Clamping systems

Leitz Lexicon Edition 7

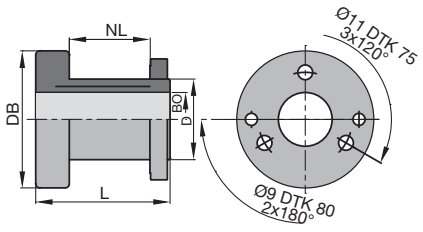
Explanation of abbreviations

A	=	dimension A
a_e	=	cutting thickness (radial)
a_p	=	cutting depth (axial)
ABM	=	dimension
APL	=	panel raising length
APT	=	panel raising depth
AL	=	working length
AM	=	number of knives
AS	=	anti sound (low noise design)
b	=	overhang
B	=	width
BDD	=	thickness of shoulder
BEM	=	note
BEZ	=	description
BH	=	tipping height
BO	=	bore diameter
CNC	=	Computerized Numerical Control
d	=	diameter
D	=	cutting circle diameter
D0	=	zero diameter
DA	=	outside Diameter
DB	=	diameter of shoulder
DFC	=	Dust Flow Control (optimised chip clearance)
DGL	=	number of links
DIK	=	thickness
DKN	=	double keyway
DP	=	polycrystalline diamond
DRI	=	rotation
FAB	=	width of rebate
FAT	=	depth of rebate
FAW	=	bevel angle
FLD	=	flange diameter
f_z	=	tooth feed
$f_{z\ eff}$	=	effective tooth feed
GEW	=	thread
GL	=	total length
GS	=	Plunging edge
H	=	height
HC	=	tungsten carbide, coated
HD	=	wood thickness (thickness of workpiece)
HL	=	high-alloyed tool steel
HS	=	high-speed steel (HSS)
HW	=	tungsten carbide (TCT)
ID	=	ident number
IV	=	insulation glazing
KBZ	=	abbreviation
KLH	=	clamping height
KM	=	edge breaker
KN	=	single keyway
KNL	=	combination pinhole consists of 2/7/42 2/9/46,35 2/10/60
L	=	length
l	=	clamping length
LD	=	left hand twist
LEN	=	Leitz standard profiles
LL	=	left hand rotation
M	=	metric thread
MBM	=	minimum order quantity
MC	=	multi-purpose steel, coated
MD	=	thickness of knife
min^{-1}	=	revolutions per minute (RPM)
MK	=	morse taper
m min^{-1}	=	metres per minute
m s^{-1}	=	metres per second
n	=	RPM
$n_{max.}$	=	maximum permissible RPM
NAL	=	position of hub
ND	=	thickness of hub
NH	=	zero height
NL	=	cutting length
NLA	=	pinhole dimensions
NT	=	grooving depth
P	=	profile
POS	=	cutter position
PT	=	profile depth
PG	=	profile group
QAL	=	cutting material quality
R	=	radius
RD	=	right hand twist
RL	=	right hand rotation
RP	=	radius of cutter
S	=	shank dimension
SB	=	cutting width
SET	=	set
SLB	=	slotting width
SLL	=	slotting length
SLT	=	slotting depth
SP	=	tool steel
ST	=	Cobalt-basis cast alloys, e.g. Stellit®
STO	=	shank tolerance
SW	=	cutting angle
TD	=	diameter of tool body
TDI	=	thickness of tool
TG	=	pitch
TK	=	reference diameter
UT	=	cutting edges with irregular pitch
V	=	number of spurs
v_c	=	cutting speed
v_f	=	feed speed
VE	=	packing unit
VSB	=	adjustment range
WSS	=	workpiece material
Z	=	number of teeth
ZA	=	number of fingers
ZF	=	tooth shape (cutting edge shape)
ZL	=	finger length

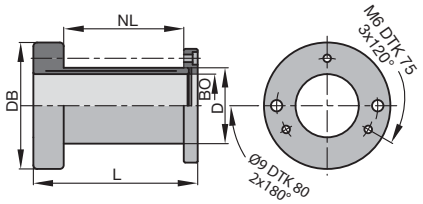
Notes to the Lexicon concerning the diagrams and tables

The statements made in the diagrams and tables relate to specific conditions and represent parameters from tests subjected to defined conditions. Variations when using tools in individual case due to special application conditions may be possible. Our support team will provide you with detailed information.

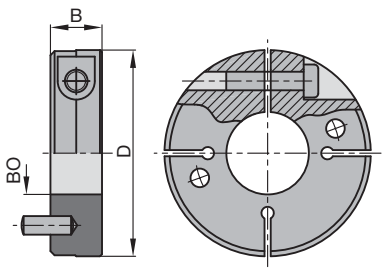
7. Clamping systems



Hydro-Duo clamping element
PH 130 0 01 with clamping nut



Hydro-Duo clamping element
PH 130 0 02 with end ring and clamping screws



Clamping collar without thread

For spindle without safety device against twisting

Application:
Clamping sleeve for centric, play-free clamping of tools and cutterheads.

Machine:
Machines with high precision spindles e.g. moulders etc.

Technical information:
Hydro-Duo open clamping system, activation of hydro clamping by a grease gun. Suitable for right and left hand rotation.

With clamping nut
PH 130 0 01

D	BO	NL	L	DB	ID
mm	mm	mm	mm	mm	
60	40	60	100	102	**030503** ●
60	45	60	100	102	**030505**
60	50	60	100	102	**030507** ●
60	50	40	80	102	**030515** ●

Spare parts:

BEZ	ABM	ID
	mm	
Sickle spanner adjustable	D90/155; L290; DIN1816; tenon 6	**005462** ●
Grease gun		**008239** ●
Grease cartridge	for Hydro sleeve	**007934** ●
Grease nipple	M10x1	**007935** ●

With end ring and clamping screws
PH 130 0 02

D	BO	NL	L	DB	ID
mm	mm	mm	mm	mm	
50	40	95	130	92	**030600** ●
60	45	35	55	102	**030605**
60	50	95	130	102	**030602** ●

Spare parts:

BEZ	ABM	ID
	mm	
Allen key	SW 5	**005452** ●
Grease gun		**008239** ●
Grease cartridge	for Hydro sleeve	**007934** ●
Grease nipple	M10x1	**007935** ●
Cylindrical screw with ISK	M6x70	**005936** ●
Cylindrical screw with ISK	M6x120	**005942** ●

Clamping collars without thread
TD 870 0

D	B	BO	ID
mm	mm	mm	
100	25	40	**030700** ●
100	25	45	**030701** ●
100	25	50	**030702** ●

● available ex stock
□ available at short notice
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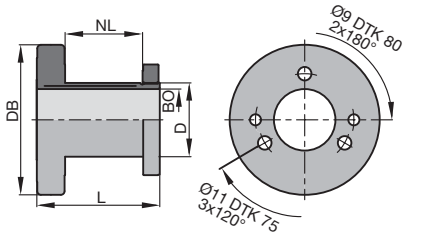
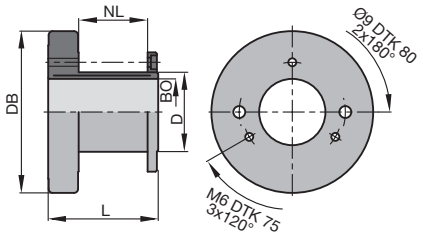
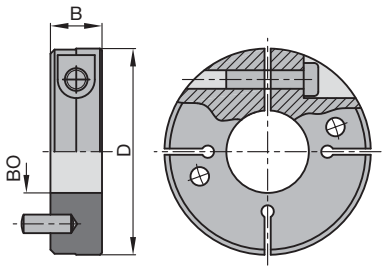


Hydro-Duo clamping element
PH 130 0 05 with clamping nut



Hydro-Duo clamping element
PH 130 0 06 with end ring and clamping screws



Clamping collar without thread

For spindle without safety device against twisting

Application:
Clamping sleeve for centric clamping of tools, tool sets and cutterheads.

Machine:
Machines with high precision spindles, e.g. moulders, double-end tenoners, edgebanding machines, window production machines etc.

Technical information:
Hydro-Duo closed hydro clamping system, activation of hydro clamping by internal clamping system without grease gun. Suitable for right and left hand rotation.

With clamping nut
PH 130 0 05

D	BO	NL	L	DB	ID
mm	mm	mm	mm	mm	
60	45	60	100	122	**031603**
60	50	63	100	122	**031601** ●
70	60	43	80	130	**031605**

Spare parts:

BEZ	ABM mm	ID
Sickle spanner adjustable	D90/155; L290; DIN1816; tenon 6	**005462** ●

With end ring and clamping screws
PH 130 0 06

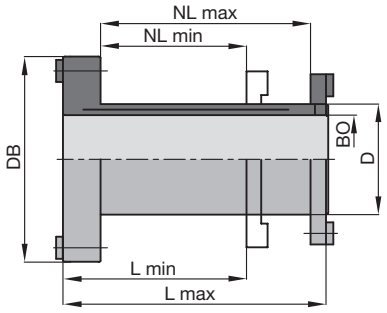
D	BO	NL	L	DB	ID
mm	mm	mm	mm	mm	
60	50	52	83	122	**031650** ●

Spare parts:

BEZ	ABM mm	ID
Allen key	SW 5	**005452** ●
Cylindrical screw with ISK	M6x70	**005936** ●

Clamping collars without thread
TD 870 0

D	B	BO	ID
mm	mm	mm	
100	25	45	**030701** ●
100	25	50	**030702** ●



Hydro-Duo clamping element
PH 130 0 13 with end ring, clamping screws and safety device against twisting

For spindle without safety device against twisting

Application:
Clamping sleeve for centric, play-free clamping of tool sets, for window tools on stacked spindle machines.

Machine:
Machines with high precision spindles, e.g. moulders, double-end tenoners, edgebanding machines, window production machines etc.

Technical information:
Hydro-Duo closed hydro clamping system, activation of hydro clamping by internal clamping system without grease gun.
Total length of sleeves adjusted as required.

With end ring, clamping screws and safety device against twisting
PH 130 0 13

D mm	BO mm	NL mm	L mm	DB mm	ID
50	40	35 - 55	60 - 80	85	**031658** □
50	40	55 - 75	80 - 100	85	**031659** □
50	40	75 - 95	100 - 120	85	**031660** ●
60	40	95 - 115	120 - 140	93	**031661** ●
60	50	35 - 55	60 - 80	93	**031655** ●
60	50	55 - 75	80 - 100	93	**031652** ●
60	50	75 - 95	100 - 120	93	**031653** ●
60	50	95 - 115	120 - 140	93	**031654** ●
60	50	115 - 135	140 - 160	93	**031657** ●

Spare parts:

BEZ	ABM mm	BEM	ID
Cylindrical screw with ISK	M6x50		**005932** ●
Cylindrical screw with ISK	M6x70		**005936** ●
Cylindrical screw with ISK	M6x90		**005939** ●
Cylindrical screw with ISK	M6x100		**005940** ●
Cylindrical screw with ISK	M6x110		**005941** ●
Cylindrical screw with ISK	M6x130		**006542** ●
Cylindrical screw with ISK	M6x150		**006400** ●
Countersink screw, Torx® 15	M4x6	for feather key 3	**007436** ●
Countersink screw, Torx® 15	M4x10-12.9	for feather key 1,2,4	**007437** ●
Feather key 1	19x8x7		**008525** ●
Feather key 2	10x8.5x6.5		**008526** ●
Feather key 3	19x8x3.5		**008527** ●
Feather key 4	19x8x7		**008528** ●
Allen key	SW 5		**005452** ●
Torx® key	Torx® 15		**117507** ●

End ring with safety device against twisting
TR 112 0

D mm	BO mm	TK	DIK mm	ID
85	50	65	8	**008245** ●
93	60	75	8	**008222** ●

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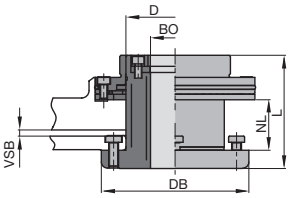
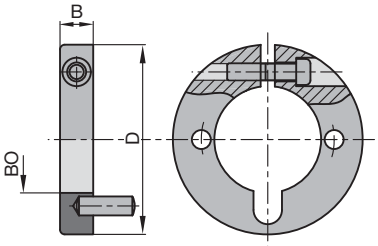


Hydro-Duo clamping element with axial piston clamping and fine adjustment
PH 130 0 11



Clamping collar without thread

Spindle without safety device against twisting - Hydro-Duo clamping sleeve with stepless fine adjustment of 2 part tool sets

Application:
Hydro-Duo clamping sleeve with fine thread and axial piston clamping for stepless adjustment of 2 part tool sets. Additional clamping collar with safety device against twisting.

Machine:
Machines with high precision spindles, e.g. moulders, double-end tenoners, edgebanding machines etc.

Technical information:
High precision fine thread adjustment with a 0.01 mm scale for fine adjustment of 2 part cuttersets with repeatability. Adjustment range 10 mm. Maintenance free hydro clamping mechanism.

With Hydro-Duo 2 chamber axial piston clamping and fine adjustment
PH 130 0 11

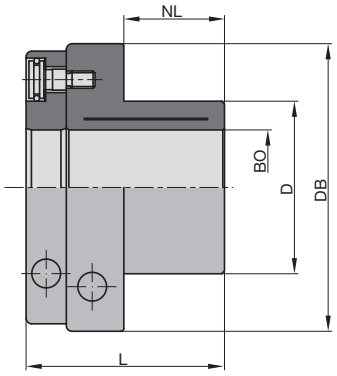
D mm	BO mm	BO in	L mm	DB mm	VSB	ID
80	40		117	120	10	**031555** □
80	45		117	120	10	**031556** □
80	46.04	1 13/15“	117	120	10	**031557** □
100	50		117	140	10	**030566** □
100	53.97	2 1/8“	117	140	10	**031552** □

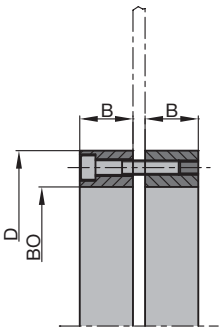
Spare parts:

BEZ	ABM mm	ID
Allen key	SW 5	**005452** ●

Clamping collars without thread
TD 870 0

D mm	B mm	BO mm	BO in	ID
80	14	40		**030713** ●
80	14	45		**030714** ●
80	14	46.04	1 13/15“	**030715** ●
80	14	50		**030716** ●
80	14	53.97	2 1/8“	**030717** ●





Set of spacers

For spindle without safety device against twisting - Hydro-Duo clamping sleeve for saws, cutters and hoggers

Application:
Hydro-Duo clamping sleeve for high precision clamping and flexible positioning of saws, cutters and hoggers on spindles without using spacers or spindle nuts.

Machine:
Multi-blade circular saw machines, four-sided moulders, double-end tenoners etc.

Technical information:
Closed hydro clamping system with maintenance free pressure piston mechanism.

With integrated safety device against twisting
PH 130 0 10

D	BO	NLA	NL	L	DB	ID
mm	mm	mm	mm	mm	mm	
60	40	3/M6/75	35	69	100	**030572** ●
60	50	3/M6/75	35	69	100	**030574** ●
90	70	6/M6/106	35	70	120	**030571**
115	100	6/M6/131	14	49.5	145	**030557** ●
115	100	6/M6/131	48.5	84	145	**030555** ●

with clamping screws.

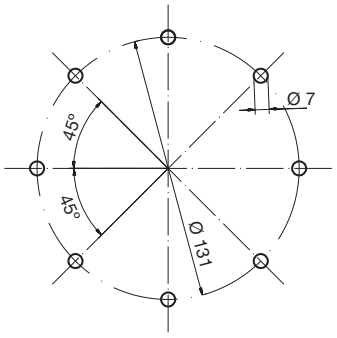
Spacer set, aluminium screwed, for mounting saws
AT 102 0

D	B	BO	NLA	ID
mm	mm	mm	mm	
120	30	90	6/7/106	**028482** ●
145	44	115	6/7/131	**028480** ●

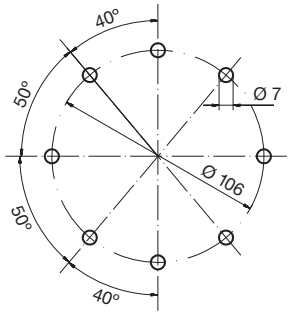
Steel spacers, for mounting sets of sawblades
TR 100 0

D	B	BO	NLA	ID
mm	mm	mm	mm	
120	0.5	90	8/7/106	**028679** ●
120	1	90	8/7/106	**028680** ●
120	3	90	8/7/106	**028681** ●
120	5	90	8/7/106	**028682** ●
145	0.5	115	8/7/131	**028683** ●
145	1	115	8/7/131	**028684** ●
145	3	115	8/7/131	**028685** ●
145	5	115	8/7/131	**028686** ●

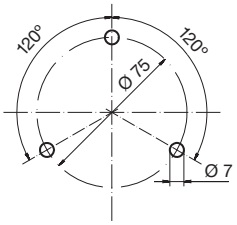
Bore pattern for tools for mounting on:



Hydro sleeve ID **030555** and **030557**



Hydro sleeve ID **030571**



Hydro sleeve ID **030572** und **030574**

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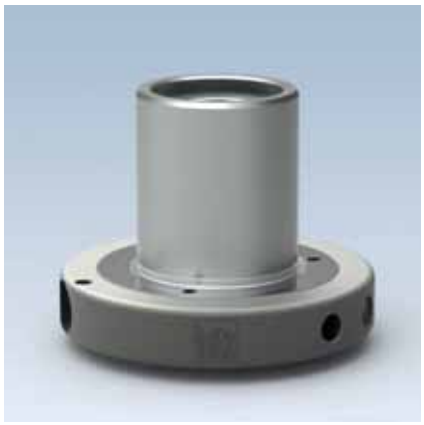
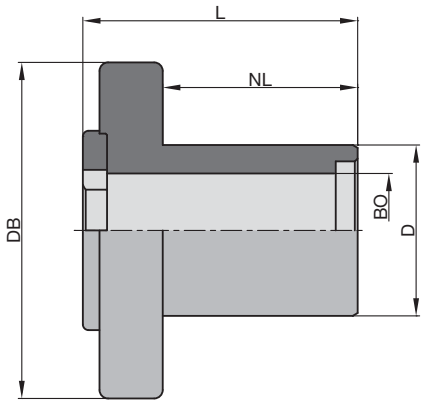




Hydro Duo clamping element
PH 130 0 04

Spindle with safety device against twisting - hexagon HF spindle 40
Hydro-Duo clamping sleeve

Application:
Hydro-Duo clamping element for play-free clamping cutting tools on high precision spindle with hexagon safety device against twisting (HF spindle) for high concentricity.

Machine:
Machines with high precision spindles, e.g. moulders, double-end tenoners, edgebanding machines etc.

Technical information:
Closed hydro clamping system with maintenance free pressure piston mechanism.
RPM $n_{max.}$ 12000 min^{-1}.
Attention: Comply with maximum admissible speed for the mounted tools!

With end ring and clamping screws, for tool sets with bore 60 mm
PH 130 0 04

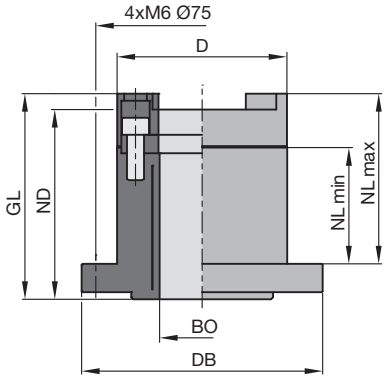
D	BO	NL	L	DB	ID
mm	mm	mm	mm	mm	
60	40	68	96.5	118	**030559** ●

Spindle fixture consisting of:
Conical spring washer, clamping screw, hexagon spanner, brace.

Spare parts:

BEZ	ABM mm	ID
Securing part	for HF-spindle HF 40	**066473** ●
Allen key	SW 5	**005452** ●





Hydro clamping sleeve PH 130 0

Spindle with safety device against twisting - hexagon HF spindle 30
Hydro clamping sleeve

Application:
Hydro clamping sleeve for play-free clamping of cutting tools on high precision spindle with hexagon safety device against twisting (HF spindle 30) for high concentricity.

Machine:
Machines with high precision spindles diameter 30 mm, e.g. edgebanding machines, double-end tenoners, moulders etc.

Technical information:
Closed hydro clamping system with maintenance free pressure piston mechanism. User friendly axial handling of the hydro clamping screw from top. Safety against twisting on the spindle through an appropriate hexagon in the spindle fixture.
RPM $n_{max.}$ 12000 min^{-1}.
Attention: Comply with maximum admissible speed for the mounted tools!

For cutting tools with bore 60 mm
PH 130 0

D	BO	NL	ND	GL	DB	ID
mm	mm	mm	mm	mm	mm	
60	30	40 - 60	65	72.5	85	**030567** ●

Spindle securing part consists of:
Securing parts, clamping screw, hexagon spanner, brace.

Spare parts:

BEZ	ABM mm	ID
Securing part	for HF-spindle HF 30	**066563** ●
Allen key	SW 5, L 150	**005501** ●

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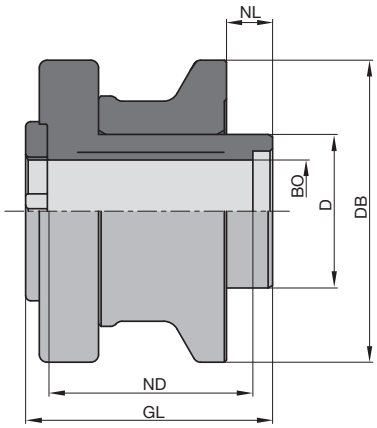


Hydro clamping sleeve PH 130 0 03

Spindle with safety device against twisting - hexagon HF spindle 40
Hydro clamping sleeve

Application:
Hydro clamping sleeve for play-free clamping of hogging/cutting tools on high precision spindle with hexagon safety device against twisting (HF spindle) for high concentricity.

Machine:
Machines with high precision spindles, e.g. moulders, double-end tenoners, edgebanding machines etc.

Technical information:
Closed hydro clamping system with maintenance free pressure piston mechanism.
RPM $n_{max.}$ 12000 min^{-1}.
Attention: Comply with maximum admissible speed for the mounted tools!

