

21651

Combination mill arbors

ISO 7388-2 MAS-BT/ JIS B 6339 JD G 2.5 25000 1/min  $\leq 6\mu m$



Design

- Precision design
- Face-ground contact surfaces (accuracy < 0.003 mm)

Scope of delivery:

Including key, driver ring and retaining screws.

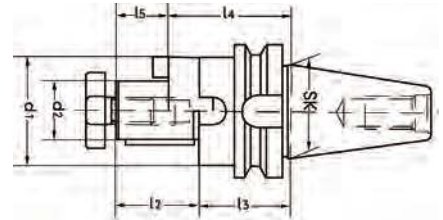
Applications

With key for cutters with longitudinal grooves such as DIN 841, and driver ring for cutters with lateral groove DIN 1880 and blade heads DIN 1830.

Note:

For pull studs, see art. no. 21737–21739. For driving rings, see art. no. 21655. For retaining screws, see art. no. 21656 and 21659. Retaining screw no. 21657.

21651



Taper MAS-BT	d <sub>2</sub> mm	l <sub>4</sub> mm	l <sub>3</sub> mm	d <sub>1</sub> mm	l <sub>5</sub> mm	l <sub>2</sub> mm	21651	...
40	16	55	45	32	17	27		302
40	22	55	43	40	19	31		303
40	27	55	43	48	21	33		304
40	32	60	46	58	24	38		305
40	40	60	46	70	27	41		306
50	22	70	58	40	19	31		403
50	27	70	58	48	21	33		404
50	32	70	56	58	24	38		405
50	40	70	56	70	27	41		406

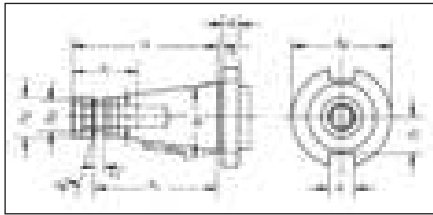
Info

Tool holders according to DIN 2080

Steep taper shafts SK 30 - SK 50 with female thread  
Manual clamping and ring groove for automatic clamping DIN 2080.

Version

Alloyed case hardening steel min. tensile strength 950 N/mm<sup>2</sup>.  
Taper angle tolerance more accurate than AT3.  
Case-hardened 60-2 HRC.  
Functional surfaces ground.



SK	d1 mm	a mm	b mm	k mm	g	d2 mm	d3 mm	d4 mm	l1 mm	l2 mm	l3 mm	l4 mm	l5 mm
30	31.75	1.6	16.1	8	M 12	50.0	-	17.1	68.4	16.2	-	-	24
40	44.45	1.6	16.1	10	M 16	63.0	21.1	25.0	93.4	22.5	7	82	32
50	69.85	3.2	25.7	12	M 24	97.5	32.0	39.3	126.8	35.3	13	115	47

21184

Short drill chuck AKL 1–16 mm

DIN 2080 Vorgew. 7000 1/min  $\leq 30\mu m$

ALBRECHT

Präzisions Spannfutter

Design

- 100% concentricity checked, based on DIN ISO 10888
- Worm gear for high retention forces

Scope of delivery:

Includes spanner with T-handle for high traction.

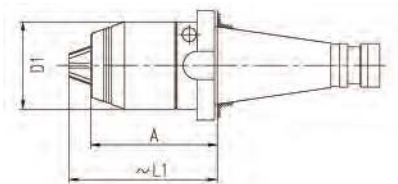
Applications

Suitable for clockwise/anti-clockwise rotation and fast-braking spindles.

Note:

Other balancing grades available on request.

21184



Taper SK	Clamping range mm	A mm	D1 mm	L1 mm	21184	...
40	1-16	73	50	85		301

21205

Short drill chuck



Design

- Short, robust and slim design
- Gear ratio generates high gripping forces
- High precision and concentricity

Scope of delivery:

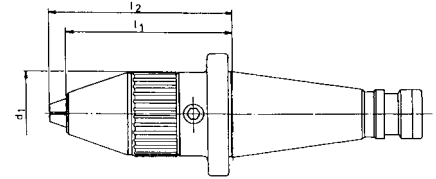
Includes spanner with T-handle for high traction.

Applications

For clockwise/anti-clockwise rotation.



