





Clamping Systems

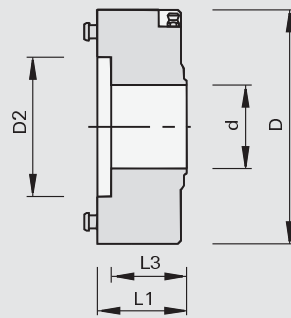
Product	Page
Quick-Clamping Systems	7-1
Attachment Sleeves and Flanges	7-15
Clamping Systems with cylindrical shank for shank-type tools	7-22
Clamping Systems with SK and BT shank for shank-type tools	7-31
Clamping Systems with SK and BT shank for tools with bore	7-41
Clamping Systems with HSK shank for shank-type tools	7-42
Clamping Systems with HSK shank for tools with bore	7-59
Clamping Systems with MK shank for shank-type tools	7-71
Clamping Systems for Drill Bits	7-73
LEUCO dusthoods	7-81
Mounting Devices	7-83
Technical Information	7-88

933011

Clamping Systems Ø 110 mm

Product

Drawing



Machine / Application

- double end tenoners
- through feed machines
- for mounting of tools with bore and for combination with mounting flanges Ø 110 mm

Design

- hardened tool mounting area
- n max = 9,000 min-1

Advantages

- excellent balance quality
- long tool life
- consistent runout accuracy after each tool change
- minimization of setup-times thanks to easy and quick tool change
- maintenance-free and protected from dust

Notes

- for clockwise and counter-clockwise rotation
- indicate machine type and shaft design when placing an order
- required tool adapters Class-No. 997370
- for changing the tools the pneumatic part Ident-No. 058250 is necessary
- operational pressure 6 bar
- included in delivery: clamping part incl. cap for attachment on the machine spindle

Ø D	Ø D2	Ø d	L1	L3	DKN	Ident-No.
110	50	30	63	47.5	8x3	172399 &
110	50	30	63	47.5	8x3	Homag, Lehbrink, Torwegge, SPA, Wilms-meyer 160836
110	50	35	63	47.5	10x4	Spanevello 162599
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	

Spare parts

Dimension

For Ident-No.

Class-No.

Ident-No.

Head Cap Screws	M12x30 DIN EN ISO 4762	172399	995111	001917
Covers		172399	997370	172397
Covers		160836	997370	181802
Covers		162599	997370	162602
Spacers	55x23,5x30	172399	955520	172398
pneumatic hose			994200	058250
	[mm]			

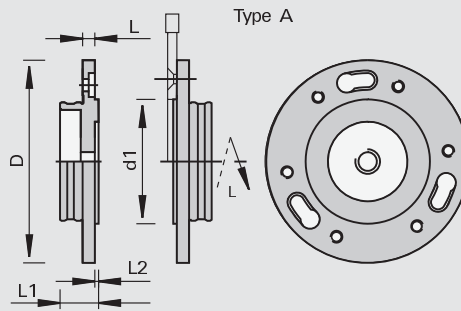
997370

Mounting Flanges for Clamping System Ø 110 mm - saw blades d=65 mm

Product



Drawing



Machine / Application

for the mounting of saw blades up to Ø 250 mm with bore Ø 65 mm, 6 countersunk holes TK 90 mm for screw M 5

Design

Advantages

Notes

- for clockwise and counter-clockwise rotation
- especially suited for the mounting of scoring saw blades
- at least two separate tool/flange assemblies should be used per clamping element (reduced downtimes)
- for DP circular saw blades the cylindrical head screw Ident-No. 001869 is necessary (to be ordered separately)

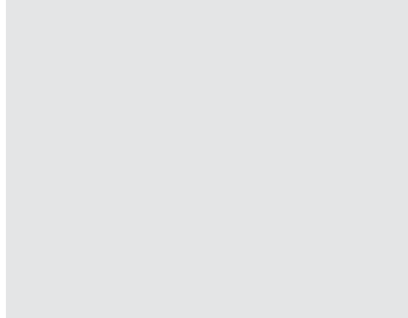
Ø D	Ø d1	L2	L	L1	Ident-No. [L]	Ident-No. [R]
110	65	2,5	10	27	164770	164758
[mm]	[mm]	[mm]	[mm]	[mm]		

Spare parts	Dimension		Class-No.	Ident-No.
Countersunk Flat Headed Screws	M5x12	for mounting of saw blade	995122	180007
Head Cap Screws	M5x12 DIN 912	for mounting of DP saw blades	995111	001869
	[mm]			

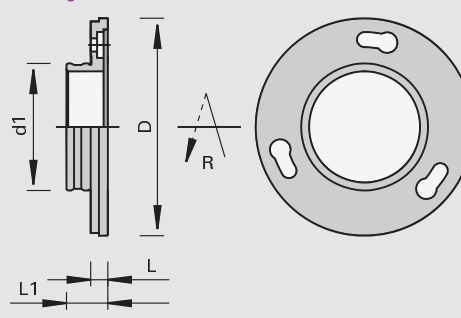
997370

Mounting Flanges for Clamping System Ø 110 mm - saw blades d=50 mm

Product



Drawing



Machine / Application

for the mounting of saw blades up to Ø 250 mm and saw plate thickness 1.8 - 2.2 mm with bore Ø 50 mm, 3 NL - Ø 22 mm, TK Ø 80 mm

Design


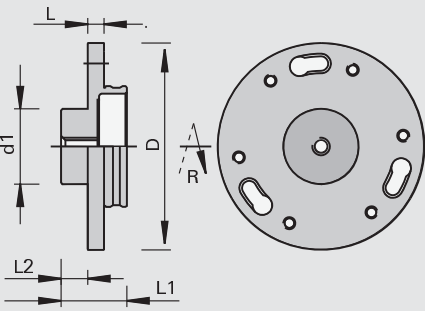
Advantages

Notes

- for clockwise and counter-clockwise rotation
- especially suited for the mounting of scoring saw blades

Ø D	Ø d1	L	L1	Ident-No.
107	50	10	26.5	160849
[mm]	[mm]	[mm]	[mm]	

997370
Mounting Flanges for Clamping System Ø 110 mm - tools with bore d=30 mm

Product		Drawing			
					
Machine / Application		Design		Advantages	
for mounting of light tools with bore Ø 30 mm, 6 countersunk holes for M 5, TK Ø 90 mm				Notes	
				for clockwise and counter-clockwise rotation	
				at least two separate tool/flange assemblies should be used per clamping element (reduced downtimes)	
Ø D	Ø d1	L2	L	L1	Ident-No. [L]
110	30	15,5	10	40	163705
[mm]	[mm]	[mm]	[mm]	[mm]	163226
Spare parts		Dimension		Class-No.	Ident-No.
Countersunk Flat Headed Screws		M5x12		995122	180007
Head Cap Screws		M5x12 DIN 912		995111	001869
		[mm]			

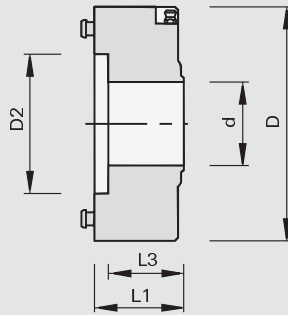
933011

Clamping Systems Ø 140 mm

Product



Drawing



Machine / Application

- double end tenoners
- through feed machines
- for mounting of tools with bore and for combination with mounting flanges Ø 140 mm

Design

- n max = 9,000 min-1

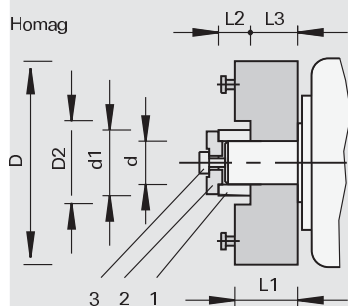
Advantages

- excellent balance quality
- long tool life thanks to hardened tool mounting area
- consistent runout accuracy after each tool change
- minimization of setup-times thanks to easy and quick tool change
- maintenance-free and protected from dust

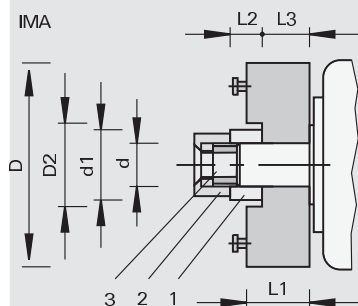
Notes

- for clockwise and counter-clockwise rotation
- mounting examples (see drawings): shaft with internal thread, shaft with external thread
- indicate machine type and shaft design when placing an order
- required tool adapters Class-No. 997370
- for changing the tools the pneumatic part Ident-No. 058250 is necessary
- operational pressure 6 bar
- included in delivery: clamping part incl. cap for attachment on the machine spindle (spare parts for Homag and IMA not included in delivery)

Ø D	Ø D2	Ø d	L1	L3	DKN		Ident-No.	
140	80	30	57	41.5	8x3	Homag	167453	
140	80	35	57	41.5	10x4	Homag, IMA	167451	
140	80	40	57	41.5	12x5		167452	
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]			
Spare parts		Ø D	Ø D1	Ø d	For Ident-No.		Class-No.	Ident-No.
Covers		40	30	17	167453		997370	181802
Covers		45	35	22	167451		997370	180082
Covers		48	40	22	167452		997370	180121
Special Nuts		58		M30 x 1,5			995290	170364
		[mm]	[mm]	[mm]				



Spare parts	Dimension	Ø D	Ø d1	Ø D	For Ident-No.	Class-No.	Ident-No.
1 centering adapter				30	167453	997370	168457 s
2 caps		40	30	17	167453	997370	181802
1 centering adapter				35	167451	997370	180540
2 caps		45	35	22	167451	997370	180082
3 cylindrical head screws for Ød=30	M12x55R					995111	80068438
3 cylindrical head screws for Ød=30	M16x35L					995111	80068436
	[mm]	[mm]	[mm]	[mm]			



Spare parts	Ø D	Ø d	Dimension	Class-No.	Ident-No.
1 centering adapter		35		997370	180540
2 special nuts			M35x1,5	995290	IMA3
3 countersunk flat headed screws				995121	IMA4
4 spacers	70	35	70x25x35	955520	170363
	[mm]	[mm]	[mm]		

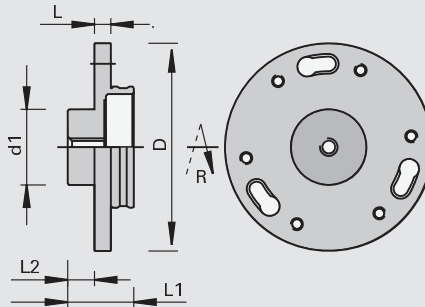
997370

Mounting Flanges for Clamping System Ø 140 mm - tools with bore d=30 mm

Product



Drawing



Machine / Application

for mounting of medium-weight tools with bore Ø 30 mm, 6 countersunk holes for M 8, TK Ø 110 mm

Design

Advantages

Notes

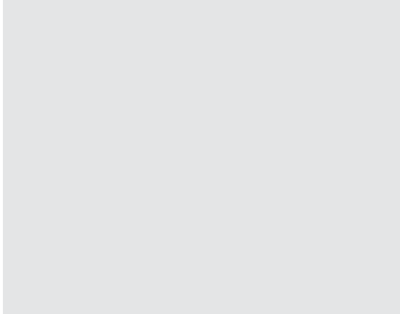
- for clockwise and counter-clockwise rotation
- for S-System on shaft with internal thread
- indicate shaft design when placing an order
- at least two separate tool/flange assemblies should be used per clamping element (reduced downtimes)

Ø D	Ø d1	L2	L	L1	Ident-No. [L]	Ident-No. [R]
137	30	17,4	10,8	43,4	163946	163945
[mm]	[mm]	[mm]	[mm]	[mm]		

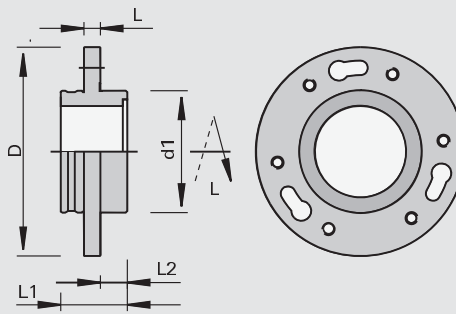
997370

Mounting Flanges for Clamping System Ø 140 mm - tools with bore d=80 mm

Product



Drawing



Machine / Application

for mounting of medium-weight tools with bore Ø 80 mm, 6 countersunk holes for M 8, TK Ø 110 mm

Design

Advantages

Notes

- for clockwise and counter-clockwise rotation
- for S-System on shafts with external thread
- indicate shaft design when placing an order
- at least two separate tool/flange assemblies should be used per clamping element (reduced downtimes)

Ø D	Ø d1	L2	L	L1	Ident-No. [L]	Ident-No. [R]
137	80	17,5	11,8	44,7	168401	168400
[mm]	[mm]	[mm]	[mm]	[mm]		

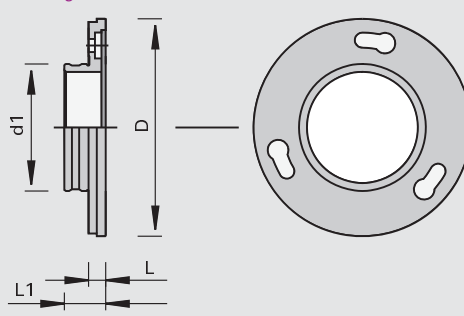
997370

Mounting Flanges for Clamping System Ø 140 mm - saw blades d=80 mm

Product



Drawing



Machine / Application

for the mounting of saw blades up to Ø 400 mm and saw plate thickness 1.8 - 2.2 mm with bore Ø 80 mm, 3 NL - Ø 22 mm, TK Ø 110 mm

Design

Advantages

Notes

for clockwise and counter-clockwise rotation

Ø D	Ø d1	L	L1	Ident-No.
137	80	10	28	177050
[mm]	[mm]	[mm]	[mm]	

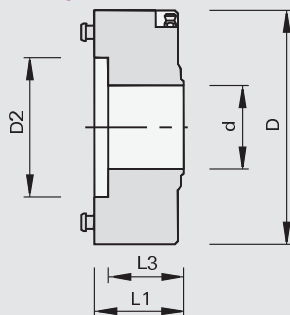
933011

Clamping Systems Ø 160 mm

Product



Drawing



Machine / Application

double end tenoners
through feed machines
for mounting of tools with bore

Design

n max = 9,000 min-1

Advantages

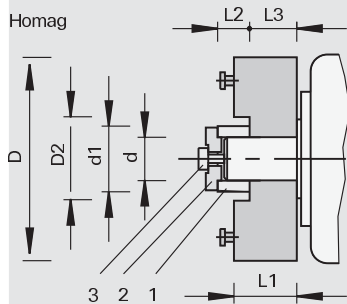
excellent balance quality
long tool life thanks to hardened tool mounting area
consistent runout accuracy after each tool change
minimization of setup-times thanks to easy and quick tool change
maintenance-free and protected from dust

Notes

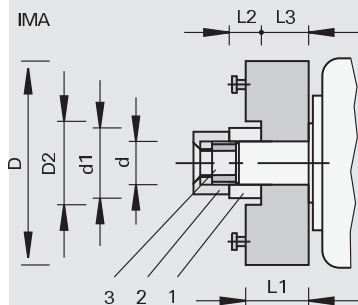
for clockwise and counter-clockwise rotation
mounting examples (see drawing): shaft with internal thread, shaft with external thread
indicate machine type and shaft design when placing an order
required tool adapters Class-No. 997370
for changing the tools the pneumatic part Ident-No. 058250 is necessary
operational pressure 6 bar
included in delivery: clamping part incl. cap for attachment on the machine spindle (spare parts for Homag and IMA not included in delivery)

Ø D	Ø D2	Ø d	L1	L3	DKN	Ident-No.
160	80	35	60	44.5	10x4	167462
160	80	40	60	44.5	12x4	167463
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	

Spare parts	Ø D	Ø D1	Ø d	Class-No.	Ident-No.
Covers	40	30	17	997370	181802
Covers	45	35	22	997370	180082
Covers	48	40	22	997370	180121
Special Nuts	58		M30 x 1,5	995290	170364
	[mm]	[mm]	[mm]		



Spare parts	Dimension	Ø D	Ø D1	Ø d	Class-No.	Ident-No.
1 centering adapter				30	997370	168457 s
2 caps		40	30	17	997370	181802
1 centering adapter				35	997370	180540
2 caps		45	35	22	997370	180082
3 cylindrical head screws for Ød=35	M16x55R				995111	80068439
3 cylindrical head screws for Ød=35	M20x35L				995111	80068437
4 spacers		60		35	955520	180647
	[mm]	[mm]	[mm]	[mm]		



Spare parts	Ø D	Ø d	Dimension	Class-No.	Ident-No.
1 centering adapter	35			997370	180540
2 special nuts			M35x1,5	995290	IMA3
3 countersunk flat headed screws				995121	IMA4
4 spacers	70	35	70x25x35	955520	170363
	[mm]	[mm]	[mm]		



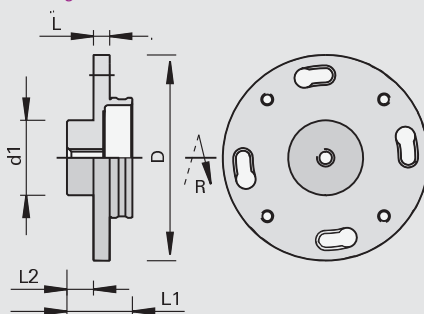
997370

Mounting Flanges for Clamping System Ø 160 mm - tools with bore d=30 mm

Product



Drawing



Machine / Application

for mounting of heavy tools with bore Ø 30 mm with 4 countersunk holes M 8, TK Ø 130 mm

Design

Advantages

Notes

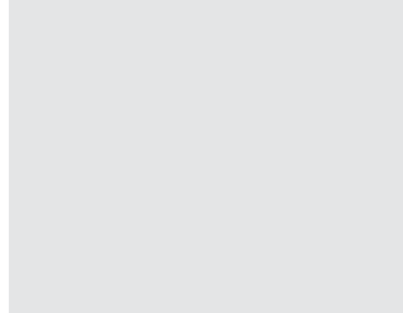
- for S-System on shaft with external thread
- for clockwise and counter-clockwise rotation
- indicate shaft design when placing an order
- at least two separate tool/flange assemblies should be used per clamping element (reduced downtimes)
- sense of rotation see drawing

Ø D	Ø d1	L2	L	L1	Ident-No. [L]	Ident-No. [R]
157	30	17,4	10.8	43.4	167465	167464
[mm]	[mm]	[mm]	[mm]	[mm]		

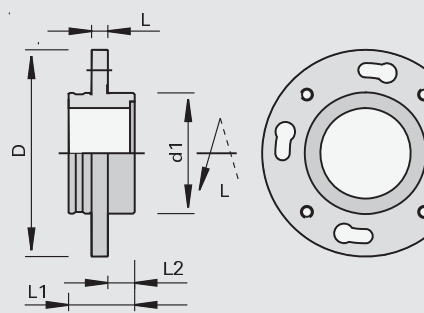
997370

Mounting Flanges for Clamping System Ø 160 mm - tools with bore d=80 mm

Product



Drawing



Machine / Application

for mounting of heavy tools with bore Ø 80 mm with 4 countersunk holes M 8, TK Ø 130 mm

Design

Advantages

Notes

- for S-System on shaft with external thread
- for clockwise and counter-clockwise rotation
- indicate shaft design when placing an order
- at least two separate tool/flange assemblies should be used per clamping element (reduced downtimes)
- sense of rotation see drawing

Ø D	Ø d1	L2	L	L1	Ident-No. [L]	Ident-No. [R]
157	80	18	11.8	45	168399	168398
[mm]	[mm]	[mm]	[mm]	[mm]		

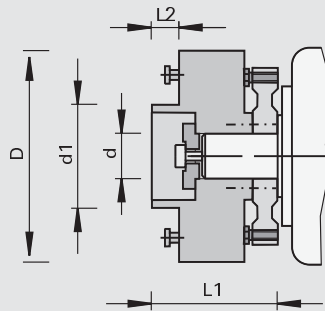
933011

Zeroplan Clamping Systems Ø 160 mm

Product



Drawing



Machine / Application

- double end tenoners
- through feed machines
- for mounting of tools with bore and for combination with mounting flanges Ø 160 mm

Design

- $n_{max} = 7,200 \text{ min}^{-1}$

Advantages

- high runout accuracy almost as good as on hydro motors, now available for standard-motor shafts $d = 35$
- distinct increase of edge life and quality thanks to precise run-out-adjustment
- consistent runout accuracy after each tool change
- minimization of setup-times thanks to easy and quick tool change
- maintenance-free and protected from dust

Notes

- for clockwise and counter-clockwise rotation
- for changing the tools the pneumatic part Ident-No. 058250 is necessary
- operational pressure 6 bar

Ø D	Ø d	Ø d1	L2	L1	DKN		Ident-No.
160	35	60	17,5	95	10x4	Homag	180654
160	35	60	17,5	102	10x4	IMA	180655
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		

Spare parts

Dimension

Class-No.

Ident-No.

