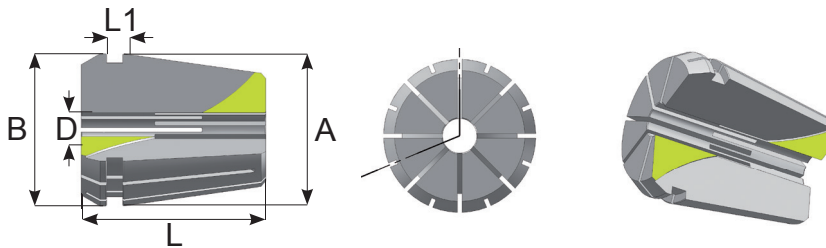




PINZAS CABECILLAS Y RECAMBIOS

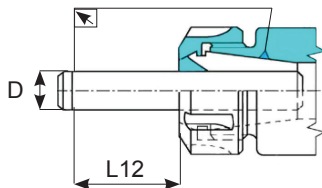
PROGRAMA

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		


FIG. 1

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		


FIG. 1

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		


FIG. 2

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		


FIG. 2

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. 1



FIG. 2



FIG. 1



Pinza de precisión standard
Standard precision collets

STANDARD

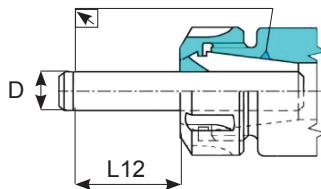
ER60



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		



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		



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		



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		



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

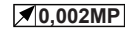
REFERENCIA		
BER32MP-18	BOX	FIG. 2
D. 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13 . 14		
D. 15 . 16 . 17 . 18 . 19 . 20		

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

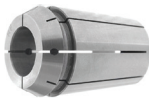
ERG-11

Max. 40 BAR

ERG-16



Coolant



0,008



Coolant



0,008

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

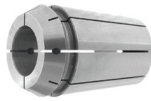
Pinza refrigeración central
Rubber sealed collets

ERG-20
Max. 40 BAR

Pinza refrigeración central
Rubber sealed collets

ERG-25

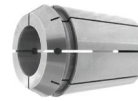

Coolant



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	
REREG20-11	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	
REREG25-6	KIT FIG. 1
D. 4 . 6 . 8 . 10 . 12 . 16	

FIG. 1



Estuche de pinzas / *Kit in Box*

REFERENCIA	
REREG25-14	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

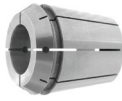
ERG-32

Max. 40 BAR

ERG-40



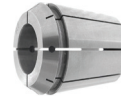
Coolant



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



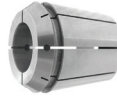
FIG. 2



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



0.008



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	

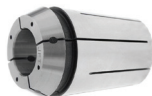
Pinza con taladros de refrigeración
Collets with coolant holes

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

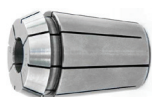
REFERENCIA	CAPACIDAD
ER20SJD3	3
ER20SJD4	4
ER20SJD5	5
ER20SJD6	6
ER20SJD7	7
ER20SJD8	8
ER20SJD9	9
ER20SJD10	10
ER20SJD11	11
ER20SJD12	12
ER20SJD13	13
ER20SJD14	14

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	M 5	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

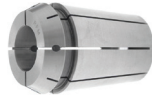
ER-40M

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



0.015



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

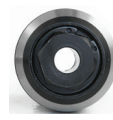
REFERENCIA	M	Ø	X	∇
ERG40MD6	M 5-6-8	6	x	4.9
ERG40MD7	M 7-10	7	x	5.5
ERG40MD8	M 8	8	x	6.2
ERG40MD9	M 9-12	9	x	7
ERG40MD10	M 10	10	x	8
ERG40MD11	M 14	11	x	9
ERG40MD12	M 16	12	x	9
ERG40MD14	M 18	14	x	11
ERG40MD16	M 20	16	x	12
ERG40MD18	M 24	18	x	14.5
ERG40MD20	M 27	20	x	16

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

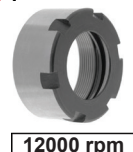


12000 rpm

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



Llave tuerca
MINI
Dinamométrica

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



Llave tuerca
MINI
Hexagonal

REFERENCIA
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



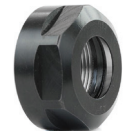
12000 rpm

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

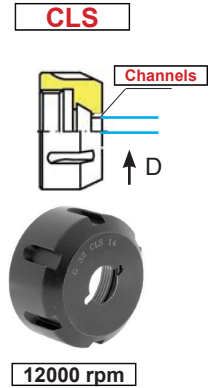
CH25S	FIG. 2
CH32S	FIG. 2
CH40S	FIG. 2



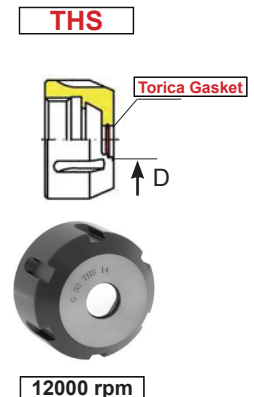
* Nm = Fuerza de apriete aconsejada
Recommended tightening torque

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



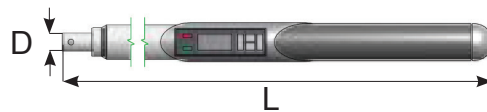
Llave STANDARD Dinamométrica

REFERENCIA

CD16S
CD20S
CD25S
CD32S
CD40S



Llave Dinamométrica Digital Digital torque wrench



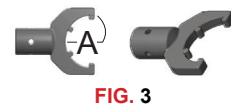
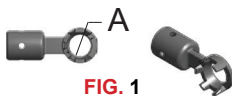
REFERENCIA	L	D	FUERZA DE APRIETE
WRDIG	540	16	20-200 Nm

Recambios llave digital Interchangeable Inserts

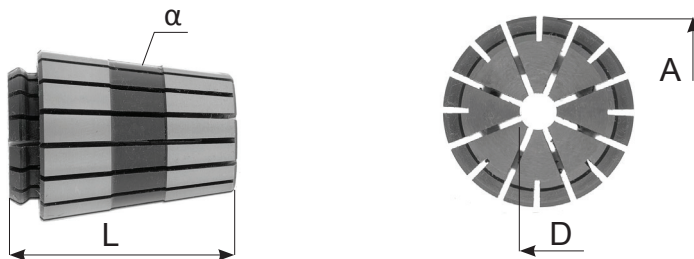
REFERENCIA	A
DIG16M	FIG. 1 22
DIG20M	FIG. 1 28
DIG25M	FIG. 1 35

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

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

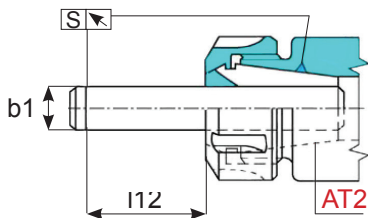


* Nm = Fuerza de apriete aconsejada
Recommended tightening torque



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

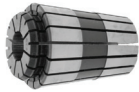


d1 - h5		l12	S max ①
<i>minimum</i>	<i>maximum</i>		
<i>mm</i>	<i>mm</i>	<i>mm</i>	<i>mm</i>
1	1.6	6	0.010
1.6	3	10	0.010
3	7	16	0.010
7	10	25	0.010
10	18	40	0.015
18	26	50	0.015
26	40	60	0.015

② El valor de la concentricidad 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*