21205



Taper SK	Clamping range mm	l <sub>1</sub> mm	d <sub>1</sub> mm	l <sub>2</sub> mm	21205	...
40	1.0-13	80.0	43	88.0		101
40	2.5-16	97.0	56	102.0		102

21455

Quick-change tapping chuck



Design

- With length compensation under compression and tension

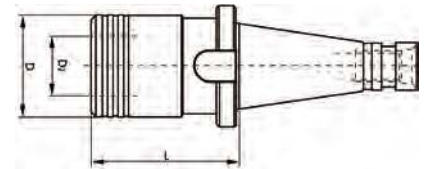
Note:

For quick-change inserts, see art. no. 21459-21460.

For pull studs, see art. no. 21733-21740.



21455



Taper SK	For screw tap	Suitable inserts/size	Length compensation Pressure/tension mm	L mm	D mm	D <sub>2</sub> mm	21455	...
40	M 3-M 12	1	9.0/9.0	53	38	19		201
40	M 6-M 20	2	15.0/15.0	77	55	31		202
50	M 6-M 20	2	15.0/15.0	79	55	31		205

21510

ER collet chuck set



Set contents

- 1 High-performance drilling and milling chuck, type ER 40, clamping range 3-26 mm
- 13 Collet chucks, type 472 E, slotted on both sides, Diameter 4/5/6/8/10/12/14/16/18/20/22/24/25 mm
- 1 Spanner



21510 101

	Set contents	Shank	Version	21510	...
Collet chuck set	15 pieces	SK 40	In plastic case		101
Plastic box	-	-	Empty		107

21511

ER collet chuck



Design

- Precision design
- High concentricity

Applications

For clamping tools with straight shanks in collet chucks DIN 6499 shape A and B.

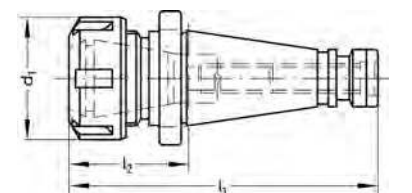
Note:

For collet chuck sets, see art. no. 21519.

For collet chucks, see art. no. 21520-21525 and 21534-21539.



21511



Taper SK	Clamping range mm	Size	Collet chucks Type	l <sub>2</sub> mm	l <sub>1</sub> mm	d <sub>1</sub> mm	21511	...
30	2-20	ER 32	ER 32/470 E	50	118.4	50		102
40	2-20	ER 32	ER 32/470 E	50	143.4	50		107
40	4-26	ER 40	ER 40/472 E	80	173.4	63		108

21542

## OZ collet chuck

**HHW**

## Design

Ball-bearing union nut

## Scope of delivery:

Includes clamping nut

## Applications

For clamping tools with straight shanks in collet chucks in line with DIN 6388.

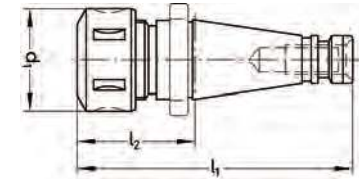
## Note:

For collet chucks, see art. no. 21552–21554.

Taper SK	Clamping range mm	For collet chucks type	$l_2$ mm	$d_1$ mm	21542	...
30	2–16	415 E	50	43		101
40	2–25	462 E	66	60		103
40	4–32	467 E	95	72		104
50	2–25	462 E	71	60		105
50	4–32	467 E	73	72		106



21542



21600

## Tool chucks for drill chucks

**HHW**

## Design

- Precision design

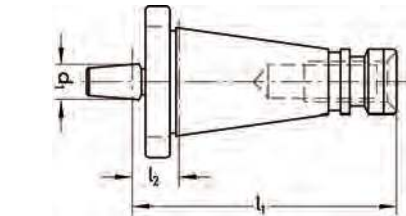
## Applications

For mounting drill chucks on milling machines.

Taper SK	Mount $d_1$ DIN 238	$l_2$ mm	$l_1$ mm	21600	...
40	B 16	18	110.4		101
50	B 16	22	146.8		103



21600



21606

## Taper sleeves

**HHW**

## Design

- Precision design

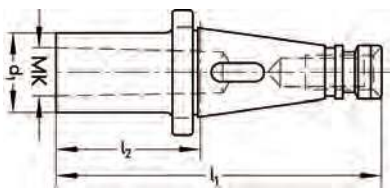
## Applications

For mounting tools with MK shanks and flat tangs.