Covers (IMA)	45x25x35 DKN	997370	180656 o
Engineers Wrenches	SW10/13 DIN 895	985720	171060 o
	[mm]		

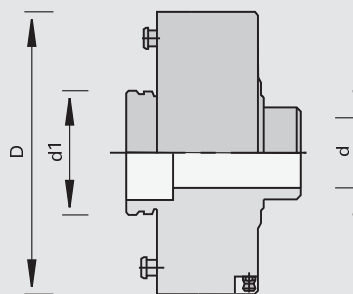


933011

Clamping Systems Ø 192 mm

Product

Drawing



Machine / Application

- double end tenoners
- through feed machines
- for mounting of hoggers with Ø 250 mm

Design

- n max = 7,200 min-1

Advantages

- excellent balance quality
- long tool life thanks to hardened tool mounting area
- consistent runout accuracy after each tool change
- minimization of setup-times thanks to easy and quick tool change
- maintenance-free and protected from dust

Notes

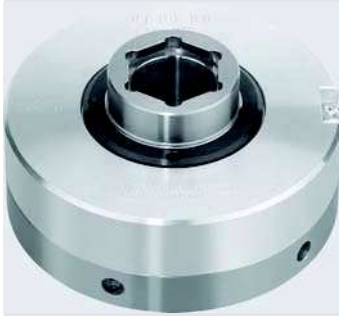
- for clockwise and counter-clockwise rotation
- mounting example (see drawing)
- indicate machine type and shaft design when placing an order
- required tool adapters Class-No.
- operational pressure 6 bar
- included in delivery: see accessory list

Ø D	Ø d	Ø d1	KN	DKN		Ident-No.
192	35	80		10x4	clamping part, spacer ring	IMA, B+G, Hüllhorst 161363 &
192	35	80		10x4	clamping part, spacer ring	B+G (flat nut) 161364 &
192	40	80		12x5	clamping part, spacer ring	B+G, SCM-Stefani 161365 &
192	35	80		10x4	clamping part, spacer ring	Celaschi 161366 &
192	35	80		10x4	clamping part, spacer ring, cover disk	Danckaert 161367 &
192	40	80	10x4		clamping part, spacer ring	Gabbiani 161257 &
192	35	80		10x4	clamping part, spacer ring	Festo 161256 &
192	35	80		10x4	clamping part, spacer ring, cover disk	Frommia 161258 &
192	35	80		10x4	clamping part	Homag, Lehbrink, Torwegge, SPA, Wilms-meyer 161259
192	35	80		10x4	clamping part, spacer ring, cover disk	Kuhlmann 161260 &
192	40	80		12x5	clamping part, spacer ring, cover disk	M+S, Schwabedissen 161251 &
192	35	80		10x4	clamping part, cover disk	Raimann 161252 &
192	30	80			clamping part	SPA 161253 s
[mm]	[mm]	[mm]	[mm]	[mm]		

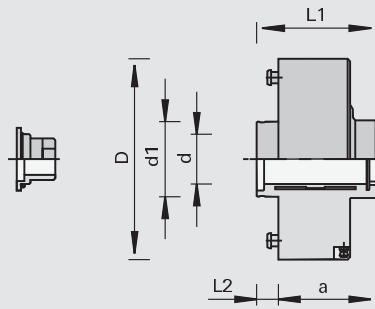
933011

Hydro Clamping System Ø 160 mm - hoggers

Product



Drawing



Machine / Application

- for mounting of tools with bore

Design

- hardened tool mounting area
- $n_{\max} = 9,000 \text{ min}^{-1}$
- closed hydraulic expansion clamping chuck with one clamping zone for tight-tolerance fit on the motor shaft

Advantages

- high cutting quality thanks to distinctly increased runout accuracy and concentricity
- consistent runout accuracy after each tool change
- minimization of setup-times thanks to easy and quick tool change
- maintenance-free

Notes

- for clockwise and counter-clockwise rotation
- specifically designed for high-precision motors with hexagonal spindle base
- for changing the tools the pneumatic part Ident-No. 058250 is necessary
- operational pressure 6 bar
- included in delivery: hydro quick-clamping system incl. Screwdrivers

Ø D	Ø d	Ø d1	L2	L1	a		Ident-No.
160	40	60	17,5	96	78.5	Hoggers	172677
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		

Spare parts

Class-No.

Ident-No.

Covers with O-Rings	997300	172679
Head Cap Screws	995111	184251
pneumatic hose	994200	058250
Screwdrivers	985730	167817
Cranked Wrench Keys	985730	177106



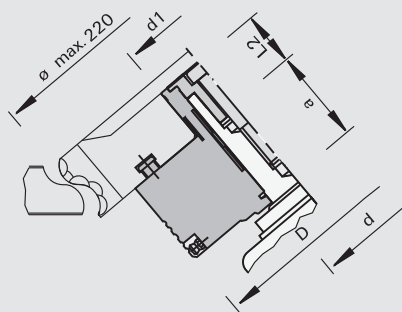
933011

Hydro Clamping System Ø 160 mm - cutters

Product



Drawing



Machine / Application

- for mounting of tools with bore

Design

- hardened tool mounting area
- $n_{\max} = 9,000 \text{ min}^{-1}$
- closed hydraulic system with two clamping zones
- clamping zone 1: for tight-tolerance fit on the motor shaft (runout)
- clamping zone 2: for tight-tolerance fit of milling tools on the clamping element (concentricity)

Advantages

- high cutting quality thanks to distinctly increased runout accuracy and concentricity
- consistent runout accuracy after each tool change
- minimization of setup-times thanks to easy and quick tool change
- maintenance-free

Notes

- for clockwise and counter-clockwise rotation
- specifically designed for high-precision motors with hexagonal spindle base
- for changing the tools the pneumatic part Ident-No. 058250 is necessary
- operational pressure 6 bar
- included in delivery: hydro quick-clamping system incl. Screwdrivers

Ø D	Ø d	Ø d1	L2	a		Ident-No.
160	40	60	35	53	milling tools	176829
[mm]	[mm]	[mm]	[mm]	[mm]		

Spare parts

Class-No.

Ident-No.

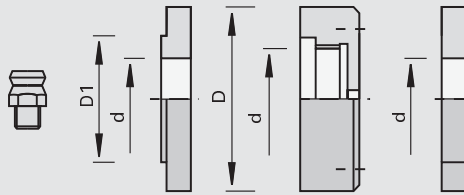
Covers with O-Rings	997300	172679
Head Cap Screws	995111	184251
pneumatic hose	994200	058250
Screwdrivers	985730	167817
Cranked Wrench Keys	985730	177106

Accessories for Quick-Clamping Systems

Product



Drawing



Machine / Application

for engaging or releasing the
LEUCO quick-clamping systems

Design

Advantages

Notes

- anti-twist bolt Ident-No. 160875 for mounting
- ring Ident-No. 170363 is required for L = 68 mm if no centering adapter is used
- nut Ident-No. 170364 is required for IMA machines with short shaft
- the pneumatic hose is required to change the tools; must be ordered separately before first delivery of clamping systems

	Class-No.	Ident-No.
hydraulic connector R 1/8" (old design)	994400	160632
hydraulic connector M10x1 (new design)	994400	180084
fitting	997800	161289
pneumatic hose complete	994200	058250

Spare parts	For S-Sytem Ø D/d	Ø D	Ø D1	Ø d	Class-No.	Ident-No.
Covers	110/140/160/30	40	30	17	997370	181802
Covers	110/35	40	35	17	997370	162602
Covers	140/160/35	45	35	22	997370	180082
Covers	140/160/40	48	40	22	997370	180121
Special Nuts	140/160/35	58		M30 x 1,5	995290	170364
Spacers	140/160/35	70		35	955520	170363
Bolts	110/140/160			10x120	995322	160875
		[mm]	[mm]	[mm]		

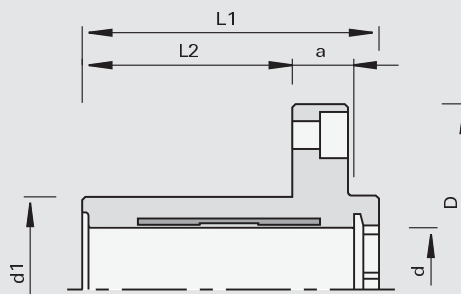
933030

Hydro Clamping Bushings with hexagonal adapter bottom- tools with bore

Product



Drawing



Machine / Application

for mounting of tools with bore

Design

- hardened tool mounting area
- with one clamping zone
- closed hydraulic expansion clamping chuck for tight-tolerance fit on the motor shaft
- $n_{max} = 9,000 \text{ min}^{-1}$

Advantages

- optimum cutting quality when milling and hogging
- maintenance-free and inured to dirt

Notes

- for clockwise and counter-clockwise rotation
- specifically designed for high-precision motors with hexagonal spindle base
- included in delivery: hydro clamping bushing without screwdrivers

Ø D	Ø d	Ø d1	L2	L1	a	NL	Ident-No.
120	40	60	68	96	20	4/M8/100	172678
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		

Spare parts

Class-No.

Ident-No.

Covers with O-Rings	for axial locking or bores 40 mm	997300	172679
Head Cap Screws	M14x60 DIN 6912 for 172679	995111	184251
Screwdrivers	SW6 for hydro pressure build-up	985730	167817
Cranked Wrench Keys	SW12 DIN 6911	985730	177106
Spacers	119,5x51x60 NL	955520	179471

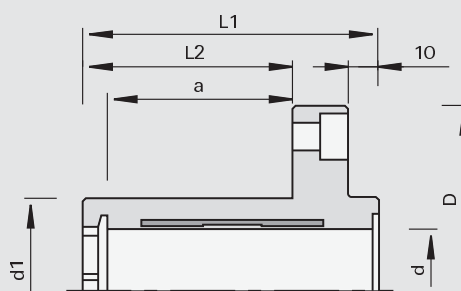
933030

Hydro Clamping Bushings with hexagonal adapter top- tools with bore

Product



Drawing



Machine / Application

for mounting of tools with bore and for combination with Postforming radius panel raising cutters und LEUCODIA CompactTec hoggers

Design

- hardened tool mounting area
- with one clamping zone
- closed hydraulic expansion clamping chuck for tight-tolerance fit on the motor shaft
- $n_{max} = 9,000 \text{ min}^{-1}$

Advantages

- excellent cutting quality when milling and hogging
- maintenance-free

Notes

- for clockwise and counter-clockwise rotation
- specifically designed for high-precision motors with hexagonal spindle base
- included in delivery: Hydro Clamping Bushing incl. screwdriver SW 6

Ø D	Ø d	Ø d1	L2	L1	a	NL	Ident-No.
120	40	60	68	96	60	4/M8/100	173724
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		

Spare parts		Class-No.	Ident-No.
Covers with O-Rings	for axial locking or bores 40 mm	997300	172679
Head Cap Screws	M14x60 DIN 6912 for 172679	995111	184251
Screwdrivers	SW6 for hydro pressure build-up	985730	167817
Cranked Wrench Keys	SW12 DIN 6911	985730	177106
Spacers	119,5x51x60 NL	955520	179471

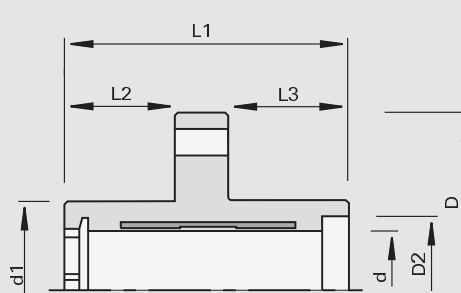
933030

Hydro Clamping Bushings - tools with bore progressively adjustable

Product



Drawing



Machine / Application

for mounting of milling tools with progressive adjustment of the cutting width

Design

| hardened tool mounting area
 | with one clamping zone
 | closed hydraulic expansion clamping chuck for tight-tolerance fit on the motor shaft
 | n max = 9,000 min-1

Advantages

| excellent cutting quality when milling
 | maintenance-free

| for clockwise and counter-clockwise rotation
 | specifically designed for high-precision motors with hexagonal spindle base

Ø D	Ø D2	Ø d	Ø d1	L2	L1	L3	NL	Ident-No.
120	50	40	60	39	101	44	4/M8/100	180181
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		

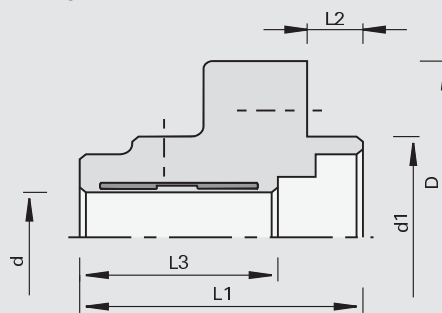
933030

Hydro Clamping Bushings - hoggers

Product



Drawing



Machine / Application

for mounting of tools with bore with LEUCO hoggers Ø 200 mm and Ø 250 mm

Design

| hardened tool mounting area
 | with one clamping zone
 | closed hydraulic expansion clamping chuck for tight-tolerance fit on the motor shaft
 | n max = 9,000 min-1

Advantages

Notes

| for clockwise and counter-clockwise rotation
 | fits conventional motors with shaft 35 mm and keyway

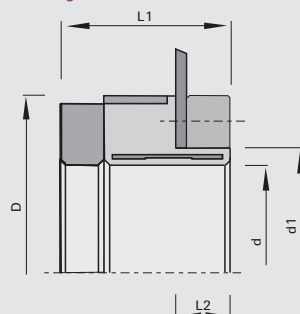
Ø D	Ø d	Ø d1	L2	L1	L3	DKN	NL	Ident-No.
120	35	80	17,7	90	63	10x4	4/M8/100	170264 o
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		

933030

Hydro Clamping Bushings - gang-rip saw blades and hoggers (Paul, Homag)

Product

Drawing



Machine / Application

machines Paul, Homag
for mounting of multi-rip saw
blades and hoggers

Design

hardened tool mounting area
with one clamping zone
closed hydraulic expansion
clamping chuck for tight-
tolerance fit on the motor shaft
n max = 9,000 min-1

Advantages

high smoothness of running
short retool-times of panel-
widths thanks to quick adjust-
ment of tools
maintenance-free

Notes

for clockwise and counter-
clockwise rotation
mounting arrangements: 1.
saw blade with spacer, 2.
hogger without spacer
positive locking between
machine and sleeve
tap holes on PCD for fixing of
tools

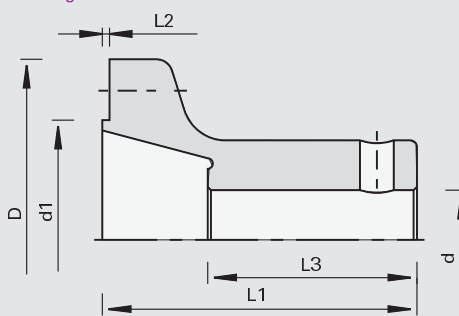
Ø D	Ø d	Ø d1	L2	L1	NL	Ident-No.
145	100	110	18	65.5	4/M8/130	183829
150	100	110	18	49.5	4/M8/130	183821 s
[mm]	[mm]	[mm]	[mm]	[mm]		

997300

Mounting Flanges - scoring saw blades (Homag, Brandt, IMA)

Product

Drawing



Machine / Application

double end tenoners
edge banding machines
Homag, Brandt, IMA
for mounting of HW scoring
saw blades and DP scoring saw
blades

Design

tempered design
mating and seating surfaces
ground

Advantages

Notes

for clockwise and counter-
clockwise rotation
for DP circular saw blades the
cylindrical head screw Ident-
No. 001869 is necessary (to
be ordered separately)
countersink screw included in
delivery

Ø D	Ø d	Ø d1	L2	L1	L3	DKN	NL	Ident-No.
109	30	65	2,2	95	63	8x4	6/M5/90	006480
109	35	65	2,2	95	63	10x3,3	6/M5/90	182128
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		

Spare parts

Ø D

Ø D1

Ø d

Class-No.

Ident-No.

Covers

40

30

17

997370

181802

Countersunk Flat Headed
Screws for mounting of saw blade

995122

180007

[mm]

[mm]

[mm]

Spare parts		Ø D	Ø D1	Ø d	Class-No.	Ident-No.
Head Cap Screws	for mounting of DP saw blades				995111	001869
		[mm]	[mm]	[mm]		

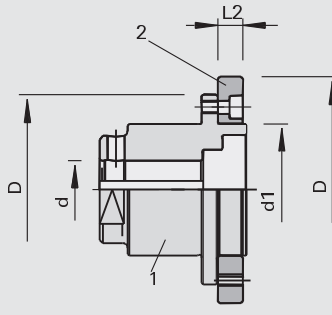
997300

Attachment Sleeves and Flanges - grooving saw blades, scoring saw blades, clipping saw blades and hoggers

Product



Drawing



Machine / Application

I for mounting of grooving saw blades, scoring saw blades, clipping saw blades and hoggers

Design

Advantages

Notes

I for clockwise and counter-clockwise rotation
 I 1 = hogger sleeve
 I 2 = flange
 I for horizontally tilted motor when working in small distance to chain track

Ø D	Ø d	Ø d1	L2	L1	DKN	NL	Ident-No.
115	30	80	17,7	96	8x3	8/M8/100	006309
115	35	60	17,7	90	10x4	8/M8/100	180062
115	35	80	17,7	90	10x4	8/M8/100	055997
115	40	60	17,7	90	12x5	8/M8/100	180120
115	40	80	17,7	96	12x5	8/M8/100	006308
145	35	110	17	89.4	10x4	4/M8/130	189750 s
158	40	80	21	96	12x5	8/M8/130	008507
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		

Flange	Ø D	B	Ø d	Ø NL	Class-No.	Ident-No.
	137	80	15	6/M5/105	997300	819300 s
	[mm]	[mm]	[mm]			

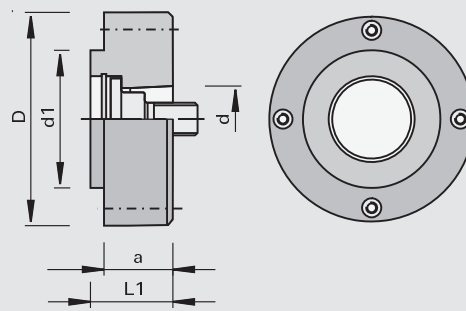
997300

Mounting Flanges - clipping saw blades (Homag, IMA)

Product



Drawing



Machine / Application

edge banding machines
Homag, IMA
for mounting of clipping saw
blades

Design

machine interface HSK 25R

Advantages

optimum cutting quality thanks
to high radial running accuracy
and precise tool balancing

Notes

for clockwise and counter-
clockwise rotation
countersunk screw and
screwdrivers are not included
in delivery

Ø D	Ø d	Ø d1	L1	a	NL	Ident-No.
55	HSK 25R	34	22	20	4/M4/44+4/M5/42	179025
62	HSK 25R	40	24	20	4/M5/52	177788
66	HSK 25R	40	24	15	4/M5/52	183817
[mm]	[mm]	[mm]	[mm]	[mm]		

Spare parts

Dimension

Class-No.

Ident-No.

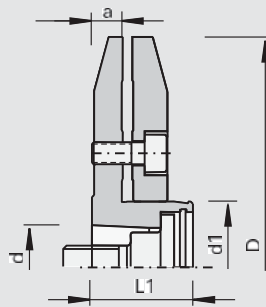
Screws	M10x1,25x32 SW8	995190	177780
Shim Rings	18x25x1,0 DIN 988	995440	177781
Locking Rings	25x1,2 DIN 472	995460	177782
Countersunk Flat Headed Screws	M5x10 T20	995125	171236
Screwdrivers	T20x100	985730	166092
	[mm]		

997300

Mounting Flanges - clipping saw blades (Homag Power-Line)

Product

Drawing



Machine / Application

I machines Power-Line Homag
I for mounting of clipping saw
blades

Design

I machine interface HSK 25R

Advantages

I optimum cutting quality thanks
to high radial running accuracy
and precise tool balancing

Notes

I for clockwise and counter-
clockwise rotation

Ø D	Ø d	Ø d1	L1	a	NL	Ident-No.
105	HSK 25R	30	23	14	4/M5/52	181590
[mm]	[mm]	[mm]	[mm]	[mm]		

Spare parts

Dimension

Class-No.

Ident-No.

Screws	M10x1,25x32 SW8	995190	177780
Shim Rings	18x25x1,0 DIN 988	995440	177781
Locking Rings	25x1,2 DIN 472	995460	177782
Head Cap Screws	M5x12 DIN 912	995111	001869
Screwdrivers	SW4x100	985730	166091
	[mm]		



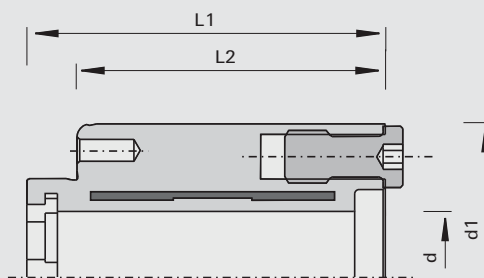
933030

Hydro Clamping Bushings - tools with bore on spindle 30 mm

Product



Drawing



Machine / Application

- for Homag and IMA jointing aggregat with spindle 30 mm and hexagon adapter
- for mounting of tools with bore

Design

- hardened tool mounting area
- with one clamping zone
- axial impressurement
- closed hydraulic expansion clamping chuck for tight-tolerance fit on the 30 mm motor shaft
- $n_{max} = 9,000 \text{ min}^{-1}$

Advantages

- reduced machine downtimes thanks to axial impressurement
- excellent cutting quality when milling and hogging
- maintenance-free

Notes

- for clockwise and counter-clockwise rotation
- specifically designed for high-precision motors with hexagonal spindle base
- included in delivery: hydro clamping bushing without screwdrivers

Ø d	Ø d1	L2	L1	NL	Ident-No.
30 [mm]	70 [mm]	70,5 [mm]	86 [mm]	6/M6/58	184310

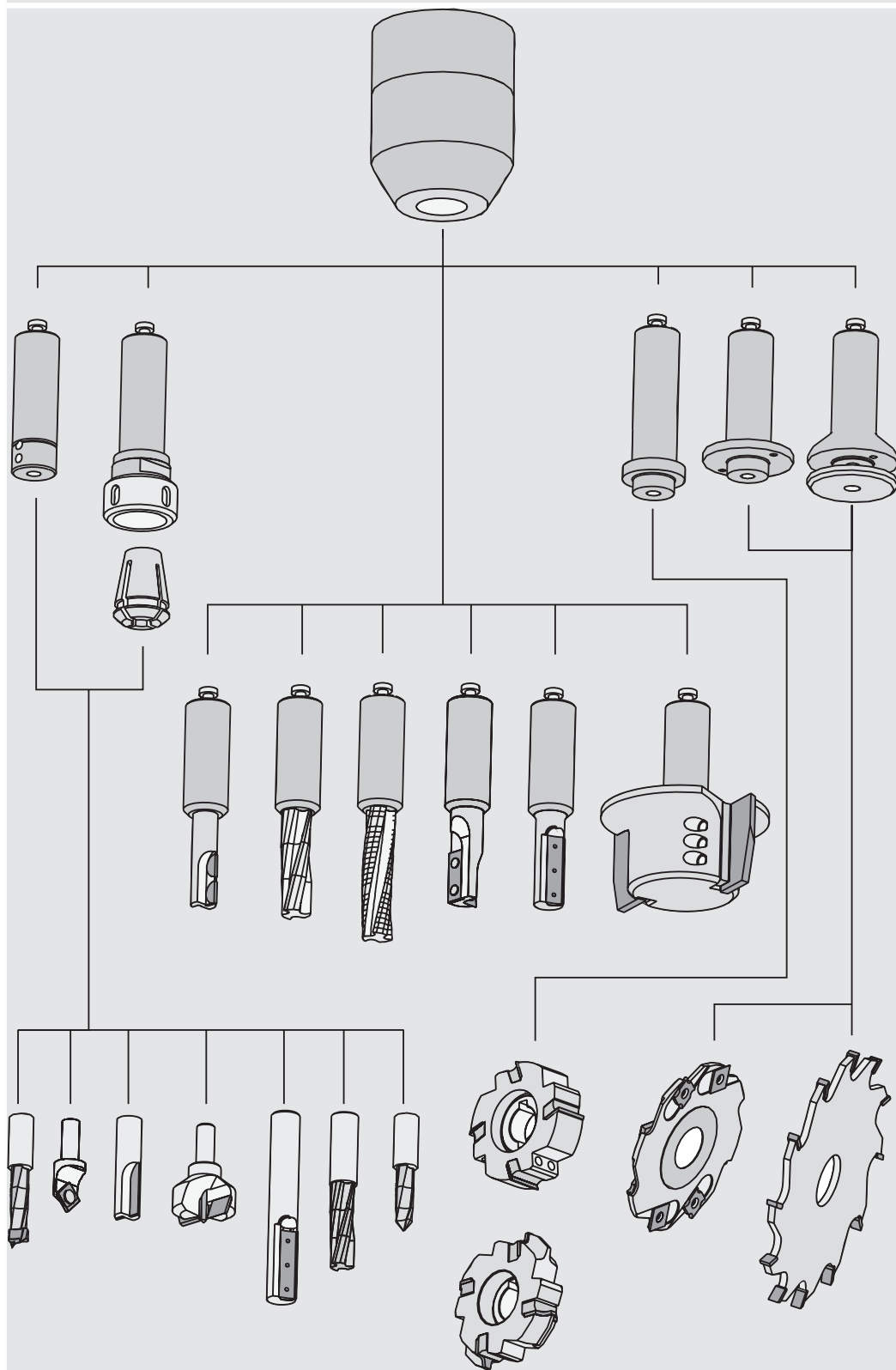
Spare parts

Class-No.

