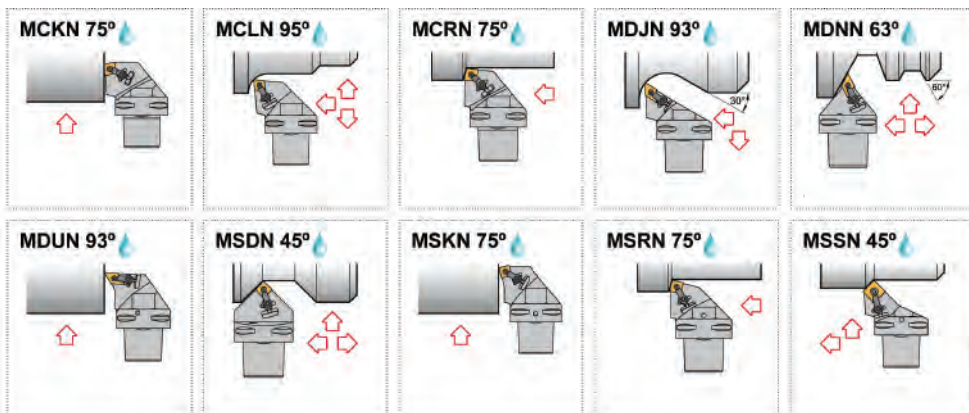


Porta herramientas fijación mecánica PSC
Tool holders PSC

Porta herramientas negativos / *Negative tool holders*
 Porta herramientas dimple lock
Dimple lock toolholders

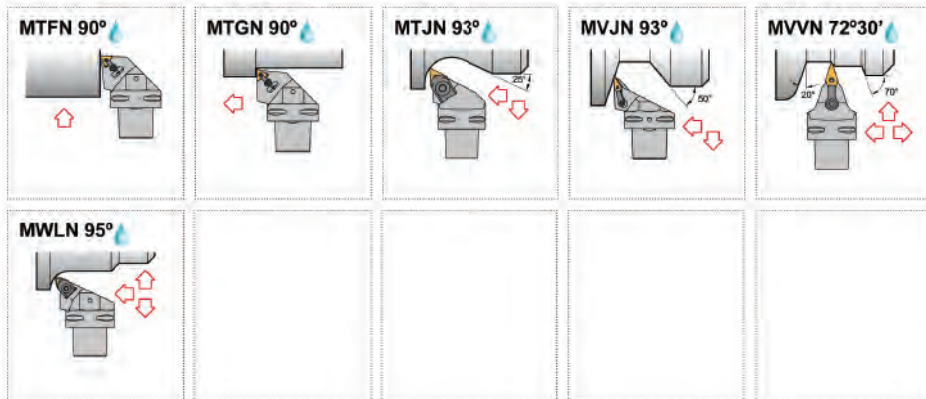


Porta herramientas con brida "M" / con doble fijación
Wedge clamp / Double lock toolholders

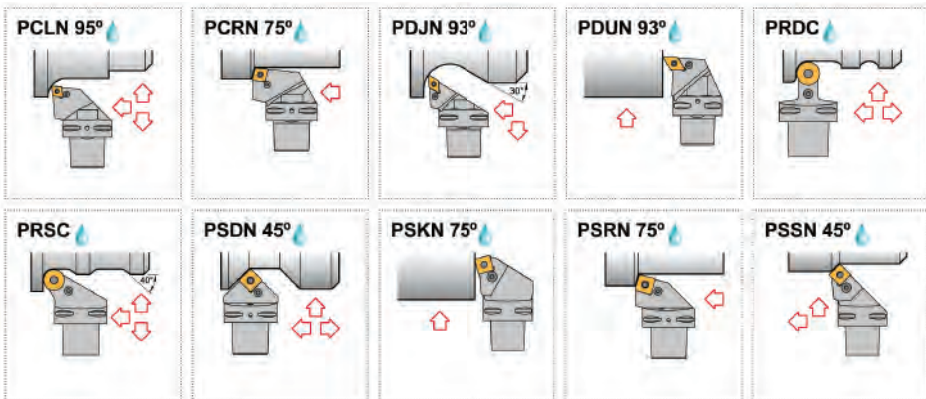


Mas información en www.eritoolingsystems.com

Porta herramientas fijación mecánica PSC
Tool holders PSC

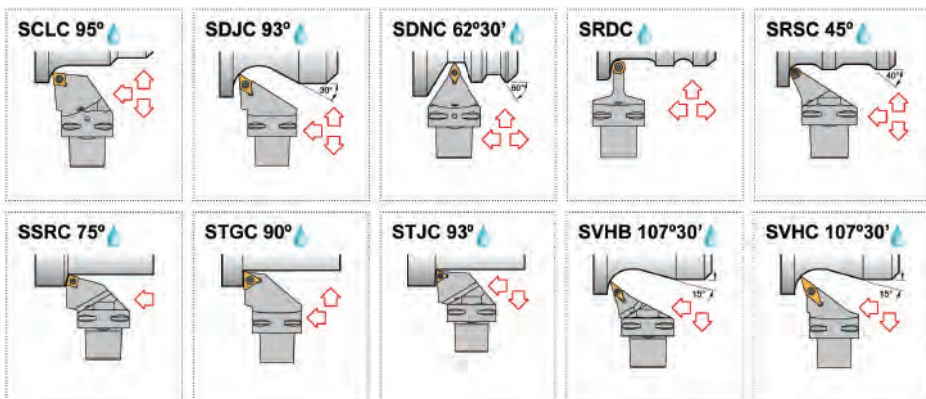


Portaherramientas con fijación por palanca
Lever lock toolholders



Portaherramientas positivos / Positive toolholders

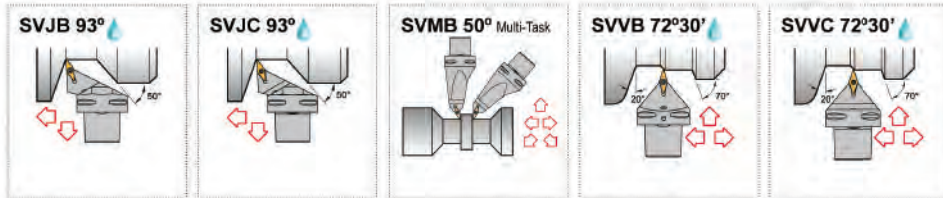
Portaherramientas con fijación por tornillo central
Center screw toolholders



Mas información en www.eritoolingsystems.com

Porta herramientas fijación mecánica PSC
Tool holders PSC

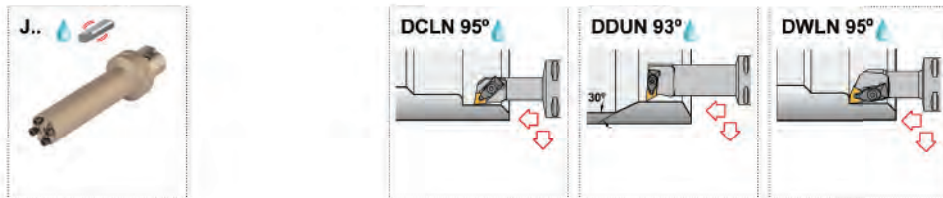
Portaherramientas positivos / Positive toolholders



Barra de mandrinar negativas / Negative boring bars

Adaptador
Adapter

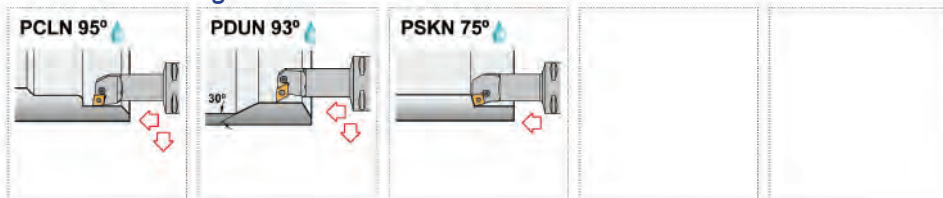
Barras de mandrinar Dimple Lock
Dimple lock boring bars



Barras de mandrinar con fijación por brida / con doble fijación
Wedge clamp / Double lock boring bars



Barras de mandrinar con fijación por palanca
Lever lock boring bars



Barras de mandrinar positivas / Positive boring bars

Barras de mandrinar con fijación por tornillo central
Center screw boring bars



Mas información en www.eritoolingsystems.com

Porta herramientas fijación mecánica PSC
Tool holders PSC

Barras de mandrinar positivas / Positive boring bars

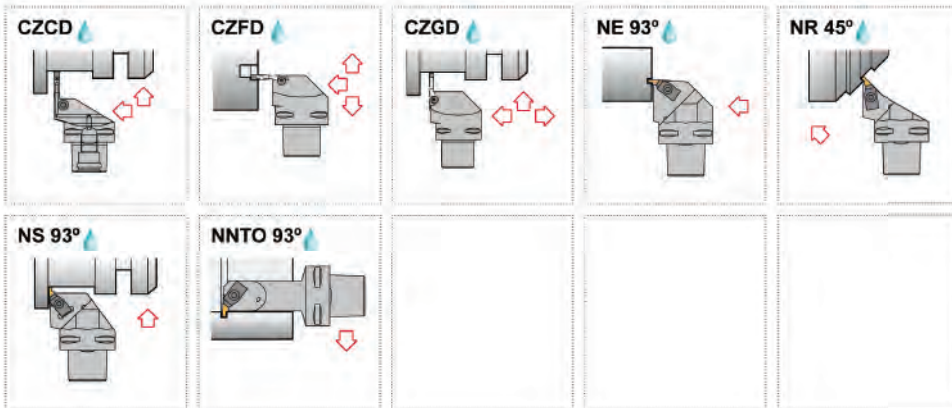


Roscado / Threading
Roscado interior e exterior
External and internal threading



Tronzado y ranurado / Parting and grooving

Portaherramientas y barras de mandrinar
Toolholders and boring bars



Mas información en www.eritoolingsystems.com



**PORTA
HERRAMIENTAS
ESTÁTICOS
TORNO CNC**

PROGRAMA

<p>MORI SEIKI / DMG MORI - NL MODELOS NL / NLX 1500/2000 /2500/3000 (12) NT4000/4200/4250/4300/5000/5400 NZL 2000/2500 NZX 2500 (12)</p>	<p>MODELOS COMPATIBLES: Goodway G4 GS 2000/2600/2800/3000/3300/3600</p>
<p>PAG. 5-10</p>	
<p>MORI SEIKI / DMG MORI - NZ MODELOS NZ 1500/2000 / 3100 NT / NTZ 1000/2000/3000/3100/3150/3200 NZ / NZX 2000/2500 (16) NL / NLX 1500/2000/2500 (20) DURA TURN 2050/2550 MC</p>	<p>MODELOS COMPATIBLES: Goodway G4 GS 2000/2600/2800/3000/3300/3600</p>
<p>PAG. 11-15</p>	
<p>MORI SEIKI / DMG MORI - SL MODELOS CL200/203 SL20/25 SL 200/203/204/250/253/254 (MC,SMC) - 2500Y ZL/DL 200/250 (MC)</p>	<p>MODELOS COMPATIBLES: Goodway GS200/260/280 Goodway GA2000/2600/ 2800/3000/33000/3600</p>
<p>PAG. 16-20</p>	
<p>MORI SEIKI / DMG MORI - SL MODELOS SL/ZL 150/153/154 DL150</p>	
<p>PAG. 21-24</p>	
<p>DOOSAN - BMT 75 MODELOS PUMA 400/480 (M,LM,XLM) PUMA 500 (M) PUMA V550 (M) PUMA VT750 (TM,25P)</p>	<p>MODELOS COMPATIBLES: SAMSUNG PL 45LM HYUNDAI WIA LV800RM/SKT-V80R/RM SKT400M/MA/MC/LMC HWACHEON HI-TECH 550/700/7026 VT-550</p>
<p>PAG. 25</p>	
<p>DOOSAN - BMT 65 MODELOS PUMA 2100/2600(M,LM,MS,LMS) (Y,LY,SY,LSY) PUMA 300 (M,MS,MB,MC) PUMA 3100 (M,LM,LY,XLM,XLY,ULM,ULY) PUMA MX2000/2500/2600 (T,ST) PUMA TT2000/2500 (MS,MY,SY) PUMA TX200 (M,Y,YY) PUMA V400 (M)-VT450 (M,25P)</p>	<p>MODELOS COMPATIBLES: SAMSUNG PL 20/25M-PL 35LM-PL2000/2500Y HYUNDAI WIA L300M/MS/-L2100SY LM2000/2500TTM/2500TTMS/2500TTSY SKT200/250/250(TTM,MS,SY)/300 (M,MS) CUTEX-240 / HI/TECH 200/T2-SERIES HI-TECH 300/400 VT450 /VTURN-A26</p>
<p>PAG. 26-28</p>	

PROGRAMA

<p>DOOSAN - BMT 55 MODELOS LYNX 300 (M) PUMA 230/240/280 (M,LM,S) PUMA 1500/2000/2500 (M,LM,S) PUMA 2100 (Y,LY,SY,LSY) PUMA GT 2100M PUMA H 250TM PUMA MX 2100 (ST,LST) PUMA TL2000/2500 (M,LM) PUMA TT1500/1800 (MS,SY)</p>	<p>MODELOS COMPATIBLES: SAMSUNG PL 240LM HARDINGE T-51/65 SUPER PRECISION-H51 HYUNDAI WIA L230 LMSA SKT-160/180 TTMS/TTSY LM1600/1800TTSY HWACHEON CUTEX-160/240/T2</p>
<p>PAG. 29-31</p>	
<p>DOOSAN - BMT 45 MODELOS LYNX 220 (M,MSLM) PUMA MX 1600 (ST)</p>	<p>MODELOS COMPATIBLES: SAMSUNG PL 1600M/MC HARDINGE T-42 SUPER PRECISION</p>
<p>PAG. 32-33</p>	
<p>BIGLIA MODELOS B301-B445-B470-B501 (Y-S) B510-B545-B550-B565-B650--B658 B1200-B446-B465-B754-B765-B750 (16)-B1250(16)</p>	
<p>PAG. 34-38</p>	
<p>BIGLIA MODELOS B436 Y2</p>	
<p>PAG. 39-42</p>	
<p>NAKAMURA - WT 150 MODELOS WT 150/250 WTW 150 WTS 150 WT 20II (M,MY) TW 10 SUPER NTJ/NTM3 SC 150/250</p>	<p>MODELOS COMPATIBLES: CMZ TX 52/66</p>
<p>PAG. 43-46</p>	
<p>NAKAMURA - WT 100 MODELOS WT 100 - WY 100 NTY 3 - NTJ100</p>	
<p>PAG. 47-50</p>	

PROGRAMA

<p>CMZ MODELOS TBI 520 / TL 20/25 / TC 15/20/25/30/35 / TA15M/Y/MS/MY/YS-TA 20M/Y/MS/MY/YS TA 25M/Y/MS/MY/YS-TA 30M/Y/MS/MY/YS</p>	
PAG. 51-56	
<p>CMZ MODELOS TL 15T/M/TM/S/MS TB46/67 M/CM</p>	<p>MODELOS COMPATIBLES: MIYANO ABX 51/64 THY/SYY</p>
PAG. 57-59	
<p>HAAS MODELOS SL20/SL30 ST20/ST25/ST30</p>	<p>MODELOS COMPATIBLES: OKUMA LB15/25/300</p>
PAG. 60-61	
<p>HAAS MODELOS SL10 ST10/ST15</p>	<p>MODELOS COMPATIBLES: OKUMA LLC 152 S</p>
PAG. 62	
<p>OKUMA MODELOS LB2000 EX/LB2500 EX/LB3000 EX (M-MW-MY-MYW) LU2000 EX/LU2500 EX/LU3000 EX (M-MW-MY) GENOS L300 (MY-MW-MYW)</p>	
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<p>MURATEC MODELOS MT 12 MT 200</p>	
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<p>GOODWAY MODELOS GLS 150 SERIES GLS 200 SERIES</p>	
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<p>GOODWAY MODELOS GA 200/260/280 GS 200/230/260/280 GA 2000/2600/2800/3000/3300/3600</p>	
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RECAMBIOS Y ACCESORIOS PARA PORTA HERRAMIENTAS	
PAG. 70-71	
PORTA HERRAMIENTAS DIN/69881	
PAG. 72-81	

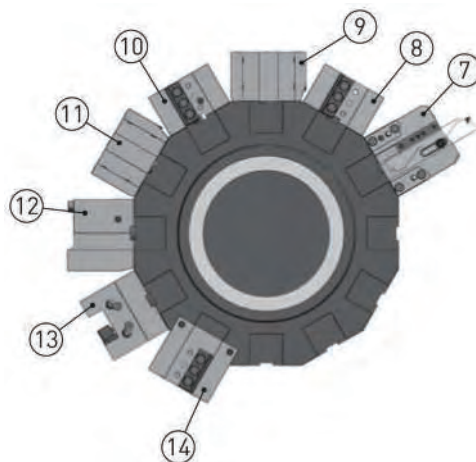
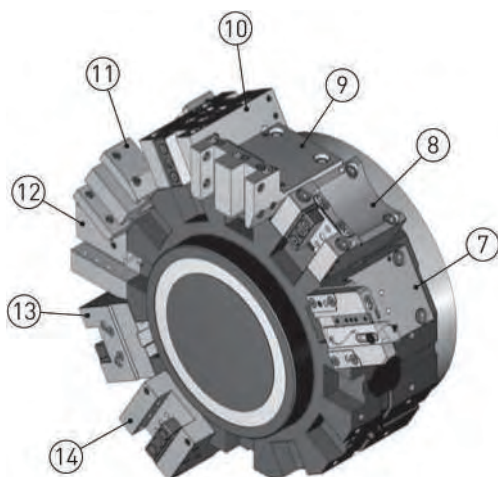
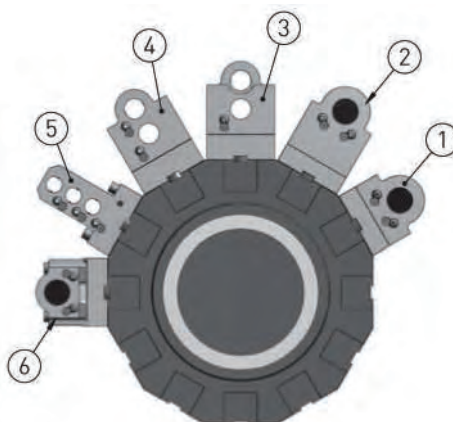
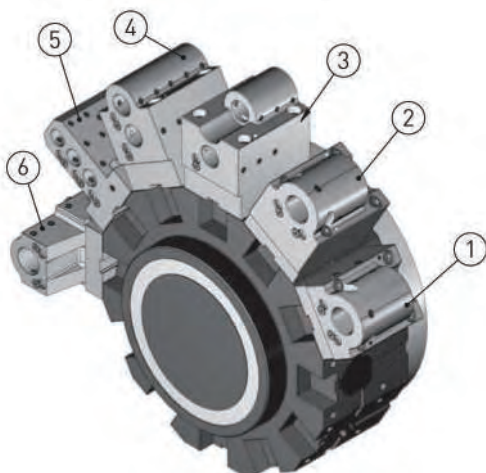
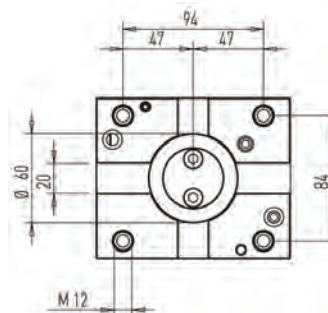
MORI SEIKI / DMG MORI - NL

MODELOS

NL / NLX 1500/2000 /2500/3000 (12)
 NT4000/4200/4250/4300/5000/5400
 NZL 2000/2500
 NZX 2500 (12)

MODELOS COMPATIBLES:

Goodway G4
 GS 2000/2600/2800/3000/3300/3600



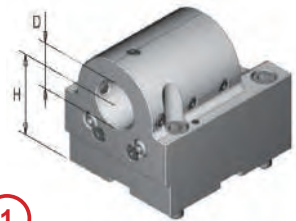
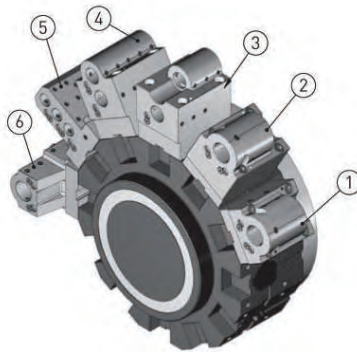
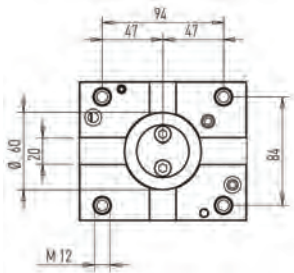
MORI SEIKI / DMG MORI - NL

MODELOS

NL / NLX 1500/2000 /2500/3000 (12)
 NT4000/4200/4250/4300/5000/5400
 NZL 2000/2500
 NZX 2500 (12)

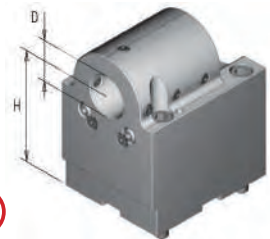
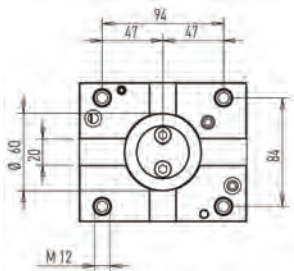
MODELOS COMPATIBLES:

Goodway G4
 GS 2000/2600/2800/3000/3300/3600



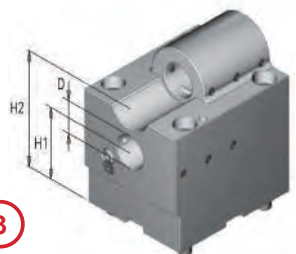
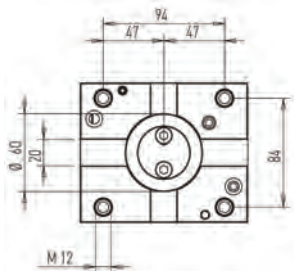
1

REFERENCIA	DMG MORI	D	H	REFRIGERACIÓN	
				INTERNA	EXTERNA
TOIM8C40	T10097	40	80	X	✓
TOIM8C40R	T13128	40	80	✓	✓
TOIM8C50	T10098	50	80	X	✓
TOIM8C50R	/	50	80	✓	✓



2

REFERENCIA	DMG MORI	D	H	REFRIGERACIÓN	
				INTERNA	EXTERNA
TOIM8C40H120	T10113	40	120	X	✓
TOIM8C40RH120	T13131	40	120	✓	✓
TOIM8C50H120	T10114	50	120	X	✓



3

REFERENCIA	DMG MORI	D	H1	H2	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOIM8D32	T10096	32	80	125	✓	✓

12

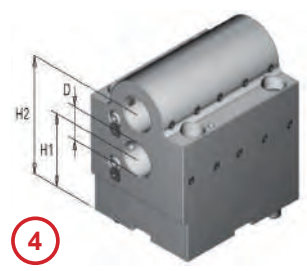
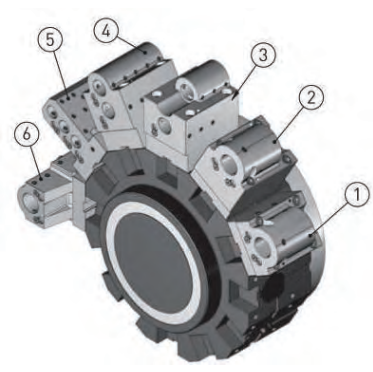
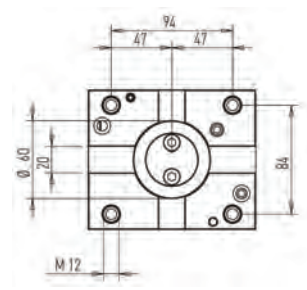
MORI SEIKI / DMG MORI - NL

MODELOS

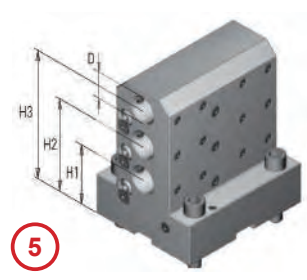
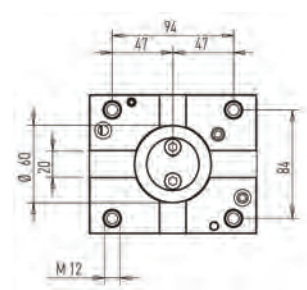
NL / NLX 1500/2000 /2500/3000 (12)
 NT4000/4200/4250/4300/5000/5400
 NZL 2000/2500
 NZX 2500 (12)

MODELOS COMPATIBLES:

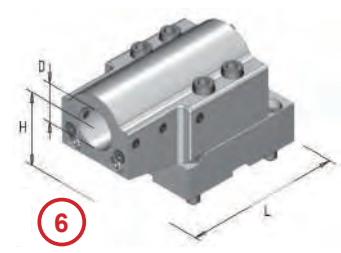
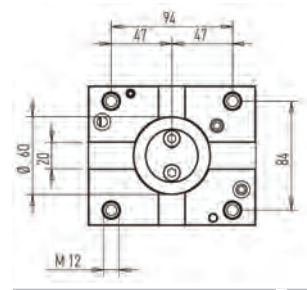
Goodway G4
 GS 2000/2600/2800/3000/3300/3600



REFERENCIA	DMG MORI	D	H1	H2	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOIM8D32L	/	32	80	125	✓	✓



REFERENCIA	DMG MORI	D	H1	H2	H3	REFRIGERACIÓN	
						INTERNA	EXTERNA
TOIM8T25L	T10104	25	60	95	130	✓	✓



REFERENCIA	DMG MORI	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOIM87M6-7M6L40	T23018 T10038	40	80	190	✓	✓
TOIM87M6-7M6L50	T23018 T10038	50	80	190	✓	✓

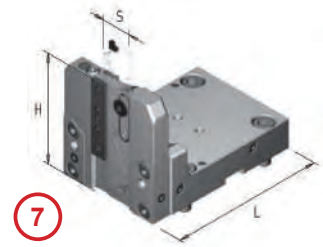
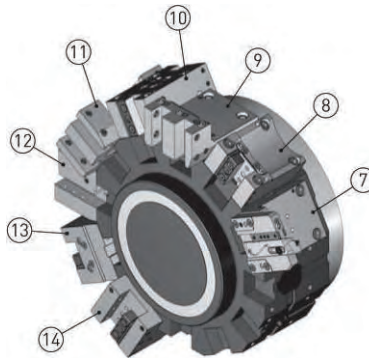
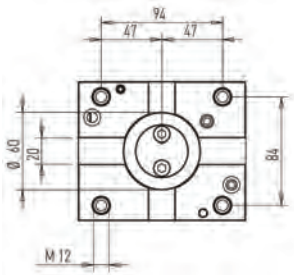
MORI SEIKI / DMG MORI - NL

MODELOS

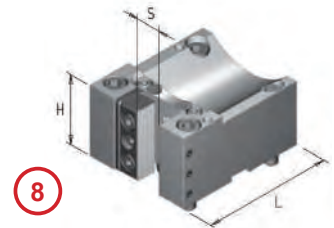
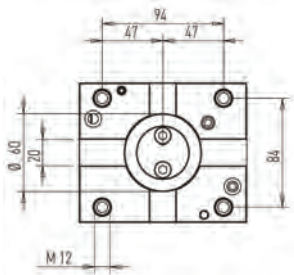
NL / NLX 1500/2000 /2500/3000 (12)
 NT4000/4200/4250/4300/5000/5400
 NZL 2000/2500
 NZX 2500 (12)

MODELOS COMPATIBLES:

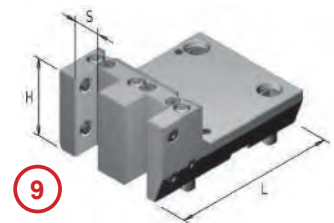
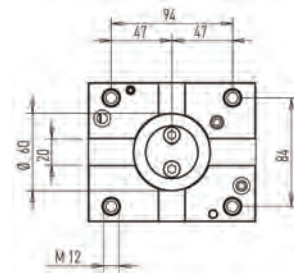
Goodway G4
 GS 2000/2600/2800/3000/3300/3600



REFERENCIA	DMG MORI	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEM8B32	/	ISCAR 32	95	160	✓	✓



REFERENCIA	DMG MORI	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOE8M8V40	T00187	20X20	65	130	X	✓
TOE8M8V50	T00186	25X25	70	130	X	✓



REFERENCIA	DMG MORI	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEM8V25D	/	25X25	78	164	X	✓

12

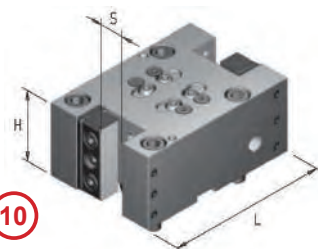
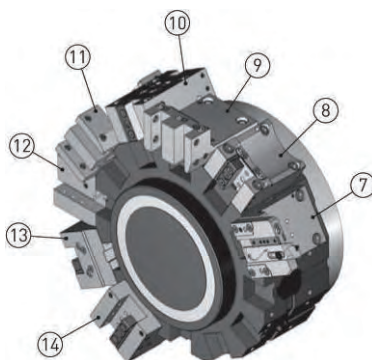
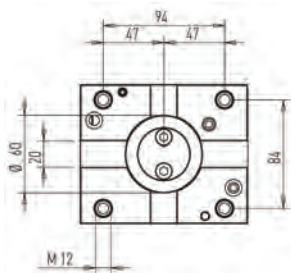
MORI SEIKI / DMG MORI - NL

MODELOS

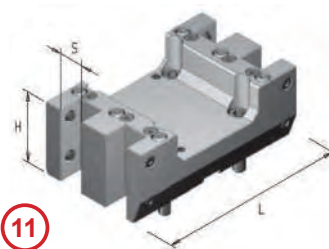
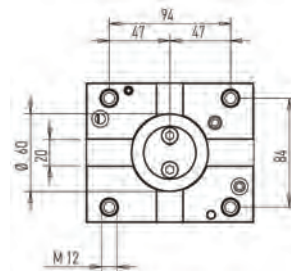
NL / NLX 1500/2000 /2500/3000 (12)
 NT4000/4200/4250/4300/5000/5400
 NZL 2000/2500
 NZX 2500 (12)

MODELOS COMPATIBLES:

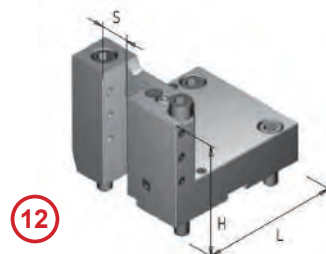
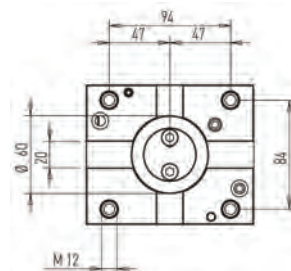
Goodway G4
 GS 2000/2600/2800/3000/3300/3600



REFERENCIA	DMG MORI	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEM8D40	T00185	20X20	65	150	X	/
TOEM8D50	T00184	25X25	70	155	X	/



REFERENCIA	DMG MORI	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEM8D25Q	/	25X25	78	197	X	/



REFERENCIA	DMG MORI	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEM8B25	T00197	25X25	95	130	X	/

12

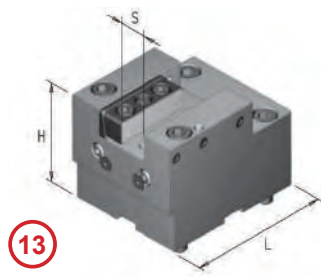
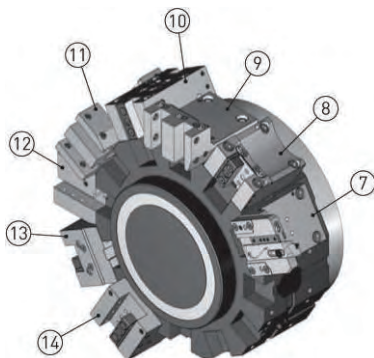
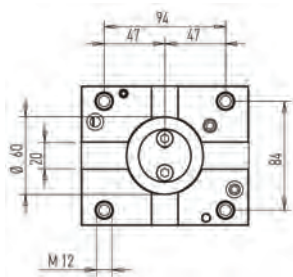
MORI SEIKI / DMG MORI - NL

MODELOS

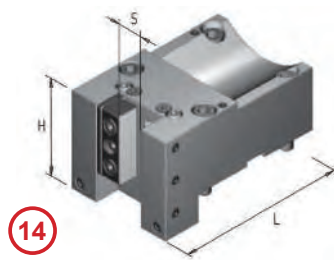
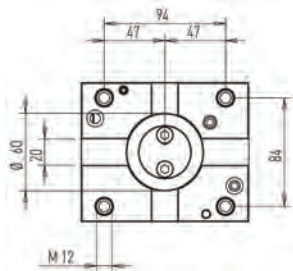
NL / NLX 1500/2000 /2500/3000 (12)
 NT4000/4200/4250/4300/5000/5400
 NZL 2000/2500
 NZX 2500 (12)

MODELOS COMPATIBLES:

Goodway G4
 GS 2000/2600/2800/3000/3300/3600



REFERENCIA	DMG MORI	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEM8C40	T03006	20X20	70	130	✓	✓
TOEM8C50	T03005	25X25	100	130	✓	✓



REFERENCIA	DMG MORI	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEM8V50L	T00197	25X25	98	169	X	✓

12



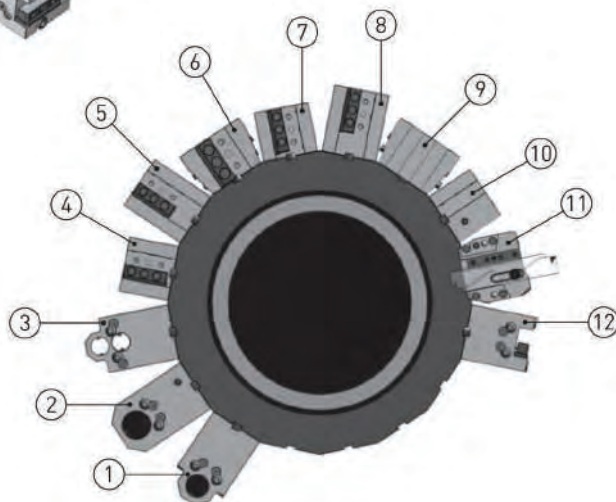
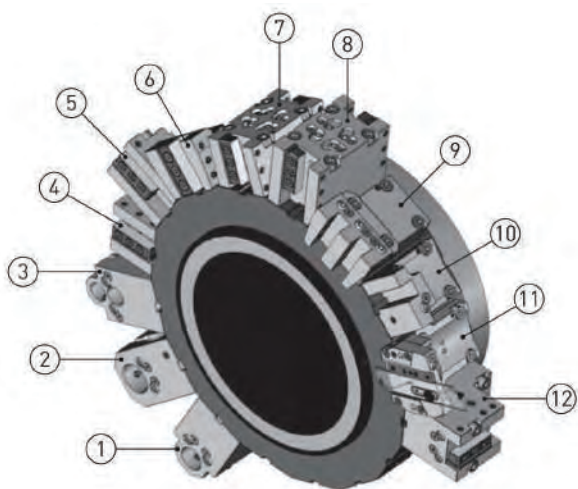
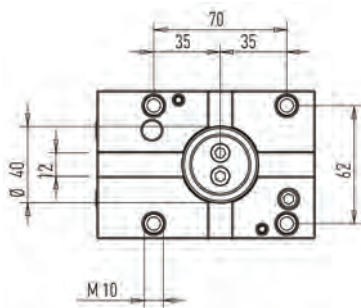
MORI SEIKI / DMG MORI - NZ

MODELOS

NZ 1500/2000 / 3100
 NT / NTZ 1000/2000/3000/3100/3150/3200
 NZ / NZX 2000/2500 (16)

MODELOS

NL / NLX 1500/2000/2500 (20)
 DURA TURN 2050/2550 MC



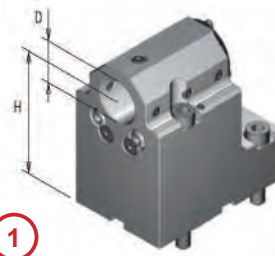
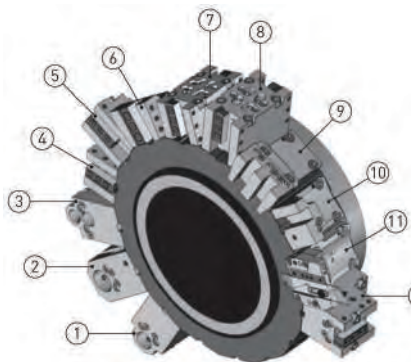
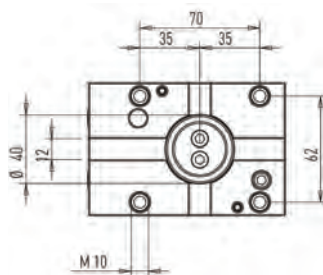
MORI SEIKI / DMG MORI - NZ

MODELOS

NZ 1500/2000 / 3100
 NT / NTZ 1000/2000/3000/3100/3150/3200
 NZ / NZX 2000/2500 (16)

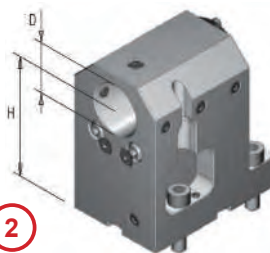
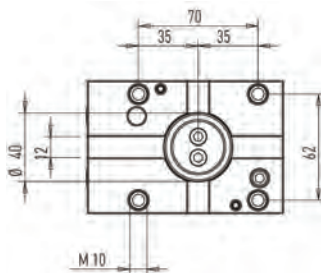
MODELOS

NL / NLX 1500/2000/2500 (20)
 DURA TURN 2050/2550 MC

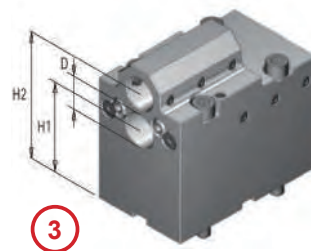
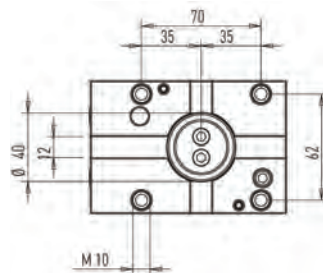


REFERENCIA	DMG MORI	D	H	REFRIGERACIÓN	
				INTERNA	EXTERNA
TOIM5C32	T10115	32	100	X	✓
TOIM5C32R	T13132	32	100	✓	✓

12



REFERENCIA	DMG MORI	D	H	REFRIGERACIÓN	
				INTERNA	EXTERNA
TOIM5C40	/	40	100	X	✓
TOIM5C40R	/	40	100	✓	✓



REFERENCIA	DMG MORI	D	H1	H2	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOIM5D25	T10117	25	75	105	✓	✓

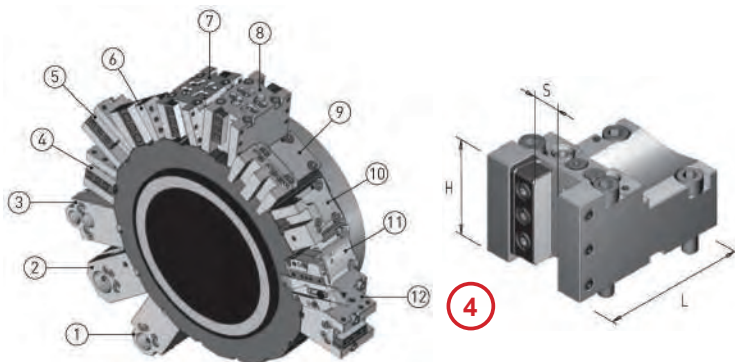
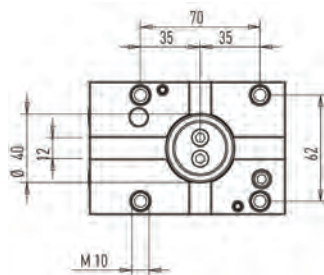
MORI SEIKI / DMG MORI - NZ

MODELOS

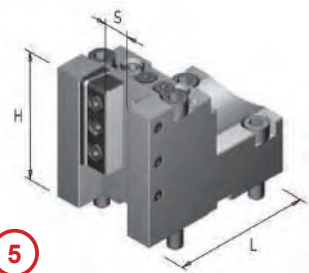
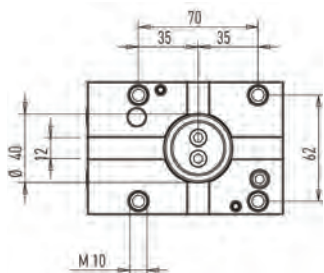
NZ 1500/2000 / 3100
 NT / NTZ 1000/2000/3000/3100/3150/3200
 NZ / NZX 2000/2500 (16)