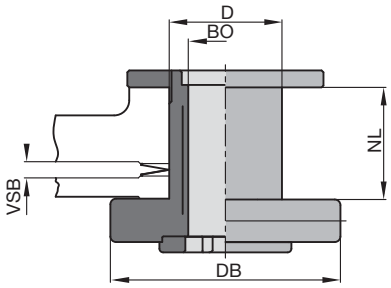
For cutting tools and hoggers with bore 60/80 mm
PH 130 0 03

D	BO	NL	ND	GL	DB	ID
mm	mm	mm	mm	mm	mm	
60	40	18	80.3	96.5	118	**061702** ●
80	40	18	80.3	96.5	118	**061703** ●

Spindle fixture consisting of:
Conical spring washer, clamping screw, hexagon spanner, brace.

Spare parts:

BEZ	ABM mm	ID
Securing part	for HF-spindle HF 40	**066473** ●



Hydro-Duo clamping sleeve with fine adjustment PH 130 0 07

Spindle with safety device against twisting - hexagon HF spindle 40
Hydro-Duo clamping sleeve, adjustable

Application:
Hydro-Duo clamping sleeve for play-free clamping cutting tools on high precision spindle with hexagon safety device against twisting (HF spindle). With extra fine thread and dual piston clamping for stepless adjustment of 2 part tool sets on the spindle.

Machine:
Machines with high precision spindles, e.g. moulders, double-end tenoners, edgebanding machines etc.

Technical information:
Closed hydro clamping system with maintenance free pressure piston mechanism.
RPM $n_{max.}$ 12000 min^{-1}.
Dual piston clamping, independent clamping: sleeve - spindle and sleeve - tool.
Attention: Comply with maximum admissible speed for the mounted tools!

With dual piston clamping and hexagon safety device against twisting, fine adjustment
PH 130 0 07

D	BO	NL	DB	VSB	ID
mm	mm	mm	mm		
60	40	58	122	2	**030553** ●
60	40	58	122	10	**030556** ●

Included in delivery: Duo sleeve complete with parts for mounting cutter and adjusting mechanism.

Spare parts:

BEZ	ABM	ID
	mm	
Allen key	SW 5	**005452** ●

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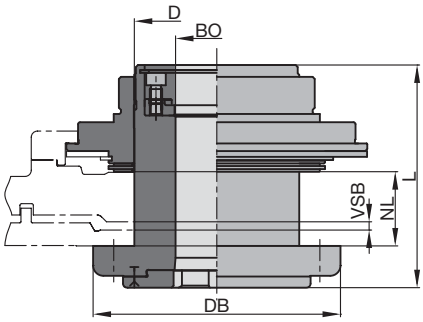
□ available at short notice
Instruction manual visit www.leitz.org





Hydro-Duo clamping element with axial piston clamping and fine adjustment
PH 130 0 14

Spindle with safety device against twisting - hexagon HF spindle 40
Hydro-Duo clamping sleeve, adjustable

Application:
Hydro-Duo clamping sleeve for play-free clamping cutting tools on high precision spindle with hexagon safety device against twisting (HF spindle). Model with extra fine thread and axial dual piston clamping for stepless adjustment of 2 part tool sets on the spindle.

Machine:
Machines with high precision spindles, e.g. moulders, double-end tenoners, edgebanding machines etc.

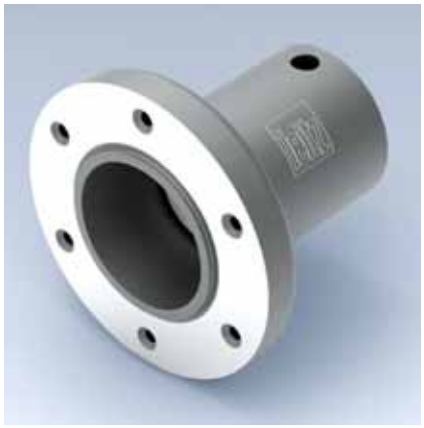
Technical information:
Closed Hydro-Duo clamping system with axial dual piston clamping, independent clamping: sleeve - spindle and sleeve - tool.

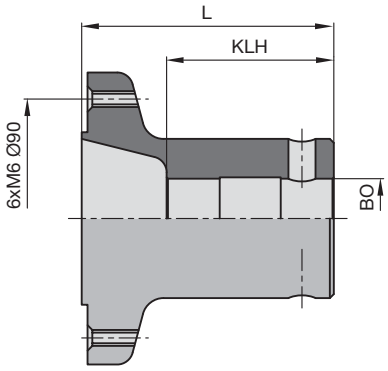
With dual piston clamping and hexagon safety device against twisting, fine adjustment
PH 130 0 14

D	BO	NL	L	DB	VSB	ID
mm	mm	mm	mm	mm		
80	40	45	108	120	4	**031560** □
80	40	54	108	120	10	**030562** □

Spare parts:

BEZ	ABM mm	ID
Allen key	SW 5	**005452** ●





Flanged sleeve TB 300 0

Flanged sleeve

Application:
Flanged sleeve for mounting scoring and grooving sawblades.

Machine:
Double-end tenoners, edgebanding machines etc.

Technical information:
For standard spindle (DKN). Case hardened steel tool body with high concentricity.
Spindle fixing parts are supplied by the machine manufacturer.

For circular sawblades with bore 65 mm
TB 300 0

Machine	L mm	KLH mm	BO mm	ID
Homag, IMA	95	63	30 DKN	**065600** ●

Spare parts:

BEZ	Machine	ABM mm	ID
Countersink screw with ISK		M6x10	**005780** ●
Locking disc left	IMA	48x24x18	**066561** ●
Locking disc right	IMA	48x24x18	**066562** ●
Locking disc	Homag	40x9x17	**066567** ●

● available ex stock
□ available at short notice
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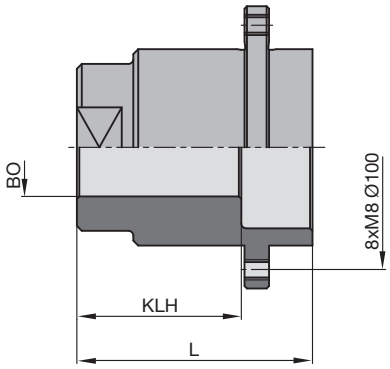


Flanged sleeve TB 300 0

Flanged sleeve

Application:
Flanged sleeve for mounting hoggers, segment hoggers, solid hoggers and folding hoggers.

Machine:
Double-end tenoners, finger joint machines, edgebanding machines etc.

Technical information:
For standard spindle (with or without keyway). Case hardened steel tool body with high concentricity. Spindle fixing parts are supplied by the machine manufacturer.

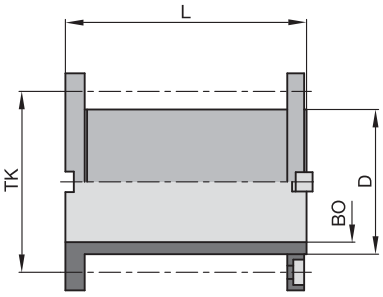
For cutting and hogging tools with bore 80 mm
TB 300 0, TB 300 0 01, TB 300 0 03, TB 300 0 06, TB 300 0 08, TB 300 0 11, TB 300 0 12

	Machine	L mm	KLH mm	BO mm	ID
	Schwabedissen	96	67	40 DKN	**061654** ●
	Torwegge	90	63	35 DKN	**061655** ●
	Celaschi	95	65	35 KN	**061652** ●
	Grecon	75	45	30 KN	**061660** ●
	Homag, IMA	90	63	35 KN	**061650** ●
*	Gabbiani	95	65	40 DKN	**061657** ●
	Dimter, Grecon	59	44	40 DKN	**061679** ●

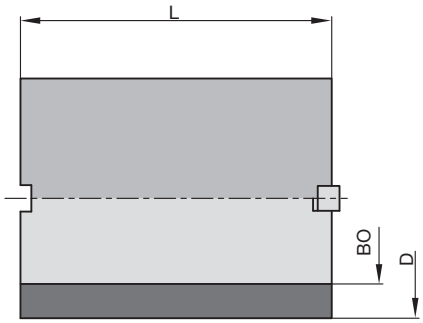
* = L and KLH values include 13 mm spacer thickness.

Spare parts:

BEZ	ABM mm	ID
Cylindrical screw with ISK	M8x18	**005945** ●
Cylindrical screw with ISK	M8x20	**005946** ●



Clamping sleeve TB 260 0 with end ring and safety device against twisting



Spacer with safety device against twisting

Clamping sleeve with end ring

Application:
Clamping sleeve for mounting sets of single tools.

Machine:
Spindle moulders, moulders, double end tenoners, edgebanding machines and window production machines.

Technical information:
Suitable for the use with several tool sets mounted on top of each other e.g. stacked spindle machines.

With end ring and safety device against twisting
TB 260 0

D mm	BO mm	TK	L mm	ID
50	40	65	112	**029676** ●
60	40	75	112	**029677** ●
60	40	75	100	**029678** ●
60	50	75	100	**029679** ●
60	50	75	95	**029680** ●
60	50	75	80	**029697** ●

Spare parts:

BEZ	for L mm	ABM mm	ID
Cylindrical screw with ISK	80	M6x74	**007075** ●
Cylindrical screw with ISK	100	M6x94	**007077** ●
Cylindrical screw with ISK	112	M6x106	**007078** ●
Countersink screw, Torx® 15		M4x10-12.9	**007437** ●
Feather key		B 8x7x16	**008506** ●
Allen key		SW 5	**005452** ●
Torx® key		Torx® 15	**117507** ●

Application:
Spacer element for use with clamping sleeves with safety device against twisting to fill free spindle lengths.

Spindle filler spacers with safety device against twisting
TR 112 0

D mm	BO mm	KLH mm	ID
77	50	60	**027875** ●
77	50	80	**027876** ●
77	50	100	**027878** ●

● available ex stock
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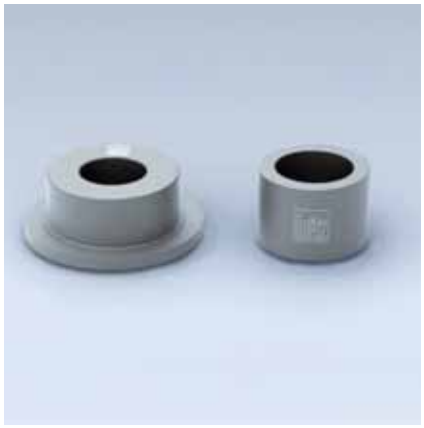


Reducing sleeve

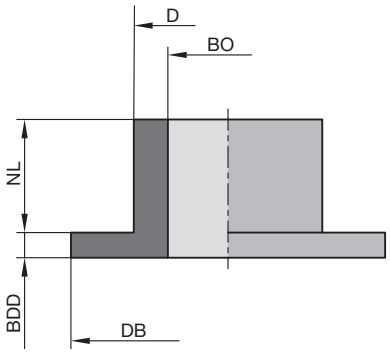
Application:
Reducing sleeve with/without flange for cutting tools and tool sets for use on spindles of various diameters.

Machine:
Spindle moulders, plug cutters etc.

Technical information:
The length of the reducing sleeve should be approximately 2 mm shorter than the width of the hub or the total height of the tool/tool set.
For safety reasons, the use of reducing sleeves should be avoided if possible.

With flange
TB 200 0

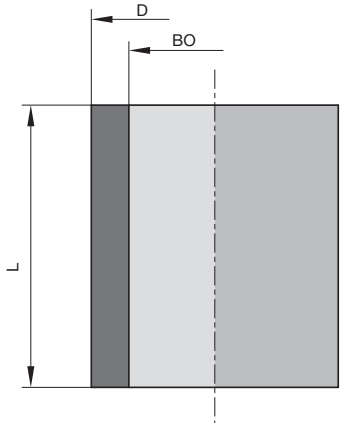
D mm	BO mm	BO in	DB mm	NL mm	BDD mm	ID
30	25		50	18	4	**028201** ●
35	30		55	18	5	**028204** ●
40	30		60	18	6	**028206** ●
40	35		60	18	6	**028207** ●
40	31.75	1 1/4“	60	18	6	**028220** ●
50	30		70	18	6	**028208** ●
50	35		70	18	6	**028210** ●
50	40		70	18	6	**028211** ●
50	45		70	18	6	**028209** ●
60	30		80	18	6	**028212** ●
60	40		80	18	6	**028214** ●
60	50		80	18	6	**028216** ●



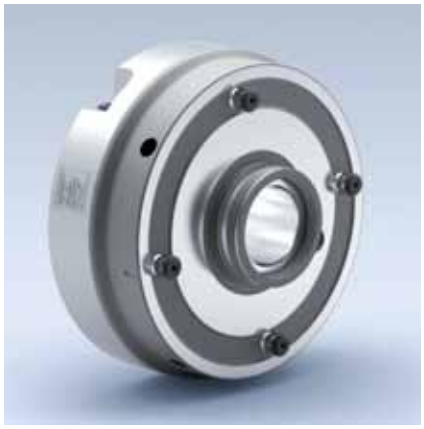
Reducing sleeve TB 200 0 with flange

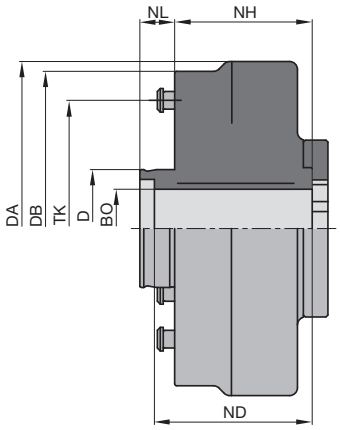
Without flange
TB 100 0 01

D mm	BO mm	L mm	ID
35	30	10	**028290** ●
35	30	40	**028293** ●
35	30	60	**028294** ●
35	30	96	**028295** ●
40	30	20	**028296** ●
40	30	40	**028298** ●
40	30	53	**028300** ●
40	30	60	**028301** ●
40	30	96	**028302** ●
40	35	30	**028304** ●
40	35	40	**028305** ●
40	35	60	**028306** ●
40	35	96	**028307** ●
50	40	96	**028310** ●



Reducing sleeve TB 100 0 01 without flange





Hydro quick clamping sleeve type 160 HF

Spindle with safety device against twisting - hexagon HF spindle 40
Quick clamping sleeve type 160 Hydro

Application:
Quick clamping sleeve for tools and hoggers on high precision spindle D = 40 mm with hexagon safety device against twisting.

Machine:
Double-end tenoners, edgebanding machines etc.

Technical information:
Hardened steel tool body, with mechanical quick clamping mechanism without compressed air. Tool is mounted directly on the quick clamping system without intermediate flange, closed hydro clamping system with maintenance free pressure piston mechanism, suitable for right hand and left hand rotation.
RPM n_{max} = 9000 min^{-1}. Tools must have four bayonet holes on 130 mm pitch.
Attention: Comply with maximum admissible speed for the mounted tools!

For tools and hoggers
PH 110 0 01

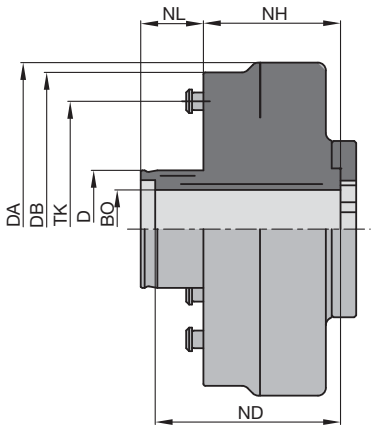
BEM	DA mm	DB mm	D mm	ND mm	NH mm	NL mm	BO mm	TK	Clamping bolts PCS	ID
For HF-spindle with hexagon	170	160	60	80	70	17.7	40	130	4	**150100** ●

Spare parts:

BEZ	ABM mm	ID
Securing part	for HF-spindle HF 40	**066473** ●
Hexagon key	SW 6	**117516** ●

Spindle securing part consists of:
Conical spring washer, clamping screw, hexagon spanner, brace.

● available ex stock
□ available at short notice
Instruction manual visit www.leitz.org



Hydro-Duo quick clamping sleeve type 160 HF

Spindle with safety device against twisting - hexagon HF spindle 40
Quick clamping sleeve type 160 Hydro-Duo

Application:
Quick clamping sleeve for tools and hoggers on high precision spindle D = 40 mm with hexagon safety device against twisting. Double acting hydro centering clamping eliminating the tolerance between spindle, clamping element and tool.

Machine:
Double end tenoners, edgebanding machines etc.

Technical information:
Hardened steel tool body, with mechanical quick clamping mechanism without compressed air. Tool is mounted directly on the quick clamping system without intermediate flange, closed hydro clamping system with maintenance free pressure piston mechanism, suitable for right hand and left hand rotation.
RPM n_{max} = 9000 min^{-1}. Tools must have four bayonet holes on 130 mm pitch.
Attention: Comply with maximum admissible speed for the mounted tools!

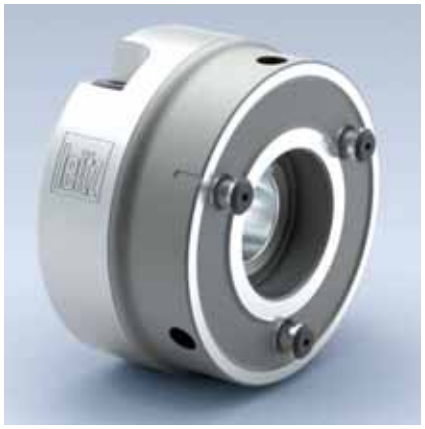
For tools and hoggers
PH 110 0 02

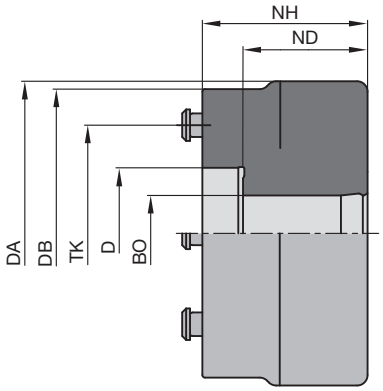
BEM	DA mm	DB mm	D mm	ND mm	NH mm	NL mm	BO mm	TK	Clamping bolts PCS	ID
For HF-spindle with hexagon	170	160	60	80	56	32	40	130	4	**150200** ●

Spare parts:

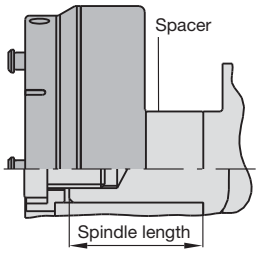
BEZ	ABM mm	ID
Securing part	for HF-spindle HF 40	**066473** ●
Hexagon key	SW 6	**117516** ●

Spindle securing part consists of:
Conical spring washer, clamping screw, hexagon spanner, brace.





Quick clamping sleeve



Quick clamping sleeve, flush mounted on spindle

Spindle with safety device against twisting - keyway
Quick clamping sleeve type 110

Application:
For quick clamping of scoring sawblades, grooving sawblades and tools.

Machine:
Double-end tenoners, finger joint machines, edgebanding machines etc.

Technical information:
For standard spindle (DKN), hardened steel tool body with mechanical operation of the quick clamping mechanism without compressed air. Tool is mounted directly or by using a flange, suitable for right hand rotation and left hand rotation.

For scoring sawblades and tools
PM 110 0 01

DA mm	DB mm	D mm	ND mm	NH mm	BO mm	DKN mm	TK	Clamping bolts PCS	ID
116	110	50	47.5	63	30	8x3	80	3	**150000** ●

Spare parts:

BEZ	Machine	ID LH	ID RH
Securing part	IMA	**066477** ●	**066477** ●
Securing part	Homag	**066541** ●	**066540** ●
Hexagon key			**117516** ●

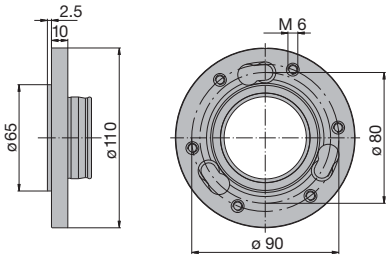
Spindle securing part consists of:
Conical spring washer, clamping nut or clamping screw, spanner or hexagon spanner, brace.

Application:
Spacer for flush mounting when using flanges type 110/2.

Spacer for flush mounting
TR 111 0

Machine	ABM mm	ABM-spindle mm	ID
Homag, IMA	60x26x30,DKN	30 DKN x68	**028800** ●

● available ex stock
□ available at short notice
Instruction manual visit www.leitz.org



Tool flange type 110/2 for scoring saws

Spindle with safety device against twisting - keyway tool flange type 110

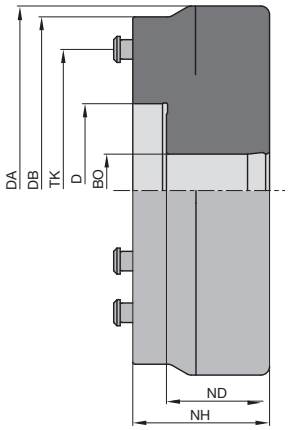
Application:
Tool flange for quick clamping sleeve type 110. Hardened steel tool body for quick clamping of scoring/grooving sawblades.

Machine:
Double end tenoners, finger joint machines, edgebanding machines etc.

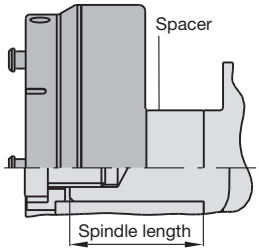
Technical information:
Tool mounted directly on tool flange. RPM n_{max} 12000 min^{-1}.
Attention: Comply with maximum admissible speed for the mounted tools!

Tool flange
TD 883 0 01

Tool Type	ID LH	ID RH
110/2 for scoring saws mounted on flange	**159051** ●	**159052** ●



Quick clamping sleeve



Quick clamping sleeve, flush mounted on spindle

Spindle with safety device against twisting - keyway
Quick clamping sleeve type 160

Application:
For quick clamping of hoggers and tools.

Machine:
Double-end tenoners, edgebanding machines etc.

Technical information:
For standard spindle (KN/DKN). Hardened steel tool body, with mechanical operation of the quick clamping mechanism without compressed air. Tool is mounted directly on the quick clamping sleeve or by a flange, suitable for right hand rotation and left hand rotation. RPM n_{max} 9000 min^{-1}.
Attention: Comply with maximum admissible speed for the mounted tools!