Ident-No.

Covers with O-Rings	for axial locking or bores 30 mm	997300	184317
Head Cap Screws	M10x50 DIN EN ISO 4762 for 184317	995111	001909
Screwdrivers	SW6/4 for hydro pressure build-up	985730	184707
Cranked Wrench Keys	SW8 DIN ISO 2936	985730	009677

Chart Tool Holders machine interface PS 2000-E



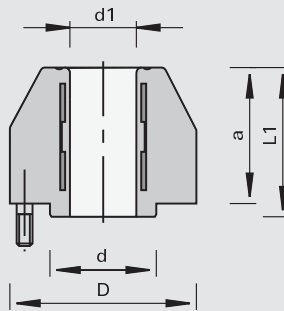
933240

Hydro Clamping Chucks - tool directly attached by screws

Product



Drawing


LEUCO
CNC

Machine / Application

for precise clamping of shank-type tools with cylindrical shank

Design

$n_{\max} = 25,000 \text{ min}^{-1}$

Advantages

- optimum cutting quality and long tool life thanks to exact radial running accuracy
- minimization of setup-times thanks to easy and quick tool change

Notes

- for clockwise and counter-clockwise rotation
- integral part of machine spindle
- initial purchase through the machine manufacturers
- axial locking of the tools

$\varnothing D$	$\varnothing d$	$\varnothing d1$	L1	a	Weight	Ident-No.
70	40	25	56	51	1.327	173752
[mm]	[mm]	[mm]	[mm]	[mm]	[kg]	
Accessories			Dimension		Class-No.	Ident-No.
Safety Screws			M8x19		997870	172921
			[mm]			

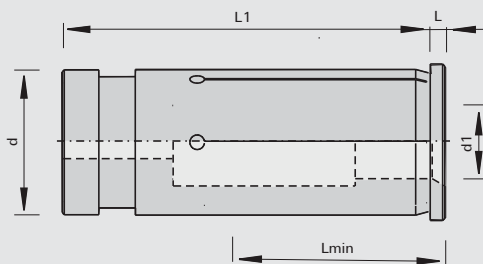
933280

Universal Reducing Bushings

Product



Drawing

LEUCO
CNC

Machine / Application

for mounting of shank-type tools in Sino, Tribos, ps-System

Design

shank diameter tolerance h7 or g7

Advantages

Notes

Lmin minimum clamping length = minimum shaft length

Ø d1	Ø d1	Lmin	Ø d	L1	L	Ident-No.
3		27	12	45	2	183022 o
4		27	12	45	2	183023 o
5		27	12	45	2	183024 o
6		27	12	45	2	183025
8		27	12	45	2	183026
3		27	20	50.5	2	183027 o
4		27	20	50.5	2	183028 o
5		27	20	50.5	2	183029 o
6		27	20	50.5	2	183030 o
7		27	20	50.5	2	183031 o
8		27	20	50.5	2	183032
9		27	20	50.5	2	183033 o
10		32	20	50.5	2	183034
11		37	20	50.5	2	183035 o
12		37	20	50.5	2	183036
13		37	20	50.5	2	183037 o
14		37	20	50.5	2	183038 o
15		38	20	50.5	2	183039 o
16		38	20	50.5	2	183040
17		38	20	50.5	2	183041 o
6		27	25	54.5	3	182304
8		27	25	54.5	3	182305
10		32	25	54.5	3	182306
12		37	25	54.5	3	182307
14		37	25	54.5	3	182308
16		38	25	54.5	3	182309
18		38	25	54.5	3	182310
20		42	25	54.5	3	182311
	1/2	37	25	54.5	3	182653
	5/8	38	25	54.5	3	182654 o
	3/4	42	25	54.5	3	182655
[mm]	[inch]	[mm]	[mm]	[mm]	[mm]	



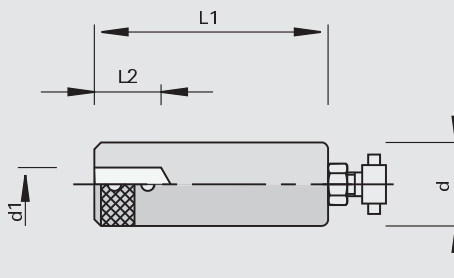
933243

Adapters with cylindrical shank - shank-type tools

Product



Drawing

LEUCO
CNC

Machine / Application

for mounting of shank-type tools in PS 2000-E for shank diameter 6 - 12 mm

Design

Advantages

Notes

- the tool shanks must feature a flat clamping area
- length adjusting screw Ident-No. 172921 is required for PS 2000-E
- with length adjusting screw for ps-System Ø 16 mm Ident-No. 172115, Ø 25 mm Ident-No. 172113

Ø d	Ø d1	L2	L1	Ident-No.
16	6,35	20	61	172112 o
16	8	20	61	172117
16	9,5	20	61	172118 o
16	10	20	61	172119
25	6	20	70	172103
25	8	20	70	172104
25	9,5	20	70	172105 o
25	10	20	70	172101
25	12	20	70	172102
[mm]	[mm]	[mm]	[mm]	

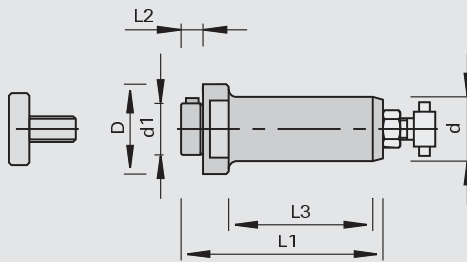
997300

Adapters with cylindrical shank - tools with bore

Product



Drawing

LEUCO
CNC

Machine / Application

for PS 2000-E and draw-in collet chuck for the mounting of tools with bore

Design

tool held in place by set screws

Advantages

Notes

for clockwise and counter-clockwise rotation
length adjusting screw Ident-No. 172921 is required for PS 2000-E
included in delivery: mounting arbor, set screws and length adjusting screw for ps-System for shank Ø 16 Ident-No. 172115, shank Ø 25 Ident-No. 172113

Ø D	Ø d	Ø d1	L2	L1	L3	Ident-No.
35	16	20	8,5	68	43	171389 o
35	25	20	8,5	78.5	55	171391 o
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	

Spare parts

Dimension

Class-No.

Ident-No.

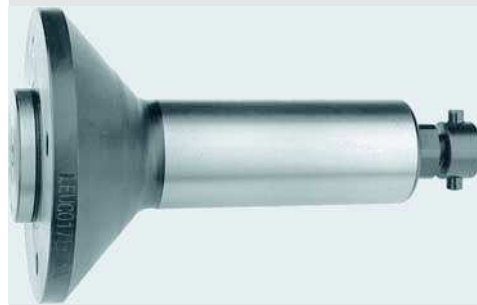
Cutter Retaining Bolts	Ø20xM8x23	995190	171393
Cutter Retaining Bolts	Ø28xM10x26	995190	171392
Engineers Wrenches	24x27 DIN 3110	985730	009193 o
	[mm]		



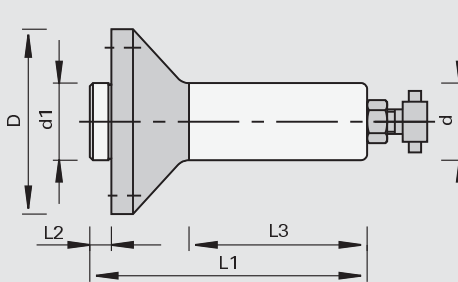
933061

Adapters with cylindrical shank - saw blades, grooving cutters and cutters

Product



Drawing

LEUCO
CNC

Machine / Application

for PS 2000-E and draw-in collet chuck for the mounting of tools with bore

Design

tool attached and secured against rotation with screws

Advantages

Notes

- for clockwise and counter-clockwise rotation
- length adjusting screw Ident-No. 172921 is required for PS 2000-E
- clamping length $L2 = 30$ and 36 mm for single- and multi-piece cutters and cutterheads
- clamping length $L2 = 4$ and 5 mm for circular saw blades and grooving cutters
- included in delivery: mounting arbor and PS length adjusting screw for shank $\varnothing 25$ Ident-No. 172113

$\varnothing D$	$\varnothing d$	$\varnothing d1$	L2	L1	L3	NL	Ident-No.
50	16	22	4	68	45	4/M5/34 + 4/M4/36	184277
50	25	22	4	92	60	4/M5/34 + 4/M4/36	184276
60	16	30	4	80	60	4/M6/48	184304
60	25	30	4	90	70	4/M6/48	184305
60	25	25	30	111	60	6/M6/48	168814 o
60	25	30	36	117	60	6/M6/48	168815
66	25	30	5	92	60	4/M5/48	171386
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		

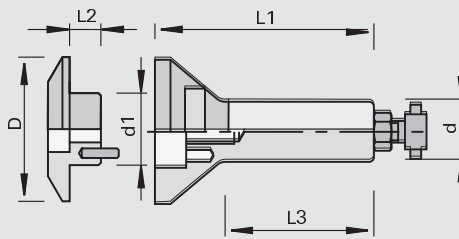
997300

Adapters with cylindrical shank - saw blades and grooving cutters

Product



Drawing

LEUCO
CNC

Machine / Application

for PS 2000-E and draw-in collet chuck for mounting of circular saw blades and grooving cutters

Design

secured against rotation with drive pin

Advantages

Notes

for clockwise and counter-clockwise rotation
length adjusting screw Ident-No. 172921 is required for PS 2000-E
included in delivery: clamping arbor, clamping flange, cap screw and length adjusting screw for ps-System for shank Ø 16 Ident-No. 172115, shank Ø 25 Ident-No. 172113

Ø D	Ø d	Ø d1	L2	L1	L3	Ident-No.
60	16	30	8	78	43	for plate thickness max. 6 mm 171394
60	25	30	9	94	55	for plate thickness max. 8 mm 167826
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	

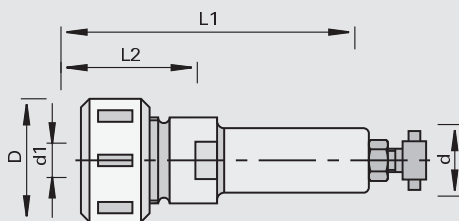
933250

Draw-In Collet Chucks with cylindrical shank

Product



Drawing

LEUCO
CNC

Machine / Application

for mounting of shank-type tools in PS 2000-E

Design

for shank diameter 2-16 mm
collet chucks DIN 6388 Type 415E/OZ16
lock nut with sleeve bearing

Advantages

Notes

for clockwise and counter-clockwise rotation
length adjusting screw Ident-No. 172921 is required for PS 2000-E
included in delivery: collet chuck adapter with nut and length adjusting screw for ps-System for shank Ø 16 Ident-No. 172115, shank Ø 25 Ident-No. 172113

Ø D	Ø d	Ø d1	L2	L1	Ident-No.
43	16	2-16	50	95	170181
43	25	2-16	50	105	170182
[mm]	[mm]	[mm]	[mm]	[mm]	

Spare parts	Dimension	Class-No.	Ident-No.
Ball-bearing lock nuts	M30x1,5R	995290	178763
Hook Wrenches	SW40/42 DIN 1810	985720	169298
Engineers Wrenches	24x27 DIN 3110	985730	009193 o
	[mm]		

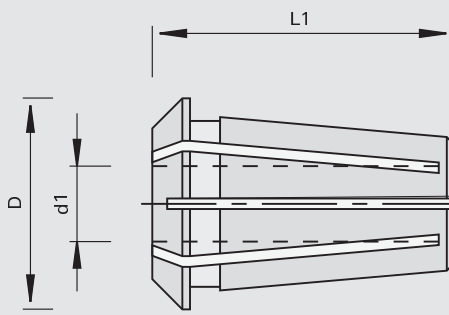
933280

Precision collets - 415E/OZ16

Product



Drawing

LEUCO
CNC

Machine / Application

I for use in draw-in collet chucks
Type 415E/OZ16

Design

I slotted from top and bottom
I clamping tolerance 0.5 mm
I according to DIN 6388 415E/
OZ16

Advantages

Notes

I for Ident-No. 170181,
170182

Ø D	Ø d1	L1	Ident-No.
25.5	2,5	40	820753 o
25.5	3	40	820754 o
25.5	4	40	820494 o
25.5	4,5	40	830236 o
25.5	5	40	820495 o
25.5	6	40	170779 o
25.5	6,35	40	821421 o
25.5	7	40	829692 o
25.5	8	40	170780
25.5	9	40	825190 o
25.5	9,5	40	168739 o
25.5	10	40	170781
25.5	12	40	168740
25.5	12,7	40	830156 o
25.5	13	40	821221 o
25.5	16	40	168741
[mm]	[mm]	[mm]	

933250

StarterKit for Weeke BHX series

Product



Drawing

Machine / Application

- for use in hydro expansion chuck on WEEKE BHX machines, especially BHX 050/055 series
- for tools with shank diameter up to 1-16 mm

Design

- adapters with high-precision collet chucks, especially adapted to the hydro clamping system of the BHX milling spindle
- with internal lock nut

Advantages

- flexible, quick clamping
- low building height
- individual tool pre-setting outside of the machine is possible
- time saving tool changes

Notes

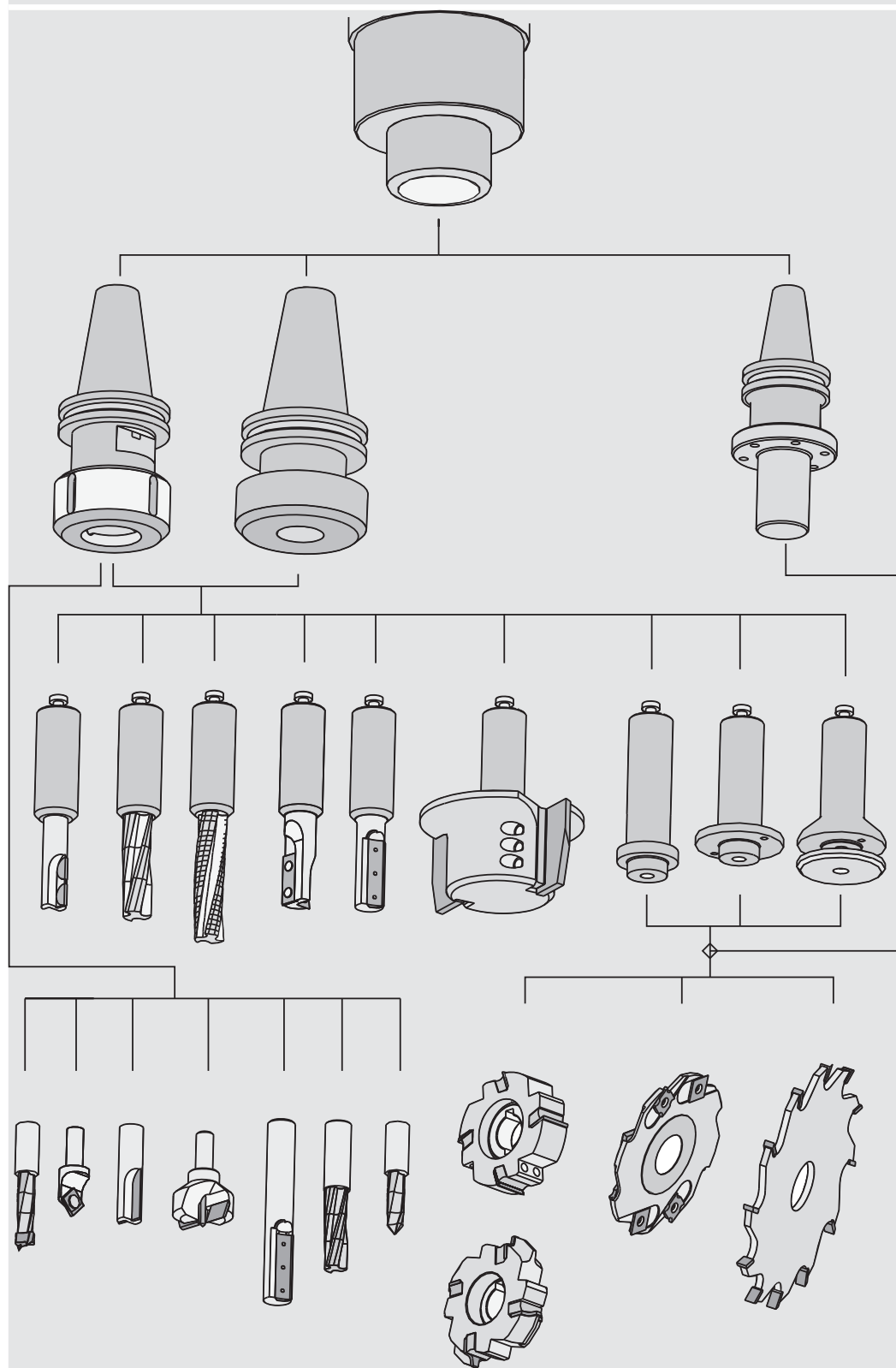
- for Weeke BHX machines grooving cutters HW "g5-System" are also available

			Ident-No.
StarterKit SET1	[d]+[f] 3 clamping adapter incl. lock nuts		
	[e] 3 collet chucks (8, 10, 12 mm)		
StarterKit SET2	[c] 1 mounting device		
	[a] 1 hook wrench		
StarterKit SET2	[g] 1 wrench		
	[d]+[f] 5 clamping adapter incl. lock nuts		
StarterKit SET2	[e] 5 collet chucks (6, 8, 10, 12, 16 mm)		
	[c] 1 mounting device		
StarterKit SET2	[a] 1 hook wrench		
	[b] 1 wrench socket		

Spare parts	Content StarterKit	Class-No.	Ident-No.
[f]+[d] clamping adapter D25x16 mm incl. lock nut	For all	933250	184362 o
[c] mounting devices	For all	985202	184363 o
[a] hook wrench D25 L=200	For all	985720	184364 o
[g] wrench D30 SW27 H20	184359	985720	184365 o
[b] wrench socket D30 SW22 H96	184360	985720	184366 o
[e] collet chucks 411E D=6	184360	933280	184372 o
[e] collet chucks 411E D=8	For all	933280	184373 o
[e] collet chucks 411E D=10	For all	933280	184374 o
[e] collet chucks 411E D=12	For all	933280	184375 o
[e] collet chucks 411E D=16	184360	933280	184376 o

Accessories	Class-No.	Ident-No.
[e] collet chucks 411E D=1	933280	184367 o
[e] collet chucks 411E D=2	933280	184368 o
[e] collet chucks 411E D=3	933280	184369 o
[e] collet chucks 411E D=4	933280	184370 o
[e] collet chucks 411E D=5	933280	184371 o
[e] collet chucks 411E D=6	933280	184372 o
[e] collet chucks 411E D=16	933280	184376 o
torque wrench 40-200 Nm	985720	184377 o
[d] lock nut s M43x1,5	995290	184378 o

Chart Tool Holders machine interface SK- and BT-Mounting



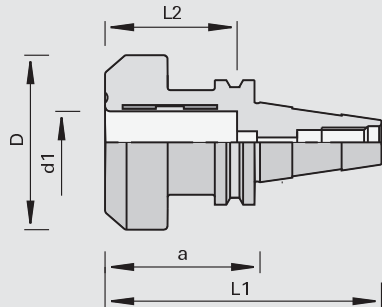
933240

Hydro Clamping Chucks PS 2000-E - tool changer

Product



Drawing


LEUCO
CNC

Machine / Application

- | CNC machining centers with automatic tool changer
- | for precise clamping of shank-type tools with cylindrical shank

Design

- | n max = 25,000 min -1
- | quick-release taper BT 30 and quick-release taper BT 35 with retaining bolt according to standard MAS 403
- | quick-release taper SK 30 according to ISO 7388-3 (without retaining bolt - must be ordered separately)
- | quick-release taper SK 30 and SK 40 according to DIN 69871A (with retaining bolt)

Advantages

- | minimization of setup-times thanks to easy and quick tool change
- | high cutting quality and long edge lives thanks to high concentricity

Notes

- | for clockwise and counter-clockwise rotation

Ø D	Ø d	Ø d1	L2	L1	a	Weight	Ident-No.	
70	SK 30 (ISO)25		55	111	63	1.1	CMS	173774
70	SK 30 (DIN)	25	55	111	63	1.1	IMA, Maka, Biesse, Reichenbacher, Weeke	173754
70	SK 40 (DIN)	25	55	128	60	1.39	IMA, Maka, Reichenbacher, Stegherr	173756
70	BT 35	25	55	120	63	1.25	Heian	175796
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]		

Retaining Bolts

Mach.