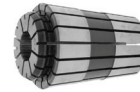
REFERENCIA		
BERD16-10	BOX	FIG. 2
D. 1 . 2 . 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10		

FIG. 2



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	FIG. 2
D. 2 . 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13		

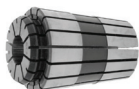
FIG. 2



* ERD = Compatible with clamp ER Din 6499

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		



FIG. 2

FIG. 1

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		



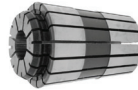
FIG. 2

FIG. 1

* ERD = Compatible con pinza ER Din 6499

Pinza de precisión
Precision collets

ERD40



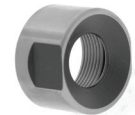
▽0,010 ÷ 0,015

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

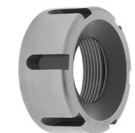
TUERCA Mini

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

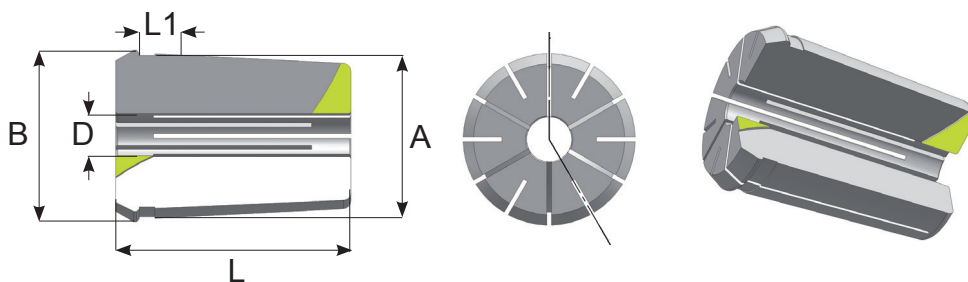


Llave
STANDARD

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	
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	

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 . 14 . 15 . 16 . 17 . 18 . 19 . 20 . 21 . 22 . 23 . 24 . 25 . 26 . 27 . 28 . 29 . 30 . 31 . 32	

FIG. 1



FIG. 2



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

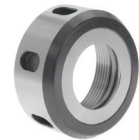
Tuerca de apriete sin bolas
Nuts without friction bearing

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

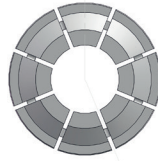
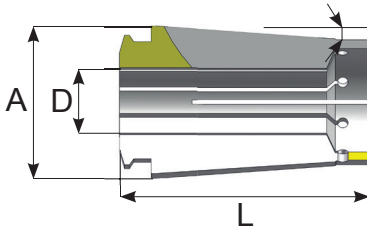


Llave Gancho

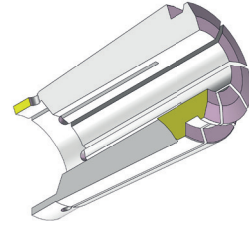
REFERENCIA
CH6GOC
CH8GOC
CH10GOC
CH12GOC
CH16GOC
CH20GOC
CH25GOC
CH32GOC
CH40GOC



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

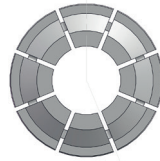
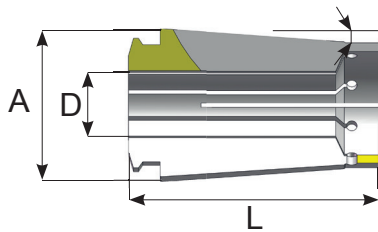
REFERENCIA	D	A	L
SKS10D2	2		
SKS10D3	3		
SKS10D4	4		
SKS10D5	5		
SKS10D6	6	15.013	32
SKS10D7	7		
SKS10D8	8		
SKS10D9	9		
SKS10D10	10		

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

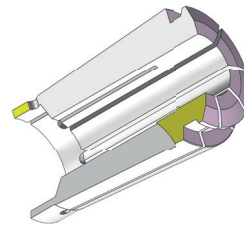
REFERENCIA	D	A	L
SKS16D3	3		
SKS16D4	4		
SKS16D5	5		
SKS16D6	6		
SKS16D7	7		
SKS16D8	8		
SKS16D9	9		
SKS16D10	10	23.939	46
SKS16D11	11		
SKS16D12	12		
SKS16D13	13		
SKS16D14	14		
SKS16D15	15		
SKS16D16	16		



Pinza ultra precisión
Ultra precision collets



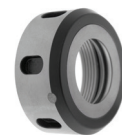
0,005



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



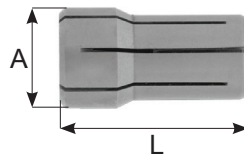
Llaves para pinza SKS
Keys Friction bearing nuts for collet SKS

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



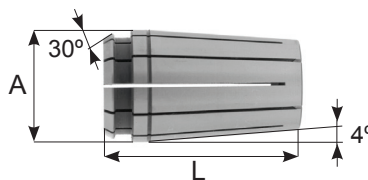
* Nm = Fuerza de apriete aconsejada
Recommended tightening torque

Pinza Tipo "DA"
Collets "DA" Type



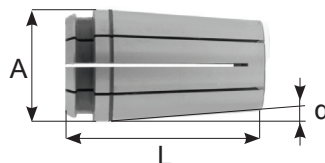
REFERENCIA	CAP			A	L	CAMPO DE APRIETE
DA300-416E	1.5	÷	6.0	9.5	25.4	0.5 mm
DA200-417E	1.5	÷	10.0	13.6	30.3	0.5 mm
DA100-418E	2.0	÷	14.5	19.4	36.7	0.5 mm
DA180-419E	2.0	÷	20.0	26.2	41.6	0.5 mm
DA400-465E	6.0	÷	25.5	36.9	51.0	0.5 mm

Pinza Tipo "TG"
Collets "TG" Type



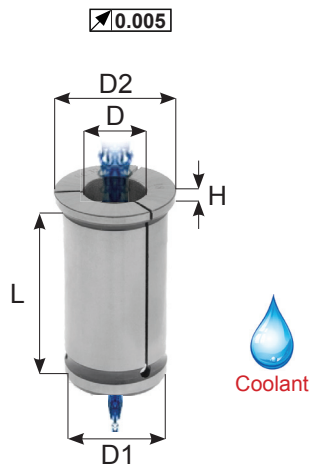
REFERENCIA	A	L	Apriete
TG75-420E	27.0	46.9	0.5 mm
TG100-464E	35.0	60.4	0.5 mm
TG150-466E	50.8	76.2	0.5 mm

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



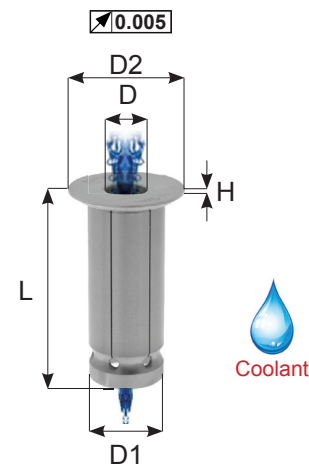
D1 = 20	D2 = 25
L = 54	H = 4
REFERENCIA	

- 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



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

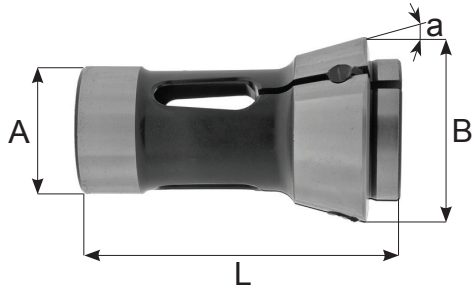
- 6SR12D3
- 6SR12D4
- 6SR12D5
- 6SR12D6
- 6SR12D7
- 6SR12D8
- 6SR12D10