MODELOS

NL / NLX 1500/2000/2500 (20)
 DURA TURN 2050/2550 MC

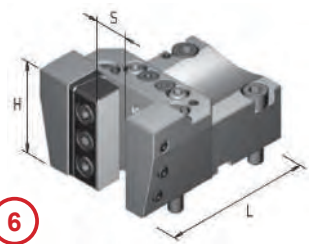
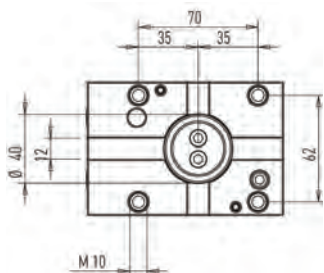


REFERENCIA	DMG MORI	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEM5V40	T00224	20X20	70	115	X	✓



12

REFERENCIA	DMG MORI	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEM5V40H95	T00225	20X20	95	115	X	✓



REFERENCIA	DMG MORI	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEM5V50	/	25X25	70	124	X	✓

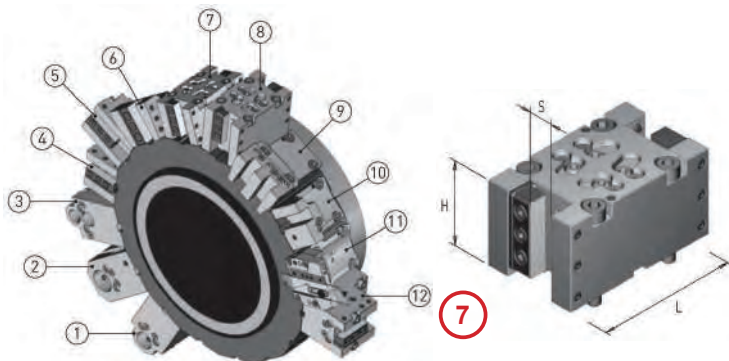
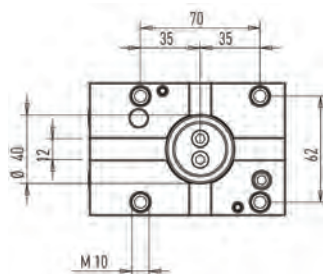
MORI SEIKI / DMG MORI - NZ

MODELOS

NZ 1500/2000 / 3100
 NT / NTZ 1000/2000/3000/3100/3150/3200
 NZ / NZX 2000/2500 (16)

MODELOS

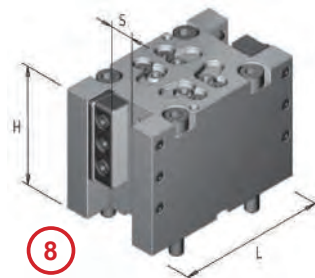
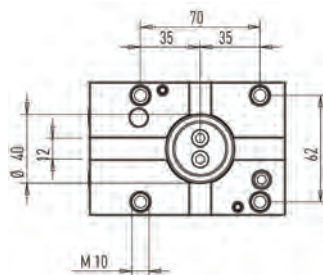
NL / NLX 1500/2000/2500 (20)
 DURA TURN 2050/2550 MC



7

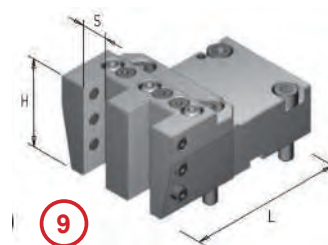
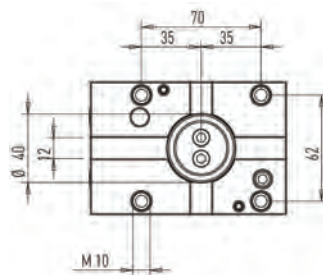
REFERENCIA	DMG MORI	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEM5D40	T00228	20X20	70	130	X	✓

12



8

REFERENCIA	DMG MORI	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEM5D40H95	T00226	20X20	95	130	X	✓



9

REFERENCIA	DMG MORI	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEM5V20D	/	20X20	70	139	X	✓

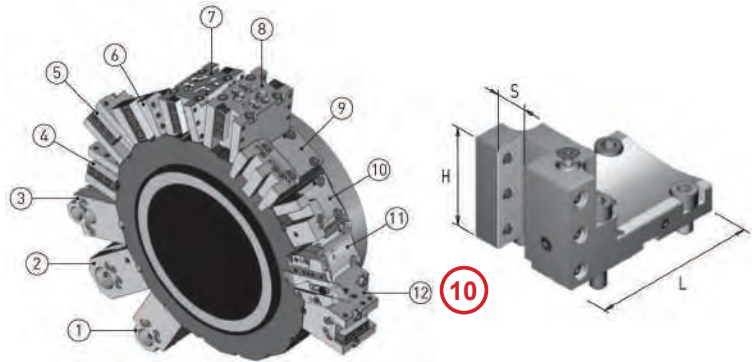
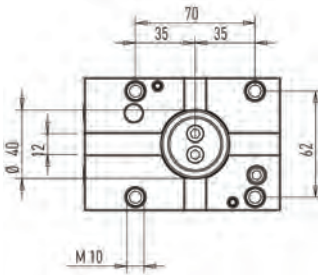
MORI SEIKI / DMG MORI - NZ

MODELOS

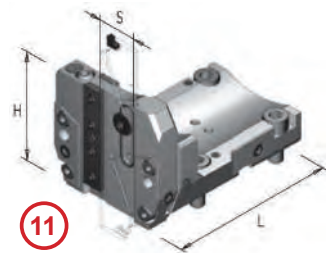
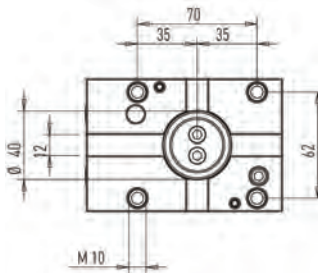
NZ 1500/2000 / 3100
 NT / NTZ 1000/2000/3000/3100/3150/3200
 NZ / NZX 2000/2500 (16)

MODELOS

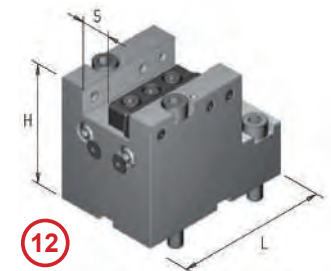
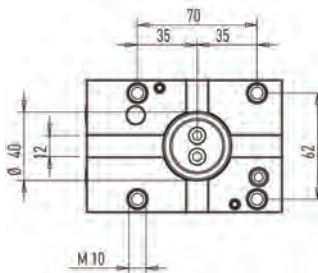
NL / NLX 1500/2000/2500 (20)
 DURA TURN 2050/2550 MC



REFERENCIA	DMG MORI	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEM5B20	T00251	20X20	70	115	X	✓



REFERENCIA	DMG MORI	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEM5B32	/	ISCAR 32	80	135	✓	✓



REFERENCIA	DMG MORI	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEM5C40	T03017	20X20	92	115	X	✓

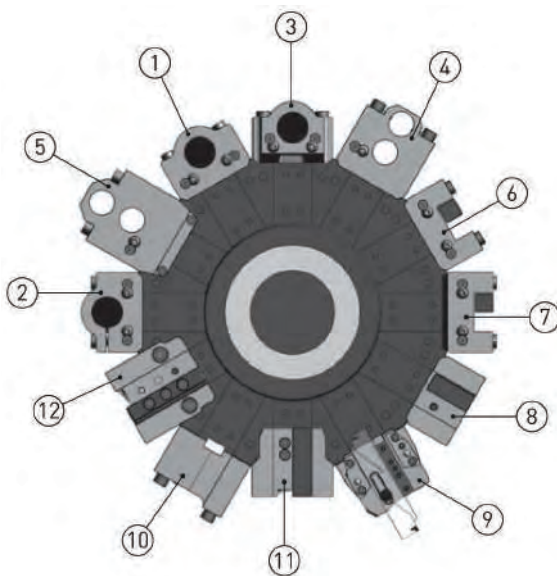
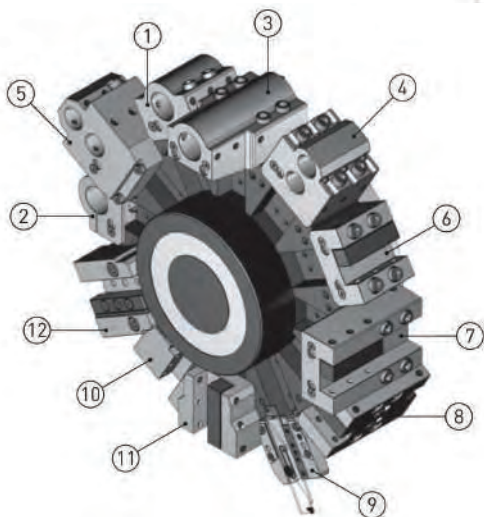
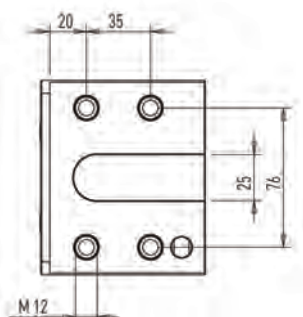
MORI SEIKI / DMG MORI - SL

MODELOS

CL200/203
 SL20/25
 SL 200/203/204/250/253/254
 (MC, SMC) - 2500Y
 ZL/DL 200/250 (MC)

MODELOS COMPATIBLES:

Goodway GS200/260/280
 Goodway GA2000/2600/2800/3000/3300/3600



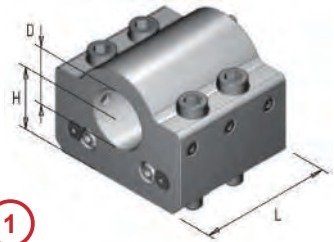
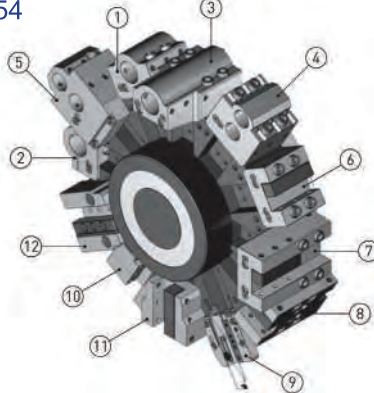
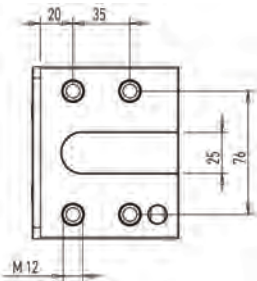
MORI SEIKI / DMG MORI - SL

MODELOS

CL200/203
 SL20/25
 SL 200/203/204/250/253/254
 (MC, SMC) - 2500Y
 ZL/DL 200/250 (MC)

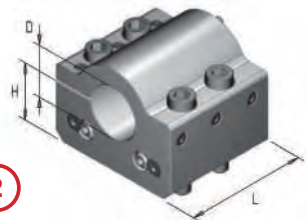
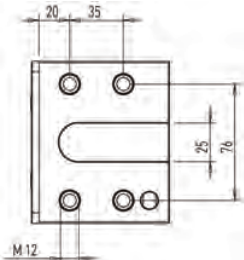
MODELOS COMPATIBLES:

Goodway GS200/260/280
 Goodway GA2000/2600/2800/3000/3300/3600



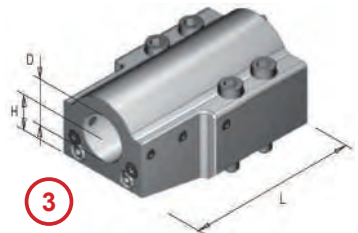
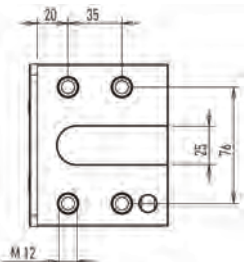
1

REFERENCIA	DMG MORI	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOIM6C40	T10036	40	40	90	X	✓
TOIM6C40R	T13064	40	40	90	✓	✓
TOIM6C50	T10044	50	40	90	X	✓
TOIM6C50R	T10044	50	40	90	✓	✓



2

REFERENCIA	DMG MORI	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOIM6C40B	/	40	40	90	X	✓



3

REFERENCIA	DMG MORI	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOIM6L40	T10038	40	40	160	X	✓
TOIM6L40R	T10038	40	40	160	✓	✓
TOIM6L50	T10094	50	40	160	X	✓
TOIM6L50R	T10094	50	40	160	✓	✓

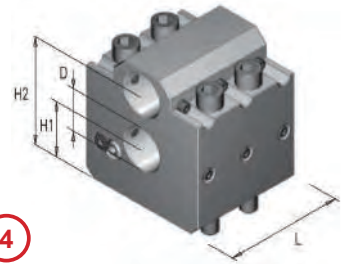
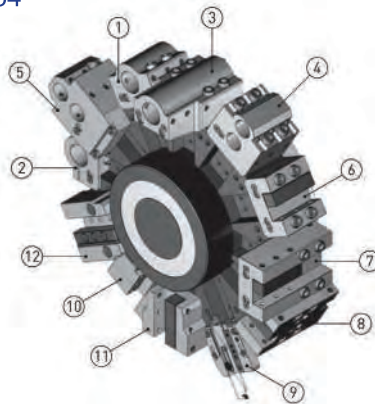
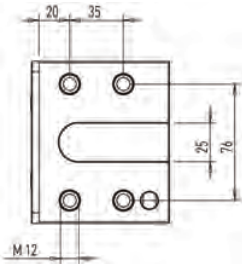
MORI SEIKI / DMG MORI - SL

MODELOS

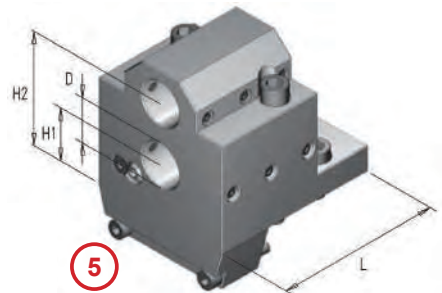
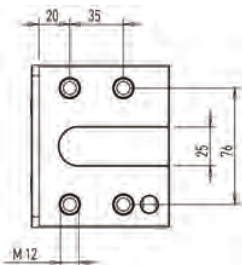
CL200/203
SL20/25
SL 200/203/204/250/253/254
(MC, SMC) - 2500Y
ZL/DL 200/250 (MC)

MODELOS COMPATIBLES:

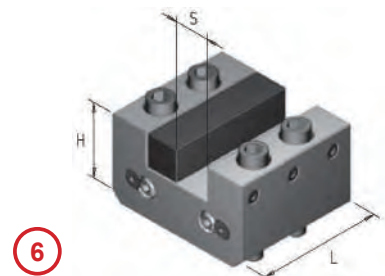
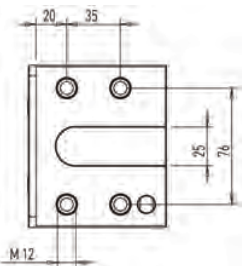
Goodway GS200/260/280
Goodway GA2000/2600/2800/3000/3300/3600



REFERENCIA	DMG MORI	D	H1	H2	L	REFRIGERACIÓN	
						INTERNA	EXTERNA
TOIM6D32	T10086	32	40	82	90	✓	✓



REFERENCIA	DMG MORI	D	H1	H2	L	REFRIGERACIÓN	
						INTERNA	EXTERNA
TOIM6D32L	T10208	32	40	85	125	✓	✓



REFERENCIA	DMG MORI	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOIM6C50	T00068	25X25	55	90	X	✓

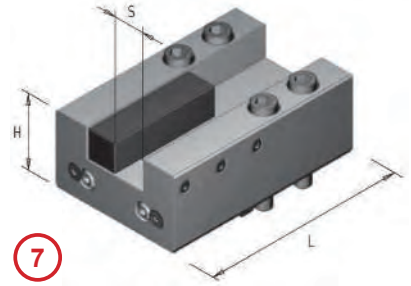
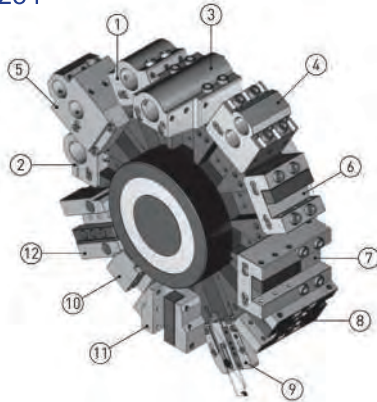
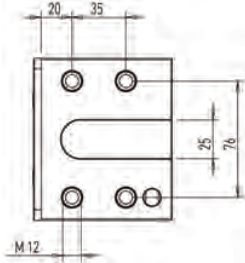
MORI SEIKI / DMG MORI - SL

MODELOS

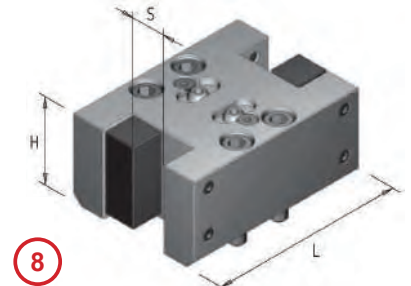
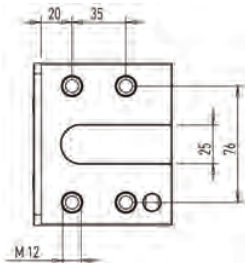
CL200/203
 SL20/25
 SL 200/203/204/250/253/254
 (MC, SMC) - 2500Y
 ZL/DL 200/250 (MC)

MODELOS COMPATIBLES:

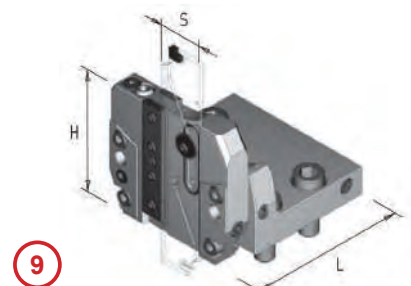
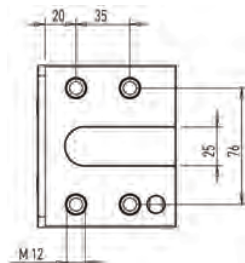
Goodway GS200/260/280
 Goodway GA2000/2600/2800/3000/3300/3600



REFERENCIA	DMG MORI	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEM6L50	T00082	25X25	60	160	X	✓



REFERENCIA	DMG MORI	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEM6D50	T00158	25X25	60	139	X	✓



REFERENCIA	DMG MORI	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEM6B32	/	ISCAR 32	80	103	✓	✓

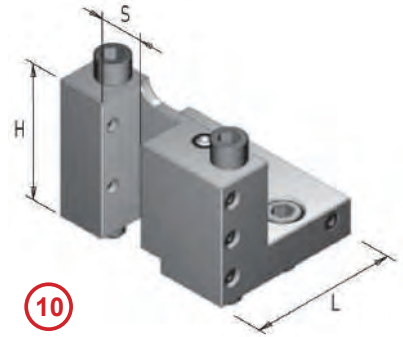
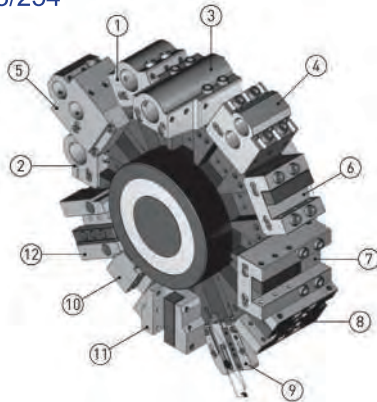
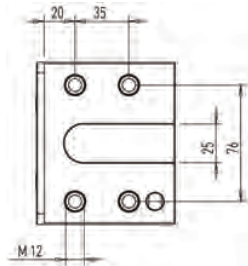
MORI SEIKI / DMG MORI - SL

MODELOS

CL200/203
SL20/25
SL 200/203/204/250/253/254
(MC, SMC) - 2500Y
ZL/DL 200/250 (MC)

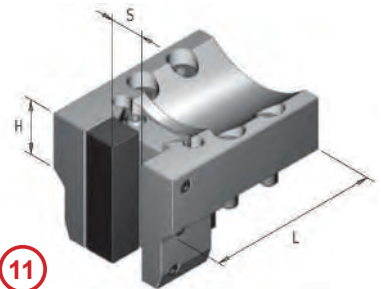
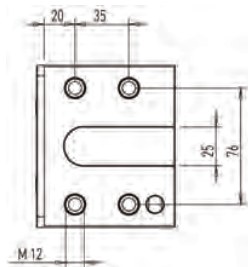
MODELOS COMPATIBLES:

Goodway GS200/260/280
Goodway GA2000/2600/2800/3000/3300/3600



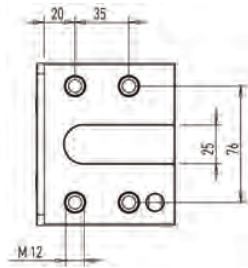
10

REFERENCIA	DMG MORI	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEM6B25	T00156	25X25	78	85	X	✓



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REFERENCIA	DMG MORI	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEM6V50	T00074	25X25	90	130	X	✓
TOEM6V50L	T00076	25X25	90	155	X	✓



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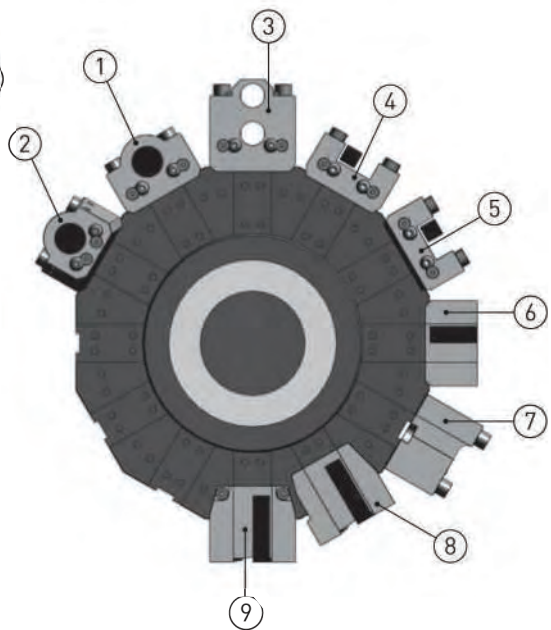
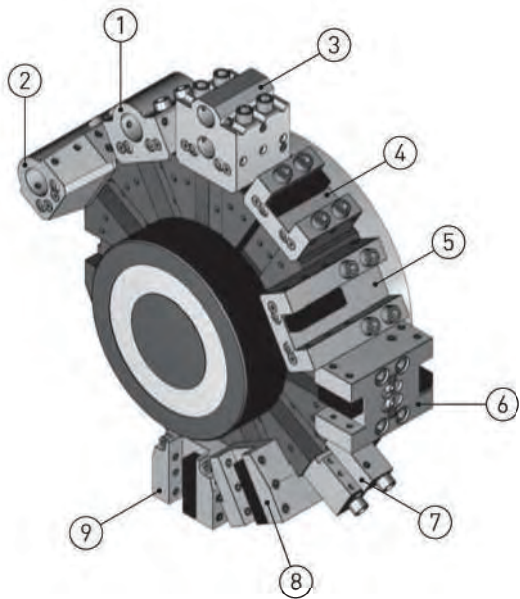
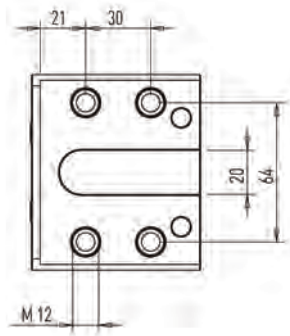
REFERENCIA	DMG MORI	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEM6T50	T00162	25X25	109	130	X	✓
TOEM6T50L	T00164	25X25	109	160	X	✓

MORI SEIKI / DMG MORI - SL

MODELOS

SL/ZL 150/153/154

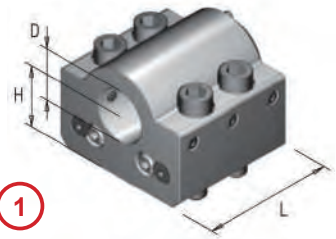
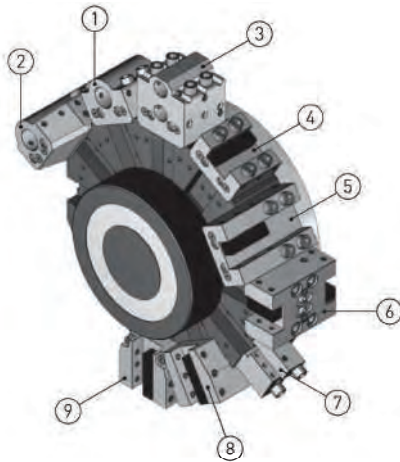
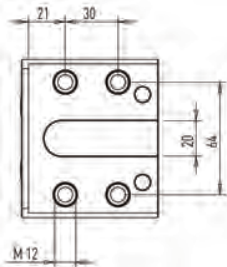
DL150



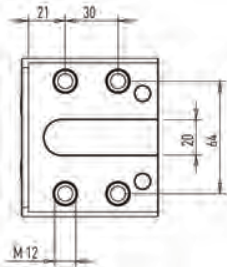
MORI SEIKI / DMG MORI - SL

MODELOS

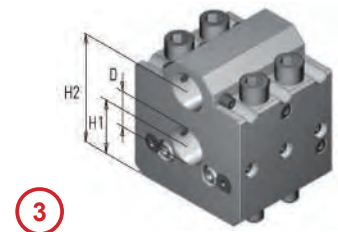
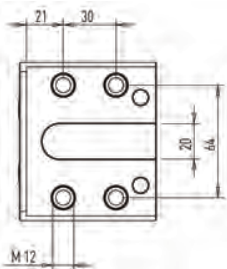
SL/ZL 150/153/154
DL150



REFERENCIA	DMG MORI	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOIM3C32	T10046	32	35	79	X	✓
TOIM3C32R	T13066	32	35	79	✓	✓



REFERENCIA	DMG MORI	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOIM3L32	T10052	32	35	139	✓	✓

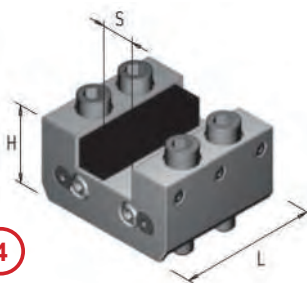
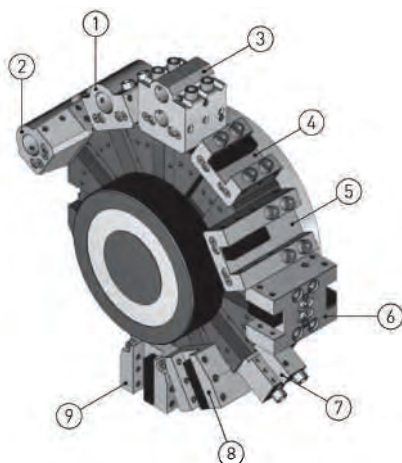
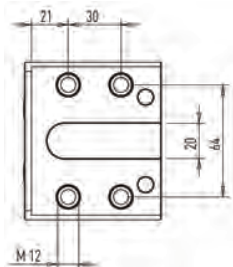


REFERENCIA	DMG MORI	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOIM3D25	T10082	25	35	75	X	✓
TOIM3D25R	T10082	25	35	75	✓	✓

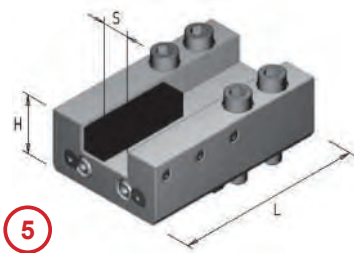
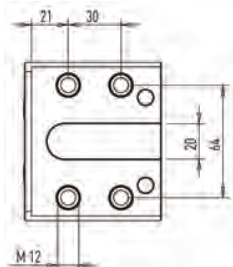
MORI SEIKI / DMG MORI - SL

MODELOS

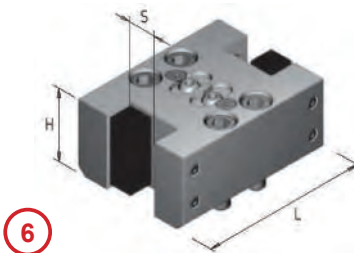
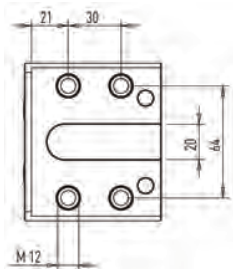
SL/ZL 150/153/154
DL150



REFERENCIA	DMG MORI	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEM3C40	T00080	20X20	45	78	X	✓



REFERENCIA	DMG MORI	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEM3L40	T100148	20X20	50	139	X	✓

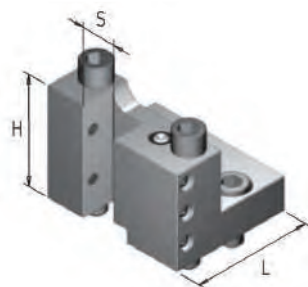
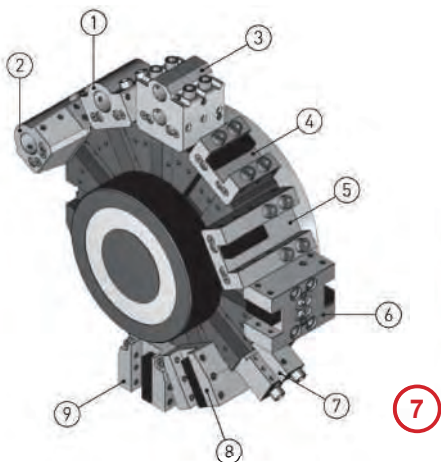
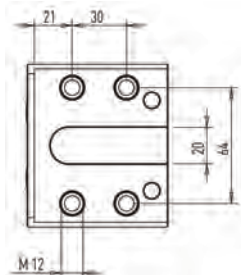


REFERENCIA	DMG MORI	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEM3D40	T00108	20X20	50	120	X	✓

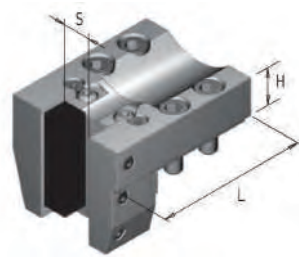
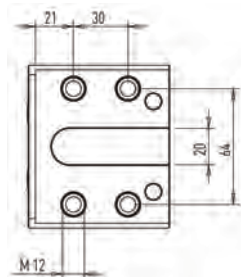
MORI SEIKI / DMG MORI - SL

MODELOS

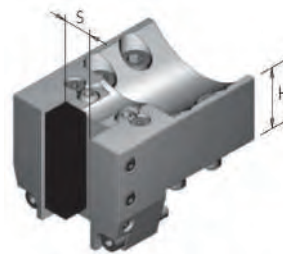
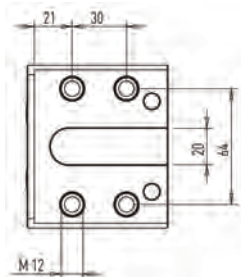
SL/ZL 150/153/154
DL150



REFERENCIA	DMG MORI	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEM3B20	T00134	20X20	68	75	X	✓



REFERENCIA	DMG MORI	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEM3V40	T00146	20X20	35	115	X	✓



REFERENCIA	DMG MORI	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEM3T40	T00078	20X20	40	115	X	✓

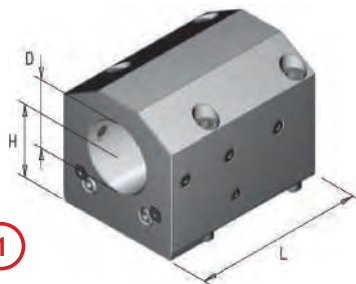
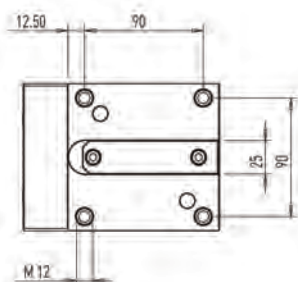
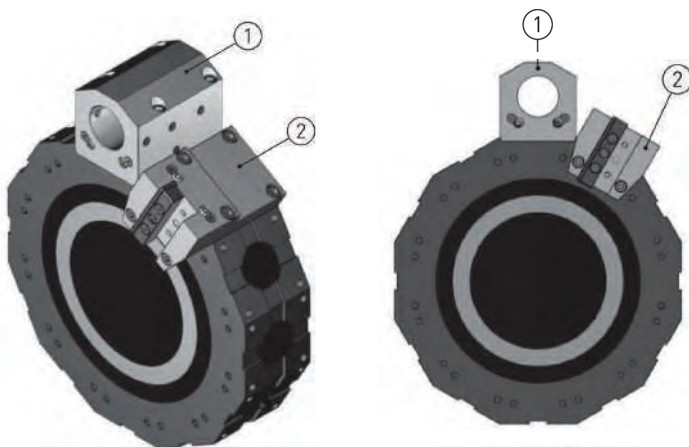
DOOSAN - BMT 75

MODELOS

PUMA 400/480 (M,LM,XLM)
 PUMA 500 (M)
 PUMA V550 (M)
 PUMA VT750 (TM,25P)

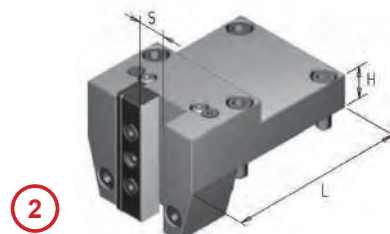
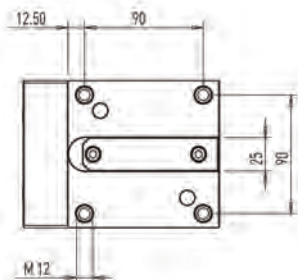
MODELOS COMPATIBLES:

SAMSUNG PL 45LM
 HYUNDAI WIA LV800RM/SKT-V80R/RM
 SKT400M/MA/MC/LMC
 HWACHEON HI-TECH 550/700/7026
 VT-550



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REFERENCIA	DOOSAN	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOID8C60	/	60	60	149	X	✓
TOID8C60R	/	60	60	149	✓	✓



REFERENCIA	DOOSAN	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOED8V50	/	25X25	50	165	X	✓

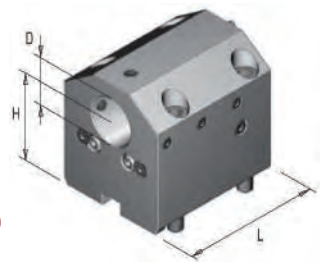
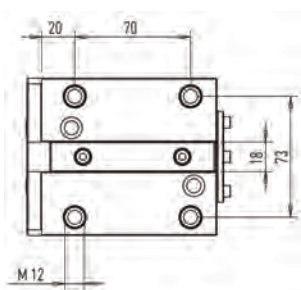
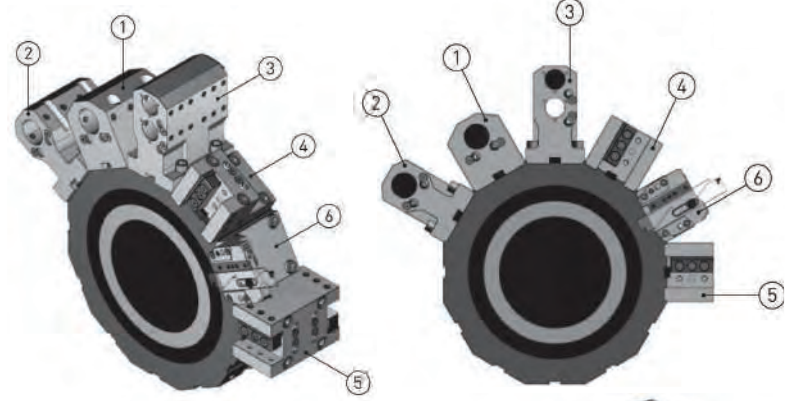
DOOSAN - BMT 65

MODELOS

PUMA 2100/2600(M,LM,MS,LMS)(Y,LY,SY,LSY)
 PUMA 300 (M,MS,MB,MC)
 PUMA 3100 (M,LM,LY,XLM,XLY,ULM,ULY)
 PUMA MX2000/2500/2600 (T,ST)
 PUMA TT2000/2500 (MS,MY,SY)
 PUMA TX200 (M,Y,YY)
 PUMA V400 (M)-VT450 (M,25P)

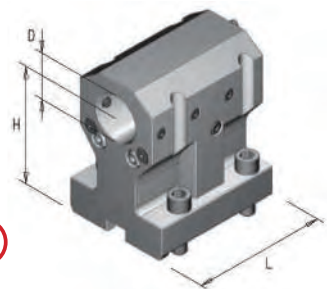
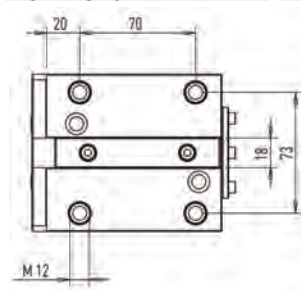
MODELOS COMPATIBLES:

SAMSUNG PL 20/25M-PL 35LM-PL2000/2500Y
 HYUNDAI WIA L300M/MS/-L2100SY
 LM2000/2500TTM/2500TTMS/2500TTSY
 SKT200/250/250(TTM,MS,SY)/300 (M,MS)
 CUTEX-240 / HI/TECH 200/T2-SERIES
 HI-TECH 300/400
 VT450 /TURN-A26



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REFERENCIA	DOOSAN	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOID7C40	/	40	72	115	X	✓
TOID7C40R	/	40	72	115	✓	✓



REFERENCIA	DOOSAN	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOID7C40H100	/	40	100	115	X	✓
TOID7C40RH100	/	40	100	115	✓	✓

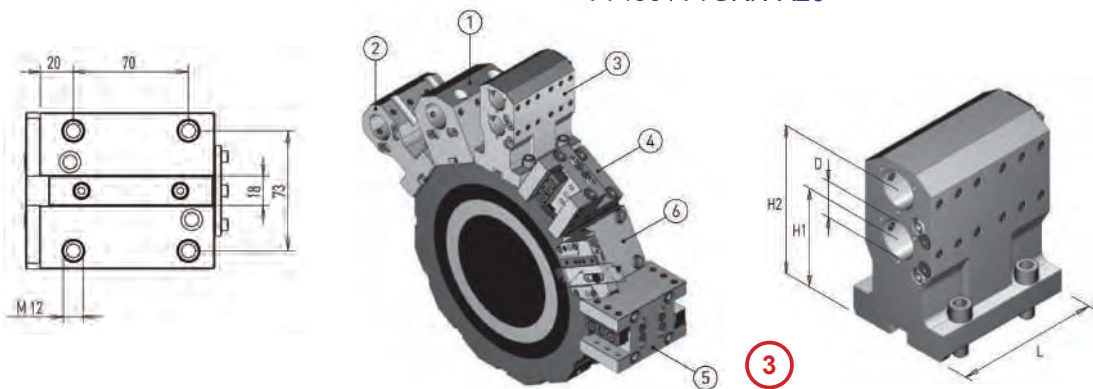
DOOSAN - BMT 65

MODELOS

PUMA 2100/2600(M,LM,MS,LMS)(Y,LY,SY,LSY)
 PUMA 300 (M,MS,MB,MC)
 PUMA 3100 (M,LM,LY,XLM,XLY,ULM,ULY)
 PUMA MX2000/2500/2600 (T,ST)
 PUMA TT2000/2500 (MS,MY,SY)
 PUMA TX200 (M,Y,YY)
 PUMA V400 (M)-VT450 (M,25P)

MODELOS COMPATIBLES:

SAMSUNG PL 20/25M-PL 35LM-PL2000/2500Y
 HYUNDAI WIA L300M/MS/-L2100SY
 LM2000/2500TTM/2500TTMS/2500TTSY
 SKT200/250/250(TTM,MS,SY)/300 (M,MS)
 CUTEX-240 / HI/TECH 200/T2-SERIES
 HI-TECH 300/400
 VT450 /TURN-A26



REFERENCIA	DOOSAN	D	H1	H2	L	REFRIGERACIÓN	
						INTERNA	EXTERNA
TOID7D32	/	32	85	130	125	X	✓
TOID7D32R	/	32	85	130	125	✓	✓



REFERENCIA	DOOSAN	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOED7V50	/	25X25	85	120	X	✓

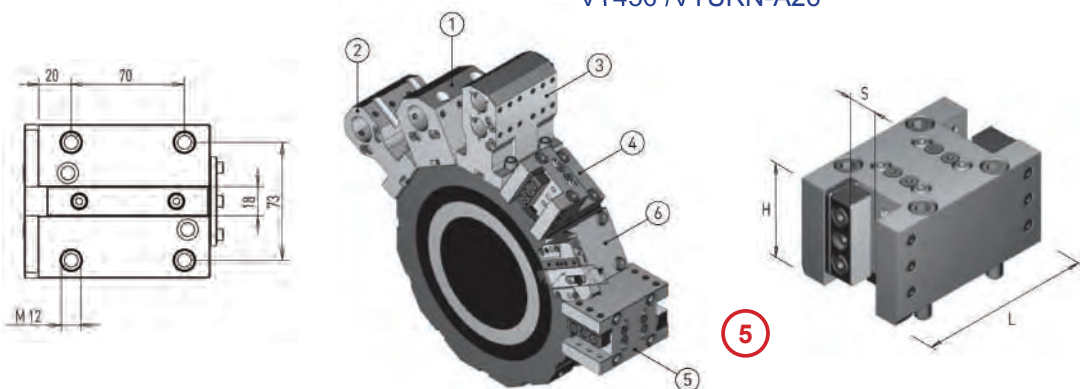
DOOSAN - BMT 65

MODELOS

PUMA 2100/2600(M,LM,MS,LMS)(Y,LY,SY,LSY)
 PUMA 300 (M,MS,MB,MC)
 PUMA 3100 (M,LM,LY,XLM,XLY,ULM,ULY)
 PUMA MX2000/2500/2600 (T,ST)
 PUMA TT2000/2500 (MS,MY,SY)
 PUMA TX200 (M,Y,YY)
 PUMA V400 (M)-VT450 (M,25P)