Class-No.

Ident-No.

for SK 30	DIN 69872 A	IMA, Maka, Reichenbacher, Weeke	997870	169293
for SK 40	DIN 69872 A	IMA, Reichenbacher, Stegherr	997870	169294
for SK 30	ISO 7388-3	CMS, Masterwood	997870	177021
for SK 30		Rover old, Biesse up to 08/92	997870	175637
for SK 30		Rover new, Biesse (HSD motor) from 09/92, Masterwood (Colombo motor)	997870	173641
for SK 30	ISO 7388-3	Alberti	997870	177020
for BT 35	PT 35T-2	Heian	997870	176103

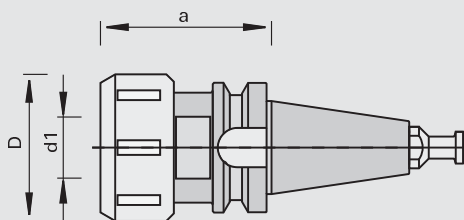
933289

Draw-In Collet Chucks with SK shank

Product



Drawing


LEUCO
CNC

Machine / Application

- CNC machining centers with automatic tool changer
- for clamping of shank-type tools with cylindrical shank

Design

- quick-release taper according to DIN 69871 resp. ISO 7388-3 (without dog and locating grooves)
- quick-release taper according to Japanese standard MAS - 403 (for Ident-No. 176102)
- lock nut with sleeve bearing (except for Ident-No. 177304 with ball bearing)

Advantages

- minimization of setup-times thanks to easy and quick tool change
- high cutting quality and long edge lives thanks to high concentricity

Notes

- for clockwise and counter-clockwise rotation
- included in delivery: collet chuck, clamping nut and retaining bolt

Ø D	Ø d	Norm number	Ø d1	a			Ident-No.
43	SK 30 (DIN)	415E/ OZ16	2-16	55	SW 41	Weeke	177304 o
60	SK 30 (DIN)	462E/ OZ25	2-25	70	SW 41	IMA, Maka, Reichenbacher	173794
50	SK 30 (ISO)	470E/ ER32	2-20	58	SW 41	CMS	180360 o
60	SK 40 (DIN)	462E/ OZ25	2-25	70	SW 46	IMA, Maka, Stegherr, Reichenbacher	173795
60	BT 35	462E/ OZ25	2-25	70	SW 41	Heian	176102
[mm]	[mm]		[mm]	[mm]			

Spare parts

Class-No.

Ident-No.

Ball-bearing lock nuts	M30x1,5R	for Ø D = 43	995290	178763
Lock Nut with sleeve bearing	M48x2R	for Ø D = 60	995290	178764
Retention knobs	DIN 69872 A	for SK 30	997870	169293
Retention knobs	DIN 69872 B	for SK 40	997870	179339
Retention knobs	ISO 7388-3	for SK 30	997870	177021
Retention knobs	PT 35T-2	for BT 35	997870	176103
Hook Wrenches	SW58/62 DIN 1810	for Ø D = 60	985720	169299
Hook Wrenches	SW40/42 DIN 1810	for Ø D = 43	985720	169298
Single-Head Engineers Wrenches	SW46x10 DIN 894		985720	178760
Single-Head Engineers Wrenches	SW41 DIN 894		985720	169297
[mm]				

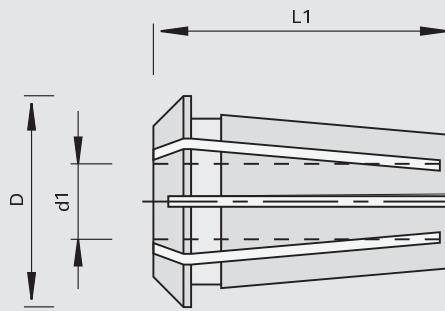
933280

Precision collets - 462E/OZ25

Product



Drawing

LEUCO
CNC**Machine / Application**

for use in draw-in collet chuck
Type 462E/OZ25

Design

clamping tolerance 0.5 mm
according to DIN 6388 Type
462E/OZ25

Advantages

optimum transmission of
clamping force thanks to 12
slots from top and bottom

Notes

Ø d1	Ø d1	Ø D	L1	Ident-No.
2		35.05	52	183803 o
3		35.05	52	183804
4		35.05	52	183805
5		35.05	52	183806
6		35.05	52	180213
	1/4	35.05	52	175815
7		35.05	52	183807 o
8		35.05	52	180358
9,5		35.05	52	175817
	3/8	35.05	52	185275
10		35.05	52	170782
12		35.05	52	168742
	1/2	35.05	52	175820
13		35.05	52	180215
14		35.05	52	170783
	5/8	35.05	52	175823
15		35.05	52	183808 o
16		35.05	52	168743
18		35.05	52	180216
	3/4	35.05	52	175826
20		35.05	52	168744
25		35.05	52	168745
[mm]	[inch]	[mm]	[mm]	

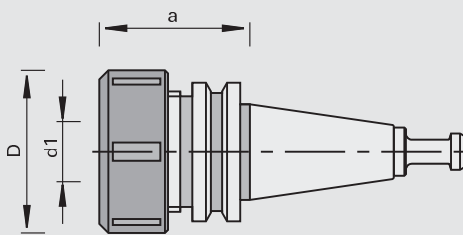
933289

Draw-In Collet Chucks with SK shank - Biesse, CMS

Product



Drawing

LEUCO
CNC

Machine / Application

- for CNC machining centers with automatic tool changer
- for clamping of shank-type tools with cylindrical shank

Design

- quick-release taper according to DIN 69871 and ISO (without dog and locating grooves)
- lock nut with sleeve bearing

Advantages

- minimization of setup-times thanks to easy and quick tool change
- high cutting quality and long edge lives thanks to high concentricity

Notes

- for clockwise and counter-clockwise rotation
- collet chucks according to Type 470E/ER32 Ø 2..20 mm
- collet chucks according to Type 472E/ER40 Ø 4..25 mm
- included in delivery: collet chuck, clamping nut and retaining bolt

Ø D	Ø d	Ø d1	a	Type		Ident-No.
50	SK 30 (DIN)	2-20	50	470E/ER32	Biesse	173639
63	SK 30 (DIN)	4-25	57	472E/ER40	Biesse	175790
63	SK 30 (ISO)	4-25	64	472E/ER40	CMS	180361
[mm]	[mm]	[mm]	[mm]			

Spare parts	Dimension		Class-No.	Ident-No.
Lock Nuts	M40x1,5R	for Ø D = 50	995290	178761
Lock Nuts with sleeve bearing	M50x1,5R	for Ø D = 63	995290	178762 o
Retention knobs		HSD motor for Biesse as from 09/92	997870	173641
Retention Knobs		for Biesse up to 08/92	997870	175637
Retention knobs	ISO 7388-3	for SK 30	997870	177021
Hook Wrenches	SW45/50 DIN 1810	for Ø D = 50	985720	175851
Hook Wrenches	SW58/62 DIN 1810	for Ø D = 63	985720	169299
	[mm]			

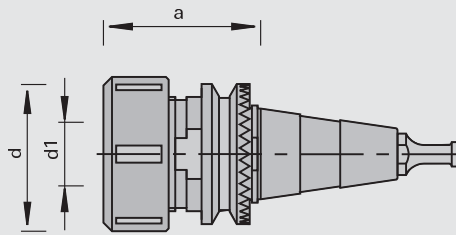
933289

Draw-In Collet Chucks with SK shank with ring gear

Product



Drawing


LEUCO
CNC
Machine / Application

- | CNC machining centers with automatic tool changer
- | for clamping of shank-type tools with cylindrical shank

Design

- | quick-release taper according to SK 30 with ring gear
- | lock nut with sleeve bearing

Advantages

- | minimization of setup-times thanks to easy and quick tool change
- | high cutting quality and long edge lives thanks to high concentricity

Notes

- | for clockwise and counter-clockwise rotation
- | replaceable retaining bolt
- | collet chucks according to Type 462E/OZ25 Ø 4..25 mm
- | collet chucks according to Type 470E/ER32 Ø 2..20 mm
- | included in delivery: collet chuck, clamping nut and retaining bolt

Ø D	Ø d	Ø d1	a	Type		Ident-No.
50	SK 30	2-20	55	470E/ ER32	SCM, Morbidelli	173644
60	SK 30	4-25	72	462E/ OZ25	SCM, Morbidelli	175792
[mm]	[mm]	[mm]	[mm]			
Spare parts		Dimension		Class-No.		Ident-No.
Lock Nuts		M40x1,5R		for Ø D = 50		995290 178761
Lock Nut with sleeve bearing		M48x2R		for Ø D = 60		995290 178764
Retention Knobs		Ø8,5				997870 173646
Hook Wrenches		SW45/50 DIN 1810		for Ø D = 50		985720 175851
Hook Wrenches		SW58/62 DIN 1810		for Ø D = 60		985720 169299
Single-Head Engineers Wrenches		SW36 DIN 894		for Ø D = 50		985720 169296 o
Single-Head Engineers Wrenches		SW46x10 DIN 894		for Ø D = 60		985720 178760
		[mm]				



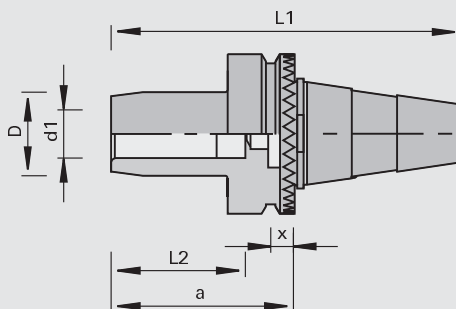
933299

Tribos Pressure Shrinking Chucks with SK shank

Product



Drawing

LEUCO
CNC

Machine / Application

- l CNC machining centers with automatic tool changer
- l for precise clamping of shank-type tools with cylindrical shank

Design

- l quick-release taper according to SK 30 with ring gear
- l $n_{max} = 40,000 \text{ min}^{-1}$

Advantages

- l low weight is easy on machine bearing
- l suitable for high RPM's
- l optimum chip extraction thanks to slim design
- l increased process safety, long edge lives and high machining quality thanks to very high concentricity and repeating accuracy ($< 0.003 \text{ mm}$)

Notes

- l for clockwise and counter-clockwise rotation
- l different diameters upon request
- l allowed projection: clamping of the tools by means of the clamping device
- l can also be done at LEUCO upon request
- l delivery without retaining bolts; please choose retaining bolts according to the machine (see page with retaining bolts)

$\emptyset d1$	L2	$\emptyset d$	$\emptyset D$	L1	a	x	Weight	Ident-No.
20	52	SK 30	30	127.85	80	10	0.7	180897
25	55	SK 30	35	127.85	80	10	0.7	180898
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]	

Spare parts

Class-No.

Ident-No.

Mounting Devices (manual)		985201	180261
Mounting Devices (automatic)		985201	181159 o
Adjustment Inserts	for $\emptyset d = 20$	955530	180264
Adjustment Inserts	for $\emptyset d = 25$	955530	180711
Length adjusting device Tribos system	without interface cable	985300	180828 o
Interface Cables for Adjusting Gauges	for RS 232C interface	985300	180829 o

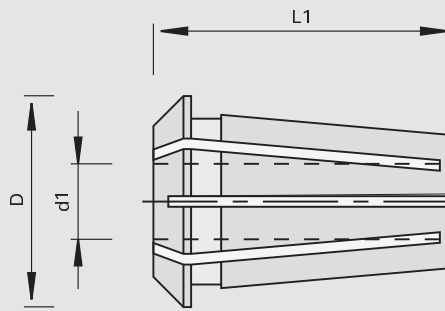
933280

Precision collets - 430E/ER25, 470E/ER32, 472E/ER40

Product



Drawing


LEUCO
CNC

Machine / Application

for use in draw-in collet chuck
Type 430E/ER25, 470E/ER32,
472E/ER40

Design

slotted from top and bottom
clamping tolerance 1 mm

Advantages

Notes

Type 430E/ER25 Ø 6 - 16
mm for special chuck
Type 470E/ER32 Ø 3 - 20
mm
Type 472E/ER40 Ø 6 - 25
mm

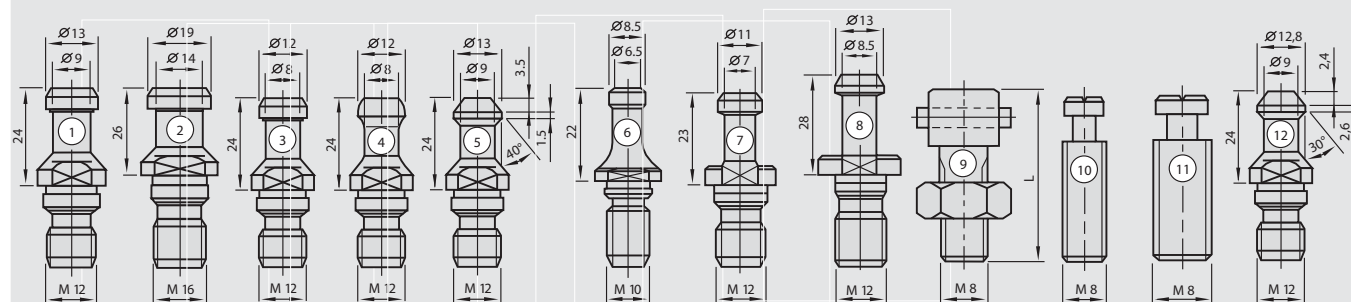
Ø D	Ø d1	Ø d1	L1	Type	Ident-No.
33	3		40	470E/ER32	173647 o
33	4		40	470E/ER32	173648 o
33	5		40	470E/ER32	173649 o
33	6		40	470E/ER32	173650
33	7		40	470E/ER32	173651 o
33	8		40	470E/ER32	173652
33	10		40	470E/ER32	173653
33	12		40	470E/ER32	173654
33	13		40	470E/ER32	173655 o
33	14		40	470E/ER32	173656 o
33	16		40	470E/ER32	173657
33	18		40	470E/ER32	173658 o
33	19		40	470E/ER32	173659 o
33	20		40	470E/ER32	173660
33		1/4	40	470E/ER32	175829
33		1/2	40	470E/ER32	175830
33		5/8	40	470E/ER32	175831 o
33		3/4	40	470E/ER32	175832 o
41	6		46	472E/ER40	180912 o
41	8		46	472E/ER40	180913
41	10		46	472E/ER40	180914 o
41	12		46	472E/ER40	175833
41	16		46	472E/ER40	175834
41	18		46	472E/ER40	175835 o
41	20		46	472E/ER40	175836
41	25		46	472E/ER40	175837
41		1/4	46	472E/ER40	175838 o
41		1/2	46	472E/ER40	175839 o
41		5/8	46	472E/ER40	175840 o
41		3/4	46	472E/ER40	175841 o
41		1	46	472E/ER40	175842 o
26	6		34	430E/ER25	181986 o
26	8		34	430E/ER25	181987
26	10		34	430E/ER25	181988
26	12		34	430E/ER25	181989
26	14		34	430E/ER25	181990 o
26	16		34	430E/ER25	181991
[mm]	[mm]	[inch]	[mm]		

997870

Retaining Bolts

Product

Drawing



Machine / Application

Design

Advantages

Notes

for use in Hydro clamping
chuck PS 2000-E, adapter and
draw-in collet chuck with SK +
BT-shank

attachment screw for tools
with shank diameter 25 mm

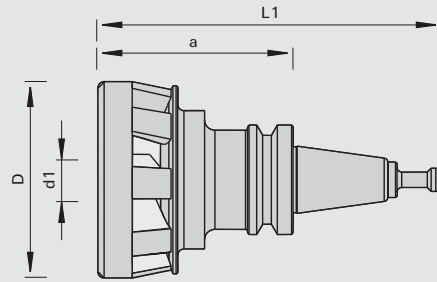
	Norm number	Type	Ident-No.
for SK 30	DIN 69872 A	1	IMA, Maka, Reichenbacher, Weeke 169293
for SK 40 with ventilation	DIN 69872 A	2	IMA, Reichenbacher, Stegherr 169294
for SK 40	DIN 69872 B	2	IMA, Reichenbacher, Stegherr, Maka 179339
for SK 30		3	Rover old, Biesse up to 08/92 175637
for SK 30		4	Rover new, Biesse (HSD motor) from 09/92, Masterwood (Colombo motor) 173641
for SK 30	ISO 7388-3	5	Alberti 177020
for SK 30 (ISO)	ISO 7388-3	12	CMS, Masterwood 177021
Retaining Bolt Ø 8.5 mm		6	Morbidelli, SCM 173646
for BT 30	P 30T-2	7	Shoda 176200
for BT 35	PT 35T-2	8	Heian 176103
for ps-System 25 mm Ident-No. 167738		9	ps-System 172113
for PS-2000 E Ident-No. 173352		10	PS 2000-E 172921
stop screw		11	draw-in collet chuck 172828

933285

AEROTECH SYSTEM with SK30 (DIN) with hydro expansion clamping

Product

Drawing


LEUCO
CNC
Machine / Application

| CNC machining centers
 | for clamping of shank-type tools and simultaneous chip guide when working
 | for grooving, rabbeting in the case of pocket milling and dividing cuts as well as for the optimization of production processes e.g. with Nesting applications

Design

| monolithic tool clamping system
 | 9 wing design for the machining of particle board, MDF, OSB, hard wood etc.
 | tool mounting by means of hydro expansion clamping technology
 | balance quality G<2,5

Advantages

| stopping of the chip flow
 | cooling of the tool
 | reduction of the dust quantity
 | reduced efforts for cleaning and maintenance
 | minimization of setup-times thanks to easy and quick tool change with hydro expansion clamping
 | high cutting quality and long edge lives thanks to high concentricity
 | optimum torque transfer

Notes

| sufficient vacuum performance is necessary
 | impressurement via hexagonal screwdriver (included in delivery)
 | delivery with retaining bolts for Biesse Ident-No. 173641
 | retaining bolt Ident-No. 169293 for IMA, Maka, Reichenbacher and Weeke must be ordered separately
 | please observe the information in the Operating Instructions

Ø d1	Ø d	Ø D	L1	a		Ident-No.
20	SK30 (DIN) 95	143.2	92.2	9 wings		185153
[mm]	[mm]	[mm]	[mm]	[mm]		

Spare parts**Dimension****Class-No.****Ident-No.**


Screwdrivers with sliding handle for hexagon socket SW4x100
 [mm]

985730

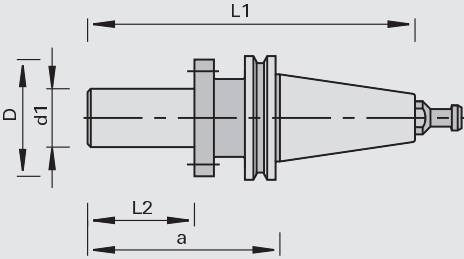
166091


997300
Adapters with SK shank

Product



Drawing



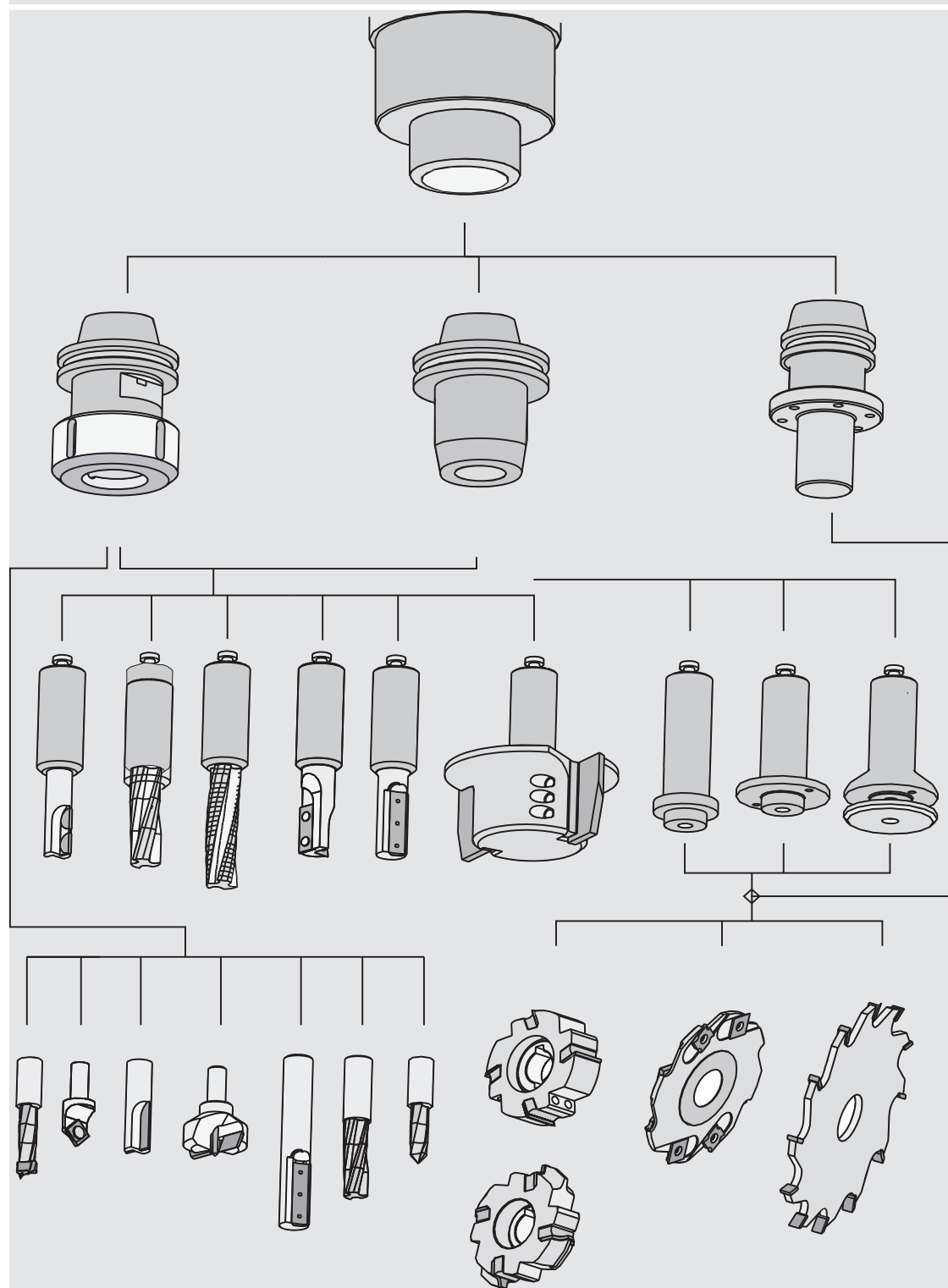


Machine / Application	Design	Advantages	Notes
<ul style="list-style-type: none">CNC machining centers with automatic tool changerfor precise mounting of tools with bore	<ul style="list-style-type: none">clamping length L2 = 50 mm for multiple-part cutters and cutterheadsquick-release taper according to DIN 69871 (without dog and locating grooves)tool attached and secured against rotation with screws		<ul style="list-style-type: none">for clockwise and counter-clockwise rotationwith retaining bolt according to DIN 69872 for SK 30 type A, SK 40 type Bmachines SK 30: IMA, Maka, Reichenbacher, Weekemachines DK 40: IMA, Maka, Reichenbacher, Stegherr