For tools and hoggers
PM 110 0 01

DA mm	DB mm	D mm	ND mm	NH mm	BO mm	TK	Clamping bolts PCS	ID
170	160	80	47.5	63	35 DKN	130	4	**150001** ●
170	160	80	47.5	63	40 DKN	130	4	**150008** ●

Spare parts:

Machine	BEZ	ID LH	ID RH
Homag	Securing part	**066460** ●	**066461** ●
IMA	Securing part	**066556** ●	**066556** ●
	Hexagon key		**117516** ●

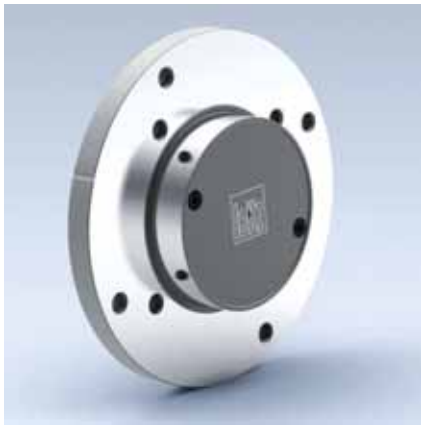
Spindle securing part consists of:
Conical spring washer, clamping nut or clamping screw, spanner or hexagon spanner, brace.

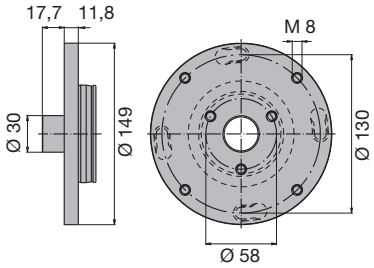
Application:
Spacer for flush mounting when using cutter flange type 160/2, type 160/3.

Spacer / set for flush mounting
AT 100 0

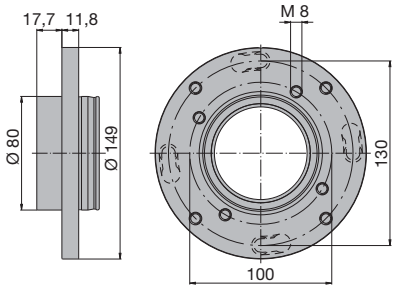
Machine	Type	ABM mm	ABM-spindle mm	ID
IMA	160/2 - 3	60x15/20x35.DKN	35 DKNx93	**028803** ●
Homag	160/2 - 3	60x10/20x35.DKN	35 DKNx70	**028804** ●

● available ex stock
□ available at short notice
Instruction manual visit www.leitz.org





Tool flange type 160/1, for tools



Tool flange type 160/2, for hoggers

Spindle with safety device against twisting - keyway tool flange type 160

Application:
Tool flange for quick clamping sleeve type 160. Hardened steel tool body for quick clamping of tools and hoggers.

Machine:
Double-end tenoners, finger joint machines, edgebanding machines etc.

Technical information:
Tool mounted directly on the flange. RPM n_{max} 9000 min^{-1}.
Attention: Comply with maximum admissible speed for the mounted tools!

Tool flange
TD 882 0 01, TD 883 0 01

Tool Type	ID LH	ID RH
160/1 for cutting tools BO 30 mm/NL 17.7	**159059** ●	**159060** ●
160/2 for hoggers BO 80 mm/NL 17.7	**159063** ●	**159064** ●

Shrink-fit chuck ThermoGrip® Tapered

Application:
High precision tool chuck for clamping shank tools by thermal shrinking. Has the highest stability and rigidity of all known shank tools clamping systems, suitable for HSC and HPC machining.

Technical information:
Tool chuck for high performance. Precision-balanced for speeds up to 36000 min^{-1}. Short, slim design for improved chip flow extraction. For clamping tungsten carbide and steel shanks. Clamping eccentricity e ≤ 0.01 mm. Integrated length adjustment to adopt the clamping depth of the tool.

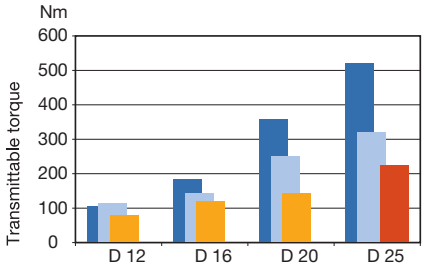
SK 30, DIN ISO 7388
PT 301 0

Type	d mm	D mm	A mm	Length adj. mm	STO	Weight kg	ID
A	12	34	70	7	g6	0.7	**670200** □
A	16	34	70	7	g6	0.7	**670201** □
A	20	42	70	7	g6	0.8	**670202** □
A	25	42	80	7	g6	1.0	**670210** □
B	12	34	70	7	g6	0.7	**670203** □
B	16	34	70	7	g6	0.7	**670204** □
B	20	42	70	7	g6	0.8	**670205** □
B	25	42	80	7	g6	1.0	**670211** □

SK 40, DIN ISO 7388
PT 301 0

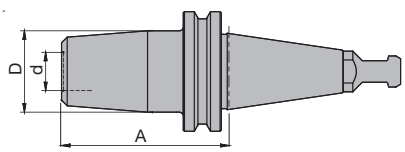
Type	d mm	D mm	A mm	Length adj. mm	STO	Weight kg	ID
E	12	34	70	7	g6	1.1	**670206** □
E	16	34	70	7	g6	1.1	**670207** □
E	20	42	70	7	g6	1.2	**670208** □
E	25	42	80	7	g6	1.2	**670209** □

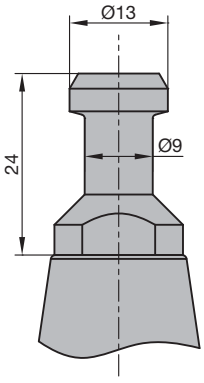
Comparison of transferable torque of traditional clamping chucks



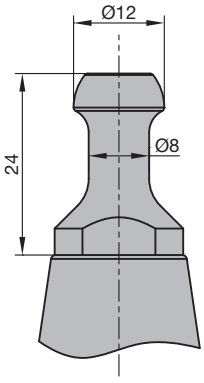
- ThermoGrip® shrink-fit chuck
- Collet DIN ISO 10897-B25, 75 Nm Tightening torque
- Collet DIN ISO 15488-B32 (ER32), 75 Nm Tightening torque
- Hydro clamping chuck

The clamping range of collet chucks and hydro clamping chucks includes shank tolerances g7 and h6. Leitz ThermoGrip® chucks are designed for a shank tolerance h6 for clamping diameters d < 12 mm and a shank tolerance g6 for clamping diameters d ≥ 12 mm.

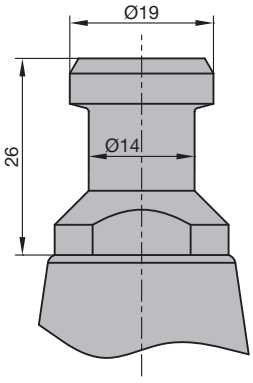




Type: A
SK 30 pull stud as per DIN ISO 7388

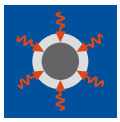


Type: B
SK 30/ISO 30 pull stud for HSD spindles from construction year 9/92 on

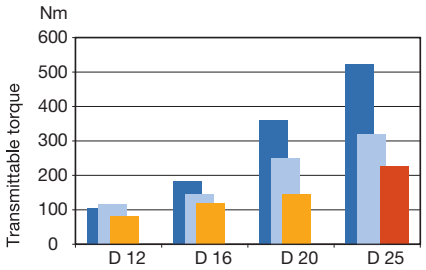


Type: E
SK 40 pull stud as per DIN ISO 7388

● available ex stock
□ available at short notice
Instruction manual visit www.leitz.org



Comparison of transferable torque of traditional clamping chucks



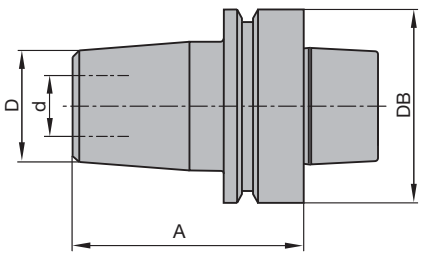
ThermoGrip® shrink-fit chuck

Collet DIN ISO 10897-B25, 75 Nm Tightening torque

Collet DIN ISO 15488-B32 (ER32), 75 Nm Tightening torque

Hydro clamping chuck

The clamping range of collet chucks and hydro clamping chucks includes shank tolerances g7 and h6. Leitz ThermoGrip® chucks are designed for a shank tolerance h6 for clamping diameters d < 12 mm and a shank tolerance g6 for clamping diameters d ≥ 12 mm.



Shrink-fit chuck ThermoGrip® with hollow taper shank

Application:
High precision tool chuck for clamping shank tools by thermal shrinking. Has the highest stability and rigidity of all known shank tools clamping systems, suitable for HSC and HPC machining.

Technical information:
Tool chuck for high performance. Precision-balanced for speeds up to 36000 min^{-1}. Short, slim design for improved chip flow extraction. For clamping tungsten carbide and steel shanks. Clamping eccentricity e ≤ 0.01 mm.

HSK-E 63, DIN 69893
PT 300 0

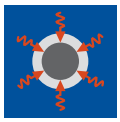
d mm	D mm	A mm	STO	Weight kg	ID
8	27	75	h6	0.9	**670002** ●
10	32	75	h6	0.9	**670003** ●
12	34	75	g6	0.9	**670004** ●
14	34	75	g6	0.9	**670005** ●
16	34	75	g6	0.9	**670006** ●
18	42	75	g6	1.0	**670007** ●
20	42	75	g6	1.0	**670008** ●
25	42	75	g6	1.0	**670009** ●
32	53	90	g6	1.2	**670016** ●

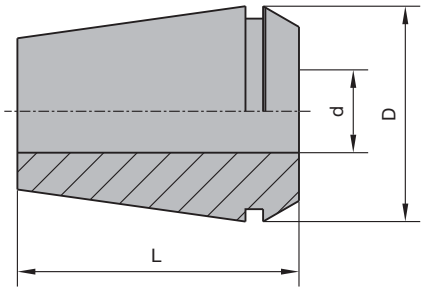
HSK-F 63, DIN 69893
PT 300 0

d mm	d in	D mm	A mm	STO	Weight kg	ID With chip	ID Without chip
6		27	75	h6	0.8	**037753** □	**037713** ●
8		27	75	h6	0.8	**037754** □	**037714** ●
9.53	3/8“	32	75	h6	0.9	**670013** □	**670010** ●
10		32	75	h6	0.9	**037755** □	**037715** ●
10		32	120	h6	1.0		**670017** ●
12		34	75	g6	0.9	**037752** □	**037712** ●
12		34	90	g6	1.0		**670018** ●
12		34	120	g6	1.1		**670019** ●
12.7	1/2“	34	75	h6	0.9	**670014** □	**670011** ●
14		34	75	g6	0.9	**037756** □	**037716** ●
16		34	75	g6	0.9	**037719** □	**037709** ●
16		34	95	g6	1.0		**670020** ●
16		34	120	g6	1.0		**670021** ●
18		42	75	g6	1.0	**037757** □	**037718** ●
19.05	3/4“	42	75	h6	0.9	**670015** □	**670012** ●
20		42	75	g6	1.0	**037750** □	**037710** ●
20		42	100	g6	1.2		**670022** ●
25		42	75	g6	0.9	**037751** □	**037711** ●
32		53	90	g6	1.2	**670001** □	**670000** ●

Note:
Chucks with chip already have a data chip (511 bytes) ID **081309** ex works. Chips with larger capacity are available on request.

● available ex stock
□ available at short notice
Instruction manual visit www.leitz.org





Shrink-fit collet TER, TB 120 0 01

Note:
Corresponding accessories for shrink-fit units are required in order to use shrink-fit collets TER - ER together with the shrink-fit units ISG 22xx / 32xx or 24xx / 34xx.
See: Brochure ThermoGrip® shrink-fit generator.

Shrink collet ThermoGrip®, Type TER, DIN ISO 15488

Application:
High precision tool chuck for clamping shank tools by thermal shrinking. Has the highest stability and rigidity of all known shank tools clamping systems, suitable for HSC and HPC machining.

Technical information:
Replacement for conventional spring collets to increase concentricity, rigidity and speed strength. Universal design for the adaptation of shank tools in machining aggregates as well as direct clamping in spindles with integrated collet adaptor. For clamping of carbide and steel shanks. Clamping eccentricity e ≤ 0.01 mm.
Attention: In order to mount the collet nut in the shrinked tool, the tool diameter is not allowed to be larger than the collar diameter (DB) stated in the table. In individual cases the existing clamping nut must be exchanged with the version stated in the table.

TER - ER16, DIN ISO 15488, 8°
TB 120 0 01

BEZ	d mm	D mm	DB mm	L mm	ID
Shrink collet	3	17	12.5	27	**679500** □
Shrink collet	4	17	12.5	27	**679501** □
Shrink collet	6	17	12.5	27	**679502** □
Shrink collet	8	17	12.5	27	**679503** □

Spare parts:

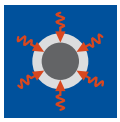
BEZ	ABM mm	D mm	ID
Collet chuck nut	M22x1.5	28	**006657** □

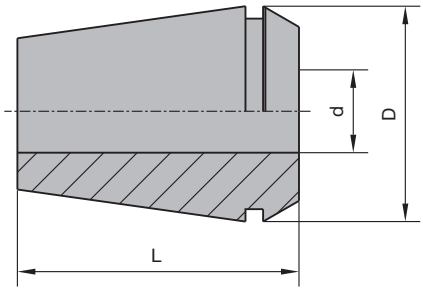
TER - ER20, DIN ISO 15488, 8°
TB 120 0 01

BEZ	d mm	D mm	DB mm	L mm	ID
Shrink collet	6	21	15.5	31	**679504** □
Shrink collet	8	21	15.5	31	**679505** □
Shrink collet	10	21	15.5	31	**679506** □

Spare parts:

BEZ	ABM mm	D mm	ID
Collet chuck nut	M25x1.5	34	**006658** □





Shrink-fit collet TER, TB 120 0 01

Note:
Corresponding accessories for shrink-fit units are required in order to use shrink-fit collets TER - ER together with the shrink-fit units ISG 22xx / 32xx or 24xx / 34xx.
See: Brochure ThermoGrip® shrink-fit generator.

Shrink collet ThermoGrip®, Type TER, DIN ISO 15488

Application:
High precision tool chuck for clamping shank tools by thermal shrinking. Has the highest stability and rigidity of all known shank tools clamping systems, suitable for HSC and HPC machining.

Technical information:
Replacement for conventional spring collets to increase concentricity, rigidity and speed strength. Universal design for the adaptation of shank tools in machining aggregates as well as direct clamping in spindles with integrated collet adaptor. For clamping of carbide and steel shanks. Clamping eccentricity e ≤ 0.01 mm.
Attention: In order to mount the collet nut in the shrinked tool, the tool diameter is not allowed to be larger than the collar diameter (DB) stated in the table. In individual cases the existing clamping nut must be exchanged with the version stated in the table.

TER - ER25, DIN ISO 15488, 8°
TB 120 0 01

BEZ	d mm	D mm	DB mm	L mm	ID
Shrink collet	3	26	20	35	**679507** □
Shrink collet	4	26	20	35	**679508** □
Shrink collet	6	26	20	35	**679509** □
Shrink collet	8	26	20	35	**679510** □
Shrink collet	10	26	20	35	**679511** □
Shrink collet	12	26	20	35	**679512** □
Shrink collet	14	26	20	35	**679513** □
Shrink collet	16	26	20	35	**679514** □

Spare parts:

BEZ	ABM mm	D mm	ID
Collet chuck nut	M32x1.5	42	**006659** □

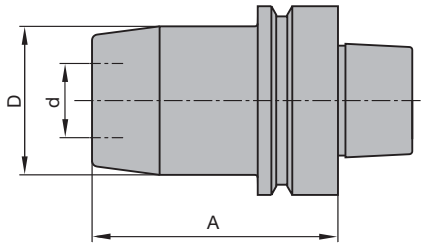
TER - ER32, DIN ISO 15488, 8°
TB 120 0 01

BEZ	d mm	D mm	DB mm	L mm	ID
Shrink collet	6	33	26	40	**679515** □
Shrink collet	8	33	26	40	**679516** □
Shrink collet	10	33	26	40	**679517** □
Shrink collet	12	33	26	40	**679518** □
Shrink collet	14	33	26	40	**679519** □
Shrink collet	16	33	26	40	**679520** □
Shrink collet	18	33	26	40	**679521** □
Shrink collet	20	33	26	40	**679522** □

Spare parts:

BEZ	ABM mm	D mm	ID
Collet chuck nut	M40x1.5	50	**006660** □

● available ex stock
□ available at short notice
Instruction manual visit www.leitz.org



Hydro chuck HSK-F 63

Hydro chucks for shank tools with hollow shank taper HSK-F 63

Application:
High precision tool chuck for hydro clamping shank tools with cylindrical shank and shank diameters up to d_{max} = 25 mm.

Technical information:
Reduction of clamping diameter by special reduction inserts. Independent of direction of rotation, suitable for right hand and left hand rotation tool. Axial safety device by special length adjustment screw. Easy handling clamping system. Tool adaptor finely balanced. Maximum admissible speed n_{max} = 25000 min^{-1}.

Clamping diameter 25 mm
PH 350 0

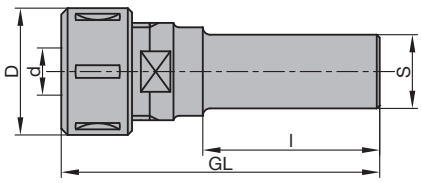
D mm	d mm	A mm	S mm	Weight kg	ID
50	25	85	HSK-F 63	1.1	**039086** ●

Sales unit consisting of chuck and clamping key.

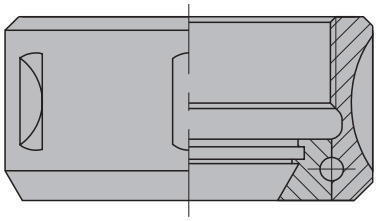
Spare parts:

BEZ	ABM mm	ID
Reducing sleeve	d12/25x56x12	**039081** ●
Reducing sleeve	d14/25x56x14	**039082** ●
Reducing sleeve	d16/25x56x16	**039083** ●
Reducing sleeve	d20/25x56x20	**039084** ●
Length adjustment screw	M8x25/14.5x35	**007069** ●
Length adjustment screw	M6x25	**007071** ●
Allen key	SW 5	**005446** ●

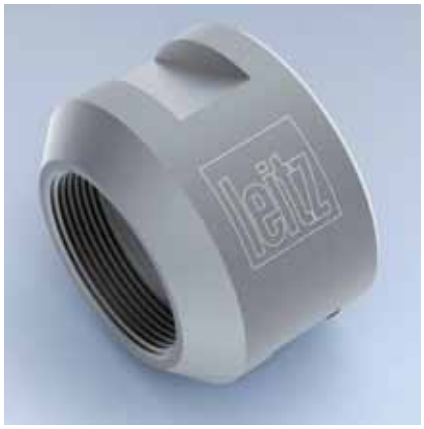
● available ex stock
□ available at short notice
Instruction manual visit www.leitz.org

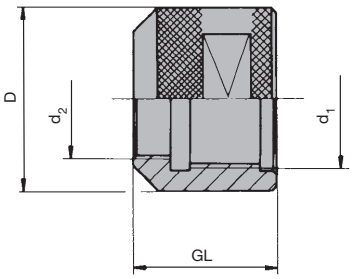


Collet chuck with cylindrical shank



Ball bearing collet nut





Fixing nut TK 510 0
d_1 = machine related
d_2 = tool related

Precision collet chuck, cylindrical shank

Application:
Precision tool chuck with collet for clamping shank tools with cylindrical shank and shank diameters up to d_{max} = 16 mm.

Technical information:
Exact concentricity through hardened, ground and double slotted collets. Easy handling as loosening the ball bearing collet nut automatically opens the collet. Suitable for right and left hand rotation because of ball bearing collet nut. Ball bearing collet nut for increased clamping forces and improved concentricity compared to monobloc design.

Model with ball bearing collet nut
PM 350 0 03

D mm	d mm	GL mm	A mm	S mm	Type	ID
35	6 - 12.7	77		25x50	1	**671001** ●
43	6 - 16	115	55	MK II / M30	2	**037493** ●
43	6 - 16	108		25x60	2	**037494** ●

Sales unit consists of clamping chuck, collet nut and key, without collet.

Spare parts:

BEZ	ABM mm	for S mm	ID Type 1	ID Type 2
Collet (2°52')		6	**679013** ●	**037473** ●
Collet (2°52')		7	**679015** ●	
Collet (2°52')		8	**679016** ●	**037475** ●
Collet (2°52')		9	**679017** ●	**037476** ●
Collet (2°52')		9.5		**037477** ●
Collet (2°52')		10	**679019** ●	**037479** ●
Collet (2°52')		11		**037480** ●
Collet (2°52')		12	**679020** ●	**037481** ●
Collet (2°52')		13		**037483** ●
Collet (2°52')		14		**037485** ●
Collet (2°52')		16		**037486** ●
Collet (2°52')		6.35 (1/4")	**679014** ●	**037474** ●
Collet (2°52')		9.53 (3/8")	**679018** ●	**037478** ●
Collet (2°52')		12.7 (1/2")	**679021** ●	**037482** ●
Sickle spanner	34/36		**005498** ●	
Sickle spanner	40/42			**005469** ●
Collet chuck nut	M27x1.5		**006653** ●	
Collet chuck nut with ball bearing	M33x1.5			**005685** ●

Clamping nut for morse taper II shanks

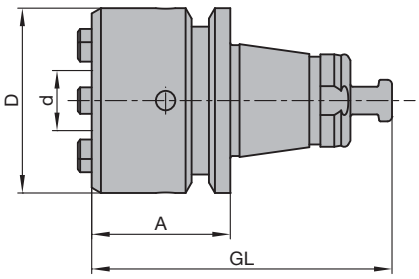
Application:
For clamping tools or tool chucks with morse taper II shanks (MK II).

Technical information:
d_1 = W 1 3/8" suitable for Perske and Maka motor spindles.
d_1 = M 33 X 3 suitable for Italian routers.

