

# **Clamping Systems**

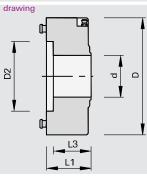


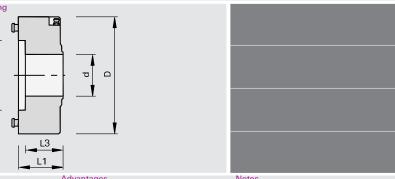
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# Clamping Systems Ø 110 mm

product





Machine / Application

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

# Design

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

Advantages

- I excellent balance quality I long tool life
- I consistent runout accuracy after each tool change
- I minimization of setup-times thanks to easy and quick tool change
- I maintenance-free and protected from dust
- I for clockwise and counterclockwise rotation I indicate machine type and shaft design when placing an
- I required tool adapters Class-No. 997370
- for changing the tools the pneumatic part Ident-No. 058250 is necessary
- I operational pressure 6 bar
- I included in delivery: clamping part incl. cap for attachment

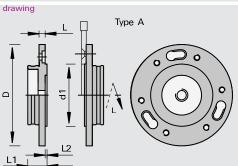
							on the machine sp	indle
Ø D	Ø D2	Ød	L1	L3	DKN			ldent-No.
110	50	30	63	47.5	8x3			172399
110	50	30	63	47.5	8x3	Homag, Lehbrink, Torweç meyer	gge, SPA, Wilms-	160836
110	50	35	63	47.5	10x4	Spanevello		162599
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]			
spare parts			Dimension			for Ident-No.	Class-No.	Ident-No.
Head Cap	Screws		M12x30 [	DIN EN IS	SO 4762	172399	995111	001917
Covers						172399	997370	172397
Covers						160836	997370	181802
Covers						162599	997370	162602
Spacers			55x23,5x	30		172399	955520	172398
pneumatio	hose						994200	058250
			[mm]					



# Mounting Flanges for Clamping System Ø 110 mm

# product





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

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

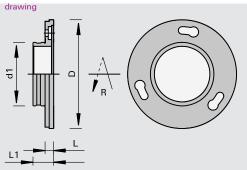
Ø D	Ø d1min	L2	L	L1		Ident-No. [L]	Ident-No. [R]
110	65	2,5	10	27		164770	164758
[mm]	[mm]	[mm]	[mm]	[mm]			
spare parts			Dimension			Class-No.	ldent-No.
Countersu	ınk Flat Hea	ded Screws	M5x12		for mounting of saw blade	995122	180007
Head Cap	Screws		M5x12 DIN 912	2	for mounting of DP saw blades	995111	001869
			[mm]				



# 997370

# Mounting Flanges for Clamping System Ø 110 mm

product



Machine / Application

Design

Advantages

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

	111111,	110 00 111111		
Ø	D	Ø d1min	L	

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

lden	L1	L	Ø d1min	ØD
1608	26.5	10	50	107
	[mm]	[mm]	[mm]	[mm]



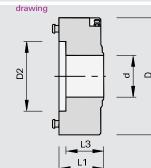
# Mounting Flanges for Clamping System Ø 110 mm

product drawing Machine / Application Advantages I for mounting of light tools with I for clockwise and counterbore Ø 30 mm, 6 countersunk clockwise rotation holes for M 5, TK Ø 90 mm I at least two separate tool/ flange assemblies should be used per clamping element (reduced downtimes) Ø D Ø d1min L2 L1 Ident-No. [L] Ident-No. [R] 40 110 30 15,5 10 163705 163226 [mm] [mm] [mm] [mm] [mm] Class-No. spare parts Dimension Ident-No. Countersunk Flat Headed Screws M5x12 180007 995122 001869 Head Cap Screws M5x12 DIN 912 995111 [mm]



# Clamping Systems Ø 140 mm





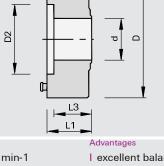
## Machine / Application

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

I n max = 9,000 min-1

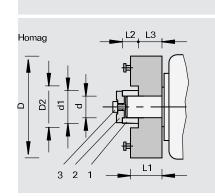
- I excellent balance quality
- I long tool life thanks to hardened tool mounting area
- I consistent runout accuracy after each tool change
- I minimization of setup-times thanks to easy and quick tool change
- I maintenance-free and protected from dust

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

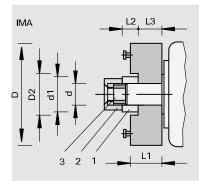


ØD	Ø D2	Ød	L1	L3	DKN			ldent-No.
140	80	30	57	41.5	8x3	Homag		167453
140	80	35	57	41.5	10x4	Homag, IMA		167451
140	80	40	57	41.5	12x5			167452
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]			
spare parts		ØD	Ø D1		Ø d	for Ident-No.	Class-No.	Ident-No.
Covers		40	30		17	167453	997370	181802
Covers		45	35		22	167451	997370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





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

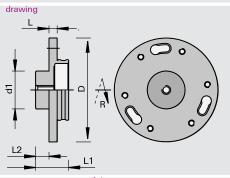


spare parts	Ø D	Ø d	Dimension	Class-No.	Ident-No.
1 centering adapter		35		997370	180540
2 special nuts			M35x1,5	995290	IMA3
3 countersunk flat he screws	eaded			995121	IMA4
4 spacers	70	35	70x25x35	955520	170363
	[mm]	[mm]	[mm]		



# Mounting Flanges for Clamping System Ø 140 mm

product



Machine / Application

Design

Advantages

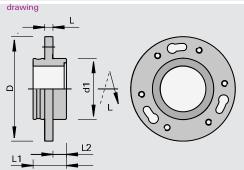
for mounting of mediumweight tools with bore Ø 30 mm, 6 countersunk holes for M 8, TK Ø 110 mm

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

ØD	Ø d1min	L2	L	L1	ldent-No. [L]	Ident-No. [R]
137	30	17,4	10.8	43.4	163946	163945
[mm]	[mm]	[mm]	[mm]	[mm]		

# Mounting Flanges for Clamping System Ø 140 mm

product



Machine / Application

8, TK Ø 110 mm

for mounting of medium-

weight tools with bore Ø 80

mm, 6 countersunk holes for M

Design

Advantages

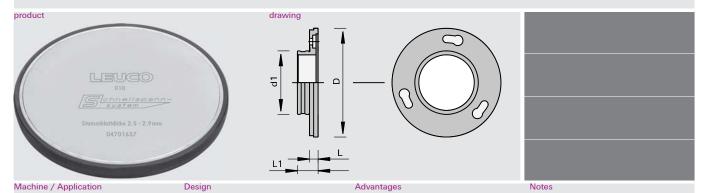
- I for clockwise and counterclockwise rotation
- I for S-System on shafts with external thread
- I indicate shaft design when placing an order
- I at least two separate tool/ flange assemblies should be used per clamping element (reduced downtimes)

Ø D	Ø d1min	L2	L	L1	Ident-No. [L]	Ident-No. [R]
137	80	17,5	11.8	44.7	168401	168400
[mm]	[mm]	[mm]	[mm]	[mm]		





# Mounting Flanges for Clamping System Ø 140 mm



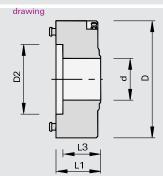
I for the mounting of saw blades up to Ø 400 mm and saw plate thickness 1.8 - 2.2 mm with bore Ø 80 mm, 3 NL - Ø 22 mm, TK Ø 110 mm

ØD	Ø d1min	L	L1	Ident-No.
137	80	10	28	177050
[mm]	[mm]	[mm]	[mm]	



# Clamping Systems Ø 160 mm





# Machine / Application

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

#### Design

I n max = 9,000 min-1

## Advantages

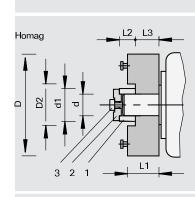
- I excellent balance quality
- I long tool life thanks to hardened tool mounting area
- I consistent runout accuracy after each tool change
- I minimization of setup-times thanks to easy and quick tool change
- I maintenance-free and protected from dust

#### lotes

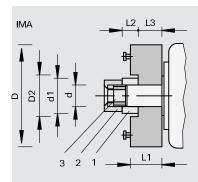
- I for clockwise and counterclockwise rotation
- I mounting examples (see drawing): shaft with internal thread, shaft with external thread
- I indicate machine type and shaft design when placing an order
- I required tool adapters Class-No. 997370
- I for changing the tools the pneumatic part Ident-No.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

ØD	Ø D2	Ød	L1	L3	DKN			ldent-No.
160	80	35	60	44.5	10x4	Homag, IMA		167462
160	80	40	60	44.5	12x4			167463
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]			
spare parts			Ø D	(	Ø D1	Ød	Class-No.	ldent-No.
Covers			40	;	30	17	997370	181802
Covers			45	;	35	22	997370	180082
Covers			48	4	40	22	997370	180121
Special No	uts		58			M30 x 1,5	995290	170364
			[mm]	[	mm]	[mm]		





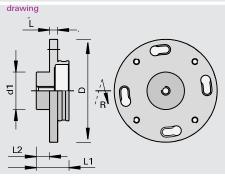
spare parts	Dimension	Ø D	Ø D1	Ød	Class-No.	ldent-No.
1 centering adapter				30	997370	168457 s
2 caps		40	30	17	997370	181802
1 centering adapter				35	997370	180540
2 caps		45	35	22	997370	180082
3 cylindrical head screws for Ød=35	M16x55R				995111	80068439
3 cylindrical head screws for Ød=35	M20x35L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



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

# Mounting Flanges for Clamping System Ø 160 mm

product



Machine / Application

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

Design

Advantages

Notes

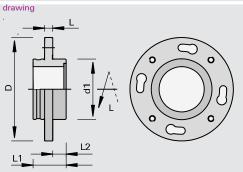
- I for S-System on shaft with external thread
- I for clockwise and counterclockwise rotation
- I indicate shaft design when placing an order
- I at least two separate tool/ flange assemblies should be used per clamping element (reduced downtimes)
- I sense of rotation see drawing

Ø D	Ø d1min	L2	L	L1	ldent-No. [L]	Ident-No. [R]
157	30	17,4	10.8	43.4	167465	167464
[mm]	[mm]	[mm]	[mm]	[mm]		

## 997370

# Mounting Flanges for Clamping System Ø 160 mm

product



Machine / Application

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

Advantages

Motos

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

ØD	Ø d1min	L2	L	L1	ldent-No. [L]	Ident-No. [R]
157	80	18	11.8	45	168399	168398
[mm]	[mm]	[mm]	[mm]	[mm]		





# Zeroplan Clamping Systems Ø 160 mm

# product



Machine / Application

double end tenoners

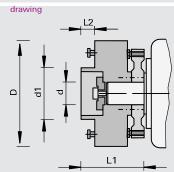
through feed machines

for mounting of tools with

bore and for combination with

mounting flanges Ø 160 mm

I n max = 7,200 min-1





- I high runout accuracy almost as good as on hydro motors, now available for standard-motor shafts d = 35
- I distinct increase of edge life and quality thanks to precise run-out- I operational pressure 6 bar adjustment
- I consistent runout accuracy after each tool change
- I minimization of setup-times thanks to easy and quick tool change
- I maintenance-free and protected from dust



- I for clockwise and counterclockwise rotation
- I for changing the tools the pneumatic part Ident-No. 058250 is necessary

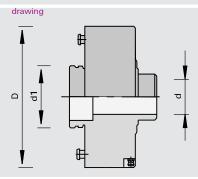
Ø D	Ød	Ø d1min	L2	L1	DKN			ldent-No.
160	35	60	17,5	95	10x4	Homag		180654
160	35	60	17,5	102	10x4	IMA		180655
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]			
spare parts					Dimension		Class-No.	ldent-No.
Covers ( IMA ) 4					45x25x35 DI	KN	997370	180656 o
Engineer	s Wrenches			;	SW10/13 DI	N 895	985720	171060 o

[mm]



# Clamping Systems Ø 192 mm

product



Machine / Application

ØD

192

192

192

192

192

192

[mm]

40

35

30

30

35

[mm]

double end tenoners

I through feed machines

Ød

35

Ø d1min

80

80

80

80

80

80

[mm]

[mm]

KN

I for mounting of hoggers with Ø 250 mm

Desian

I n max = 7,200 min-1

DKN

10x4

12x5

10x4

8x3

10x4

[mm]

ring

Advantages

I excellent balance quality

I long tool life thanks to hardened tool mounting area

I consistent runout accuracy after each tool change

I minimization of setup-times thanks to easy and quick tool change

I maintenance-free and protected from dust

IMA, B+G, Hüllhorst

M+S, Schwabedissen

Raimann

SPA

Wadkin

Wigo

Votes

I for clockwise and counterclockwise rotation

I mounting example (see drawing)

I indicate machine type and shaft design when placing an order

I required tool adapters Class-No.

I operational pressure 6 bar

Ident-No.