Ø D	Ø d	Ø d1	L2	L1	a	NL	Ident-No.
60	SK 30	25	55	147.8	100	6/M6/48	168800 #
60	SK 30	30	55	147.8	100	2/M6/48+2/6/48	182167 o
60	SK 40	30	55	168.4	100	2/M6/48+2/6/48	182168 o
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		

Spare parts			Class-No.	Ident-No.
Retention knobs			DIN 69872 A	for SK 30
			997870	169293
Retention knobs			DIN 69872 B	for SK 40
			997870	179339

Chart Tool Holders machine interface HSK-Mounting



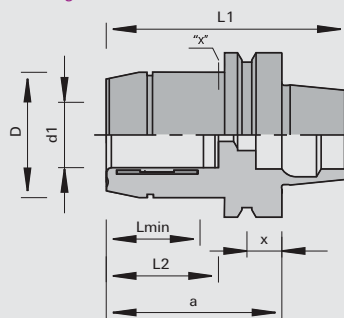
933240

Hydro Clamping Chucks ps-System with HSK 63F shank

Product



Drawing



LEUCO
ps-system

Machine / Application

- l CNC machining centers with automatic tool changer
- l for precise clamping of shank-type tools with cylindrical shank

Design

- l n max = 30,000 min -1
- l interface DIN 69893 HSK 63 F

Advantages

- l minimization of setup-times thanks to easy and quick tool change
- l high cutting quality and long edge lives thanks to high concentricity
- l optimum torque transfer

Notes

- l for right- and lefthand rotation
- l with bore for installation of micro chips for electronic tool detection
- l x = impressurement by means of screwdriver
- l hexagonal screwdriver is not included in delivery
- l Lmin minimum clamping length = minimum shaft length

Ø d1	Lmin	L2	Ø d	Ø D	L1	a	x	Weight	Ident-No.
10	31	41	HSK 63F	30	105	80	18	1.2	184725
12	36	46	HSK 63F	32	105	80	18	1.16	184306
16	39	49	HSK 63F	38	105	80	18	1.20	184307
20	41	51	HSK 63F	52.5	105	80	18	1.30	184308
25	47	57	HSK 63F	52.5	109	84	18	1.28	184309
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]	

Ø d1	Lmin	L2	Ø d	Ø D	L1	a	x	Weight	Ident-No.
3/8	31	41	HSK 63F	30	105	80	18	1.2	184724
1/2	36	47,5	HSK 63F	32	105	80	18	1.2	184726
[inch]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		

Spare parts	Dimension	Suitable for	Class-No.	Ident-No.
Screwdrivers	SW4x100	184306, 184724, 184725, 184726	985730	166091
Screwdrivers	SW5x150	184307, 184308, 184309	985730	168703
	[mm]			

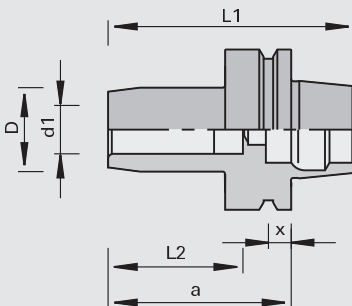
933299

Tribos Pressure Shrinking Chucks

Product



Drawing


LEUCO
CNC

Machine / Application

- | CNC machining centers with automatic tool changer
- | for precise clamping of shank-type tools with cylindrical shank

Design

- | $n_{max} = 40,000 \text{ min}^{-1}$

Advantages

- | low weight is easy on machine bearing
- | suitable for high RPM's
- | optimum chip extraction thanks to slim design
- | increased process safety, long edge lives and high machining quality thanks to very high concentricity and repeating accuracy ($< 0.003 \text{ mm}$)

Notes

- | for right- and lefthand rotation
- | different diameters upon request
- | allowed projection: $4 \times d1$
- | clamping of the tools by means of the clamping device
- | can also be done at LEUCO upon request
- | Tribos chuck with reinforced design especially for heavy roughing can be delivered upon request
- | delivery without retaining bolts; please choose retaining bolts according to the machine (see page with retaining bolts)

$\emptyset d1$	L2	$\emptyset d$	$\emptyset D$	L1	a	x	Weight	Ident-No.
12	48,5	HSK 63F	19	100	75	18	0.69	180257
16	48,5	HSK 63F	26	100	75	18	0.74	180899
20	52,9	HSK 63F	30	100	75	18	0.77	180258
25	55	HSK 63F	35	100	75	18	0.79	180710
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]	

$\emptyset d1$	L2	$\emptyset d$	$\emptyset D$	L1	a	Ident-No.
20	55	SK 30 (DIN)	30	127	80	180888
25	55	SK 30 (DIN)	35	127	80	180836
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	

Spare parts

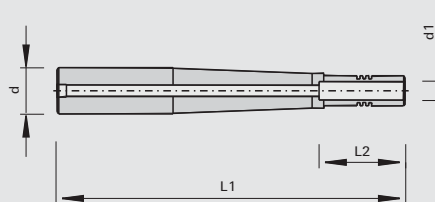
	Class-No.	Ident-No.
Mounting Devices (manual)	985201	180261
Mounting Devices (automatic)	985201	181159 o
Adjustment Inserts for $\emptyset d = 6$	955530	183719 o
Adjustment Inserts for $\emptyset d = 8$	955530	183720 o
Adjustment Inserts for $\emptyset d = 10$	955530	183721 o
Adjustment Inserts for $\emptyset d = 12$	955530	180263
Adjustment Inserts for $\emptyset d = 16$	955530	180902
Adjustment Inserts for $\emptyset d = 20$	955530	180264
Adjustment Inserts for $\emptyset d = 25$	955530	180711
Length adjusting device Tribos system without interface cable	985300	180828 o
Interface Cables for Adjusting Gauges for RS 232C interface	985300	180829 o

933299

Tribos extension

Product

Drawing

LEUCO
CNC

Machine / Application

for mounting of shank-type tools with cylindrical shank in Sino, Tribos, PS 2000-E

Design

shank diameter tolerance h7 or g7

Advantages

Notes

minimum clamping length = L2
clamping and unclamping of the tools with Tribos clamping device

Ø d1	L2	Ø d	L1	Ident-No.
6	27	20	100	182800 o
8	27	20	100	182801 o
10	32	20	100	182802 o
12	37	20	100	182803 o
6	27	20	150	182804 o
8	27	20	150	182805 o
10	32	20	150	182806 o
12	37	20	150	182807 o
6	27	20	250	182808 o
8	27	20	250	182809 o
10	32	20	250	182810 o
12	37	20	250	182811 o
[mm]	[mm]	[mm]	[mm]	

Spare parts

Class-No.

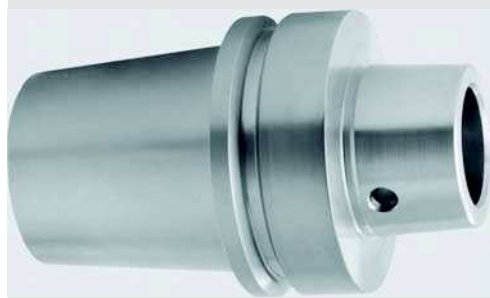
Ident-No.

Adjustment Inserts	for Ø d = 6	955530	183719 o
Adjustment Inserts	for Ø d = 8	955530	183720 o
Adjustment Inserts	for Ø d = 10	955530	183721 o
Adjustment Inserts	for Ø d = 12	955530	180263

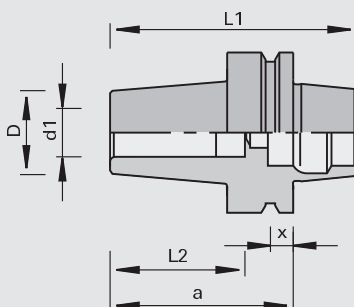
933297

Heat-Shrinking Chucks

Product



Drawing

LEUCO
CNC

Machine / Application

- | CNC machining centers with automatic tool changer
- | for precise clamping of shank-type tools with cylindrical shank

Design

- | $n_{max} = 30,000 \text{ min}^{-1}$
- | interface DIN 69893 HSK 63 F
- | from high-quality hot work tool steel

Advantages

- | increased process safety, long edge lives and high machining quality thanks to very high concentricity and repeating accuracy ($< 0.003 \text{ mm}$)

Notes

- | for clockwise and counter-clockwise rotation
- | can be clamped and unclamped with all conventional shrinking devices

$\varnothing d1$	L2	$\varnothing d$	$\varnothing D$	L1	a	x	Weight	Ident-No.
10	41	HSK 63F	26	100	75	18	0.840	183081
12	47	HSK 63F	28	100	75	18	0.830	183082
14	47	HSK 63F	28	100	75	18	0.870	183083
16	51	HSK 63F	28	100	75	18	0.850	183084
18	51	HSK 63F	30	100	75	18	0.960	183085
20	51	HSK 63F	30	100	75	18	0.930	183086
25	51	HSK 63F	30	100	75	18	0.860	183087
25	52	HSK 63F	45	185	160	18	1.943	185520
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]	



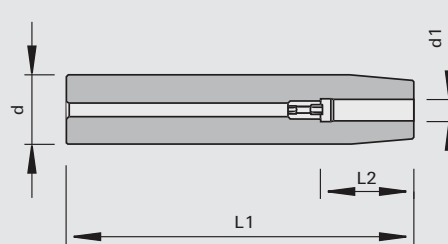
933297

heat-shrinking chuck extensions CELSIO

Product



Drawing

LEUCO
CNC

Machine / Application

l CNC machining centers
l for milling applications with difficult to reach workpiece areas

Design

l hot work tool steel with special surface treatment process for particularly long tool life, temperature resistance and form stability
l run-out accuracy < 0.003 measured in the clamping diameter
l with adjusting screw for length adjustment

Advantages

l also shanks with Weldon or Whistle notch can be used
l best clamping results are achieved with fully cylindrical shanks with tolerance h6
l slim construction according to DIN 69882-8
l shrinking of HW and HS tools with shank tolerance h6

Notes

l clamping elements: we recommend hydro expansion chuck ps-System, Tribos or heat shrink-fit chuck

Ø d1	L2	Ø d	L1	Ident-No.
8	34	25	160	185243
10	42	25	160	185244
12	47	25	160	185245
16	50	25	160	185246
[mm]	[mm]	[mm]	[mm]	

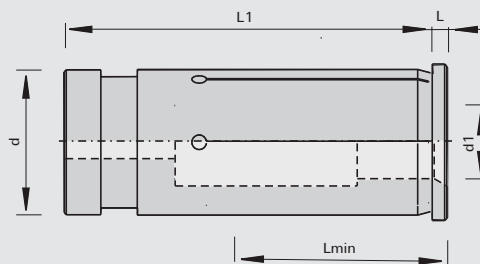
933280

Universal Reducing Bushings

Product



Drawing


LEUCO
CNC

Machine / Application

for mounting of shank-type tools in Sino, Tribos, ps-System

Design

shank diameter tolerance h7 or g7

Advantages

Notes

Lmin minimum clamping length = minimum shaft length

Ø d1	Ø d1	Lmin	Ø d	L1	Ident-No.
3		27	12	45	183022 o
4		27	12	45	183023 o
5		27	12	45	183024 o
6		27	12	45	183025
8		27	12	45	183026
3		27	20	50.5	183027 o
4		27	20	50.5	183028 o
5		27	20	50.5	183029 o
6		27	20	50.5	183030 o
7		27	20	50.5	183031 o
8		27	20	50.5	183032
9		27	20	50.5	183033 o
10		32	20	50.5	183034
11		37	20	50.5	183035 o
12		37	20	50.5	183036
13		37	20	50.5	183037 o
14		37	20	50.5	183038 o
15		38	20	50.5	183039 o
16		38	20	50.5	183040
17		38	20	50.5	183041 o
6		27	25	54.5	182304
8		27	25	54.5	182305
10		32	25	54.5	182306
12		37	25	54.5	182307
14		37	25	54.5	182308
16		38	25	54.5	182309
18		38	25	54.5	182310
20		42	25	54.5	182311
	1/2	37	25	54.5	182653
	5/8	38	25	54.5	182654 o
	3/4	42	25	54.5	182655
[mm]	[inch]	[mm]	[mm]	[mm]	



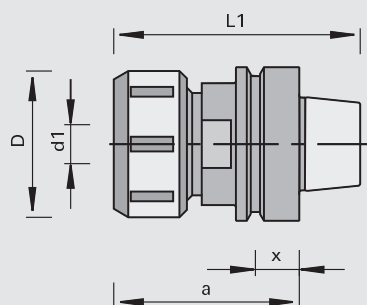
933289

Draw-In Collet Chucks with HSK shank

Product



Drawing


LEUCO
CNC

Machine / Application

- for CNC machining centers with automatic tool changer
- for precise clamping of shank-type tools with cylindrical shank

Design

- interface according to DIN 69893 HSK 50F, HSK 63F and HSK 63E
- lock nut with sleeve bearing

Advantages

- flexible utilization by collet chucks

Notes

- for right- and lefthand rotation
- Ident-No. 175795 for IMA (up to 12/94) similar to DIN 69893
- $\varnothing d1$ = collet chuck diameter 2 - 25 mm
- collet chucks according to DIN 6388: 1) type 462E/OZ25/ 2) type 472E/ER40
- included in delivery: collet chuck, clamping nut without spanner wrench
- attention: different interfaces in case of CMS machines, according to spindle performance (KW)

Ø d1	Ø d	Ø D	L1	a	x	Type	Ident-No.	
2-25	HSK 63F	60	101	76	18	1	Homag, IMA from 01/95, Weeke from 03/98, HOLZ-HER, SCM, CMS (12+15 KW)	173293
2-25	HSK 63E	63	103	78	18	2	CMS (18 KW)	180359 o
2-25	HSK 63F	60	101	76	9	1	IMA up to 12/94	175795
2-25	HSK 63F	60	140	115	18	1	Homag, IMA from 01/95, Weeke from 03/98, HOLZ-HER, CMS (12+15 KW)	179170
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]			

Spare parts

Dimension

Class-No.

Ident-No.

Lock Nut with sleeve bearing	M48x2R	995290	178764
Hook Wrenches	SW58/62 DIN 1810	985720	169299
Single-Head Engineers Wrenches	SW46x10 DIN 894	985720	178760
	[mm]		

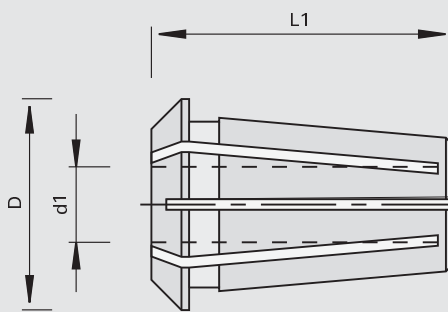
933280

Precision collets - 462E/OZ25

Product



Drawing

LEUCO
CNC**Machine / Application**

for use in draw-in collet chuck
Type 462E/OZ25

Design

clamping tolerance 0.5 mm
according to DIN 6388 Type
462E/OZ25

Advantages

optimum transmission of
clamping force thanks to 12
slots from top and bottom

Notes

Ø d1	Ø d1	Ø D	L1	Ident-No.
2		35.05	52	183803 o
3		35.05	52	183804
4		35.05	52	183805
5		35.05	52	183806
6		35.05	52	180213
	1/4	35.05	52	175815
7		35.05	52	183807 o
8		35.05	52	180358
9,5		35.05	52	175817
	3/8	35.05	52	185275
10		35.05	52	170782
12		35.05	52	168742
	1/2	35.05	52	175820
13		35.05	52	180215
14		35.05	52	170783
	5/8	35.05	52	175823
15		35.05	52	183808 o
16		35.05	52	168743
18		35.05	52	180216
	3/4	35.05	52	175826
20		35.05	52	168744
25		35.05	52	168745
[mm]	[inch]	[mm]	[mm]	



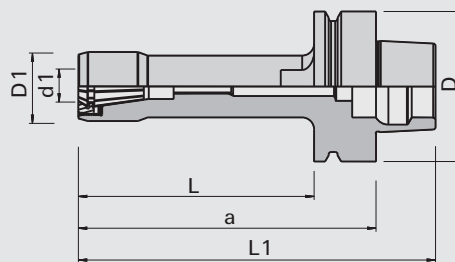
933289

draw-in collet chuck system 426E/ER16 with HSK 63F - clamping zone Ø 1-10 mm

Product



Drawing


LEUCO
CNC
Machine / Application

| CNC machining centers, especially 5-axis
 | for precise clamping of shank-type tools with cylindrical shank

Design

| internal collet nut
 | hardened and ground
 | for double-slotted collets
 | with anticorrosive coating
 | n max = 24,000 min-1

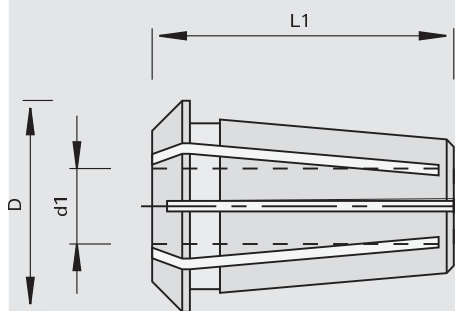
Advantages

| slim design
 | high stability even with large projection
 | high concentric accuracy
 | high clamping force

Notes

| also available for left-hand sense of rotation
 | included in delivery: collet chuck with clamping nut, without collet and mounting accessories
 | torques: 426E/ER16: 25 - 60 Nm (30 - 44 Lbf.ft)

Ø d1	Ø D1	Ø d	Ø D	L	L1	a	Ident-No.
1-10	29	HSK 63F	63	50	101	76	184847
1-10	29	HSK 63F	63	74	125	100	184848
1-10	29	HSK 63F	63	99	150	125	184849
1-10	29	HSK 63F	63	124	175	150	184850
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	

**Collets 426E / ER 16**

Ø d1	Ø D	L1	Ident-No.
1	17.25	27.5	184865 o
2	17.25	27.5	184866 o
3	17.25	27.5	184867 o
4	17.25	27.5	184868 o
5	17.25	27.5	184869 o
6	17.25	27.5	184870
7	17.25	27.5	184871 o
8	17.25	27.5	184872
9	17.25	27.5	184873 o
10	17.25	27.5	184874
[mm]	[mm]	[mm]	

Accessories	Class-No.	Ident-No.
[a] Lock Nuts	995290	184875
[b] hand spanner	985720	184878
[c] screw-in aid	985720	184881
[d] torque nut	985720	184884
[e] torque adapter	985300	184887
[f] torque wrench 20-200Nm	985300	184890



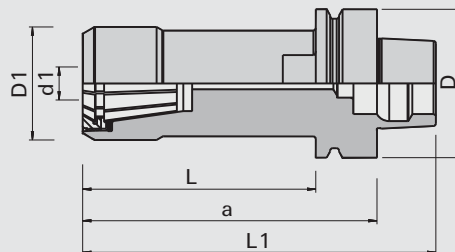
933289

draw-in collet chuck system 470E/ER32 with HSK 63F - clamping zone Ø 2-20 mm

Product



Drawing

LEUCO
CNC

Machine / Application

- l CNC machining centers, especially 5-axis
- l for precise clamping of shank-type tools with cylindrical shank

Design

- l internal collet nut
- l hardened and ground
- l for double-slotted collets
- l with anticorrosive coating
- l n max = 24,000 min-1

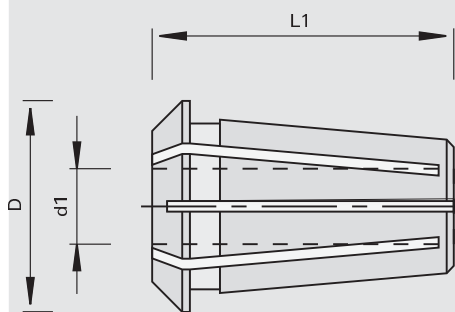
Advantages

- l slim design
- l high stability even with large projection
- l high concentric accuracy
- l high clamping force

Notes

- l also available for left-hand sense of rotation
- l included in delivery: collet chuck with clamping nut, without collet and mounting accessories
- l torques: 470E/ER32: 80 - 130 Nm (70 - 96 Lbf.ft)

Ø d1	Ø D1	Ø d	Ø D	L	L1	a	Ident-No.
2-20	48	HSK 63F	63	34	85	60	184851
2-20	48	HSK 63F	63	44	95	70	184852 o
2-20	48	HSK 63F	63	89	140	115	184853
2-20	48	HSK 63F	63	99	150	125	184854
2-20	48	HSK 63F	63	124	175	150	184855 o
2-20	48	HSK 63F	63	154	205	180	184856
2-20	48	HSK 63F	63	174	225	200	184857
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	