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

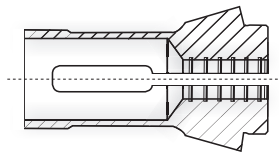
D1 = 32	D2 = 36
L = 63	
REFERENCIA	

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

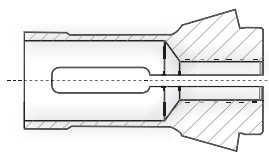


Pinza para torno DIN/6343
Collets for Single - Spindle lathes

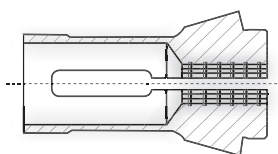
Tipo (Ranurada)
Type (Grooved)



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



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



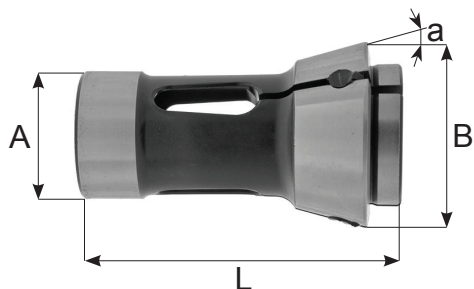
Ejemplo para este pedido: Ref. 0721
Example for order: Ref. 0721

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

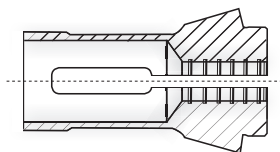


REF	REF	REF	COD	A	B	L	a	●max	⬡max	■max
1072	-	-	100E	6	10	30	15°	4.5	-	-
5293	-	-	1020E	7	10.7	26	15°	5.0	-	-
0721	-	-	101E	8	12	42	16°	6.5	-	-
0725	0949	5000	109E	10	15.5	47.5	20°	8.0	6.0	5.0
5232	-	-	110E	10	16.0	43	15°	7.0	-	-
0347	-	-	-	12	14.5	21	16°	8.0	-	-
0749	-	-	-	12	17	27	20°	10.0	-	-
1132	-	-	-	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

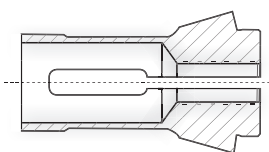


Pinza para torno DIN/6343
Collets for Single - Spindle lathes

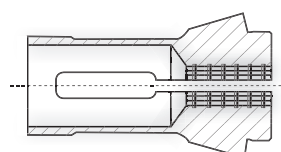
Tipo (Ranurada)
Type (Grooved)



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

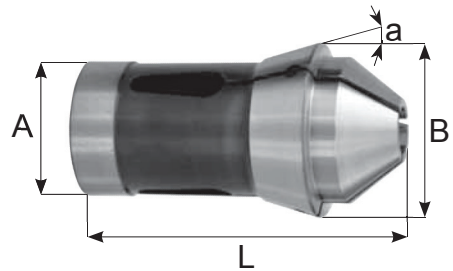
Example for order: Add the letter "L" Ref. 028MLL

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

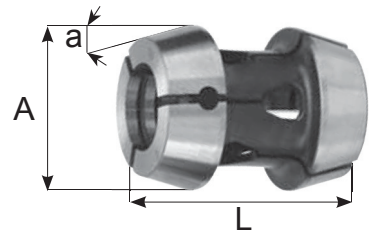
Example for order: Add the letter "S" Ref. 028MLS



Tipo (Ranurada)
Type (Grooved)

Pinza doble cono

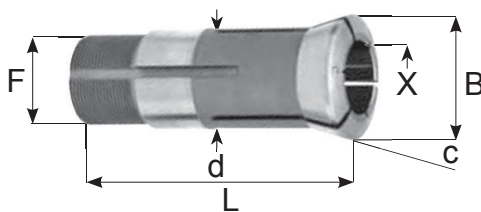
Double cone collets



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

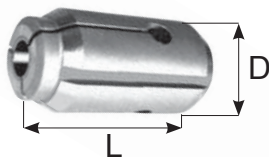
Sobre pedido / On request: Tipo Lisa "L", Tipo Estriada "S"

Cañón de metal duro
Hard metal adjustable bushes



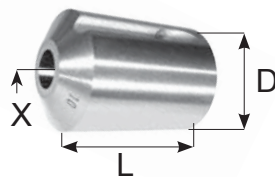
REF	d	D	L	C	F	max	REF	d	D	L	C	F	max
042.010	7	9.5	30	16°	6x0.5	3.5	042.220	24	30	61	30°	24x1	16
042.030	9	11.5	25	30°	6x0.5int	4.5	042.230	25	30	71	30°	25x1	16
042.040	9	12.5	44	16°	8x0.75	4.5	042.240	27	30	57	13°	24x1	16
042.050	9	13	52	30°	9x0.7	4.5	042.245	28	34	81	16°	25x1	20
042.060	10	14	57	36°	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



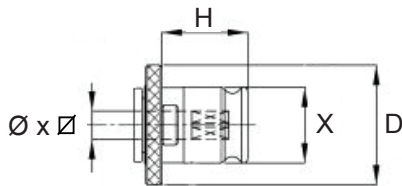
REF	d	D
041.108	8	30
041.116	16	40
041.120	20	40
041.130	30	60
041.134	34	60
041.142	42	72
041.148	48	73

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

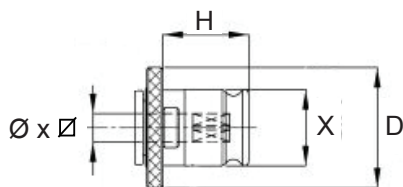

REFERENCIA	TIPO	CAP	Ø X Ø	X	H	D
SE0-2.5x2.1	0	M.1 - 1.8	2.5 x 2.1	13	19.5	22
SE0-2.8x2.1		M.2 - 2.5 - 3 - 4	2.8 x 2.1			
SE0-3.5x2.7		M.3	3.5 x 2.7			
SE0-4x3		M.3.5	4 x 3			
SE0-4.5x3.4		M.4	4.5 x 3.4			
SE0-6x4.9		M.5 - 6 - 8	6 x 4.9			
SE0-7x5.5		M.10	7 x 5.5			
SE0-8x6.2		M.8	8 x 6.2			

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



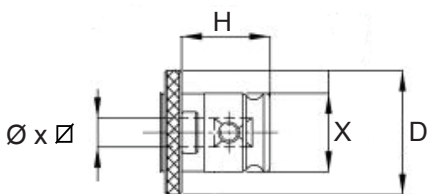
SE



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

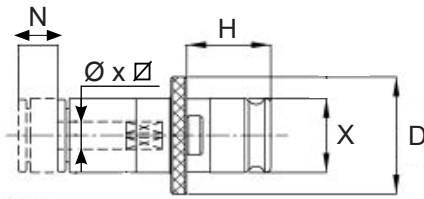


SEK



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

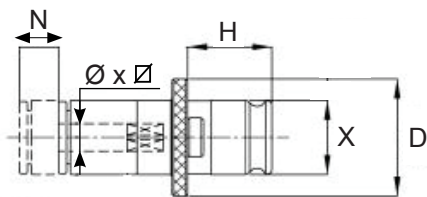

SEN


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



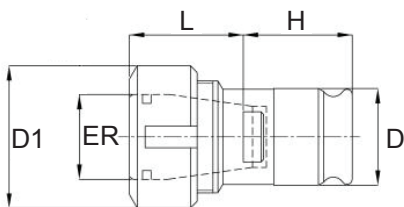
SEN



REFERENCIA	TIPO	CAP	Ø x ∅	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 ∅	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