With differential thread
TK 510 0

D mm	d_1 mm	d_2 mm	GL mm	ID RH
45	W 1 3/8"	M30x1,5	30	**005682** ●
45	M33x3	M30x1,5	35	**006624** ●

● available ex stock
□ available at short notice
Instruction manual visit www.leitz.org



Collet chuck

Collet chuck with steep taper for CNC aggregates

Application:
Precision tool chuck with collet for clamping shank tools with cylindrical shank and shank diameters up to d_{max} = 16 mm (5/8“).

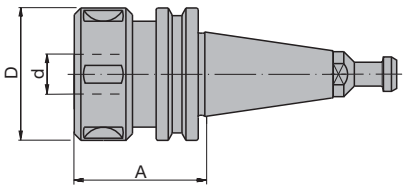
Technical information:
Steep taper design for Flex 5+ aggregates (Homag Group) and 5-motion-Plus aggregate (Felder Format-4). Exact concentric running through hardened, ground and double slotted collets. Easy handling through automatic opening of the collet when opening the collet nut. Tool adaptor and collet nut fine balanced. Maximum tool protrusion of the chuck = 50 mm. A collet with clamping diameter 10 mm is included.

A = 30 mm, diameter range 3-16 mm
PM 350 0

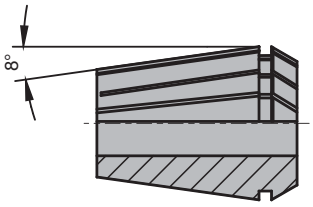
Machine	D mm	d mm	A mm	GL mm	Weight kg	ID
Felder Format-4, Homag Group	40	3 - 16	30	65	0.3	**672002** ●

Spare parts:

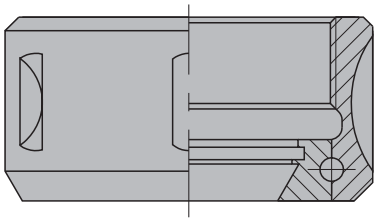
BEZ	ABM mm	for S mm	ID
Collet (8°)		6	**037979** ●
Collet (8°)		8	**037980** ●
Collet (8°)		10	**037981** ●
Collet (8°)		12	**037982** ●
Collet (8°)		14	**037983** ●
Collet (8°)		16	**037984** ●
Collet (8°)		6.35	**679027** ●
Collet (8°)		9.53	**679028** ●
Collet (8°)		12.7	**679029** ●
Collet (8°)		15.88	**679030** ●
Clamping key	E25AX		**117519** ●
Collet chuck nut	ERAX25		**116501** □



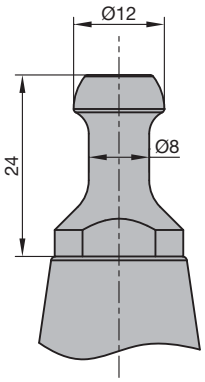
Collet chuck with steep taper



Collet angle 8°: DIN ISO 15488



Ball bearing collet nut



Type: B
SK 30/ISO 30 pull stud for HSD spindles from construction year 9/92 on

Collet chuck with steep taper SK 30

Application:
Precision tool chuck with collet for clamping shank tools with cylindrical shank and shank diameters up to d_{max} = 20 mm.

Technical information:
Steep taper design as per DIN ISO 7388, without grooves and notches. Exact concentric running through hardened, ground and double slotted collets. Vibration free cutting by short design. Easy handling through automatic opening of the collet when loosening the collet nut. Suitable for right hand and left hand rotation due to ball bearing collet nut. Ball bearing collet nut for increased clamping forces and improved concentricity compared to monobloc design. Tool chuck and collet nut fine balanced. Suitable mounting device VN 799 0 see section Knives and Spare Parts.

SK 30, A = 50 / 63 mm, diameter range 6-20 mm, 8° taper angle of the collet
PM 350 0 04

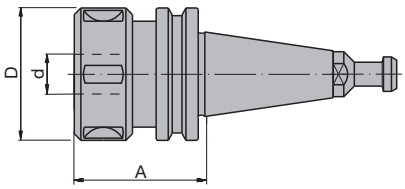
Type	D mm	d mm	A mm	S mm	Weight kg	ID
B	50	6 - 20	50	SK 30	0.6	**037904** ●
B	50	6 - 20	63	SK 30	0.7	**672001** ●

Sales unit consisting of clamping chuck with ball bearing collet nut, without collet or spanner.

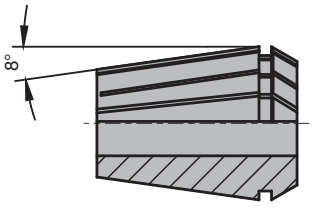
Spare parts:

BEZ	ABM mm	for S mm	ID
Collet (8°)		6	**037439** ●
Collet (8°)		8	**037440** ●
Collet (8°)		10	**037441** ●
Collet (8°)		12	**037442** ●
Collet (8°)		13	**037443** ●
Collet (8°)		14	**037444** ●
Collet (8°)		16	**037445** ●
Collet (8°)		18	**037446** ●
Collet (8°)		20	**037447** ●
Collet (8°)		6.35 (1/4“)	**037509** ●
Collet (8°)		9.53 (3/8“)	**037510** ●
Collet (8°)		12.7 (1/2“)	**037511** ●
Collet (8°)		15.88 (5/8“)	**037507** ●
Collet (8°)		19.05 (3/4“)	**037506** ●
Sickle spanner	45/50		**005491** ●
Collet chuck nut with ball bearing	M40x1.5		**005718** ●

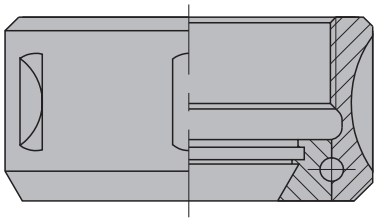
● available ex stock
□ available at short notice
Instruction manual visit www.leitz.org



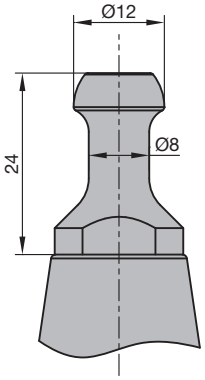
Collet chuck with steep taper



Collet angle 8°: DIN ISO 15488



Ball bearing collet nut



Type: B
SK 30/ISO 30 pull stud for HSD spindles from construction year 9/92 on

Collet chuck with steep taper SK 30

Application:
Precision tool chuck with collet for clamping shank tools with cylindrical shank and shank diameters up to d_{max} = 25.4 mm (1“).

Technical information:
Steep taper design as per DIN ISO 7388, without grooves and notches. Exact concentric running through hardened, ground and double slotted collets. Easy handling as loosening the ball bearing collet nut automatically opens the collet. Suitable for right hand and left hand rotation because of ball bearing collet nut. Ball bearing collet nut for increased clamping forces and improved concentricity compared to monobloc design. Tool chuck and collet nut fine balanced. Suitable mounting device VN 799 0 see section Knives and Spare Parts.

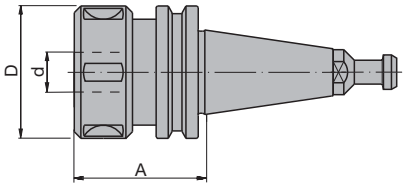
SK 30, A = 61 mm, 8° taper angle of collet, diameter range 6-25.4 mm
PM 350 0 16

Type	D mm	d mm	A mm	Weight kg	ID
B	63	6 - 25.4	61	0.9	**037968** ●

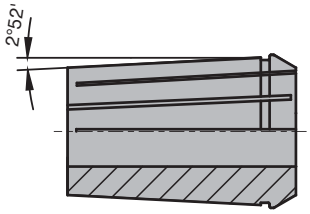
Sales unit consisting of clamping chuck with ball bearing collet nut, without collet or spanner.

Spare parts:

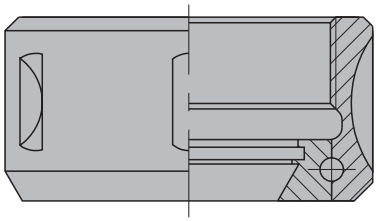
BEZ	ABM mm	for S mm	ID
Collet (8°)		6	**037926** ●
Collet (8°)		8	**037927** ●
Collet (8°)		10	**037928** ●
Collet (8°)		12	**037929** ●
Collet (8°)		14	**037930** ●
Collet (8°)		16	**037931** ●
Collet (8°)		20	**037932** ●
Collet (8°)		25	**037933** ●
Collet (8°)		6.35 (1/4“)	**037934** ●
Collet (8°)		9.53 (3/8“)	**037935** ●
Collet (8°)		12.7 (1/2“)	**037936** ●
Collet (8°)		15.88 (5/8“)	**037937** ●
Collet (8°)		19.05 (3/4“)	**037938** ●
Collet (8°)		25.4 (1“)	**037939** ●
Sickle spanner	58/62		**005458** ●
Collet chuck nut with ball bearing	M50x1.5		**006639** ●



Collet chuck with steep taper



Collet angle 2°52‘: DIN ISO 10897



Ball bearing collet nut

Collet chuck with steep taper SK 30 / SK 40

Application:
Precision tool chuck with collet for clamping shank tools with cylindrical shank and shank diameters up to d_{max} = 25.4 mm (1“).

Technical information:
Steep taper design as per DIN ISO 7388, without grooves and notches. Exact concentric running through hardened, ground and double slotted collets. Easy handling as loosening the ball bearing collet nut automatically opens the collet. Suitable for right hand and left hand rotation because of ball bearing collet nut. Ball bearing collet nut for increased clamping forces and improved concentricity compared to monobloc design. Tool chuck and collet nut fine balanced. Suitable mounting device VN 799 0 see section Knives and Spare Parts.

SK 30, A = 70 mm, diameter range 6-25.4 mm
PM 350 0 05

Type	D mm	d mm	A mm	Weight kg	ID
A	60	6 - 25.4	70	0.9	**037421** ●

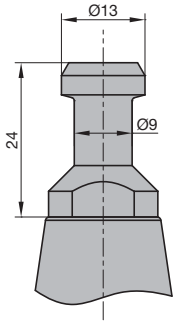
SK 40, A = 70 mm, diameter range 6-25.4 mm
PM 350 0 05

Type	D mm	d mm	A mm	Weight kg	ID
E	60	6 - 25.4	70	1.5	**037422** ●

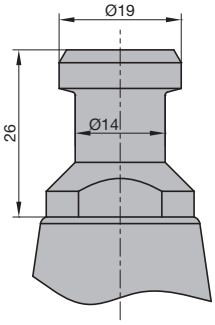
Sales unit consisting of clamping chuck with ball bearing collet nut, without collet or spanner.

Spare parts:

BEZ	ABM mm	for S mm	ID
Collet (2°52‘)		6	**037429** ●
Collet (2°52‘)		8	**037430** ●
Collet (2°52‘)		10	**037431** ●
Collet (2°52‘)		12	**037432** ●
Collet (2°52‘)		13	**037433** ●
Collet (2°52‘)		14	**037434** ●
Collet (2°52‘)		16	**037435** ●
Collet (2°52‘)		18	**037436** ●
Collet (2°52‘)		20	**037437** ●
Collet (2°52‘)		25	**037438** ●
Collet (2°52‘)		6.35 (1/4“)	**037495** ●
Collet (2°52‘)		9.53 (3/8“)	**037505** ●
Collet (2°52‘)		12.7 (1/2“)	**037496** ●
Collet (2°52‘)		15.88 (5/8“)	**037502** ●
Collet (2°52‘)		19.05 (3/4“)	**037497** ●
Collet (2°52‘)		25.4 (1“)	**037508** ●
Sickle spanner	58/62		**005458** ●
Collet chuck nut with ball bearing	M48x2		**005714** ●
Locking nut with Euchner chip	SK 40, 511 Bytes		**081600** ●
Locking nut with Balluff chip	SK 40, 511 Bytes		**081601** ●

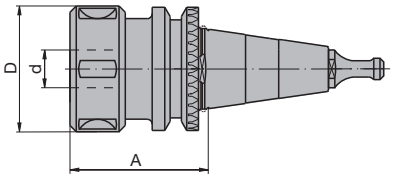


Type: A
SK 30 pull stud as per DIN ISO 7388

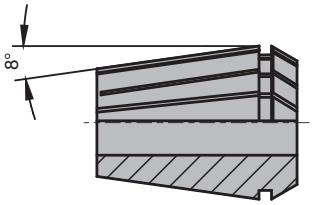


Type: E
SK 40 pull stud as per DIN ISO 7388

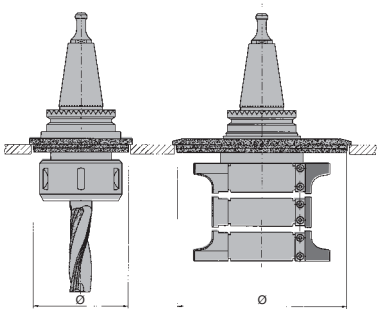
● available ex stock
□ available at short notice
Instruction manual visit www.leitz.org



Collet chuck ISO 30 with serration



Collet angle 8°: DIN ISO 15488



Tool chucks in the „pick-up“ magazine. Chuck and arbors with aluminium discs required. All Leitz tool chucks for SCM/ Morbidelli can be equipped with aluminium discs. These allow the chucks to be used on machines with „pick-up“ tool magazines. Diameter of aluminium discs available on request.

Collet chuck with steep taper ISO 30 for SCM and Morbidelli

Application:
Precision tool chuck with collet for clamping shank tools with cylindrical shank and shank diameters up to d_{max} = 20 mm.

Technical information:
Steep taper design ISO 30, with serration. Exact concentric running through hardened, ground and double slotted collets. Easy handling as loosening the ball bearing collet nut automatically opens the collet. Suitable for right hand and left hand rotation because of ball bearing collet nut. Ball bearing collet nut for increased clamping forces and improved concentricity compared to monobloc design. Tool chuck and collet nut fine balanced. Suitable mounting device VN 799 0 see section Knives and Spare Parts.

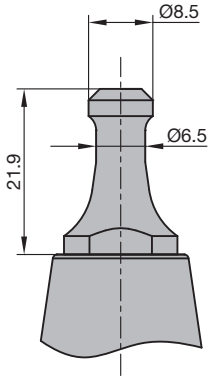
A = 55 mm, diameter range 6-20 mm
PM 350 0 09

Type	D mm	d mm	A mm	Weight kg	ID
D	50	6 - 20	55	0.6	**037418** ●

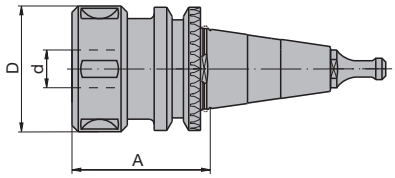
Sales unit consisting of clamping chuck with ball bearing collet nut, without collet or spanner.

Spare parts:

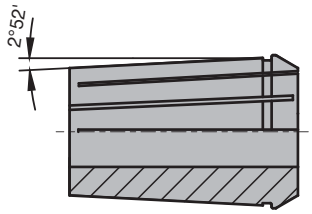
BEZ	ABM mm	for S mm	ID
Collet (8°)		6	**037439** ●
Collet (8°)		8	**037440** ●
Collet (8°)		10	**037441** ●
Collet (8°)		12	**037442** ●
Collet (8°)		13	**037443** ●
Collet (8°)		14	**037444** ●
Collet (8°)		16	**037445** ●
Collet (8°)		18	**037446** ●
Collet (8°)		20	**037447** ●
Collet (8°)		6.35 (1/4“)	**037509** ●
Collet (8°)		9.53 (3/8“)	**037510** ●
Collet (8°)		12.7 (1/2“)	**037511** ●
Collet (8°)		15.88 (5/8“)	**037507** ●
Collet (8°)		19.05 (3/4“)	**037506** ●
Sickle spanner	45/50		**005491** ●
Collet chuck nut with ball bearing	M40x1.5		**005718** ●



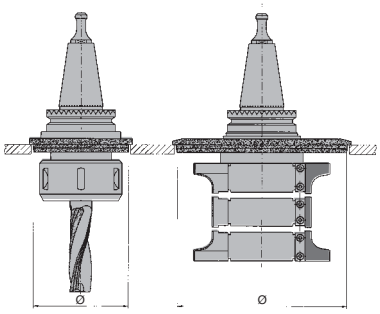
Type: D
ISO 30 pull stud Morbidelli, SCM



Collet chuck ISO 30 with serration



Collet angle 2°52‘: DIN ISO 10897



Tool chucks in the „pick-up“ magazine. Chuck and arbors with aluminium discs required. All Leitz tool chucks for SCM/ Morbidelli can be equipped with aluminium discs. These allow the chucks to be used on machines with „pick-up“ tool magazines. Diameter of aluminium discs available on request.

Collet chuck with steep taper ISO 30 for SCM and Morbidelli

Application:
Precision tool chuck with collet for clamping shank tools with cylindrical shank and shank diameters up to d_{max} = 25.4 mm (1“).

Technical information:
Steep taper design ISO 30, with serration. Exact concentric running through hardened, ground and double slotted collets. Easy handling as loosening the ball bearing collet nut automatically opens the collet. Suitable for right hand and left hand rotation because of ball bearing collet nut. Ball bearing collet nut for increased clamping forces and improved concentricity compared to monobloc design. Tool chuck and collet nut fine balanced. Suitable mounting device VN 799 0 see section Knives and Spare Parts.

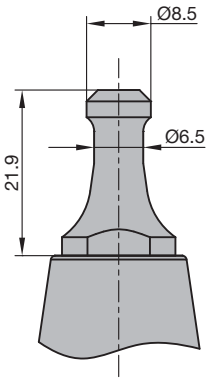
A = 70 mm, diameter range 6-25.4 mm
PM 350 0 09

Type	D mm	d mm	A mm	Weight kg	ID
D	60	6 - 25.4	70	0.9	**037910** ●

Sales unit consisting of clamping chuck with ball bearing collet nut, without collet or spanner.

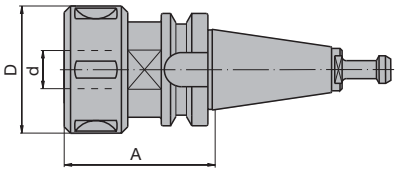
Spare parts:

BEZ	ABM mm	for S mm	ID
Collet (2°52‘)		6	**037429** ●
Collet (2°52‘)		8	**037430** ●
Collet (2°52‘)		10	**037431** ●
Collet (2°52‘)		12	**037432** ●
Collet (2°52‘)		13	**037433** ●
Collet (2°52‘)		14	**037434** ●
Collet (2°52‘)		16	**037435** ●
Collet (2°52‘)		18	**037436** ●
Collet (2°52‘)		20	**037437** ●
Collet (2°52‘)		25	**037438** ●
Collet (2°52‘)		6.35 (1/4“)	**037495** ●
Collet (2°52‘)		9.53 (3/8“)	**037505** ●
Collet (2°52‘)		12.7 (1/2“)	**037496** ●
Collet (2°52‘)		15.88 (5/8“)	**037502** ●
Collet (2°52‘)		19.05 (3/4“)	**037497** ●
Collet (2°52‘)		25.4 (1“)	**037508** ●
Sickle spanner	58/62		**005458** ●
Collet chuck nut with ball bearing	M48x2		**005714** ●

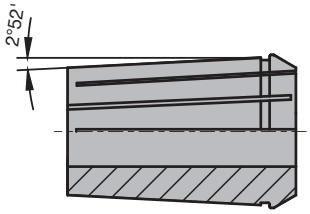


Type: D
ISO 30 pull stud Morbidelli, SCM

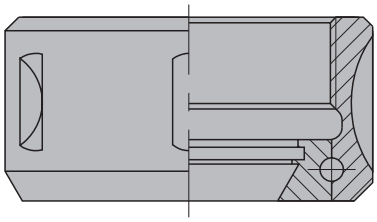
● available ex stock
□ available at short notice
Instruction manual visit www.leitz.org



Collet chuck BT 35



Collet angle 2°52‘: DIN ISO 10897



Ball bearing collet nut

Collet chuck with steep taper BT 30 and BT 35

Application:
Precision tool chuck with collet for clamping shank tools with cylindrical shank and shank diameters up to d_{max} = 25.4 mm (1“).

Technical information:
Steep taper design BT 30 or BT 35. Exact concentric running through hardened, ground and double slotted collets. Easy handling as loosening the ball bearing collet nut automatically opens the collet. Suitable for right hand and left hand rotation because of ball bearing collet nut. Ball bearing collet nut for increased clamping forces and improved concentricity compared to monobloc design. Tool chuck and collet nut fine balanced. Suitable mounting device VN 799 0 see section Knives and Spare Parts. (Design for SK 30).

Steep taper BT 30 without grooves and notches
PM 350 0 07

Type	D mm	d mm	A mm	Weight kg	ID
F	60	6 - 25.4	70	0.9	**037962** ●

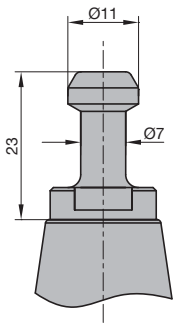
Steep taper BT 35 with grooves and notches
PM 350 0 07

Type	D mm	d mm	A mm	Weight kg	ID
G	60	6 - 25.4	70	1	**037414** ●

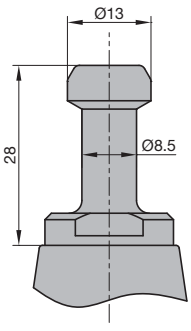
Sales unit consisting of clamping chuck with ball bearing collet nut, without collet or spanner.