Collets 470E / ER 32

Ø d1	Ø D	L1	Ident-No.
3	33	40	173647 o
4	33	40	173648 o
5	33	40	173649 o
6	33	40	173650
7	33	40	173651 o
8	33	40	173652
10	33	40	173653
12	33	40	173654
13	33	40	173655 o
14	33	40	173656 o
16	33	40	173657
18	33	40	173658 o
19	33	40	173659 o
20	33	40	173660
[mm]	[mm]	[mm]	

Accessories	Class-No.	Ident-No.
[a] Lock Nuts	995290	184876
[b] hand spanner	985720	184879
[c] screw-in aid	985720	184882
[d] torque nut	985720	184885
[e] torque adapter	985300	184888
[f] torque wrench 20-200Nm	985300	184890



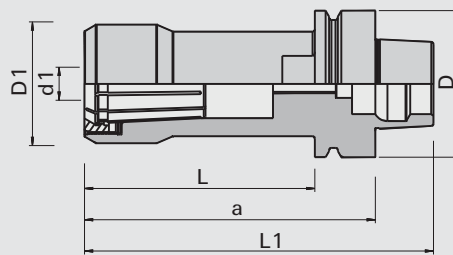
933289

draw-in collet chuck system 462E/OZ25 with HSK 63F - clamping zone Ø 2-25 (1") mm

Product



Drawing


LEUCO
CNC
Machine / Application

| CNC machining centers,
 especially 5-axis
 | for precise clamping of
 shank-type tools with cylindri-
 cal shank

Design

| internal collet nut
 | hardened and ground
 | for double-slotted collets
 | with anticorrosive coating
 | n max = 24,000 min-1

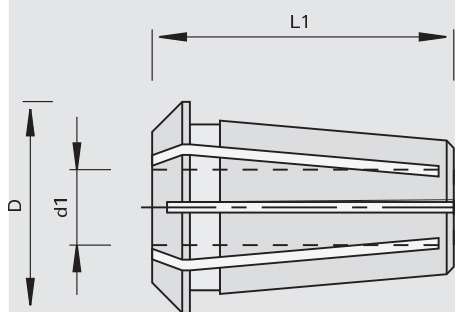
Advantages

| slim design
 | high stability even with large
 projection
 | high concentric accuracy
 | high clamping force

Notes

| also available for left-hand
 sense of rotation
 | included in delivery: collet
 chuck with clamping nut,
 without collet and mounting
 accessories
 | torques: 462E/OZ25: 100 -
 150 Nm (75 - 110 Lbf.ft)

Ø d1	Ø D1	Ø d	Ø D	L	L1	a	Ident-No.
2-25	51	HSK 63F	63	50	101	76	184858
2-25	51	HSK 63F	63	89	140	115	184860
2-25	51	HSK 63F	63	124	175	150	184861 o
2-25	51	HSK 63F	63	149	200	175	184862 o
2-25	51	HSK 63F	63	174	225	200	184863
2-25	51	HSK 63F	63	199	250	225	184864
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	

**HSK-F63 Collet chucks 462E / OZ 25 /**

Ø d1	Ø d1	Ø D	L1	Ident-No.
2		35.05	52	183803 o
3		35.05	52	183804
4		35.05	52	183805
5		35.05	52	183806
6		35.05	52	180213
	1/4	35.05	52	175815
7		35.05	52	183807 o
8		35.05	52	180358
9,5		35.05	52	175817
10		35.05	52	170782
12		35.05	52	168742
	1/2	35.05	52	175820
13		35.05	52	180215
14		35.05	52	170783
	5/8	35.05	52	175823
[mm]	[inch]	[mm]	[mm]	

HSK-F63 Collet chucks 462E / OZ 25 /

Ø d1	Ø d1	Ø D	L1	Ident-No.
15		35.05	52	183808 o
16		35.05	52	168743
18		35.05	52	180216
	3/4	35.05	52	175826
20		35.05	52	168744
25		35.05	52	168745
[mm]	[inch]	[mm]	[mm]	

Accessories	Class-No.	Ident-No.
[a] Lock Nuts	995290	184877
[b] hand spanner	985720	184880
[c] screw-in aid	985720	184883
[d] torque nut	985720	184886
[e] torque adapter	985300	184889
[f] torque wrench 20-200Nm	985300	184890



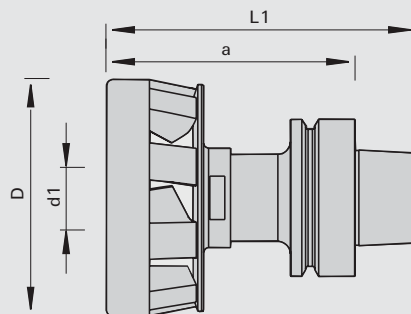
933285

AEROTECH SYSTEM with HSK 63F with collet chuck adapter

Product



Drawing


LEUCO
CNC
Machine / Application

- l CNC machining centers
- l for grooving, rabbeting in the case of pocket milling and dividing cuts as well as for the optimization of production processes e.g. with Nesting applications
- l for tools with shank diameter up to 16 mm

Design

- l tool adapter with high-precision collet chucks
- l 9 wing design for the machining of particle board, MDF, OSB, hard wood etc.
- l 7 wing design for low-density materials (e.g. soft wood) as well as gypsum boards etc.
- l tool mounting by means of clamping key or pre-adjusted torque wrench (recommended)

Advantages

- l stopping of the chip flow
- l cooling of the tool
- l reduction of the dust quantity
- l reduced efforts for cleaning and maintenance

Notes

- l balance quality G=2.5
- l n max. = 24,000 min-1
- l sufficient vacuum performance is necessary
- l please observe the information in the Operating Instructions

Ø d1	Ø d	Ø D	L1	a		Ident-No.
6-16	HSK 63F	95	125	100	9 wings	184652
6-16	HSK 63F	95	125	100	7 wings	184665 o
[mm]	[mm]	[mm]	[mm]	[mm]		

Spare parts**Dimension****Class-No.****Ident-No.**

collet chucks	Ø 6 mm	933280	184653 o
collet chucks	Ø 8 mm	933280	184654 o
collet chucks	Ø 10 mm	933280	184655
collet chucks	Ø 12 mm	933280	184656
collet chucks	Ø 14 mm	933280	184657
collet chucks	Ø 16 mm	933280	184658
collet chucks	Ø 1/4"	933280	184659 o
collet chucks	Ø 3/8"	933280	184660
collet chucks	Ø 1/2"	933280	184661
collet chucks	Ø 5/8"	933280	184662 o
set screw for 184665		995191	185155
set screw for 184652		995191	185154
torque wrench 40 Nm		985730	184667
mounting devices incl. torque wrench 40 Nm		985202	184666
	[mm]		

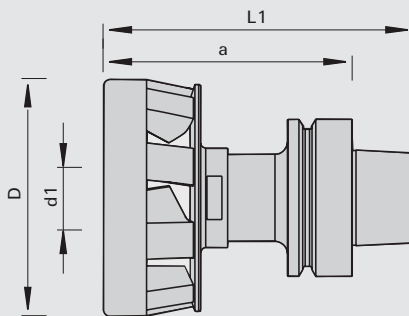
933285

AEROTECH SYSTEM with HSK 63F with hydro expansion clamping

Product



Drawing


LEUCO
CNC
Machine / Application

- l CNC machining centers
- l for clamping of shank-type tools and simultaneous chip guide when working
- l for grooving, rabbeting in the case of pocket milling and dividing cuts as well as for the optimization of production processes e.g. with Nesting applications

Design

- l monolithic tool clamping system
- l 9 wing design for the machining of particle board, MDF, OSB, hard wood etc.
- l tool mounting by means of hydro expansion clamping technology
- l balance quality $G < 2,5$

Advantages

- l stopping of the chip flow
- l cooling of the tool
- l reduction of the dust quantity
- l reduced efforts for cleaning and maintenance
- l minimization of setup-times thanks to easy and quick tool change with hydro expansion clamping
- l high cutting quality and long edge lives thanks to high concentricity
- l optimum torque transfer

Notes

- l sufficient vacuum performance is necessary
- l impressurement via hexagonal screwdriver (included in delivery)
- l Ident-No. 184757: clamping of smaller shank diameters is possible by means of LEUCO universal reducing sleeves
- l please observe the information in the Operating Instructions

$\varnothing d1$	$\varnothing d$	$\varnothing D$	L1	a		Ident-No.
6-25	HSK 63F	105	131	106	9 wings	184757
[mm]	[mm]	[mm]	[mm]	[mm]		

Spare parts**Dimension****Class-No.****Ident-No.**

Screwdrivers with sliding handle for hexagon socket SW4x100
[mm]

985730

166091



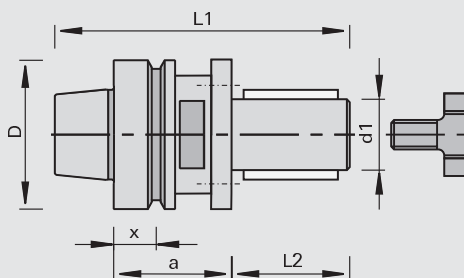
997300

Mounting Arbors with HSK shank

Product



Drawing

LEUCO
CNC

Machine / Application

- for CNC machining centers with automatic tool changer
- for precise mounting of tools with bore with double keyway

Design

- with 6 pin holes M6 - 8 mm deep TK 48 mm
- interface DIN 69893 HSK 63 F
- clamping length L2 = 50 mm for multiple-part cutters and cutterheads
- secured against rotation with double key

Advantages

- high feed rates thanks to optimum torque transfer

Notes

- for clockwise and counter-clockwise rotation
- spacer ring Ident-No. 181193 consists of: 1 piece 20 mm thick, 1 piece 10 mm thick, 3 piece 5 mm thick, 2 piece 2 mm thick, 1 piece 1 mm thick
- spacer ring set Ident-No. 181194 additionally 1 piece 20 mm thick, 1 piece 10 mm thick
- tool attached with retaining bolt
- included in delivery: clamping arbor with retaining bolt

Ø D	Ø d	Ø d1	L2	L1	a	x	DKN	Weight	Ident-No.	
63	HSK 63F	30	50	120	45	18	8 x 3	1.4	Homag, IMA from 01/95	183748
63	HSK 63F	30	80	150	45	18	8 x 3	1.5	Homag, IMA from 01/95, HOLZ-HER	183749
63	HSK 63F	30	110	180	45	18	8 x 3	1.4	Homag, IMA from 01/95, HOLZ-HER	183747
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]		

Spare parts

Dimension

Class-No.

Ident-No.

Single-Head Engineers Wrenches	SW46x10 DIN 894	985720	178760
Cutter Retaining Bolts	M16x26xØ42	995190	173592
Spacer Sets	60x50x30	955521	181193
Spacer Sets	60x80x30	955521	181194
	[mm]		

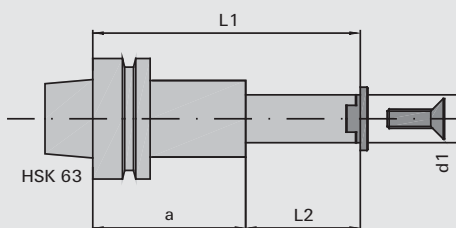
997300

Mounting Arbors HSK 63F

Product



Drawing


LEUCO
CNC
Machine / Application

| CNC machining centers with automatic tool changer
 | for mounting of Modula sets or single cutters

Design

| interface DIN 69893 HSK 63 F
 | secured against rotation with double key

Advantages**Notes**

| for right- and lefthand rotation
 | included in delivery: mounting arbor with cover and countersunk screw

Ø d	Ø d1	L2	L1	a	Weight	Ident-No.
HSK 63F	25	37	119	45	1.1	183768
HSK 63F	25	85	167	45	1.2	183769
HSK 63F	25	37	149	80	1.3	183770
HSK 63F	25	75	187	80	1.5	183771
[mm]	[mm]	[mm]	[mm]	[mm]	[kg]	

Accessories**Dimension****Class-No.****Ident-No.**

Spacers	40x0,1x25	955520	183756
Spacers	40x0,2x25	955520	183757
Spacers	40x0,5x25	955520	183758
Spacers	40x1x25	955520	183759
Spacers	40x2x25	955520	183760
Spacers	40x4x25	955520	183761
Spacers	40x6x25	955520	183762
Spacers	40x10x25	955520	183763
Spacers	40x20x25	955520	183764
	[mm]		

Spare parts**Dimension****Class-No.****Ident-No.**

Covers	33x11x25	997300	183772 o
Countersunk Flat Headed Screws	M10x30 DIN EN ISO 10642	995121	183773 o
Screwdrivers	SW6x200	985730	167817
	[mm]		

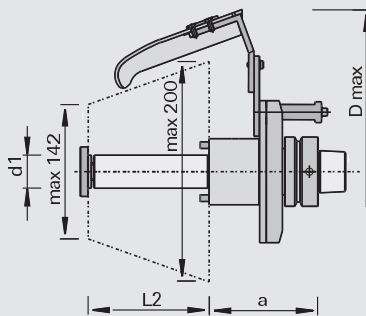
997300

Milling Assemblies with chip directing steel sheet

Product



Drawing

LEUCO
CNC

Machine / Application

- | CNC-machining centers with C-axis Homag
- | for precise mounting of tools with bore

Design

- | milling aggregate with integrated chip directing steel sheet
- | Ident-No. 182049 and 182050 with double keyway
- | Ident-No. 182075 and 182076 with lid and retaining bolt; 2 carrier pins Ø6 TK 48
- | $n_{max} = 11,000 \text{ min}^{-1}$ (stock design)
- | shank 30 mm, shank length 105 mm

Advantages

- | optimized chip removal

Notes

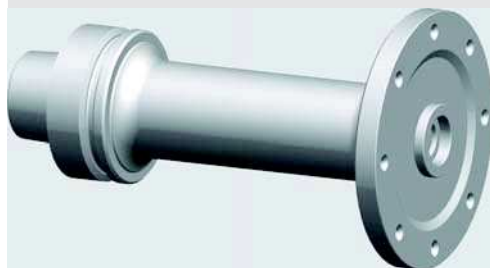
- | weight of the component approx. 2 kg (depending on design)
- | max. weight of the clamped tool 3,8 kg

Ø Dmax	Ø d	Ø d1	L2	a	DKN		Ident-No. [L]	Ident-No. [R]
300	HSK 63F	30	105	80	8 x 4	Homag	182049 o	182050 o
300	HSK 63F	30	105	80		Homag	182075 o	182076 o
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]			

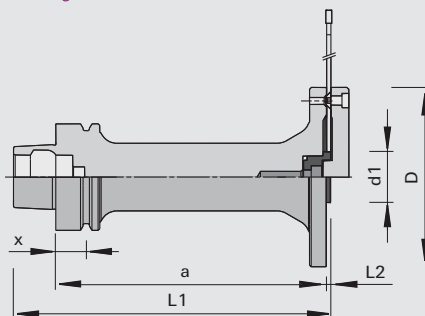
997300

CNC Combi Saw Blade Adapters HSK 63F

Product



Drawing


LEUCO
CNC
Machine / Application

- | CNC machining centers with automatic tool changer
- | for precise mounting of circular saw blades

Design

- | interface DIN 69893 HSK 63 F for high-precision adapter to the machine spindle

Advantages

- | exchangeable centering adapter can be obtained separately; thus saw blades with different bore diameters can be used on the same mounting device
- | the mounting of the saw blade can be made with or without lid
- | adapter available with different measures

Notes

- | for right- and lefthand rotation
- | mounting of the saw directly by means of countersunk screws or lid by means of cylinder head screw
- | included in delivery: lid, countersunk screws, cylinder head screws and centering adapter for saw blade bore Ø 30 mm with retaining ring

Ø D	Ø d	Ø d1	L2	L1	a	x	NL	Ident-No.
106	HSK 63F	30	2,5	65	40	18	8/M5/90	184835
106	HSK 63F	30	2,5	75	50	18	8/M5/90	184836
106	HSK 63F	30	2,5	125	100	18	8/M5/90	184837
106	HSK 63F	30	2,5	155	130	18	8/M5/90	184838
106	HSK 63F	30	2,5	185	160	18	8/M5/90	184839
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		

Options	Dimension	Class-No.	Ident-No.
Covers	106x15x20	997300	184845
Adapter	Ø 30 mm	997300	184840
Adapter	Ø 31,75 mm	997300	184841
Adapter	Ø 32 mm	997300	184842
Adapter	Ø 35 mm	997300	184843
Adapter	Ø 40 mm	997300	184844
	[mm]		

Spare parts	Dimension	Class-No.	Ident-No.
Countersunk Flat Headed Screws	M5x8 T20	995125	164005
Head Cap Screws	M5x16 DIN EN ISO 4762	995111	001870
Cylinder head screws for adapters	M8x12 DIN 7984	995111	184846
Locking Rings	8/13x8,4x0,7	995460	185497
	[mm]		

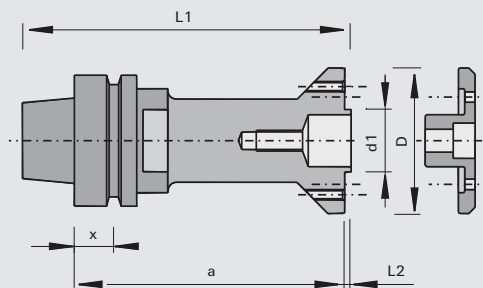
933061

Saw Blade Adapters HSK 63F

Product



Drawing

LEUCO
CNC

Machine / Application

- for CNC machining centers with automatic tool changer
- for precise mounting of circular saw blades and grooving cutters

Design

- interface DIN 69893 HSK 63 F for high-precision adapter to the machine spindle

Advantages

Notes

- for clockwise and counter-clockwise rotation
- mounting of the saw directly by means of countersunk screw or lid 183310 by means of cylinder head screw
- included in delivery:
- adapter with countersunk screws
- lid with cylinder head screws to be ordered separately

Ø D	Ø d	Ø d1	L2	L1	a	NL	Ident-No.
70	HSK 63F	30	2,5	157,5	130	8/M5/52	183309
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		

Spare parts

Dimension

Class-No.

Ident-No.

Countersunk Flat Headed Screws

M5x8 T20
[mm]

995125

164005

Accessories

Dimension

Class-No.

Ident-No.

Lid with cylinder head screws

70x24x8
[mm]

997300

183310

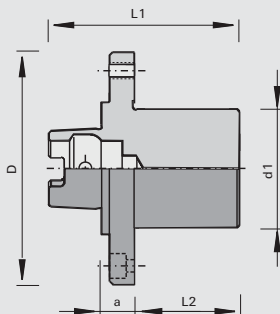
933061

Mounting Arbors HSK 63F modified - without gripper groove

Product



Drawing



Machine / Application

- through-feed machines with tool changer Homag
- d1=30 mm especially for Homag and IMA jointing aggregates
- d1=60 mm especially for flooring manufacturing
- for precise clamping of tools with bore

Design

- interface DIN 69893 HSK 63 F modified for highly precise mounting on the machine spindle

Advantages

- quick tool change
- maintenance-free

Notes

- for clockwise and counter-clockwise rotation

Ø D	Ø d	Ø d1	L2	L1	a	NL	Ident-No.
94	HSK 63F	30	25	66	16	4/M8/80	furniture 184787
120	HSK 63F	60	68	113	20	4/M8/100 + 4/9/100	Flooring 183616 o
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		

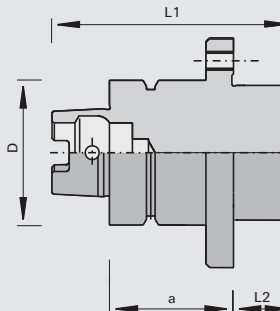
933061

Mounting Arbors HSK 63F modified - with gripper groove

Product



Drawing



Machine / Application

- through-feed machines with tool changer Homag
- for precise clamping of tools with bore

Design

- with pulling grooves
- flange with fastening screw thread
- interface DIN 69893 HSK 63 F for highly precise mounting on the machine spindle

Advantages

- quick tool change

Notes

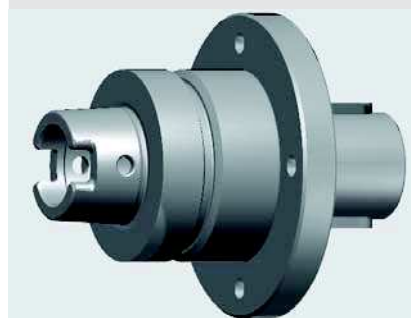
- for clockwise and counter-clockwise rotation

Ø D	Ø d	Ø d1	L2	L1	a	NL	Ident-No.
63	HSK 63F	60	23,5	102.5	54	4/M8/80	183615 o
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		

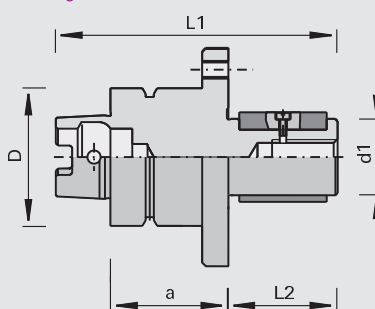
933061

Mounting Arbors HSK 63F modified - 35 DKN, with lid and screws

Product



Drawing

**Machine / Application**

l through-feed machines with tool changer Homag
l for precise clamping of tools with bore

Design

l with pulling grooves
l flange with fastening screw thread
l interface DIN 69893 HSK 63 F for highly precise mounting on the machine spindle

Advantages

l quick tool change

Notes

l for clockwise and counter-clockwise rotation

Ø D	Ø d	Ø d1	L2	L1	a	NL	Ident-No.
63	HSK 63F	35	40	119	54	8/M8/80	182689
63	HSK 63F	35	50	129	54	8/M8/80	182124
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		

Spare parts	Dimension	Class-No.	Ident-No.
Head Cap Screws	M16x30	995111	182126 o
Covers	60x15x17 [mm]	997370	182127 o

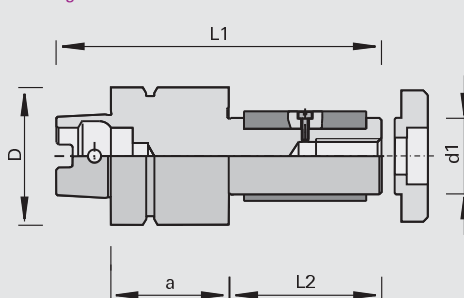
933069

Mounting Arbors HSK 63F modified - 35 DKN, tool directly attached by screws

Product



Drawing

**Machine / Application**

l through-feed machines with tool changer Homag
l for precise clamping of tools with bore

Design

l with pulling grooves
l with lid and screw (included in delivery)
l interface DIN 69893 HSK 63 F modified for high-precision adapter to the machine spindle

Advantages

l quick tool change

Notes

l for clockwise and counter-clockwise rotation

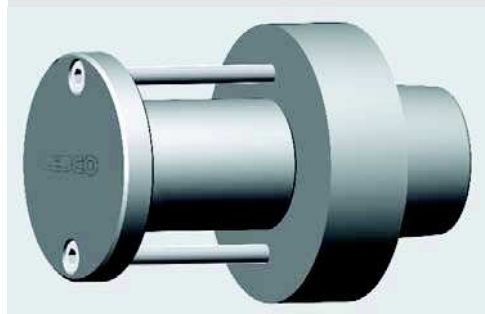
Ø D	Ø d	Ø d1	L2	L1	a	Ident-No.
63	HSK 63F	35	40	119	54	182123
63	HSK 63F	35	70	149	54	182125
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	

Spare parts	Dimension	Class-No.	Ident-No.
Head Cap Screws	M16x30	995111	182126 o
Covers	60x15x17 [mm]	997370	182127 o

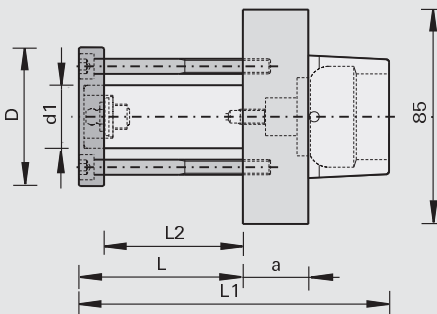
997300

Hydro Tensile Spindles Weinig HSK - clamping length 40-55 mm

Product



Drawing



Machine / Application

- planing machines Weinig Powermat
- for precise clamping of tools with bore

Design

- with hydro-tensile spindle
- n max = 6,000 min-1

Advantages

- precise mounting of tools with bore thanks to hydro-tensile spindle

Notes

- for clockwise and counter-clockwise rotation
- accessories: dummy piece for covering the HSK-interface on spindles not used

Ø D	Ø d	Ø d1	L2	L1	a	Ident-No.
85	Weinig HSK	30	40	108	26	181872 o
85	Weinig HSK	30	55	123	26	181873 o
85	Weinig HSK	40	55	123	26	181874 o
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	

Spare parts

Dummy Pieces (cover)

Class-No.