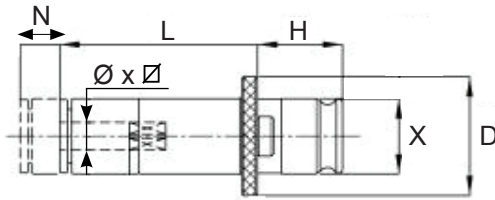
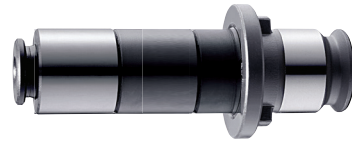
SEP



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


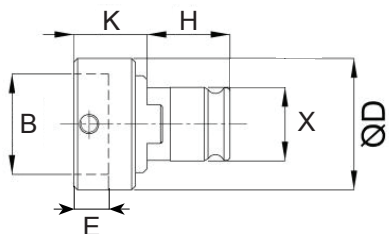
REFERENCIA	TIPO	CAP	Ø x Ø	X	H	D	N	L
SENV0-2.5x2.1	0	M.1 - 1.8	2.5 x 2.1	13	19.5	22	8	40 ÷ 120
SENV0-2.8x2.1		M.2 - 2.5 - 3 - 4	2.8 x 2.1					
SENV0-3.5x2.7		M.3	3.5 x 2.7					
SENV0-4x3		M.3.5	4 x 3					
SENV0-4.5x3.4		M.4	4.5 x 3.4					
SENV0-6x4.9		M.5 - 6 - 8	6 x 4.9					
SENV0-7x5.5		M.10	7 x 5.5					
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	
SENV1-11x9	M.14	11 x 9						
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						
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	48	55.5	70	25	100 ÷ 180	
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	M.14	11 x 9						
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	48	55.5	70	25	100 ÷ 180	
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



SEF

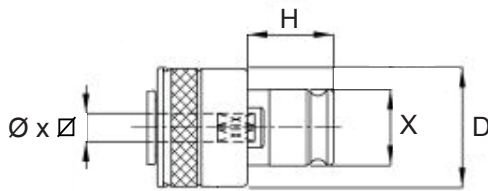


REFERENCIA	TIPO	B X E	X	H	K	D	B
SEF1-16x5	1	16 x 5	19	21.5	14	25	16
SEF1-20x5		20 x 5			14	30	20
SEF1-20x7		20 x 7			16	30	20
SEF1-25x9		25 x 9			19	35	25
SEF1-30x11		30 x 11			21	40	30
SEF1-38x10		38 x 10			20	48	38
SEF1-38x14		38 x 14			24	48	38

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

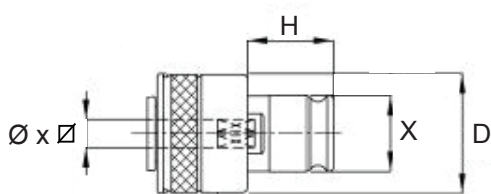

REFERENCIA	TIPO	CAP	Ø x Ø	X	H	D
SES0-2.5x2.1	0	M.1 - 1.8	2.5 x 2.1	13	19.5	24
SES0-2.8x2.1		M.2 - 2.5 - 3 - 4	2.8 x 2.1			
SES0-3.5x2.7		M.3	3.5 x 2.7			
SES0-4x3		M.3.5	4 x 3			
SES0-4.5x3.4		M.4	4.5 x 3.4			
SES0-6x4.9		M.5 - 6 - 8	6 x 4.9			
SES0-7x5.5		M.10	7 x 5.5			
SES0-8x6.2		M.8	8 x 6.2			

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

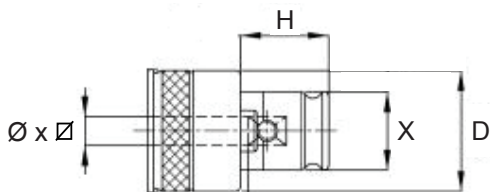


REFERENCIA	TIPO	CAP	Ø x Ø	X	H	D
SES3-11x9	3	M.14	11 x 9	48	55.5	72
SES3-12x9		M.16	12 x 9			
SES3-14x11		M.18	14 x 11			
SES3-16x12		M.20	16 x 12			
SES3-18x14.5		M.22 - 24	18 x 14.5			
SES3-20x16		M.27	20 x 16			
SES3-22x18		M.30	22 x 18			
SES3-25x20		M.33	25 x 20			
SES3-28x22		M.36	28 x 22			

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

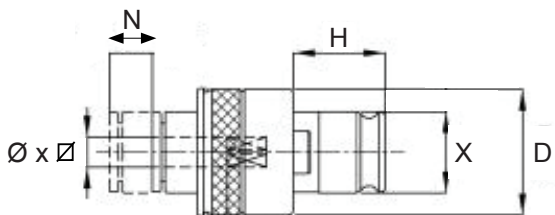


SESK



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				

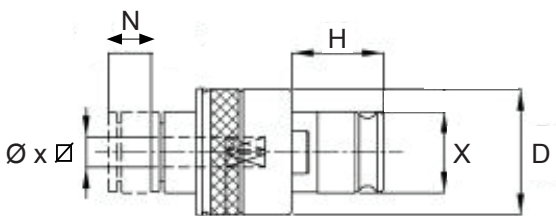
REFERENCIA	TIPO	CAP	Ø x ∅	X	H	D	N
SESN1-2.5x2.1	1	M.1 - 1.8	2.5 x 2.1	19	21.5	32.5	10
SESN1-2.8x2.1		M.2 - 2.2 - 2.5 - 4	2.8 x 2.1				
SESN1-3.5x2.7		M.3	3.5 x 2.7				
SESN1-4x3		M.3.5	4 x 3				
SESN1-4.5x3.4		M.4	4.5 x 3.4				
SESN1-6x4.9		M.5 - 6 - 8	6 x 4.9				
SESN1-7x5.5		M.10	7 x 5.5				
SESN1-8x6.2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



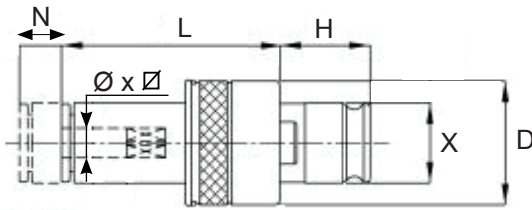
REFERENCIA	TIPO	CAP	Ø x ∅	X	H	D	N
SESN3-8x6.2	3	M.8	8 x 6.2	48	55.5	72	25
SESN3-9x7		M.12	9 x 7				
SESN3-10x8		M10	10 x 8				
SESN3-11x9		M.14	11 x 9				
SESN3-12x9		M.16	12 x 9				
SESN3-14x11		M.18	14 x 11				
SESN3-16x12		M.20	16 x 12				
SESN3-18x14.5		M.22 - 24	18 x 14.5				
SESN3-20x16		M.27	20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