MODELOS COMPATIBLES:

SAMSUNG PL 20/25M-PL 35LM-PL2000/2500Y
 HYUNDAI WIA L300M/MS-/L2100SY
 LM2000/2500TTM/2500TTMS/2500TTSY
 SKT200/250/250(TTM,MS,SY)/300 (M,MS)
 CUTEX-240 / HI/TECH 200/T2-SERIES
 HI-TECH 300/400
 VT450 /VTURN-A26



REFERENCIA	DOOSAN	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOED7D50	/	25X25	65	148	X	✓

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REFERENCIA	DOOSAN	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOED7B32	/	ISCAR 32	78	129	✓	✓

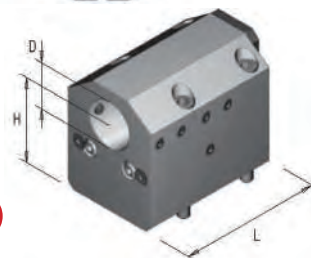
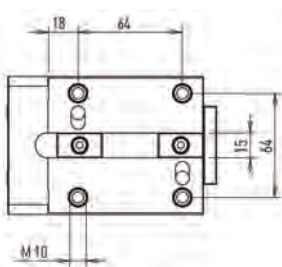
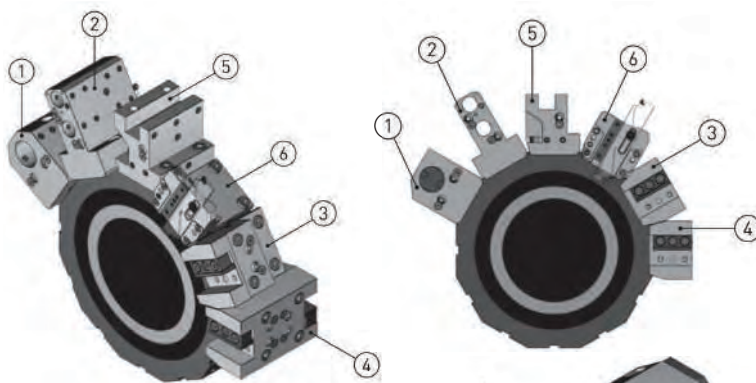
DOOSAN - BMT 55

MODELOS

- LYNX 300 (M)
- PUMA 230/240/280 (M,LM,S)
- PUMA 1500/2000/2500 (M,LM,S)
- PUMA 2100 (Y,LY,SY,LSY)
- PUMA GT 2100M
- PUMA H 250TM
- PUMA MX 2100 (ST,LST)
- PUMA TL2000/2500 (M,LM)
- PUMA TT1500/1800 (MS,SY)

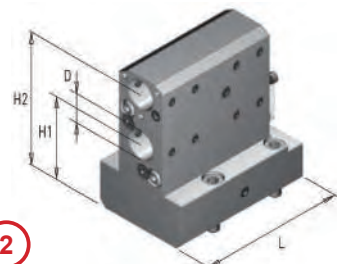
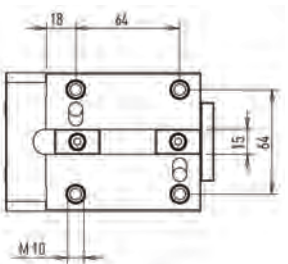
MODELOS COMPATIBLES:

- SAMSUNG PL 240LM
- HARDINGE T-51/65 SUPER PRECISION-H51
- HYUNDAI WIA L230 LMSA
- SKT-160/180 TTMS/TTSY
- LM1600/1800TTSY
- HWACHEON CUTEX-160/240/T2



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REFERENCIA	DOOSAN	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOID6C40	L61590327D	40	70	120	X	✓
TOID6C40R	L61590327D	40	70	120	✓	✓



REFERENCIA	DOOSAN	D	H1	H2	L	REFRIGERACIÓN	
						INTERNA	EXTERNA
TOID6D25	L61590357D	25	70	115	126	X	✓
TOID6D25R	L61590357D	25	70	115	126	✓	✓

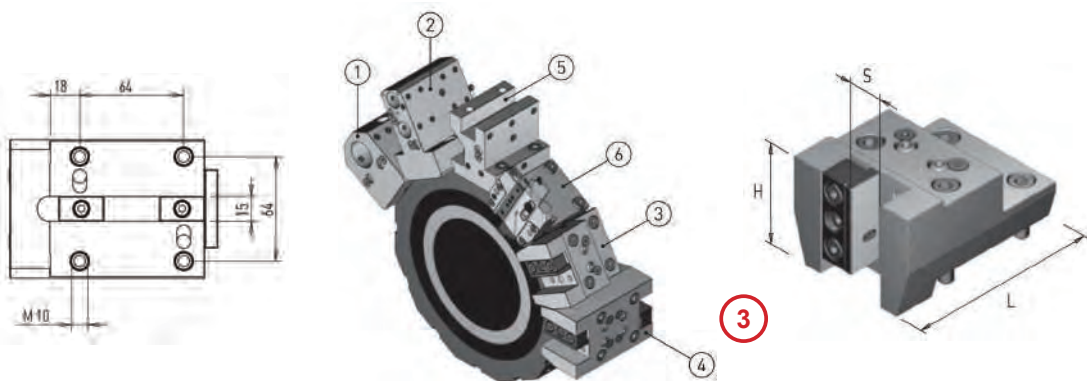
DOOSAN - BMT 55

MODELOS

LYNX 300 (M)
 PUMA 230/240/280 (M,LM,S)
 PUMA 1500/2000/2500 (M,LM,S)
 PUMA 2100 (Y,LY,SY,LSY)
 PUMA GT 2100M
 PUMA H 250TM
 PUMA MX 2100 (ST,LST)
 PUMA TL2000/2500 (M,LM)
 PUMA TT1500/1800 (MS,SY)

MODELOS COMPATIBLES:

SAMSUNG PL 240LM
 HARDINGE T-51/65 SUPER PRECISION-H51
 HYUNDAI WIA L230 LMSA
 SKT-160/180 TTMS/TTSY
 LM1600/1800TTSY
 HWACHEON CUTEX-160/240/T2



REFERENCIA	DOOSAN	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOED6V50	L31560517B	25X25	60	126	X	✓

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REFERENCIA	DOOSAN	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOED6D50	L61590347A	25X25	65	148	X	✓

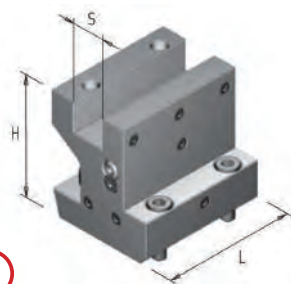
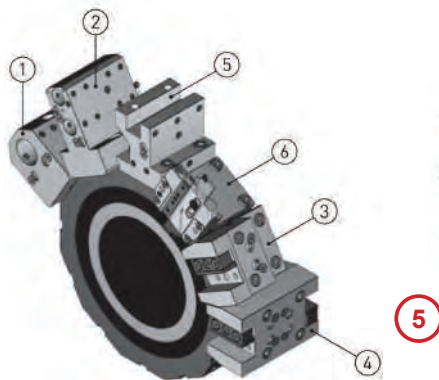
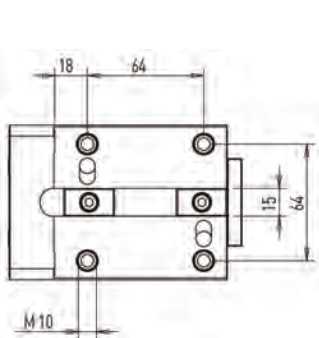
DOOSAN - BMT 55

MODELOS

LYNX 300 (M)
 PUMA 230/240/280 (M,LM,S)
 PUMA 1500/2000/2500 (M,LM,S)
 PUMA 2100 (Y,LY,SY,LSY)
 PUMA GT 2100M
 PUMA H 250TM
 PUMA MX 2100 (ST,LST)
 PUMA TL2000/2500 (M,LM)
 PUMA TT1500/1800 (MS,SY)

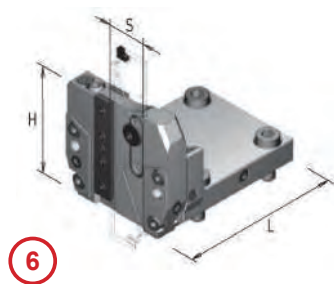
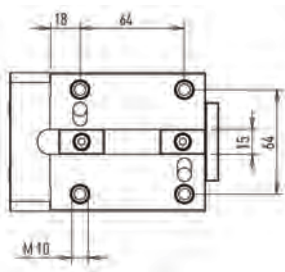
MODELOS COMPATIBLES:

SAMSUNG PL 240LM
 HARDINGE T-51/65 SUPER PRECISION-H51
 HINDAY WIA L230 LMSA
 SKT-160/180 TTMS/TTSY
 LM1600/1800TTSY
 HWACHEON CUTEX-160/240/T2



REFERENCIA	DOOSAN	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOED6C25	L31560537C	25X25	95	105	X	✓

12



REFERENCIA	DOOSAN	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOED6B32	/	ISCAR32	78	119	✓	✓

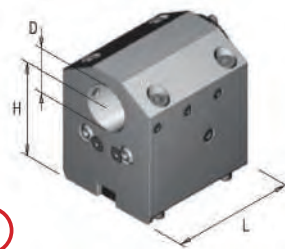
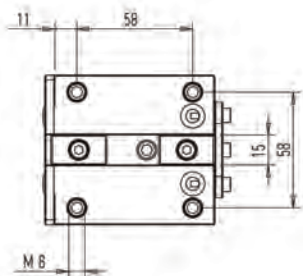
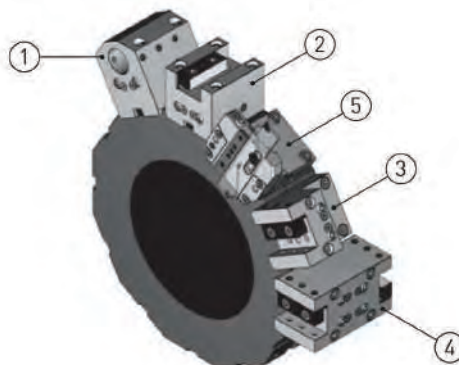
DOOSAN - BMT 45

MODELOS

LYNX 220 (M,MSLM)
PUMA MX 1600 (ST)

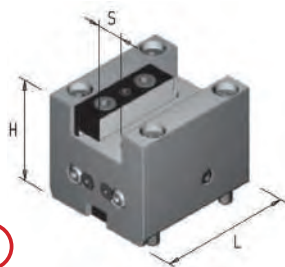
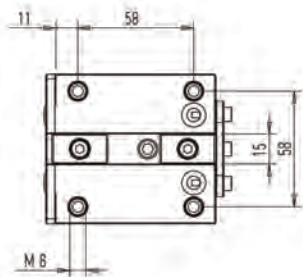
MODELOS COMPATIBLES:

SAMSUNG PL 1600M/MC
HARDINGE T-42 SUPER PRECISION



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REFERENCIA	DOOSAN	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOID5C32H65	/	32	65	85	X	✓
TOID5C32RH65	/	32	65	85	✓	✓



REFERENCIA	DOOSAN	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOED5C40	/	20X20	65	85	X	✓

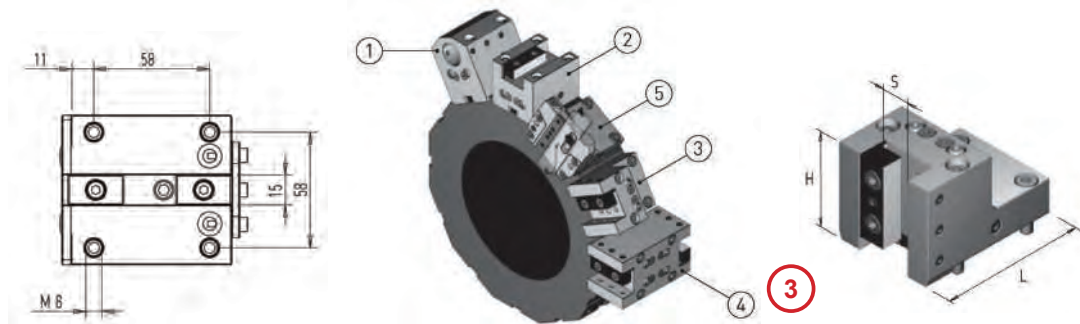
DOOSAN - BMT 45

MODELOS

LYNX 220 (M,MSLM)
PUMA MX 1600 (ST)

MODELOS COMPATIBLES:

SAMSUNG PL 1600M/MC
HARDINGE T-42 SUPER PRECISION



REFERENCIA	DOOSAN	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOED5V40	/	20X20	65	102	X	✓



REFERENCIA	DOOSAN	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOED5D40	/	20X20	60	124	X	✓

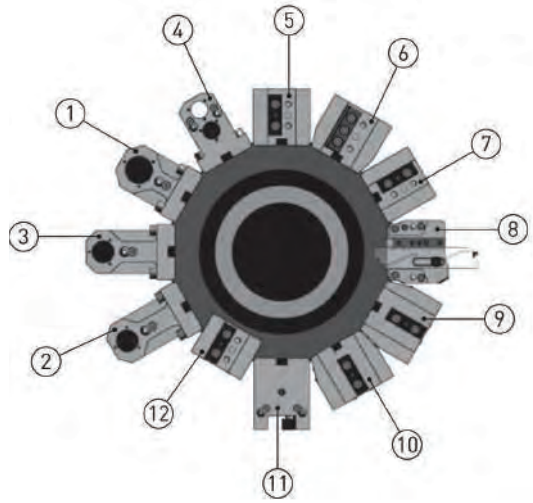
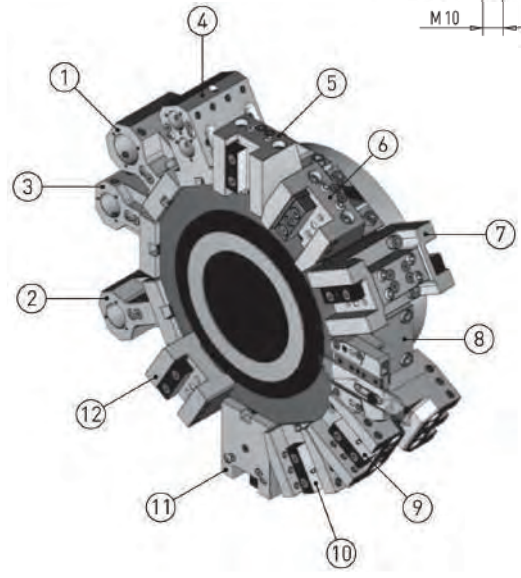
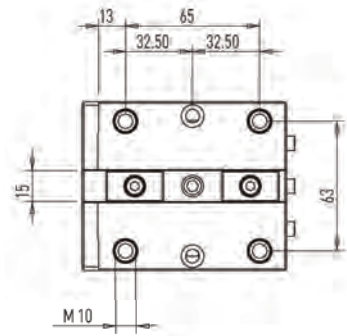


REFERENCIA	DOOSAN	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOED5B32	/	ISCAR32	79	105	✓	✓

BIGLIA

MODELOS

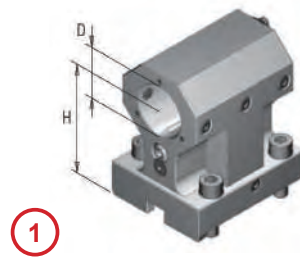
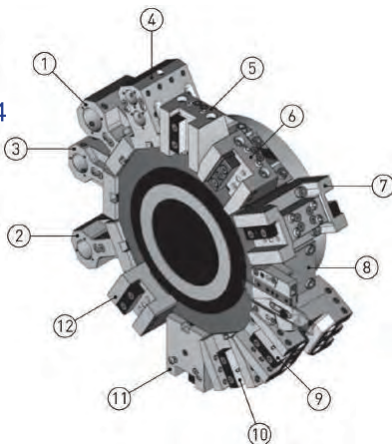
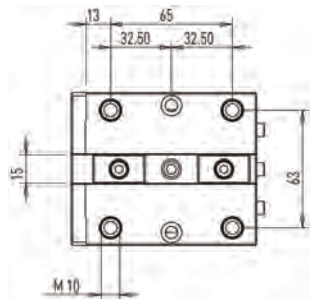
B301-B445-B470-B501 (Y-S) -B510-B545-B550-B565-B650--B658
 B1200-B446-B465-B754-B765-B750 (16)-B1250(16)



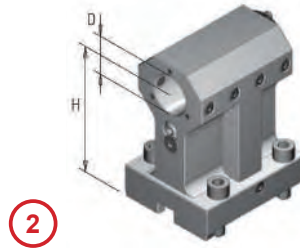
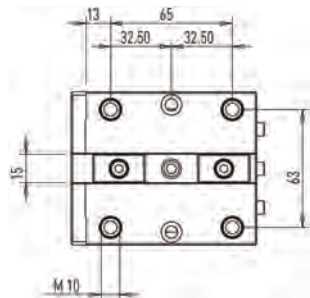
BIGLIA

MODELOS

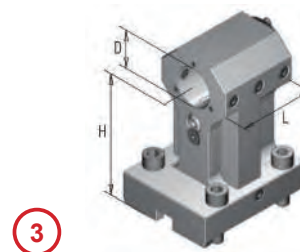
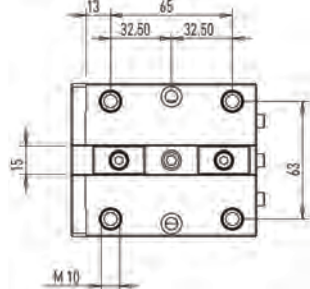
B301-B445-B470-B501 (Y-S)
 B510-B545-B550-B565-B650
 B658-B1200-B446-B465-B754
 B765-B750 (16)-B1250(16)



REFERENCIA	BIGLIA	D	H	REFRIGERACIÓN	
				INTERNA	EXTERNA
TOIB6C32	10.57.75.00	32	80	X	✓
TOIB6C32R	10.57.75.00	32	80	✓	✓
TOIB6C40	10.88.15.00	40	80	X	✓
TOIB6C40R	10.88.15.00	40	80	✓	✓



REFERENCIA	BIGLIA	D	H	REFRIGERACIÓN	
				INTERNA	EXTERNA
TOIB6C32H100	10.88.27.00	32	100	X	✓
TOIB6C32RH100	10.88.27.00	32	100	✓	✓



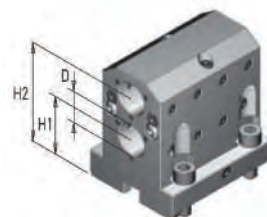
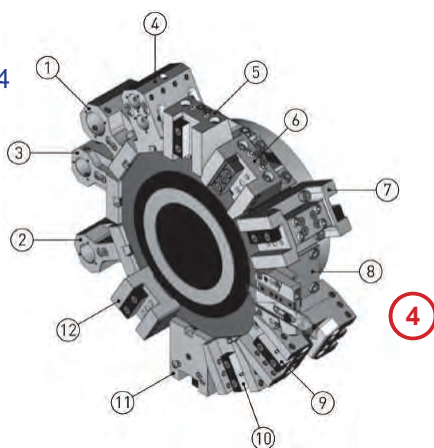
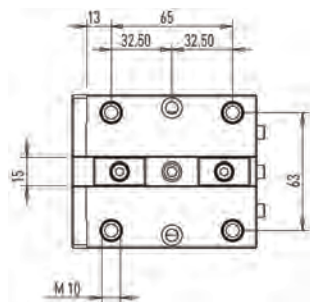
REFERENCIA	BIGLIA	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOIB6A32H100	10.88.28.00	32	100	66	X	✓
TOIB6A32RH100	10.88.28.00	32	100	66	✓	✓

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BIGLIA

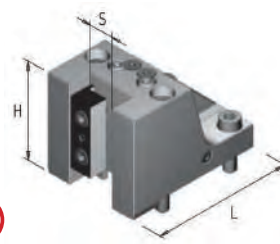
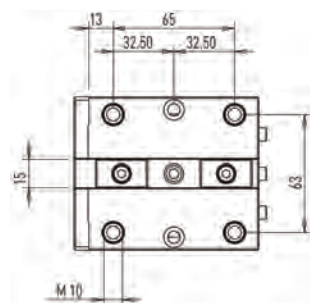
MODELOS

B301-B445-B470-B501 (Y-S)
 B510-B545-B550-B565-B650
 B658-B1200-B446-B465-B754
 B765-B750 (16)-B1250(16)

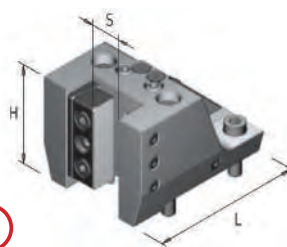
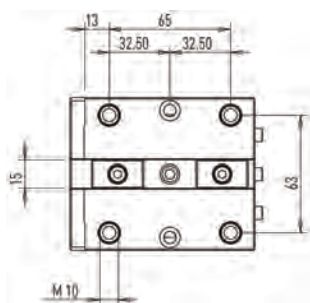


REFERENCIA	BIGLIA	D	H1	H2	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOIB6D25	41.03.29.00	25	45	80	X	✓
TOIB6D25R	41.03.29.00	25	45	80	✓	✓

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REFERENCIA	BIGLIA	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEB6V40	10.57.60.00	20X20	79	116	X	✓

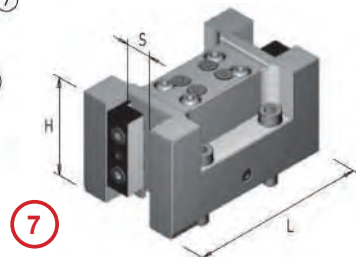
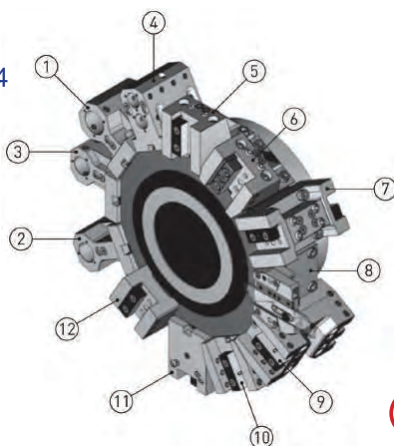
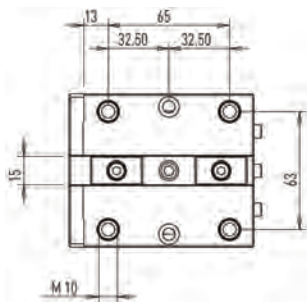


REFERENCIA	BIGLIA	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEB6V50	10.88.16.00	25X25	79	121	X	✓

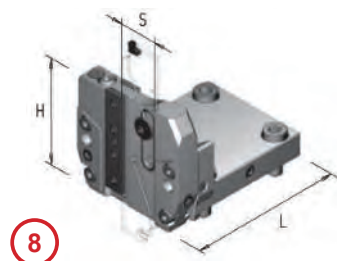
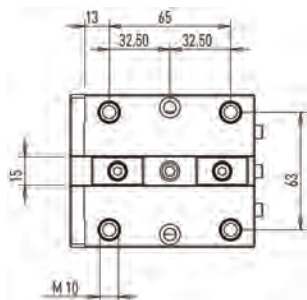
BIGLIA

MODELOS

B301-B445-B470-B501 (Y-S)
 B510-B545-B550-B565-B650
 B658-B1200-B446-B465-B754
 B765-B750 (16)-B1250(16)

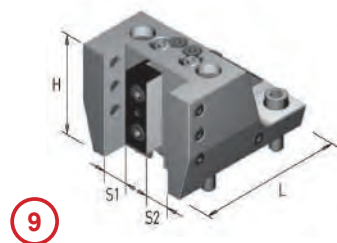
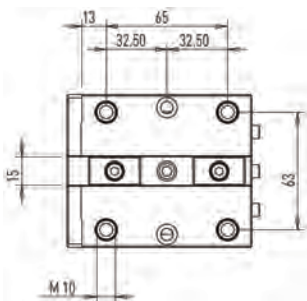


REFERENCIA	BIGLIA	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEB6D40	10.57.76.00	20X20	76	139	X	✓



12

REFERENCIA	BIGLIA	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEB6B32	/	ISCAR32	79	116	✓	✓

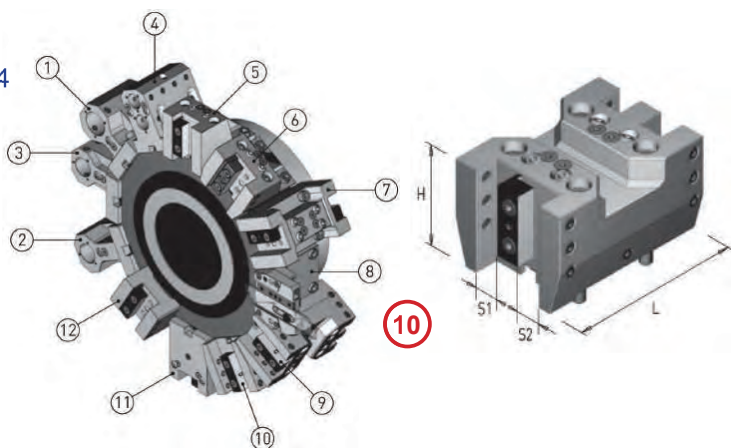
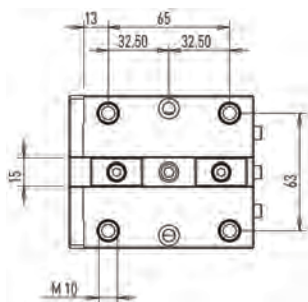


REFERENCIA	BIGLIA	S1	S2	H	L	REFRIGERACIÓN	
						INTERNA	EXTERNA
TOEB6V20D	41.03.25.00	20X20	20X20	79	116	X	✓

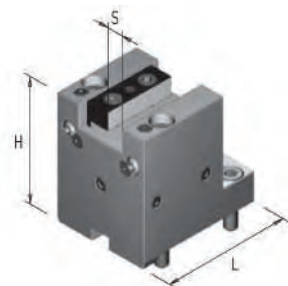
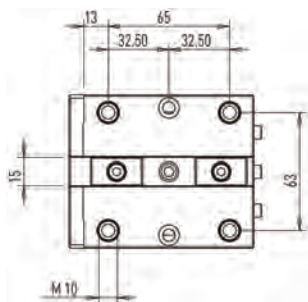
BIGLIA

MODELOS

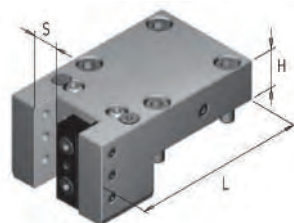
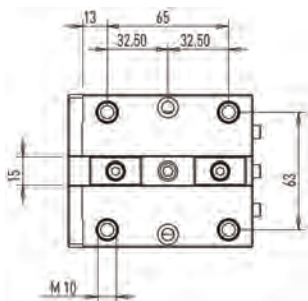
B301-B445-B470-B501 (Y-S)
 B510-B545-B550-B565-B650
 B658-B1200-B446-B465-B754
 B765-B750 (16)-B1250(16)



REFERENCIA	BIGLIA	S1	S2	H	L	REFRIGERACIÓN	
						INTERNA	EXTERNA
TOEB6D20Q	/	20X20	20X20	81	140	X	✓

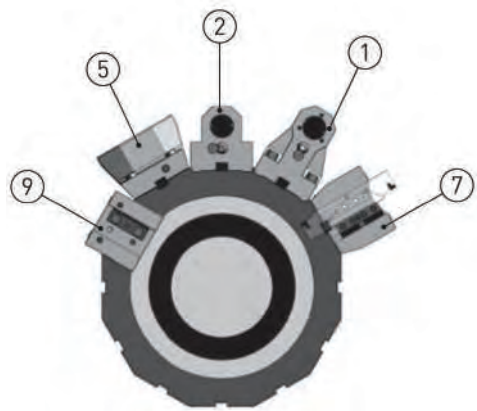
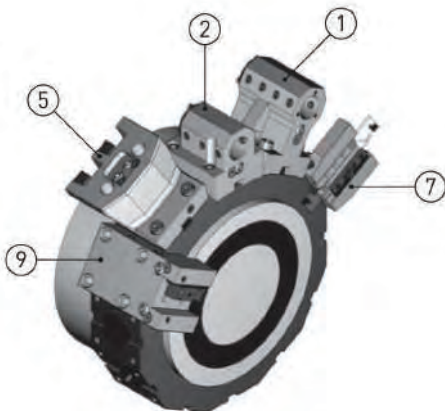
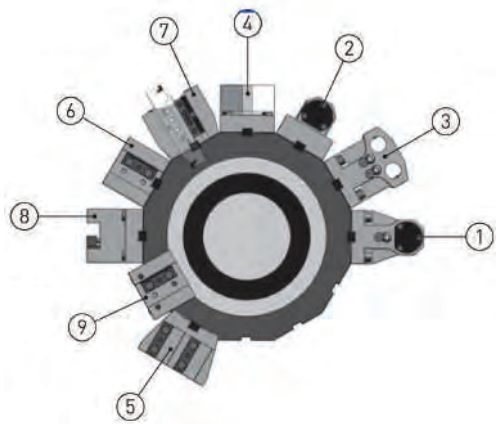
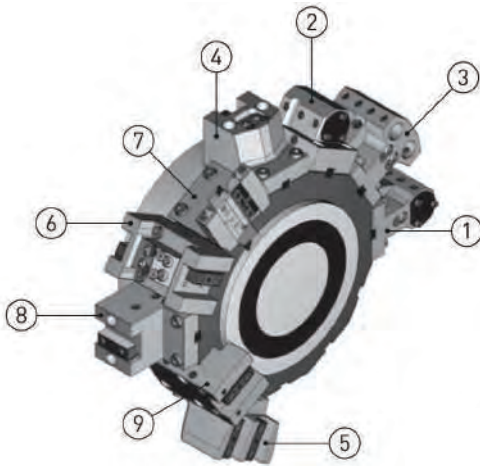
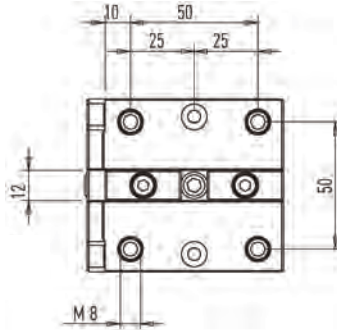


REFERENCIA	BIGLIA	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEB6C40	41.03.19.00	20X20	100	104	X	✓

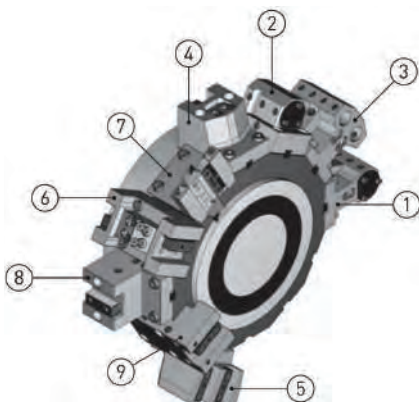
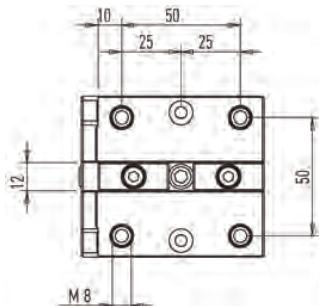


REFERENCIA	BIGLIA	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEB6V40L	/	20X20	32	40	X	✓

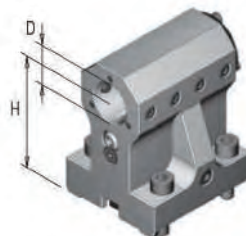
BIGLIA
MODELOS
B436 Y2



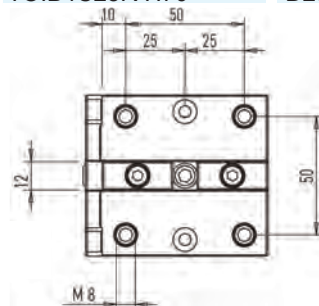
BIGLIA
MODELOS
B436 Y2



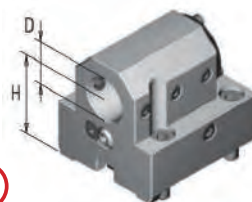
1



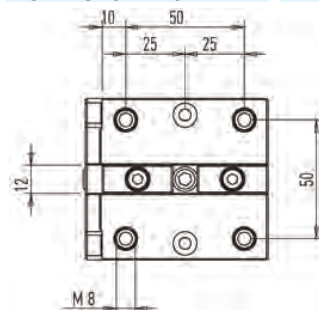
REFERENCIA	BIGLIA	D	H	REFRIGERACIÓN	
				INTERNA	EXTERNA
TOIB4C20H70	0088-00003	20	70	X	✓
TOIB4C20RH70	0088-00003	20	70	✓	✓
TOIB4C25H70	D25.0088-00003	25	70	X	✓
TOIB4C25R H70	D25.0088-00003	25	70	✓	✓



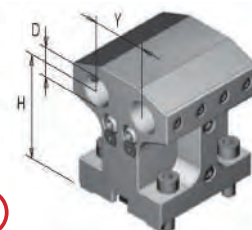
2



REFERENCIA	BIGLIA	D	H	REFRIGERACIÓN	
				INTERNA	EXTERNA
TOIB4C20H45	0088-00019	20	45	X	✓
TOIB4C20RH45	0088-00019	20	45	✓	✓
TOIB4C25H45	D25.0088-00019	25	45	X	✓
TOIB4C25RH45	D25.0088-00019	25	45	✓	✓

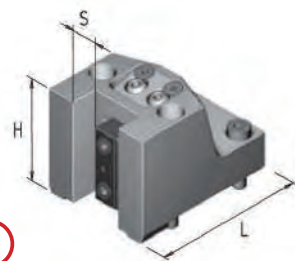
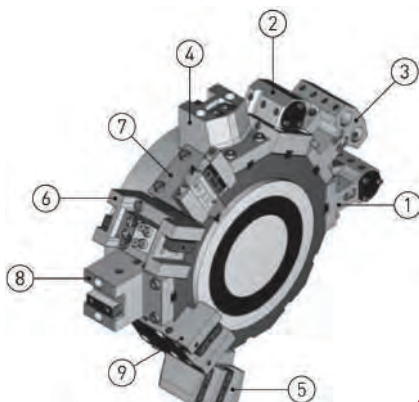
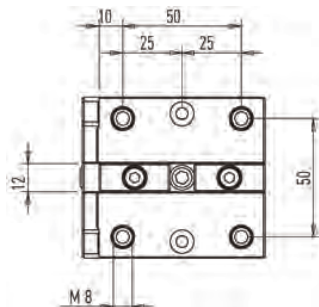


3



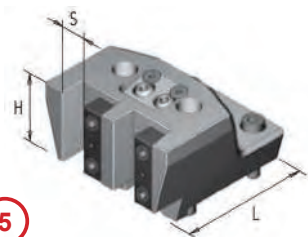
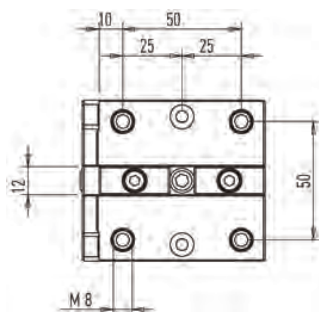
REFERENCIA	BIGLIA	D	H	Y	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOIB4D20Y38	0088-00010	20	70	38	X	✓

BIGLIA
MODELOS
B436 Y2



4

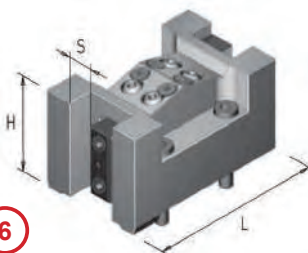
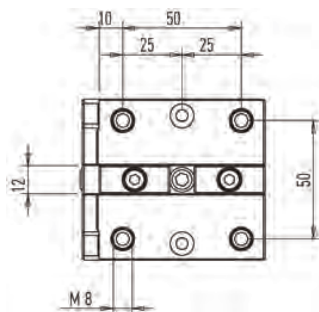
REFERENCIA	BIGLIA	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEB4V32	0088-00004	16X16	60	90	X	✓



5

12

REFERENCIA	BIGLIA	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEB4V16D	0088-00011	16X16	60	100	X	✓



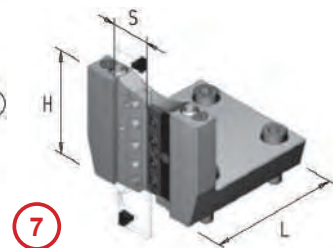
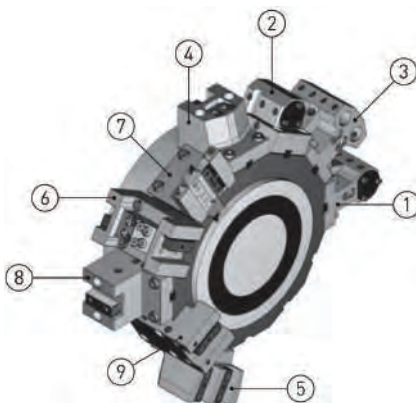
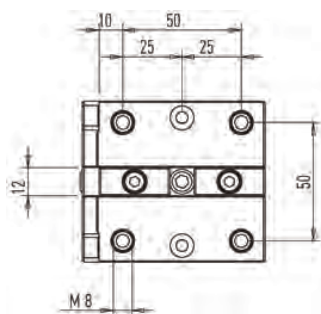
6

REFERENCIA	BIGLIA	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEB4D32	0088-00005	16X16	60	110	X	✓

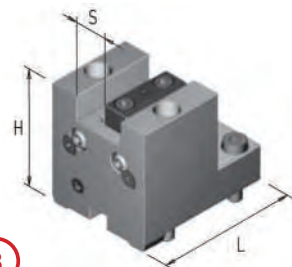
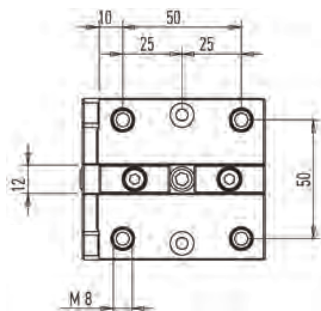
BIGLIA

MODELOS

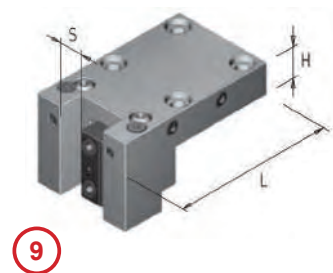
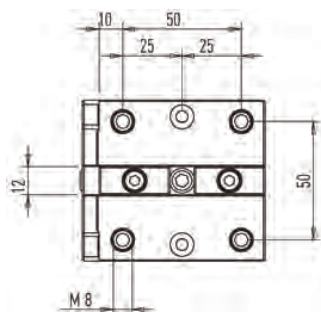
B436 Y2



REFERENCIA	BIGLIA	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEB4B26B	/	ISCAR26	66	82	X	✓



REFERENCIA	BIGLIA	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEB4C32	0088-00014	16X16	70	85	X	✓

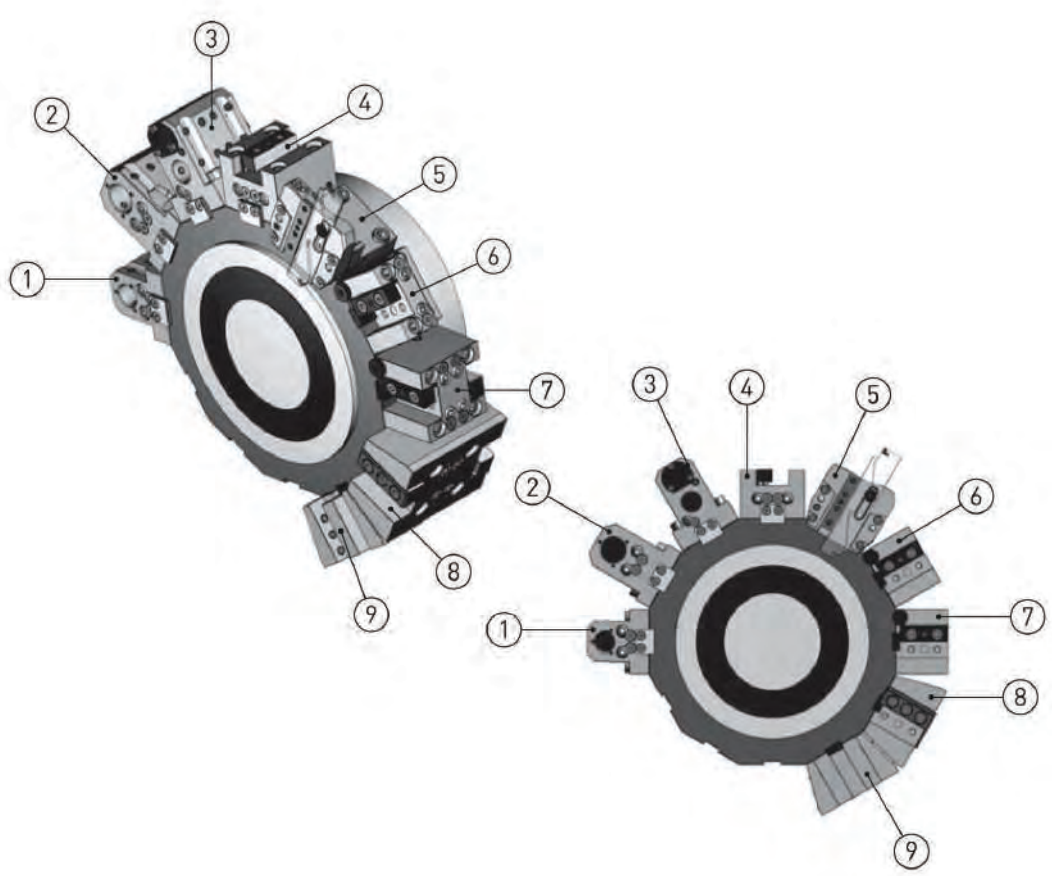
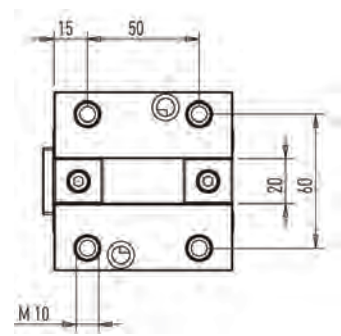