161363 &

161251 &

161252 &

161253 s

161254 s

161255 s

I included in delivery: see accessory list

192	35	80		10x4	clamping part, spacer ring	B+G (flat nut)	161364 &
192	40	80		12x5	clamping part, spacer ring	B+G, SCM-Stefani	161365 &
192	35	80		10x4	clamping part, spacer ring	Celaschi	161366 &
192	35	80		10x4	clamping part, spacer ring, cover disk	Danckaert	161367 &
192	40	80	10x4		clamping part, spacer ring	Gabbiani	161257 &
192	35	80		10x4	clamping part, spacer ring	Festo	161256 &
192	35	80		10x4	clamping part, spacer ring, cover disk	Frommia	161258 &
192	35	80		10x4	clamping part	Homag, Lehbrink, Torwegge, SPA, Wilmsmeyer	161259
192	35	80		10x4	clamping part, spacer	Kuhlmann	161260 &

ring, cover disk clamping part, spacer

ring, cover disk clamping part, cover

clamping part

clamping part

clamping part

disk

clamping part, spacer

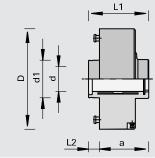


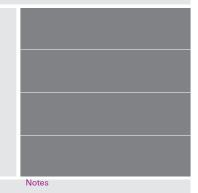


# Hydro Clamping Systems Ø 160 mm



drawing





## Machine / Application

I for mounting of tools with bore

#### Design

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

on the motor shaft

## Advantages

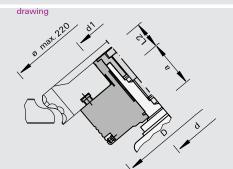
- I high cutting quality thanks to distinctly increased runout accuracy and concentricity
  I consistent runout accuracy after each tool change
- I minimization of setup-times thanks to easy and quick tool change
- I maintenance-free
- I for clockwise and counterclockwise rotation
- I specifically designed for high-precision motors with hexagonal spindle base
- I for changing the tools the pneumatic part Ident-No. 058250 is necessary
- I operational pressure 6 bar
- I included in delivery: hydro quick-clamping system incl. Screwdrivers

ØD	Ød	Ø d1min	L2	L1	а			Ident-No.
160	40	60	17,5	96	78.5	Hoggers		172677
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]			
spare parts							Class-No.	Ident-No.
Covers wit	h O-Rings						997300	172679
Head Cap	Screws						995111	177105
pneumatio	hose						994200	058250
Screwdrive	ers						985730	167817
Cranked V	/rench Keys						985730	177106



# Hydro Clamping Systems Ø 160 mm





## Machine / Application

I for mounting of tools with bore

#### Design

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

#### Advantages

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

#### Notes

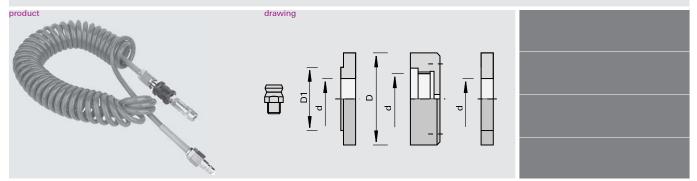
- I for clockwise and counterclockwise rotation
- I specifically designed for high-precision motors with hexagonal spindle base
- I for changing the tools the pneumatic part Ident-No. 058250 is necessary
- I operational pressure 6 bar
- I included in delivery: hydro quick-clamping system incl. Screwdrivers

Ø D	Ød	Ø d1min	L2	а			Ident-No.
160	40	60	35	53	milling tools		176829
[mm]	[mm]	[mm]	[mm]	[mm]			
spare parts						Class-No.	ldent-No.

spare parts	Class-No.	ldent-No.
Covers with O-Rings	997300	172679
Head Cap Screws	995111	177105
pneumatic hose	994200	058250
Screwdrivers	985730	167817
Cranked Wrench Keys	985730	177106



# **Accessories for Quick-Clamping Systems**



Machine / Application

I for engaging or releasing the

LEUCO quick-clamping systems

Design

Advantages

Notes

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

					Class-No.	Ident-No.		
hydraulic connector R 1	hydraulic connector R 1/8" (old design)							
hydraulic connector M1	994400	180084						
fitting	fitting							
pneumatic hose comple	pneumatic hose complete							
spare parts	for S-Sytem Ø D/d	Ø D	Ø D1	Ø d	Class-No.	ldent-No.		
Covers	110/140/160/30	40	30	17	997370	181802		
Covers	110/35	40	35	17	997370	162602		
Covers	140/160/35	45	35	22	997370	180082		
Covers	140/160/40	48	40	22	997370	180121		
Special Nuts	140/160/35	58		M30 x 1,5	995290	170364		
Spacers	140/160/35	70		35	955520	170363		
Bolts	110/140/160			10x120	995322	160875		
		[mm]	[mm]	[mm]				



clamping bushing without

screwdrivers

# 933030

# Hydro Clamping Bushings - tools with bore

with adjustment unit I closed hydraulic expansion

clamping chuck for tight-

tolerance fit on the motor shaft

# product drawing L2 Machine / Application Advantages I for mounting of tools with bore I hardened tool mounting area I optimum cutting quality when I for clockwise and counter-I Ident-No. 172678 with one milling and hogging clockwise rotation clamping zone I maintenance-free and inured I specifically designed for I Ident-No. 182103 with two high-precision motors with to dirt clamping zones and for use hexagonal spindle base I included in delivery: hydro

ØD	Ød	Ø d1min	L2	L1	a	NL	Ident-No.
120	40	60	68	96	20	4/M8/100	172678
120	40	60	68	96	20	4/M8/100	182103
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		

spare parts		Class-No.	Ident-No.
Covers with O-Rings	for axial locking or bores 40 mm	997300	172679
Head Cap Screws	M14x70 DIN 6912 for 172679	995111	177105
Screwdrivers	SW6 for hydro pressure build-up	985730	167817
Cranked Wrench Keys	SW12 DIN 6911	985730	177106

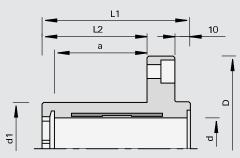




# Hydro Clamping Bushings - tools with bore

product

## drawing



# Advantages

## Machine / Application

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

I hardened tool mounting area I with one clamping zone I closed hydraulic expansion clamping chuck for tight-

tolerance fit on the motor shaft

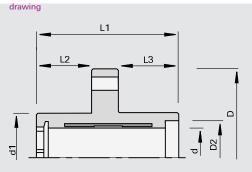
- I excellent cutting quality when milling and hogging I maintenance-free
- I for clockwise and counterclockwise rotation
- I specifically designed for high-precision motors with hexagonal spindle base
- I included in delivery: Hydro Clamping Bushing incl. screwdriver SW 6

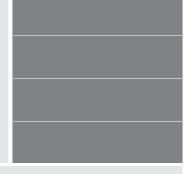
Ø D	Ød	Ø d1min	L2	L1	a	NL	Ident-No.
120	40	60	68	96	60	4/M8/100	173724
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		

spare parts		Class-No.	Ident-No.
Covers with O-Rings	for axial locking or bores 40 mm	997300	172679
Head Cap Screws	M14x70 DIN 6912 for 172679	995111	177105
Screwdrivers	SW6 for hydro pressure build-up	985730	167817
Cranked Wrench Keys	SW12 DIN 6911	985730	177106

# Hydro Clamping Bushings - tools with bore progressively adjustable







# Machine / Application

for mounting of tools with cutters with progressive adjustment of the cutting width I closed hydraulic expansion

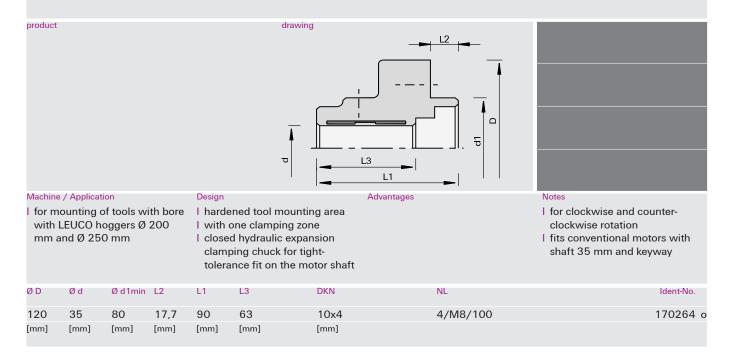
- I hardened tool mounting area I with one clamping zone
- clamping chuck for tighttolerance fit on the motor shaft

# Advantages

- I excellent cutting quality when
- I maintenance-free
- I for clockwise and counterclockwise rotation
- I specifically designed for high-precision motors with hexagonal spindle base

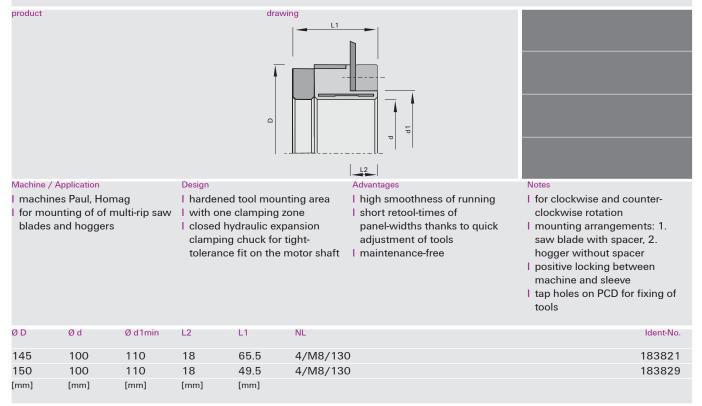
ØD	Ø D2	Ød	Ø d1min	L2	L1	L3	NL	Ident-No.
120	50	40	60	39	101	44	4/M8/100	180181
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		

# **Hydro Clamping Bushings - hoggers**



# 933030

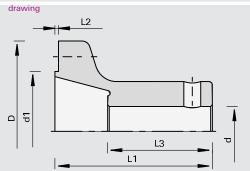
# Hydro Clamping Bushings - gang-rip saw blades and hoggers (Paul, Homag)





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

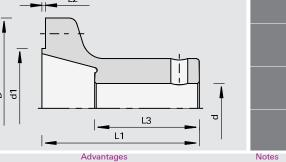




Machine / Application

blades

- double end tenoners edge banding machines Homag, Brandt, IMA for mounting of HW scoring saw blades and DP scoring saw
- Design
- I tempered design
- I mating and seating surfaces ground



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

											delivery	
ØD	Ød	Ø d1min	L2	L1	L3		DKN			NL		Ident-No.
109	30	65	2,2	95	63		8x4			6/M5/90		006480
109	35	65	2,2	95	63		10x3	,3		6/M5/90		182128
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[mm]					
spare par	ts					ØD		ØD1	Ød		Class-No.	Ident-No.
Covers						40		30	17		997370	181802
Countersunk Flat Headed for mounting of saw blade 995122							995122	180007				
Head Cap Screws for mounting of DP saw blades					DP saw						995111	001869
						[mm]		[mm]	[mm]			



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





Machine / Application

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

#### Design

Advantages

drawing

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

Ø D	Ød	Ø d1min	L2	L1	DKN	NL		Ident-No.
115	30	80	17,7	96	8x3	8/M8/100		006309
115	35	60	17,7	90	8x3	8/M8/100		180062
115	35	80	17,7	90	8x3	8/M8/100		055997
115	40	60	17,7	90	8x3	8/M8/100		180120
115	40	80	17,7	96	8x3	8/M8/100		006308
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]			
flange			ØD	В	Ød	Ø NL	Class-No.	Ident-No.
			137	80	15	6/M5/105	997300	819300 s
			[mm]	[mm]	[mm]			

# Mounting Flanges - clipping saw blades (Homag, IMA)



edge banding machines

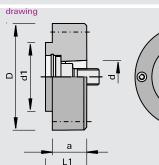
for mounting of clipping saw

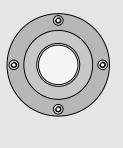
Homag, IMA

blades



I machine interface HSK 25R





I optimum cutting quality thanks

and precise tool balancing

to high radial running accuracy

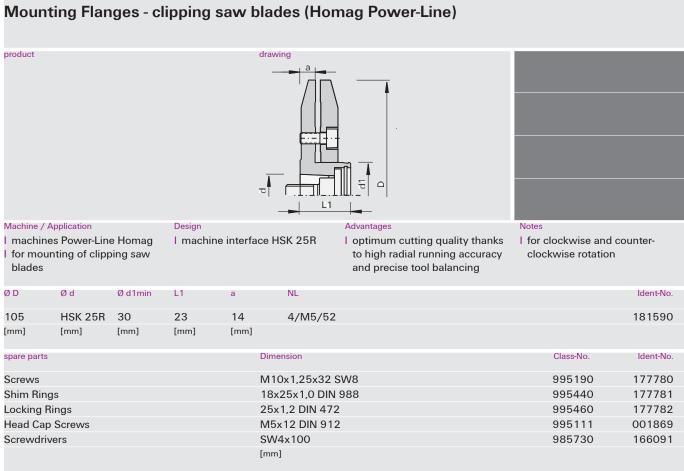
- I for clockwise and counterclockwise rotation
- I countersunk screw and screwdrivers are not included in delivery