Outer taper SK	Inner taper MK	$l_2$ mm	$l_1$ mm	$d_1$ mm	21606	...
30	2	50	118.4	32		101
40	1	50	143.4	25		102
40	2	50	143.4	32		103
40	3	65	158.4	40		105
40	4	95	188.4	48		107
50	1	45	171.8	25		109
50	2	60	186.8	32		110
50	3	65	191.8	40		112
50	4	70	196.8	48		114
50	5	105	231.8	63		116



21606



21612

## Milling bit holders

**HHW**

## Design

- Precision design

- Built-in retaining screw

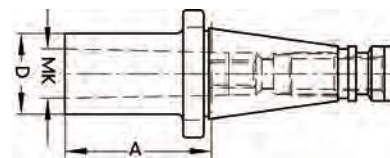
## Applications

For mounting tools with MK shanks and clamping threads.

Outer taper SK	Inner taper MK	Clamping thread Internal	A mm	D mm	21612	...
40	2	M 10	50	32		102
40	3	M 12	65	40		103
40	4	M 16	95	48		104



21612



21617

Spacer sleeve

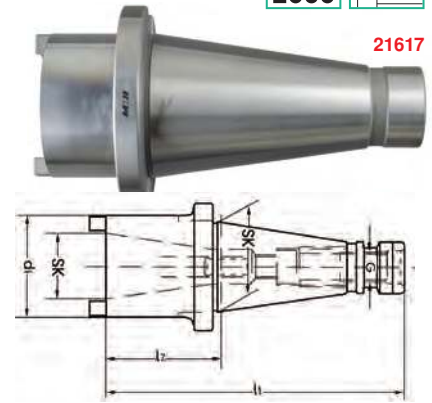


Design

- Precision design
- Built-in retaining screw

Applications

For mounting and extending SK shanks.



21617

Outer taper SK	Inner taper SK	Clamping thread Outer	Clamping thread Internal	l <sub>2</sub> mm	l <sub>1</sub> mm	d <sub>1</sub> mm	21617	...
50	40	M 24	M 16	50	176.8	70		203

21630

Milling cutter holders



Design

- Precision design
- Bore tolerance < 0.004 mm

Applications

For clamping tools with side driving surfaces in accordance with DIN 1835 B and DIN 6535 HB.



21630

Taper SK	For milling shank Ø d mm	A mm	D mm	21630	...
40	6	50	25		201
40	8	50	28		202
40	10	50	35		203
40	12	50	42		204
40	14	50	44		205
40	16	63	48		206
40	18	63	50		207
40	20	63	52		208
40	25	80	63		210
40	32	80	72		211

Taper SK	For milling shank Ø d mm	A mm	D mm	21630	...
50	6	63	25		401
50	8	63	28		402
50	10	63	35		403
50	12	63	42		404
50	14	63	44		405
50	16	63	48		406
50	18	63	50		407
50	20	63	52		408
50	25	80	63		410
50	32	80	72		411
50	40	90	80		412

21649

Combination mill arbors



Design

- Precision design
- Face-ground contact surfaces (accuracy < 0.003 mm)

Applications

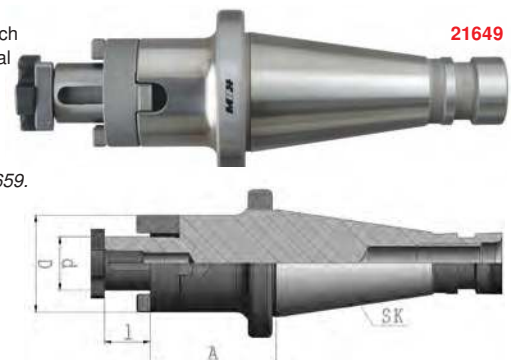
With key for cutters with longitudinal grooves such as DIN 841, and driver ring for cutters with lateral groove DIN 1880 and blade heads DIN 1830.

Note:

For driving rings, see art. no. 21655.  
 For retaining screws, see art. no. 21656 and 21659.  
 Retaining screw no. 21657.