997300

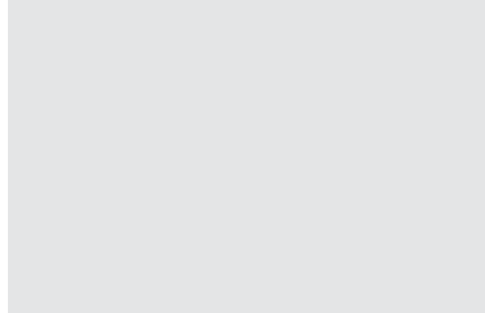
Ident-No.

182286 o

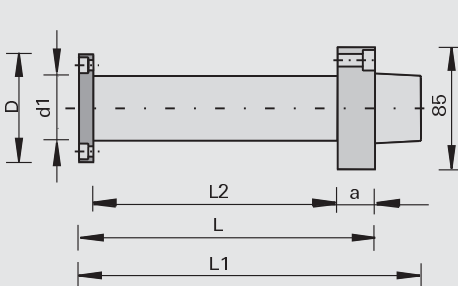
997300

Hydro Tensile Spindles Weinig HSK - clamping length 170-210 mm

Product



Drawing



Machine / Application

- planing machines Weinig Powermat
- for precise clamping of tools with bore

Design

- with hydro-tensile spindle

Advantages

- precise mounting of tools with bore thanks to hydro-tensile spindle

Notes

- for clockwise and counter-clockwise rotation
- accessories: dummy piece for covering the HSK-interface on spindles not used

Ø D	Ø d	Ø d1	L2	L1	a	Ident-No.
85	Weinig HSK	40	170	238	26	181875 o
85	Weinig HSK	50	170	238	26	181877 o
85	Weinig HSK	50	210	278	26	181973 o
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	

Spare parts

Dummy Pieces (cover)

Class-No.

997300

Ident-No.

182286 o

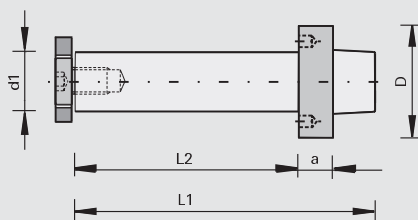
997300

Mounting Arbors Weinig HSK

Product



Drawing



Machine / Application

l profile machines Weinig
Powermat
l for mounting of tools with bore

Design

Advantages

Notes

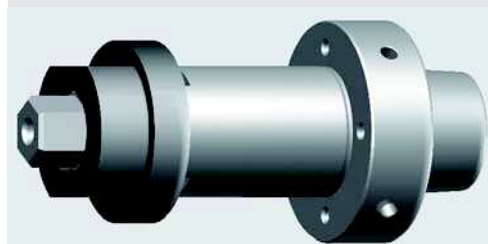
l for right- and lefthand rotation
l other dimensions on request
l for permissible RPM please refer to diagram
l attention: please observe the recommended tightening torque 80 Nm!

Ø D	Ø d	Ø d1	L2	L1	a	NL	Weight	Ident-No.
85	Weinig HSK	30	40	98	26	2/6/48+2/M6/48	1.7	182056 o
85	Weinig HSK	30	60	118	26	2/6/48+2/M6/48	1.8	182057 o
85	Weinig HSK	30	80	138	26	2/6/48+2/M6/48	1.9	182058 o
85	Weinig HSK	30	130	188	26	2/6/48+2/M6/48	2.2	182059 o
85	Weinig HSK	30	170	228	26	2/6/48+2/M6/48	2.4	182060 o
85	Weinig HSK	30	240	298	26	2/6/48+2/M6/48	2.8	182061 o
85	Weinig HSK	40	40	98	26	2/6/54+2/M6/54	1.9	182062 o
85	Weinig HSK	40	60	118	26	2/6/54+2/M6/54	2.1	182063 o
85	Weinig HSK	40	80	138	26	2/6/54+2/M6/54	2.3	182064 o
85	Weinig HSK	40	130	188	26	2/6/54+2/M6/54	2.8	182065 o
85	Weinig HSK	40	170	228	26	2/6/54+2/M6/54	3.2	182066 o
85	Weinig HSK	40	240	298	26	2/6/54+2/M6/54	3.9	182067 o
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[kg]	

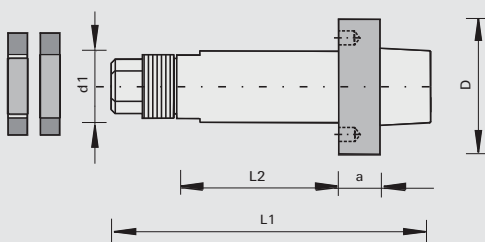
997300

Mounting Arbors Weinig HSK - with spindle nut

Product



Drawing



Machine / Application

l profile machines Weinig
Powermat
l for mounting of tools with bore

Design

Advantages

Notes

l for right- and lefthand rotation
l other dimensions on request
l for permissible RPM please refer to diagram
l attention: please observe the recommended tightening torque 80 Nm!
l included in delivery: mounting arbor incl. ring and spindle nut

Ø D	Ø d	Ø d1	L2	L1	a	NL	Weight	Ident-No.
85	Weinig HSK	40	40	143	26	2/6/54+2/M6/54	1.9	183281 s
85	Weinig HSK	40	60	163	26	2/6/54+2/M6/54	2.1	183282 s
85	Weinig HSK	40	80	183	26	2/6/54+2/M6/54	2.3	183283 s
85	Weinig HSK	40	100	203	26	2/6/54+2/M6/54	2.5	183284 s
85	Weinig HSK	40	130	233	26	2/6/54+2/M6/54	2.8	183285 s
85	Weinig HSK	40	150	253	26	2/6/54+2/M6/54	2.95	183286 s
85	Weinig HSK	40	170	273	26	2/6/54+2/M6/54	3.2	183287 s
85	Weinig HSK	40	180	283	26	2/6/54+2/M6/54	3.3	183288 s
85	Weinig HSK	40	210	313	26	2/6/54+2/M6/54	3.6	183289 s
85	Weinig HSK	40	230	333	26	2/6/54+2/M6/54	3.8	183290 s
85	Weinig HSK	40	240	343	26	2/6/54+2/M6/54	3.9	183291 s
85	Weinig HSK	40	270	373	26	2/6/54+2/M6/54	4.2	183292 s
85	Weinig HSK	40	310	413	26	2/6/54+2/M6/54	4.6	183293 s
85	Weinig HSK	50	40	143	26	2/6/74+2/M6/64	2.1	183294 s
85	Weinig HSK	50	60	163	26	2/6/74+2/M6/64	2.4	183295 s
85	Weinig HSK	50	80	183	26	2/6/74+2/M6/64	2.7	183296 s
85	Weinig HSK	50	100	203	26	2/6/74+2/M6/64	3.0	183297 s
85	Weinig HSK	50	130	233	26	2/6/74+2/M6/64	3.5	183298 s
85	Weinig HSK	50	150	253	26	2/6/74+2/M6/64	3.75	183299 s
85	Weinig HSK	50	170	273	26	2/6/74+2/M6/64	4.1	183300 s
85	Weinig HSK	50	180	283	26	2/6/74+2/M6/64	4.3	183301 s
85	Weinig HSK	50	210	313	26	2/6/74+2/M6/64	4.7	183302 s
85	Weinig HSK	50	230	333	26	2/6/74+2/M6/64	5.0	183303 s
85	Weinig HSK	50	240	343	26	2/6/74+2/M6/64	5.13	183304 s
85	Weinig HSK	50	270	373	26	2/6/74+2/M6/64	5.6	183305 s
85	Weinig HSK	50	310	413	26	2/6/74+2/M6/64	6.3	183306 s
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[kg]	

Spare parts

Dimension

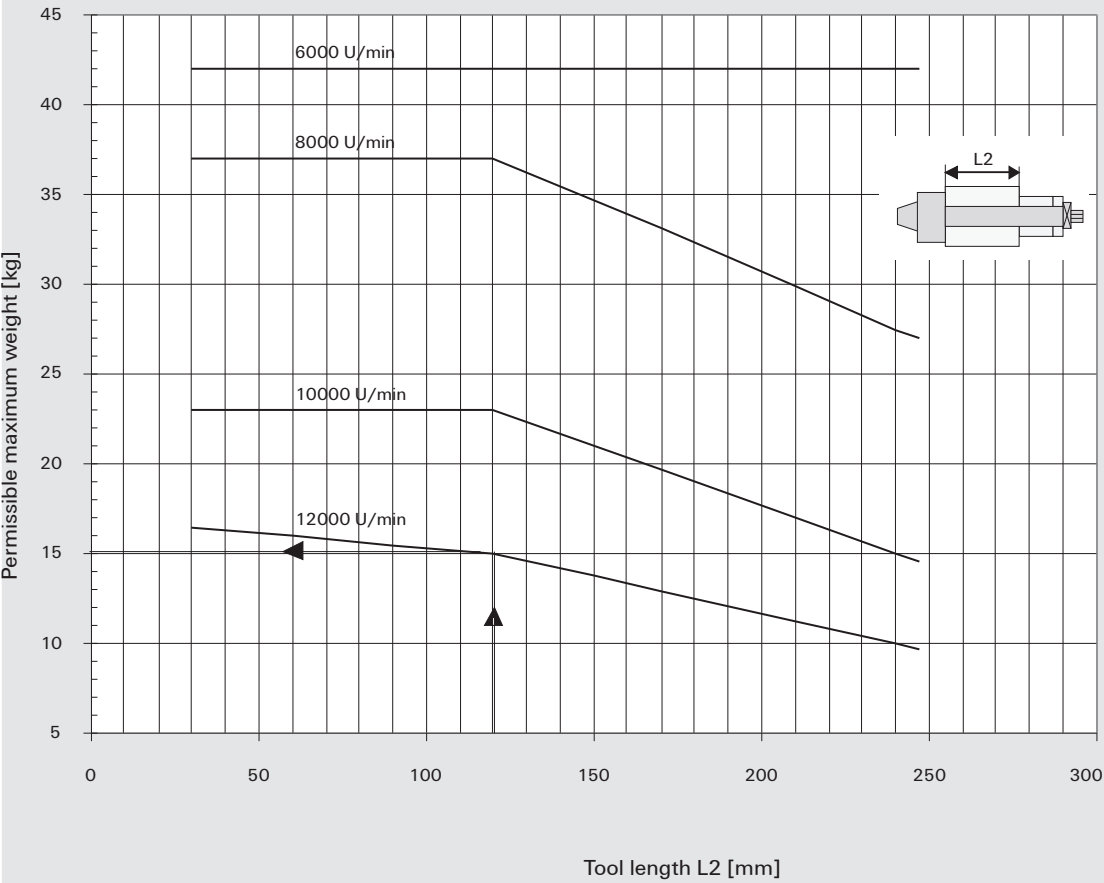
Class-No.

Ident-No.

Set Screws	M6x16 SW3	995161	001617
rings	60x15x35	955520	183308 o
spindle nuts	M33x1,5 [mm]	995210	183307 o

Adapter Weinig HSK

Diagram for PowerLock-Adapter

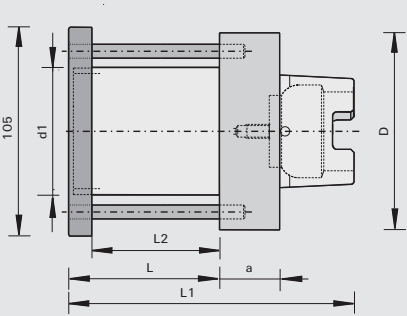


997300
Saw Blade Adapters Weinig HSK

Product



Drawing



Machine / Application

! Weinig Powermat
! for mounting of thin-kerf saw blades

Design

Advantages

Notes

! for clockwise and counter-clockwise rotation
! different diameters upon request

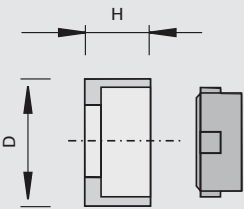
Ø D	Ø d	Ø d1	L2	L1	a	NL	Ident-No.
105	Weinig HSK	60	68	148	26	3/8/74	182974 o
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		
Spare parts				Dimension		Class-No.	Ident-No.
Lock Nuts				105x15xM58x1,5		995290	182993 o
				[mm]			

994711

Balluff Chip for mounting in HSK 63F tool adapters

Product

Drawing



LEUCO
CNC

Machine / Application

CNC machining centers with tool recognition system based on Balluff Chip for machines Biesse, Reichenbacher, Homag

Design

Balluff Chip BIS C-122-04/L, 511 Byte for mounting in HSK 63F tool adapters

Advantages

Notes

without reading / writing
reading / writing possible after clearance

	Ø D	H	Ident-No.
Balluff Chip with adapter	11,6 [mm]	6 [mm]	182558 o

Spare parts	Dimension	Class-No.	Ident-No.
Adapter for Balluff Chip	Ø 11,6x6	956500	182560 o
Balluff Chip	Ø 10x4,5 [mm]	994711	182559 o



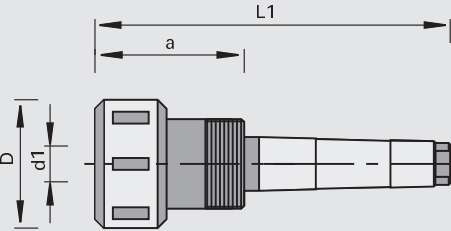
933250

Draw-In Collet Chucks with MK shank

Product



Drawing



LEUCO
CNC

Machine / Application

- | CNC machining centers
- | routers
- | for precise clamping of shank-type tools with cylindrical shank

Design

- | lock nut with sleeve bearing

Advantages

- | high concentricity thanks to ball-bearing mounted lock nut

Notes

- | for clockwise and counter-clockwise rotation
- | collet chucks DIN 6388 Type 415E/OZ16
- | included in delivery: collet chuck with lock nut

Ø D	Ø d	Ø d1	L1	a	Type	Ident-No.
43	MK 2	2-16	119	50	415E/OZ16	170784 o
[mm]	[mm]	[mm]	[mm]	[mm]		

Spare parts

Dimension

Class-No.

Ident-No.

Union Nuts	W 1 1/8"/M30x1,5	995290	165561
Ball-bearing lock nuts	M30x1,5R	995290	178763
Hook Wrenches	SW40/42 DIN 1810	985720	169298
	[mm]		

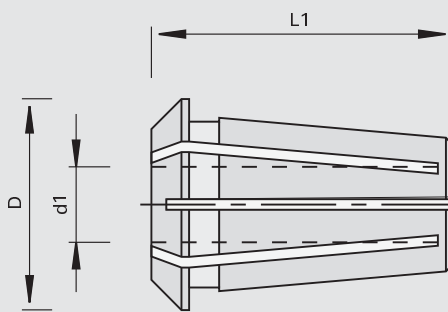
933280

Precision collets - 415E/OZ16

Product



Drawing


LEUCO
CNC
Machine / Application

for use in draw-in collet chuck
Type 415E/OZ16

Design

slotted from top and bottom
clamping tolerance 0.5 mm
according to DIN 6388 Type
415E/OZ16

Advantages**Notes**

Ø D	Ø d1	L1	Ident-No.
25.5	2,5	40	820753 o
25.5	3	40	820754 o
25.5	4	40	820494 o
25.5	4,5	40	830236 o
25.5	5	40	820495 o
25.5	6	40	170779 o
25.5	6,35	40	821421 o
25.5	7	40	829692 o
25.5	8	40	170780
25.5	9	40	825190 o
25.5	9,5	40	168739 o
25.5	10	40	170781
25.5	12	40	168740
25.5	12,7	40	830156 o
25.5	13	40	821221 o
25.5	16	40	168741
[mm]	[mm]	[mm]	



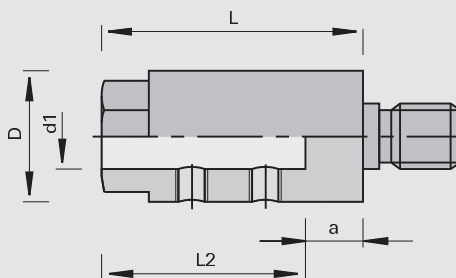
933350

Clamping Chuck Combi Systems

Product



Drawing



Machine / Application

for mounting of drill bits with cylindrical shank and clamping surface

Design

drill bits are clamped with setscrews

Advantages

Notes

clamping chucks with "BSS" mark are compatible with quick-changing system for drill bits
for threaded shank design and appropriate machines see Technical Information

Ø D	Ø d1	L2	L	a	Type	Ident-No. [L]	Ident-No. [R]
15	8	20	22	2	D	161282 o	161281 o
15	8	20	24.5	4.5	A	010683 o	010677 o
15	8	20	24.5	4.5	B	161285 o	161284 o
15	8	20	24.5	4.5	C	058412 o	058411 o
15	8	20	37	17	C	059300	059299
19	10	20	24.5	4.5	A	003575	003574
19	10	20	24.5	4.5	B	008003	008002
19	10	20	24.5	4.5	C	058414	058413
19	10	20	25	5	D	003571	003570
19	10	20	25	5	cyl. shank Ø 10x30	183055 o	183055 o
19	10	20	47	27	G	161287	161286
19	10	20	29.3	9.3	F	003573	003572
19	10	20	28.5	8.5	E	161987 o	161283 o
19	10	20	37	17	C	161681	161680
19	10	20	47	27	D BSS	170372 s	170371 s
[mm]	[mm]	[mm]	[mm]	[mm]			

Spare parts

Dimension

For Ø D

Class-No.

Ident-No.