ØD	Ød	Ø d1min	L1	а	NL	ldent-No.
55	HSK 25R	34	22	20	4/M4/44+4/M5/42	179025
62	HSK 25R	40	24	20	4/M5/52	177788
66	HSK 25R	40	24	15	4/M5/52	183817
[mm]	[mm]	[mm]	[mm]	[mm]		



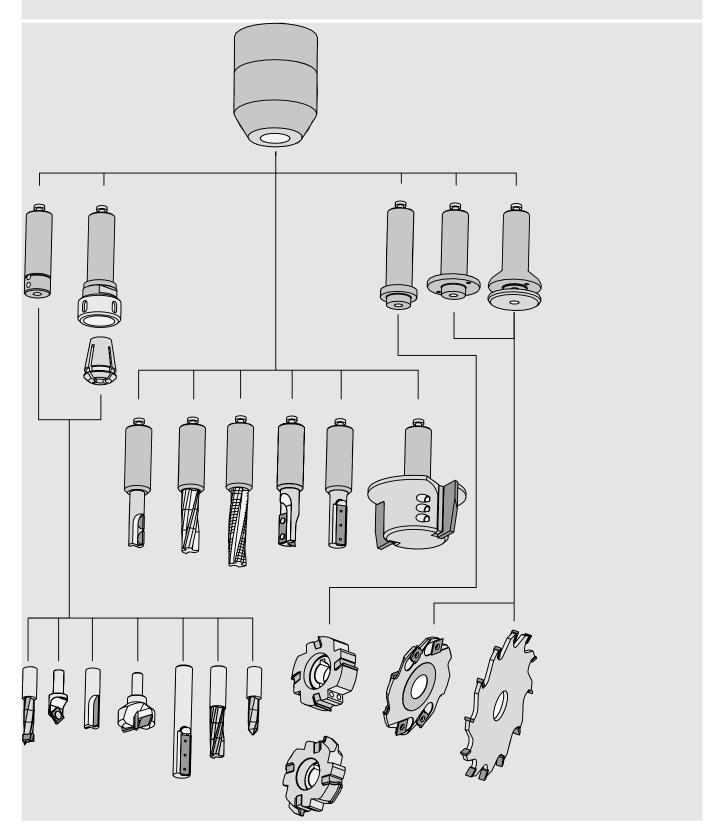
**LEUCO** 

spare parts	Dimension	Class-No.	ldent-No.
Screws	M10x1,25x32 SW8	995190	177780
Shim Rings	18x25x1,0 DIN 988	995440	177781
Locking Rings	25x1,2 DIN 472	995460	177782
Countersunk Flat Headed Screws	M5x10 T20	995125	171236
Screwdrivers	T20x100	985730	166092
	[mm]		





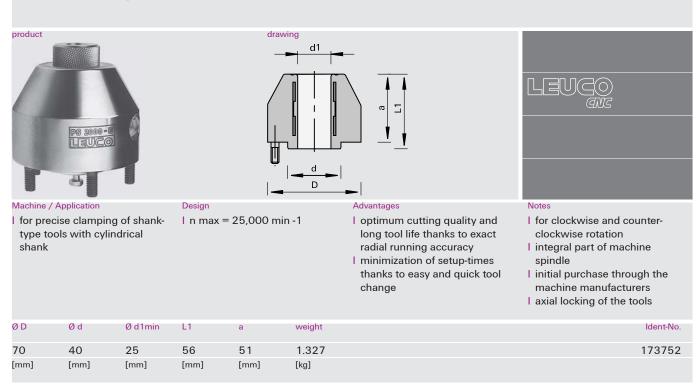
# Chart Tool Holders machine interface PS 2000-E







# Hydro Clamping Chucks PS 2000-E





[mm]

# **Universal Reducing Bushings**

[mm]

1/2 5/8

3/4

[inch]

[mm]

50.5

50.5

50.5

50.5

50.5

50.5

56.5

56.5

56.5

56.5

56.5

56.5

56.5

56.5

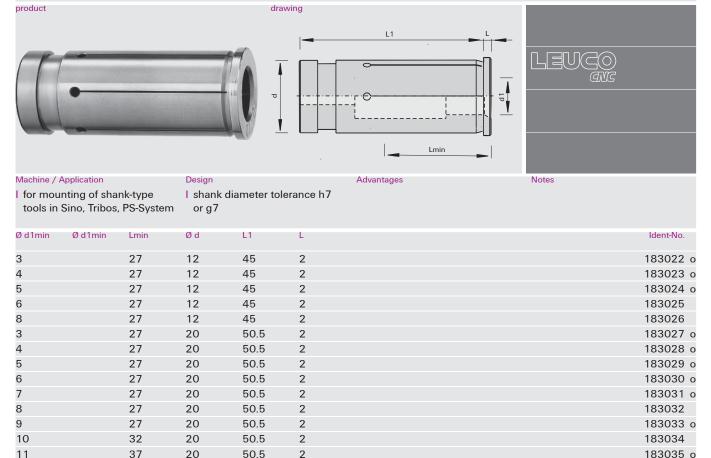
56.5

56.5

56.5

[mm]

[mm]





183035 o

183037 o

183038 o

183039 o

183041 o

182304 o

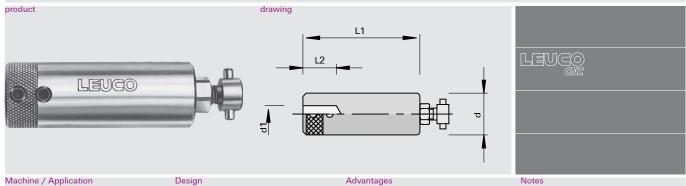
182654 o

182655 o

182308 o



# Adapters with cylindrical shank



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

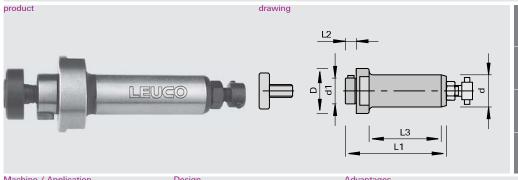
Advantages Notes

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

Ød	Ø d1min	L2	L1	Ident-No.
16	6,35	20	61	172112
16	8	20	61	172117
16	9,5	20	61	172118
16	10	20	61	172119
25	6	20	70	172103
25	8	20	70	172104
25	9,5	20	70	172105
25	10	20	70	172101
25	12	20	70	172102
[mm]	[mm]	[mm]	[mm]	



# Adapters with cylindrical shank





Machine / Application

Advantages

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

I tool held in place by set screws

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

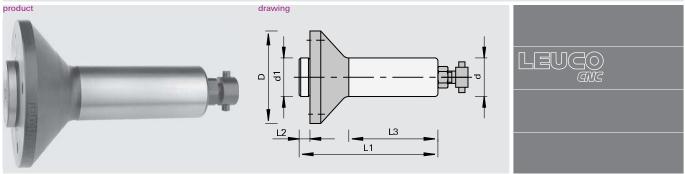
Ø D	Ød	Ø d1min	L2	L1	L3	Ident-No.
35	16	20	8,5	68	43	171389 o
35	25	20	8,5	78.5	55	171391 o
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	

spare parts	Dimension	Class-No.	Ident-No.
Cutter Retaining Bolts	Ø20xM8x23	995190	171393
Cutter Retaining Bolts	Ø28xM10x26	995190	171392
Engineers Wrenches	24x27 DIN 3110	985730	009193 o
	[mm]		





# Adapters with cylindrical shank



## Machine / Application

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

#### Design

I tool attached and secured against rotation with screws

# Advantages

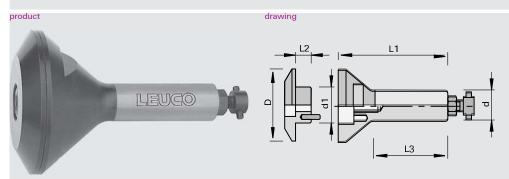
Notes

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

Ø D	Ød	Ø d1min	L2	L1	L3	NL	Ident-No.
50	16	22	4	68	45	4/M5/34	171227 o
50	25	22	4	92	60	4/M5/34	167825
60	25	25	30	111	60	6/M6/48	168814 o
60	25	30	36	117	60	6/M6/48	168815
66	25	30	5	92	60	4/M5/48	171386
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		



# Adapters with cylindrical shank



## Machine / Application

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

#### Design

I secured against rotation with drive pin

#### Advantages

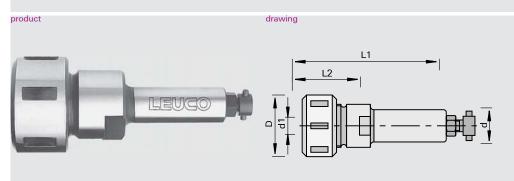
Notes

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

Ø D	Ød	Ø d1min	L2	L1	L3		ldent-No.
60	16	30	8	78	43	for plate thickness max. 6 mm	171394
60	25	30	9	94	55	for plate thickness max. 8 mm	167826
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		

# 933250

# **Draw-In Collet Chucks with cylindrical shank**





# Machine / Application

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

## Design

- I for shank diameter 2-16 mm
- I collet chucks DIN 6388 Type
- I lock nut with sleeve bearing

# Advantages

## Notes

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

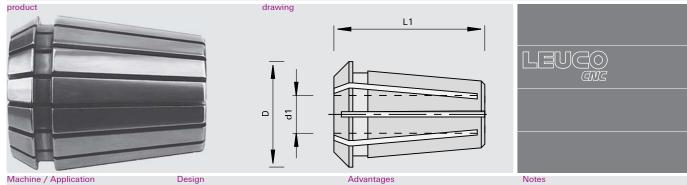
ØD	Ød	Ø d1min	L2	L1	ldent-No.
43	16	2-16	50	95	170181
43	25	2-16	50	105	170182
[mm]	[mm]	[mm]	[mm]	[mm]	





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

# **Precision Collets**



I for use in draw-in collet chucks Type 415 E I slotted from top and bottom I clamping tolerance 0.5 mm

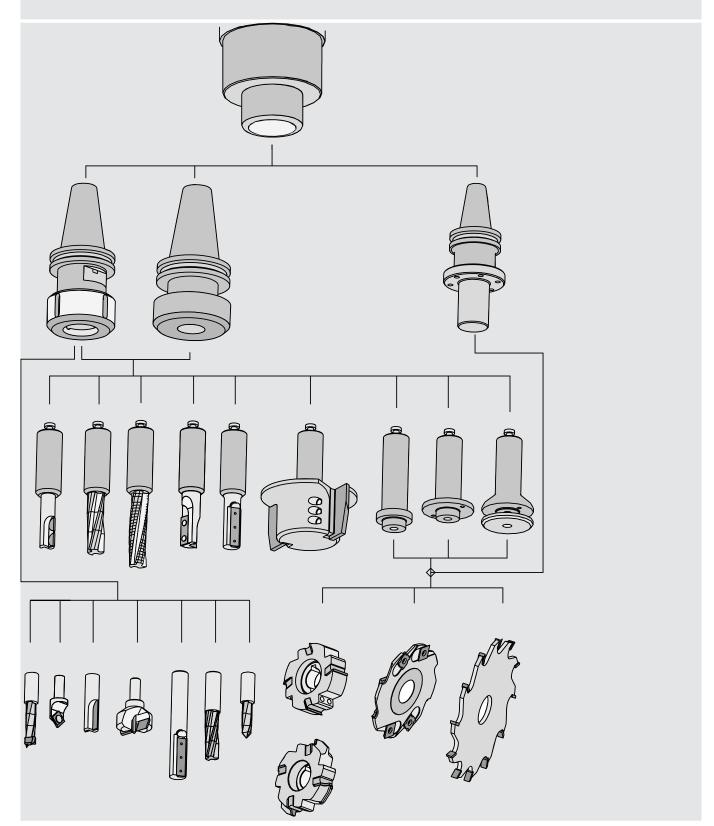
I according to DIN 6388 415E

I for Ident-No. 170181, 170182

Ø D	Ø d1min	L1	Ident-No.
25.5	2,5	40	820753 o
25.5	3	40	820754 o
25.5	4	40	820494 o
25.5	4,5	40	830236 o
25.5	5	40	820495 o
25.5	6	40	170779
25.5	6,35	40	821421 o
25.5	7	40	829692 o
25.5	8	40	170780
25.5	9	40	825190 o
25.5	9,5	40	168739 o
25.5	10	40	170781
25.5	12	40	168740
25.5	12,7	40	830156 o
25.5	13	40	821221 o
25.5	16	40	168741
[mm]	[mm]	[mm]	



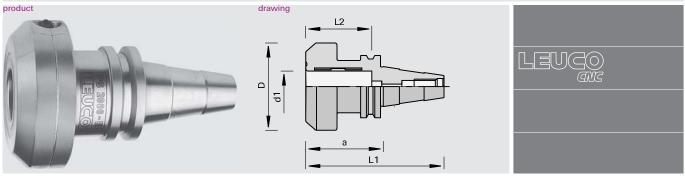
# Chart Tool Holders machine interface SK- and BT-Mounting