Spare parts:

BEZ	ABM mm	for S mm	ID
Collet (2°52‘)		6	**037429** ●
Collet (2°52‘)		8	**037430** ●
Collet (2°52‘)		10	**037431** ●
Collet (2°52‘)		12	**037432** ●
Collet (2°52‘)		13	**037433** ●
Collet (2°52‘)		14	**037434** ●
Collet (2°52‘)		16	**037435** ●
Collet (2°52‘)		18	**037436** ●
Collet (2°52‘)		20	**037437** ●
Collet (2°52‘)		25	**037438** ●
Collet (2°52‘)		6.35 (1/4“)	**037495** ●
Collet (2°52‘)		9.53 (3/8“)	**037505** ●
Collet (2°52‘)		12.7 (1/2“)	**037496** ●
Collet (2°52‘)		15.88 (5/8“)	**037502** ●
Collet (2°52‘)		19.05 (3/4“)	**037497** ●
Collet (2°52‘)		25.4 (1“)	**037508** ●
Sickle spanner	58/62		**005458** ●
Collet chuck nut with ball bearing	M48x2		**005714** ●

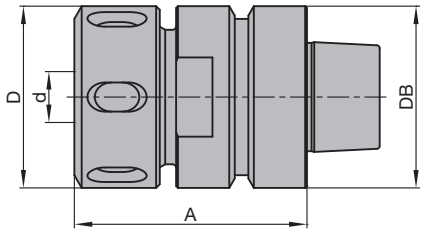


Type: F
BT 30 pull stud
Anderson

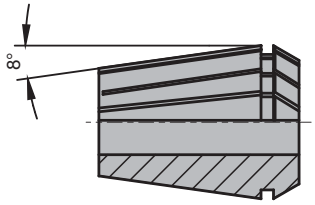


Type: G
BT 35 pull stud
Heian, Shoda

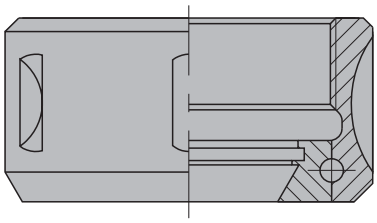
● available ex stock
□ available at short notice
Instruction manual visit www.leitz.org



Collet chuck HSK-F 50



Collet angle 8°: DIN ISO 15488



Ball bearing collet nut

Collet chuck with hollow taper shank HSK-F 50

Application:
Precision tool chuck with collet for clamping shank tools with cylindrical shank and shank diameters up to d_{max} = 20 mm.

Technical information:
Hollow taper shank as per DIN 69893. Exact concentric running through hardened, ground and double slotted collets. Easy handling as loosening the ball bearing collet nut automatically opens the collet. Suitable for right hand and left hand rotation because of ball bearing collet nut. Ball bearing collet nut for increased clamping forces and improved concentricity compared to monobloc design. Tool chuck and collet nut fine balanced. Suitable mounting device VN 799 0 see section Knives and Spare Parts.

HSK-F 50, DIN 69893, diameter range up to 20 mm, 8° angle of the collet
PM 350 0 15

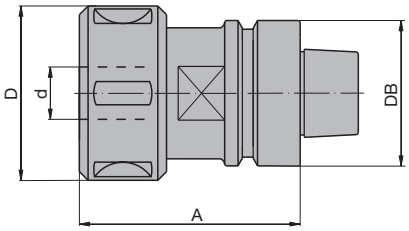
D	d	A	DB	Weight	ID
mm	mm	mm	mm	kg	
50	6 - 20	64	50	0.9	**037999** ●

Sales unit consisting of clamping chuck with ball bearing collet nut, without collet and spanner.

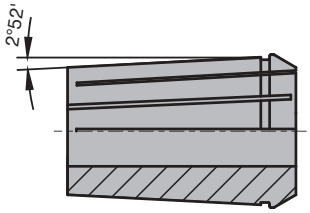
Spare parts:

BEZ	ABM mm	for S mm	ID
Collet (8°)		6	**037439** ●
Collet (8°)		8	**037440** ●
Collet (8°)		10	**037441** ●
Collet (8°)		12	**037442** ●
Collet (8°)		13	**037443** ●
Collet (8°)		14	**037444** ●
Collet (8°)		16	**037445** ●
Collet (8°)		18	**037446** ●
Collet (8°)		20	**037447** ●
Collet (8°)		6.35 (1/4“)	**037509** ●
Collet (8°)		9.53 (3/8“)	**037510** ●
Collet (8°)		12.7 (1/2“)	**037511** ●
Collet (8°)		15.88 (5/8“)	**037507** ●
Collet (8°)		19.05 (3/4“)	**037506** ●
Sickle spanner	45/50		**005491** ●
Collet chuck nut with ball bearing	M40x1.5		**005718** ●

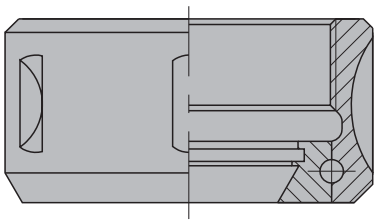
● available ex stock
□ available at short notice
Instruction manual visit www.leitz.org



Collet chuck HSK-F 50



Collet angle 2°52‘: DIN ISO 10897



Ball bearing collet nut

Collet chuck with hollow taper shank HSK-F 50

Application:
Precision tool chuck with collet for clamping shank tools with cylindrical shank and shank diameters up to d_{max} = 25.4 mm (1“).

Technical information:
Hollow taper shank as per DIN 69893. Exact concentric running through hardened, ground and double slotted collets. Easy handling as loosening the ball bearing collet nut automatically opens the collet. Suitable for right hand and left hand rotation because of ball bearing collet nut. Ball bearing collet nut for increased clamping forces and improved concentricity compared to monobloc design. Tool chuck and collet nut fine balanced. Suitable mounting device VN 799 0 see section Knives and Spare Parts.

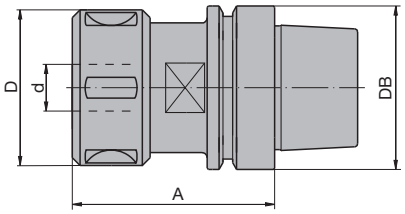
HSK-F 50, DIN 69893, diameter range up to 25.4 mm
PM 350 0 06

D mm	d mm	A mm	DB mm	Weight kg	ID
60	6 - 25.4	76	50	0.9	**037500** ●

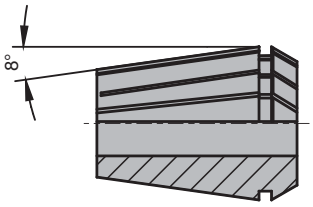
Sales unit consisting of clamping chuck with ball bearing collet nut, without collet or spanner.

Spare parts:

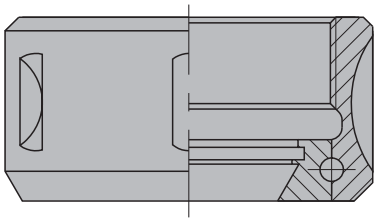
BEZ	ABM mm	for S mm	ID
Collet (2°52‘)		6	**037429** ●
Collet (2°52‘)		8	**037430** ●
Collet (2°52‘)		10	**037431** ●
Collet (2°52‘)		12	**037432** ●
Collet (2°52‘)		13	**037433** ●
Collet (2°52‘)		14	**037434** ●
Collet (2°52‘)		16	**037435** ●
Collet (2°52‘)		18	**037436** ●
Collet (2°52‘)		20	**037437** ●
Collet (2°52‘)		25	**037438** ●
Collet (2°52‘)		6.35 (1/4“)	**037495** ●
Collet (2°52‘)		9.53 (3/8“)	**037505** ●
Collet (2°52‘)		12.7 (1/2“)	**037496** ●
Collet (2°52‘)		15.88 (5/8“)	**037502** ●
Collet (2°52‘)		19.05 (3/4“)	**037497** ●
Collet (2°52‘)		25.4 (1“)	**037508** ●
Sickle spanner	58/62		**005458** ●
Collet chuck nut with ball bearing	M48x2		**005714** ●



Collet chuck HSK-E 63



Collet angle 8°: DIN ISO 15488



Ball bearing collet nut

Collet chuck with hollow taper shank HSK-E 63

Application:
Precision tool chuck with collet for clamping shank tools with cylindrical shank and shank diameters up to d_{max} = 30 mm.

Technical information:
Hollow taper shank as per DIN 69893. Exact concentric running through hardened, ground and double slotted collets. Vibration free cutting by short design. Easy handling as loosening the ball bearing collet nut automatically opens the collet. Suitable for right hand and left hand rotation because of ball bearing collet nut. Ball bearing collet nut for increased clamping forces and improved concentricity compared to monobloc design. Tool chuck and collet nut fine balanced. Suitable mounting device VN 799 0 see section Knives and Spare Parts.

HSK-E 63, DIN 69893, A = 76 mm, diameter range 6-30 mm, 8° taper angle of the collet
PM 350 0 15

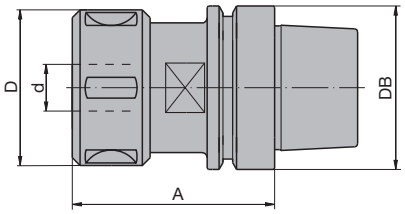
D mm	d mm	A mm	DB mm	Weight kg	ID
63	6 - 30	76	63	1.1	**679040** ●

Sales unit consisting of clamping chuck with ball bearing collet nut, without collet or spanner.

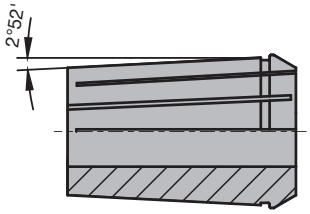
Spare parts:

BEZ	ABM mm	for S mm	ID
Collet (8°)		6	**037926** ●
Collet (8°)		8	**037927** ●
Collet (8°)		10	**037928** ●
Collet (8°)		12	**037929** ●
Collet (8°)		14	**037930** ●
Collet (8°)		16	**037931** ●
Collet (8°)		20	**037932** ●
Collet (8°)		25	**037933** ●
Collet (8°)		30	**679039** ●
Collet (8°)		6.35 (1/4“)	**037934** ●
Collet (8°)		9.53 (3/8“)	**037935** ●
Collet (8°)		12.7 (1/2“)	**037936** ●
Collet (8°)		15.88 (5/8“)	**037937** ●
Collet (8°)		19.05 (3/4“)	**037938** ●
Collet (8°)		25.4 (1“)	**037939** ●
Sickle spanner	58/62		**005458** ●
Collet chuck nut with ball bearing	M50x1.5		**006639** ●
Chip-Balluff	511 Bytes		**081309** ●
Chip-Balluf	2047 Bytes		**081330** □

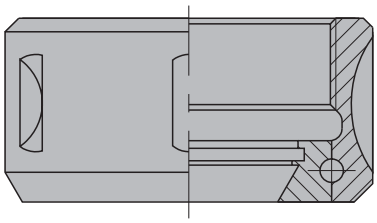
● available ex stock
□ available at short notice
Instruction manual visit www.leitz.org



Collet chuck HSK-E 63



Collet angle 2°52‘: DIN ISO 10897



Ball bearing collet nut

Collet chuck with hollow taper shank HSK-E 63

Application:
Precision tool chuck with collet for clamping shank tools with cylindrical shank and shank diameters up to d_{max} = 25.4 mm (1“).

Technical information:
Hollow taper shank as per DIN 69893. Exact concentric running through hardened, ground and double slotted collets. Vibration free cutting by short design. Easy handling as loosening the ball bearing collet nut automatically opens the collet. Suitable for right hand and left hand rotation because of ball bearing collet nut. Ball bearing collet nut for increased clamping forces and improved concentricity compared to monobloc design. Tool chuck and collet nut fine balanced. Suitable mounting device VN 799 0 see section Knives and Spare Parts.

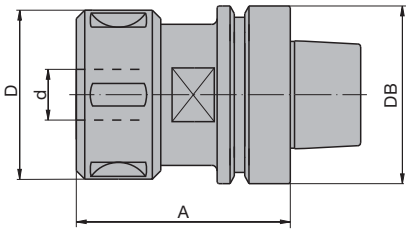
HSK-E 63, DIN 69893, A = 78 mm, diameter range 6-25.4 mm
PM 350 0 06

D	d	A	DB	Weight	ID
mm	mm	mm	mm	kg	
60	6 - 25.4	78	63	1.1	**037914** ●

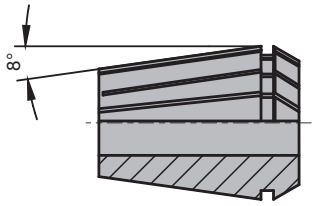
Sales unit consisting of clamping chuck with ball bearing collet nut, without collet or spanner.

Spare parts:

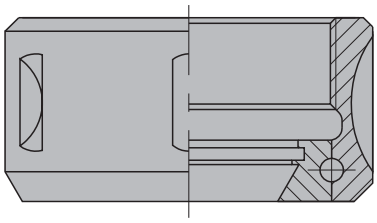
BEZ	ABM mm	for S mm	ID
Collet (2°52‘)		6	**037429** ●
Collet (2°52‘)		8	**037430** ●
Collet (2°52‘)		10	**037431** ●
Collet (2°52‘)		12	**037432** ●
Collet (2°52‘)		13	**037433** ●
Collet (2°52‘)		14	**037434** ●
Collet (2°52‘)		16	**037435** ●
Collet (2°52‘)		18	**037436** ●
Collet (2°52‘)		20	**037437** ●
Collet (2°52‘)		25	**037438** ●
Collet (2°52‘)		6.35 (1/4“)	**037495** ●
Collet (2°52‘)		9.53 (3/8“)	**037505** ●
Collet (2°52‘)		12.7 (1/2“)	**037496** ●
Collet (2°52‘)		15.88 (5/8“)	**037502** ●
Collet (2°52‘)		19.05 (3/4“)	**037497** ●
Collet (2°52‘)		25.4 (1“)	**037508** ●
Sickle spanner	58/62		**005458** ●
Collet chuck nut with ball bearing	M48x2		**005714** ●
Chip-Balluff	511 Bytes		**081309** ●
Chip-Balluf	2047 Bytes		**081330** □



Collet chuck HSK-F 63



Collet angle 8°: DIN ISO 15488



Ball bearing collet nut

Collet chuck with hollow taper shank HSK-F 63

Application:
Precision tool chuck with collet for clamping shank tools with cylindrical shank and shank diameters up to d_{max} = 30 mm (1“).

Technical information:
Hollow taper shank as per DIN 69893. Exact concentric running through hardened, ground and double slotted collets. Easy handling as loosening the ball bearing collet nut automatically opens the collet. Suitable for right hand and left hand rotation because of ball bearing collet nut. Ball bearing collet nut for increased clamping forces and improved concentricity compared to monobloc design. Tool chuck and collet nut fine balanced. Suitable mounting device VN 799 0 see section Knives and Spare Parts.

HSK-F 63, DIN 69893, A = 76 mm, diameter range 6-30 mm, short design, 8° taper angle of the collet
PM 350 0 15

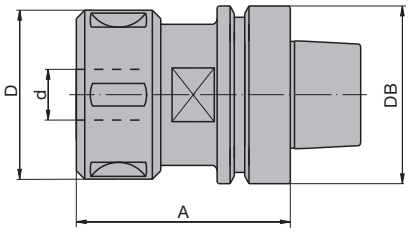
D mm	d mm	A mm	DB mm	Weight kg	ID
63	6 - 30	76	63	1	**037970** ●

Sales unit consisting of clamping chuck with ball bearing collet nut, without collet or spanner.

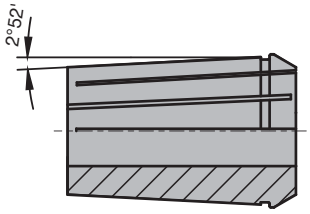
Spare parts:

BEZ	ABM mm	for S mm	ID
Collet (8°)		6	**037926** ●
Collet (8°)		8	**037927** ●
Collet (8°)		10	**037928** ●
Collet (8°)		12	**037929** ●
Collet (8°)		14	**037930** ●
Collet (8°)		16	**037931** ●
Collet (8°)		20	**037932** ●
Collet (8°)		25	**037933** ●
Collet (8°)		30	**679039** ●
Collet (8°)		6.35 (1/4“)	**037934** ●
Collet (8°)		9.53 (3/8“)	**037935** ●
Collet (8°)		12.7 (1/2“)	**037936** ●
Collet (8°)		15.88 (5/8“)	**037937** ●
Collet (8°)		19.05 (3/4“)	**037938** ●
Collet (8°)		25.4 (1“)	**037939** ●
Sickle spanner	58/62		**005458** ●
Collet chuck nut with ball bearing	M50x1.5		**006639** ●
Chip-Balluff	511 Bytes		**081309** ●
Chip-Balluf	2047 Bytes		**081330** □

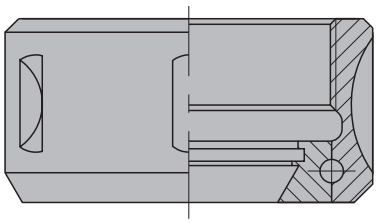
● available ex stock
□ available at short notice
Instruction manual visit www.leitz.org



Collet chuck HSK-F 63



Collet angle 2°52‘: DIN ISO 10897



Ball bearing collet nut

Collet chuck with hollow taper shank HSK-F 63

Application:
Precision tool chuck with collet for clamping shank tools with cylindrical shank and shank diameters up to d_{max} = 25.4 mm (1“).

Technical information:
Hollow taper shank as per DIN 69893. Exact concentric running through hardened, ground and double slotted collets. Easy handling as loosening the ball bearing collet nut automatically opens the collet. Suitable for right hand and left hand rotation because of ball bearing collet nut. Ball bearing collet nut for increased clamping forces and improved concentricity compared to monobloc design. Tool chuck and collet nut fine balanced. Suitable mounting device VN 799 0 see section Knives and Spare Parts.

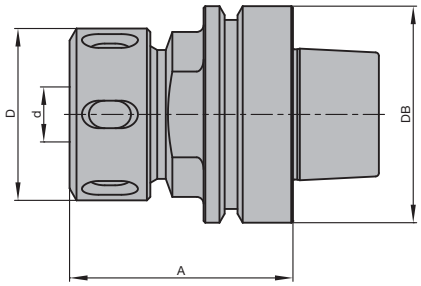
HSK-F 63, DIN 69893, A = 78 / 105 mm, diameter range 6-25.4 mm
PM 350 0 06

D mm	d mm	A mm	DB mm	Weight kg	ID
60	6 - 25.4	78	63	1.1	**037412** ●
60	6 - 25.4	105	63	1.5	**037924** ●

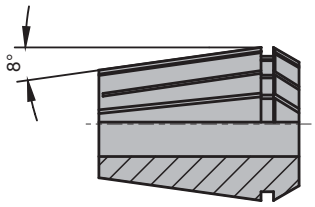
Sales unit consisting of clamping chuck with ball bearing collet nut, without collet or spanner.

Spare parts:

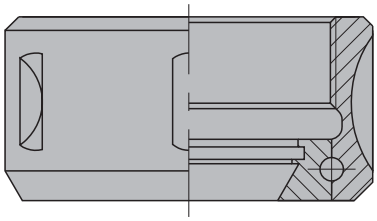
BEZ	ABM mm	for S mm	ID
Collet (2°52‘)		6	**037429** ●
Collet (2°52‘)		8	**037430** ●
Collet (2°52‘)		10	**037431** ●
Collet (2°52‘)		12	**037432** ●
Collet (2°52‘)		13	**037433** ●
Collet (2°52‘)		14	**037434** ●
Collet (2°52‘)		16	**037435** ●
Collet (2°52‘)		18	**037436** ●
Collet (2°52‘)		20	**037437** ●
Collet (2°52‘)		25	**037438** ●
Collet (2°52‘)		6.35 (1/4“)	**037495** ●
Collet (2°52‘)		9.53 (3/8“)	**037505** ●
Collet (2°52‘)		12.7 (1/2“)	**037496** ●
Collet (2°52‘)		15.88 (5/8“)	**037502** ●
Collet (2°52‘)		19.05 (3/4“)	**037497** ●
Collet (2°52‘)		25.4 (1“)	**037508** ●
Sickle spanner	58/62		**005458** ●
Collet chuck nut with ball bearing	M48x2		**005714** ●
Chip-Balluff	511 Bytes		**081309** ●
Chip-Balluf	2047 Bytes		**081330** □



Collet chuck HSK-F 63



Collet angle 8°: DIN ISO 15488



Ball bearing collet nut

Table for max. tool projection:

shank diameter d	max. projection
20	2,2 x d
12-16	3,0 x d
6-10	3,0 x d

Collet chuck with hollow taper shank HSK-F 63, HSC machining

Application:
Precision tool chuck with collet for clamping shank tools with cylindrical shank. For speeds up to n_{max} = 30000 min^{-1}.

Technical information:
Hollow taper shank as per DIN 69893. Exact concentric running through hardened, ground and double slotted collets. Vibration free cutting by short design. Easy handling as loosening the ball bearing collet nut automatically opens the collet. Suitable for right hand and left hand rotation because of ball bearing collet nut. Ball bearing collet nut for increased clamping forces and improved concentricity compared to monobloc design. Tool chuck and collet nut fine balanced. Suitable mounting device VN 799 0 see section Knives and Spare Parts.

HSK-F 63, DIN 69893, A = 65 mm diameter range up to 20 mm, n_{max} = 30000 min^{-1}
PM 350 0 15

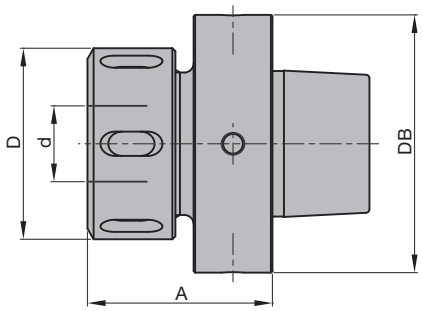
D mm	d mm	A mm	DB mm	Weight kg	ID
50	6 - 20	65	63	0.85	**679041** ●

Sales unit consisting of clamping chuck with ball bearing collet nut, without collet or spanner.