Set Screws	M6x4 DIN EN ISO 4029	15	995161	167068
Set Screws	M6x5 DIN EN ISO 4029	19	995161	165049
Set Screws	M5x4 DIN EN ISO 4029	15	995161	001608
	[mm]	[mm]		

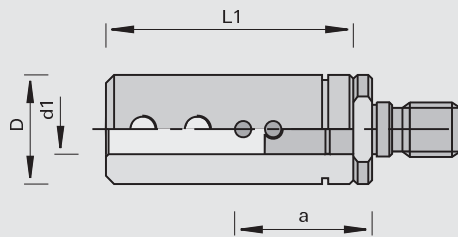
933321

Klack Quick-Changing Chucks with hole pitch 19 mm

Product



Drawing

**Machine / Application**

| boring machines
 | for mounting of drill bits with cylindrical shank and clamping surface

Design

| for clamping of the drill bit with hex socket setscrews

Advantages

| low downtimes thanks to fast drill bit changes

Notes

| for small hole pitch widths (19 mm)
 | top part is drill bit seat
 | bottom part to install on the machine spindle
 | for threaded shank design and appropriate machines see technical information

Ø D	Ø d1	L1	Ident-No.
15	8	35	162014
[mm]	[mm]	[mm]	

Bottom part	Type	a	Class-No.	Ident-No. [L]	Ident-No. [R]
	A	19	933322	162015	162016
	C	19	933322	162017	162018
		[mm]			

Spare parts	Dimension	Class-No.	Ident-No.
Springs	0,8 DIN 17223	995790	162948
Set Screws	M5x4 DIN EN ISO 4029	995161	001608
Cranked Wrench Keys	SW2,5 DIN ISO 2936	985730	009671
	[mm]		



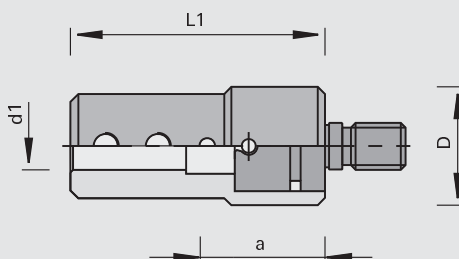
933321

Klack Quick-Changing Chucks with hole pitch 25 mm

Product



Drawing



Machine / Application

for boring machines Nottmeyer
for mounting of drill bits with
cylindrical shank and clamping
surface

Design

for clamping of the drill bit with
hex socket setscrews

Advantages

low downtimes thanks to fast
drill bit changes

Notes

for medium hole pitch widths
(25 mm)
top part is drill bit seat
bottom part to install on the
machine spindle
for threaded shank design
and appropriate machines see
technical information

Ø D	Ø d1	L1	Ident-No.
22	10	47	166992
22	8	49	166074
[mm]	[mm]	[mm]	

Bottom part	Type	a	Class-No.	Ident-No. [L]	Ident-No. [R]
	C	19	933322	166075	166076
		[mm]			

Spare parts	Dimension	Class-No.	Ident-No.
Multi-Purpose Greases		993520	056746
Special Levers		997100	166095 o
Set Screws	M5x4 DIN EN ISO 4029	995161	001608
Set Screws	M6x5 DIN EN ISO 4029	995161	165049
O-Rings	10,77x2,62	995490	166078
	[mm]		

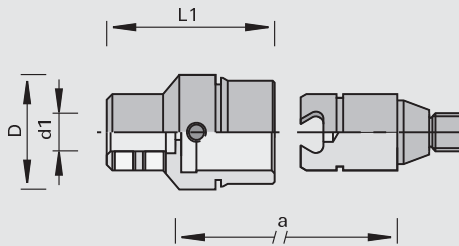
933321

Klack Quick-Changing Chucks with hole pitch 32 mm

Product



Drawing



Machine / Application

- for boring machines
- for mounting of drill bits with cylindrical shank and clamping surface

Design

- for mounting of drill bits with cylindrical shank and clamping surface

Advantages

- low downtimes thanks to fast drill bit changes

Notes

- for larger hole pitch widths (32 mm)
- top part is drill bit seat
- bottom part to install on the machine spindle
- for threaded shank design and appropriate machines see technical information

Ø D	Ø d1	L1	Ident-No.
30	10	44	003567
[mm]	[mm]	[mm]	

Bottom part	Type	a	Class-No.	Ident-No. [L]	Ident-No. [R]
	D	26.5	933322	003561	003560
	A	19	933322	003565	003564
		[mm]			

Spare parts	Dimension	Class-No.	Ident-No.
Multi-Purpose Greases		993520	056746
Special Levers		997100	164309
Reducing Bushings		955530	057513
Set Screws	M6x5 DIN EN ISO 4029	995161	165049
Set Screws	M5x8 DIN EN ISO 4028	995161	180015
Screws	M8x24L	995191	180013
Screws	M8x24R	995191	180012
	[mm]		



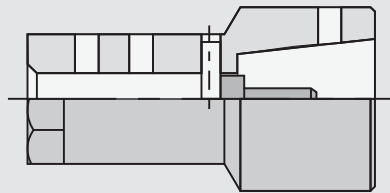
933321

Drill Bit Quick-Changing Systems - top part

Product



Drawing



Machine / Application

| boring machines
 | for mounting of drill bits with
 cylindrical shank with clamping
 screws

Design

| for clamping of the drill bit with
 hex socket setscrews

Advantages

| low downtimes thanks to fast
 drill bit changes

Notes

| for larger hole pitch widths
 (32 mm)
 | top part is drill bit seat
 | bottom part to install on the
 machine spindle
 | for threaded shank design
 and appropriate machines see
 technical information

	Dimension		Ident-No.
locating bore	Ø10		168669
locating bore	Ø8		168668
	[mm]		
Spare parts	Dimension	Class-No.	Ident-No.
collet chuck	Ø3	933380	168666 o
collet chucks	Ø2,5	933380	168665 o
Engineers Wrenches	9x11 DIN 3118	985720	168672 o
Engineers Wrenches	11x13 DIN 3118	985720	168670 o
Engineers Wrenches	14x17 DIN 3118	985720	168671
	[mm]		
Spare parts	Dimension	Class-No.	Ident-No.
Set Screws	M6x5 DIN EN ISO 4029	995161	165049
Set Screws	M5x4 DIN EN ISO 4029	995161	001608
	[mm]		

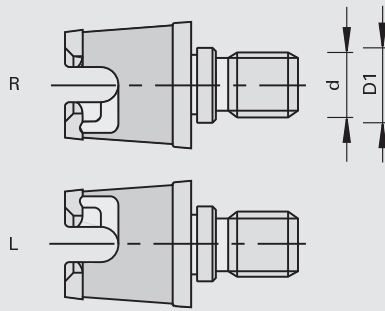
933322

Drill Bit Quick-Changing Systems - bottom part

Product



Drawing



Machine / Application

for boring machines
for installation on the machine spindle

Design

conical design

Advantages

Notes

for threaded shank design
and appropriate machines see
technical information

Type	Ø d	Ø D1	Ident-No. [L]	Ident-No. [R]
C	M8	9	168662	168663
D	M10	11	170243	170242
	[mm]	[mm]		

Spare parts	Class-No.	Ident-No.
Dust protection cap	997800	170283
Socket Wrenchs	985730	168673 &

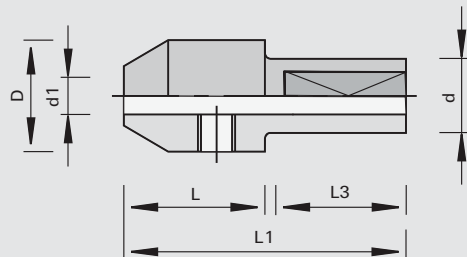
933389

Adapters

Product



Drawing



Machine / Application

for mounting of twist drills in
combi chuck and Klack chuck

Design

shank with clamping surface
thread M5, without screw

Advantages

Notes

adjusting and attachment
screw Ident-No. 181520
M5x11,5 for Weeke quick
clamping chuck must be
ordered separately

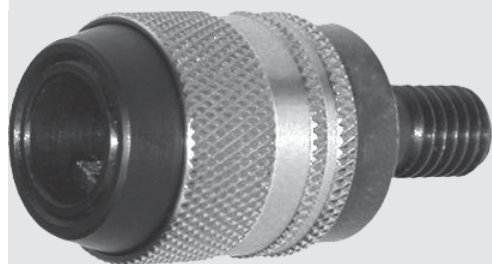
Ø d1	L	Ø d	L3	Ø D	L1	Ident-No.
2	19	10	21	15	41	183275
2,5	19	10	21	15	41	183276
3	19	10	21	15	41	183277
3,5	19	10	21	15	41	183278
4	19	10	21	15	41	183279
5	19	10	21	15	41	183280
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	

Spare parts	Dimension	Class-No.	Ident-No.
Set Screws	M6x6 DIN EN ISO 4029	995161	180003
Cranked Wrench Keys	SW3 DIN ISO 2936	985730	009672
	[mm]		

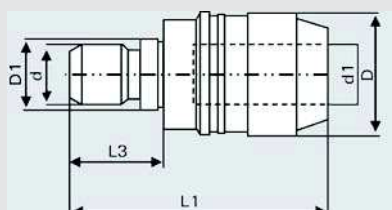
933359

Drill Bit Quick-Changing Systems

Product



Drawing


LEUCO
CNC

Machine / Application

| boring machines
 | CNC machining centers
 | for mounting of drill bits with cylindrical shank and clamping surface

Design

Advantages

| low downtimes thanks to fast drill bit changes
 | no special adjusting screw necessary
 | for all common drill bits with shank Ø 10 mm and boring Ø < 20 mm

Notes

| for threaded shank design and appropriate machines see Technical Information

Ø D	Ø D1	Ø d	Ø d1	L1	L3	Type	Ident-No. [L]	Ident-No. [R]
20	9	M8	10	42	15	C	182396 o	182395 o
20		M8	10	42	15	A	182398 o	182397 o
20		10	10	45	18		182400 o	182399 o
20	11	M10	10	42	15	D	182402 o	182401 o
20		M10	10	42	15	B	182404 o	182403 o
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]			

Spare parts

Class-No.

Ident-No.

Wrench d10 with clamping surface

985730

182405 o

933390

Universal Drill Chucks

Product



Drawing

LEUCO
CNC

Machine / Application

- | CNC machining centers with automatic tool changer
- | for clamping of drill bits with cylindrical shank

Design

- | continuously adjustable clamping area between 1-13 mm
- | $n_{max} = 20,000 \text{ min}^{-1}$
- | hardened clamping jaws

Advantages

- | fine balance is easy on spindle and spindle bearing
- | high clamping accuracy over total lifetime of drill chuck thanks to hardened clamping jaws
- | high holding moment
- | no chips and dirt in the clamping zone thanks to special clamping jaws

Notes

- | for clockwise and counter-clockwise rotation
- | included in delivery: clamping key, retaining bolts

Ø D	Ø d	Ø d1	L1		Ident-No.
50	SK 30 (DIN)	1-13	90	Weeke, Maka, Reichenbacher	180375 o
50	SK 30	1-13	90	Biesse from 9/92, Masterwood (HSD motors)	180376 o
50	SK 30	1-13	90	Alberti, Masterwood (Colombo motors)	180377 o
50	SK 30	1-13	90	Morbidelli, SCM (with ring gear)	180378 o
50	SK 40 (DIN)	1-13	90	Maka, Reichenbacher Stegherr	180379 o
57	SK 40 (DIN)	3-16	90	Maka, Reichenbacher Stegherr	180380 o
50	HSK 63F	1-13	112	Homag, EIMA, Weeke, IMA from 9/94	180381
57	HSK 63F	3-16	112	Homag, EIMA, Weeke, IMA from 9/94	180382
[mm]	[mm]	[mm]	[mm]		

Spare parts

Dimension

Class-No.

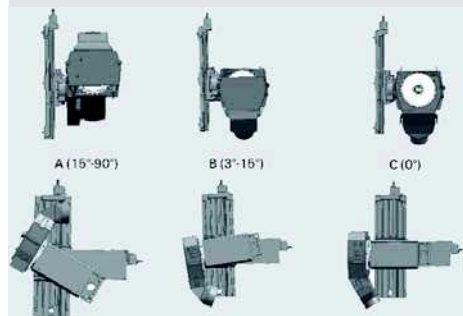
Ident-No.

Cranked Wrench Keys	SW6x100	985730	180383 o
	[mm]		

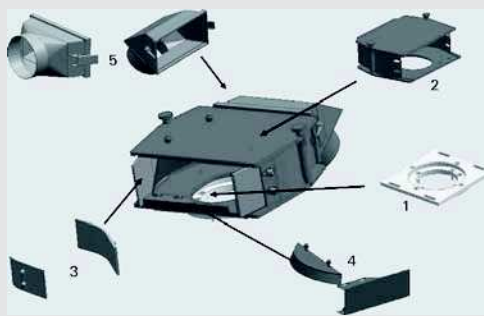
975917

LEUCO Dust Hoods

Product



Drawing



Machine / Application

double end tenoners
especially for flooring manufacturing

Design

LEUCO dust hood system

Advantages

optimum chip caption
wear parts individually replaceable
flow-optimizing design

Notes

complete dust hood - consisting of one part of each of the following 5 groups

Flange	Ø D	B	Motor output	Class-No.	Ident-No.
flange Ø180x13	180	13	Perske up to 11 KW	975117	540301 o
flange Ø180x13	180	13	Perske from 11 KW	975117	540430 o
	[mm]	[mm]			

2 - Basic hood	Tool Ø D	Tilting area	Basic hood form	Class-No.	Ident-No.
basic hood 15° - 90° cpl. tool-Ø 250 mm	250	15 - 90	A	975217	540295 o
basic hood 3° - 15° cpl. tool-Ø 250 mm	250	3 - 15	B	975117	540317 o
basic hood 0° cpl. tool-Ø 250 mm	250	0	C	975117	540389 o
	[mm]	[°]			

3 - Side profile (wear plate and adjusting plate)	Thickness of wear plate	Class-No.	Ident-No.
side profile standard cpl.	8	975417	540302 o
side profile 0° right cpl.	8	975417	540358 o
side profile 0° left cpl.	8	975417	540386 o
	[mm]		

4 - Chip flow set	Height of C plate	Height of chip flow plate	Class-No.	Ident-No.
chip flow set 12/82 cpl.	12	82	975217	540227 o
chip flow set 22/72 cpl.	22	72	975217	540228 o
chip flow set 32/62 cpl.	32	62	975217	540229 o
chip flow set 42/52 cpl.	42	52	975217	540230 o
chip flow set 52/42 cpl.	52	42	975217	540231 o
chip flow set 62/32 cpl.	62	32	975217	540232 o
chip flow set 67/27 cpl.	67	27	975217	540233 o
	[mm]	[mm]		

5 - Extraction connection	Tool Ø D	Ø Connection	Angle	Basic hood form	Class-No.	Ident-No.
connection 0° - Ø 120 mm	250	120	0	A, B	975217	540298 o
connection 0° - Ø 140 mm	250	140	0	A, B	975217	540304 o
connection 30° - Ø 120 mm	250	120	30	A, B	975217	540308 o
connection 30° - Ø 140 mm	250	140	30	A, B	975217	540310 o
connection 0° - Ø 120 mm	250	120	0	C	975217	540362 o
connection 0° - Ø 140 mm	250	140	0	C	975217	540392 o
	[mm]	[mm]	[°]			

Spare parts	Dimension	Basic hood form	Class-No.	Ident-No.
basic plate	D = 250 mm	A, B, C	975217	540291 o
basic hood 15° - 90° cpl. tool- \varnothing 250 mm		A	975217	540292 o
thread bolt		A, B, C	975217	540201 o
wear plate 0° standard cpl.	S = 8 mm	A, B	975517	540210 o
wear plate 0° right cpl.	S = 8 mm	C	975517	540356 o
wear plate 0° left cpl.	S = 8 mm	C	975517	540364 o
C plate 12	H = 12 mm	A, B, C	975217	540213 o
C plate 22	H = 22 mm	A, B, C	975217	540214 o
C plate 32	H = 32 mm	A, B, C	975217	540215 o
C plate 42	H = 42 mm	A, B, C	975217	540216 o
C plate 52	H = 52 mm	A, B, C	975217	540217 o
C plate 62	H = 62 mm	A, B, C	975217	540218 o
C plate 67	H = 67 mm	A, B, C	975217	540219 o
connection 0° - \varnothing 120 mm		A, B	975217	540298 o
connection 0° - \varnothing 140 mm		A, B	975217	540304 o
connection 30° - \varnothing 120 mm		A, B	975217	540308 o
connection 30° - \varnothing 140 mm		A, B	975217	540310 o
connection 0° - \varnothing 120 mm		C	975217	540362 o
connection 0° - \varnothing 140 mm		C	975217	540392 o
	[mm]			



985700

Cone wiper

Product



Drawing

Machine / Application

for cleaning of the inner cones
of the cone tool adaptors

Design

Advantages

Notes

the highly precise machine
spindle and clamping chuck
needs dust and chip-free fit

Ø d

Ident-No.

SK 30

180907 o

SK 40

180908 o

HSK 25

180909 o

HSK 32

180910 o

HSK 63

180911 o

[mm]

985202

Mounting device with clamping lever

Product



Drawing

Machine / Application

for quick and simple mounting
and adjusting of cutting tools
in draw-in collet chucks or on
arbors and tool holders

Design

with two-part clamping jaws
made from high-quality light
alloy
mounted on stable pedestal
which can be fixed onto
workbench
quick-grip lever for clamping
of clamping chucks or holding
arbors

Advantages

variably applicable for all
interfaces by simple exchanging
of the clamping jaw

Notes

Ø d

Ident-No.

SK 30 (DIN) / HSK 50F

50

180362 o

SK 40 (DIN)

63,5

180363 o

SK 30 with ring gear (Morbideilli, SCM)

49

180364 o

SK 30 (ISO) CMS / BT 30

46

180365 o

HSK 63F / 63E

63

180366 o

BT 35

53

180367 o

HSK 85 (Weinig)

85

182284 o

[mm]

Spare parts	For Ident-No.	Class-No.	Ident-No.
Clamping Jaws (2-parts)	180362	997300	180368 o
Clamping Jaws (2-parts)	180363	997300	180369 o
Clamping Jaws (2-parts)	180364	997300	180370 o
Clamping Jaws (2-parts)	180365	997300	180371 o
Clamping Jaws (2-parts)	180366	997300	180372 o
Clamping Jaws (2-parts)	180367	997300	180373 o
Clamping Jaws (2-parts)	182284	997300	182285 o
Pedestal (without clamping jaw)		997300	180374 o

985202

Mounting device without clamping lever

Product



Drawing

Machine / Application

for quick and simple mounting and adjusting of cutting tools in draw-in collet chucks or on arbors and tool holders

Design

mounted on stable pedestal which can be fixed onto workbench

Advantages

simplest handling offering highest comfort thanks to roll clamping system, no clamping or jamming necessary

Notes

for all adapters HSK 63 F

Ø d1

Ident-No.

HSK 63F

182467

[mm]



985201

inductive shrinking device ISG2202

Product



Drawing

Machine / Application

for shrinking of HW shanks Ø 3 - 20 mm and HS shanks Ø 6 - 20 mm

Design

device with inductor, centering discs for tool adapters and 3 replacement discs
color: grey-white RAL 9002
performance: 8 kW
version without ventilator

Advantages

inductor can be lowered to the heating position by simple manual operation and can be locked by pushing a button
choose the shrinking diameter on the control panel and press the start button
the stored time elapses, at the end the inductor moves automatically upward
the process can be ended ahead of time by pressing the stop button

Notes

in combination with the cooling station FKS04 shrinking, cooling and cleaning can be done within seconds please order separately

	Dimension	Weight	Ident-No.
inductive shrinking device ISG2202 (without ventilator)	640x310x390	25	184036 o
	[mm]	[kg]	
Accessories	Weight	Class-No.	Ident-No.
liquid cooling device FKS 04 (manual)	22.5	985201	184037 o
tool adapter HSK40/50/63F for FKS04		985201	184039 o
tool adapter SK30/40/BT30/40 for FKS04		985201	184038 o
	[kg]		

985201

inductive shrinking device ISG3400TLK

Product



Drawing

Machine / Application

| for shrinking of HW shanks Ø 3 - 32 mm and HS steel shanks Ø 6 - 32 mm
 | with the inductive shrink unit ISG3400 TLK all tools from Ø 3-32 can be shrunk by simple change of discs; the energy coupling is thereby optimally adapted to the respective chuck; with special coils, the system can also shrink larger diameters tools up to 50 mm

Design

| device with inductor with 4 replacement discs
 | performance: 11 kW
 | design with ventilator

Advantages

| operation of the ISG3400TLK by menu
 | all parameter are shown at the same time
 | several languages can be chosen
 | data for clamping chucks with special geometries can be saved

Notes

| in combination with the cooling station FKS04 shrinking, cooling and cleaning can be done within seconds please order separately

	Dimension		Ident-No.
inductive shrinking device ISG3400TLK (without ventilator)	780x535x950		184035 o
	[mm]		
Accessories	Weight	Class-No.	Ident-No.
liquid cooling device FKS 04 (manual)	22.5	985201	184037o
tool adapter HSK40/50/63F for FKS04		985201	184039o
tool adapter SK30/40/BT30/40 for FKS04		985201	184038o
	[kg]		

985300

digital height measuring device

Product



Drawing

Machine / Application

| for quick and precise adjusting of cutting tools in draw-in collet chucks or on arbors and tool holders

Design

| repeating precision 0.01 mm
 | tungsten carbide-tipped scriber
 | digital display

Advantages

| simple adjustment and fixing of the height dimension

Notes

	Ident-No.
digital height measuring device	183684 o

999300

iBlade StarterKit

Product



Drawing

Machine / Application

I for simple monitoring and tracking of tool performance

Design

Advantages

I perfect cost control

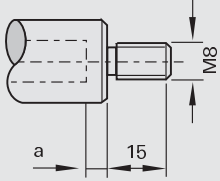
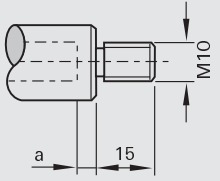
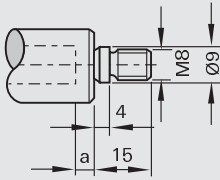
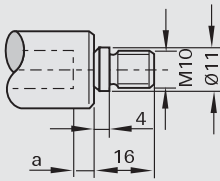
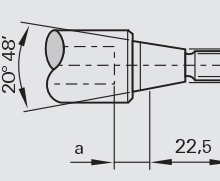
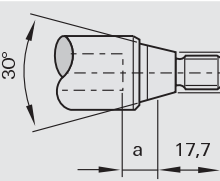
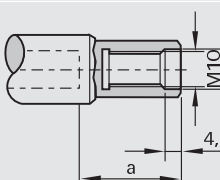
Notes

I the insertion of the chip depends on the tool used
I in the case of very small/thin tools the memory chip can be attached to a tool card

			Ident-No.
iBlade StarterKit	software documentation Basic, memory chip V2 (5 pieces), reader Classic USB, activator spray, glue		184784 s
Accessories			Class-No.
			Ident-No.
Software documentation Basic	annual licence	999300	184776s
Software documentation user	annual licence	999300	184777s
software documentation dealer/service	annual licence	999300	184778s
reader Classic USB		994721	184779s
reader bluetooth		994721	184780s
memory chip V2	8.5x2.0 mm	994711	184781
glue	20g	993390	184782s
activator spray	200 ml can	993390	184783s

Connection dimensions for Boring Bit Collet Chucks

Threaded shank design for Kombi and Klack systems with appropriate machines

Type	Machine assignment
<p>A</p> 	<p>Nottmeyer Lehbrink Pankoke + Kochsiek Prieß + Horstmann</p>
<p>B</p> 	<p>Ayen Holzma Knoevenagel Mayer Brandt Reichenbacher Torwegge Zubiola</p>
<p>C</p> 	<p>Nottmeyer</p>
<p>D</p> 	<p>Böttchner + Gessner Biesse Busellato Dingenotto Hüllhorst Holz-Her Homag Koch</p> <p>Morbidelli Reimall Torwegge Weeke Reich</p>
<p>E</p> 	<p>Bilek Type KÜN Knoevenagel</p>
<p>F</p> 	<p>Alberti Balestrini Bilek (05 R) Busellato Dubus Goma Grotefeld Omeg</p> <p>Reimall Schleicher SCM Tanzani Viciani Vitap Weingärtner</p>
<p>G</p> 	<p>Scheer</p>