# Hydro Clamping Chucks PS 2000-E



# Machine / Application

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

## Design

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

## Advantages

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

#### Notes

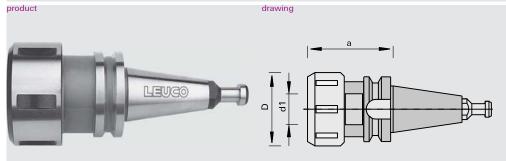
I for clockwise and counterclockwise rotation

ØD	Ød	Ø d1min	L2	L1	a	weight		Ident-No.
70	SK 30 (ISC	0)25	55	111	63	1.1	CMS	173774
70	SK 30 (DIN)	25	55	111	63	1.1	IMA, Maka, Biesse, Reichenbacher, Weeke	173754
70	SK 40 (DIN)	25	55	128	60	1.39	IMA, Maka, Reichenbacher, Stegherr	173756
70	BT 35	25	55	120	63	1.25	Heian	175796
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]		

Retaining Bolts		mach.	Class-No.	Ident-No.
for SK 30	DIN 69872 A	IMA, Maka, Reichenbacher, Weeke	997870	169293
for SK 40	DIN 69872 A	IMA, Reichenbacher, Stegherr	997870	169294
for SK 30	ISO 7388-3	CMS, Masterwood	997870	177021
for SK 30		Rover old, Biesse up to 08/92	997870	175637
for SK 30		Rover new, Biesse (HSD motor) from 09/92, Masterwood (Colombo motor)	997870	173641
for SK 30	ISO 7388-3	Alberti	997870	177020
for BT 35	PT 35T-2	Heian	997870	176103



# **Draw-In Collet Chucks with SK shank**





## Machine / Application

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

#### Design

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

## Advantages

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

#### Notes

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

ØD	Ød	norm number	Ø d1min	a			ldent-No.
43	SK 30 (DIN)	415 E	2-16	55	SW 41	Weeke	177304 o
60	SK 30 (DIN)	462 E	2-25	70	SW 41	IMA, Maka, Reichenbacher	173794
50	SK 30 (ISO)	470 E	2-20	58	SW 41	CMS	180360 o
60	SK 40 (DIN)	462 E	2-25	70	SW 46	IMA, Maka, Stegherr, Reichenba- cher	173795
60	BT 35	462 E	2-25	70	SW 41	Heian	176102
[mm]	[mm]		[mm]	[mm]			

spare parts			Class-No.	Ident-No.
ball-bearing lock nuts	M30x1,5R	for Ø D = 43	995290	178763
lock nut with sleeve bearing	M48x2R	for Ø D = 60	995290	178764
Retention knobs	DIN 69872 A	for SK 30	997870	169293
Retention knobs	DIN 69872 B	for SK 40	997870	179339
Retention knobs	ISO 7388-3	for SK 30	997870	177021
Retention knobs	PT 35T-2	for BT 35	997870	176103
Hook Wrenches	SW58/62 DIN 1810	for Ø D = 60	985720	169299
Hook Wrenches	SW40/42 DIN 1810	for Ø D = 43	985720	169298
Single-Head Engineers Wrenches	SW46x10 DIN 894		985720	178760
Single-Head Engineers Wrenches	SW41 DIN 894		985720	169297
	[mm]			





Ø d1min

2

3

4

5

6

7

8

9,5

10

12

13

14

15

16

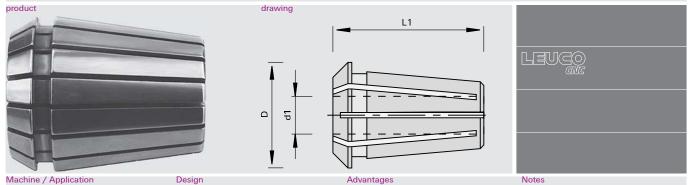
18

20

25

[mm]

# **Precision Collets**



Machine / Application

I for use in draw-in collet chuck Type 462 E

Ø d1min

1/4

1/2

5/8

3/4

[inch]

Ø D

34.8

34.8

34.8

34.8

34.8

34.8

34.8

34.8

34.8

34.8

34.8

34.8

34.8

34.8

34.8

34.8

34.8

34.8

34.8

34.8

34.8

[mm]

52

52

52

52

52

52

52

52

[mm]

I clamping tolerance 0.5 mm I according to DIN 6388 Type Advantages

I optimum transmission of clamping force thanks to 12

462E	slots from top and bottom	
L1		ldent-No.
52		183803 o
52		183804 o
52		183805
52		183806 o
52		180213
52		175815
52		183807 o
52		180358
52		175817
52		170782
52		168742
52		175820
52		180215

170783

175823

180216

175826

168744

168745

183808 o 168743

# **Draw-In Collet Chucks with SK shank**

# product drawing

# 

## Machine / Application

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

#### Design

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

## Advantages

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

#### Notes

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

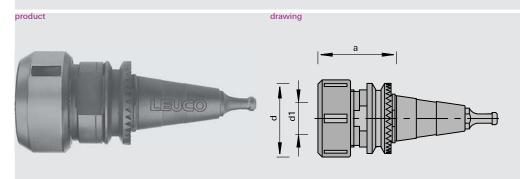
Ø D	Ød	Ø d1min	a	type		Ident-No.
50	SK 30 (DIN)	2-20	50	470 E	Biesse	173639
63	SK 30 (DIN)	4-25	57	472 E	Biesse	175790
63	SK 30 (ISO)	4-25	64	472 E	CMS	180361
[mm]	[mm]	[mm]	[mm]			

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





#### **Draw-In Collet Chucks with SK shank**





#### Machine / Application

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

#### Design

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

#### Advantages

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

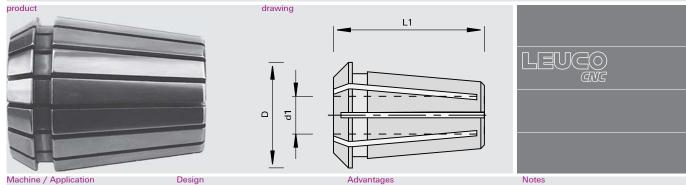
#### Notes

- I for clockwise and counterclockwise rotation
- I replaceble retaining bolt
- I collet chucks according to Type 462 E Ø 4..25 mm
- I collet chucks according to Type 470 E Ø 2..20 mm
- I included in delivery:collet chuck, clamping nut and retaining bolt

Ø D	Ød	Ø d1min	a	type			ldent-No.
50	SK 30	2-20	55	470 E	SCM, Morbidelli		173644
60	SK 30	4-25	72	462 E	SCM, Morbidelli		175792
[mm]	[mm]	[mm]	[mm]				
spare parts			Dimension			Class-No.	Ident-No.
Lock Nuts			M40x1,5R		for Ø D = 50	995290	178761
lock nut w	ith sleeve b	earing	M48x2R		for Ø D = 60	995290	178764
Retention	knobs		Ø8,5			997870	173646
Hook Wre	nches		SW45/50 DIN 1810		for Ø D = 50	985720	175851
Hook Wre	nches		SW58/62	DIN 1810	for Ø D = 60	985720	169299
Single-Head Engineers Wrenches		SW36 DIN 894		for Ø D = 50	985720	169296 o	
Single-Hea	ad Engineers	s Wrenches	SW46x10	DIN 894	for Ø D = 60	985720	178760
			[mm]				



#### **Precision Collets**



Machine / Application

- I for use in draw-in collet chuck Type 430 E / 470 E / 472 E

- I slotted from top and bottom I clamping tolerance 1 mm

- I Type 430 E (ER 25) 6 16 mm for special chuck
- I Type 470 E (ER 32) 3 20 mm
- Type 472 E (ER 40) 6 25 mm

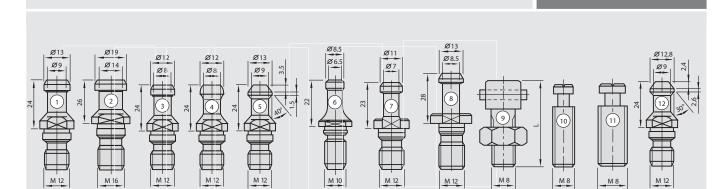
Ø D	Ø d1min	Ø d1min	L1	type	Ident-No.
33	3		40	470 E	173647 d
33	4		40	470 E	173648 d
33	5		40	470 E	173649 d
33	6		40	470 E	173650 d
33	7		40	470 E	173651 d
33	8		40	470 E	173652
33	10		40	470 E	173653
33	12		40	470 E	173654
33	13		40	470 E	173655 d
33	14		40	470 E	173656 d
33	16		40	470 E	173657
33	18		40	470 E	173658 d
33	19		40	470 E	173659 d
33	20		40	470 E	173660
33		1/4	40	470 E	175829
33		1/2	40	470 E	175830
33		5/8	40	470 E	175831 c
33		3/4	40	470 E	175832 d
41	6		46	472 E	180912 d
41	8		46	472 E	180913 d
41	10		46	472 E	180914 d
41	12		46	472 E	175833
41	16		46	472 E	175834
41	18		46	472 E	175835 c
41	20		46	472 E	175836
41	25		46	472 E	175837
41		1/4	46	472 E	175838 d
41		1/2	46	472 E	175839 d
41		5/8	46	472 E	175840 d
41		3/4	46	472 E	175841 d
41		1	46	472 E	175842 d
26	6		34	430 E	181986 d
26	8		34	430 E	181987 c
26	10		34	430 E	181988
26	12		34	430 E	181989 d
26	14		34	430 E	181990 c
26	16		34	430 E	181991 d
[mm]	[mm]	[inch]	[mm]		





# **Retaining Bolts**

product drawing



Machine / Application

Design

Advantages

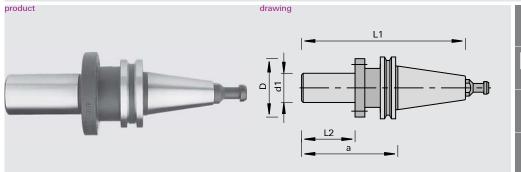
Notes

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

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



#### Adapters with SK shank





#### Machine / Application

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

#### Design

- I clamping length L2 = 50 mm for multiple-part cutters and cutterheads
- I quick-release taper according to DIN 69871 (without dog and locating grooves)
- I tool attached and secured against rotation with screws

#### Note

- I for clockwise and counterclockwise rotation
- I with retaining bolt according to DIN 69872 for SK 30 type A, SK 40 type B
- I machines SK 30: IMA, Maka, Reichenbacher, Weeke
- I machines DK 40: IMA, Maka, Reichenbacher, Stegherr

ØD	Ød	Ø d1min	L2	L1	а	NL	ldent-No.
60	SK 30	25	55	147.8	100	6/M6/48	168800 #
60	SK 30	30	55	147.8	100	2/M6/48+2/6/48	182167 o
60	SK 40	30	55	168.4	100	2/M6/48+2/6/48	182168 o
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		

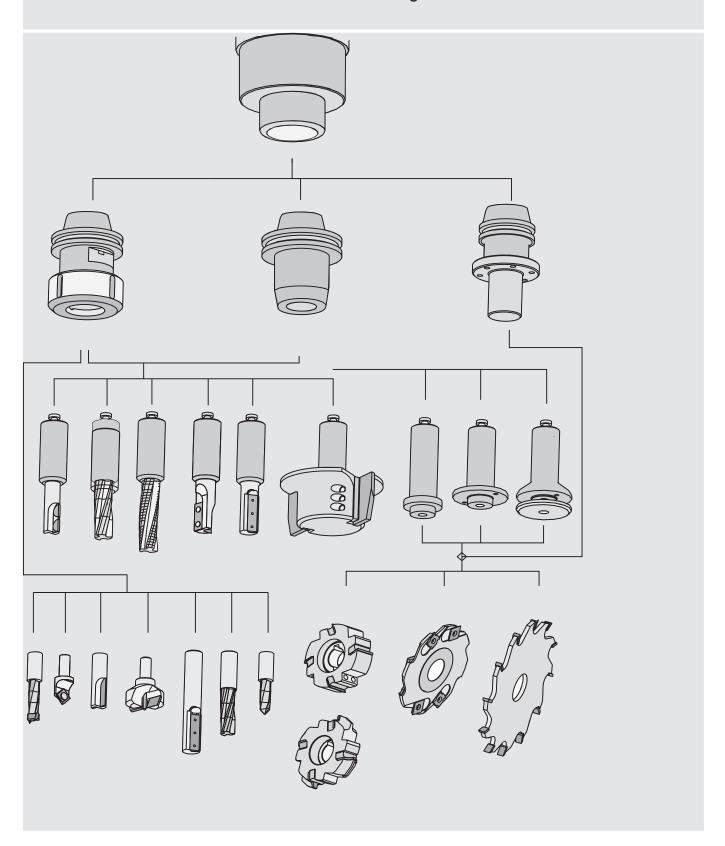
Advantages

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





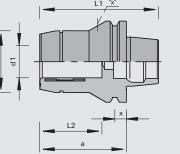
# **Chart Tool Holders machine interface HSK-Mounting**





#### Hydro Clamping Chucks PS-System with HSK 63 F shank







#### Machine / Application

shank

CNC machining centers with automatic tool changer for precise clamping of shanktype tools with cylindrical