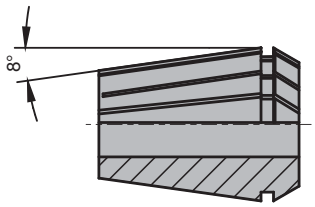
Spare parts:

BEZ	ABM mm	for S mm	ID
Collet (8°)		6	**037439** ●
Collet (8°)		8	**037440** ●
Collet (8°)		10	**037441** ●
Collet (8°)		12	**037442** ●
Collet (8°)		13	**037443** ●
Collet (8°)		14	**037444** ●
Collet (8°)		16	**037445** ●
Collet (8°)		18	**037446** ●
Collet (8°)		20	**037447** ●
Collet (8°)		6.35 (1/4“)	**037509** ●
Collet (8°)		9.53 (3/8“)	**037510** ●
Collet (8°)		12.7 (1/2“)	**037511** ●
Collet (8°)		15.88 (5/8“)	**037507** ●
Collet (8°)		19.05 (3/4“)	**037506** ●
Sickle spanner	45/50		**005491** ●
Collet chuck nut with ball bearing	M40x1.5		**005718** ●
Chip-Balluff	511 Bytes		**081309** ●
Chip-Balluf	2047 Bytes		**081330** □

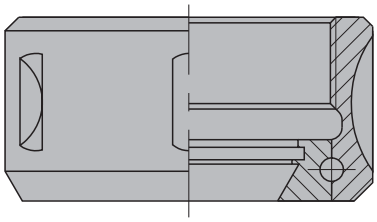
● available ex stock
□ available at short notice
Instruction manual visit www.leitz.org



Collet chuck HSK 85 WS



Collet angle 8°: DIN ISO 15488



Ball bearing collet nut

Collet chuck with hollow taper shank HSK 85 WS

Application:
Precision tool chuck with collet for clamping shank tools with cylindrical shank and shank diameters up to d_{max} = 30 mm (1“).

Technical information:
Exact concentric running through hardened, ground and double slotted collets. Easy handling by automatic collet opening when loosening the collet nut. Suitable for right hand and left hand rotation because of ball bearing collet nut. Ball bearing collet nut for increased clamping forces and improved concentricity compared to monobloc design. Tool chuck and collet nut fine balanced. Suitable mounting device ID **079010**.

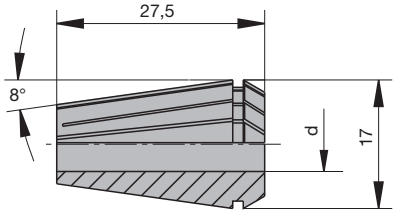
HSK 85 WS, A = 61 mm, diameter range 6-30 mm, 8° taper angle of the collet
PM 350 0 15

Machine	D mm	d mm	A mm	DB mm	Weight kg	ID
Weinig	63	6 - 30	61	85	1.2	**679038**

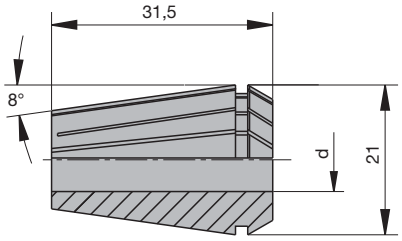
Sales unit consisting of clamping chuck with ball bearing collet nut, without collet or spanner.

Spare parts:

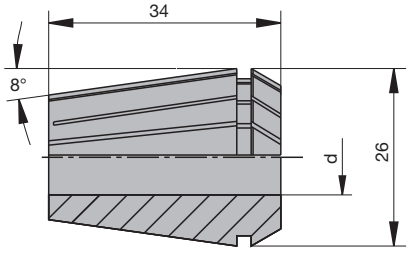
BEZ	ABM mm	for S mm	ID
Collet (8°)		6	**037926** ●
Collet (8°)		8	**037927** ●
Collet (8°)		10	**037928** ●
Collet (8°)		12	**037929** ●
Collet (8°)		14	**037930** ●
Collet (8°)		16	**037931** ●
Collet (8°)		20	**037932** ●
Collet (8°)		25	**037933** ●
Collet (8°)		30	**679039** ●
Collet (8°)		6.35 (1/4“)	**037934** ●
Collet (8°)		9.53 (3/8“)	**037935** ●
Collet (8°)		12.7 (1/2“)	**037936** ●
Collet (8°)		15.88 (5/8“)	**037937** ●
Collet (8°)		19.05 (3/4“)	**037938** ●
Collet (8°)		25.4 (1“)	**037939** ●
Sickle spanner	58/62		**005458** ●
Collet chuck nut with ball bearing	M50x1.5		**006639** ●



ER 16 collet diameter range
6-10 mm



ER 20 collet diameter range
6-13 mm



ER 25 collet diameter range
6-16 mm

Collets, type ER, DIN ISO 15488

Application:
For collet chucks and multi spindle units and trimming units with 8° taper angle (type ER, DIN ISO 15488).

Technical information:
Double slotted design for maximum clamping forces and concentricity.

Diamater range 6-10 mm, ER 16, Type 426E, DIN ISO 15488
PM 150 0

BEZ	for S mm	ID
Collet (8°)	6	**037972** ●
Collet (8°)	8	**037973** ●
Collet (8°)	10	**037974** ●
Collet (8°)	6.35 (1/4“)	**679022** ●
Collet (8°)	9.53 (3/8“)	**679023** ●

Spare parts:

BEZ	ABM mm	D mm	Diameter range mm	DRI	ID
Sickle spanner	30/32		6 - 10		**005516** ●
Collet chuck nut with ball bearing	M22x1.5	32	6 - 10	RH	**006645** ●
Collet chuck nut with ball bearing	M22x1.5	32	6 - 10	LH	**006646** ●

Diameter range 6-13 mm, ER 20, Type 428E, DIN ISO 15488
PM 150 0

BEZ	for S mm	ID
Collet (8°)	6	**037975** ●
Collet (8°)	8	**037976** ●
Collet (8°)	10	**037977** ●
Collet (8°)	12	**037978** ●
Collet (8°)	6.35 (1/4“)	**679024** ●
Collet (8°)	9.53 (3/8“)	**679025** ●
Collet (8°)	12.7 (1/2“)	**679026** ●

Spare parts:

BEZ	ABM mm	D mm	Diameter range mm	DRI	ID
Sickle spanner	34/36		6 - 12.7		**005498** ●
Collet chuck nut with ball bearing	M25x1.5	35	6 - 13	RH	**006647** ●
Collet chuck nut with ball bearing	M25x1.5	35	6 - 13	LH	**006648** ●

Diameter range 6-16 mm, ER 25, Type 430E, DIN ISO 15488
PM 150 0

BEZ	for S mm	ID
Collet (8°)	6	**037979** ●
Collet (8°)	8	**037980** ●
Collet (8°)	10	**037981** ●
Collet (8°)	12	**037982** ●
Collet (8°)	14	**037983** ●
Collet (8°)	16	**037984** ●
Collet (8°)	6.35 (1/4“)	**679027** ●
Collet (8°)	9.53 (3/8“)	**679028** ●
Collet (8°)	12.7 (1/2“)	**679029** ●
Collet (8°)	15.88 (5/8“)	**679030** ●

Spare parts:

BEZ	ABM mm	D mm	Diameter range mm	DRI	ID
Sickle spanner	40/42		6 - 16		**005518** ●
Collet chuck nut with ball bearing	M32x1.5	42	6 - 16	RH	**006649** ●
Collet chuck nut with ball bearing	M32x1.5	42	6 - 16	LH	**006650** ●

● available ex stock
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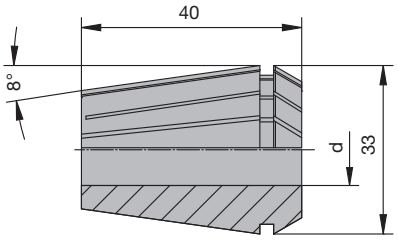


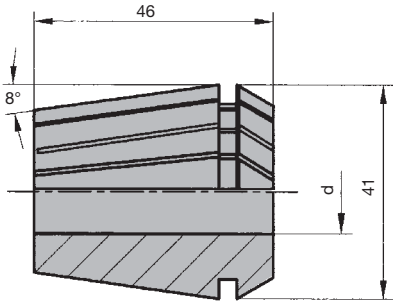
ER 32 collet diameter range
6-20 mm

Diameter range 6-20 mm, ER 32, Type 470E, DIN ISO 15488
PM 150 0

BEZ	for S mm	ID
Collet (8°)	6	**037439** ●
Collet (8°)	8	**037440** ●
Collet (8°)	10	**037441** ●
Collet (8°)	12	**037442** ●
Collet (8°)	13	**037443** ●
Collet (8°)	14	**037444** ●
Collet (8°)	16	**037445** ●
Collet (8°)	18	**037446** ●
Collet (8°)	20	**037447** ●
Collet (8°)	6.35 (1/4“)	**037509** ●
Collet (8°)	9.53 (3/8“)	**037510** ●
Collet (8°)	12.7 (1/2“)	**037511** ●
Collet (8°)	15.88 (5/8“)	**037507** ●
Collet (8°)	19.05 (3/4“)	**037506** ●

Spare parts:

BEZ	ABM mm	D mm	Diameter range mm	DRI	ID
Sickle spanner	45/50				**005491** ●
Collet chuck nut with ball bearing	M40x1.5	50	6 - 20	RH	**005718** ●
Collet chuck nut with ball bearing	M40x1.5	50	6 - 20	LH	**006631** ●



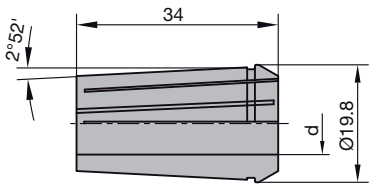
ER 40 collet diameter range
6-26 mm

Diameter range 6-26 mm, ER 40 Type 472E, DIN ISO 15488
PM 150 0

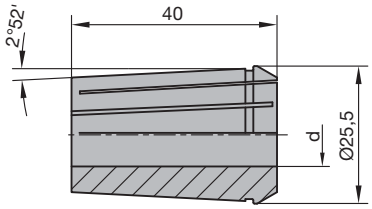
BEZ	for S mm	ID
Collet (8°)	6	**037926** ●
Collet (8°)	8	**037927** ●
Collet (8°)	10	**037928** ●
Collet (8°)	12	**037929** ●
Collet (8°)	14	**037930** ●
Collet (8°)	16	**037931** ●
Collet (8°)	20	**037932** ●
Collet (8°)	25	**037933** ●
Collet (8°)	30	**679039** ●
Collet (8°)	6.35 (1/4“)	**037934** ●
Collet (8°)	9.53 (3/8“)	**037935** ●
Collet (8°)	12.7 (1/2“)	**037936** ●
Collet (8°)	15.88 (5/8“)	**037937** ●
Collet (8°)	19.05 (3/4“)	**037938** ●
Collet (8°)	25.4 (1“)	**037939** ●

Spare parts:

BEZ	ABM mm	D mm	Diameter range mm	DRI	ID
Sickle spanner	58/62		6 - 25.4		**005458** ●
Collet chuck nut with ball bearing	M50x1.5	63	6 - 25.4	RH	**006639** ●
Collet chuck nut with ball bearing	M50x1.5	63	6 - 25.4	LH	**006640** ●



Collet type 407E diameter range 6-12.7 mm



Collet type 415E diameter range 6-16 mm

Collets, DIN ISO 10897, taper ratio 1:10

Application:
For collet chucks as well as for multi spindle units and trimming units with 2°52‘ taper angle (taper ratio 1:10).

Technical information:
Double slotted design for maximum clamping forces and concentricity.

Diameter range 6-12.7 mm, Type 407E, DIN ISO 10897
PM 150 0

BEZ	for S mm	ID
Collet (2°52‘)	6	**679013** ●
Collet (2°52‘)	7	**679015** ●
Collet (2°52‘)	8	**679016** ●
Collet (2°52‘)	9	**679017** ●
Collet (2°52‘)	10	**679019** ●
Collet (2°52‘)	12	**679020** ●
Collet (2°52‘)	6.35 (1/4“)	**679014** ●
Collet (2°52‘)	9.53 (3/8“)	**679018** ●
Collet (2°52‘)	12.7 (1/2“)	**679021** ●

Spare parts:

BEZ	ABM mm	D mm	Diameter range mm	DRI	ID
Sickle spanner	34/36		6 - 12.7		**005498** ●
Collet chuck nut	M27x1.5	35		RH	**006653** ●

Diameter range 6-16 mm, Type 415E, DIN ISO 10897
PM 150 0

BEZ	for S mm	ID
Collet (2°52‘)	6	**679005** ●
Collet (2°52‘)	8	**679032** ●
Collet (2°52‘)	9	**679033** ●
Collet (2°52‘)	9.5	**679034** ●
Collet (2°52‘)	10	**679006** ●
Collet (2°52‘)	11	**679035** ●
Collet (2°52‘)	12	**679036** ●
Collet (2°52‘)	13	**679007** ●
Collet (2°52‘)	14	**679037** ●
Collet (2°52‘)	16	**679008** ●
Collet (2°52‘)	6.35 (1/4“)	**679009** ●
Collet (2°52‘)	9.53 (3/8“)	**679010** ●
Collet (2°52‘)	12.7 (1/2“)	**679011** ●
Collet (2°52‘)	15.88 (5/8“)	**679012** ●

Spare parts:

BEZ	ABM mm	D mm	Diameter range mm	DRI	ID
Sickle spanner	40/42		6 - 16		**005469** ●
Collet chuck nut with ball bearing	M33x1.5	43		RH	**005685** ●

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□ available at short notice
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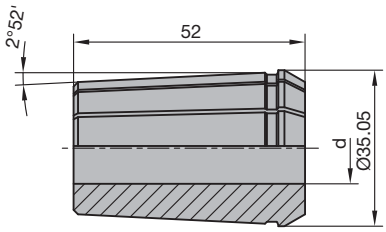


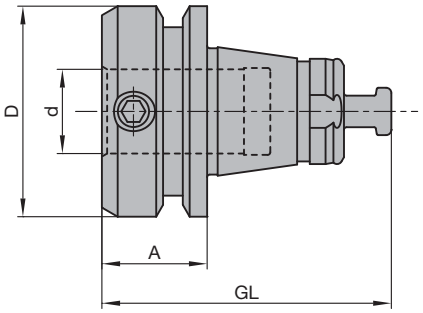
Collet type 462E diameter range 6-25.4 mm

Diameter range 6-25.4 mm, Type 462E, DIN ISO 10897
PM 150 0

BEZ	for S mm	ID
Collet (2°52')	6	**037429** ●
Collet (2°52')	8	**037430** ●
Collet (2°52')	10	**037431** ●
Collet (2°52')	12	**037432** ●
Collet (2°52')	13	**037433** ●
Collet (2°52')	14	**037434** ●
Collet (2°52')	16	**037435** ●
Collet (2°52')	18	**037436** ●
Collet (2°52')	20	**037437** ●
Collet (2°52')	25	**037438** ●
Collet (2°52')	6.35 (1/4“)	**037495** ●
Collet (2°52')	9.53 (3/8“)	**037505** ●
Collet (2°52')	12.7 (1/2“)	**037496** ●
Collet (2°52')	15.88 (5/8“)	**037502** ●
Collet (2°52')	19.05 (3/4“)	**037497** ●
Collet (2°52')	25.4 (1“)	**037508** ●

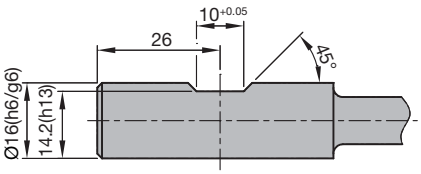
Spare parts:

BEZ	ABM mm	D mm	Diameter range mm	DRI	ID
Sickle spanner	58/62		6 - 25.4		**005458** ●
Collet chuck nut with ball bearing	M48x2	60		RH	**005714** ●
Collet chuck nut with ball bearing	M48x2	60		LH	**006632** ●



Weldon clamping chuck

Required shank design:



Clamping chuck with steep taper for CNC aggregates

Application:
Precision tool chuck for clamping shank tools with cylindrical shank and shank diameters up to d_{max} = 16 mm.

Technical information:
Steep taper design for Flex 5+ aggregates (Homag Group) and 5-motion-Plus aggregate (Felder Format-4). High stability for medium difficult cutting operations. Easy tool change through opening of the radial clamping screw. Tool adaptor fine balanced. Maximum tool protrusion (length projecting of the chuck) 60 mm.

A = 20 mm, clamping diameter 16 mm
PM 320 0 53

Machine	D mm	d mm	A mm	GL mm	Weight kg	ID
Felder Format-4, Homag Group	40	16	20	55	0.3	**037722** □

Spare parts:

BEZ	ABM mm	ID
Clamping screw	M8x10	**007800** □
Allen key	SW 4	**005434** ●

Drill adaptor, conventional clamping

Application:
Clamping chuck for drill bits with 10 mm shank diameter and driving flat for drilling spindles with threaded adaptor.

Technical information:
Stable and secure clamping of drills by 2 clamping screws. Smallest spindle pitch in the drilling unit: 21 mm. For narrower pitches, 8 mm shank chucks and drills must be used.

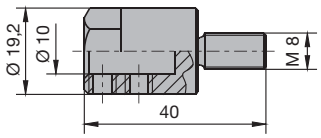
Clamping chuck for drills with 10 mm shank and driving flat
PM 320 0 28, PM 320 0 29, PM 320 0 30, PM 320 0 32, PM 320 0 34, PM 320 0 40, PM 320 0 42, PM 320 0 46, PM 320 0 50

Machine	GL mm	Pic.	ID LH	ID RH
Nottmeyer (old machine type)	40	A	**033088** ●	**033089** ●
Ayen, Brandt, Holzma, Knoevenagel, Mayer, Reichenbacher, Torwegge, Zubiola	40	B	**033092** ●	**033093** ●
Lehbrink, Nottmeyer (new machine type)	40	C	**033080** ●	**033081** ●
Lehbrink, Nottmeyer (new machine type)	52	C	**033082** ●	**033083** ●
Alberti, Balestrini, Biesse, Böttcher & Gessner, Busellato, Goma, Grotefeld, Holz-Her, Hüllhorst, Koch, Morbidelli, Reimall, Torwegge, Vitap (from YOM 4/91 on), Weeke	43	D	**033086** ●	**033087** ●
Bilek, Knoevenagel	55	E	**033084** ●	**033085** ●
Alberti, Balestrini, Bilek, Busellato, Dubus, Goma, Grotefeld, Ompec, Reimall, Schleicher, SCM, Tanzani, Viciani, Vitap (up to YOM 4/91), Weingärtner	45.5	F	**033090** ●	**033091** ●
Morbidelli	51	G	**033094** ●	**033095** ●
Scheer	45	H	**033096** ●	**033097** ●

Spare parts:

BEZ	ABM mm	ID
Allen key	SW 3	**005433** ●
Allen screw	M6x5	**005836** ●

A



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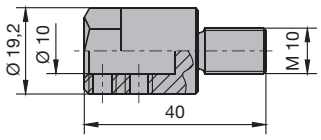

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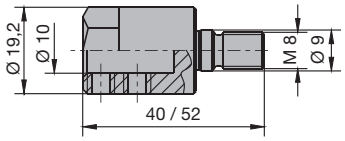

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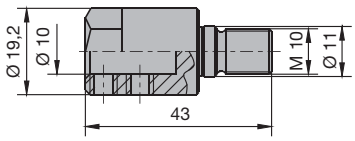

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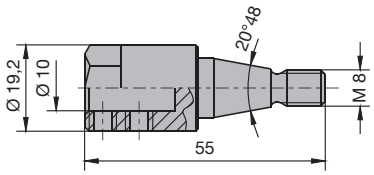

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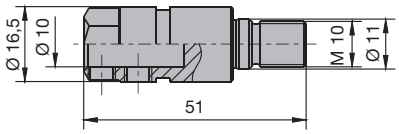

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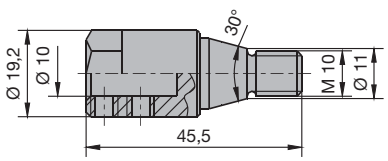

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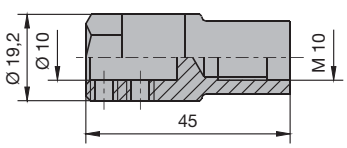
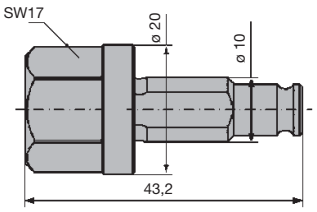


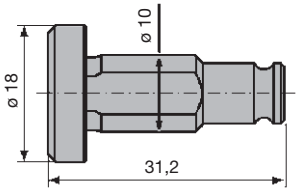
Drill adaptor, quick clamping design

Application:
Quick clamping chuck for drills with 10 mm shank and driving flat for drilling spindles with threaded adaptor.

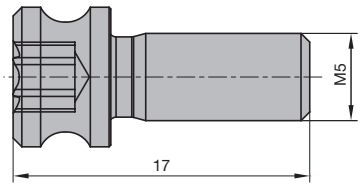
Technical information:
The drill is held in the chuck by the length adjusting screw (ID **009157**). Ideal if the hole diameter must be changed quickly. Quick clamping chucks not in use should be covered using the optional dust cover.
Note: The drill shanks require an appropriate shank and driving flat dimensional tolerance to ensure trouble free operation. Drills from the Leitz range guarantees functional reliability. Speed up to 12000 min^{-1} (quick change drill adaptor without drill must be covered with the dust cover ID **115521** for speeds exceeding 9000 min^{-1} to prevent unbalance).