REFERENCIA	BIGLIA	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEB4V32L	0088-00006	16X16	22	110	X	✓

NAKAMURA - WT 150

MODELOS WT 20II (M,MY)
 WT 150/250 TW 10
 WTW 150 SUPER NTJ/NTM3
 WTS 150 SC 150/250

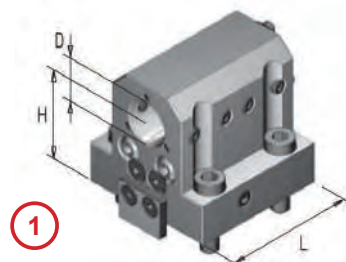
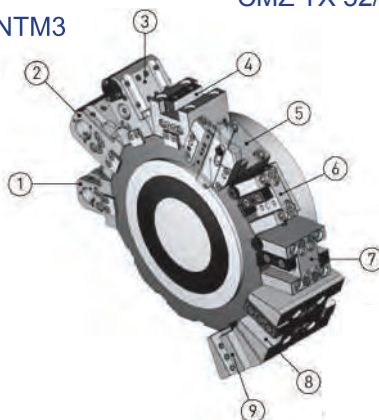
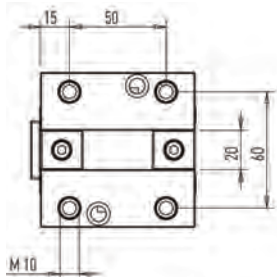
MODELOS COMPATIBLES:
 CMZ TX 52/66



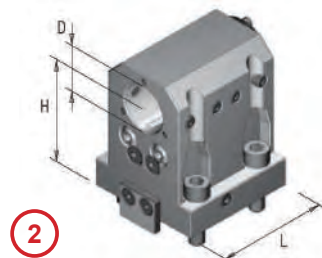
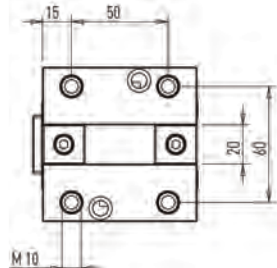
NAKAMURA - WT 150

MODELOS WT 20II (M,MY)
 WT 150/250 TW 10
 WTW 150 SUPER NTJ/NTM3
 WTS 150 SC 150/250

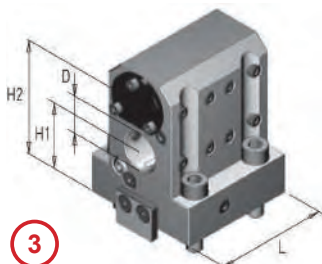
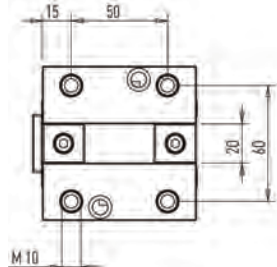
MODELOS COMPATIBLES:
 CMZ TX 52/66



REFERENCIA	NAKAMURA	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOIN4C25H55	/	25	55	80	X	✓
TOIN4C25RH55	/	25	55	80	✓	✓



REFERENCIA	NAKAMURA	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOIN4C32H75	/	32	75	80	X	✓
TOIN4C32RH75	/	32	75	80	✓	✓
TOIN4C40H75	/	40	75	80	X	✓
TOIN4C40RH75	/	40	75	80	✓	✓

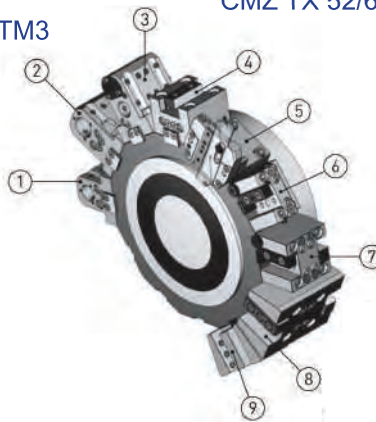
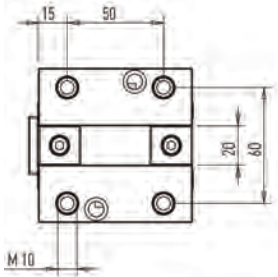


REFERENCIA	NAKAMURA	D	H1	H	L	REFRIGERACIÓN	
						INTERNA	EXTERNA
TOIN4D25	/	25	47.5	82.5	80	X	✓
TOIN4D25R	/	25	47.5	82.5	80	✓	✓

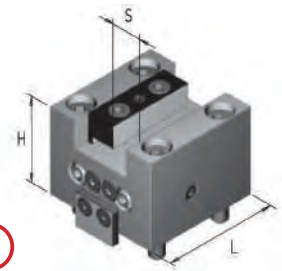
NAKAMURA - WT 150

MODELOS WT 20II (M,MY)
 WT 150/250 TW 10
 WTW 150 SUPER NTJ/NTM3
 WTS 150 SC 150/250

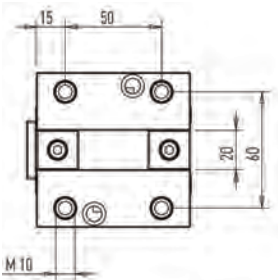
MODELOS COMPATIBLES:
 CMZ TX 52/66



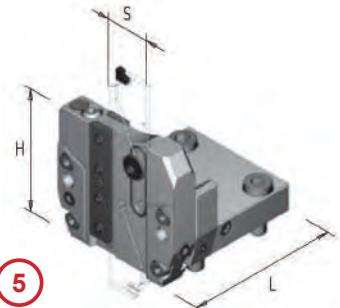
4



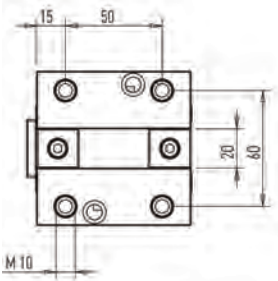
REFERENCIA	NAKAMURA	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEN4C40	/	20X20	60	80	X	✓



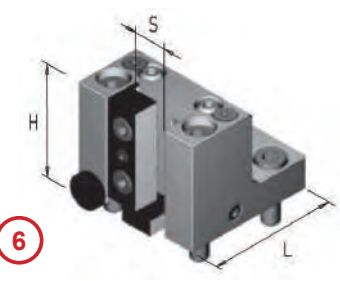
5



REFERENCIA	NAKAMURA	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEN4B32	/	ISCAR32	78	99	✓	✓



6

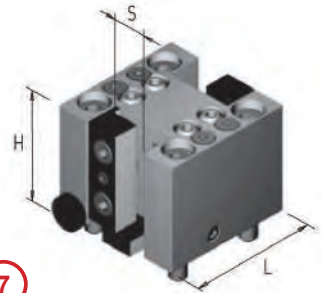
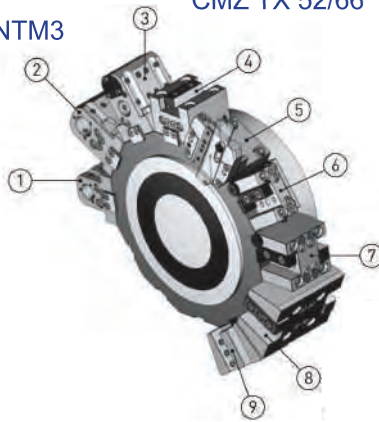
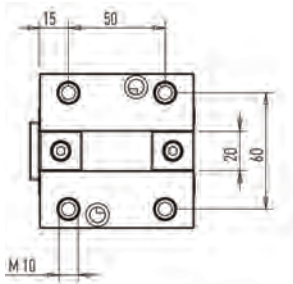


REFERENCIA	NAKAMURA	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEN4V40	/	20X20	65	80	X	✓

NAKAMURA - WT 150

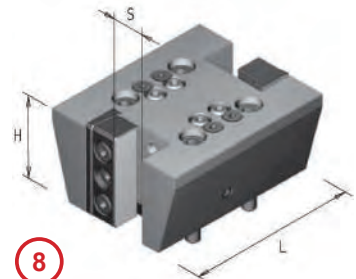
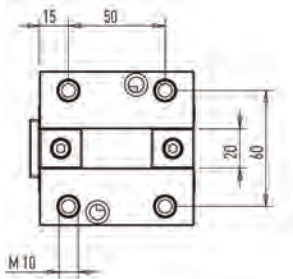
MODELOS WT 20II (M,MY)
 WT 150/250 TW 10
 WTW 150 SUPER NTJ/NTM3
 WTS 150 SC 150/250

MODELOS COMPATIBLES:
 CMZ TX 52/66



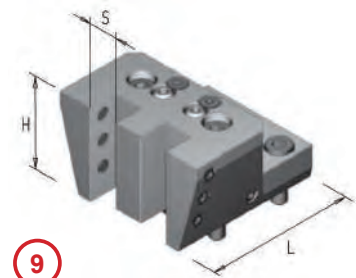
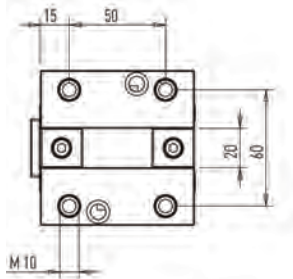
7

REFERENCIA	NAKAMURA	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEN4D40	/	20X20	65	80	X	✓



8

REFERENCIA	NAKAMURA	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEN4D50	/	25X25	65	132	X	✓



9

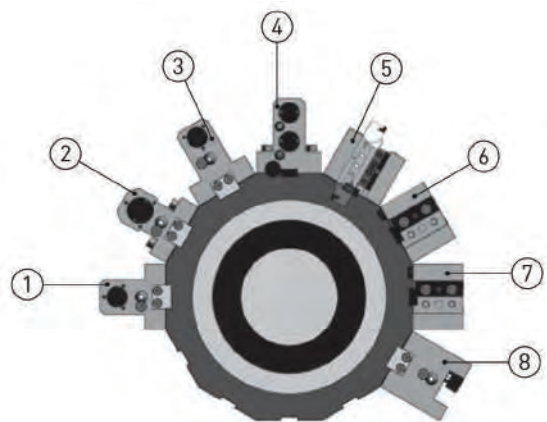
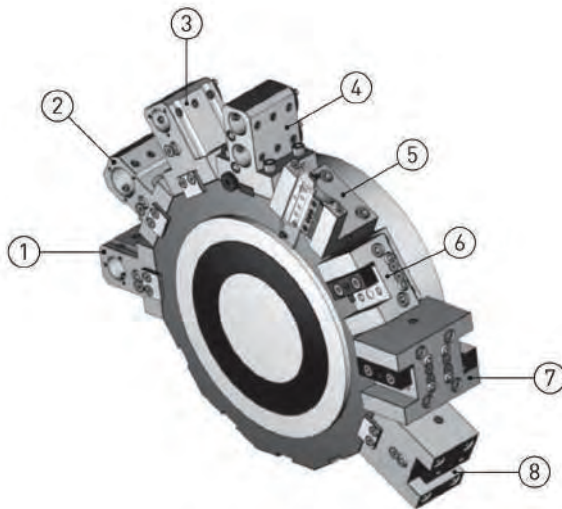
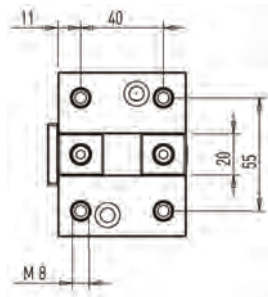
REFERENCIA	NAKAMURA	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEN4V20D	/	20X20	65	106	X	✓

NAKAMURA - WT 100

MODELOS

WT 100 - WY 100

NTY 3 - NTJ100

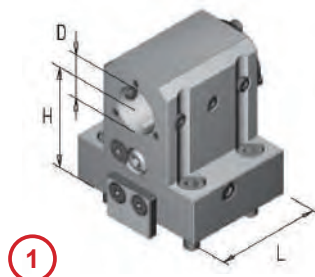
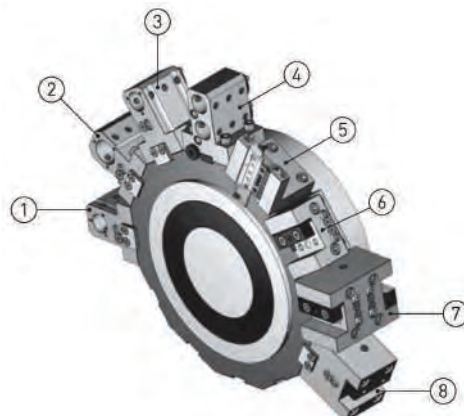
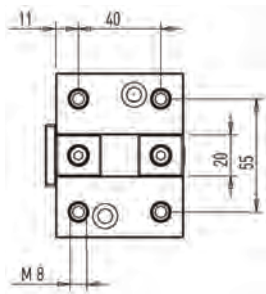


NAKAMURA - WT 100

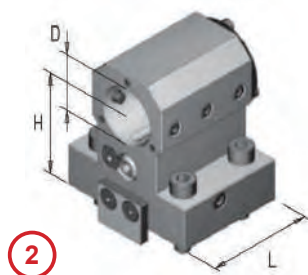
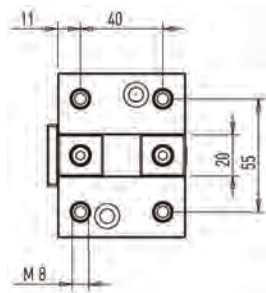
MODELOS

WT 100 - WY 100

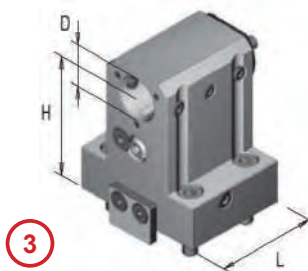
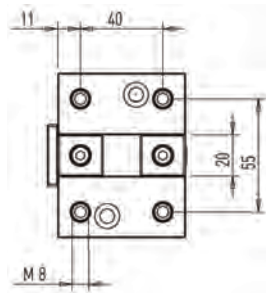
NTY 3 - NTJ100



REFERENCIA	NAKAMURA	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOIN3C25H60	/	25	60	62	X	✓
TOIN3C25RH60	/	25	60	62	✓	✓



REFERENCIA	NAKAMURA	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOIN3C32H60	/	32	60	62	X	✓
TOIN3C32RH60	/	32	60	62	✓	✓



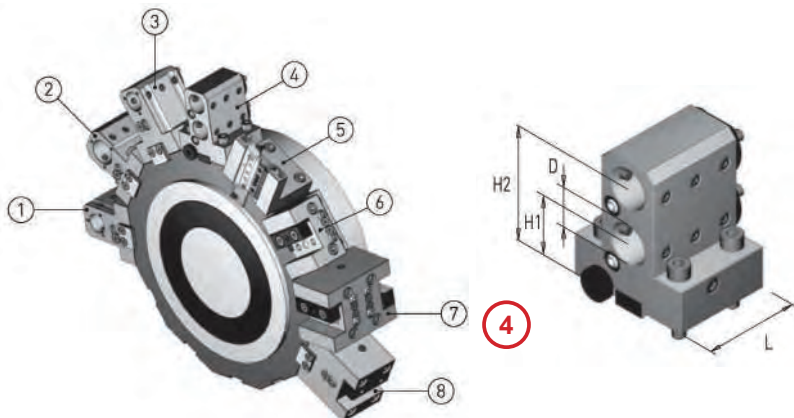
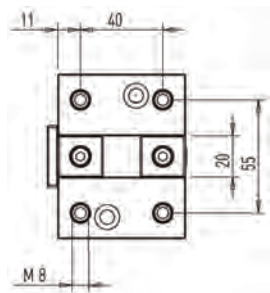
REFERENCIA	NAKAMURA	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOIN3C25H75	/	25	75	62	X	✓
TOIN3C25RH75	/	25	75	62	✓	✓

NAKAMURA - WT 100

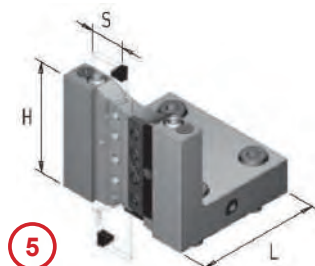
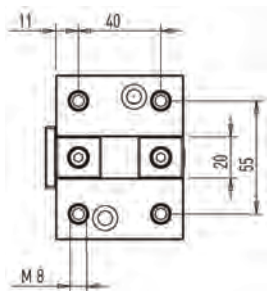
MODELOS

WT 100 - WY 100

NTY 3 - NTJ100

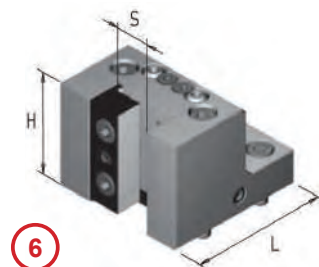
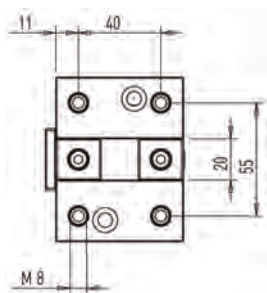


REFERENCIA	NAKAMURA	D	H1	H2	L	REFRIGERACIÓN	
						INTERNA	EXTERNA
TOIN3D25	/	25	39	75	62	✓	✓



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REFERENCIA	NAKAMURA	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEN3B26B	/	ISCAR26	66	73	X	✓



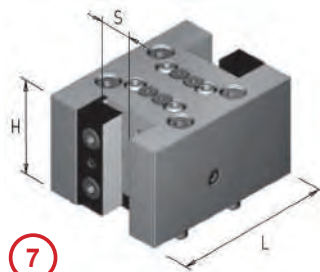
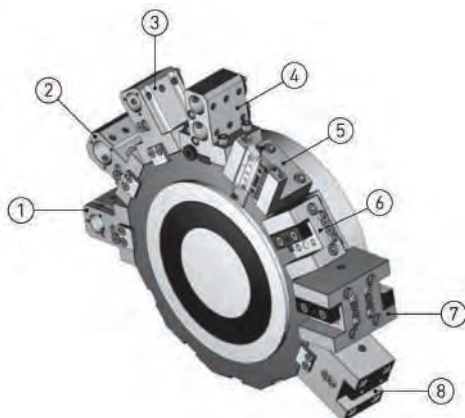
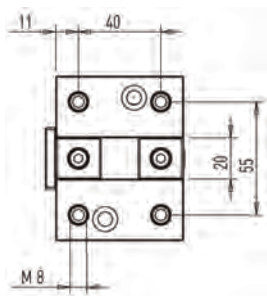
REFERENCIA	NAKAMURA	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEN3V40	/	20X20	62	83	X	✓

NAKAMURA - WT 100

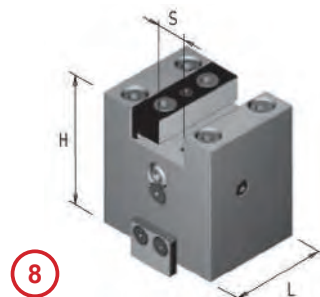
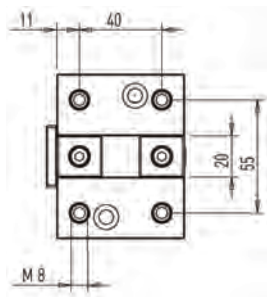
MODELOS

WT 100 - WY 100

NTY 3 - NTJ100



REFERENCIA	NAKAMURA	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEN3D40	/	20X20	62	104	X	✓



REFERENCIA	NAKAMURA	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEN3C40	/	20X20	85	62	X	✓



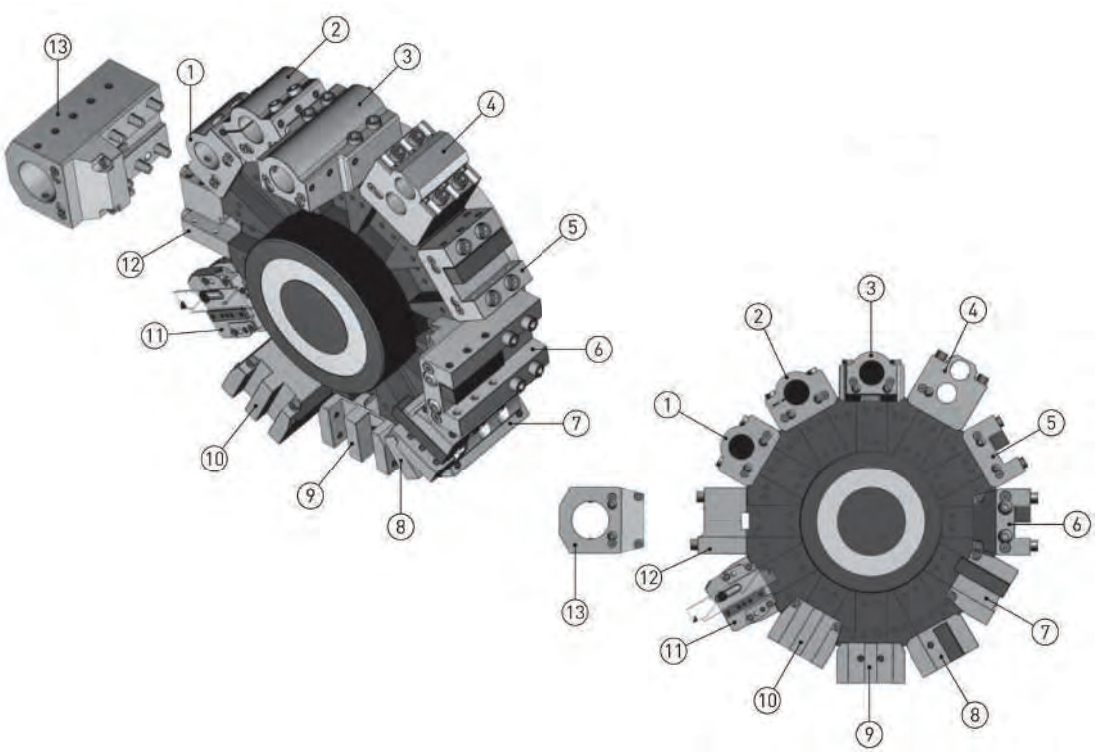
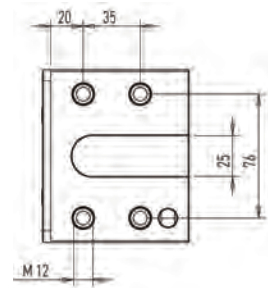
CMZ

MODELOS

- TBI 520
- TL 20/25
- TC 15/20/25/30/35

MODELOS

- TA15M/Y/MS/MY/YS - TA 20M/Y/MS/MY/YS
- TA 25M/Y/MS/MY/YS - TA 30M/Y/MS/MY/YS



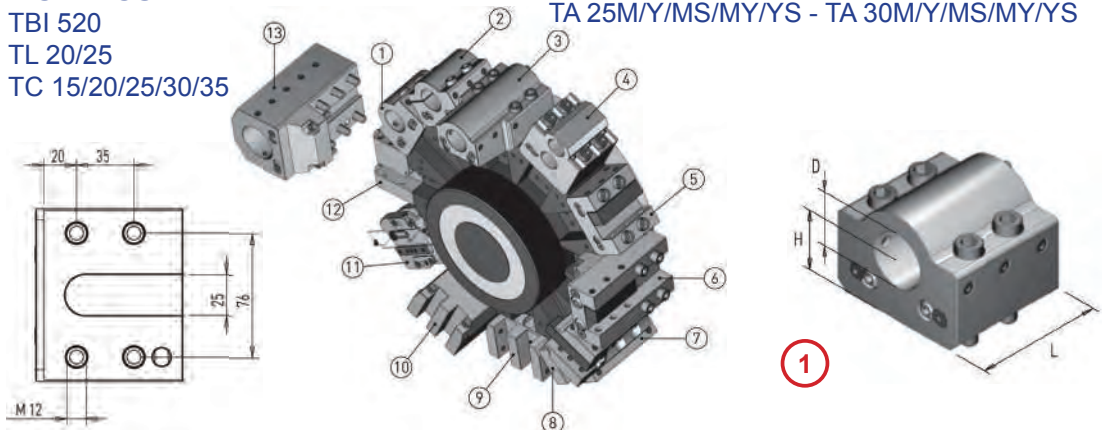
CMZ

MODELOS

TBI 520
TL 20/25
TC 15/20/25/30/35

MODELOS

TA15M/Y/MS/MY/YS - TA 20M/Y/MS/MY/YS
TA 25M/Y/MS/MY/YS - TA 30M/Y/MS/MY/YS



REFERENCIA	CMZ	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOIC6C40	TL20/10000/09	40	40	90	X	✓
TOIC6C40R	TL20/10000/12	40	40	90	✓	✓
TOIC6C50	TL20/10000/40	50	40	90	X	✓
TOIC6C50R	TL20/10000/40	50	40	90	✓	✓

12



REFERENCIA	CMZ	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOIC6C40B	/	40	40	90	X	✓



REFERENCIA	CMZ	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOIC6L40	TL20/10000/10	40	40	160	X	✓
TOIC6L40R	TL20/10000/10	40	40	160	✓	✓
TOIC6L50	TL20/10000/39	50	40	160	X	✓
TOIC6L50R	TL20/10000/39	50	40	160	✓	✓

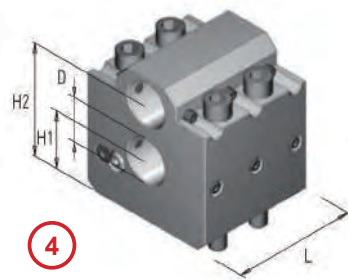
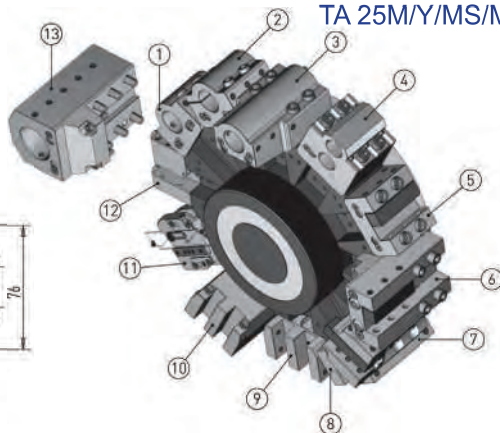
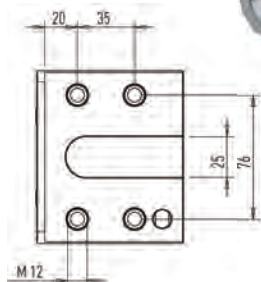
CMZ

MODELOS

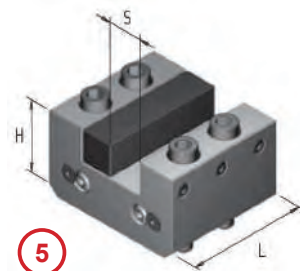
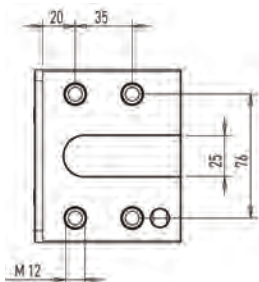
TBI 520
TL 20/25
TC 15/20/25/30/35

MODELOS

TA 15M/Y/MS/MY/YS - TA 20M/Y/MS/MY/YS
TA 25M/Y/MS/MY/YS - TA 30M/Y/MS/MY/YS

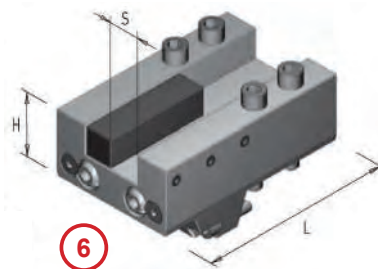
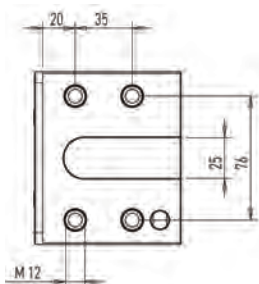


REFERENCIA	CMZ	D	H1	H2	L	REFRIGERACIÓN	
						INTERNA	EXTERNA
TOIC6D32	TL20/10000/11	32	40	82	88	X	✓



12

REFERENCIA	CMZ	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEC6C50	TL20/10000/08	25X25	50	90	X	✓
TOEC6L50	/	25X25	60	160	X	✓



REFERENCIA	CMZ	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEC8L50	TC35/10000/57	25X25	55	165	X	✓

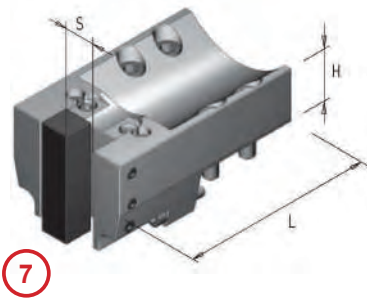
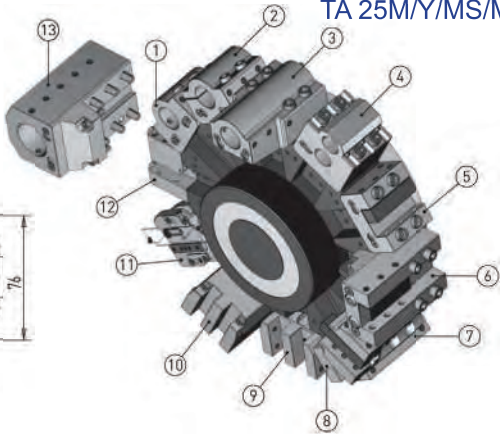
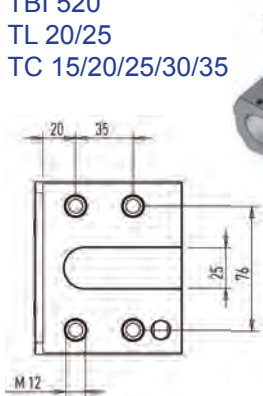
CMZ

MODELOS

TBI 520
TL 20/25
TC 15/20/25/30/35

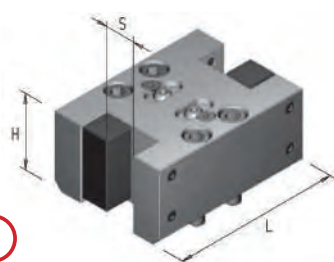
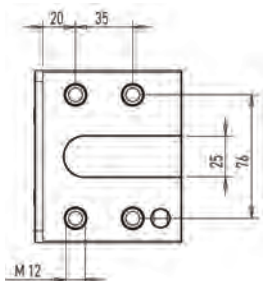
MODELOS

TA15M/Y/MS/MY/YS - TA 20M/Y/MS/MY/YS
TA 25M/Y/MS/MY/YS - TA 30M/Y/MS/MY/YS

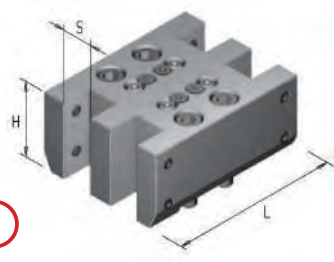
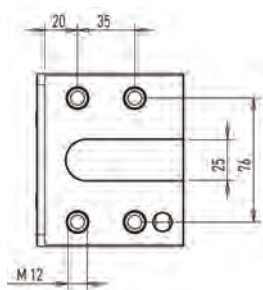


REFERENCIA	CMZ	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEC6V50	TL20/10000/06	25X25	44	130	X	✓
TOEC6V50L	TL20/10000/45	25X25	44	165	X	✓

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REFERENCIA	CMZ	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEC6D50	TL20/10000/07	25X25	60	139	X	✓



REFERENCIA	CMZ	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEC6D20Q	/	20X20	60	139	X	✓
TOEC6D25Q	/	25X25	60	139	X	✓

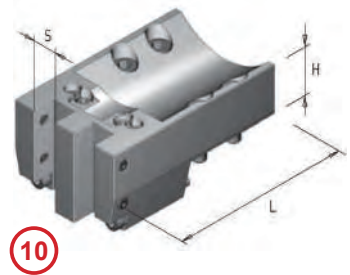
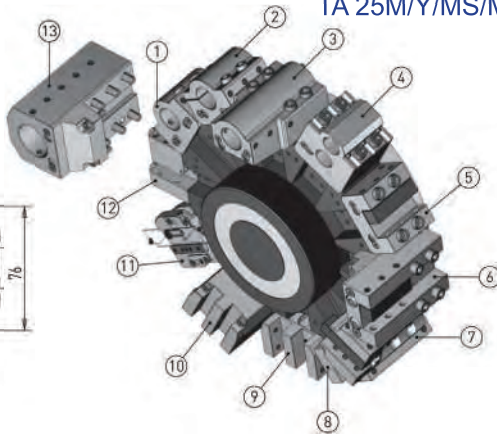
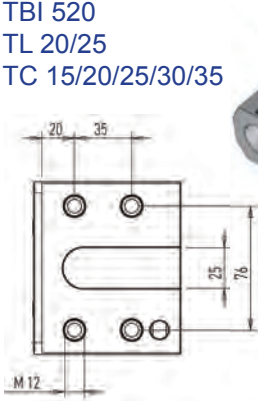
CMZ

MODELOS

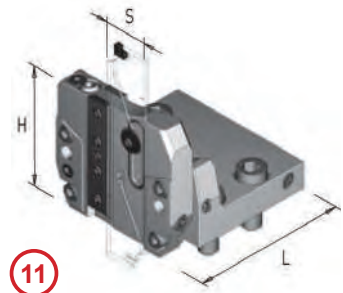
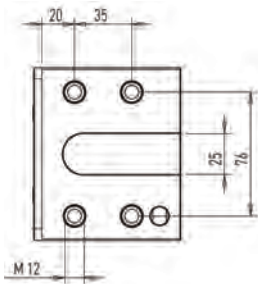
TBI 520
 TL 20/25
 TC 15/20/25/30/35

MODELOS

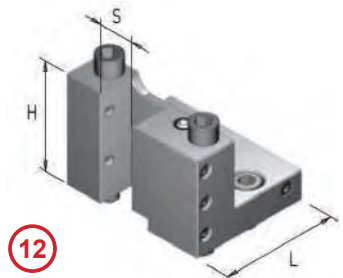
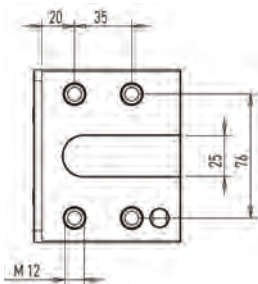
TA 15M/Y/MS/MY/YS - TA 20M/Y/MS/MY/YS
 TA 25M/Y/MS/MY/YS - TA 30M/Y/MS/MY/YS



REFERENCIA	CMZ	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEC6V20D	/	20X20	44	165	X	✓



REFERENCIA	CMZ	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEC6B32	TL20/10000/44	ISCAR32	80	103	✓	✓



REFERENCIA	CMZ	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEC6B25	TL20/10000/13	25X25	78	85	X	✓

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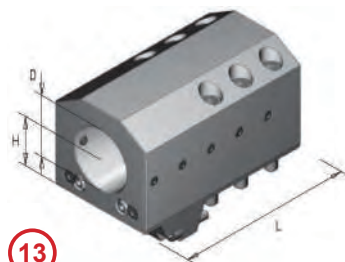
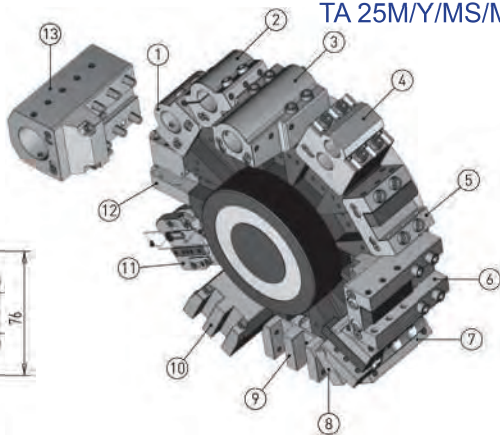
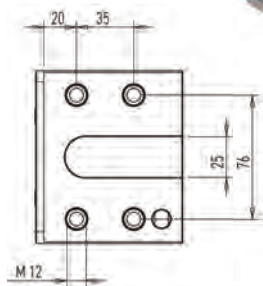
CMZ

MODELOS

TBI 520
 TL 20/25
 TC 15/20/25/30/35

MODELOS

TA15M/Y/MS/MY/YS - TA 20M/Y/MS/MY/YS
 TA 25M/Y/MS/MY/YS - TA 30M/Y/MS/MY/YS



13

REFERENCIA	CMZ	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOIC8L60	T35/10000/54	60	50	180	✓	✓



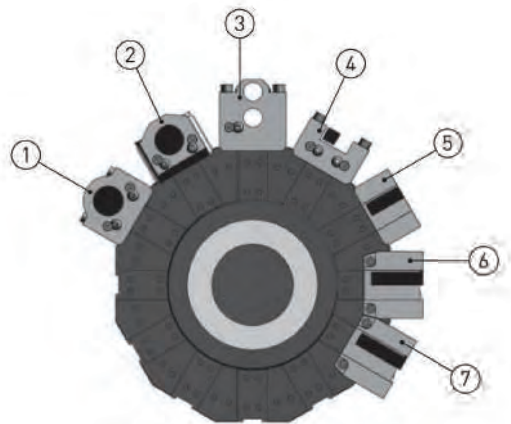
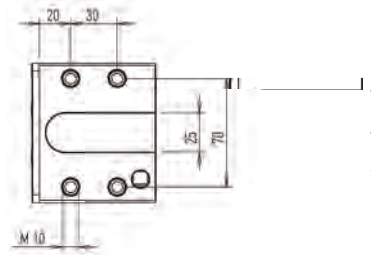
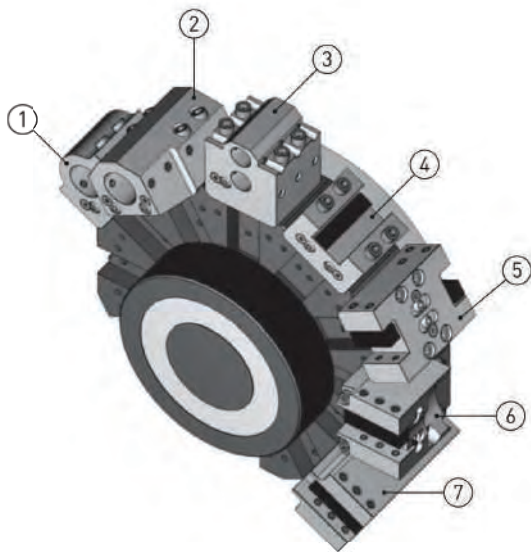
CMZ

MODELOS

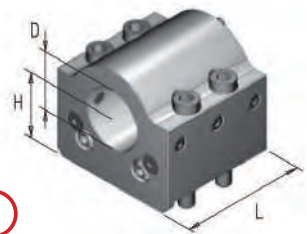
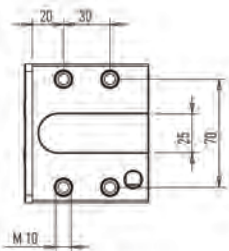
TL 15T/M/TM/S/MS
TB46/67 M/CM

MODELOS COMPATIBLES:

MIYANO ABX 51/64 THY/SYY



12



REFERENCIA	CMZ	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOIC3C40	TL15/10000/09	40	40	80	X	✓
TOIC3C40R	TL15/10000/12	40	40	80	✓	✓

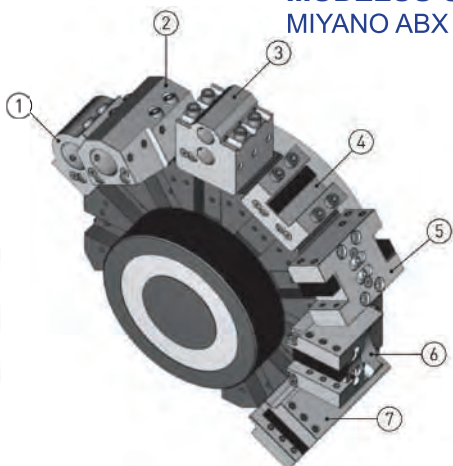
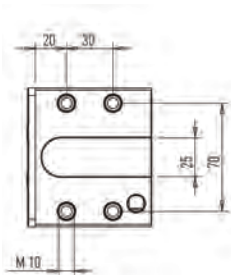
CMZ