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

#### Advantages

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

- I for right- and lefthand rotation I with bore for installation of micro chips for electronic tool detection
- I x = impressurement by meansof screwdriver
- I hexagonal screwdriver SW5 is not included in delivery

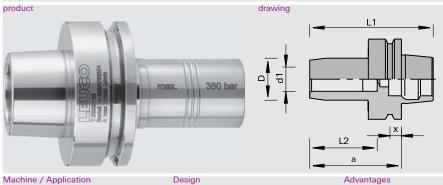
Ø d1min	L2	Ød	ØD	L1	a	X	weight	Ident-No.
12	47,5	HSK 63F	32	105	80	18	1.16	184019
16	50,5	HSK 63F	38	105	80	18	1.20	184020
20	52,5	HSK 63F	50	105	80	18	1.30	184021
25	58,5	HSK 63F	53	105	80	18	1.28	184022
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]	

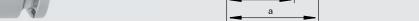
spare parts	Dimension	Class-No.	Ident-No.
Screwdrivers	SW5x150	985730	168703
	[mm]		





#### **Tribos Pressure Shrinking Chucks**





- CNC machining centers with automatic tool changer for precise clamping of shanktype tools with cylindrical shank
- I n max = 40,000 min-1
- I low weight is easy on machine bearing
- I suitable for high RPM's
- I optimum chip extraction thanks to slim design
- I increased process safety, long edge lives and high machining quality thanks to very high concentricity and repeating accuracy (< 0.003 mm)



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

Ø d1min	L2	Ød	Ø D	L1	a	Х	weight	Ident-No.
12	48,5	HSK 63F	19	100	75	18	0.69	180257
16	48,5	HSK 63F	26	100	75	18	0.74	180899
20	52,9	HSK 63F	30	100	75	18	0.77	180258
25	55	HSK 63F	35	100	75	18	0.79	180710
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]	

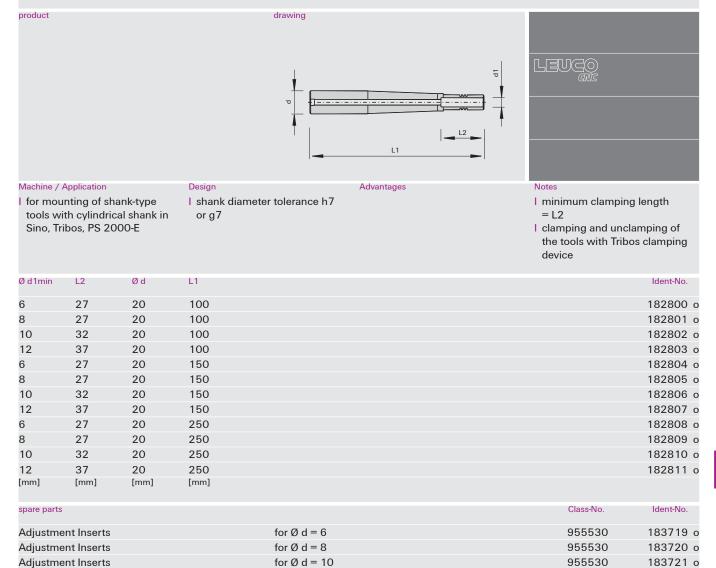
Ø d1min	L2	Ød	Ø D	L1	a	Ident-No.
20	55	SK 30 (DIN)	30	127	80	180888
25	55	SK 30 (DIN)	35	127	80	180836
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	

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



#### **Tribos extension**

Adjustment Inserts



for  $\emptyset$  d = 12





180263

955530

[mm]

[mm]

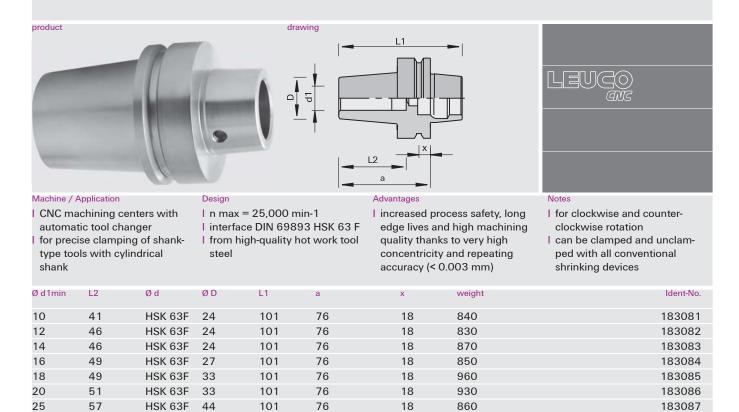
[mm]

[mm]

[mm]

[mm]

#### **Heat-Shrinking Chucks**

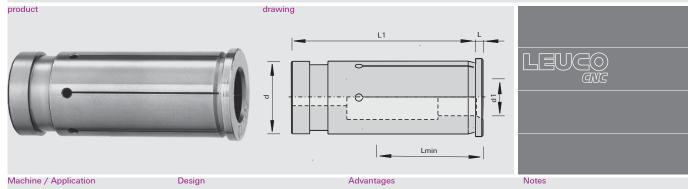


[kg]

[mm]



# **Universal Reducing Bushings**



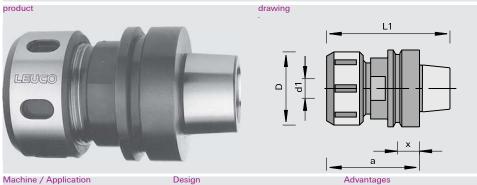
for mounting of shank-type	I shank diameter tolerance h7
tools in Sino, Tribos, PS-System	or a7

Ø d1min	Ø d1min	Lmin	Ød	L1	Ident-No.
3		27	12	45	183022 o
4		27	12	45	183023 o
5		27	12	45	183024 o
6		27	12	45	183025
8		27	12	45	183026
3		27	20	50.5	183027 o
4		27	20	50.5	183028 o
5		27	20	50.5	183029 o
6		27	20	50.5	183030 o
7		27	20	50.5	183031 o
8		27	20	50.5	183032
9		27	20	50.5	183033 o
10		32	20	50.5	183034
11		37	20	50.5	183035 o
12		37	20	50.5	183036
13		37	20	50.5	183037 o
14		37	20	50.5	183038 o
15		38	20	50.5	183039 o
16		38	20	50.5	183040
17		38	20	50.5	183041 o
6		27	25	56.5	182304 o
8		27	25	56.5	182305
10		32	25	56.5	182306
12		37	25	56.5	182307
14		37	25	56.5	182308 o
16		38	25	56.5	182309
18		38	25	56.5	182310
20		42	25	56.5	182311
	1/2	37	25	56.5	182653
	5/8	38	25	56.5	182654 o
	3/4	42	25	56.5	182655 o
[mm]	[inch]	[mm]	[mm]	[mm]	





#### **Draw-In Collet Chucks with HSK shank**



#### Machine / Application

I CNC machining centers with automatic tool changer for precise clamping of shanktype tools with cylindrical shank

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

#### Advantages

I flexible utilization by collet chucks



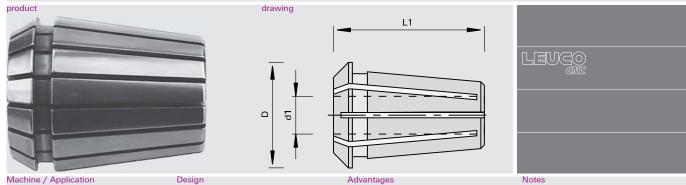
#### Notes

- I for clockwise and counterclockwise rotation
- I Ident-No. 175795 for IMA (up to 12/94) similar to DIN 69893
- I Ø d1 = collet chuck diameter 2 - 25 mm
- I collet chucks according to DIN 6388: 1) Type 462E / 2) Type 472E
- I included in delivery: collet chuck, clamping nut without spanner wrench

Ø d1min	Ød	ØD	L1	a	Х	type		ldent-No.
2-25	HSK 63F	60	101	76	18	1	Homag, IMA from 01/95, Weeke from 03/98, HOLZ-HER, SCM	173293
2-25	HSK 63E	63	103	78	18	2	CMS	180359 o
2-25	HSK 63F	60	101	76	9	1	IMA up to 12/94	175795
2-25	HSK 63F	60	140	115	18	1	Homag, IMA from 01/95, Weeke from 03/98, HOLZ-HER	179170
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]			
spare parts				I	Dimension		Class-No.	ldent-No.
lock nut w	ith sleeve be	earing		I	M48x2R		995290	178764
Hook Wrei	nches			;	SW58/62 DIN 1810		985720	169299
Single-Hea	d Engineers	Wrenches		;	SW46x10 DIN 894		985720	178760
				[	[mm]			



#### **Precision Collets**



Machine / Application

Ø d1min

I for use in draw-in collet chuck Type 462 E

Ø d1min

L1

I clamping tolerance 0.5 mm I according to DIN 6388 Type I optimum transmission of clamping force thanks to 12 slots from top and bottom

2		34.8	52	183803 o
3		34.8	52	183804 o
4		34.8	52	183805
5		34.8	52	183806 o
6		34.8	52	180213
	1/4	34.8	52	175815
7		34.8	52	183807 o
8		34.8	52	180358
9,5		34.8	52	175817
10		34.8	52	170782
12		34.8	52	168742
	1/2	34.8	52	175820
13		34.8	52	180215
14		34.8	52	170783
	5/8	34.8	52	175823
15		34.8	52	183808 o
16		34.8	52	168743
18		34.8	52	180216
	3/4	34.8	52	175826
20		34.8	52	168744
25		34.8	52	168745
[mm]	[inch]	[mm]	[mm]	



Ident-No.

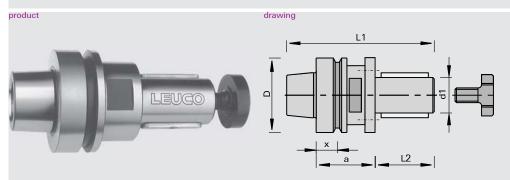


#### Hydro Tensile Spindles HSK 63 F modified

product drawing Machine / Application Design Advantages I through feed machines I with hydro-tensile spindle I precise mounting of tools with I for clockwise and counter-I clamping length L2 = 68 mm clockwise rotation especially for flooring manufbore thanks to hydro-tensile e.g. for adjustment unit I interface DIN 69893 HSK 63 F for precise clamping of tools for highly precise mounting on with bore the machine spindle Ø D Ød Ø d1min L2 Ident-No. L1 120 HSK 63F 60 68 113 20 4/M8/80 + 4/9/80 183617 o [mm] [mm] [mm] [mm] [mm] [mm] spare parts Dimension Class-No. Ident-No. M8x58,5 DIN 7984 **Cutter Retaining Bolts** 995111 180049 M8x88,5 DIN 7984 180050 **Cutter Retaining Bolts** 995111 180051 Rubber Rings 8x13x2 955510 [mm]



#### **Mounting Arbors with HSK shank**



#### Machine / Application

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

#### Design

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

#### Advantages

I high feed rates thanks to optimum torque transfer



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

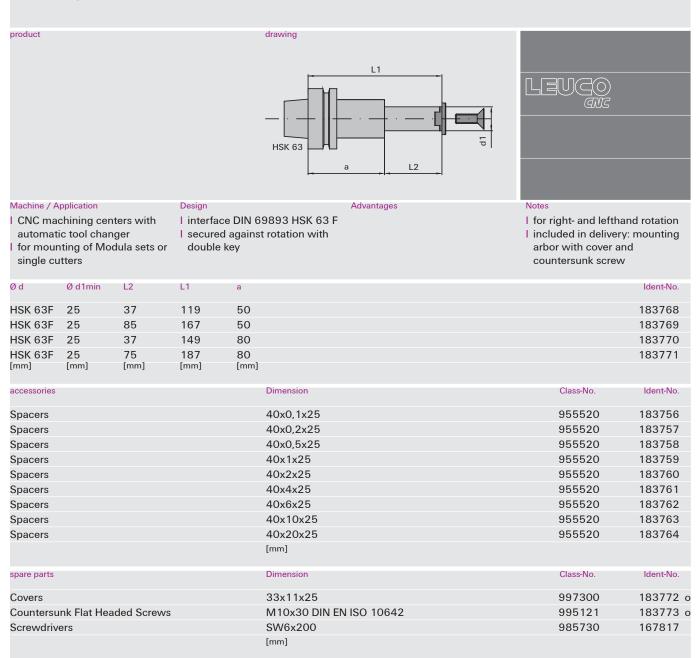
ØD	Ø d	Ø d1min	L2	L1	а	Х	DKN		ldent-No.
63	HSK 63F	30	50	125	50	18	8 x 3	Homag, IMA from 01/95	178693 #
63	HSK 63F	30	50	120	45	18	8 x 3	Homag, IMA from 01/95	183748
63	HSK 63F	30	80	155	50	18	8 x 3	Homag, IMA from 01/95, HOLZ-HER	178641 #
63	HSK 63F	30	80	150	45	18	8 x 3	Homag, IMA from 01/95, HOLZ-HER	183749
63	HSK 63F	30	110	180	45	18	8 x 3	Homag, IMA from 01/95, HOLZ-HER	183747
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		

spare parts	Dimension	Class-No. Id	dent-No.
Single-Head Engineers Wrenches	SW46x10 DIN 894	985720 17	78760
Cutter Retaining Bolts	M16x26xØ42	995190 17	73592
Spacer Sets	60x50x30	955521 18	31193
Spacer Sets	60x80x30	955521 18	31194
	[mm]		