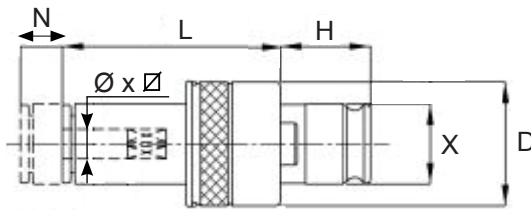
REFERENCIA	TIPO	CAP	Ø x Ø	X	H	D	N	L
SESNV0-2.5x2.1	0	M.1 - 1.8	2.5 x 2.1	13	19.5	24	8	40 ÷ 120
SESNV0-2.8x2.1		M.2 - 2.5 - 3 - 4	2.8 x 2.1					
SESNV0-3.5x2.7		M.3	3.5 x 2.7					
SESNV0-4x3		M.3.5	4 x 3					
SESNV0-4.5x3.4		M.4	4.5 x 3.4					
SESNV0-6x4.9		M.5 - 6 - 8	6 x 4.9					
SESNV0-7x5.5		M.10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

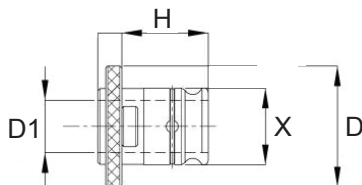


REFERENCIA	TIPO	CAP	Ø x Ø	X	H	D	N	L
SESNV3-8x6.2	3	M.8	8 x 6.2	48	55.5	72	25	100 ÷ 180
SESNV3-9x7		M.12	9 x 7					
SESNV3-10x8		M.10	10 x 8					
SESNV3-11x9		M.14	11 x 9					
SESNV3-12x9		M.16	12 x 9					
SESNV3-14x11		M.18	14 x 11					
SESNV3-16x12		M.20	16 x 12					
SESNV3-18x14.5		M.22-24	18 x 14.5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

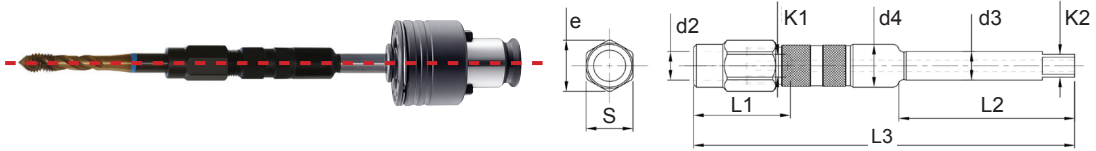


SER



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

Reductor - Alargadera porta machos con paso refrigerante
Reduction coolant thru

**REDUCTOR**

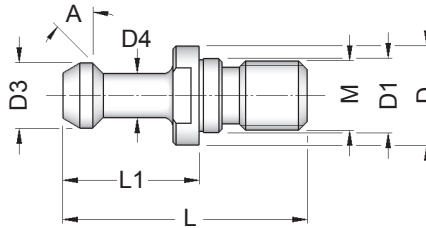
REFERENCIA	DIN 371	DIN 374 / 376	d2	K1	L1	d3	K2	d4	e	S	L2	L3
ABV1x28x21x130	M2		2.8	2.1	21	6	4.9	6.1	6.5	6	60	130
ABV1x28x21x230			2.8	2.1	21	6	4.9	6.1	6.5	6	70	230
ABV2x35x27x130	M3		3.5	2.7	24	6	4.9	7.5	9.0	8	60	130
ABV2x35x27x230			3.5	2.7	24	6	4.9	7.5	9.0	8	60	230
ABV3x45x34x130	M4		4.5	3.4	24	6	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)

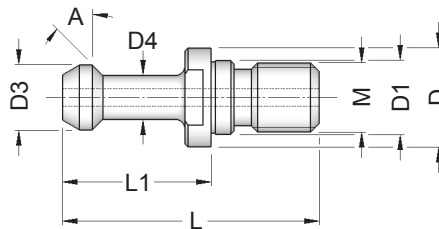
BT



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

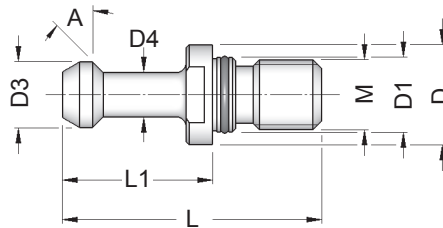
REFERENCIA	COD	A	M	L	L1	D	D1	D3	D4	F
BT30-30°F	3293224	30°	M12	43	23	16.5	12.5	11	7	2.5
BT30-45°F	3293225	45°	M12	43	23	16.5	12.5	11	7	2.5
BT40-30°F	3293327	30°	M16	60	35	23	17	15	10	4
BT40-45°F	3293328	45°	M16	60	35	23	17	15	10	4
BT40-90°F	3293330	90°	M16	60	35	23	17	15	10	4
BT50-30°F	3293331	30°	M24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

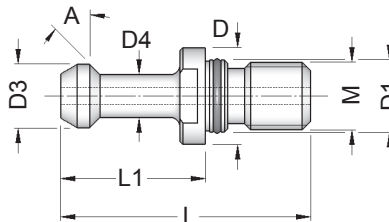


REFERENCIA	COD	A	M	L	L1	D	D1	D3	D4
BT40-30°OR	3293315	30°	M16	60	35	23	17	15	10
BT40-45°OR	3293316	45°	M16	60	35	23	17	15	10
BT40-90°OR	3293318	90°	M16	60	35	23	17	15	10
BT50-30°OR	3293322	30°	M24	85	45	38	25	23	17
BT50-45°OR	3293325	45°	M24	85	45	38	25	23	17
BT50-90°OR	3293326	90°	M24	85	45	38	25	23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