Mounting device ID **115522**



Dust cover ID **115521**



Length adjustment screw ID 009157

Clamping chuck for drills with 10 mm shank and driving flat
PM 320 0, PM 320 0 55, PM 320 0 56, PM 320 0 57, PM 320 0 58, PM 320 0 59

Machine	BEM	GL mm	Pic.	ID LH	ID RH
Lehbrink, Nottmeyer (new machine type)		45	A	**033102** ●	**033103** ●
Ayen, Brandt, Holzma, Knoevenagel, Mayer, Reichenbacher, Torwegge, Zubiola		45	B	**033104** ●	**033105** ●
Nottmeyer (old machine type)		45	C	**033098** ●	**033099** ●
Alberti, Biesse, Böttcher & Gessner, Busellato, Goma, Grotefeld, Holz-Her, Hüllhorst, Koch, Morbidelli, Reimall, Torwegge, Vitap (from YOM 4/91 on), Weeke		46	D	**033100** ●	**033101** ●
Weeke	from YOM 2/04 on	40.25	E	**033109** ●	**033110** ●
Universal	Shank D-10 mm	50	F	**033106** ●	**033106** ●

Spare parts:

BEZ	ABM mm	ID
Dust cover	d8/10/D18/L31.2	**115521** ●
Mounting device	d8/10/D20/L43.2/SW17	**115522** ●
Length adjustment screw Torx® 20	M5x17	**009157** ●

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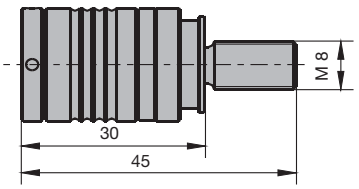

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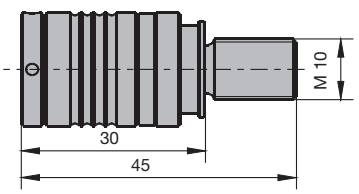

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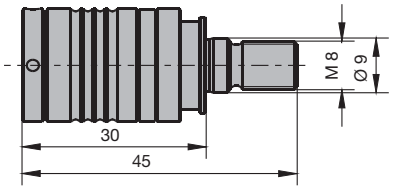

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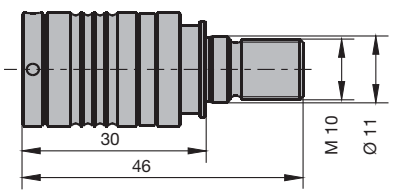

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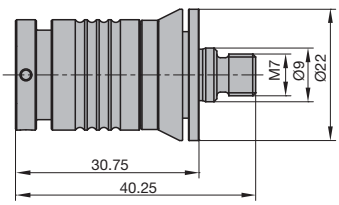

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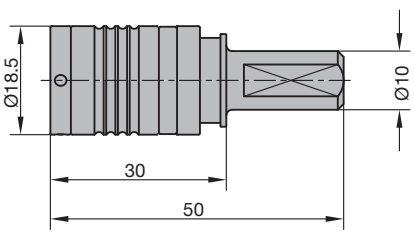

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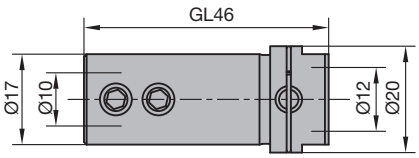


Drill adaptor for Weeke

Drill adaptor

Application:
For mounting dowel drills, through hole drills and hinge boring bits on point-to-point drilling machines, through feed drilling machines and stationary drilling machines.

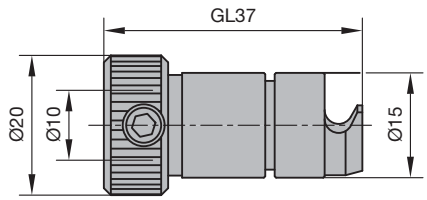
Technical information:
Wear resistant material, ground surface. High concentricity for clean holes and long drill life time.

For Weeke through-feed machines
PM 320 0

Machine	D mm	d mm	GL mm	ID
Weeke	20	10	46	**033107** ●

Spare parts:

BEZ	ABM mm	ID
Allen key	SW 3	**005433** ●
Allen screw	M6x4	**005837** ●



Drill adaptor for Biesse

Drill adaptor

Application:
For mounting dowel drills, through hole drills and hinge boring bits on point-to-point drilling machines, through feed drilling machines and stationary drilling machines.

Technical information:
Wear resistant material, ground surface. High concentricity for clean holes and long drill life time.

For Biesse boring units
PM 320 0

Machine	D mm	d mm	GL mm	ID
Biesse	20	10	37	**033108** ●

Spare parts:

BEZ	ABM mm	ID
Allen key	SW 3	**005433** ●
Allen screw	M6x5	**005836** ●

Quick change drill adaptor, spare parts for previous system

Tool adaptor for drills with 10 mm shanks
PM 320 0 02

D mm	d mm	ID LH	ID RH
20	10	**033270** ●	**033271** ●

Spare parts:

BEZ	ABM mm	ID
Allen key	SW 3	**005433** ●
Allen screw	M6x5	**005836** ●

Tool adaptor for drills with 8 mm shanks
PM 320 0 01

D mm	d mm	ID LH	ID RH
15.5	8	**033170** ●	**033171** ●

Spare parts:

BEZ	ABM mm	ID
Allen key	SW 3	**005433** ●
Allen screw	M6x5	**005836** ●

● available ex stock
□ available at short notice
Instruction manual visit www.leitz.org

Drill chuck for CNC spindle

Application:
Clamping chuck for drills for CNC routers and machining centres.

Technical information:
Precision design with high concentricity < 0.02 mm. Special clamping mechanism with improved holding forces to prevent the tool shank from slipping. Stepless adjustable clamping range: 0.5 - 13 mm (SK 30, ISO 30, SK 40), 3-16 mm (HSK-E/-F 63). Fine balanced design. Clamping wedges hardened for improved wear resistance. Suitable for right hand and left hand rotation. Only to be used for drills.

Stepless adjustable clamping range
PM 330 0

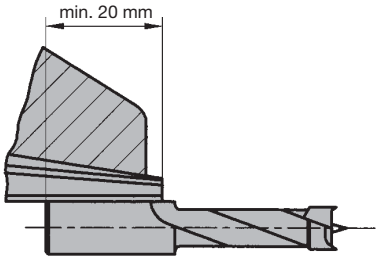
Type	D mm	d mm	S mm	A mm	Weight kg	ID
A	50	1 - 13	SK 30	103	1.30	**037758** □
B	50	1 - 13	SK 30	103	1.30	**037759** □
E	50	1 - 13	SK 40	87.5	1.50	**037761** ●
	50	1 - 16	HSK-E 63	98	1.80	**037763** ●
	50	1 - 16	HSK-F 63	98	1.70	**037762** ●

Spare parts:

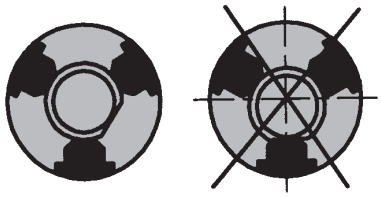
BEZ	BEM	ABM mm	L mm	ID
Allen key	for SK	SW 6	100	**005447** ●
Allen key	for HSK	SW 4	100	**005503** ●

Conditions to be observed during clamping:

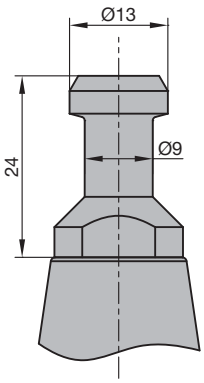
- Minimum clamping length l_{min} = 20 mm
- Maximum clamping length l_{max} = 29 mm



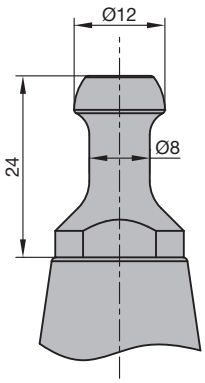
- Do not clamp tapered shanks
- If possible use cylindrical shanks
- without clamping flat, grooves or other recesses



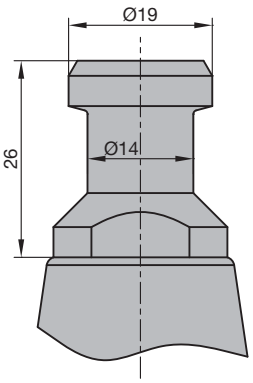
- If drills with driving flat are used, the clamping flat is not allowed to touch the clamping wedges. See illustration



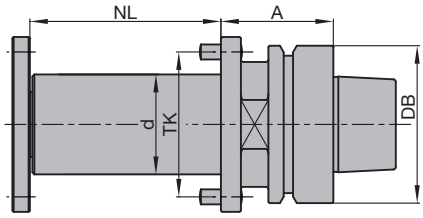
Type: A
SK 30 pull stud as per DIN ISO 7388



Type: B
SK 30/ISO 30 pull stud for HSD spindles from construction year 9/92 on



Type: E
SK 40 pull stud as per DIN ISO 7388



Hydro clamping arbor HSK-F 63

Hydro clamping arbor HSK-F 63 / HSK-E 63

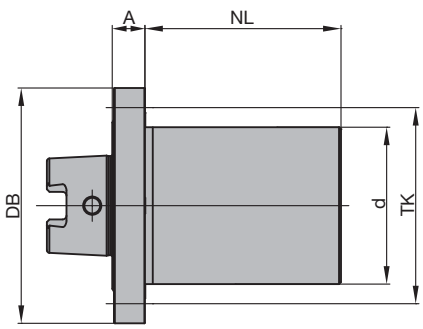
Application:
For precise and play free mounting of tools with bore, such as saw blades, tools, toolsets and cutterheads.

Machine:
Machines with HSK-F 63 or HSK-E 63 adaptor, e.g. moulders, window producing machines, CNC-machining centres etc.

Technical information:
Hollow taper shank design as per DIN 69863. Play free and precise adaption of bore tools through hydro clamping arbors. Axial clamping actuation of the closed hydro system. Safety against twisting of the tools through pins and screws.
Note: Please observe the admitted maximum weight and diameters as well as the maximum tool RPM of the machine producer!

HSK-F / E 63, A = 45 / 90 mm
PH 160 0 04, PH 160 0 05

Type	NL mm	d mm	A mm	DB mm	TK	ID
HSK-F 63	100	40	45	63	58	**663811**
HSK-F 63	140	40	45	63	58	**663812**
HSK-F 63	190	40	45	63	58	**663813** ●
HSK-F 63	190	40	90	63	58	**663814**
HSK-E 63	190	40	45	63	58	**663815**
HSK-E 63	190	40	90	63	58	**663816**



Hydro clamping arbor HSK-F 63 mod.
PH 160 0 02

Hydro clamping arbor HSK-F 63 mod.

Application:
Hydro clamping arbor for precise and play free mounting of tools with bore such as circular saw blades, tools, toolsets and cutterheads for high concentricity.

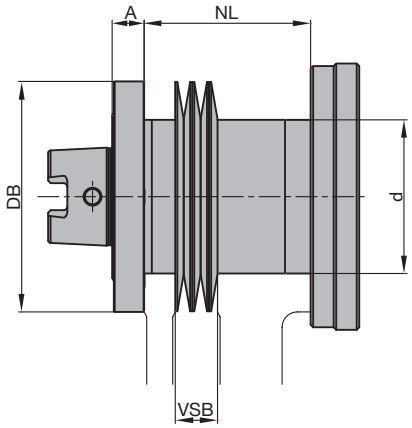
Machine:
Machines with HSK-F 63 interface, e.g. laminate and parquet flooring lines, edge-banding machines, double end tenoners, profile cutting machines, etc.

Technical information:
Closed hydro clamping system with maintenance free pressurising piston mechanism. User friendly axial positioned hydro clamping screw. Play free and precise mounting of tools with bores on hydro clamping arbors. Suitable for RH and LH. RPM $n_{max.}$ 12000^{-1}.
Note: Check the allowed maximum RPM of the tool mounted on the arbor!

HSK-F 63 mod. for tools with bore 60 mm, A = 12.5 mm
PH 160 0 02

Machine	NL mm	d mm	A mm	DB mm	TK	ID
Homag	75	60	12.5	90	75	**663804**

Suitable spacers, see section Knives and Spare Parts.



Hydro clamping arbor HSK-F 63 mod.
with stepless fine adjustment
PH 160 0 03

Hydro clamping arbor HSK-F 63 mod. with stepless fine adjustment

Application:
Hydro clamping arbor for precise and play free mounting of tools with bore such as circular saw blades, toolsets and sets of cutterheads for high concentricity. Fine thread design of the hydro clamping arbor allows stepless fine adjustment of multi part tooling sets.

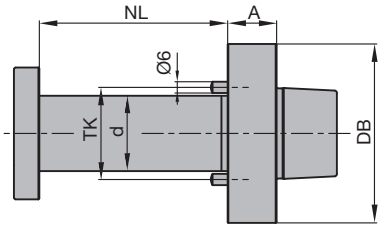
Machine:
Machines with HSK-F 63 adaptor, e.g. laminate and parquet flooring lines, edge-banding machines, double end tenoners, profile cutting machines, etc.

Technical information:
Closed hydro clamping system with maintenance free pressurising piston mechanism. User friendly axial positioned hydro clamping screw. Play free and precise mounting of tools with bores on hydro clamping arbors. Suitable for RH and LH.
RPM $n_{max.}$ 12000^{-1}.
Note: Check the allowed maximum RPM of the tool mounted on the arbor!

HSK-F 63 mod. for tools with bore 60 mm, A = 12.5 mm
PH 160 0 03

Machine	NL mm	d mm	VSB	A mm	DB mm	TK	ID
Homag	55 - 65	60	10	12.5	90	75	**663803** ●

● available ex stock
□ available at short notice
Instruction manual visit www.leitz.org



Hydro clamping arbor HSK 85 WS - PH 160 0 01

Hydro clamping arbor HSK 85 WS

Application:
For precise, play free mounting of tools with bore, such as saw blades, cutting tools, sets of cutting tools and cutterheads.

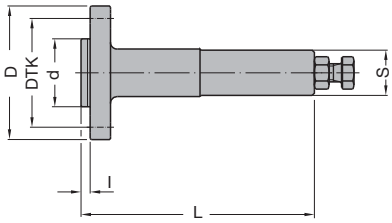
Machine:
Machines with HSK 85 WS adaptor e.g. moulders (Weinig Powermat), window production machines, etc.

Technical information:
Play free and precise mounting of tools with bore by hydro arbors. Radial clamping by closed hydro system. Easy and safe handling with optionally lifting rings.
Note: Observe the information of the machine producer for the permitted maximum weight and diameter as well as the maximum tool RPM!

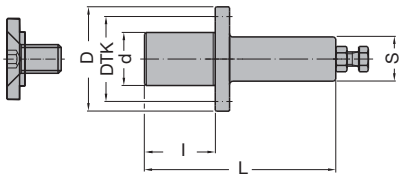
HSK 85 WS, A = 26 mm
PH 160 0 01

Machine	NL mm	d mm	A mm	DB mm	TK	ID
Weinig	100	40	26	95	58	**663800** ●
Weinig	170	40	26	95	58	**663802** ●

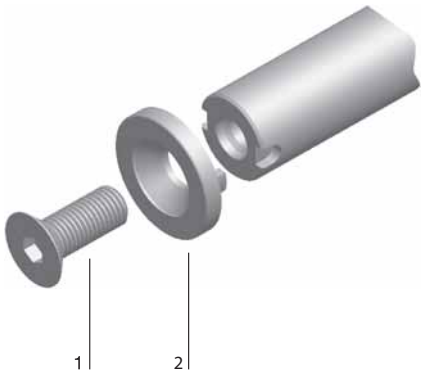
Suitable spacers, see section Knives and Spare Parts.



Arbor, short design



Arbor, long design



1 Clamping screw
2 Conical spring washer for safety against twisting

Cutter arbor with cylindrical shank

Application:
Arbor for single tools with bore or tool sets with bore.

Technical information:
Cylindrical shank design. Short design for grooving cutter and sawblades up to widths NB = 10 mm. Long design for one part or multi part tools/tool sets. Safety device against tool twisting by screw or pin. Cutter arbors are fine balanced. If conical spring washers with safety device against twisting are used, slots are required in the cutter arbor.
Note: Maximum admissible speed n_{max} depends on the mounted tools. Please comply with the specifications regarding the maximum admissible weight and diameters detailed by the machine manufacturer.

Short version
TI 501 0 04

D	d	L	l	S	TK	ID
mm	mm	mm	mm	mm		
60	30	85	4	16x50	48	**041429** ●
59	30	102	4	20x50	48	**041368** ●
59	30	102	4	25x60	48	**041367** ●
59	30	127	4	25x60	48	**042980** ●

With four countersunk screws M6X16. Maximum diameter for circular saw blades = 250 mm.

Long design
TI 501 0 03

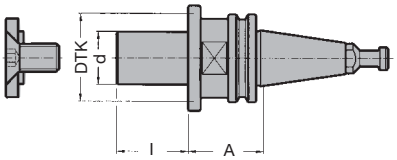
D	d	L	l	S	TK	ID
mm	mm	mm	mm	mm		
50	20	83	25	20x50	32	**042982** □
50	20	98	40	20x50	32	**042983** □
50	20	113	55	20x50	32	**042984** ●
50	20	107	40	25x60	32	**041124** ●
50	20	122	55	25x60	32	**041125** ●
50	20	137	70	25x60	32	**041126** ●
59	30	83	25	20x50	48	**042985** □
59	30	98	40	20x50	48	**042986** ●
59	30	93	25	25x60	48	**041127** □
59	30	108	40	25x60	48	**041128** ●

Sales unit consisting of arbor, clamping screw and conical spring washer (flat design), without spacers.

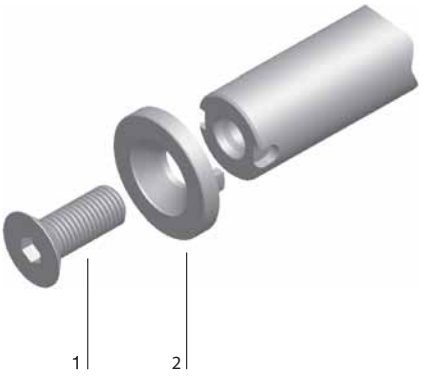
Spare parts:

BEZ	ABM mm	BEM	ID
Washer with safety device against twisting, M10	20/35x13x10.5	for d = 20	**006768** ●
Washer with safety device against twisting, M16	30/45x15x16.5	for d = 30	**006769** ●

Suitable spacers, see section Knives and Spare Parts.



Arbor SK 30/SK 40



1 Clamping screw
2 Conical spring washer for safety against twisting

Cutter arbor with steep taper SK 30 / SK 40

Application:
Arbor for single tools with bore or tool sets with bore.

Technical information:
Steep taper design as per DIN ISO 7388, without grooves and notches. Short design, suitable for low vibration cutting. Safety device against tool twisting by screw or pin. Arbors are fine balanced. If conical spring washers with safety device against twisting are used, slots are required in the arbor. For suitable mounting device VN 799 0, see section Knives and Spare Parts.
Note: Please comply with the specifications regarding the maximum admissible weight and diameters detailed by the machine manufacturer!

SK 30, A = 42 mm
TI 501 0 01

Type	l mm	d mm	TK	Weight kg	ID
A	70	20	32	1	**041137** □
A	80	30	48	1.3	**042814** □
B	70	20	32	1	**041370** □
B	80	30	48	1.3	**041373** □
C	70	20	32	1	**042832** □
C	80	30	48	1.3	**042836** □

SK 40, A = 42 mm
TI 501 0 01

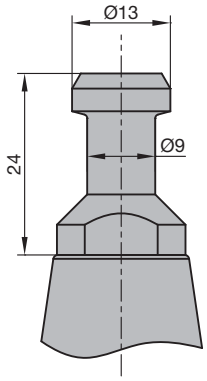
Type	l mm	d mm	TK	Weight kg	ID
E	80	30	48	1.8	**042815** □

Sales unit consists of arbor with pull stud, clamping screw and conical spring washer (flat design), without spacers.

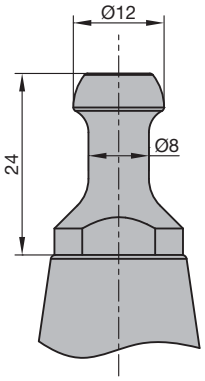
Spare parts:

BEZ	ABM mm	BEM	ID
Washer with safety device against twisting, M10	20/35x13x10.5	for d = 20	**006768** ●
Washer with safety device against twisting, M16	30/45x15x16.5	for d = 30	**006769** ●
Locking nut with Balluff chip	SK 40, 511 Bytes		**081601** ●

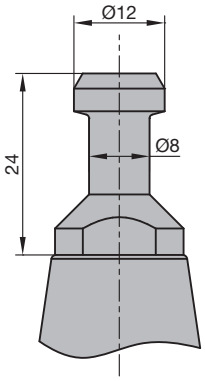
Suitable spacers, see section Knives and Spare Parts.



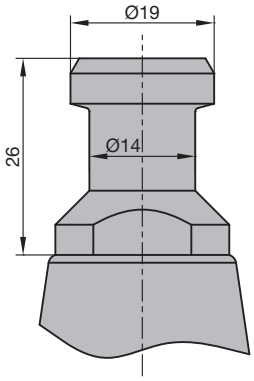
Type: A
SK 30 pull stud as per DIN ISO 7388



Type: B
SK 30/ISO 30 pull stud for HSD spindles from construction year 9/92 on

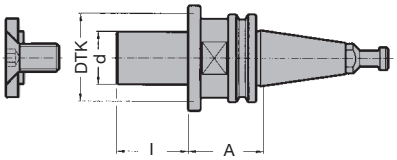


Type: C
SK 30/ISO 30 pull stud Biesse until construction year 9/92

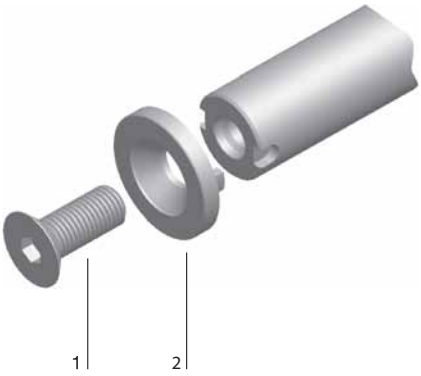


Type: E
SK 40 pull stud as per DIN ISO 7388

● available ex stock
□ available at short notice
Instruction manual visit www.leitz.org



Arbor SK 30/SK 40



1 Clamping screw
2 Conical spring washer for safety against twisting

Cutter arbor with steep taper SK 30 / SK 40

Application:
Arbor for single tools with bore or tool sets with bore.

Technical information:
Steep taper design as per DIN ISO 7388, without grooves and notches. Outside dimension A = 63 mm for longer tool length in the machine. Safety device against tool twisting by screw or pin. Arbors are fine balanced. If conical spring washers with safety device against twisting are used, slots are required in the arbor. For suitable mounting device VN 799 0, see section Knives and Spare Parts.
Note: Please comply with the specifications regarding the maximum admissible weight and diameters detailed by the machine manufacturer!

SK 30, A = 63 mm
TI 501 0 01

Type	l mm	d mm	TK	Weight kg	ID
A	70	20	32	1.3	**042818** □
A	80	30	48	1.6	**042822** □

SK 40, A = 63 mm
TI 501 0 01

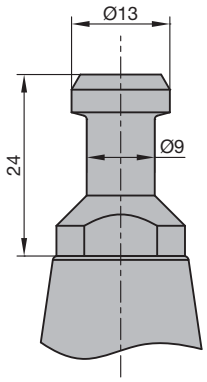
Type	l mm	d mm	TK	Weight kg	ID
E	80	30	48	2.2	**042829** □

Sales unit consists of arbor with pull stud, clamping screw and conical spring washer (flat design), without spacers.