#### **Mounting Arbors HSK 63F**





# Milling Assemblies with chip directing steel sheet

product

# drawing The state of the state

I optimized chip removal



#### Machine / Application

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

#### Design

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

#### Note

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

Ø Dmax	Ød	Ø d1min	L2	а	DKN		Ident-No. [L]	Ident-No. [R]
300	HSK 63F	30	105	80	8 x 4	Homag	182049 o	182050 o
300	HSK 63F	30	105	80		Homag	182075 o	182076 o
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]			





106

HSK 63F 30

2,5

78

40

#### Saw Blade Adapters HSK 63F modified

product drawing Machine / Application Advantages I interface DIN 69893 HSK 63 I CNC machining centers with I for clockwise and counterautomatic tool changer F for high-precision adapter to clockwise rotation for precise mounting of circular the machine spindle I mounting of the saw directly saw blades by means of countersunk screw or lid by means of cylinder head screw I included in delivery: lid, countersunk screws and cylinder head screw Ød Ident-No. Ø D Ø d1min L2 L1 NL

[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		
spare parts				Di	mension		Class-No.	ldent-No.
Countersu	ınk Flat He	aded Screw	/S	M	5x8 T20		995125	164005
Head Cap	Screws			M	5x16 DIN EN	N ISO 4762	995111	001870
				[m	m]			

18

8/M5/90

182174



#### Saw Blade Adapters HSK 63F modified

product drawing Machine / Application Advantages CNC machining centers with I interface DIN 69893 HSK 63 I for clockwise and counterautomatic tool changer F for high-precision adapter to clockwise rotation for precise mounting of circular the machine spindle I mounting of the saw directly saw blades and grooving by means of countersunk screw or lid 183310 by cutters means of cylinder head screw I included in delivery: I adapter with countersunk screws I lid with cylinder head screws Ø D Ø d1min Ident-No. 70 HSK 63F 30 2.5 157.5 130 8/M5/52 183309 [mm] [mm] [mm] [mm] [mm] [mm] spare parts Dimension Class-No. Ident-No. Countersunk Flat Headed Screws M5x8 T20 995125 164005 [mm] accessories Dimension Class-No. Ident-No.

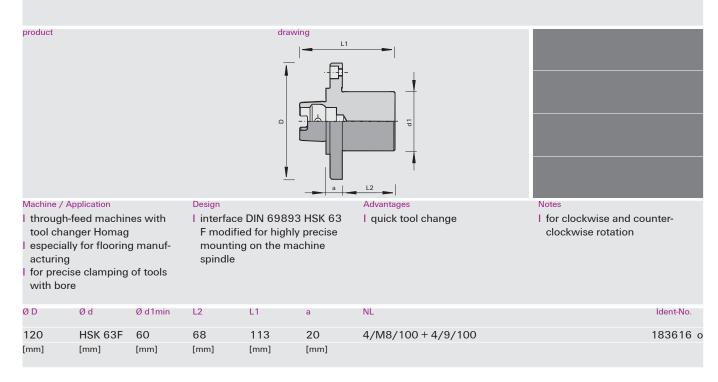
70x24x8

[mm]



lid with cylinder head screws

#### Mounting Arbors HSK 63F modified





183310

997300

# Mounting Arbors HSK 63F modified

product drawing <del>р</del> Machine / Application Design Advantages I through-feed machines with I with pulling grooves I quick tool change I for clockwise and counter-I flange with fastening screw clockwise rotation

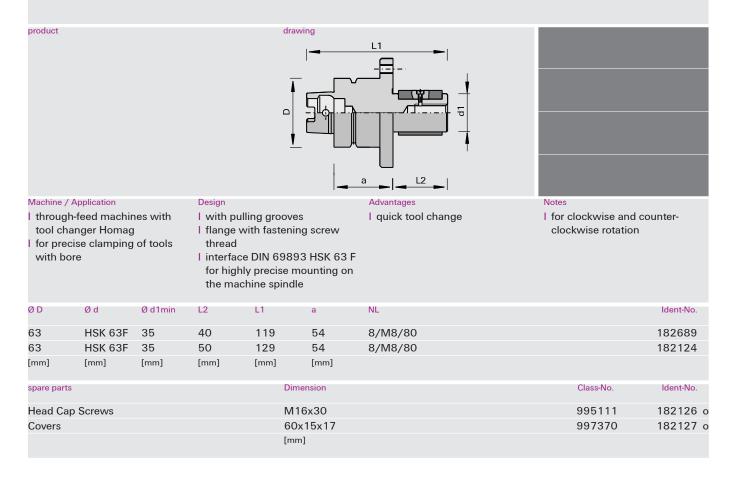
tool changer Homag for precise clamping of tools with bore

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

Ø D	Ød	Ø d1min	L2	L1	a	NL	Ident-No.
63	HSK 63F	60	23,5	102.5	54	4/M8/80	183615 o
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		

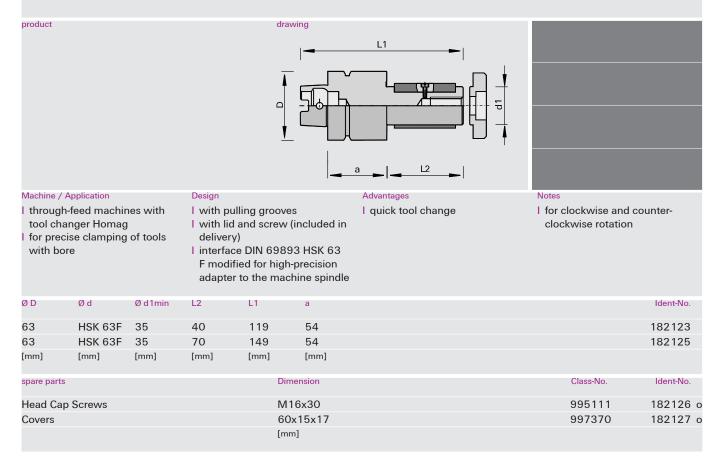
#### 933061

# Mounting Arbors HSK 63F modified



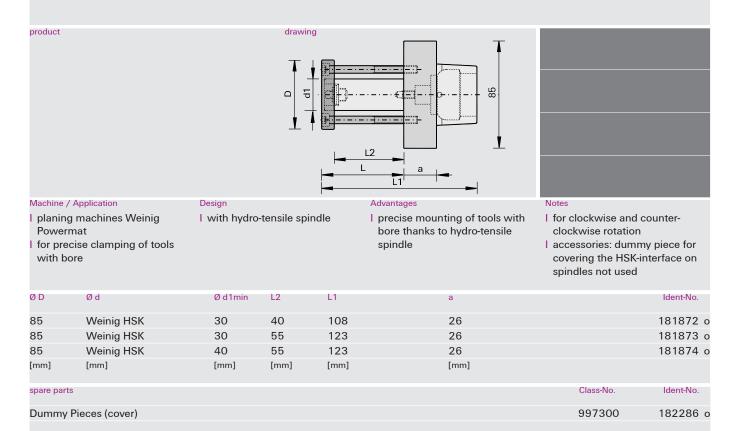


#### Mounting Arbors HSK 63F modified



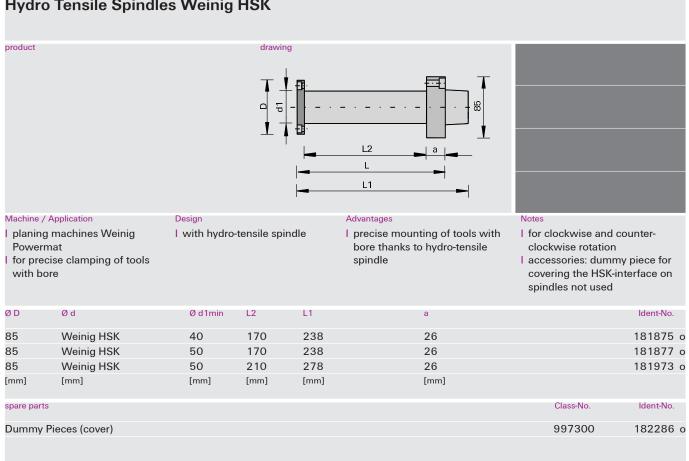
#### 997300

#### **Hydro Tensile Spindles Weinig HSK**





# **Hydro Tensile Spindles Weinig HSK**





# **Mounting Arbors Weinig HSK**

product drawing L1 Design Advantages

Machine / Application

I profile machines Weinig Powermat

for mounting of tools with bore

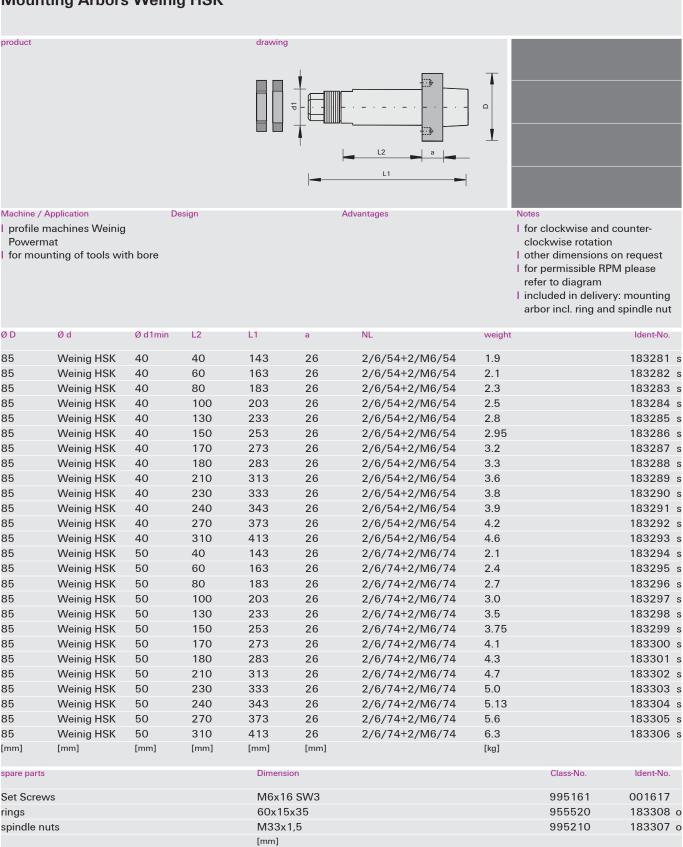
- I for clockwise and counterclockwise rotation
- I other dimensions upon request
- I for permissible RPM please refer to diagram

Ø D	Ød	Ø d1min	L2	L1	а	NL	weight	Ident-No.
85	Weinig HSK	30	40	98	26	2/6/48+2/M6/48	1.7	182056 o
85	Weinig HSK	30	60	118	26	2/6/48+2/M6/48	1.8	182057 o
85	Weinig HSK	30	80	138	26	2/6/48+2/M6/48	1.9	182058 o
85	Weinig HSK	30	130	188	26	2/6/48+2/M6/48	2.2	182059 o
85	Weinig HSK	30	170	228	26	2/6/48+2/M6/48	2.4	182060 o
85	Weinig HSK	30	240	298	26	2/6/48+2/M6/48	2.8	182061 o
85	Weinig HSK	40	40	98	26	2/6/54+2/M6/54	1.9	182062 o
85	Weinig HSK	40	60	118	26	2/6/54+2/M6/54	2.1	182063 o
85	Weinig HSK	40	80	138	26	2/6/54+2/M6/54	2.3	182064 o
85	Weinig HSK	40	130	188	26	2/6/54+2/M6/54	2.8	182065 o
85	Weinig HSK	40	170	228	26	2/6/54+2/M6/54	3.2	182066 o
85	Weinig HSK	40	240	298	26	2/6/54+2/M6/54	3.9	182067 o
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[kg]	



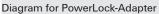


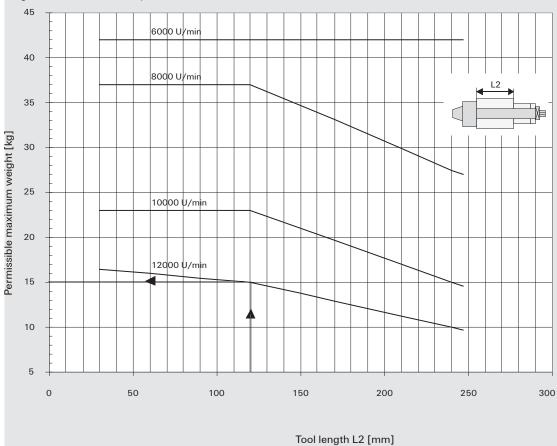
#### Mounting Arbors Weinig HSK





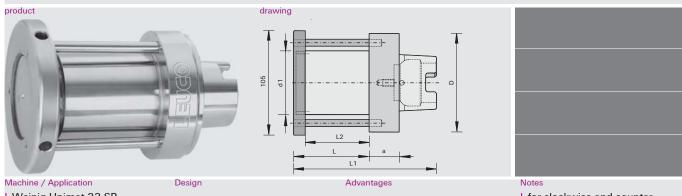
# Adapter Weinig HSK







# Saw Blade Adapters Weinig HSK



- Weinig Unimat 23 SP
- for mounting of thin-kerf saw blades

- I for clockwise and counterclockwise rotation
- I different diameters upon request

995290

Ø D	Ød	Ø d1min	L2	L1	а	NL		Ident-No.
105	Weinig HSK	60	68	148	26	3/8/74		182974 o
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]			
spare parts				Dime	nsion		Class-No.	ldent-No.