MODELOS

TL 15T/M/TM/S/MS
TB46/67 M/CM

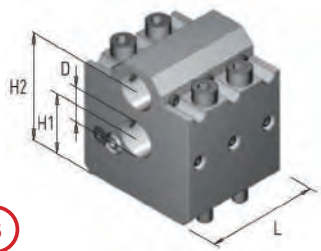
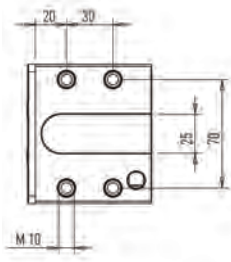
MODELOS COMPATIBLES:

MIYANO ABX 51/64 THY/SYY



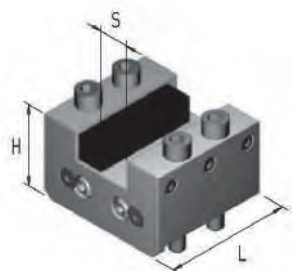
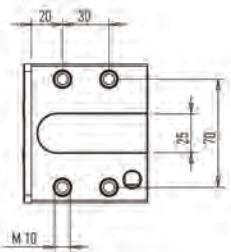
2

REFERENCIA	CMZ	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOIC3L40	TL15/10000/38	40	40	135	X	✓
TOIC3L40R	TL15/10000/38	40	40	135	✓	✓



3

REFERENCIA	CMZ	D	H1	H2	L	REFRIGERACIÓN	
						INTERNA	EXTERNA
TOIC3D25	TL15/10000/11	25	40	75	79	X	✓



4

REFERENCIA	CMZ	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEC3C40	TL15/10000/08	20x20	50	80	X	✓

12

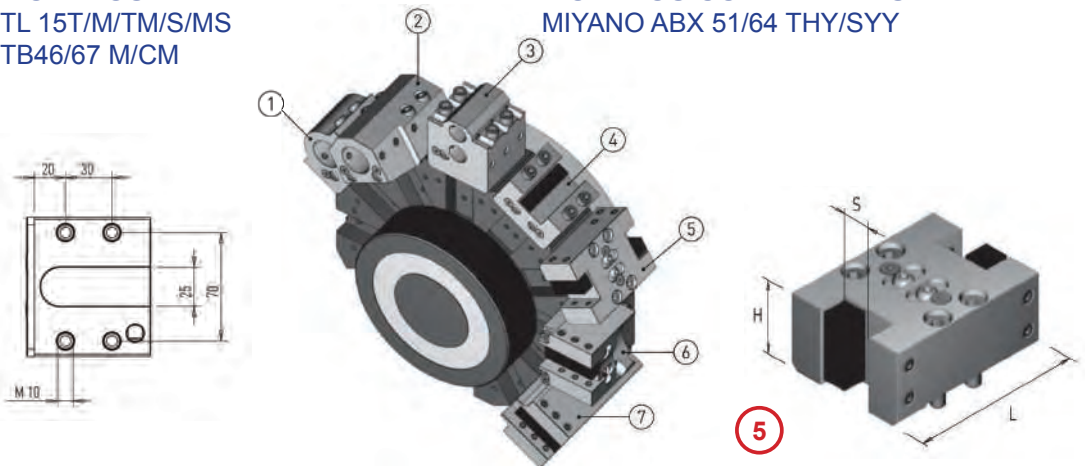
CMZ

MODELOS

TL 15T/M/TM/S/MS
TB46/67 M/CM

MODELOS COMPATIBLES:

MIYANO ABX 51/64 THY/SYY



REFERENCIA	CMZ	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEC3D40	TL15/10000/07	20X20	50	120	X	✓



REFERENCIA	CMZ	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEC3T40	TL15/10000/06	20X20	44	120	X	✓



REFERENCIA	CMZ	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEC3V40	TL15/10000/45	20x20	44	155	X	✓

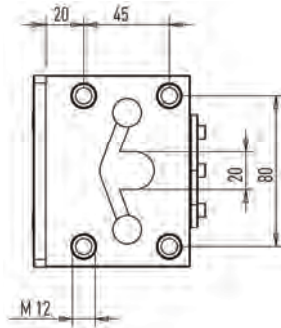
HAAS

MODELOS

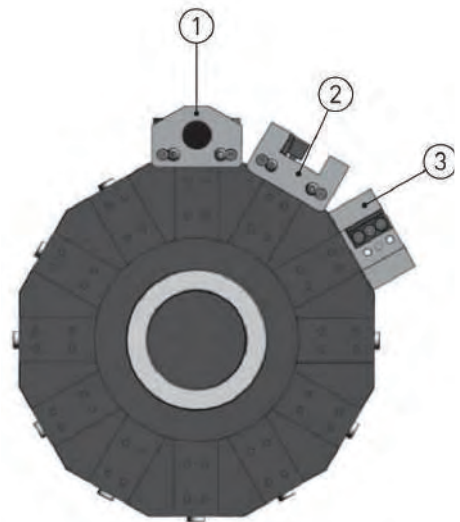
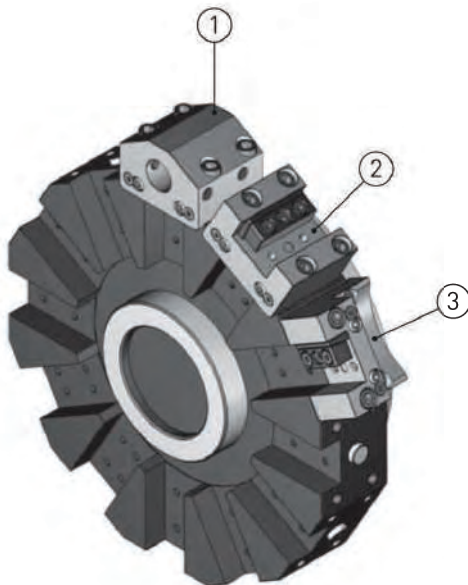
SL20/SL30
ST20/ST25/ST30

MODELOS COMPATIBLES:

OKUMA LB15/25/300



12



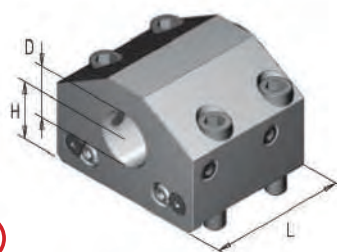
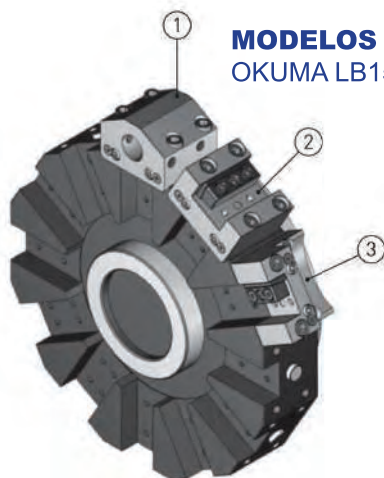
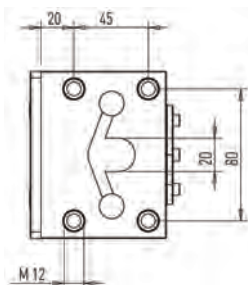
HAAS

MODELOS

SL20/SL30
ST20/ST25/ST30

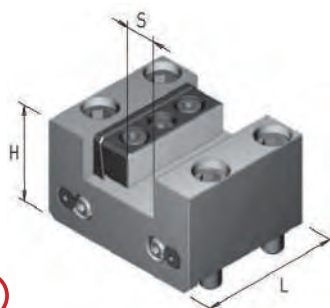
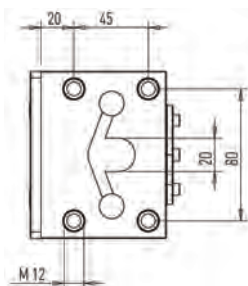
MODELOS COMPATIBLES:

OKUMA LB15/25/300



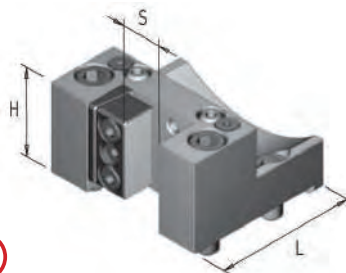
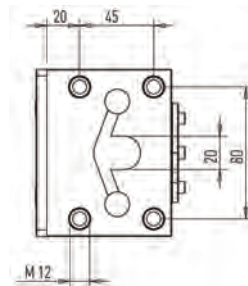
1

REFERENCIA	HASS	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOIH6C32	BOT20MID	32	31.75	101.5	X	✓
TOIH6C32R	BOT20MID	32	31.75	101.5	✓	✓
TOIH6C40	BOT20MID	40	31.75	101.5	X	✓
TOIH6C40R	BOT20MID	40	31.75	101.5	✓	✓



2

REFERENCIA	HASS	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEH6C50	BOT20MFG	25X25	56	101.5	X	✓



3

REFERENCIA	HASS	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEH6V50	BOT20MOD	25X25	55	91.5	X	✓

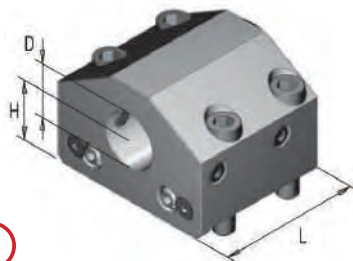
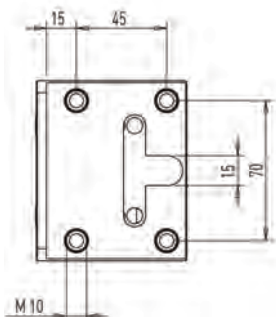
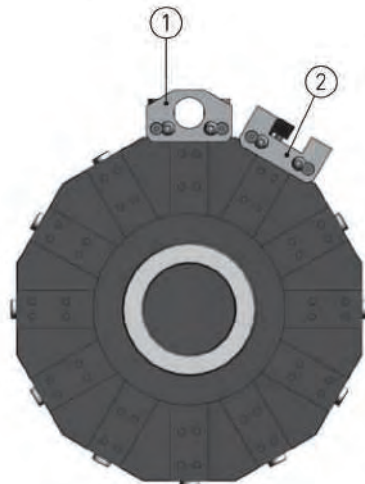
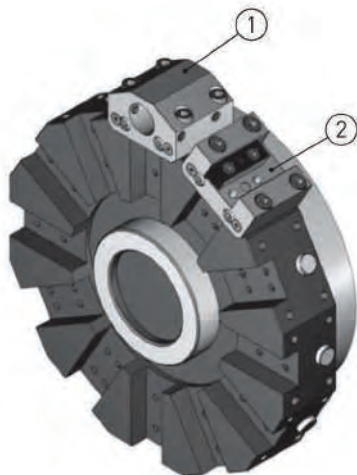
HAAS

MODELOS

SL10
ST10/ST15

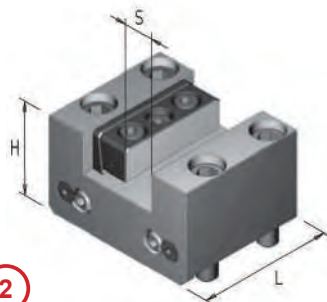
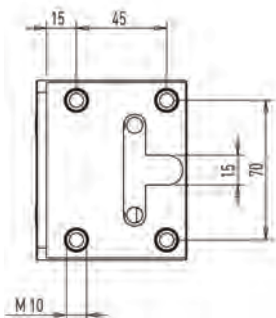
MODELOS COMPATIBLES:

OKUMA LLC 152 S



12

REFERENCIA	HASS	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOIH3C32	BOT10MID-32	32	25.40	75	X	✓
TOIH3C32R	BOT10MID-32	32	25.40	75	✓	✓



REFERENCIA	HASS	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEH3C40	BOT10MFG	20X20	40	75	X	✓

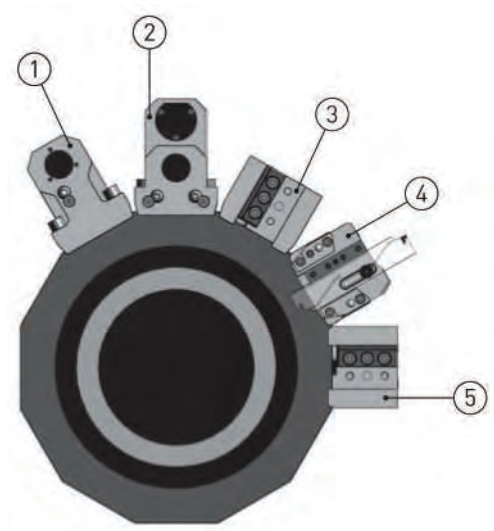
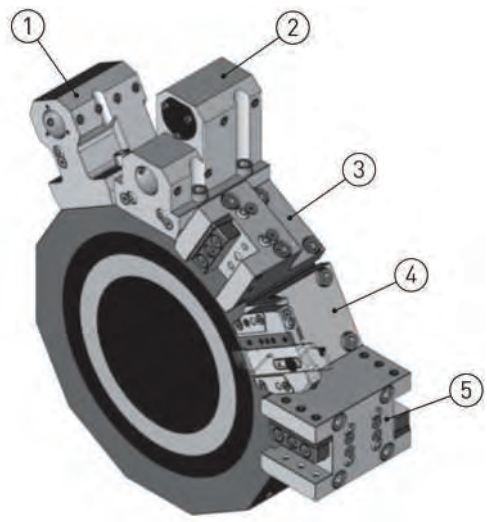
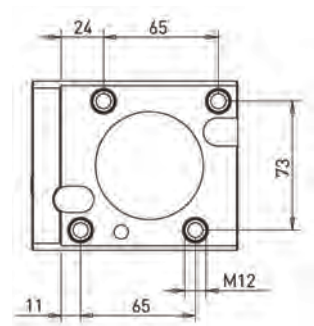
OKUMA

MODELOS

LB2000 EX/LB2500 EX/LB3000 EX (M-MW-MY-MYW)

LU2000 EX/LU2500 EX/LU3000 EX (M-MW-MY)

GENOS L300 (MY-MW-MYW)



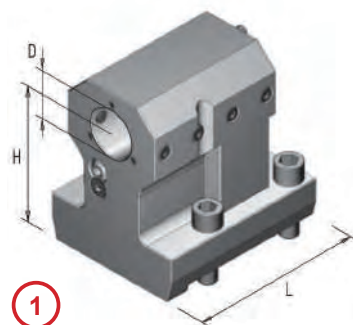
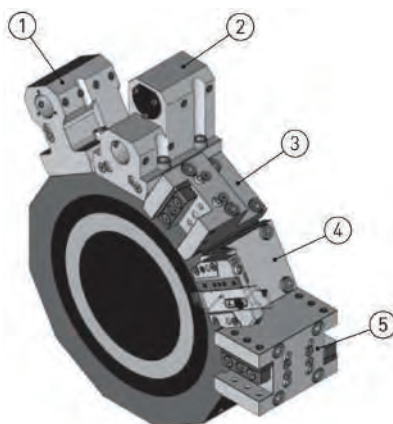
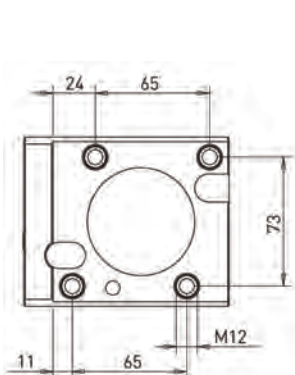
OKUMA

MODELOS

LB2000 EX/LB2500 EX/LB3000 EX (M-MW-MY-MYW)

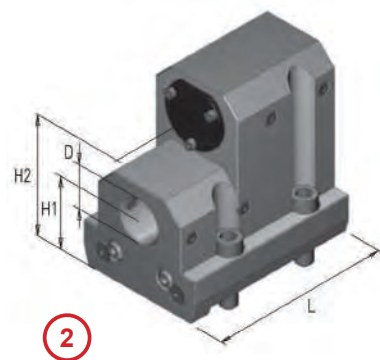
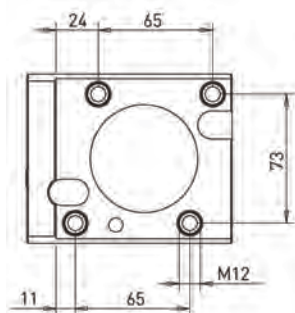
LU2000 EX/LU2500 EX/LU3000 EX (M-MW-MY)

GENOS L300 (MY-MW-MYW)



REFERENCIA	OKUMA	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOIK6C32H90	/	32	90	116	X	✓
TOIK6C32RH90	/	32	90	116	✓	✓
TOIK6C40H90	/	40	90	116	X	✓
TOIK6C40RH90	/	40	90	116	✓	✓

12



REFERENCIA	OKUMA	D	H1	H2	L	REFRIGERACIÓN	
						INTERNA	EXTERNA
TOIK6D32	/	32	50	105	133	X	✓
TOIK6D32R	/	32	50	105	133	✓	✓
TOIK6D40	/	40	50	105	133	X	✓
TOIK6D40R	/	40	50	105	133	✓	✓

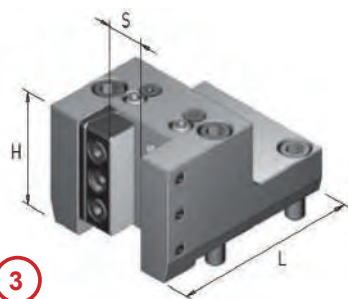
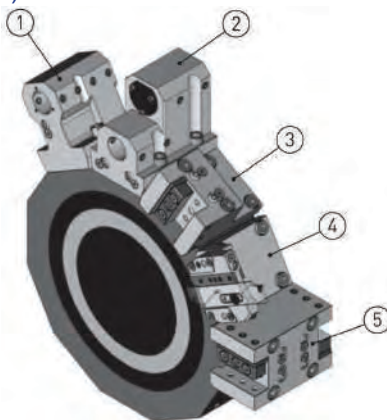
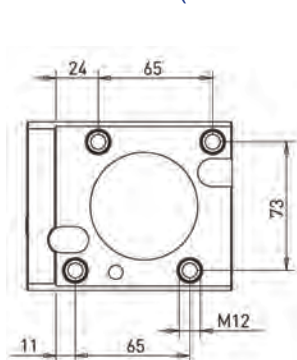
OKUMA

MODELOS

LB2000 EX/LB2500 EX/LB3000 EX (M-MW-MY-MYW)

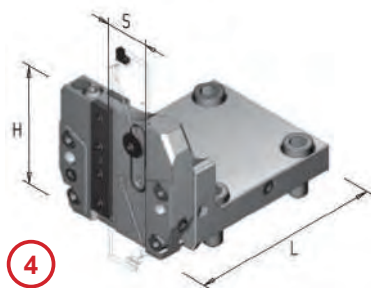
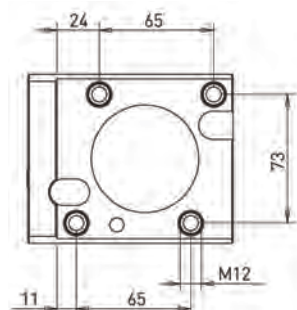
LU2000 EX/LU2500 EX/LU3000 EX (M-MW-MY)

GENOS L300 (MY-MW-MYW)



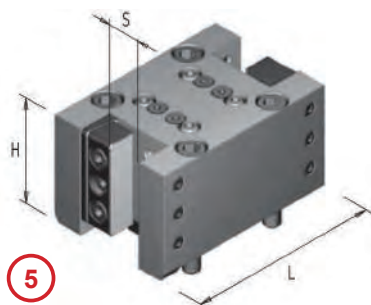
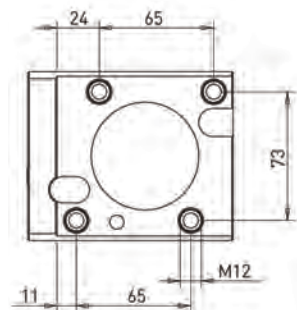
3

REFERENCIA	OKUMA	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEK6V50	/	25X25	75	126	X	✓



4

REFERENCIA	OKUMA	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEK6B32	/	ISCAR32	85	126	✓	✓



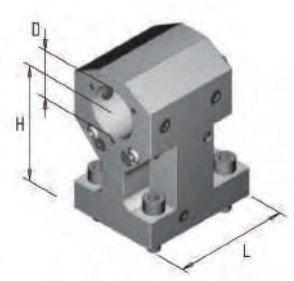
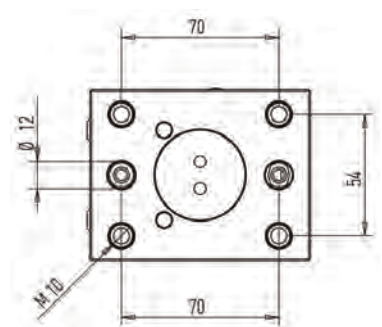
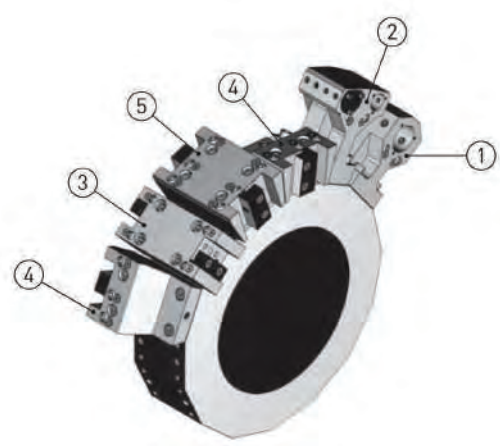
5

REFERENCIA	OKUMA	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEK6D50	/	25X25	75	152	X	✓

MURATEC

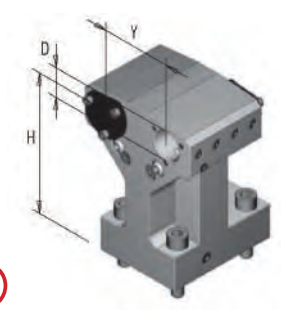
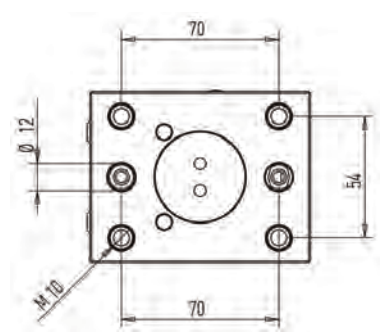
MODELOS

MT 12
MT 200



12

REFERENCIA	MURATEC	D	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOIMU5C40H100	/	40	100	98	✓	✓



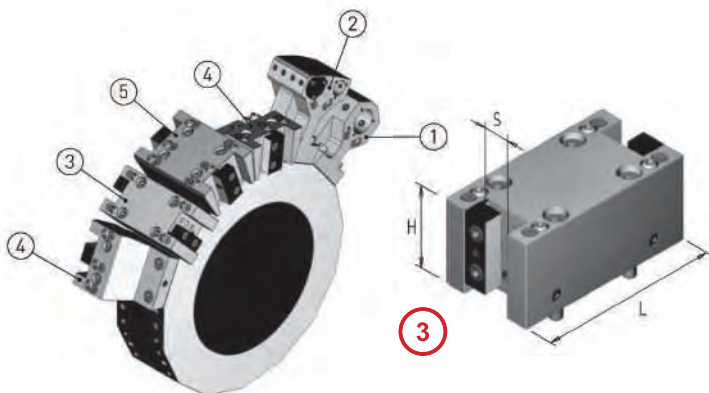
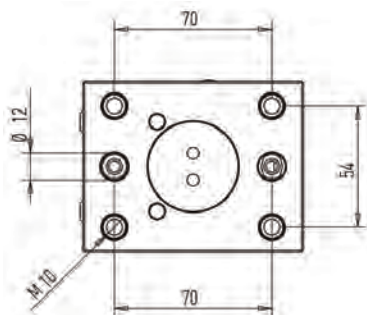
REFERENCIA	MURATEC	D	H	Y	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOIMU5D25Y60	/	25	125	60	✓	✓

MURATEC

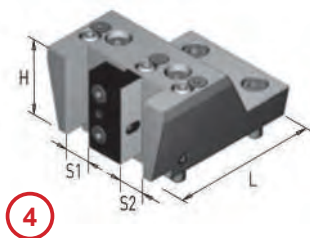
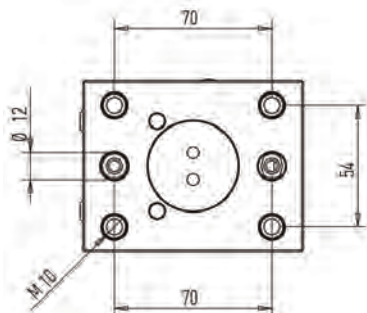
MODELOS

MT 12

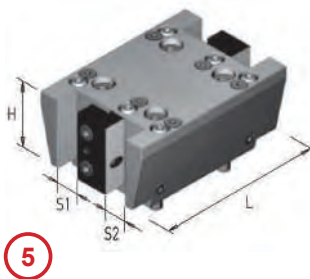
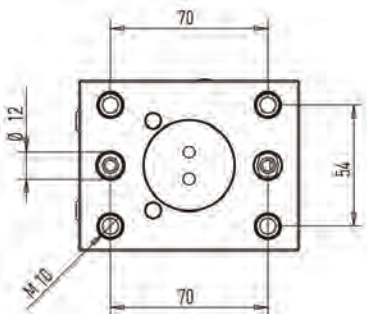
MT 200



REFERENCIA	MURATEC	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEMU5D40	/	20X20	69	150	X	✓



REFERENCIA	MURATEC	S1	S2	H	L	REFRIGERACIÓN	
						INTERNA	EXTERNA
TOEMU5V20D	/	20X20	20X20	69	124	X	✓



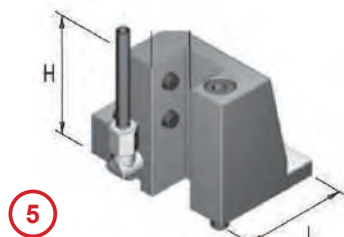
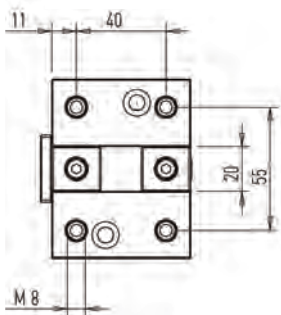
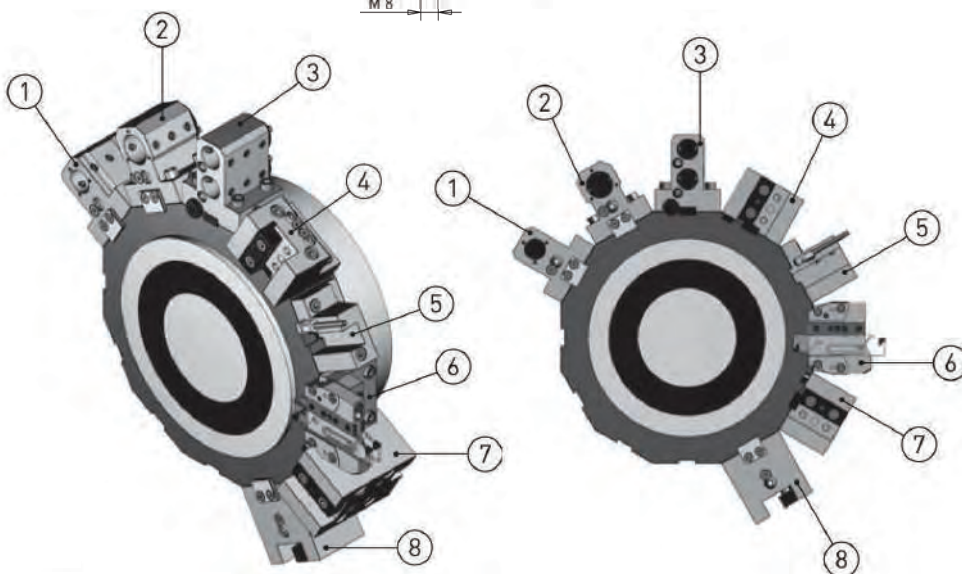
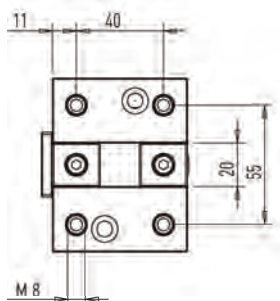
REFERENCIA	MURATEC	S1	S2	H	L	REFRIGERACIÓN	
						INTERNA	EXTERNA
TOEMU5D20Q	/	20X20	20X20	69	150	X	✓

GOODWAY

MODELOS

GLS 150 SERIES

GLS 200 SERIES



REFERENCIA	GOOGWAY	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEG3T20C	/	20X20	63	55	x	✓

Para porta herramientas 1 / 2 / 3 / 4 / 6 / 8 consultar pág. 47 a 50

Portas NAKAMURA tipo: TOIN3... TOEN3...

For toolholder 1 / 2 / 3 / 4 / 6 / 8 see pag. 47-50

NAKAMURA type: TOIN3... TOEN3...

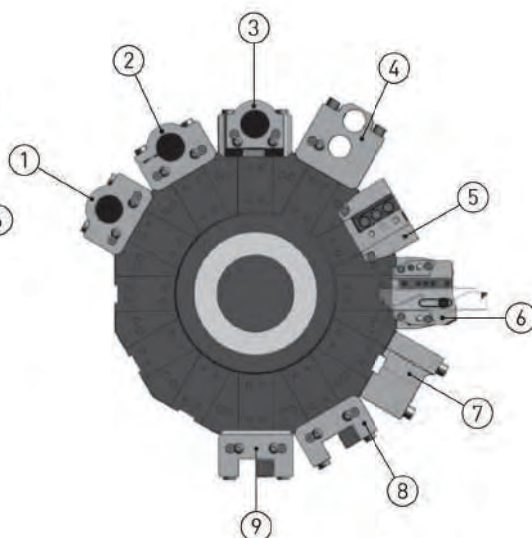
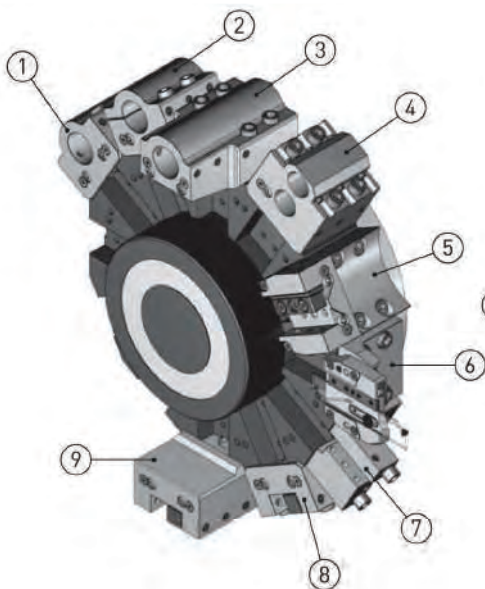
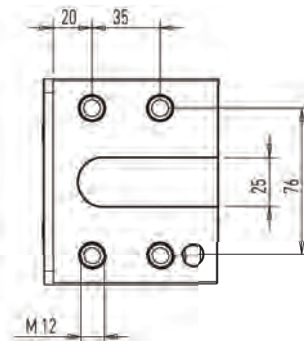
GOODWAY

MODELOS

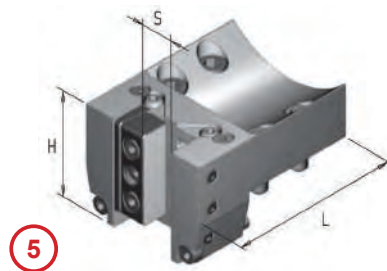
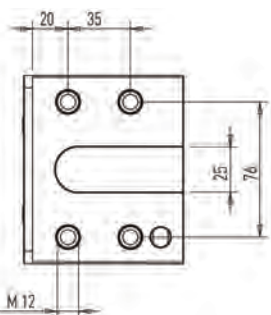
GA 200/260/280

GS 200/230/260/280

GA 2000/2600/2800/3000/3300/3600



12



REFERENCIA	GOOGWAY	S	H	L	REFRIGERACIÓN	
					INTERNA	EXTERNA
TOEG6T50	/	25X25	82	130	x	✓

Para porta herramientas 1 / 2 / 3 / 4 / 6 / 8 / 9 consultar pág. 16 a 19

Portas MORI SEIKI / DMG MORI tipo: TOIM6... TOEM6...

For toolholder 1 / 2 / 3 / 4 / 6 / 8 see pag. 16-19

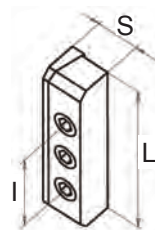
MORI SEIKI / DMG MORI type: TOIM6... TOEM6...

Recambios y Accesorios para P. Herramientas

Bloque de fijación en torreta y Porta herramientas

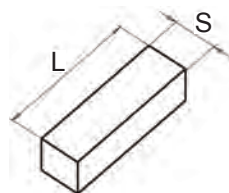
Locking blocks for tool fastening in turrets and toolholders

REFERENCIA	S	L	I	Porta Herramientas
E999005	25	109	50	TOEM6T50 - TOEM6T50L
E999013	25	70	40	TOEM8V50 - TOEM8C50 - TOEM8D50
E999013H	25	48	29	TOIH6C32 - TOIH6C40 - TOIH6C50
E999017	20	63	36	TOEM8V40 - TOEM8C40 - TOEM8D40
E999024	25	64	40	TOED6V50 - TOED6D50
E999026	20	60	32	TOEB6V40 - TOEB6D40 - TOEB6C40 - TOEB6V50L TOEN3V40 - TOEN3D40 - TOEN3C40 TOEN4V40 - TOEN4D40 - TOEN4C40
E999028	16	45	28	TOEB4V32 - TOEB4D32 - TOEB4C32 - TOEB4V32L



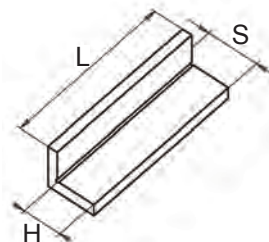
Bloque de fijación en Porta herramientas
Locking blocks for tool fastening in toolholders

REFERENCIA	S	L	Porta Herramientas
E999010	18	50	TOEM3D40 - TOEM8D40
E999009	18	79	TOEM3C40 - TOEM3L40 - TOEM8C40
E999008	24	60	TOEM6D50 - TOEM8D50 - TOEM8V50
E999004	24	90	TOEM6C50 - TOEM6L50 - TOEM6V50 TOEM6V50L - TOEM8V50L



Placa de reducción de 25 a 20
Tool reduction plate from 25 to 20

REFERENCIA	S	L	H
E999021	24.5	19.5	90



Para portaherramientas
For toolholders

REFERENCIA	S	FIG
E999012B	TOID6.D25	2
E999023	TOID6.C40	2

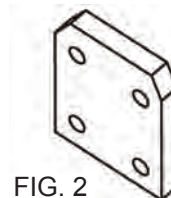
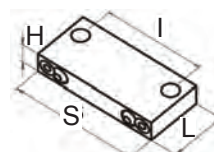


FIG. 2

Bloque para paso refrigerante
Coolant plate

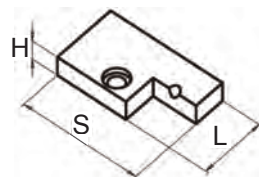
REFERENCIA	REF. HASS	FAM	S	L	H	I
E999018B	CB10	6	88	45	16.5	70



Recambios y Accesorios para P. Herramientas

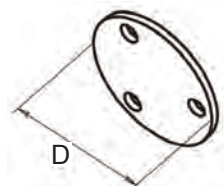
Bloque para desviación del refrigerante
Coolant deviation plate

REFERENCIA	REF. Mori Seiki	FAM	S	L	H
E999018	B52059	6	65	40	12



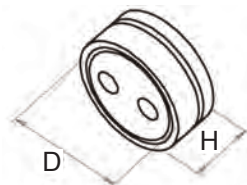
Tapa refrigeración interna
Ring for inner coolant feeding system

REFERENCIA	D	Agujero
E999012	40	25
E999001	48	32
E999002	60	40
E999007	70	50



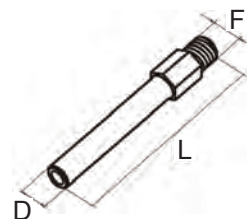
Tapa Porta herramientas
Ring for toolholders

REFERENCIA	D	H
E999016	60	25
E999016B	40	25



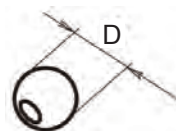
Tubo cobre para refrigerante
Copper coolant pipe

REFERENCIA	D	L	F	R
E999015	6	100	1/8	Recto
E999015B	6	100	1/8	90°

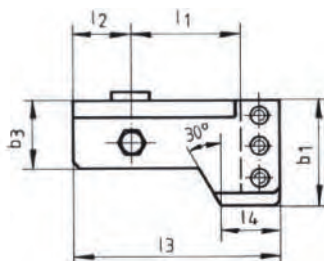
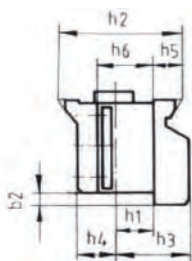


Esferas para refrigeración
Cooling direction balls

REFERENCIA	D
E999003	14
E999003C	12
E999003D	10



Porta herramientas radial DIN/69881 VDI 3425 forma A
Turning toolholders radial DIN/69881 VDI 3425 form A



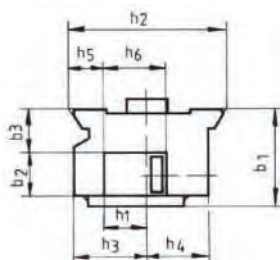
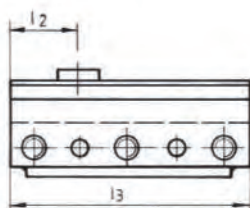
A2= Derecha / Right

REFERENCIA	COD	h1	h2	b1	b2	b3	h3	h4	h5	h6	I1	I2	I3	I4
A2-56x16	10.100	16	56	50	6	32	40	19	12	22	49	31	94	34
A2-72x20	10.110	20	72	63	6	40	43	27	16	29	49	39	110	45
A2-90x25	10.120	25	90	72	9	40	50	35.5	20	34	73	39	138	45
A2-115x32	10.130	32	115	85	9	50	60	40	25.5	41	112	49	191	50
A2-140x40	10.140	40	140	110	12	60	78	57.5	30	53	115	59	209	58

A1= Izquierda / Left

A1-56x16	10.101	16	56	50	6	32	40	19	12	22	49	31	94	34
A1-72x20	10.111	20	72	63	6	40	43	27	16	29	49	39	110	45
A1-90x25	10.121	25	90	72	9	40	50	35.5	20	34	73	39	138	45
A1-115x32	10.131	32	115	85	9	50	60	40	25.5	41	112	49	191	50
A1-140x40	10.141	40	140	110	12	60	78	57.5	30	53	115	59	209	58

Porta herramientas axial DIN/69881 VDI 3425 forma B
Turning toolholders axial DIN/69881 VDI 3425 form B



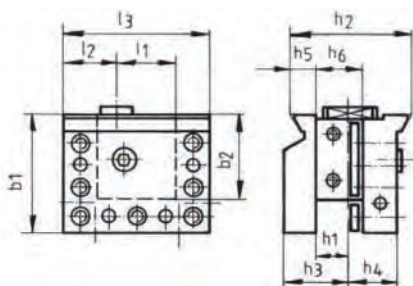
B1= Derecha / Right

REFERENCIA	COD	h1	h2	b1	b2	h3	h4	h5	h6	I1	I2	I3
B1-56x16	10.150	16	56	39	20	16	26	19	12	22	31	94
B1-72x20	10.160	20	72	47	26	16	34	27	16	29	39	110
B1-90x25	10.170	25	90	49	26	18	42.5	35.5	20	34	39	118
B1-115x32	10.180	32	115	56	33	18	55	40	25.5	41	49	123
B1-140x40	10.190	40	140	67	42	20	67.5	57.5	30	53	59	160

B2= Izquierda / Left

B2-56x16	10.151	16	56	39	20	16	26	19	12	22	31	94
B2-72x20	10.161	20	72	47	26	16	34	27	16	29	39	110
B2-90x25	10.171	25	90	49	26	18	42.5	35.5	20	34	39	118
B2-115x32	10.181	32	115	56	33	18	55	40	25.5	41	49	123
B2-140x40	10.191	40	140	67	42	20	67.5	57.5	30	53	59	160

Porta herramientas cuadrado universal forma C
Multi purpose square toolholders form C



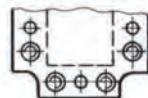
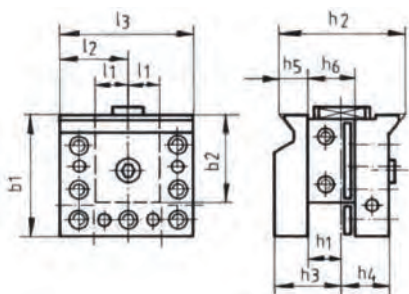
C1= Derecha / Right