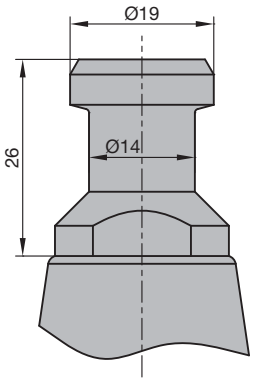
Spare parts:

BEZ	ABM mm	BEM	ID
Washer with safety device against twisting, M10	20/35x13x10.5	for d = 20	**006768** ●
Washer with safety device against twisting, M16	30/45x15x16.5	for d = 30	**006769** ●
Locking nut with Balluff chip	SK 40, 511 Bytes		**081601** ●

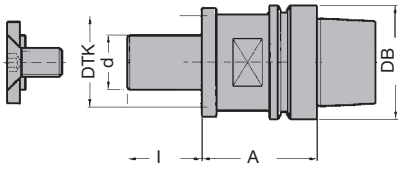
Suitable spacers, see section Knives and Spare Parts.



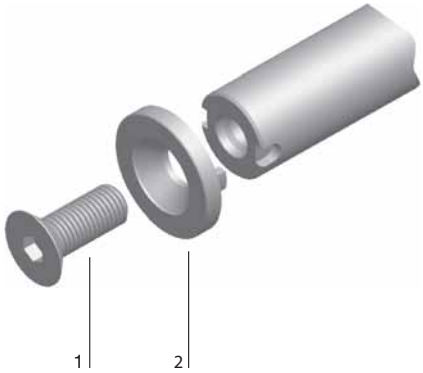
Type: A
SK 30 pull stud as per DIN ISO 7388



Type: E
SK 40 pull stud as per DIN ISO 7388



Arbor HSK-E 63



1 Clamping screw
2 Conical spring washer for safety against twisting

Cutting arbor with hollow taper shank HSK-E 63

Application:
Arbor for single tools with bore or tool sets with bore.

Technical information:
Hollow taper shank design as per DIN 69893. Safety device against tool twisting by screw or pin. Arbors are fine balanced. Spring washers with safety against twisting. For suitable mounting device VN 799 0, see section Knives and Spare Parts.
Note: Please comply with the specifications regarding the maximum admissible weight and diameters detailed by the machine manufacturer.

HSK-E 63, DIN 69893, A = 45 mm
TI 501 0 07

l mm	d mm	A mm	DB mm	TK	Weight kg	ID
70	20	45	63	32	1.2	**039801** ●
80	30	45	63	48	1.6	**039805** ●
140	30	45	63	48	1.9	**663071** ●
192	35	45	63	52	2.6	**039806** ●

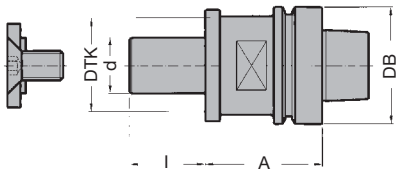
Sales unit consisting of arbor, clamping screw and conical spring washer (flat design) with safety device against twisting, without spacers.

Spare parts:

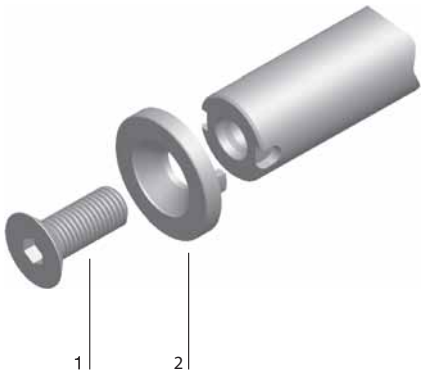
BEZ	ABM mm	BEM	ID
Washer with safety device against twisting, M10	20/35x13x10.5	for d = 20	**006768** ●
Washer with safety device against twisting, M16	30/45x15x16.5	for d = 30	**006769** ●
Washer with safety device against twisting, M16	35/50x15x16.5	for d = 35	**006770** ●
Chip-Balluff	511 Bytes		**081309** ●
Chip-Balluf	2047 Bytes		**081330** □

Suitable spacers, see section Knives and Spare Parts.

● available ex stock
□ available at short notice
Instruction manual visit www.leitz.org



Arbor HSK-F 63



1 Clamping screw
2 Conical spring washer for safety against twisting

Cutting arbor with hollow taper shank HSK-F 63

Application:
Arbor for single tools with bore or tool sets with bore.

Technical information:
Hollow taper shank design as per DIN 69893. Safety device against tool twisting by screw or pin. Arbors are fine balanced. Spring washers with safety against twisting. For suitable mounting device VN 799 0, see section Knives and Spare Parts.
Note: Preferably use the short model for low vibration cutting. Please comply with the specifications regarding the maximum admissible weight and diameters detailed by the machine manufacturer.

HSK-F 63, DIN 69893, A = 45 mm
TI 501 0 07

l mm	d mm	A mm	DB mm	TK	Weight kg	ID
70	20	45	63	32	1.2	**042987** ●
80	30	45	63	48	1.6	**042988** ●
140	30	45	63	48	1.9	**041426** ●
192	35	45	63	52	2.6	**041425** ●

HSK-F 63, DIN 69893, A = 80 mm
TI 501 0 07

l mm	d mm	A mm	DB mm	TK	Weight kg	ID
70	20	80	63	32	1.7	**042847** ●
80	30	80	63	48	2.1	**042951** ●
120	30	80	63	48	2.4	**041427** ●

HSK-F 63, DIN 69893, A = 90 mm
TI 501 0 07

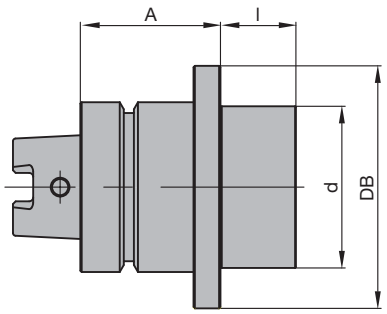
l mm	d mm	A mm	DB mm	TK	Weight kg	ID
170	35	90	63	52	3.2	**041428** ●

Sales unit consisting of arbor, clamping screw and conical spring washer (flat design) with safety device against twisting, without spacers.

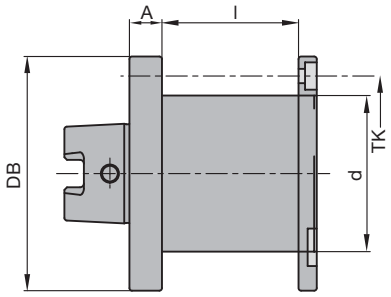
Spare parts:

BEZ	ABM mm	BEM	ID
Washer with safety device against twisting, M10	20/35x13x10.5	for d = 20	**006768** ●
Washer with safety device against twisting, M16	30/45x15x16.5	for d = 30	**006769** ●
Washer with safety device against twisting, M16	35/50x15x16.5	for d = 35	**006770** ●
Chip-Balluff	511 Bytes		**081309** ●
Chip-Balluf	2047 Bytes		**081330** □

Suitable spacers, see section Knives and Spare Parts.



Arbors HSK-F 63 mod. (ID **663052**) with flange



Arbor HSK-F 63 mod. (ID **663053**) with end ring and clamping screws

Cutting arbor with hollow taper shank HSK-F 63 mod.

Application:
Arbors for single tools with bore or tool sets with bore. For precise clamping in the machine spindle and quick tool change, mainly on Homag through feed machines with HSK-F 63 mod. motor spindle.

Machine:
Double-end tenoner, flooring machines, edgebanding machines etc.

Technical information:
Fine balanced arbors with hollow shank taper modified design as per DIN 69893 HSK-F 63. Precise tool clamping for high concentricity. Clamping screws and end ring are part of the arbor.

HSK-F 63 mod., A = 12.5 mm, 20 mm and 52 mm
TB 300 0

Machine	l mm	d mm	A mm	DB mm	TK	ID
Homag	28	60	52	90	75	**663052** ●
Homag	55	60	12.5	90	75	**663053** ●

Spare parts:

BEZ	ABM mm	ID
Cylindrical screw with ISK	M6x30	**005928** ●
Cylindrical screw with ISK	M6x65	**005935** ●
Allen key	SW 5	**005452** ●

● available ex stock
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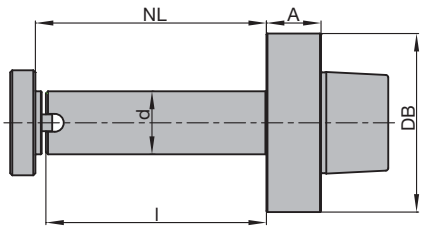


Cutting arbor HSK 85 WS with clamping spacer and safety device against twisting

Cutting arbor with hollow shank taper HSK 85 WS

Application:
For mounting saws, cutting tools, sets of cutting tools and cutterheads.

Machine:
Machines with HSK 85 WS adaptor e.g. moulders (Weinig Powermat), window production machines etc.

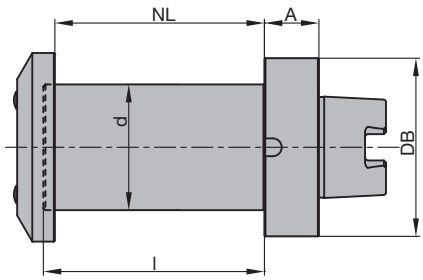
Technical information:
Easy and safe handling with optional lifting rings.

HSK 85 WS, A = 26 mm, for Weinig Powermat without safety device against twisting
TI 501 0 14

Machine	NL mm	l mm	d mm	A mm	DB mm	ID
Weinig	55	50	30	26	85	**663101** ●
Weinig	85	80	30	26	85	**663102** ●
Weinig	110	105	30	26	85	**663103** ●
Weinig	85	80	40	26	85	**663075** ●
Weinig	105	100	40	26	85	**663083** □
Weinig	135	130	40	26	85	**663077** ●
Weinig	150	145	40	26	85	**663084** □
Weinig	170	165	40	26	85	**663078** ●
Weinig	210	205	40	26	85	**663085** □
Weinig	240	235	40	26	85	**663079** ●
Weinig	85	80	50	26	85	**663076** ●
Weinig	105	100	50	26	85	**663086** □
Weinig	135	130	50	26	85	**663080** ●
Weinig	150	145	50	26	85	**663087** □
Weinig	170	165	50	26	85	**663081** ●
Weinig	210	205	50	26	85	**663088** □
Weinig	240	235	50	26	85	**663082** ●

Spare parts:

BEZ	ABM mm	BEM	ID
Washer with safety device against twisting	50/20	for d = 30	**008376** ●
Washer with safety device against twisting	60/20	for d = 40	**008368** ●
Washer with safety device against twisting	70/20	for d = 50	**008369** ●
Cylindrical screw with ISK	M8x20	for d = 40/50	**114048** ●



Cutting arbor HSK 85 WS with clamping spacer and safety device against twisting in HSK.

Cutting arbor with hollow shank taper HSK 85 WS

Application:
For mounting saws, cutting tools, sets of cutting tools and cutterheads.

Machine:
Machines with HSK 85 WS adaptor e.g. moulders (Weinig Powermat), window production machines etc.

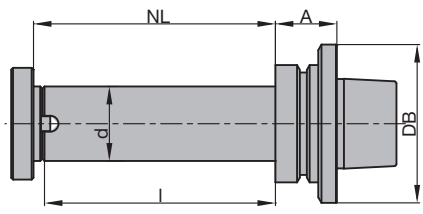
Technical information:
Easy and safe handling with optional lifting rings.

HSK 85 WS, A = 26 mm, for Weinig Powermat with two safety device grooves against twisting in the HSK
TI 501 0 16

Machine	NL mm	l mm	d mm	A mm	DB mm	ID
Weinig	170	165	40	26	85	**663104** □
Weinig	240	235	40	26	85	**663105** □
Weinig	100	105.5	60	26	85	**663106** ●

Spare parts:

BEZ	ABM mm	BEM	ID
Washer with safety device against twisting	60/20	for d = 40	**008368** ●
Washer with safety device against twisting	90/18	for d = 60	**008379** ●
Cylindrical screw with ISK	M8x20	for d = 40/60	**114048** ●



Cutting arbor HSK 85 - TI 501 0 14

Cutting arbor with hollow shank taper HSK 85

Application:
For mounting saws, cutting tools, sets of cutting tools and cutterheads.

Machine:
Machines with HSK 85 WS adaptor e.g. moulders, window production machines, etc.

Technical information:
Easy and safe handling with optional lifting rings.

HSK 85, A = 26 mm and A = 33 mm, for SCM
TI 501 0 14

Machine	NL mm	l mm	d mm	A mm	DB mm	ID
SCM	130	127	40	33	63	**663061** ●
SCM	319	325	50	26	85	**663055** ●

Spare parts:

BEZ	ABM mm	BEM	ID
Washer with safety device against twisting	60/20	for d = 40	**008370** ●
Washer with safety device against twisting	70/20	for d = 50	**008375** ●
Cylindrical screw with ISK	M8x20	for d = 40	**114048** ●
Cylindrical screw with ISK	M8x35	for d = 50	**006524** ●

● available ex stock
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Blanking arbor HSK 85 WS

Application:
Dust cover for spindles when not in use.

Machine:
Machines with HSK 85 WS adaptor e.g. moulders (Weinig Powermat), window production machines etc.

Blanking arbor for Weinig Powermat
TI 501 0 14

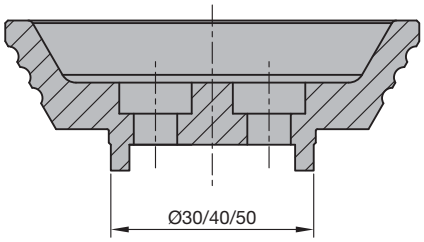
Machine	ID
Weinig	**663044** ●

Lifting ring, HSK 85 WS

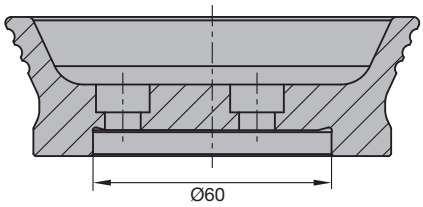
Application:
Lifting rings can be mounted on arbors for easy and safe tool handling.

Lifting ring for HSK 85 WS arbors
TK 540 0

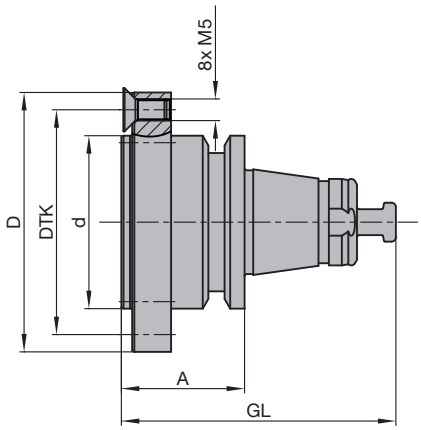
Machine	BEZ	ABM mm	TK	ID
Weinig	Spindle lifting rings	for d=30 with safety device against twisting	18	**008378** ●
Weinig	Spindle lifting rings	for d=40 with safety device against twisting	25	**008365** ●
Weinig	Spindle lifting rings	for d=50 with safety device against twisting	32	**008366** ●
Weinig	Spindle lifting rings	for d=60 with safety device against twisting	45	**008380** ●



ID **008378/ 008365 / 008366**



ID **008380**



Saw blade adaptor

Tool adaptor for circular sawblades for CNC aggregates

Application:
Tool adaptor with flange for the adaption of circular sawblades.

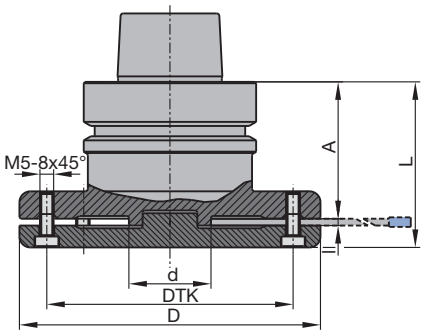
Technical information:
Steep taper design for Flex 5+ aggregate (Homag Group) and 5-motion-Plus aggregate (Felder Format-4). The circular sawblade is fixed through 8 countersink screws M5 on the flange. Maximum sawblade diameter 220 mm (limitation through the aggregate). The maximum cutting width of sawblade is limited to 6 mm. Tool adaptor is fine balanced.

Saw blade adaptor
TI 501 0

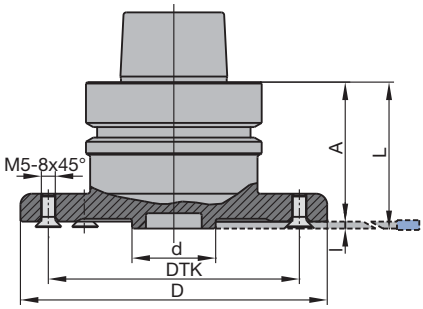
Machine	D mm	d mm	A mm	TK	l mm	Weight kg	ID
Felder Format-4, Homag Group	60	40	26	52	2.5	0.4	**663074** ●

Spare parts:

BEZ	ABM mm	ID
Countersink screw	M5x10	**005779** ●
Allen key	SW 3	**005433** ●



Clamping variant with counter flange



Clamping variant with concentrically mounted sawblade

Tool adaptor for circular sawblades

Application:
Tool adaptor with flange for the adaption of circular saw blades.

Technical information:
Optionally mounting the sawblade by means of counterscrews or with the enclosed counterflange. Mounting with counterflange is preferred for increased stability and concentricity in case of precision cuts. Application without counterflange is preferred for producing mitre and rafter cuts. Maximum diameter of sawblade 350 mm.

HSK-F 63, DIN 69893
TI 501 0 07

Machine	A mm	d mm	D mm	l_{max} mm	TK	L mm	Weight kg	ID
Homag	40	30	110	3.5	90	75.5	2.0	**663094** ●
	50	30	110	3.5	90	85.5	2.2	**663093** ●
SCM	60	30	110	3.5	90	95.5	2.5	**663109** ●

Sales unit consisting of HSK-flange with counterscrews as well as counterflange with cylindrical screws.

Spare parts:

BEZ	ABM mm	ID
Cylindrical screw with ISK	M5x12	**006414** ●
Countersink screw, Torx® 20	M5x8.5	**007808** ●
Allen key	SW 4, L 71	**005468** ●
Torx® key	Torx® 20	**117511** ●

● available ex stock
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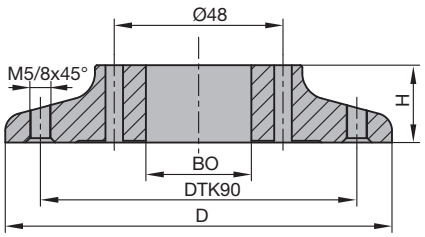
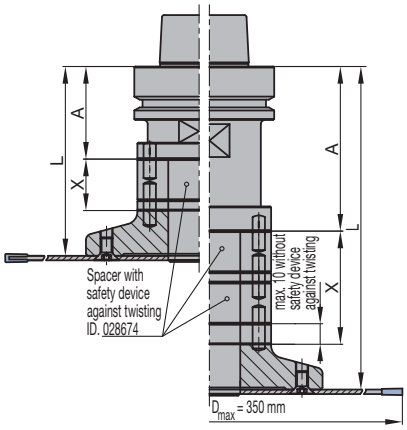


Flange TR 810 0



Note:
Variable clamping length through the combination of spacers without pins and spacers with pins for the safety device against twisting ID **028674**. Maximum thickness of the spacers without safety device against twisting = 10 mm.

Flange for circular sawblades

Application:
To mount circular sawblades on arbors.

Technical information:
Saw blade flange is mounted on arbor with diameter d = 30 mm by clamping screws and pins. The length and the dimension A are flexible and defined by spacers. Maximum sawblade diameter 350 mm.

Flange adaptor
TR 810 0

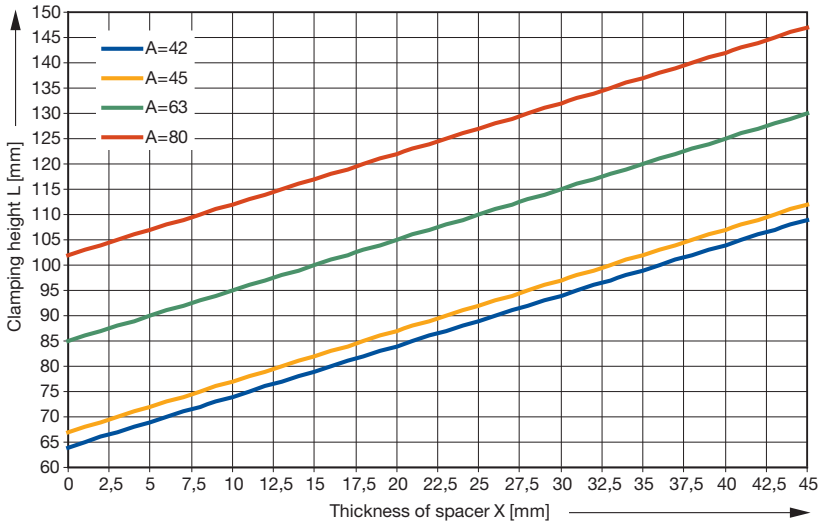
Machine	H mm	BO mm	D mm	l_{max} mm	TK	Weight kg	ID
Universal	22	30	110	3.5	90	0.9	**066752** ●

Spare parts:

BEZ	ABM mm	ID
Countersink screw, Torx® 20	M5x12	**006247** ●
Torx® key	Torx® 20	**117511** ●
Spacer with cylindrical pins	60x20x30	**028674** ●

Suitable spacers, see section Knives and Spare Parts.

Clamping length L depending on spacer thickness X and the dimension A of the arbor used:



Key to pictograms

Spindle without
twist protection

Spindle with
anti-twist keyway

Spindle with
anti-twist hexagon

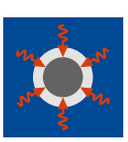
Hydro clamping
system - open

Hydro clamping
system - closed

Hydro-Duo
(bi-directio-nal) clamping

Hydro clamping arbors

Hydro clamping



Shrink-fit clamping

Quick clamping system

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