105x15xM58x1,5

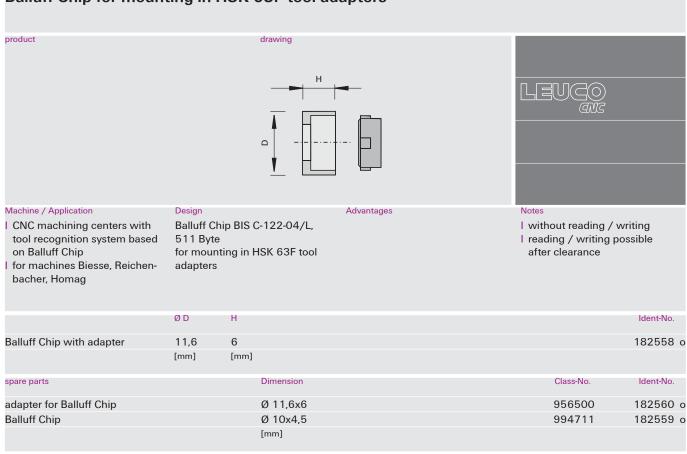
Lock Nuts [mm]



182993 o

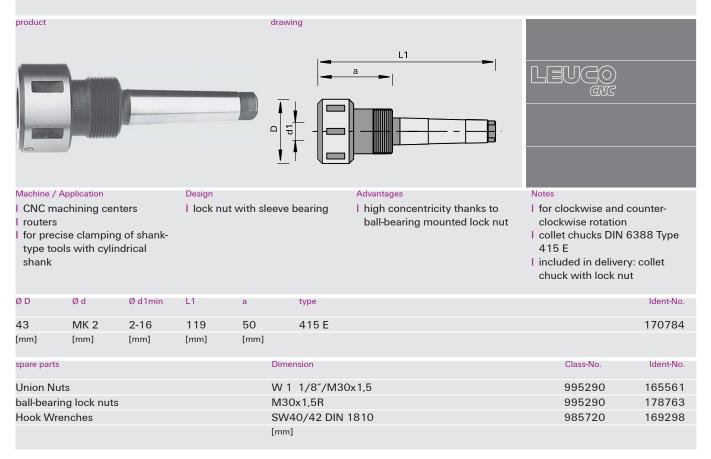


# Balluff Chip for mounting in HSK 63F tool adapters





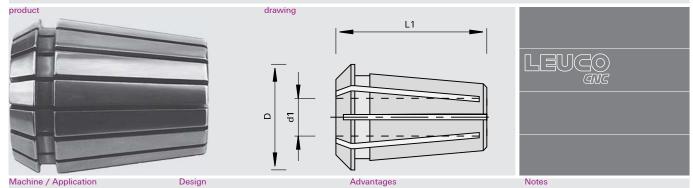
#### **Draw-In Collet Chucks with MK shank**







#### **Precision Collets**



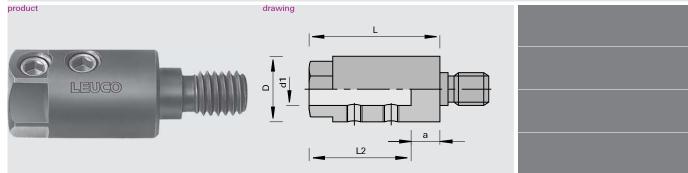
I for use in draw-in collet chuck Type 415 E

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

ØD	Ø d1min	L1	Ident-No.
25.5	2,5	40	820753 o
25.5	3	40	820754 o
25.5	4	40	820494 o
25.5	4,5	40	830236 o
25.5	5	40	820495 o
25.5	6	40	170779
25.5	6,35	40	821421 o
25.5	7	40	829692 o
25.5	8	40	170780
25.5	9	40	825190 o
25.5	9,5	40	168739 o
25.5	10	40	170781
25.5	12	40	168740
25.5	12,7	40	830156 o
25.5	13	40	821221 o
25.5	16	40	168741
[mm]	[mm]	[mm]	



# **Clamping Chuck Combi Systems**



Machine / Application

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

#### Design

I drill bits are clamped with setscrews

#### Advantages

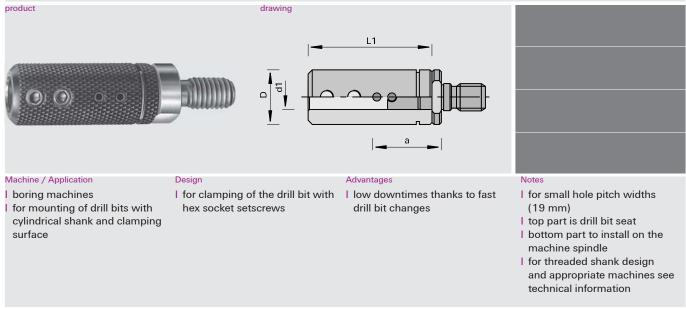
- I clamping chucks with "BSS" mark are compatible with quick-changing system for drill bits
- I for threaded shank design and appropriate machines see technical information

Ø D	Ø d1min	L2	L	a		type	Ident-No. [L]	Ident-No. [R]
15	8	20	22	2		D	161282	161281
15	8	20	24.5	4.5		Α	010683	010677
15	8	20	24.5	4.5		В	161285	161284
15	8	20	24.5	4.5		С	058412	058411
15	8	20	37	17		С	059300	059299
19	10	20	24.5	4.5		Α	003575	003574
19	10	20	24.5	4.5		В	008003	008002
19	10	20	24.5	4.5		С	058414	058413
19	10	20	25	5		D	003571	003570
19	10	20	25	5		zyl. Schaft Ø 10x30	183055 o	183055 o
19	10	20	47	27		G	161287	161286
19	10	20	29.3	9.3		F	003573	003572
19	10	20	28.5	8.5		E	161987	161283
19	10	20	37	17		С	161681	161680
19	10	20	47	27	BSS	D	170372 s	170371 s
[mm]	[mm]	[mm]	[mm]	[mm]				
spare parts	S		Dimension	n		for Ø D	Class-No.	Ident-No.
Set Scre	WS		M6x4 D	IN EN ISO	4029	15	995161	167068
Set Scre	ws		M6x5 D	IN EN ISO	4029	19	995161	165049
Set Scre	WS		M5x4 D	IN EN ISO	4029	15	995161	001608
			[mm]			[mm]		





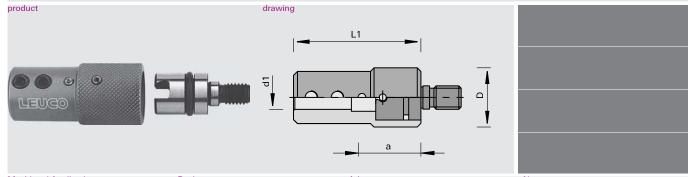
# Klack Quick-Changing Chucks



ØD	Ø d1min	L1				Ident-No.
15	8	35				162014
[mm]	[mm]	[mm]				
bottom part	Туре	а		Class-No.	Ident-No. [L]	Ident-No. [R]
	Α	19		933322	162015	162016
	С	19		933322	162017	162018
		[mm]				
spare parts			Dimension		Class-No.	ldent-No.
Springs			0,8 DIN 17223		995790	162948
Set Screws	3		M5x4 DIN EN ISO 4029		995161	001608
Cranked W	rench Keys	3	SW2,5 DIN ISO 2936		985730	009671
			[mm]			



# Klack Quick-Changing Chucks



Machine / Application

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

I for clamping of the drill bit with hex socket setscrews

#### Advantages

I low downtimes thanks to fast drill bit changes

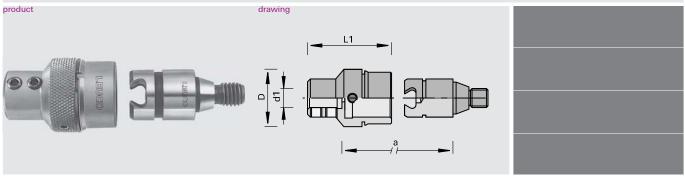
- I for medium hole pitch widths (25 mm)
- I top part is drill bit seat
- I bottom part to install on the machine spindle
- I for threaded shank design and appropriate machines see technical information

Ø D	Ø d1min	L1					ldent-No.
22	10	47					166992
22	8	49					166074
[mm]	[mm]	[mm]					
bottom part	Туре	a			Class-No.	Ident-No. [L]	Ident-No. [R]
	С	19			933322	166075	166076
		[mm]					
spare parts			Dimension			Class-No.	ldent-No.
Multi-Purp	ose Grease	S				993520	056746
Special Lev	vers .					997100	166095 o
Set Screws	3		M5x4 DIN EN ISO 402	9		995161	001608
Set Screws	3		M6x5 DIN EN ISO 402	9		995161	165049
O-Rings			10,77x2,62			995490	166078
			[mm]				





# Klack Quick-Changing Chucks



#### Machine / Application

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

#### Design

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

#### Advantages

I low downtimes thanks to fast drill bit changes

#### Notes

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

ØD	Ø d1min	L1				ldent-No.
30	10	44				003567
[mm]	[mm]	[mm]				
bottom part	Туре	а		Class-No.	Ident-No. [L]	Ident-No. [R]
	D	26.5		933322	003561	003560
	Α	19		933322	003565	003564
		[mm]				
spare parts			Dimension		Class-No.	ldent-No.
Multi-Purpo	ose Greases	S			993520	056746
Special Lev	/ers				997100	164309
Reducing E	Bushings				955530	057513
Set Screws	6		M6x5 DIN EN ISO 4029		995161	165049
Set Screws	5		M5x8 DIN EN ISO 4028		995161	180015
Screws			M8x24L		995191	180013
Screws			M8x24R		995191	180012
			[mm]			



# **Drill Bit Quick-Changing Systems - top part**

# product drawing Type 1 LEUGO Type 2

#### Machine / Application

- I boring machines
- for mounting of drill bits with cylindrical shank with collet chuck or clamping screws

hex socket setscrews

#### Advantages

I for clamping of the drill bit with I low downtimes thanks to fast drill bit changes

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

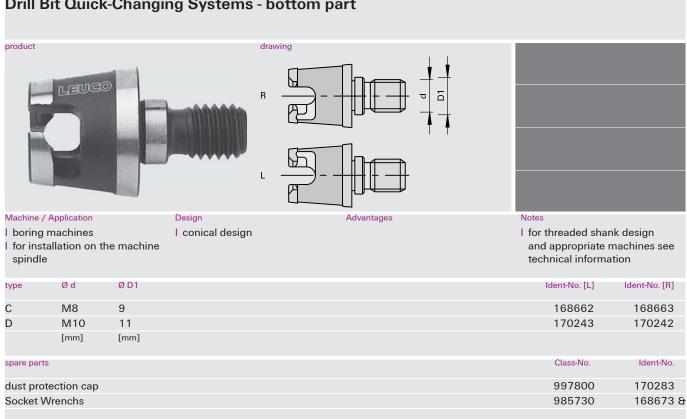
	Dimension	type		Ident-No.
collet chuck adapter	Ø2,5 / 3	1		168664 #
locating bore	Ø10	2		168669
locating bore	Ø8	2		168668
	[mm]			
spare parts		Dimension	Class-No.	ldent-No.
collet chuck		Ø3	933380	168666
collet chucks		Ø2,5	933380	168665
		0.445010440		4000=0



Collet Chacks	02,0	333300	100003
Engineers Wrenches	9x11 DIN 3118	985720	168672 d
Engineers Wrenches	11x13 DIN 3118	985720	168670 d
Engineers Wrenches	14x17 DIN 3118	985720	168671
	[mm]		
spare parts	Dimension	Class-No.	ldent-No.
Set Screws	M6x5 DIN EN ISO 4029	995161	165049
Set Screws	M5x4 DIN EN ISO 4029	995161	001608
	WISKY DIN EN 180 4025	000101	001000

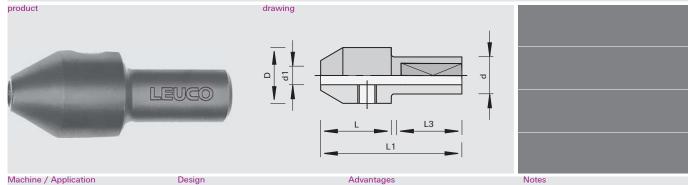


# **Drill Bit Quick-Changing Systems - bottom part**





# Adapters



I for mounting of twist drills in combi chuck and Klack chuck I shank with clamping surface