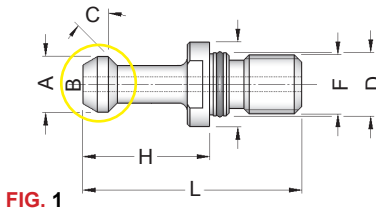


FIG. 1

DOBLE O-RING

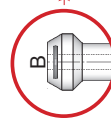


FIG. 2

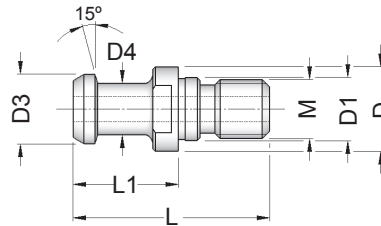
Refrigeración Central
Coolant flow

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



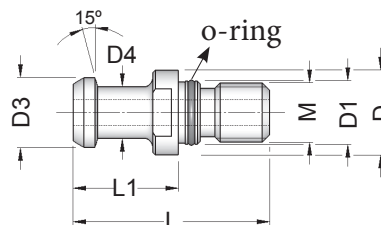
Refrigeración Central
Coolant flow

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



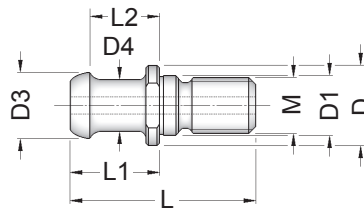
Refrigeración Central
Coolant flow

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

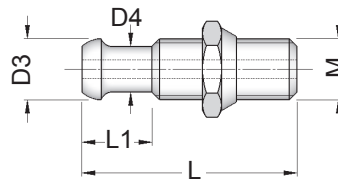


REFERENCIA	COD	M	D	D1	D3	D4	L	L1	L2	F
CBFERRARIISO40-M16	3294597	M16	23	17	19	15	54	26	20.31	5

F= Agujero

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

CB FERRARI

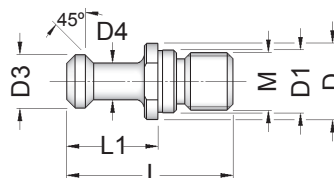


REFERENCIA	COD	M	D3	D4	L	L1	F
CBFERRARIISO40-M16D	3293493	M16	16	12	57	18.5	5

F= Agujero

Tirante CHIRON
Pull stud bolts CHIRON type

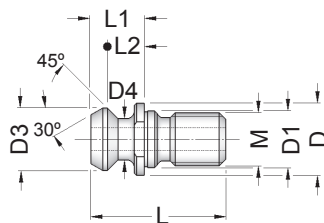
CHIRON



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



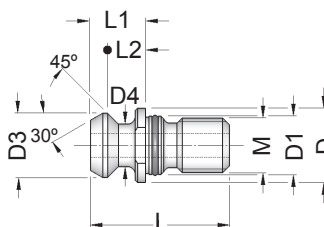
Refrigeración
 Central
 Coolant flow

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



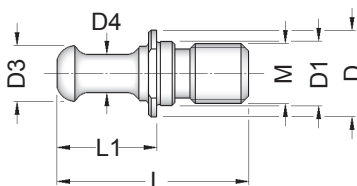
Refrigeración
 Central
 Coolant flow

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

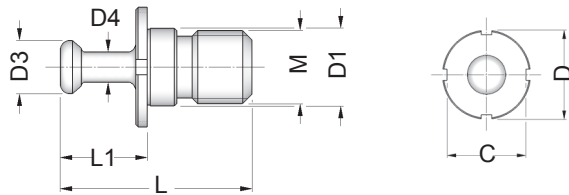


REFERENCIA	COD	M	D	D1	D3	D4	L	L1
RAMBAUDIISO40-M16	3294595	M16	24.0	17	14.6	10	52.0	27.0
RAMBAUDIISO50-M24	3294596	M24	35.8	25	20.0	16	79.5	39.5

Tirante SECMU

Pull stud bolts SECMU type

SECMU

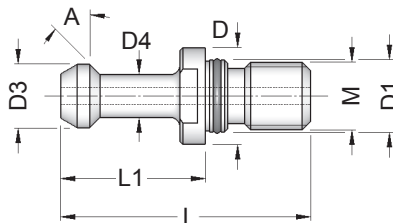


REFERENCIA	COD	M	D	D1	D3	D4	L	L1	C
SECMUIISO50-M24	3293496	M24	40	25	17.5	9.8	64	29	36

Tirante con Agujero PASANTE - HURCO

With coolant hole - HURCO

HURCO



Refrigeración
Central
Coolant flow

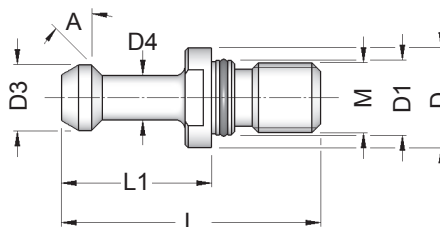
REFERENCIA	COD	A	M	L	L1	D	D1	D3	D4	F
SK40-30°FOR	3294637	30°	M16	57	32	23	17	15	10	3
SK40-45°FOR	3294638	45°	M16	57	32	23	17	15	10	3
SK40-90°FOR	3294639	90°	M16	57	32	23	17	15	10	3

F= Agujero

Tirantes sin Agujero - HURCO

Without coolant hole - HURCO

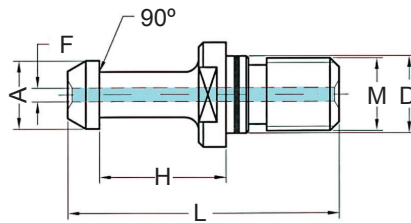
HURCO



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



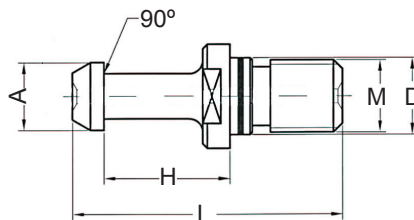
Refrigeración
Central
Coolant flow

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

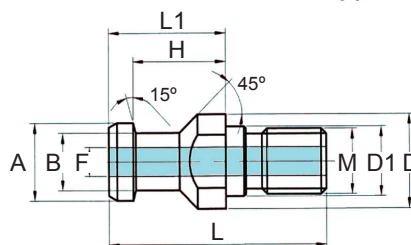
MITSUI SEIKI



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

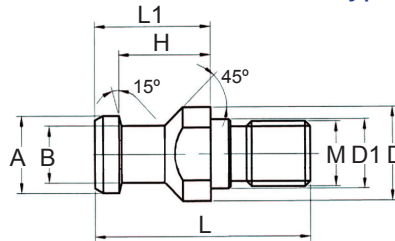
REFERENCIA	M	A	H±0.05	D1	D	B	L1	L	F
KITAMURA-M16F	M16	19	23	17	23	14	29	54	7

F= Agujero

Tirante sin Agujero - KITAMURA

Without coolant hole - KITAMURA Type

KITAMURA

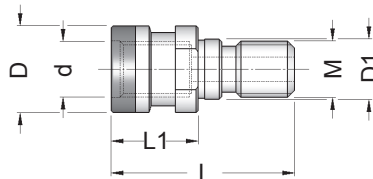


REFERENCIA	M	A	H±0.05	D1	D	B	L1	L
KITAMURA-M16SF	M16	19	23	17	23	14	29	54

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

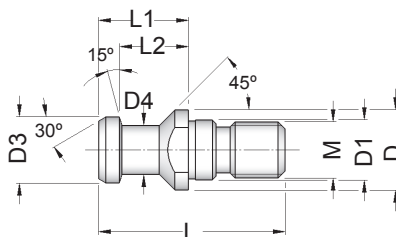
Recommended tightening torque for pull stud bolt

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

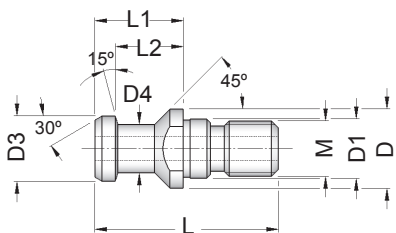
DIN/69872



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



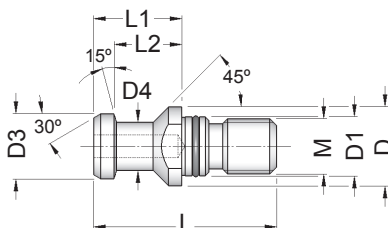
**Refrigeración
 Central
 Coolant flow**

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

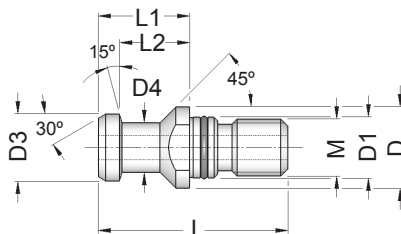
DIN/69872



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



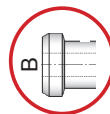
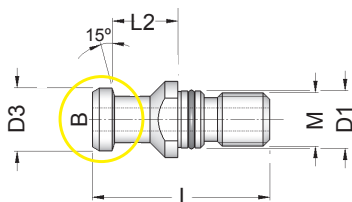
Refrigeración
Central
Coolant flow