REFERENCIA	COD	h1	h2	b1	b2	h3	h4	h5	h6	I1	I2	I3
C1-56x16	10.200	16	56	60	46	40	19	12	22	39	31	84
C1-72x20	10.210	20	72	81	59	43	27	16	29	37	39	98
C1-90x25	10.220	25	90	88	62	50	35.5	20	34	43	39	108
C1-115x32	10.230	32	115	94	68	60	40	25.5	41	43	49	118
C1-140x40	10.240	40	140	115	83	78	57.5	30	53	53	59	144

C2= Izquierda / Left

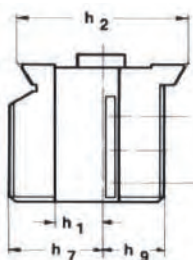
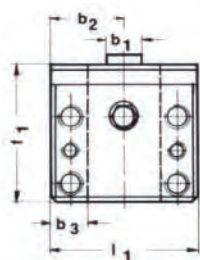
C2-56x16	10.201	16	56	60	46	40	19	12	22	39	31	84
C2-72x20	10.211	20	72	81	59	43	27	16	29	37	39	98
C2-90x25	10.221	25	90	88	62	50	35.5	20	34	43	39	108
C2-115x32	10.231	32	115	94	68	60	40	25.5	41	43	49	118
C2-140x40	10.241	40	140	115	83	78	57.5	30	53	53	59	144

Porta herramientas cuadrado universal reducido forma C3
Multi purpose square toolholders narrow form C3



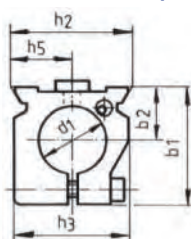
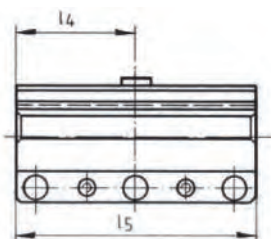
REFERENCIA	COD	h1	h2	b1	b2	b3	h3	h4	h5	h6	I1	I4
C3-56x16	10.250	16	56	60	46	40	19	12	22	17	31	62
C3-72x20	10.260	20	72	81	59	43	27	16	29	17	39	78
C3-90x25	10.270	25	90	88	62	50	35.5	20	34	23	49	98
C3-115x32	10.280	32	115	94	68	60	40	25.5	41	23	49	98
C3-140x40	10.290	40	140	115	83	78	57.5	30	53	27	59	118

Porta herramientas radial doble forma C4
Double-radial toolholders form C4



REFERENCIA	COD	h1	b1	b2	b3	h2	h7	h9	f1	l1
C4-56x16	10.300	16	16	34	16	56	40	19	60	68
C4-72x20	10.310	20	20	39	22	72	43	27	81	78
C4-90x25	10.320	25	25	39	25	90	50	35.5	88	78
C4-115x32	10.330	32	25	49	26	115	60	40	94	98
C4-115x40	10.340	40	25	59	32	140	78	57.5	115	118

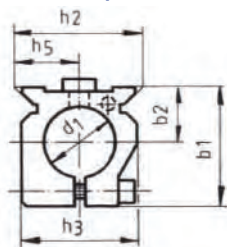
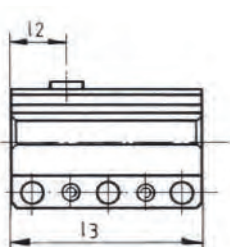
Porta herramientas cilindrico forma D3
Side lock adaptor form D3



REFERENCIA	COD	h2	d1	b1	b2	h3	h5	l4	l5
D3-56x32	10.350	56	32	65	30	52	28	59	118
D3-56x40	10.355	56	40	65	30	52	28	59	118
D3-72x40	10.360	72	40	76	35	68	36	75	150
D3-72x50	10.365	72	50	76	35	68	36	75	150
D3-90x50	10.370	90	50	94	45	85	45	99	198
D3-90x60	10.375	90	60	94	45	85	45	99	198
D3-115x60	10.380	115	60	94	45	93	57.5	99	198
D3-115x80	10.385	115	80	115	55	115	57.5	99	198
D3-140x80	10.390	140	80	125	60	115	70	119	238
D3-140x100	10.395	140	100	145	70	135	70	119	238



Porta herramientas cilindrico corto forma D
Side lock adaptor - short form D



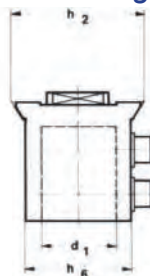
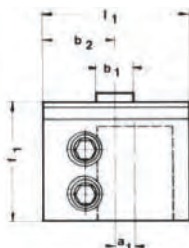
D2= Derecha / Right

REFERENCIA	COD	h2	d1	b1	b2	h3	h5	l2	l3
D2-56x32	10.400	56	32	65	30	52	28	31	94
D2-56x40	10.450	56	40	65	30	52	28	31	94
D2-72x40	10.410	72	40	76	35	68	36	39	110
D2-72x50	10.460	72	50	76	35	68	36	39	110
D2-90x50	10.420	90	50	94	45	85	45	39	138
D2-90x60	10.470	90	60	94	45	85	45	39	138
D2-115x60	10.430	115	60	94	45	93	57.5	49	148
D2-115x80	10.480	115	80	94	55	115	57.5	49	148
D2-140x80	10.440	140	80	125	60	115	70	59	178
D2-140x100	10.490	140	100	125	70	135	70	59	178

D1= Izquierda / Left

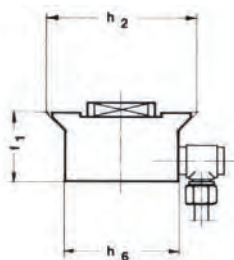
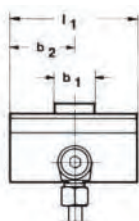
D1-56x32	10.401	56	32	65	30	52	28	31	94
D1-56x40	10.451	56	40	65	30	52	28	31	94
D1-72x40	10.411	72	40	76	35	68	36	39	110
D1-72x50	10.461	72	50	76	35	68	36	39	110
D1-90x50	10.421	90	50	94	45	85	45	39	138
D1-90x60	10.471	90	60	94	45	85	45	39	138
D1-115x60	10.431	115	60	94	45	93	57.5	49	148
D1-115x80	10.481	115	80	94	55	115	57.5	49	148
D1-140x80	10.441	140	80	125	60	115	70	59	178
D1-140x100	10.491	140	100	125	70	135	70	59	178

Porta herramientas para barras de mandrinar
Boring bar holders



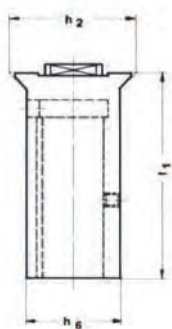
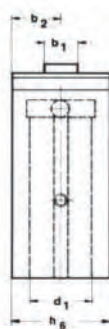
REFERENCIA	h2	d1	a1	b1	b2	h6	f1	l1
10500	56	32	8	16	34	39	54	68
10510	72	40	10	20	39	53	65	78
10520	90	50		25	59	71	80	98
10530	115	60	12.5	25	49	95	94	98
10540	140	80	12.5	25	59	115	120	118

Distribuidor refrigerante
Coolant distribuidor



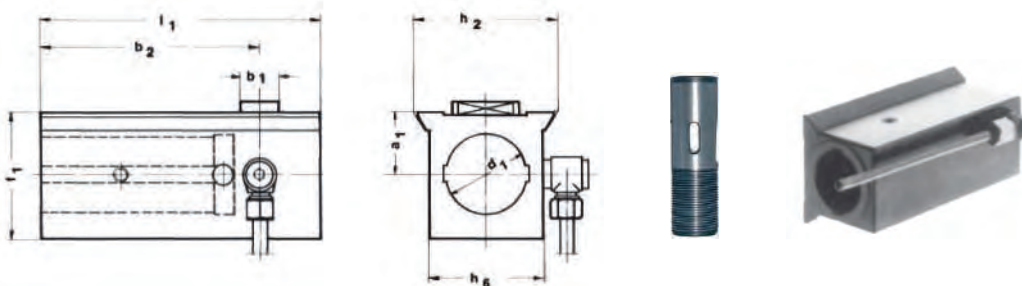
REFERENCIA	h2	b1	b2	h6	f1	l1
10550	56	16	34	39	28	68
10560	72	20	39	53	34	78
10570	90	25	39	71	42	78
10580	115	25	49	95	54	98
10590	140	25	59	115	60	118

Porta herramienta para casquillo de regulación DIN/6327
Automotive sleeves DIN/6327



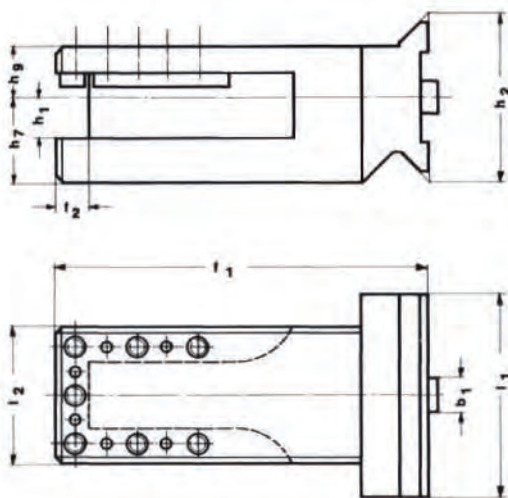
REFERENCIA	h2	d1	b1	b2	h6	f1
10600	56	36	16	26	52	120
10610	72	36	20	26	52	120
10620	90	48	25	35.5	71	140
10630	115	48	25	47.5	95	140
10640	140	48	25	57.5	115	140

Porta herramientas para casquillo de regulación DIN/6327
Automotive sleeves DIN/6327



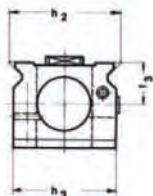
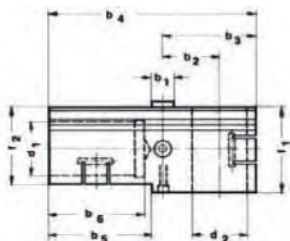
REFERENCIA	h2	d1	b1	b2	h6	f1	l1	a1
10650	56	36	16	90	52	58	119	30
10660	72	36	20	100	52	58	139	30
10670	90	48	25	135	71	80	174	40
10680	115	48	25	175	95	80	224	40
10690	140	48	25	175	115	80	224	40

Porta herramientas Multiple
Multi-toolholder



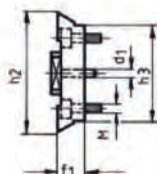
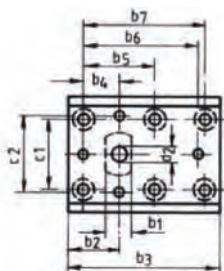
REFERENCIA	h1	h2	h7	h9	b1	f1	f2	l1	l2
10700	16	56	40	19	16	160	15	62	55
10710	20	72	42.5	26	20	180	18	82	70
10720	25	90	50	30	25	200	22	78	78
10730	32	115	60	40	25	220	28	118	98
10740	40	140	80	57	25	240	32	155	118

Porta herramientas de mandrinar Doble
Double-boring bar holder



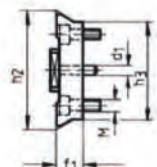
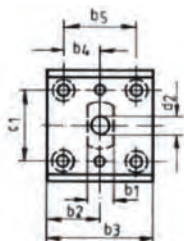
REFERENCIA	h2	d1	d2	h3	b1	b2	b3	b4	b5	b6	f1	f2	f3
10760	72	40	40	68	20	40	75	175		80	70	70	35
10770	90	50	50	85	25	45	80	210	120	110	85	75	40
10780	115	60	60	110	25	62.5	102	227	150	125	94	85	45
10790	140	80	80	135	25	65	120	300	170	150	125	115	60

Soporte porta herramientas
Toolholder plate



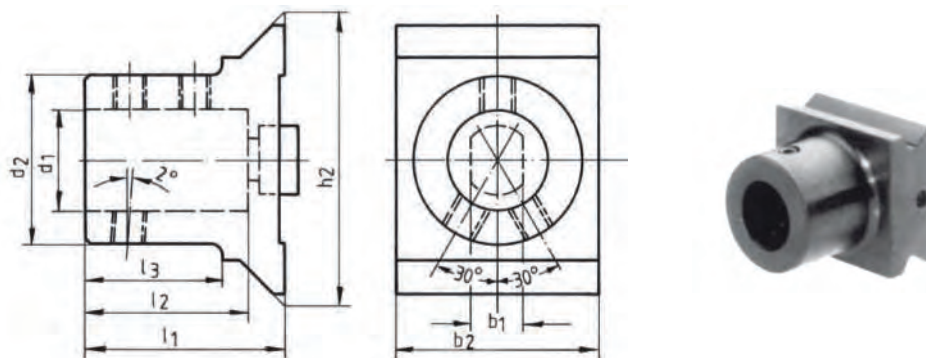
REFERENCIA	h2	h3	b1	b2	b3	b4	b5	b6	b7	c1	c2	f1	M	d1	d2
10810	72	53	20	39	98	25			70	30	40	20	M8	6	13
10820	90	71	25	39	115	25	50	87	87	55	55	55	M10	8	15
10830	115	95	25	49	148	35	70	115	120	70	70	25	M10	8	15
10840	140	115	25	59	200	45	90	172	172	90	90	35	M12	10	15

Soporte porta herramientas corto
Toolholder plate short



REFERENCIA	h2	h3	b1	b2	b3	b4	b5	c1	f1	M	d1	d2
10815	72	53	20	39	78	25	50	30	20	M8	6	13
10825	90	71	25	39	78	25	50	55	25	M10	8	15
10835	115	95	25	49	98	35	70	70	25	M10	8	15
10845	140	115	25	59	160	45	132	90	35	M12	10	15

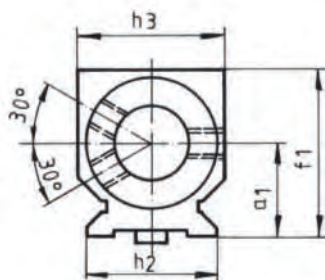
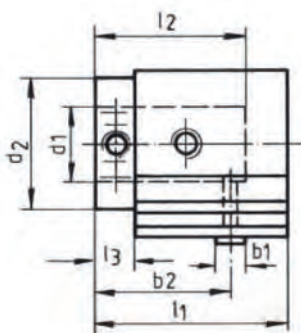
Porta herramientas para broca con plaquita
Boring holder for carbide tip boring



REFERENCIA	h2	d1	b1	b2	d2	l1	l2	l3
10900/20	56	20	16	68	44	66	54	44
10900/25	56	25	16	68	49	71	59	49
10900/32	56	32	16	68	56	75	63	54
10900/40	56	40	16	68	64	85	73	60
10910/20	72	20	20	78	44	66	54	44
10910/25	72	25	20	78	49	71	59	49
10910/32	72	32	20	78	56	75	63	54
10910/40	72	40	20	78	64	85	73	60
10910/50	72	50	20	78	74	95	83	70
10920/20	90	20	25	98	44	66	54	44
10920/25	90	25	25	98	49	71	59	49
10920/32	90	32	25	98	56	75	63	54
10920/40	90	40	25	98	64	85	73	60
10920/50	90	50	25	98	74	95	83	70
10930/20	115	20	25	98	44	66	54	44
10930/25	115	25	25	98	49	71	59	49
10930/32	115	32	25	98	56	75	63	54
10930/40	115	40	25	98	64	85	73	60
10930/50	115	50	25	98	74	95	83	70
10940/20	140	20	25	118	44	66	54	44
10940/25	140	25	25	118	49	71	59	49
10940/32	140	32	25	118	56	75	63	54
10940/40	140	40	25	118	64	85	73	60
10940/50	140	50	25	118	74	95	83	70



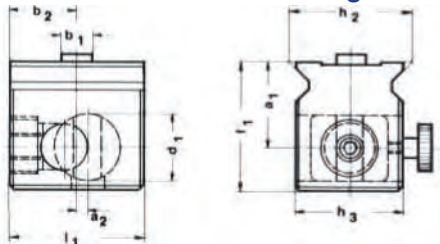
Porta herramientas para broca con plaquita
Boring holder for carbide tip boring



REFERENCIA	h2	d1	a1	b1	b2	d2	f1	h3	l1	l2	l3
10950/20	56	20	40	16	75	44	76	66	109	54	28
10950/25	56	25	40	16	75	49	76	66	109	59	28
10950/32	56	32	40	16	75	56	76	66	109	63	28
10950/40	56	40	40	16	75	64	76	66	109	73	32
10960/20	72	20	45	20	80	44	78	68	119	54	28
10960/25	72	25	45	20	80	49	78	68	119	59	28
10960/32	72	32	45	20	80	56	78	68	119	63	28
10960/40	72	40	45	20	80	64	78	68	119	73	32
10960/50	72	50	45	20	80	74	78	68	119	83	34
10970/20	90	20	50	25	100	44	86	80	139	54	28
10970/25	90	25	50	25	100	49	86	80	139	59	28
10970/32	90	32	50	25	100	56	86	80	139	63	28
10970/40	90	40	50	25	100	64	86	80	139	73	32
10970/50	90	50	50	25	100	74	86	80	139	83	34
10980/20	115	20	55	25	100	44	95	94	149	54	28
10980/25	115	25	55	25	100	49	95	94	149	59	28
10980/32	115	32	55	25	100	56	95	94	149	63	28
10980/40	115	40	55	25	100	64	95	94	149	73	32
10980/50	115	50	55	25	100	74	95	94	149	83	34
10990/20	140	20	60	25	120	44	100	114	189	54	28
10990/25	140	25	60	25	120	49	100	114	189	59	28
10990/32	140	32	60	25	120	56	100	114	189	63	28
10990/40	140	40	60	25	120	64	100	114	189	73	32
10990/50	140	50	60	25	120	74	100	114	189	83	34

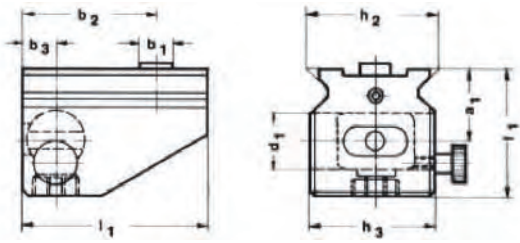


Porta herramientas para mandrinado con regulación de Ø y centraje
WH-toolholder for boring bars diameter and centre tooling adjustable



REFERENCIA	h2	d1	a1	a2	b1	b2	f1	h3	l1
30100	56	36	41	4	16	34	64	52	68
30110	72	46	48	6	20	38	76	66	78
30120	90	46	50	6	25	38	78	66	78
30130	115	46	52	6	25	38	80	66	78
30140	140	46	56	6	25	38	84	66	78

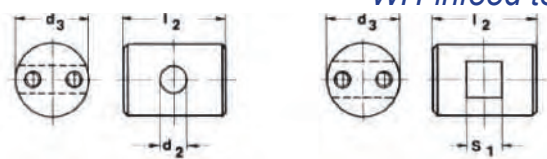
Porta herramientas para mandrinado con regulación de Ø y centraje
WH-toolholder for boring bars diameter and centre tooling adjustable



REFERENCIA	h2	d1	a1	b1	b2	b3	f1	h2	h3	l1
30150	56	36	39	16	59	23	77	56	52	93
30160	72	46	48	20	75	28	93	72	66	114
30170	90	46	50	25	89	28	95	90	66	138
30180	115	46	52	25	99	28	97	115	66	148
30190	140	46	55	25	119	28	100	140	66	188

12

Soportes intercambiables
WH-infeed toolholders











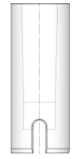
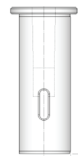
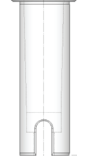
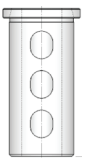
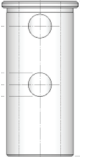




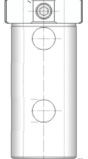


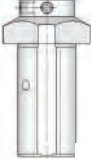
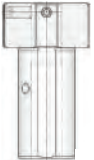
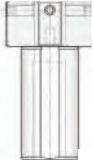
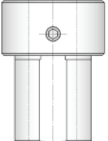

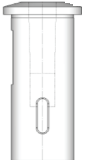




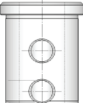
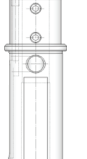
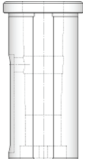
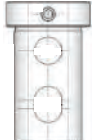
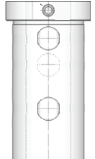

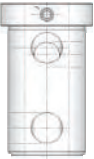


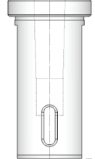
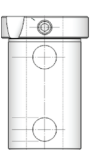
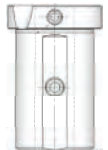
COD	d1	a1	l1	COD	d1	a1	l1	COD	d1	a1	l1
200208	36	8	38	200312	46	12	52	210312	46	12	52
200210	36	10	38	200313	46	13	52	210316	46	16	52
200212	36	12	38	200314	46	14	52	210320	46	20	52
200213	36	13	38	200315	46	15	52				
200214	36	14	38	200316	46	16	52				
200215	36	15	38	200320	46	20	52				
200216	36	16	38	200325	46	25	52				





CASQUILLOS

PROGRAMA

						
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PAG. 10	PAG. 10	PAG. 11	PAG. 11	PAG. 12-14	PAG. 15	PAG. 16
						
PAG. 16	PAG. 17	PAG. 17	PAG. 17	PAG. 18	PAG. 18	PAG. 19
						
PAG. 19	PAG. 19	PAG. 20	PAG. 20	PAG. 20	PAG. 21	PAG. 22
						
PAG. 22	PAG. 23	PAG. 23	PAG. 24	PAG. 24	PAG. 25	PAG. 25
						
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Casquillo universal con tornillo o ventana
Universal Reduction Sleeves or window

FIG. 1

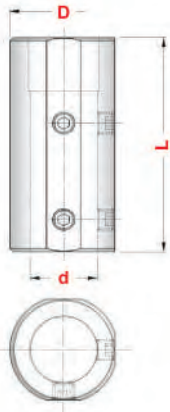


FIG. 2

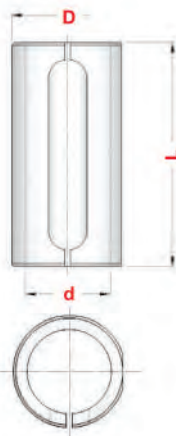
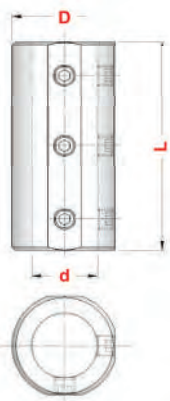
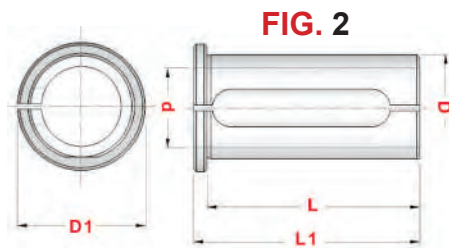
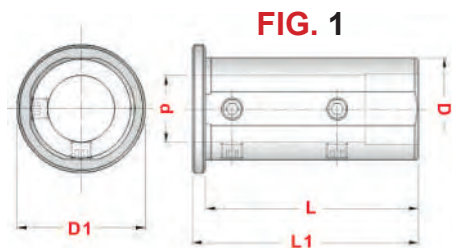


FIG. 3



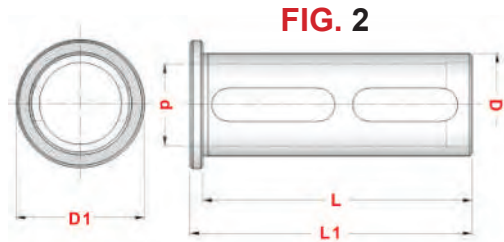
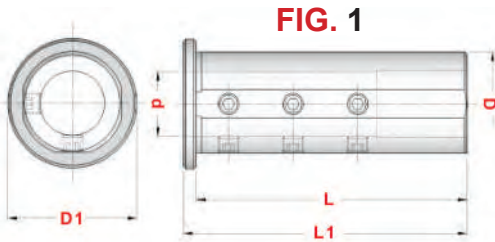
REFERENCIA	D	d	L	FIG
E21D20x6	20	6	60	1
E21D20x8		8		1
E21D20x10		10		1
E21D20x12		12		1
E21D25x6	25	6	60	1
E21D25x8		8		1
E21D25x10		10		1
E21D25x12		12		1
E21D25x14		14		1
E22D25x16		16		2
E21D32x6	32	6	70	1
E21D32x8		8		1
E21D32x10		10		1
E21D32x12		12		1
E21D32x14		14		1
E21D32x16		16		1
E21D32x18		18		1
E21D32x20		20		1
E22D32x25		25		2
E21D40x6	40	6	80	1
E21D40x8		8		1
E21D40x10		10		1
E21D40x12		12		1
E21D40x14		14		1
E21D40x16		16		1
E21D40x18		18		1
E21D40x20		20		1
E21D40x25		25		1
E22D40x32		32		2
E21D50x12	50	12	90	1
E21D50x14		14		1
E21D50x16		16		1
E21D50x18		18		1
E21D50x20		20		1
E21D50x25		25		1
E21D50x32		32		1
E22D50x40		40		2
E21D60x16	60	16	160	1
E21D60x20		20		1
E21D60x25		25		1
E21D60x32		32		1
E21D60x40		40		1
E21D80x32	80	32	130	3
E21D80x40		40		3
E21D80x50		50		3
E21D80x60		60		3
E21D100x40	100	40	170	3
E21D100x50		50		3
E21D100x60		60		3
E21D100x80		80		3

Casquillo con flange con tornillo o ventana
Headed Reduction Sleeves or window



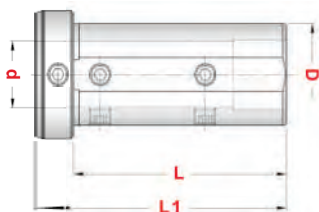
REFERENCIA	D	d	L	L1	D	FIG
EG1D20x6	20	6	50	55	28	1
EG1D20x8		8				1
EG1D20x10		10				1
EG1D20x12		12				1
EG2D20x14		14				2
EG1D25x6	25	6	60	65	33	1
EG1D25x8		8				1
EG1D25x10		10				1
EG1D25x12		12				1
EG1D25x14		14				1
EG2D25x16	16	2				
EG2D25x18	18	2				
EG1D32x6	32	6	70	75	40	1
EG1D32x8		8				1
EG1D32x10		10				1
EG1D32x12		12				1
EG1D32x14		14				1
EG1D32x16		16				1
EG1D32x18		18				1
EG1D32x20		20				1
EG2D32x25	25	2				
EG1D40x6	40	6	80	85	48	1
EG1D40x8		8				1
EG1D40x10		10				1
EG1D40x12		12				1
EG1D40x14		14				1
EG1D40x16		16				1
EG1D40x18		18				1
EG1D40x20		20				1
EG1D40x25		25				1
EG2D40x32		32				2
EG1D50x16	50	16	90	95	58	1
EG1D50x18		18				1
EG1D50x20		20				1
EG1D50x25		25				1
EG1D50x32		32				1
EG2D50x40		40				2

Casquillo largo con flangia con tornillo o ventana
 Extended Headed Reductions Sleeves or window



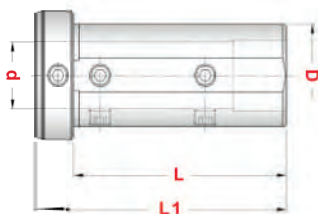
REFERENCIA	D	d	L	L1	D1	FIG
EG3D32x6	32	6	85	90	40	1
EG3D32x8		8				1
EG3D32x10		10				1
EG3D32x12		12				1
EG3D32x14		14				1
EG3D32x16		16				1
EG3D32x18		18				1
EG3D32x20		20				1
EG4D32x25		25				2
EG3D40x6	40	6	105	110	50	1
EG3D40x8		8				1
EG3D40x10		10				1
EG3D40x12		12				1
EG3D40x14		14				1
EG3D40x16		16				1
EG3D40x18		18				1
EG3D40x20		20				1
EG3D40x25		25				1
EG4D40x32	32	2				
EG3D50x12	50	12	125	130	60	1
EG3D50x14		14				1
EG3D50x16		16				1
EG3D50x18		18				1
EG3D50x20		20				1
EG3D50x25		25				1
EG3D50x32		32				1
EG4D50x40	40	2				
EG3D60x20	60	20	135	140	70	1
EG3D60x25		25				1
EG3D60x32		32				1
EG3D60x40		40				1
EG4D60x50		50				2
EG3D80x25	80	25	145	150	90	1
EG3D80x32		32				1
EG3D80x40		40				1
EG3D80x50		50				1
EG4D80x60		60				2

Casquillo con tornillo más flangia con tornillo
Headed Reduction Sleeves plus screw in flange



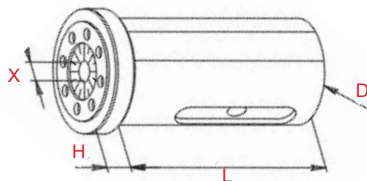
REFERENCIA	D	d	L	L1
ET1D1905x6x50	19.05	6	50	55
ET1D1905x8x50		8		
ET1D1905x10x50		10		
ET1D20x6x50	20	6	50	55
ET1D20x8x50		8		
ET1D20x10x50		10		
ET1D22x6x54	22	6	54	60
ET1D22x8x54		8		
ET1D22x10x54		10		
ET1D25x6x54	25	6	54	60
ET1D25x8x54		8		
ET1D25x10x54		10		
ET1D25x12x54		12		
ET1D254x6x54	25.4	6	54	60
ET1D254x8x54		8		
ET1D254x10x54		10		
ET1D254x12x54		12		
ET1D3175x6x63	31.75	6	63	70
ET1D3175x8x63		8		
ET1D3175x10x63		10		
ET1D3175x12x63		12		
ET1D3175x14x63		14		
ET1D3175x16x63		16		
ET1D3175x20x63		20		
ET1D32x8x40	32	8	40	47
ET1D32x10x40		10		
ET1D32x12x40		12		
ET1D32x16x40		16		
ET1D32x20x40		20		
ET1D32x6x63	32	6	63	70
ET1D32x8x63		8		
ET1D32x10x63		10		
ET1D32x12x63		12		
ET1D32x14x63		14		
ET1D32x16x63		16		
ET1D32x20x63		20		

Casquillo con tornillo más flangia con tornillo
Headed Reduction Sleeves plus screw in flange



REFERENCIA	D	d	L	L1
ET1D40x6x70	40	6	70	82
ET1D40x8x80		8	80	92
ET1D40x10x80		10		
ET1D40x12x80		12		
ET1D40x14x80		14		
ET1D40x16x80		16		
ET1D40x18x80		18		
ET1D40x20x80		20		
ET1D40x25x80		25		
ET1D50x8x85	50	8		
ET1D50x10x85		10		
ET1D50x12x85		12		
ET1D50x14x85		14		
ET1D50x16x85		16		
ET1D50x20x85		20		
ET1D50x25x85		25		
ET1D50x32x85		32		

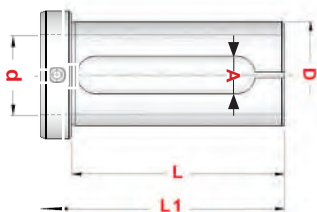
Casquillo porta pinzas con tuerca interna y ventana ER DIN/6499
Collet bush holders ER DIN/6499



REFERENCIA	D	H	L	X	PINZA
EP2D32ER20	32	5	70	0.5 - 13	ER20
EP2D40ER25	40	5	80	0.5 - 16	ER25

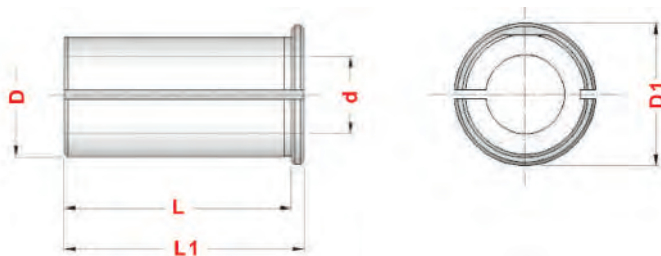
Con paso refrigerante interno
 With inner coolant feeding system

Casquillo con ventana flangia con tornillo
Headed Reduction Sleeves



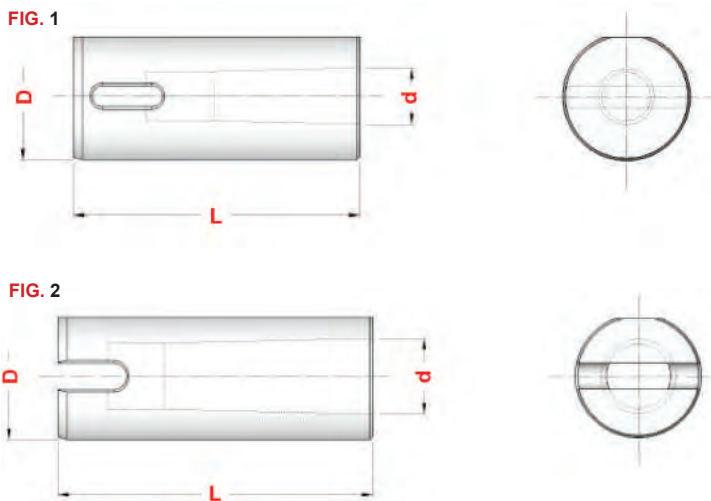
REFERENCIA	D	d	L	L1	A
EV2D20x8x50	20	8	50	58	10.5
EV2D20x10x50		10			
EV2D20x12x50		12			
EV2D20x16x50		16			
EV2D22x12x54	22	12	54	62	11
EV2D22x14x54		14			
EV2D22x16x54		16			
EV2D25x14x55	25	14	55	67	13
EV2D25x16x55		16			
EV2D25x20x55		20			
EV2D254x14x55	25.4	14	55	67	13
EV2D254x16x55		16			
EV2D254x1905x55		19.05			
EV2D254x20x55		20			
EV2D3175x20x65	31.75	20	65	77	13
EV2D3175x25x65		25			
EV2D32x25x40	32	25	40	50	13
EV2D32x20x65	32	20	65	77	13
EV2D32x25x65		25			
EV2D40x16x80	40	16	80	92	14
EV2D40x20x80		20			
EV2D40x25x80		25			
EV2D40x32x89		32			
EV2D50x25x85	50	25	85	97	14
EV2D50x32x85		32			
EV2D50x40x88		40			
EV2D60x32x125	60	32	125	137	14
EV2D60x40x125		40			
EV2D60x50x125		50			

Casquillo de reducción ranurado
Headed Reduction Sleeves with split



REFERENCIA	D	d	L	L1	D1
RZ20x8	20	8	26	30	25
RZ20x10		10			
RZ20x12		12			
RZ20x14		14			
RZ20x16		16			
RZ25x8	25	8	36	40	30
RZ25x10		10			
RZ25x12		12			
RZ25x14		14			
RZ25x16		16			
RZ25x18		18			
RZ25x20	20				
RZ32x8	32	8	46	50	37
RZ32x10		10			
RZ32x12		12			
RZ32x14		14			
RZ32x16		16			
RZ32x18		18			
RZ32x20		20			
RZ32x25	25				
RZ40x10	40	10	74	78	45
RZ40x12		12			
RZ40x14		14			
RZ40x16		16			
RZ40x18		18			
RZ40x20		20			
RZ40x25		25			
RZ40x32	32				
RZ50x20	50	20	84	88	55
RZ50x25		25			
RZ50x32		32			
RZ50x40		40			
RZ60x25	60	25	88	92	65
RZ60x32		32			
RZ60x40		40			
RZ60x50		50			

Casquillo de reducción con morse
Reduction Sleeves morse taper



REFERENCIA	D	CM	d	L	FIG
E23D20x1	20	1	12.065	60	2
E23D20x2		2	17.780	90	1
E23D25x1	25	1	12.065	60	2
E23D25x2		2	17.780	90	1
E23D32x1	32	1	12.065	60	2
E23D32x2		2	17.780	90	1
E23D32x3		3	23.825	100	2
E23D40x2	40	2	17.780	90	1
E23D40x3		3	23.825	100	2
E23D40x4		4	31.267	120	2
E23D50x2	50	2	17.780	90	1
E23D50x3		3	23.825	100	2
E23D50x4		4	31.267	120	2
E23D60x3	60	3	23.825	160	1
E23D60x4		4	31.267	160	1
E23D60x5		5	44.399	160	2



Casquillo de reducción con morse con flangia
Headed reduction sleeves morse taper

FIG. 1

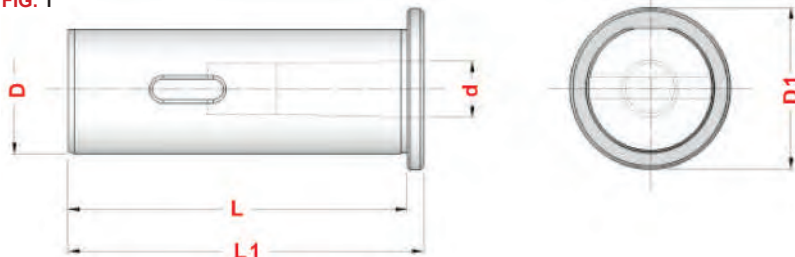
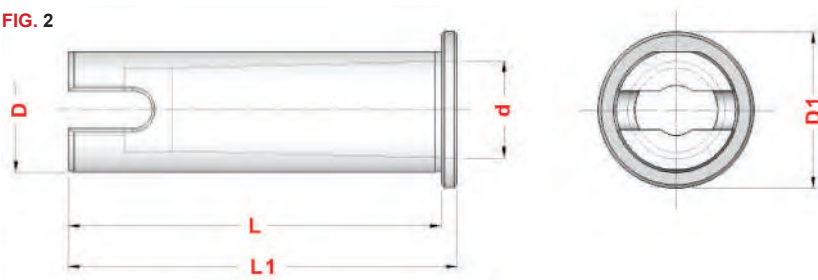


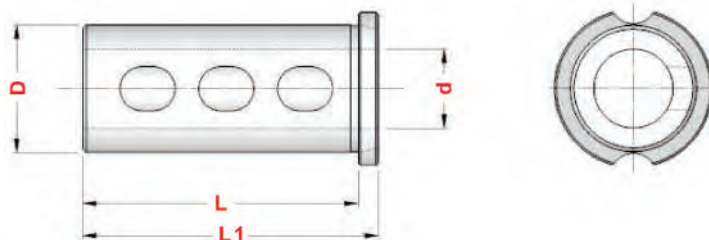
FIG. 2






REFERENCIA	D	CM	d	L	L1	D1	FIG
E2G6D20x1	20	1	12.065	65	70	28	2
E2G6D20x2		2	17.780	70	75		2
E2G6D25x1	25	1	12.065	70	75	33	2
E2G6D25x2		2	17.780	70	75		2
E2G6D25x3		3	23.825	79	98		2
E2G6D32x1	32	1	12.065	85	90	40	1
E2G6D32x2		2	17.780	85	90		1
E2G6D32x3		3	23.825	95	100		2
E2G6D40x2	40	2	17.780	105	110	50	1
E2G6D40x3		3	23.825	105	110		1
E2G6D40x4		4	31.267	120	125		2
E2G6D50x2	50	2	17.780	125	130	63	1
E2G6D50x3		3	23.825	125	130		1
E2G6D50x4		4	31.267	125	130		1
E2G6D60x3	60	3	23.825	130	140	70	1
E2G6D60x4		4	31.267	130	140		1
E2G6D60x5		5	44.399	145	155		2

Casquillo de reducción con flange para porta herramientas E2 con mango VDI20 - 25 - 30

Headed Reduction sleeves for Boring bar holders E2 with shanks VDI20 - 25 - 30



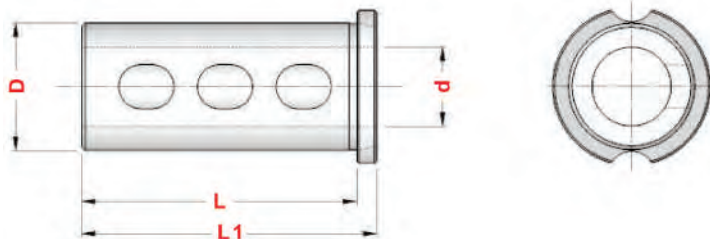
REFERENCIA	D	d	L	L1	(VDI) E2
E2R1D25x8	25	8	47	52	 E2-20x25 E2-25x25 E2-30x25
E2R1D25x10		10			
E2R1D25x12		12			
E2R1D25x14		14			
E2R1D25x16		16			
E2R1D25x18		18			
E2R1D25x20		20			
E2R2D32x8	32	8	57	62	 E2-25x32 E2-30x32
E2R2D32x10		10			
E2R2D32x12		12			
E2R2D32x14		14			
E2R2D32x16		16			
E2R2D32x18		18			
E2R2D32x20		20			
E2R2D32x25	25				
E2R2D40x8	40	8	57	62	 E2-30x40
E2R2D40x10		10			
E2R2D40x12		12			
E2R2D40x14		14			
E2R2D40x16		16			
E2R2D40x18		18			
E2R2D40x20		20			
E2R2D40x25	25				
E2R2D40x32	32				