I thread M5, without screw

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

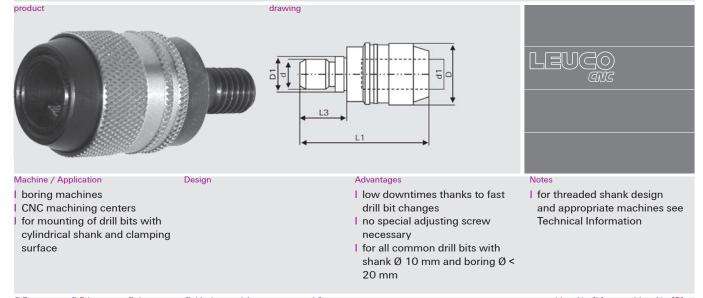
Ø d1min	L	Ød	L3	ØD	L1	Ident-No.
2	19	10	21	15	41	183275
2,5	19	10	21	15	41	183276
3	19	10	21	15	41	183277
3,5	19	10	21	15	41	183278
4	19	10	21	15	41	183279
5	19	10	21	15	41	183280
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	

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





# **Drill Bit Quick-Changing Systems**



Ø D	Ø D1	Ød	Ø d1min	L1	L3	type	ldent-No. [L]	Ident-No. [R]
20	9	M8	10	42	15	С	182396 o	182395 o
20		M8	10	42	15	А	182398 o	182397 o
20		10	10	45	18		182400 o	182399 o
20	11	M10	10	42	15	D	182402 o	182401 o
20		M10	10	42	15	В	182404 o	182403 o
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]			



#### Universal Drill Chucks with SK-shank or HSK shank

# product

drawing





#### Machine / Application

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

- I continuously adjustable clamping area between 1-13
- I n max = 20,000 min-1
- I hardened clamping jaws

#### Advantages

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

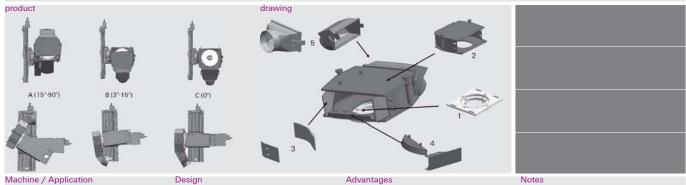
- I for clockwise and counterclockwise rotation
- I included in delivery: clamping key, retaining bolts

Ø D	Ød	Ø d1min	L1				Ident-No.
50	SK 30 (DIN)	1-13	90		Weeke, Maka, Reichenbacher		180375 o
50	SK 30	1-13	90		Biesse from 9/92, Masterwood (HSD mo	tors)	180376 o
50	SK 30	1-13	90		Alberti, Masterwood (Colombo motors)		180377 o
50	SK 30	1-13	90		Morbidelli, SCM (with ring gear)		180378 o
50	SK 40 (DIN)	1-13	90		Maka, Reichenbacher Stegherr		180379 o
57	SK 40 (DIN)	3-16	90		Maka, Reichenbacher Stegherr		180380 o
50	HSK 63F	1-13	112		Homag, EIMA, Weeke, IMA from 9/94		180381
57	HSK 63F	3-16	112		Homag, EIMA, Weeke, IMA from 9/94		180382
[mm]	[mm]	[mm]	[mm]				
spare parts				Dimension		Class-No.	ldent-No.
Cranked \	Wrench Keys			SW6x100		985730	180383 o
				[mm]			





#### **LEUCO Dust Hoods**



- Machine / Application
- I double end tenoners especially for flooring manufacturing
- I LEUCO dust hood system
- Advantages
- I optimum chip caption
- I wear parts individually replace-
- I flow-optimizing design

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

flange	Ø D	В	mot	or output		Class-No.	Ident-No.
flange Ø180x13	180	13	Per	ske up to	11 KW	975117	540301 o
flange Ø180x13	180	13	Per	ske from 1	11 KW	975117	540430 o
	[mm]	[mm]					
2 - Basic hood		tool Ø D	tilting area	basic	c hood form	Class-No.	Ident-No.
basic hood 15° - 90° cpl. tool	-Ø 250 mm	250	15 - 90	Α		975217	540295 o
basic hood 3° - 15° cpl. tool-9	5 250 mm	250	3 - 15	В		975117	540317 o
basic hood 0° cpl. tool-Ø 250	mm	250	0	С		975117	540389 o
		[mm]	[°]				
3 - Side profile (wear plate and adjus	sting plate)	thickness	s of wear plate			Class-No.	Ident-No.
side profile standard cpl.		8				975417	540302 o
side profile 0° right cpl.		8				975417	540358 o
side profile 0° left cpl.		8				975417	540386 o
		[mm]					
4 - Chip flow set	height of (	C plate	heig	ght of chip flo	ow plate	Class-No.	Ident-No.
chip flow set 12/82 cpl.	12		82			975217	540227 o
chip flow set 22/72 cpl.	22		72			975217	540228 o
chip flow set 32/62 cpl.	32		62			975217	540229 o
chip flow set 42/52 cpl.	42		52			975217	540230 o
chip flow set 52/42 cpl.	52		42			975217	540231 o
chip flow set 62/32 cpl.	62		32			975217	540232 o
chip flow set 67/27 cpl.	67		27			975217	540233 o
	[mm]		[mn	n]			
5 - Extraction connection		tool Ø D	Ø connection	angle	basic hood form	Class-No.	Ident-No.
connection 0° - Ø 120 mm		250	120	0	A, B	975217	540298 o
connection 0° - Ø 140 mm		250	140	0	A, B	975217	540304 o
connection 30° - Ø 120 mm		250	120	30	A, B	975217	540308 o
connection 30° - Ø 140 mm		250	140	30	A, B	975217	540310 o
connection 0° - Ø 120 mm		250	120	0	С	975217	540362 o
connection 0° - Ø 140 mm		250	140	0	С	975217	540392 o
		[mm]	[mm]	[°]			

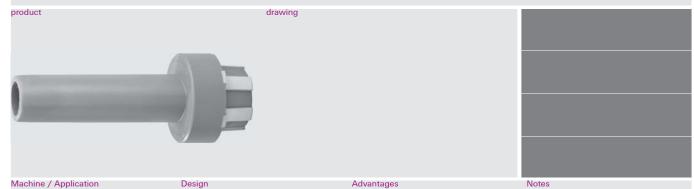


spare parts	Dimension	basic hood form	Class-No.	Ident-No.
basic plate	D = 250 mm	A, B, C	975217	540291 o
basic hood 15° - 90° cpl. tool-Ø 250 mm		Α	975217	540292 o
thread bolt		A, B, C	975217	540201 o
wear plate 0° standard cpl.	S = 8 mm	A, B	975517	540210 o
wear plate 0° right cpl.	S = 8 mm	С	975517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





# Cone wiper

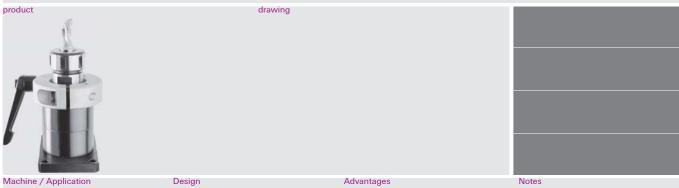


I for cleaning of the inner cones of the cone tool adaptors

Ød	Ident-No.
SK 30	180907 o
SK 40	180908 o
HSK 25	180909 o
HSK 32	180910 o
HSK 63	180911 o
[mm]	

#### 985202

# **Mounting Devices**



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

arbors and tool holders

#### Design

- I with two-part clamping jaws made from high-quality light
- I mounted on stable pedestal which can be fixed onto workbench
- I quick-grip lever for clamping of clamping chucks or holding arbors
- Advantages
- I variably applicable for all interfaces by simple exchanging of the clamping jaw

	Ød	Ident-No.
SK 30 (DIN) / HSK 50F	50	180362 o
SK 40 (DIN)	63,5	180363 o
SK 30 with ring gear (Morbidelli, SCM)	49	180364 o
SK 30 (ISO) CMS / BT 30	46	180365 o
HSK 63F / 63E	63	180366
BT 35	53	180367 o
HSK 85 (Weinig)	85	182284 o
	[mm]	

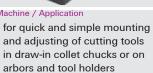
spare parts	for Ident-No.	Class-No. Ident-No.
Clamping Jaws (2-parts)	180362	997300 180368 0
Clamping Jaws (2-parts)	180363	997300 180369 0
Clamping Jaws (2-parts)	180364	997300 180370 d
Clamping Jaws (2-parts)	180365	997300 180371 d
Clamping Jaws (2-parts)	180366	997300 180372 0
Clamping Jaws (2-parts)	180367	997300 180373 0
Clamping Jaws (2-parts)	182284	997300 182285 0
Pedestal (without clamping jaw)		997300 180374 0

#### **Mounting Devices**



Machine / Application

drawing



#### Design

I mounted on stable pedestal which can be fixed onto workbench

#### Advantages

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



I for all adapters HSK 63 F

Ø d1min Ident-No. HSK 63F 182467 [mm]



#### 985202

#### **Mounting Devices**



drawing

Machine / Application

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

- I high-end version with integrated plastic inserts to protect the tool holder
- I mounted on stable pedestal which can be fixed onto workbench

#### Advantages

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

I for all adapters HSK 63 F

Ø d1min Ident-No. HSK 63F 182166 o [mm]



#### inductive shrinking device ISG 2202

product drawing

Array of the state of the s

#### Machine / Application

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

#### Docian

I device with inductor, centering discs for tool adapters and 3 replacement discs I color: grey-white RAL 9002

I performance: 8 kW I version without ventilator

#### Advantages

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

#### Motos

I in combination with the cooling station FKS 03 shrinking, cooling and cleaning can be done within seconds please order separately

	Dimension	weight		Ident-No.
inductive shrinking device ISG 2202 (without ventilator)	640x310x390	25		184036 o
	[mm]	[kg]		
accessories	weight		Class-No.	ldent-No.
liquid cooling device FKS 03 (manual)	22.5		985201	184037o
tool adapter HSK40/50/63F for FKS03			985201	184039o
tool adaptor SK30/40/BT30/40 for FKS03			985201	184038o
	[kg]			



#### inductive shrinking device ISG 3202



drawing



#### Machine / Application

- for shrinking of HW shanks Ø 3 - 50~mm and HS shanks Ø 6 - 50 mm
- by means of the inductive shrinking device ISG 3202 all tools with Ø 3 - 32 mm can be shrinked by simple change of the discs the energy coupling is optimally adapted to the respective clamping chuck thanks to special inductors large tools up to 50 mm can also be shrinked

- I device with inductor with 4 replacement discs
- I color: grey-white RAL 9002
- I performance: 10 kW
- I version without ventilator

#### Advantages

- I operation of the ISG 3202 by menu
- I all parameter are shown at the same time
- I several languages can be chosen
- I data for clamping chucks with special geometries can be saved

I in combination with the cooling station FKS 03 shrinking, cooling and cleaning can be done within seconds please order separately

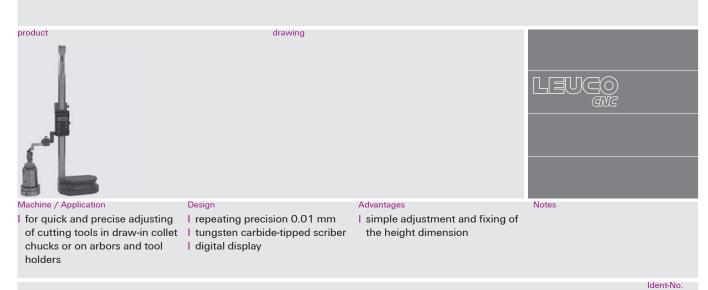
	Dimension	weight		ldent-No.
inductive shrinking device ISG 3202 (without ventilator)	900x620x500	43		184035 o
	[mm]	[kg]		
accessories	weight		Class-No.	ldent-No.
liquid cooling device FKS 03 (manual)	22.5		985201	184037o
tool adapter HSK40/50/63F for FKS03			985201	184039o
tool adaptor SK30/40/BT30/40 for FKS03			985201	184038o

[kg]



#### digital height measuring device

digital height measuring device



**LEUCO** 

183684 o

# **Connection dimensions for Boring Bit Collet Chucks**

Threaded shank design for Kombi and Klack systems with appropriate machines

Туре		Machine assignment	
Α	a 15	Nottmeyer Lehbrink Pankoke + Kochsiek Prieß + Horstmann	
В	a 15	Ayen Holzma Knoevenagel Mayer Brandt Reichenbacher Torwegge Zubiola	
С	4 a 15	Nottmeyer	
D	4 a 16	Böttchner + Gessner Biesse Busellato Dingenotto Hüllhorst Holz-Her Homag Koch	Morbidelli Reimall Torwegge Weeke Reich
E	a 22,5	Bilek Type KÜN Knoevenagel	
F	a 17.7	Alberti Balestrini Bilek (05 R) Busellato Dubus Goma Grotefeld Omeg	Reimall Schleicher SCM Tanzani Viciani Vitap Weingärtner
G	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Scheer	