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



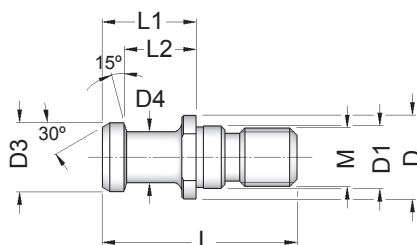
Refrigeración
Central
Coolant flow

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

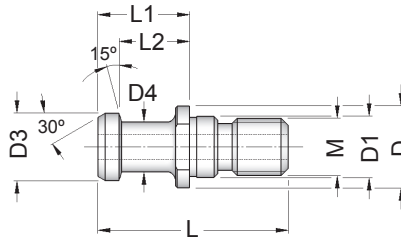
ISO 7388/2-A



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



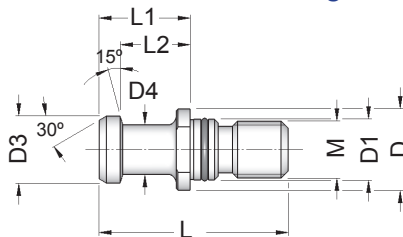
Refrigeración
 Central
 Coolant flow

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

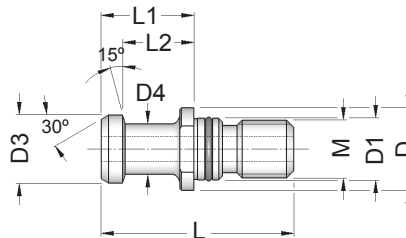
ISO 7388/2-A



REFERENCIA	COD	M	D	D1	D3	D4	L	L1	L2
7388/2A-ISO40OR	3294582	M16	23	17	19	14	54	26	20
7388/2A-ISO50OR	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

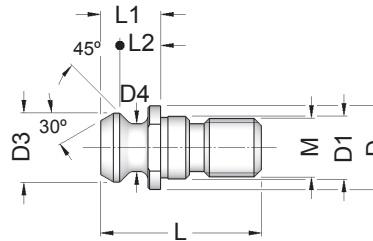
REFERENCIA	COD	M	D	D1	D3	D4	L	L1	L2	F
7388/2A-ISO40F+OR	3293047	M16	23	17	19	14	54	26	20	7.0
7388/2A-ISO50F+OR	3293049	M24	36	25	28	21	74	34	25	11.5

F= Agujero

Tirante sin Agujero (ISO 7388/2B)

ISO 7388/2B Pull stud bolts without hole

ISO 7388/2-B

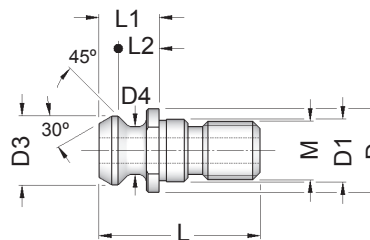


REFERENCIA	COD	M	D	D1	D3	D4	L	L1	L2
7388/2B-ISO30	3293483	M12	17.0	12.5	13.3	9.3	34.0	11.8	8.1
7388/2B-ISO40	3294579	M16	22.5	17.0	18.9	12.9	44.5	16.4	11.1
7388/2B-ISO50	3294581	M24	37.0	25.0	29.1	19.6	65.5	25.5	17.9

Tirante con Agujero PASANTE (ISO 7388/2B)

ISO 7388/2B Pull stud bolts with hole

ISO 7388/2-B



Refrigeración
Central
Coolant flow

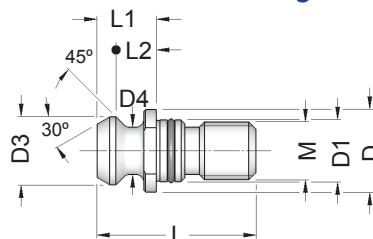
REFERENCIA	COD	M	D	D1	D3	D4	L	L1	L2	F
7388/2B-ISO40F	3293484	M16	22.5	17.0	18.9	12.9	44.5	16.4	11.1	7.3
7388/2B-ISO50F	3293486	M24	37.0	25.0	29.1	19.6	65.5	25.5	17.9	11.5

F= Agujero

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

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

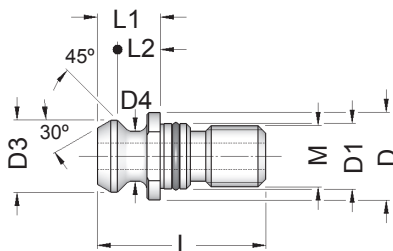
ISO 7388/2-B



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



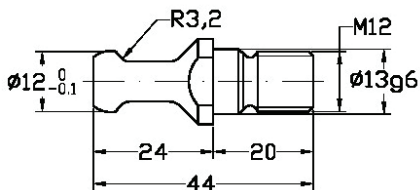
Refrigeración
 Central
 Coolant flow

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

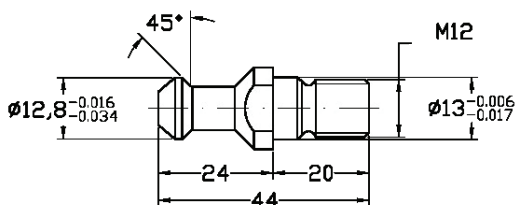


REFERENCIA

PSWD30-BS2

Tirante **ALBERTI**
Pull stud bolts ALBERTI type

ALBERTI

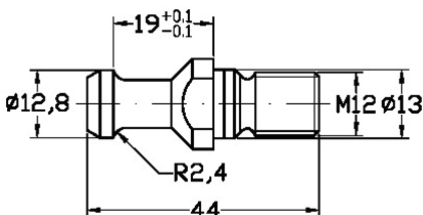


REFERENCIA

PSWD30-ALB

Tirante **CMS**
Pull stud bolts CMS type

CMS



REFERENCIA

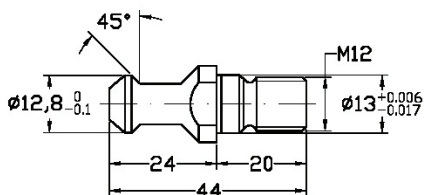
PSWD30-CMS

Tirante COLOMBO
Pull stud bolts COLOMBO type

COLOMBO

REFERENCIA

PSWD30-COL

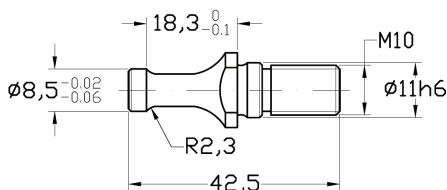


Tirante SCM
Pull stud bolts SCM type

SCM

REFERENCIA

PSWD30-SCM

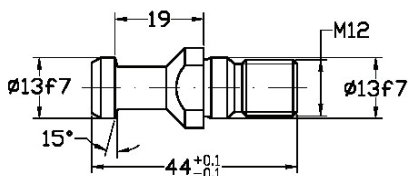


Tirante sin Agujero DIN69872/A
Pull stud bolts DIN69872/A type without hole

DIN/69872/A

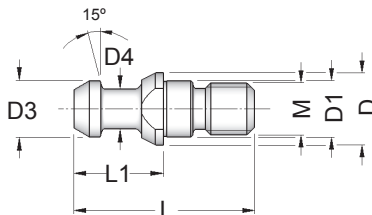
REFERENCIA

PSDIN30-SF



Tirante ALTA VELOCIDAD para ISO 20
High speed pull stud bolts for ISO 20 shank

ALTA VELOCIDAD



REFERENCIA

ISO20-M8L28

COD

3293491

M

M8

D

11

D1

8.5

D3

8.5

D4

6

L

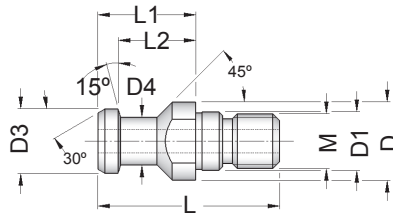
28.0

L1

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



Casquillo intercambiable
Interchangeable socket



REFERENCIA	Q
CHSKT	1/2"