13



Casquillo de reducción con flange para porta herramientas E2 con mango VDI40

Headed Reduction sleeves for Boring bar holders E2 with shanks VDI40

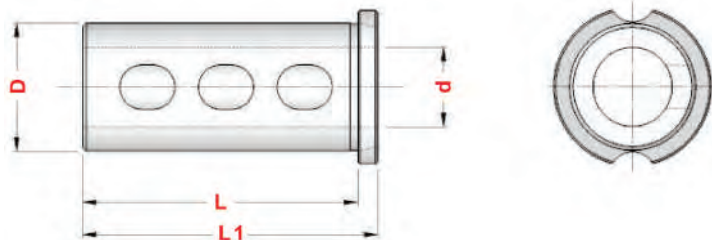





REFERENCIA	D	d	L	L1	(VDI) E2
E2R2D25x8	25	8	57	62	 E2-40x25
E2R2D25x10		10			
E2R2D25x12		12			
E2R2D25x14		14			
E2R2D25x16		16			
E2R2D25x18		18			
E2R2D25x20		20			
E2R2D32x8	32	8	57	62	 E2-40x32
E2R2D32x10		10			
E2R2D32x12		12			
E2R2D32x14		14			
E2R2D32x16		16			
E2R2D32x18		18			
E2R2D32x20		20			
E2R2D32x25	25				
E2R3D40x8	40	8	70	75	 E2-40x40
E2R3D40x10		10			
E2R3D40x12		12			
E2R3D40x14		14			
E2R3D40x16		16			
E2R3D40x18		18			
E2R3D40x20		20			
E2R3D40x25	25				
E2R3D40x32	32				



Casquillo de reducción con flange para porta herramientas E2 con mango VDI50 - 60 - 80

Headed Reduction sleeves for Boring bar holders E2 with shanks VDI50 - 60 - 80

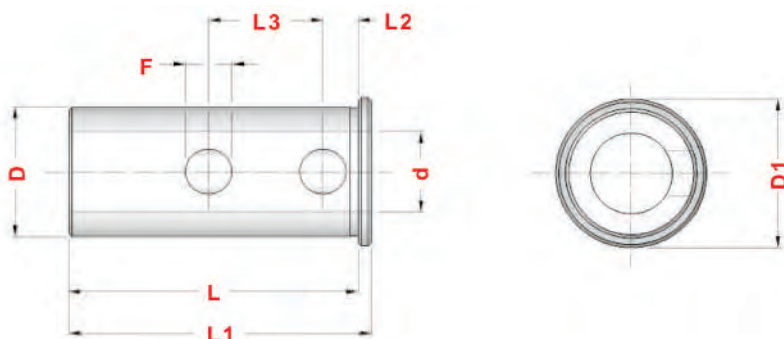


REFERENCIA	D	d	L	L1	(VDI) E2
E2R3D25x8	25	8	70	75	 E2-50x25 E2-60x25 E2-80x25
E2R3D25x10		10			
E2R3D25x12		12			
E2R3D25x14		14			
E2R3D25x16		16			
E2R3D25x18		18			
E2R3D25x20		20			
E2R3D32x8	32	8	70	75	 E2-50x32 E2-60x32 E2-80x32
E2R3D32x10		10			
E2R3D32x12		12			
E2R3D32x14		14			
E2R3D32x16		16			
E2R3D32x18		18			
E2R3D32x20		20			
E2R3D32x25	25				
E2R3D40x8	40	8	70	75	 E2-50x40 E2-60x40 E2-80x40
E2R3D40x10		10			
E2R3D40x12		12			
E2R3D40x14		14			
E2R3D40x16		16			
E2R3D40x18		18			
E2R3D40x20		20			
E2R3D40x25	25				
E2R3D40x32	32				

13



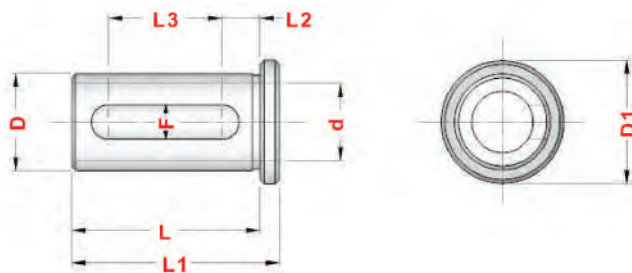
Casquillo de reducción para máquina BIGLIA y otros
Short Reduction Sleeves for BIGLIA machines type and others



REFERENCIA	D	d	L	L1	L2	L3	F	D1
BG1D25x8	25	8	70	74	7	28	9	32
BG1D25x10		10						
BG1D25x12		12						
BG1D25x14		14						
BG1D25x16		16						
BG1D25x18		18						
BG1D25x20		20						
BG1D32x8	32	8	88	92	9	35	14	36
BG1D32x10		10						
BG1D32x12		12						
BG1D32x14		14						
BG1D32x16		16						
BG1D32x18		18						
BG1D32x20		20						
BG1D32x25	25							
BG1D40x10	40	10	88	92	9	35	14	46
BG1D40x12		12						
BG1D40x14		14						
BG1D40x16		16						
BG1D40x18		18						
BG1D40x20		20						
BG1D40x25		25						
BG1D40x32	32							

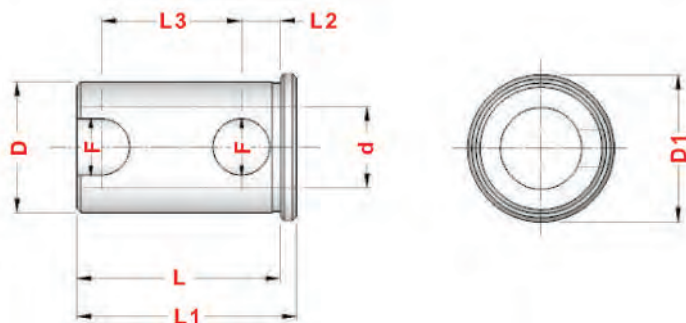


Casquillo corto de reducción para máquina BIGLIA y otros
Short Reduction Sleeves for BIGLIA machines type and others



REFERENCIA	D	d	L	L1	L2	L3	F	D1
BG2D25x8	25	8	49	54	10	29.5	9	32
BG2D25x10		10						
BG2D25x12		12						
BG2D25x14		14						
BG2D25x16		16						
BG2D25x18		18						
BG2D25x20		20						

Casquillo corto de reducción para máquina BIGLIA y otros
Short Reduction Sleeves for BIGLIA machines type



REFERENCIA	D	d	L	L1	L2	L3	F	D1
BG2D32x8	32	8	50	54	9	35	14	36
BG2D32x10		10						
BG2D32x12		12						
BG2D32x14		14						
BG2D32x16		16						
BG2D32x18		18						
BG2D32x20		20						
BG2D32x25	25							

Casquillo de reducción para máquina DAEWOO y otros
Reduction Sleeves for DAEWOO machines type and others

FIG. 1

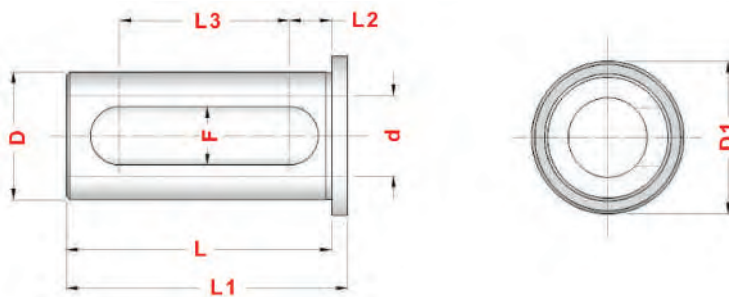


FIG. 2

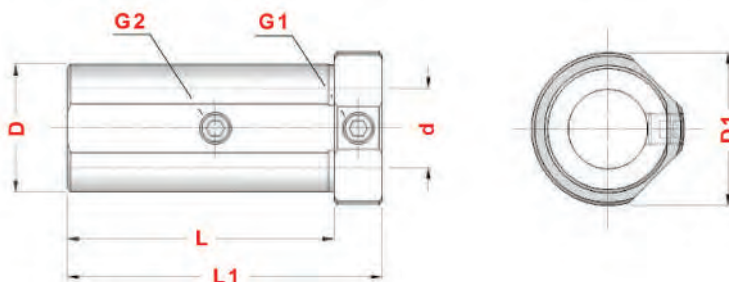
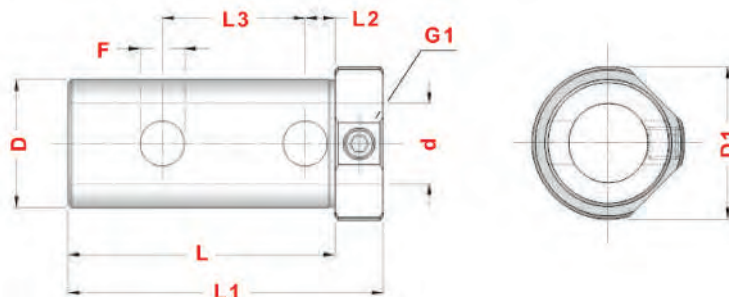
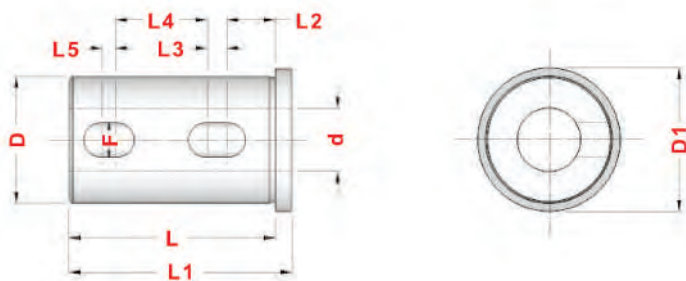


FIG. 3



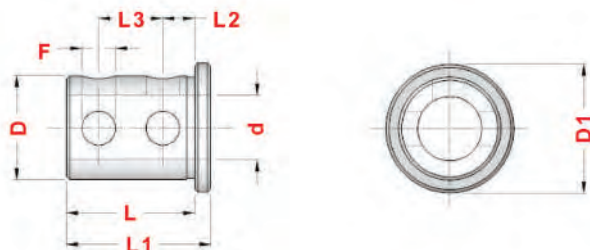
REFERENCIA	D	d	L	L1	L2	L3	F	D1	FIG
DW1D20x8	20	8	44	47	8.5	27	9	25	1
DW1D20x10		10							1
DW1D20x12		12							1
DW1D20x16		16							1
DW1D40x10	40	10	84	99	-	-	-	48	2
DW1D40x12		12			-	-	-		2
DW1D40x16		16			-	-	-		2
DW1D40x20		20			9.5	45	14		3
DW1D40x25		25			9.5	45	14		3
DW1D40x32		32			9.5	45	14		3

Casquillo corto de reducción para máquina DAEWOO y otros
Short Reduction Sleeves for DAEWOO machines type and others



REFERENCIA	D	d	L	L1	L2	L3	L4	L5	F	D1
DW2D40x20	40	20	65	70	15	7	28	5	11	45
DW2D40x25		25								
DW2D40x32		32								

Casquillo de reducción para máquina NAKAMURA TOME y otros
Reduction Sleeves for NAKAMURA TOME machines type and others



REFERENCIA	D	d	L	L1	L2	L3	F	D1
NT1D25x6	25	6	40	45	10	20	10.5	32
NT1D25x8		8						
NT1D25x10		10						
NT1D25x12		12						
NT1D25x16		16						
NT1D25x20		20						



Casquillo de reducción para máquina MAZAK y otros
Reduction Sleeves for MAZAK machines type and others

FIG. 1

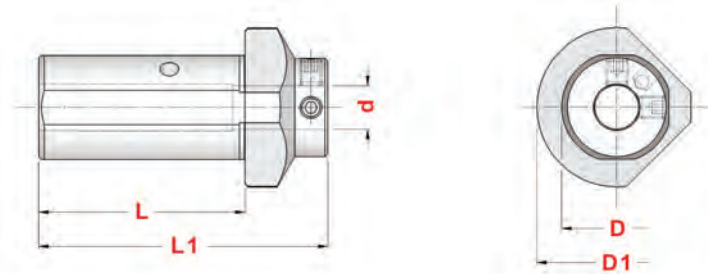


FIG. 2

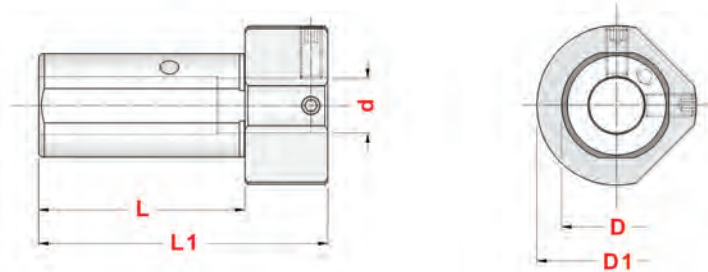
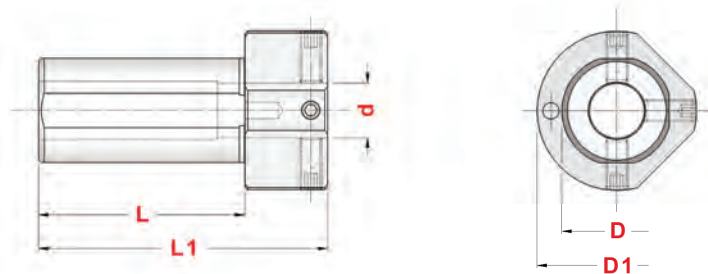
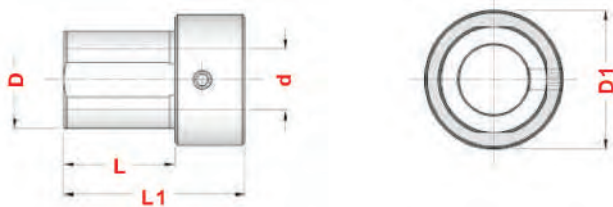


FIG. 3



REFERENCIA	D	d	L	L1	D1	FIG
MZ1D32x8	32	8	60	85	50	1
MZ1D32x10		10				1
MZ1D32x12		12				1
MZ1D32x16		16				1
MZ1D32x20		20				3
MZ1D32x25		25				3
MZ1D40x8	40	8	75	105	58	1
MZ1D40x10		10				1
MZ1D40x12		12				1
MZ1D40x16		16				1
MZ1D40x20		20				2
MZ1D40x25		25				3
MZ1D40x32		32				3

Casquillo corto de reducción para máquina MAZAK y otros
Short Reduction Sleeves for MAZAK machines type and others



REFERENCIA	D	d	L	L1	D1
MZ2D32x20	32	20	40	65	42
MZ2D32x25		25			
MZ2D40x20	40	20	40	65	50
MZ2D40x25		25			
MZ2D40x32		32			

Casquillo de reducción a cono morse para máquina MAZAK y otros
Morse taper Reduction Sleeves for MAZAK machines type and others

FIG. 1

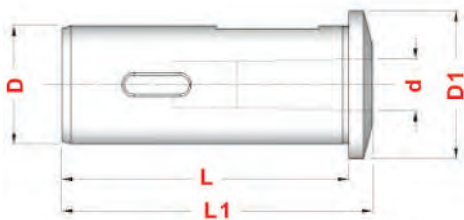
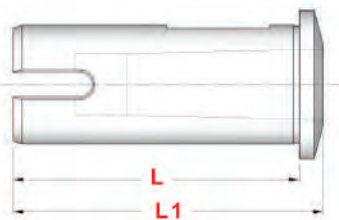


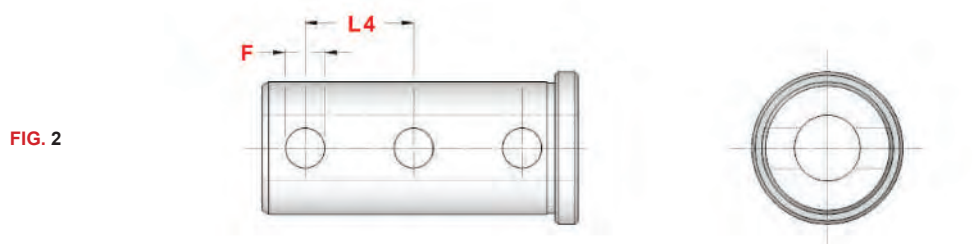
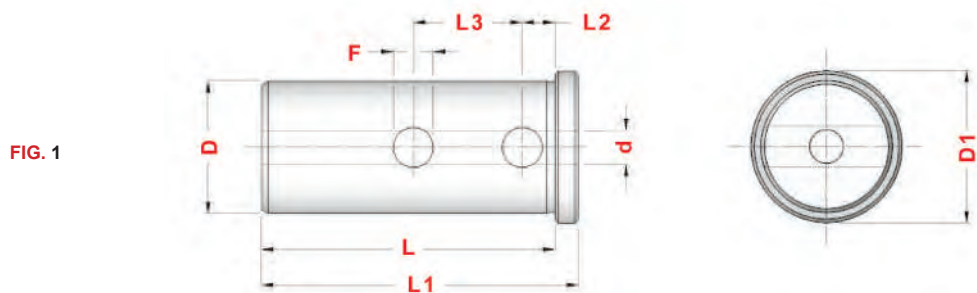
FIG. 2



REFERENCIA	D	CM	d	L	L1	D1	FIG
MZ3D32x1	32	1	12.065	54	66	42	2
MZ3D32x2		2	17.780	58	70		2
MZ3D40x1	40	1	12.065	97	105	50	1
MZ3D40x2		2	17.780	97	105		1
MZ3D40x3		3	23.825	97	105		2

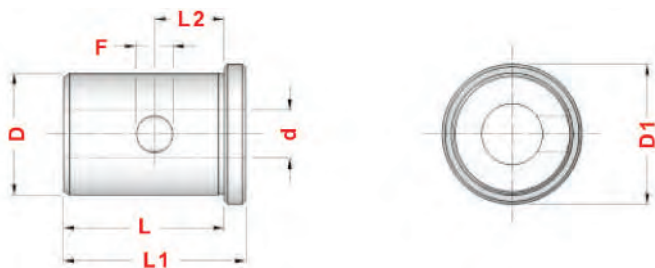


Casquillo de reducción para máquina MORI SEIKI y otros
Reduction Sleeves for MORI SEIKI machines type and others



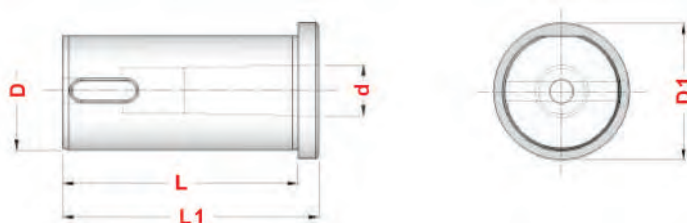
REFERENCIA	D	d	L	L1	L2	L3	L4	F	D1	FIG
MS1D25x8	25	8	78	83	9	31	30	11	30	2
MS1D25x10		10								2
MS1D25x12		12								2
MS1D25x16		16								2
MS1D25x20		20								2
MS1D32x6	32	6	79	86	10	29.5	-	10	38	1
MS1D32x8		8					-			1
MS1D32x10		10					-			1
MS1D32x12		12					29.5			2
MS1D32x16		16					29.5			2
MS1D32x20		20					29.5			2
MS1D32x25		25					29.5			2
MS1D40x8		40					8			89
MS1D40x10	10		-	1						
MS1D40x12	12		-	1						
MS1D40x16	16		33	2						
MS1D40x20	20		33	2						
MS1D40x25	25		33	2						
MS1D40x32	32		33	2						

Casquillo corto de reducción para máquina MORI SEIKI y otros
Short Reduction Sleeves for MORI SEIKI machines type and others



REFERENCIA	D	d	L	L1	L2	L3	F
MS2D32x16	32	16	53	60	20	12	38
MS2D32x20		20					
MS2D32x25		25					
MS2D40x16	40	16	53	60	23	12	46
MS2D40x20		20					
MS2D40x25		25					
MS2D40x32		32					

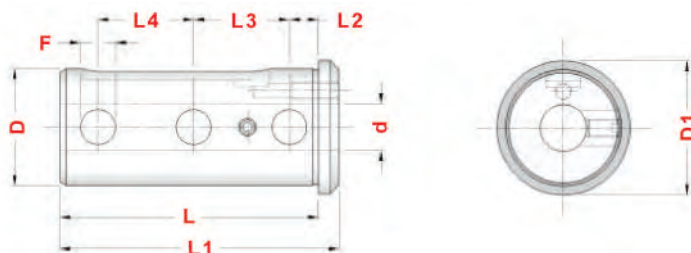
Casquillo de reducción a cono morse para máquina MORI SEIKI y otros
Morse Taper Reduction Sleeves for MORI SEIKI machines type and others



REFERENCIA	D	CM	d	L	L1	D1
MS4D32x1	32	1	12.065	79	86	38
MS4D32x2		2	17.780			
MS4D40x1	40	1	12.065	89	96	46
MS4D40x2		2	17.780			
MS4D40x3		3	23.825			
MS4D50x4	50	4	31.267	89	135	56

Casquillo de reducción con paso refrigerante para máquina
MORI SEIKI y otros

Through coolant Reduction Sleeves for
MORI SEIKI machines type and others

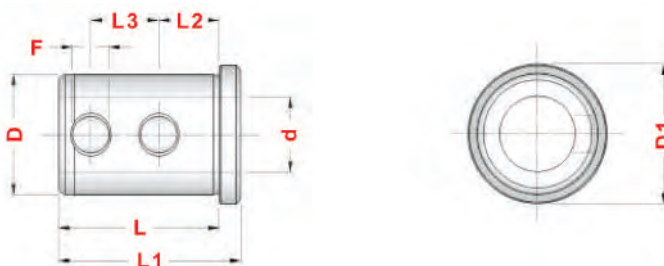


REFERENCIA	D	d	L	L1	L2	L3	L4	F	D1
MS1AD32x8	32	8	78	85	10	29.5	-	10	40
MS1AD32x10		10					-		
MS1AD32x12		12					-		
MS1AD32x16		16					29.5		
MS1AD32x20*		20					29.5		
MS1AD32x25*		25					29.5		
MS1AD40x8	40	8	89	96	10	33	-	12	46
MS1AD40x10		10					-		
MS1AD40x12		12					-		
MS1AD40x16		16					33		
MS1AD40x20		20					33		
MS1AD40x25*		25					33		
MS1AD40x32*	32	33							

* Sin agujero de refrigeración / Without cooling hole

Casquillo corto de reducción con paso refrigerante para máquina
MORI SEIKI y otros

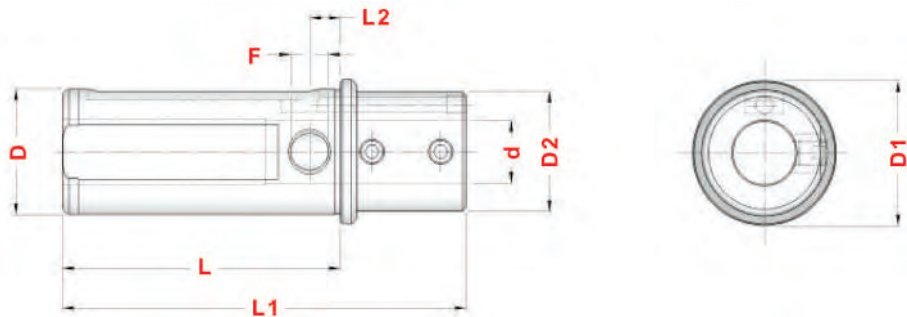
Through coolant Short Reduction Sleeves for
MORI SEIKI machines type and others



REFERENCIA	D	d	L	L1	L2	L3	F	D1
MS2AD40x16	40	16	53	60	20	22.5	12	46
MS2AD40x20		20						
MS2AD40x25		25						
MS2AD40x32		32						

Casquillo largo de reducción con paso refrigeración para máquina
MORI SEIKI y otros

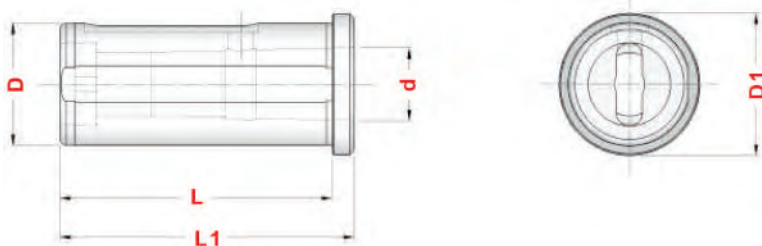
*Through coolant Extended Reduction Sleeves for MORI SEIKI
machines type and others*



REFERENCIA	D	d	L	L1	L2	F	D1	D2
MS3AD40x8	40	8	89	129	10	12	46	38
MS3AD40x10		10						
MS3AD40x12		12						
MS3AD40x16		16						
MS3AD40x20		20						

Casquillo de reducción a cono morse con paso refrigerante para máquina
MORI SEIKI y otros

*Through coolant Morse Taper Reduction Sleeves for MORI SEIKI
machines type and others*



REFERENCIA	D	CM	d	L	L1	D1
MS4AD32x1	32	1	12.065	78	85	40
MS4AD32x2		2	17.780	78	85	40
MS4AD40x1	40	1	12.065	89	96	46
MS4AD40x2		2	17.780	89	96	46
MS4AD40x3		3	23.825	89	96	46
MS4AD40x4		4	31.267	109	116	46

Casquillo de reducción para máquina OKUMA LT 10M / LT 200M y otros
Reduction Sleeves for OKUMA LT 10M / LT200M and others

FIG. 1

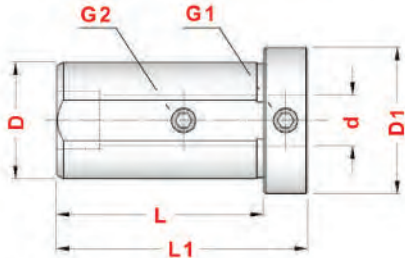
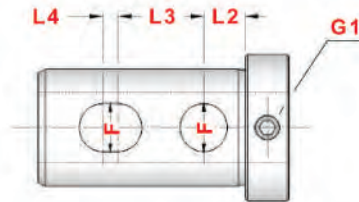


FIG. 2



REFERENCIA	D	d	L	L1	L2	L3	L4	F	D1	FIG
OK1D32x8	32	8	57	69	-	-	-	-	40	1
OK1D32x10		10	57	69	-	-	-	-		1
OK1D32x12		12	57	69	-	-	-	-		1
OK1D32x16		16	59	71	11.5	35	4	13		2
OK1D32x20		20	59	71	11.5	35	4	13		2
OK1D32x25	25	59	71	11.5	35	4	13	2		

Casquillo de reducción para máquina OKUMA LT 15M / LT 300M y otros
Reduction Sleeves for OKUMA LT 15M / LT300M and others

FIG. 1

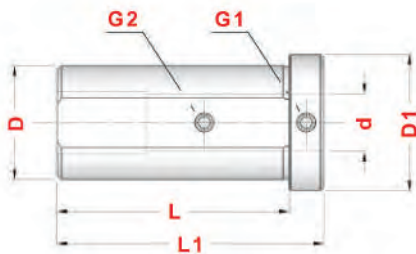
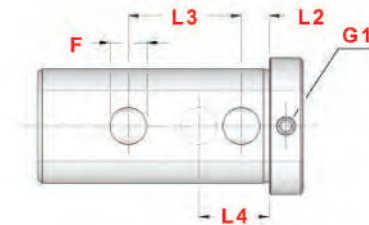


FIG. 2



REFERENCIA	D	d	L	L1	L2	L3	L4	F	D1	FIG
OK2D40x10	40	10	82	94	-	-	-	-	48	1
OK2D40x12		12			-	-	-	-		1
OK2D40x16		16			-	-	-	-		1
OK2D40x20		20			-	-	-	-		1
OK2D40x25		25			10	40	25	13		2
OK2D40x32	32	10	40	25	13	2				

Casquillo de reducción para máquina OKUMA LB 15II / LB 15IIMW y otros
Reduction Sleeves for OKUMA LB 15II / LB 15IIMW machines type and others

FIG. 1

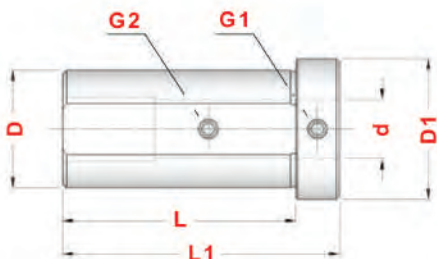
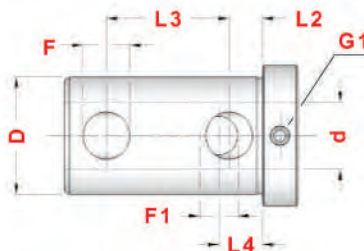


FIG. 2



REFERENCIA	D	d	L	L1	L2	L3	L4	F	F1	D1	FIG
OK4D40x10	40	10	80	95	-	-	-	-	-	48	1
OK4D40x12		12	80	95	-	-	-	-	-		1
OK4D40x16		16	80	95	-	-	-	-	-		1
OK4D40x20		20	80	95	-	-	-	-	-		1
OK4D40x25		25	68	80	11.5	42	15	16	13		2
OK4D40x32		32	68	80	11.5	42	15	16	13		2

Casquillo de reducción para máquina OKUMA LB 15II / LB 15IIMW y otros
Reduction Sleeves for OKUMA LB 15II / LB 15IIMW machines type and others

FIG. 1

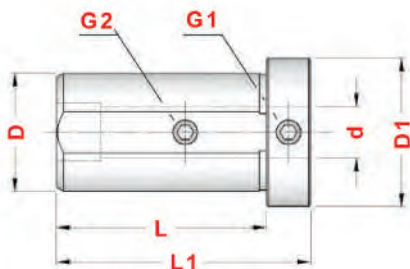
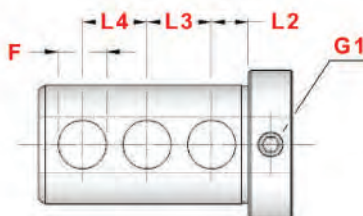


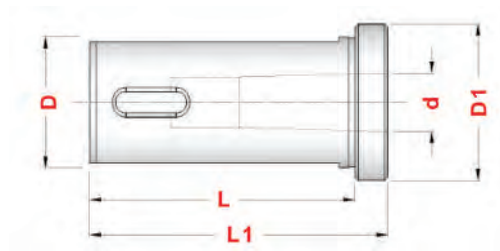
FIG. 2



REFERENCIA	D	d	L	L1	L2	L3	L4	F	D1	FIG
OK5D40x10	40	10	77	89	-	-	-	-	48	1
OK5D40x12		12			-	-	-	-		1
OK5D40x16		16			-	-	-	-		1
OK5D40x20		20			-	-	-	-		1
OK5D40x25		25			10	29	29	12		2
OK5D40x32		32			10	29	29	12		2

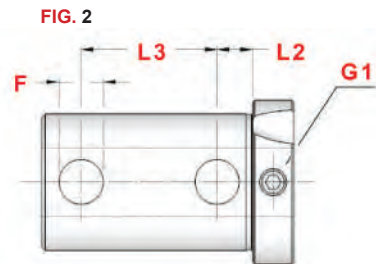
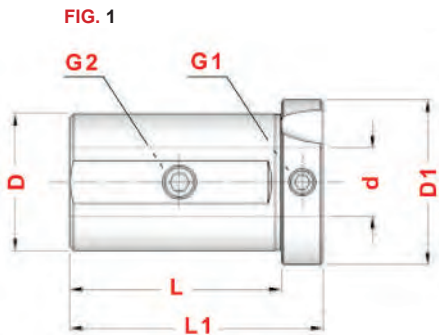
Casquillo de reducción para máquina OKUMA MACTURN 250
MULTUS y otros

Reduction Sleeves for OKUMA MACTURN 250
MULTUS machines type and others



REFERENCIA	D	CM	d	L	L1	D1
OK6D40x1	40	1	12.065	82	87	48
OK6D40x2	40	2	17.780	82	92	48
OK6D40x3	40	3	23.825	82	112	48

Casquillo de reducción a cono morse para máquina OKUMA y otros
Morse Taper Reduction Sleeves for OKUMA machines type and others



REFERENCIA	D	d	L	L1	L2	L3	L4	F	FIG
OK7D40x10	40	10	62	74	-	-	-	48	1
OK7D40x12		12			-	-	-		1
OK7D40x16		16			-	-	-		1
OK7D40x20		20			-	-	-		1
OK7D40x25		25			11.5	40	13		2
OK7D40x32		32			11.5	40	13		2

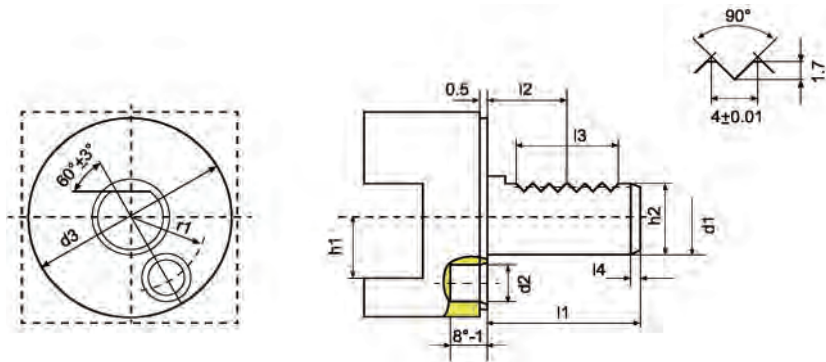




VDI
DIN/69880

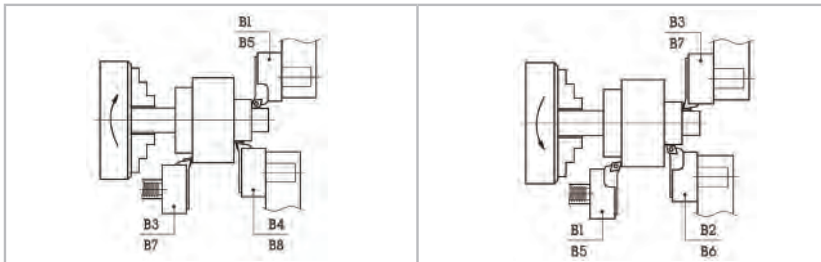
PROGRAMA

						
PAG. 4	PAG. 4	PAG. 5	PAG. 5	PAG. 6	PAG. 6	PAG. 7
						
PAG. 7	PAG. 8	PAG. 8	PAG. 9	PAG. 9	PAG. 10	PAG. 10
						
PAG. 11	PAG. 11	PAG. 12	PAG. 13	PAG. 14	PAG. 14	PAG. 15
						
PAG. 15	PAG. 16	PAG. 16	PAG. 17-18	PAG. 19	PAG. 20	PAG. 20
						
PAG. 21	PAG. 21	PAG. 22	PAG. 22	PAG. 22		

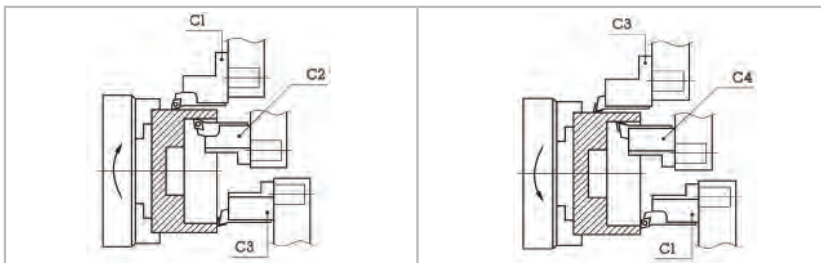


d1 h6	l1 ± 0.3	d2	d3	h1 max	h2 ± 0.1	l2 ± 0.05	l3 min	l4 +1	r1 ± 0.02
16	32	8 - H6	40	12	15	12.7	16	2	14.5
20	40	10 - H6	50	16	18	21.7	24	2	18
25	48	10 - H6	58	16	23.5	21.7	24	2	21
30	55	14 - H8	68	20	27	29.7	40	2	25
40	63	14 - H8	83	25	36	29.7	40	3	32
50	78	16 - H8	98	32	45	35.7	48	3	37
60	94	16 - H8	123	32	55	43.7	56	4	48
80	124	20 - H8	158	40	72	59.7	80	4	65

Porta herramientas utilizado para rotación horaria del mandrino
Toolholders suitable for clockwise spindle rotation



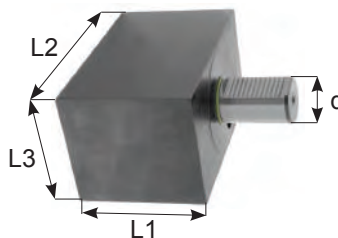
Porta herramientas utilizado para rotación antihoraria del mandrino
Toolholders suitable for counter clockwise spindle rotation



Porta herramientas en desbaste
Machinable toolholder blanks

DIN/69880

FORMA A1



REFERENCIA	d (VDI)	L1	L2	L3
VDIA101644	16	44	78	44
VDIA102065	20	65	100	60
VDIA102575	25	75	100	60
VDIA103085	30	85	130	76
VDIA1040100	40	100	151	96
VDIA1050125	50	125	160	120
VDIA1060160	60	160	165	125

Porta herramientas en desbaste
Machinable toolholder blanks

DIN/69880

FORMA A2

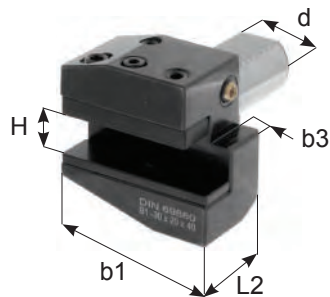


REFERENCIA	d (VDI)	D	L
VIDIA201660	16	40	60
VIDIA202070	20	50	70
VIDIA202558	25	58	80
VIDIA2030100	30	68	100
VIDIA2030240	30	68	240
VIDIA2040120	40	83	120
VIDIA2040320	40	83	320
VIDIA2050135	50	98	135
VIDIA2050400	50	98	400
VIDIA2060150	60	123	150
VIDIA2060480	60	123	480

Porta herramientas radial derecha
Radial toolholders - Right

DIN/69880

FORMA B1

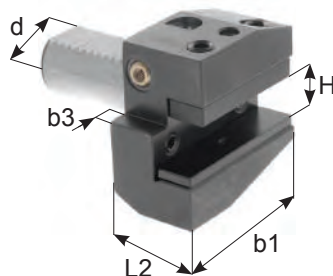


REFERENCIA	d (VDI)	b1	b3	H	L2
VDIB101624	16	42	5.0	12	24
VDIB101634	16	42	5.0	12	34
VDIB102030	20	55	7.0	16/12	30
VDIB102040	20	55	7.0	16/12	40
VDIB102530	25	55	7.0	16/12	30
VDIB102540	25	55	7.0	16/12	40
VDIB103040	30	70	10.0	20/16	40
VDIB103060	30	70	10.0	20/16	60
VDIB104044	40	85	12.5	25/20	44
VDIB105055	50	100	16.0	32/25	55
VDIB106060	60	125	16.0	32/25	60

Porta herramientas radial izquierda
Radial toolholders - Left

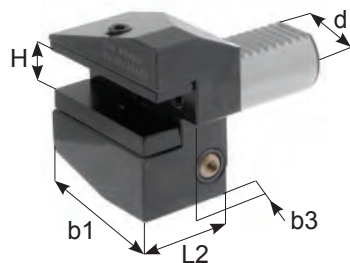
DIN/69880

FORMA B2



REFERENCIA	d (VDI)	b1	b3	H	L2
VDIB201624	16	42	5.0	12	24
VDIB201634	16	42	5.0	12	34
VDIB202030	20	55	7.0	16/12	30
VDIB202040	20	55	7.0	16/12	40
VDIB202530	25	55	7.0	16/12	30
VDIB202540	25	55	7.0	16/12	40
VDIB203040	30	70	10.0	20/16	40
VDIB203060	30	70	10.0	20/16	60
VDIB204044	40	85	12.5	25/20	44
VDIB205055	50	100	16.0	32/25	55
VDIB206060	60	125	16.0	32/25	60

Porta herramientas radial saliente derecha
Radial upside-down toolholders - Right

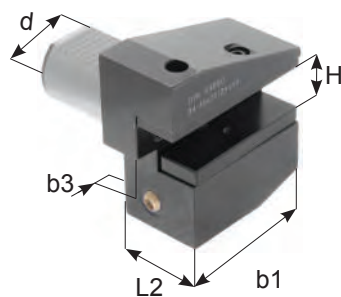


DIN/69880

FORMA B3

REFERENCIA	d (VDI)	b1	b3	H	L2
VDIB301624	16	42	5.0	12	24
VDIB301634	16	42	5.0	12	34
VDIB302030	20	55	7.0	16/12	30
VDIB302040	20	55	7.0	16/12	40
VDIB302530	25	55	7.0	16/12	30
VDIB302540	25	55	7.0	16/12	40
VDIB303040	30	70	10.0	20/16	40
VDIB303060	30	70	10.0	20/16	60
VDIB304044	40	85	12.5	25/20	44
VDIB305055	50	100	16.0	32/25	55
VDIB306060	60	125	16.0	32/25	60

Porta herramientas radial saliente izquierda
Radial upside-down toolholders - Left