Scope of delivery:

Including key, driver ring and retaining screws.



21649

Taper SK	d mm	A mm	D mm	l mm	21649	...
30	16	35	32	17		302
30	22	35	40	19		303
30	27	35	48	21		304
40	16	52	32	17		307
40	22	52	40	19		308
40	27	52	48	21		309
40	32	52	58	24		310

Taper SK	d mm	A mm	D mm	l mm	21649	...
40	40	52	70	27		311
50	16	55	32	17		402
50	22	55	40	19		403
50	27	55	48	21		404
50	32	55	58	24		405
50	40	55	70	27		406

21670

## Blade head supports

**HHW****Design**

- Precision version with enlarged and face-ground contact surfaces
- Short overhang for greater stability

**Scope of delivery:**

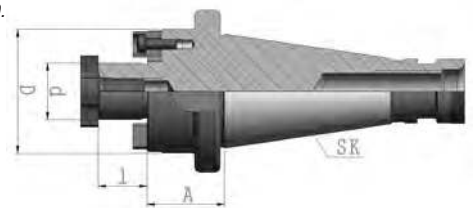
Includes retaining screw.

**Applications**

For face milling cutter heads and cutters with lateral grooves.

**Note:***d = 40 mm also has 4 threaded holes for direct mounting.**For retaining screws, see art. no. 21656 and 21659. Retaining screw no. 21657.*

21670



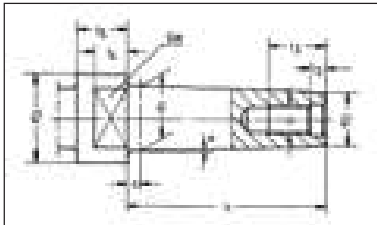
Taper SK	d mm	A mm	D mm	l mm	21670	...
40	22	30	48	19		305
40	27	30	58	21		306
40	32	30	78	24		307
40	40	30	88	27		308

Taper SK	d mm	A mm	D mm	l mm	21670	...
50	27	35	58	21		403
50	32	40	78	24		404
50	40	33	88	27		405

## Info

## Tool holder according to DIN 228

Morse taper shanks MK 3 - MK 5 DIN 228 Part 1 Shape A with synchronisation DIN 2207.



MK	l1 mm	d1 mm	g	a mm	d2 mm	d3 mm	l2 mm	l3 mm	l4 mm	l5 mm	SW	A Degrees/Minutes/Seconds
3	86	23.825	M 12	5.0	19.0	36	5.5	24	12	18	24	1/26/16
4	109	31.267	M 16	6.5	25.0	43	8.2	32	15	23	32	1/29/15
5	136	44.399	M 20	6.5	35.7	60	10.0	40	18	28	45	1/30/26

21180

## High-performance three-jaw drill chuck SBF-plus

DIN 228

**ALBRECHT**

Präzisions Spannfutter

**Design**

Drill chuck with integrated MK shank. Keyless clamping, automatic reclamping, high degree of concentricity. Optimal stability thanks to compact design.

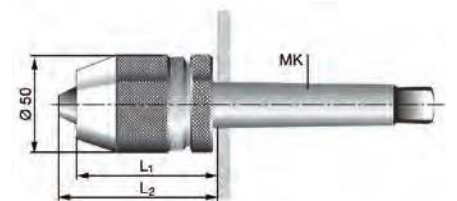
**Applications**

Only for clockwise rotation.

Clamping range mm	Drive arbor	D mm	L <sub>1</sub> mm	21180	...
1-13	MK 2	50	85.0		101
1-13	MK 3	50	85.0		102
1-13	MK 4	50	86.5		103
1-13	Diameter 16	50	79.0		104
3-16	MK 3	56	89.0		105
3-16	MK 4	56	90.0		106



21180



21321

## Quick-change chuck

DIN 228

**FAHRION®**

PRÄZISION

**Design**

Precise quick-change chuck.

**Applications**

For drills and drilling machines.

**Note:***For quick-change inserts, see art. no. 21323 and 21325.*

Size	Shank MK	For holes in steel Ø mm	L1 mm	L2 mm	D mm	For insert sleeve Ø mm	21321	...
2	3	32	176	82	61	34		104
3	4	50	222	104	86	46		105



21321