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



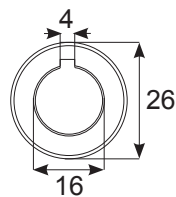
Anillo Distanciador Spacers

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

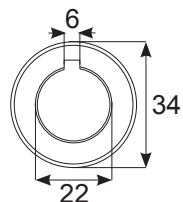


DIAMETRO X ESPESOR

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

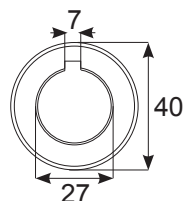


DIAMETRO X ESPESOR

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

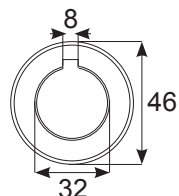


DIAMETRO X ESPESOR

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

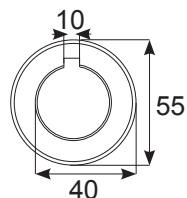


DIAMETRO X ESPESOR

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

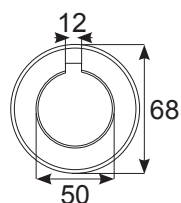


DIAMETRO X ESPESOR

-	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

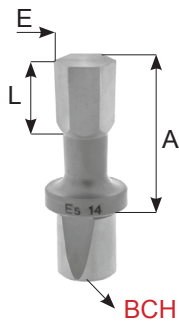
Ø

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

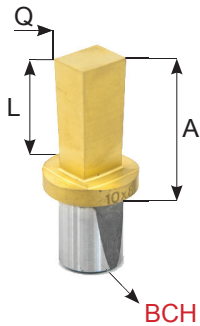


Brocha cuadrada Broach square

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

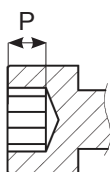
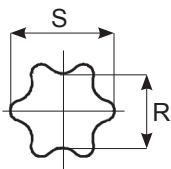
REFERENCIA	A	L
BCH12Q2	25	3.5
BCH12Q2.5		4
BCH12Q3		5
BCH12Q3.5		6
BCH12Q4		6.5
BCH12Q5		8.5
BCH12Q5.5		9.5
BCH12Q6		10.5
BCH12Q7		13
BCH12Q8		13.5
BCH12Q9		21
BCH12Q10		21
BCH12Q11		21
BCH12Q12	21	
BCH12Q13	21	

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	

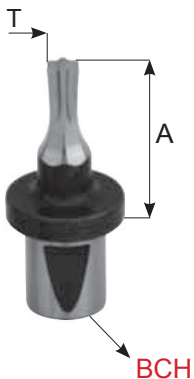


Brocha torx
Broach Torx



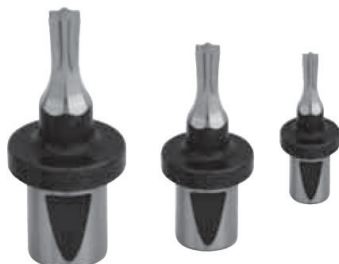
REFERENCIA	A	P	S	R	Torx
BCH8T5	18	0.40-0.60	1.80	1.29	6
BCH8T6		0.50-0.70	2.45	1.80	8
BCH8T7		0.60-0.90	2.85	2.07	10
BCH8T8		0.70-0.90	3.38	2.44	15
BCH8T10		1.00-1.30	3.96	2.86	20
BCH8T15		1.30-1.50	4.55	3.28	25
BCH8T20		1.50-1.60	5.10	3.65	27
BCH8T25		1.60-2.00	5.65	4.07	30
BCH8T27		2.00-2.40	6.80	4.88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

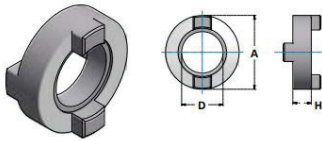
Brocha torx
Broach Torx



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

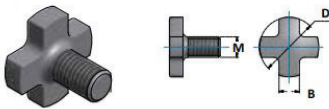
ACCESORIOS
ACCESSORIES

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



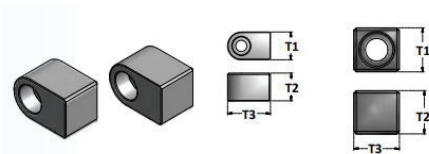
REFERENCIA	D	A	H
ATRD16	16	32	10
ATRD22	22	40	12
ATRD27	27	48	12
ATRD32	32	58	14
ATRD40	40	70	14

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



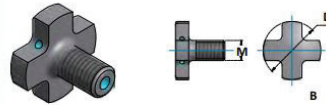
REFERENCIA	D	A	H
VTCD16	M8	20	8
VTCD22	M10	28	10
VTCD27	M12	35	12
VTCD32	M16	42	16
VTCD40	M20	52	20
VTCD60	M30	75	28

Topo 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



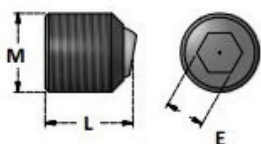
REFERENCIA	M	L	E
GRWE6M6	M6x1	9	3
GRWE8M8	M8x1.25	9	4
GRWE10M10	M10x1.5	12	5
GRWE12M12	M12x1.75	14	6
GRWE14M12	M12x1.75	14	6
GRWE16M14	M14x2	16	6
GRWE18M14	M14x2	16	6
GRWE20M16	M16x2	16	8
GRWE25M18	M18x2	20	10
GRWE32M20	M20x2	20	10
GRWE40M20	M20x2	20	10
GRWE50M24	M24x2	25	12

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



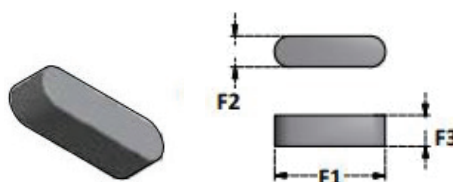
REFERENCIA	M	L	E
GRWEC16M14	M14x2	10	6
GRWEC20M16	M16x2	10	8
GRWEC25M16	M16x1	8	10
GRWEC25M18	M18x2	12	10
GRWEC32M16	M16x1	8	10
GRWEC32M20	M20x2	14	10
GRWEC40M20	M20x2	14	10

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



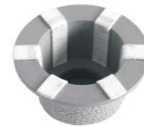
REFERENCIA	MODELO
TCL1CM1	CM1
TCL2CM2	CM2
TCL3CM3	CM3
TCL4CM4	CM4
TCL5CM5	CM5

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				
	M1.8		M1.8				
2.8x2.1	M2		M2	M4	M4	3/32"	5/32"
	M2.2		M2.2				
	M2.5		M2.5				
3.5x2.7 4x3	M3		M3	M5	M5	1/8"	
	M3.5		M3.5				
4.5x3.4	M4		M4	M6	M6	5/32"	1/4"
	M5		M5			7/32"	
6x4.9	M6		M6				
	M8			M8	M8		
	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"					
	G2"						
40x32	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 \square	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
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
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
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