DIN/69880

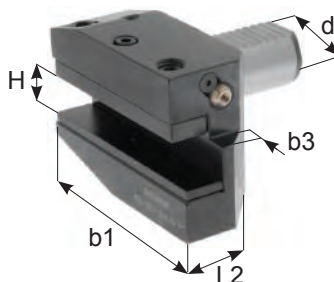
FORMA B4

REFERENCIA	d (VDI)	b1	b3	H	L2
VDIB401624	16	42	5.0	12	24
VDIB401634	16	42	5.0	12	34
VDIB402030	20	55	7.0	16/12	30
VDIB402040	20	55	7.0	16/12	40
VDIB402530	25	55	7.0	16/12	30
VDIB402540	25	55	7.0	16/12	40
VDIB403040	30	70	10.0	20/16	40
VDIB403060	30	70	10.0	20/16	60
VDIB404044	40	85	12.5	25/20	44
VDIB405055	50	100	16.0	32/25	55
VDIB406060	60	125	16.0	32/25	60

Porta herramientas radial derecha larga
Radial toolholders - Right long

DIN/69880

FORMA B5

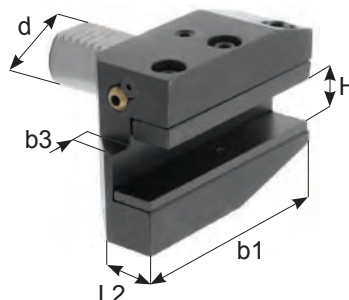


REFERENCIA	d (VDI)	b1	b3	H	L2
VDIB501624	16	58	5.0	12	24
VDIB501634	16	58	5.0	12	34
VDIB502030	20	75	7.0	16/12	30
VDIB502040	20	75	7.0	16/12	40
VDIB502530	25	75	7.0	16/12	30
VDIB502540	25	75	7.0	16/12	40
VDIB503040	30	100	10.0	20/16	40
VDIB503060	30	100	10.0	20/16	60
VDIB504044	40	118	12.5	25/20	44
VDIB505055	50	130	16.0	32/25	55
VDIB506060	60	145	16.0	32/25	60

Porta herramientas radial izquierda larga
Radial toolholders - Left long

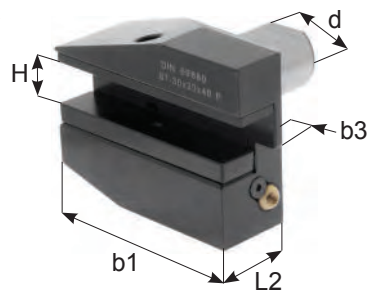
DIN/69880

FORMA B6



REFERENCIA	d (VDI)	b1	b3	H	L2
VDIB601624	16	58	5.0	12	24
VDIB601634	16	58	5.0	12	34
VDIB602030	20	75	7.0	16/12	30
VDIB602040	20	75	7.0	16/12	40
VDIB602530	25	75	7.0	16/12	30
VDIB602540	25	75	7.0	16/12	40
VDIB603040	30	100	10.0	20/16	40
VDIB603060	30	100	10.0	20/16	60
VDIB604044	40	118	12.5	25/20	44
VDIB605055	50	130	16.0	32/25	55
VDIB606060	60	145	16.0	32/25	60

Porta herramientas radial saliente derecha larga
Radial upside-down toolholders - Right long

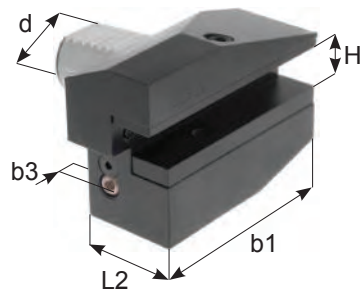


DIN/69880

FORMA B7

REFERENCIA	d (VDI)	b1	b3	H	L2
VDIB701624	16	58	5.0	12	24
VDIB701634	16	58	5.0	12	34
VDIB702030	20	75	7.0	16/12	30
VDIB702040	20	75	7.0	16/12	40
VDIB702530	25	75	7.0	16/12	30
VDIB702540	25	75	7.0	16/12	40
VDIB703040	30	100	10.0	20/16	40
VDIB703060	30	100	10.0	20/16	60
VDIB704044	40	118	12.5	25/20	44
VDIB705055	50	130	16.0	32/25	55
VDIB706060	60	145	16.0	32/25	60

Porta herramientas radial saliente izquierda larga
Radial upside-down toolholders - Left long



DIN/69880

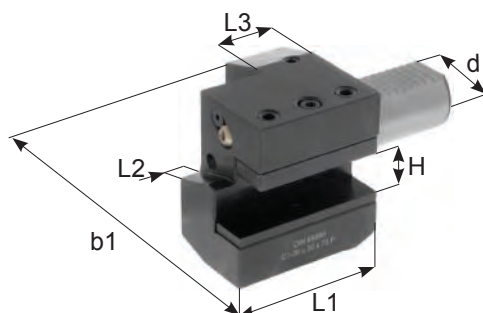
FORMA B8

REFERENCIA	d (VDI)	b1	b3	H	L2
VDIB801624	16	58	5.0	12	24
VDIB801634	16	58	5.0	12	34
VDIB802030	20	75	7.0	16/12	30
VDIB802040	20	75	7.0	16/12	40
VDIB802530	25	75	7.0	16/12	30
VDIB802540	25	75	7.0	16/12	40
VDIB803040	30	100	10.0	20/16	40
VDIB803060	30	100	10.0	20/16	60
VDIB804044	40	118	12.5	25/20	44
VDIB805055	50	130	16.0	32/25	55
VDIB806060	60	145	16.0	32/25	60

Porta herramientas axial derecha
Axial toolholders - Right

DIN/69880

FORMA C1

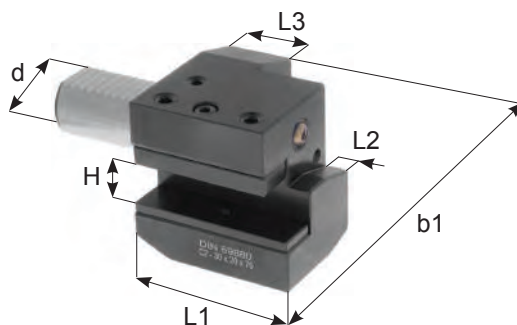


REFERENCIA	d (VDI)	b1	H	L1	L2	L3
VDIC101644	16	43	12	44	5	20
VDIC102050	20	65	16/12	50	-	30
VDIC102055	20	52	16/12	55	7	30
VDIC102555	25	58	16/12	55	7	20
VDIC103070	30	70	20/16	70	10	30
VDIC104085	40	85	25/20	85	12.5	30
VDIC1050100	50	100	32/25	100	16	40
VDIC1060125	60	125	32/25	125	16	40

Porta herramientas axial izquierda
Axial toolholders - Left

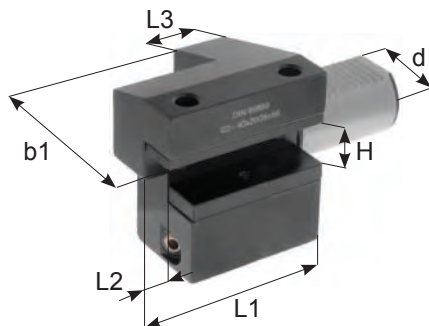
DIN/69880

FORMA C2



REFERENCIA	d (VDI)	b1	H	L1	L2	L3
VDIC201644	16	43	12	44	5	20
VDIC202050	20	65	16/12	50	-	30
VDIC202555	25	58	16/12	55	7	20
VDIC203070	30	76	20/16	70	10	30
VDIC204085	40	90	25/20	85	12.5	30
VDIC2050100	50	105	32/25	100	16	40
VDIC2060125	60	125	32/25	125	16	40

Porta herramientas axial saliente derecho
Axial upside-down toolholders - Right

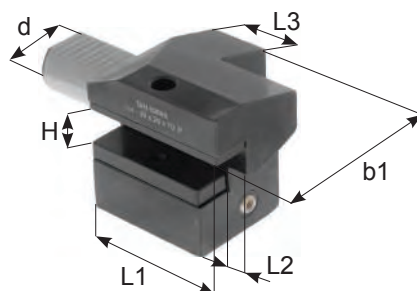


DIN/69880

FORMA C3

REFERENCIA	d (VDI)	b1	H	L1	L2	L3
VDIC301644	16	43	12	44	5	20
VDIC302050	20	65	16/12	50	-	30
VDIC302055	20	52	16/12	55	7	30
VDIC302555	25	58	16/12	55	7	20
VDIC303070	30	70	20/16	70	10	30
VDIC304085	40	85	25/20	85	12.5	30
VDIC3050100	50	100	32/25	100	16	40
VDIC3060125	60	125	32/25	125	16	40

Porta herramientas axial saliente izquierda
Axial upside-down toolholders - Left



DIN/69880

FORMA C4

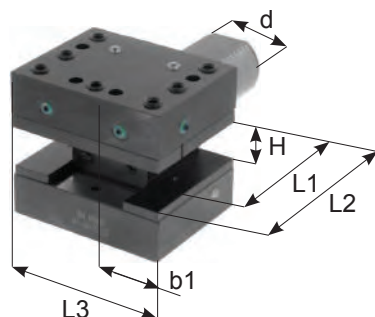
REFERENCIA	d (VDI)	b1	H	L1	L2	L3
VDIC401644	16	43	12	44	5	20
VDIC402050	20	65	16/12	50	-	30
VDIC402555	25	58	16/12	55	7	20
VDIC403070	30	76	20/16	70	10	30
VDIC404085	40	90	25/20	85	12.5	30
VDIC4050100	50	105	32/25	100	16	40
VDIC4060125	60	125	32/25	125	16	40



Porta herramientas multiple cuadrado
Toolholders with multiple seats

DIN/69880

FORMA D1

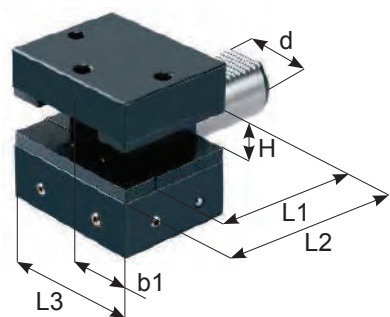


REFERENCIA	d (VDI)	b1	H	L1	L2	L3
VDID102548	25	33	16/12	34	48	66
VDID103060	30	35	20/16	42	60	76
VDID104072	40	42.5	25/20	50	72	90
VDID105085	50	50	32/25	60	85	105
VDID1060110	60	57.5	32/25	85	110	115

Porta herramientas multiple cuadrado
Toolholders with multiple seats

DIN/69880

FORMA D2



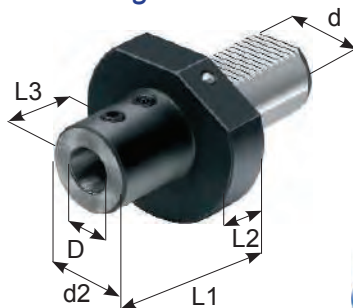
REFERENCIA	d (VDI)	b1	H	L1	L2	L3
VDID202548	25	33	16/12	34	48	66
VDID203060	30	35	20/16	42	60	76
VDID204072	40	42.5	25/20	50	72	90
VDID205085	50	50	32/25	60	85	105
VDID2060110	60	57.5	32/25	85	110	115



Porta herramientas para barra de mandrinar refrigeración interna
Boring - bars holder with inside cooling

DIN/69880

FORMA E1



Coolant

VDI20 / VDI30 / VDI40 / VDI50 / VDI60

REFERENCIA	d (VDI)	d2	D	L1	L2	L3
E1020x6*	20	25	6	50	18	36
E1020x8*		28	8	50		36
E1020x10*		35	10	54		40
E1020x12*		42	12	59		45
E1020x16		36	16	67		54
E1020x20		40	20	67		54
E1020x25		45	25	71		58
E1030x6*	30	25	6	50	22	36
E1030x8*		28	8	50		36
E1030x10*		35	10	54		40
E1030x12*		42	12	59		45
E1030x16		36	16	67		54
E1030x20		40	20	67		54
E1030x25		45	25	71		58
E1030x32	52	32	75	61		
E1030x40	65	40	90	72		
E1040x6*	40	25	6	50	22	36
E1040x8*		28	8	50		36
E1040x10*		35	10	54		40
E1040x12*		42	12	58		45
E1040x16		36	16	67		54
E1040x20		40	20	67		54
E1040x25		45	25	75		59
E1040x32		52	32	75		61
E1040x40		65	40	90		73
E1040x50	70	50	100	83		
E1050x16	50	36	16	80	30	54
E1050x20		40	20	80		54
E1050x25		45	25	80		59
E1050x32		52	32	80		63
E1050x40		65	40	90		73
E1050x50		75	50	100		83
E1060x16	60	36	16	80	30	54
E1060x20		40	20	80		54
E1060x25		45	25	80		59
E1060x32		52	32	80		63
E1060x40		65	40	90		73
E1060x50		75	50	100		83

* El tornillo de bloqueo esta inclinado a 2° para mejorar el ajuste

Porta herramientas para barra de mandrinar
refrigeración interna y externa
Boring - bars holder with outside inside cooling

DIN/69880

FORMA E2



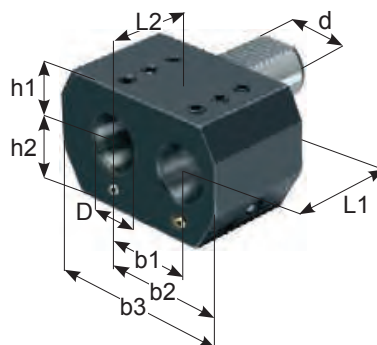
VDI20 / VDI30 / VDI40 / VDI50 / VDI60

REFERENCIA	d (VDI)	d2	D	L1	L2	L3
E2016x6	16	32	6	44	13	34
E2016x8		32	8	44		34
E2016x10		32	10	44		34
E2016x12		40	12	44		34
E2016x16		40	16	44		34
E2020x6	20	40	6	50	18	42
E2020x8		40	8	50		42
E2020x10		40	10	50		42
E2020x12		40	12	50		42
E2020x16		42	16	50		42
E2020x20		49	20	50		42
E2020x25		49	25	60		52
E2030x6	30	55	6	60	22	43
E2030x8		55	8	60		43
E2030x10		55	10	60		43
E2030x12		55	12	60		43
E2030x16		55	16	60		55
E2030x20		55	20	60		54
E2030x25		55	25	60		54
E2030x30		67	30	75		61
E2030x32		67	32	75		61
E2030x40		67	40	75		66
E2040x6	40	55	6	75	22	43
E2040x8		55	8	75		43
E2040x10		55	10	75		43
E2040x12		55	12	75		58
E2040x16		55	16	75		61
E2040x20		55	20	75		61
E2040x25		55	25	75		61
E2040x30		82	30	75		61
E2040x32		82	32	75		61
E2040x40		82	40	90		76
E2040x50		98	50	100	-	86
E2050x12	50	68	12	90	30	71
E2050x16		68	16	90		76
E2050x20		68	20	90		76
E2050x25		68	25	90		76
E2050x30		69	30	90		76
E2050x32		69	32	90		76
E2050x40		98	40	90	-	76
E2050x50		98	50	100	-	86
E2060x16	60	68	16	90	30	76
E2060x20		68	20	90		76
E2060x25		68	25	90		76
E2060x32		68	32	90		76
E2060x40		98	40	90		76
E2060x50		98	50	100		86

Porta herramientas doble derecha
 Double boring bar holders - Right hand

DIN/69880

FORMA ES7



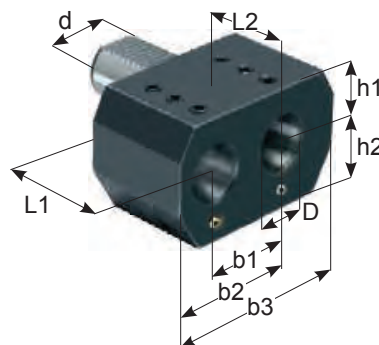
VDI20 / VDI30 / VDI40 / VDI50

REFERENCIA	d (VDI)	D	h1	h2	L1	L2	b1	b2	b3
ES72016	20	16	25	25	45	42	32	51	76
ES72020		20	25	25	45	42	32	51	76
ES73025	30	25	28	32	56	52	45	65	95
ES74032	40	32	32.5	40	66	60	50	75	115
ES75032	50	32	32.5	47.5	66	60	50	75	115
ES75050		50	35	49	90	80	68	103	152

Porta herramientas doble izquierda
 Double boring bar holders - Left hand

DIN/69880

FORMA ES8



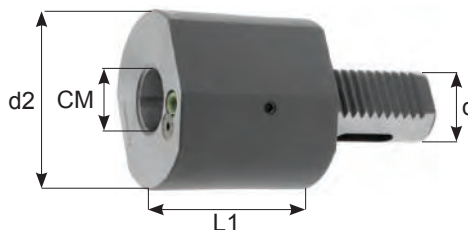
VDI20 / VDI30 / VDI40 / VDI50

REFERENCIA	d (VDI)	D	h1	h2	L1	L2	b1	b2	b3
ES82016	20	16	25	25	45	42	32	51	76
ES82020		20	25	25	45	42	32	51	76
ES83025	30	25	28	32	56	52	45	65	95
ES84032	40	32	32.5	40	66	60	50	75	115
ES85032	50	32	32.5	47.5	66	60	50	75	115
ES85050		50	35	49	90	80	68	103	152

Porta herramientas a cono morse forma - F
Morse taper toolholders Form - F

DIN/69880

FORMA F

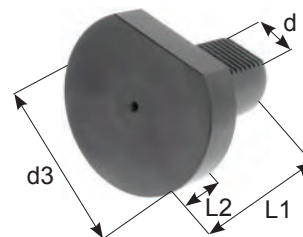


VD16 / VDI20 / VDI30 / VDI40 / VDI50 / VDI60

REFERENCIA	d (VDI)	d2	CM	L1	L2
VDIF16MT1	16	-	1	31.5	-
VDIF16MT2		-	2	72	-
VDIF20MT1	20	-	1	23	-
VDIF20MT2 *		45	2	41	22
VDIF30MT1	30	-	1	27	-
VDIF30MT2		55	2	36	27
VDIF30MT3		55	3	66	41
VDIF40MT1	40	55	1	23	22
VDIF40MT2		55	2	36	22
VDIF40MT3		58	3	36	22
VDIF40MT4		68	4	80	22
VDIF50MT2	50	55	2	36	30
VDIF50MT3		58	3	45	30
VDIF50MT4		68	4	55	30
VDIF50MT5*		75	5	72	30
VDIF60MT2	60	55	2	35	30
VDIF60MT3		58	3	45	30
VDIF60MT4		68	4	55	30
VDIF60MT5		98	5	64	30

* El mango cilíndrico no es dentado

Tampón de protección de acero o plástico
Plastic or Steel blanking plugs

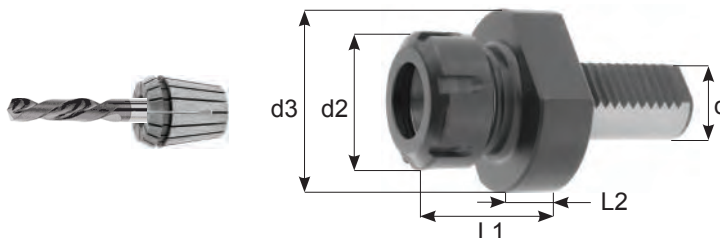


PLASTICO	ACERO				
REFERENCIA	REFERENCIA	d	d3	L1	L2
Z216	Z216S	16	40	45	13
Z220	Z220S	20	50	56	16
Z230	Z230S	30	68	71	16
Z240	Z240S	40	83	83	20
Z250	Z250S	50	98	98	20
Z260	Z260S	60	123	114	20

DIN/69880

Porta pinzas VDI pinza ER - DIN 6499
Collect chucks ER - DIN 6499

FORMA E4



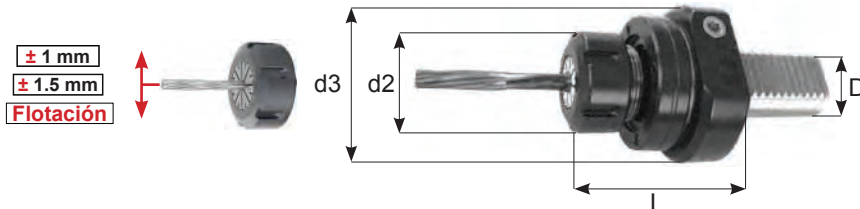
VD16 / VDI20 / VDI30 / VDI40 / VDI50 / VDI60

REFERENCIA	d (VDI)	CAP	d2	d3	L1	L2
VDIE416ER16	16	1 ÷ 10	32	40	44	13
VDIE416ER20		1 ÷ 13	35		44	
VDIE420ER16	20	1 ÷ 10	32	50	44	18
VDIE420ER20		1 ÷ 14	35		59	
VDIE420ER25		1 ÷ 20	42		65	
VDIE420ER32		2 ÷ 22	50		67	
VDIE430ER16	30	1 ÷ 10	32	68	48	22
VDIE430ER20		1 ÷ 14	35		59	
VDIE430ER25		1 ÷ 20	42		57	
VDIE430ER32		2 ÷ 22	50		78	
VDIE430ER40		3 ÷ 30	63		80	
VDIE440ER20	40	1 ÷ 14	35	83	59	22
VDIE440ER25		1 ÷ 20	42		57	
VDIE440ER32		2 ÷ 22	50		78	
VDIE440ER40		3 ÷ 30	63		80	
VDIE450ER25	50	1 ÷ 20	42	98	67	30
VDIE450ER32		2 ÷ 22	50		92	
VDIE450ER40		3 ÷ 30	63		80	
VDIE460ER32		2 ÷ 22	50		78	
VDIE460ER40	60	3 ÷ 30	63	123	80	30

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DIN/69880

Porta escariador flotante ER - DIN 6499
Floating reamer holders for ER - DIN 6499



Refrigeración
Interna
Coolant flow



VD20 / VDI30 / VDI40

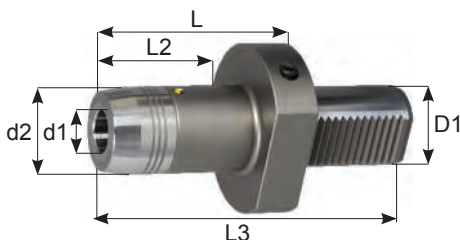
REFERENCIA	D	PINZA	CAP	FLOT	d2	d3	L
VDI20RM25	20	ER25	1 ÷ 20	± 1.0 mm	42	57	57
VDI30RM25	30	ER25	1 ÷ 20	± 1.0 mm	42	68	64
VDI30RM32	30	ER32	2 ÷ 22	± 1.5 mm	50	68	72
VDI40RM32	40	ER32	1 ÷ 20	± 1.5 mm	50	83	74
VDI40RM40	40	ER40	2 ÷ 22	± 1.5 mm	63	83	74



Porta pinzas hidráulico con refrigeración
Hydraulic chuck with coolant feed



Coolant



VDI16 / VD20 / VDI25 / VDI30

REFERENCIA	D1 (VDI)	d1	d2	L	L2	L3
VDI16L75HD16	16	16	38	75	57	70
VDI16L75HD20		20	42	75	57	60
VDI20L49HD6	20	6	26	49	33	75
VDI20L49HD8		8	28	49	33	75
VDI20L49HD10		10	30	49	33	75
VDI20L54HD12		12	32	54	38	55
VDI20L54HD14		14	34	54	38	55
VDI20L75HD16		16	38	75	57	70
VDI20L75HD18		18	40	75	57	70
VDI20L75HD20		20	42	75	57	60
VDI25L49HD6	25	6	26	49	33	80
VDI25L49HD8		8	28	49	33	80
VDI25L49HD10		10	30	49	33	80
VDI25L54HD12		12	32	54	38	85
VDI25L54HD14		14	34	54	38	85
VDI25L75HD16		16	38	75	57	75
VDI25L75HD18		18	40	75	57	75
VDI25L75HD20		20	42	75	57	75
VDI25L100HD25	25	50	100	84	85	
VDI30L49HD6	30	6	26	49	33	85
VDI30L49HD8		8	28	49	33	85
VDI30L49HD10		10	30	49	33	85
VDI30L54HD12		12	32	54	38	85
VDI30L54HD14		14	34	54	38	85
VDI30L89HD16		16	38	89	73	85
VDI30L89HD18		18	40	89	73	85
VDI30L89HD20		20	42	89	73	85
VDI30L94HD25		25	50	94	78	85
VDI30L94HD32		32	60	94	78	80

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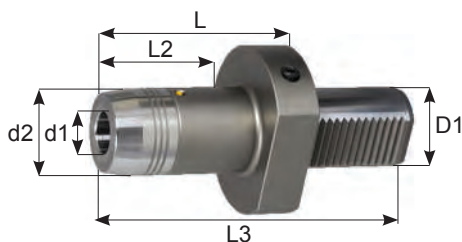
VDI40 / VDI50 / VDI60 →

DIN/69880

Porta pinzas hidráulico con refrigeración
Hydraulic chuck with coolant feed



Coolant



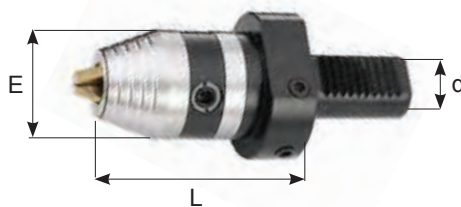
VDI40 / VDI50 / VDI60

REFERENCIA	D1 (VDI)	d1	d2	L	L2	L3
VDI40L55HD6	40	6	26	55	33	90
VDI40L55HD8		8	28	55	33	90
VDI40L55HD10		10	30	55	33	90
VDI40L60HD12-95		12	32	60	38	95
VDI40L80HD12-115		12	32	80	58	115
VDI40L90HD12-125		12	32	90	68	125
VDI40L60HD14		14	34	60	38	95
VDI40L95HD16		16	38	95	73	130
VDI40L95HD18		18	40	95	73	130
VDI40L95HD20		20	42	95	73	130
VDI40L95HD25		25	50	95	73	130
VDI40L75HD32-70		32	60	75	53	70
VDI40L95HD32-90		32	60	95	73	90
VDI40L100HD40		40	70	100	78	90
VDI50L55HD6	50	6	26	55	33	110
VDI50L55HD8		8	28	55	33	110
VDI50L55HD10		10	30	55	33	110
VDI50L60HD12		12	32	60	38	115
VDI50L60HD14		14	34	60	38	115
VDI50L95HD16		16	38	95	65	150
VDI50L95HD18		18	40	95	65	150
VDI50L95HD20		20	42	95	65	150
VDI50L95HD25		25	50	95	65	150
VDI50L95HD32		32	60	95	65	90
VDI50L100HD40		40	60	100	75	90
VDI60L100HD20	60	20	42	100	70	150
VDI60L70HD25		25	50	70	40	120



DIN/69880

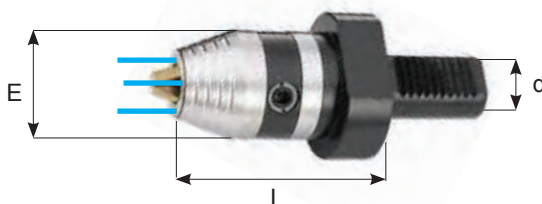
Porta brocas con refrigeración Central
Monolithic drill chucs with middle cooling passing



REFERENCIA	d (VDI)	CAP	E	L
VDI20DCU13C	20	1 ÷ 13	50	88
VDI30DCU13C	30	1 ÷ 13		93
VDI30DCU16C		3 ÷ 16		98
VDI40DCU13C	40	1 ÷ 13		93
VDI40DCU16C		3 ÷ 16		98
VDI50DCU13C	50	1 ÷ 13		100
VDI50DCU16C		3 ÷ 16		105

DIN/69880

Porta brocas con refrigeración frontal
Monolithic drill chucs with cooling noozles

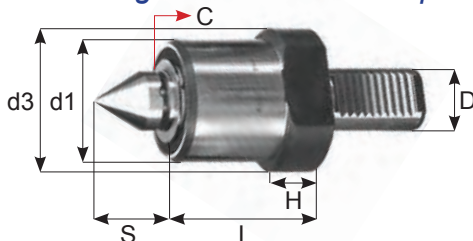


REFERENCIA	d (VDI)	CAP	E	L
VDI30DCU13E	30	1 ÷ 13	63	93
VDI30DCU16E		3 ÷ 16		98
VDI40DCU13E	40	1 ÷ 13		93
VDI40DCU16E		3 ÷ 16		98
VDI50DCU13E	50	1 ÷ 13		100
VDI50DCU16E		3 ÷ 16		105



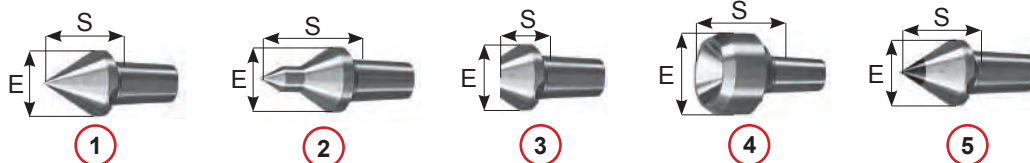
DIN/69880

Punto rotativo con compresión
Revolving Tailstock with compression



REFERENCIA	D (VDI)	d1	d3	L	H	S	C
VDI30L78D34F	30	58	68	78	20	34	2.5
VDI40L80D34F	40	58	83	80	22	34	2.5

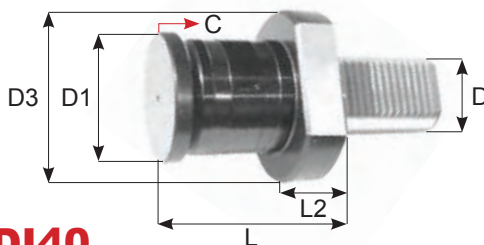
Recambios para punto rotativo VDI
In interchangeable insert VDI



REFERENCIA	E	S	G	FIG
E28S34	28	34	-	1
E28S40	28	40	7	2
E28S40B	28	40	12	2
E58S36	58	36	25	3
E28S32	28	32	24	4
E28S34HM (Punta metal duro)	28	34	10	5

DIN/69880

Topo de barras con compensación
Damped rotary adjustable bar-stop



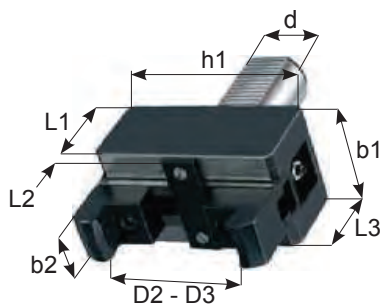
VDI20 / VDI30 / VDI40

REFERENCIA	D (VDI)	L	D3	L2	D1	C
VDI20E34	20	82 - 95	50	30	34	3
VDI20E42	20	82 - 95	50	30	42	3
VDI30E42	30	68 - 100	68	16	42	3
VDI30E56	30	68 - 100	68	16	56	3
VDI40E42	40	74 - 100	83	22	42	3
VDI40E56	40	74 - 100	83	22	56	3
VDI50E42	50	82 - 110	98	30	42	3
VDI50E56	50	82 - 110	98	30	56	3

Arrastra barras
Bar Clamps

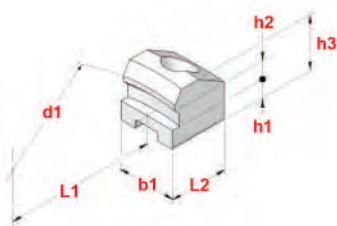
DIN/69880

FORMA H1



REFERENCIA	d (VDI)	d2	d3	b1	b2	h1	L1	L2	L3
H116	16	6 ÷ 56	54 ÷ 110	50	28	72	46	4	51
H120	20	6 ÷ 56	54 ÷ 110	50	28	72	46	4	51
H130	30	6 ÷ 56	54 ÷ 110	50	28	72	46	4	51
H140	40	6 ÷ 56	54 ÷ 110	60	28	110	48	4	53
H150	50	10 ÷ 75	62 ÷ 125	65	28	130	67	5	73
H160	60	10 ÷ 75	62 ÷ 125	65	28	130	67	5	73

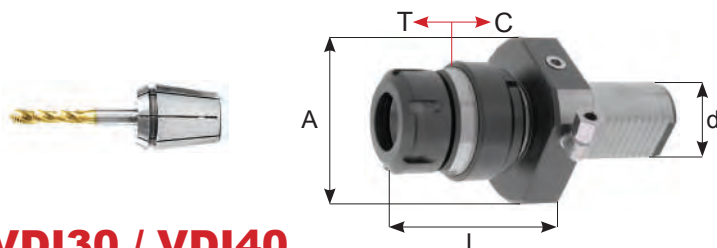
Garras
Jaws



REFERENCIA	d1	b1	L1	L2	h1	h2	h3
H1103040	75	28	35	28	9	10	26
H1113040	125	28	42	36	18	10	34
H1105060	75	28	35	28	17	10	42
H1115060	125	28	42	36	24	10	42

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Rosgador con compresión y tracción pinza ER
Tension and compression tap holders collet ER

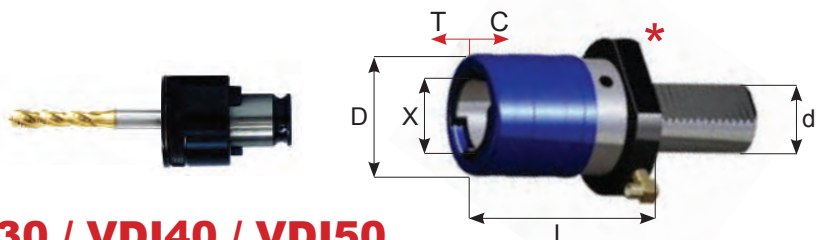


VDI20 / VDI30 / VDI40

REFERENCIA	d	CAP	L	A	C	T
VDI20ER20TC	20	M3 ÷ M16	84	34	3	9
VDI20ER25TC	20	M3 ÷ M20	86	42	3	9
VDI30ER25TC	30	M3 ÷ M20	84	42	4	12
VDI30ER32TC	30	M3 ÷ M27	86	50	4	12
VDI30ER40TC	30	M5 ÷ M27	86	63	4	12
VDI40ER25TC	40	M3 ÷ M20	86	42	4	12
VDI40ER32TC	40	M3 ÷ M27	88	50	4	12
VDI40ER40TC	40	M5 ÷ M27	88	63	4	12

Roscador cambio rápido con compresión y tracción sin flangia
Double compensation quick change tap holders without flange

DIN/69880

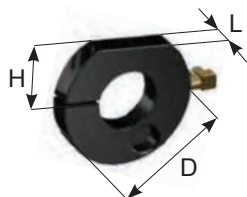


VDI20 / VDI30 / VDI40 / VDI50

REFERENCIA	CAP	d (VDI)	D	X	L	C	T
VDI20-THTC1-L55	M 3 ÷ M12	20	38	19	55	9	9
VDI20-THTC2-L77	M 8 ÷ M20	20	55	31	77	15	15
VDI30-THTC1-L55	M 3 ÷ M12	30	38	19	55	9	9
VDI30-THTC2-L77	M 8 ÷ M20	30	55	31	77	15	15
VDI40-THTC1-L55	M 3 ÷ M12	40	38	19	55	9	9
VDI40-THTC2-L77	M 8 ÷ M20	40	55	31	77	15	15
VDI40-THTC3-L120	M14 ÷ M33	40	79	48	120	9	15
VDI50-THTC2-L77	M 8 ÷ M20	50	55	31	77	9	9
VDI50-THTC3-L108	M14 ÷ M33	50	79	48	108	15	15

* Sin Flangia

Flangia
 Flangia

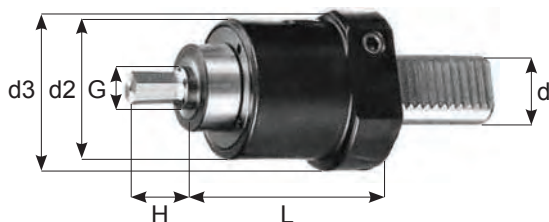


REFERENCIA	d	D	H	L
VDI-F20	20	50	23	12
VDI-F30	30	68	28	12
VDI-F40	40	83	32.5	12
VDI-F50	50	98	35	12
VDI-F60	60	123	42.5	12

Porta herramientas rotativo de brochado interno
Rotary broach holder for internal polygons

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DIN/69880



VDI20 / VDI30 / VDI40

REFERENCIA	d (VDI)	d2	d3	G	L	H	*BCH
VDI20BCH12	20	44	50	12	57	25	12
VDI30BCH12	30	58	68	12	83	25	12
VDI30BCH16	30	58	68	16	83	40	16
VDI40BCH12	40	58	83	12	83	25	12
VDI40BCH16	40	58	83	16	83	40	16

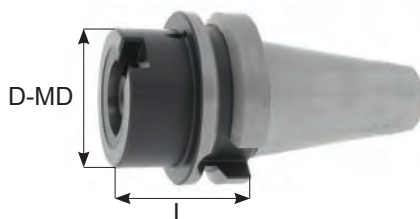


PROGRAMA MODULAR

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and is used here only for identification purpose.*

MAS/403BT

Porta herramientas modular sistema varilock
Modular toll holders varilock system

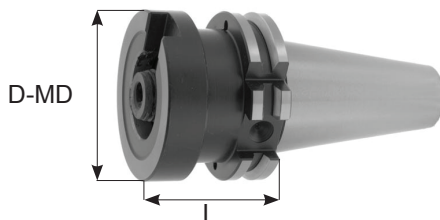


BT40 / BT50

REFERENCIA	D	FORMA	L
BTB40L27D50MD	50	AD+B	27
BTB40L50D50MD	50		50
BTB40L27D63MD	63		27
BTB40L50D63MD	63		50
BTB50L50D50MD	50	AD+B	50
BTB50L50D63MD	63		50
BTB50L50D80MD	80		50

DIN/69871

Porta herramientas modular sistema varilock
Modular toll holders varilock system



TC40 / TC50

REFERENCIA	D	FORMA	L
TCB40L27D50MD	50	AD+B	27
TCB40L50D50MD	50		50
TCB40L27D63MD	63		27
TCB40L50D63MD	63		50
TCB50L27D50MD	50	AD+B	27
TCB50L50D50MD	50		50
TCB50L27D63MD	63		27
TCB50L50D63MD	63		50
TCB50L27D80MD	80		27
TCB50L50D80MD	80		50

DIN/69893

Porta herramientas modular sistema varilock
 Modular toll holders varilock system



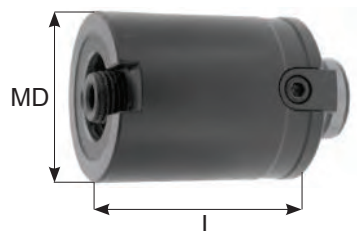
HSK-A / 63 / 100

REFERENCIA	D	FORMA	L
HSK63AL80D50MD	50	HSK63-A	80
HSK63AL90D63MD	63		90
HSK100AL85D50MD	50	HSK100-A	85
HSK100AL95D63MD	63		95
HSK100AL95D80MD	80		95

Adaptador modular de extensión sistema varilock
 Modular extension adapters

MD50 / MD63 / MD80

REFERENCIA	MD	L
MD50L60MD50	50	60
MD50L100MD50	50	100
MD63L80MD63	63	80
MD63L120MD63	63	120
MD80L80MD80	80	80



Porta fresas weldon modular sistema varilock
Modular end mill adapters

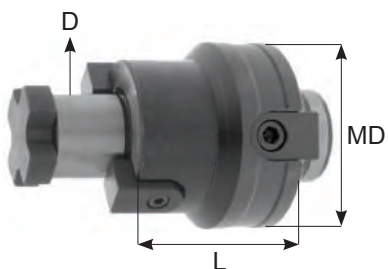
MD50 / MD63



REFERENCIA	MD	L	WE
MD50L50WE6	50	50	6
MD50L50WE8		50	8
MD50L50WE10		50	10
MD50L60WE12		60	12
MD50L60WE14		60	14
MD50L60WE16		60	16
MD50L60WE18		60	18
MD50L60WE20		60	20
MD63L70WE6		63	70
MD63L70WE8	70		8
MD63L70WE10	70		10
MD63L70WE12	70		12
MD63L70WE14	70		14
MD63L70WE16	70		16
MD63L70WE18	70		18
MD63L70WE20	70		20
MD63L80WE25	80		25
MD63L80WE32	80		32

Porta fresas modular sistema varilock
Shell end mill holders Modular Adapters

MD50 / MD63 / MD80



REFERENCIA	MD	L	D
MD50L30D16S	50	30	16
MD50L20D22S		20	22
MD50L20D27S		20	27
MD50L25D32S		25	32
MD50L25D40S		25	40
MD63L40D16S	63	40	16
MD63L30D22S		30	22
MD63L30D27S		30	27
MD63L30D32S		30	32
MD63L30D40S		30	40
MD80L30D22S	80	30	22
MD80L30D27S		30	27
MD80L30D32S		30	32
MD80L30D40S		30	40

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NACIONAL

PROTEC

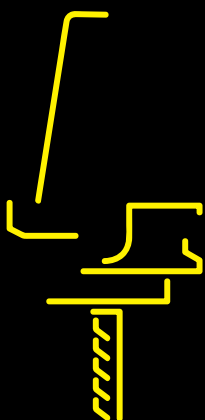
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