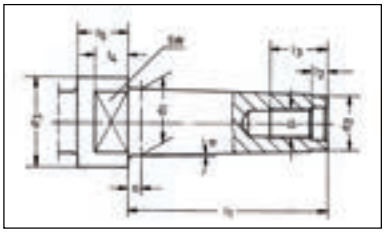
Info — Tool holding fixture in accordance with DIN 228

Morse taper shanks MT 3 - MT 5 DIN 228 Part 1 shape A with driver DIN 2207.



MT	l1 mm	d1 mm	G	a mm	d2 mm	d3 mm	l2 mm	l3 mm	l4 mm	l5 mm	SW	A Degree/minute/second
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 Chucks SBF-plus

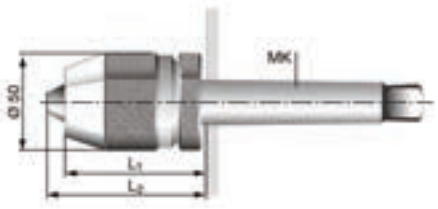
DIN 228

ALBRECHT
Präzisions Spannfutter

Type
Drill chuck with integrated MT shank. Keyless clamping, automatic tightening, high true-running accuracy. Optimal stability thanks to a compact design.

Use
Only for clockwise operation.

21180



Clamping width mm	Clamping shank	D mm	L_1 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	Ø 16	50	79,0	104
3 - 16	MK 3	56	89,0	105
3 - 16	MK 4	56	90,0	106

21321 — Quick-Change Chucks

DIN 228

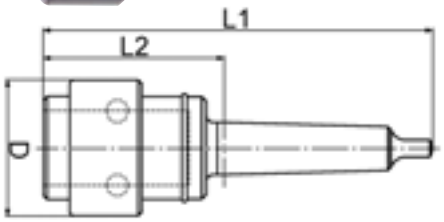
FAHRION® PRAZISION

Type
Precise quick-change mount.

Use
For boring mills and drills.

Note:
Quick-change sleeves see cat.-no. 21323 and 21325.

21321



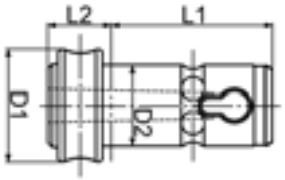
Size	Shank MT	for boreholes in steel Ø mm	L1 mm	L2 mm	D mm	for chuck collet Ø mm	21321 ...
2	3	32	176	82	61	34	104
3	4	50	222	104	86	46	105

21323 — Morse Taper Chuck Collets

FAHRION® PRAZISION

Use
For Quick-change collet cat.-no. 21321. For location of tools with Morse taper shank and ejector lugs acc. to DIN 228 B and clamping sleeves acc. to DIN 6329 cat.-no. 22711 (for tools with cyl. shank).

21323



for chuck Size	for tools with MT	D2 sleeve Ø mm	L1 mm	L2 mm	D1 mm	21323 ...
2	1	34	65	22	46	105
2	2	34	65	26	46	106
2	3	34	65	43	46	107
3	1	46	82	23	58	108
3	2	46	82	23	58	109
3	3	46	82	27	58	110
3	4	46	82	53	58	111

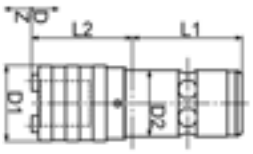
21325 Tap drill insert sleeves

FAHRION® PRAZISION

Type
For mounting quick-change sleeves without friction clutch (cat.-no. 21459) or with adjustable safety friction clutch (cat.-no. 21460). with Length compensation in response to compression and tension (D/Z).

Use
For quick-change collet cat.-no. 21321.
For clamping tap drills with square collet.

21325



for chuck size	Cutting range	D/Z mm	L1 mm	L2 mm	D1 mm	D2 mm	Inserts size	21325 ...
2	M 3 - M 12	7.5	65	45	36	34	1	101
2	M 8 - M 20	12.5	65	69	53	34	2	102
3	M 3 - M 12	7.5	82	45	36	46	1	103
3	M 8 - M 20	12.5	82	69	53	46	2	104

21406 Tap cutting chuck

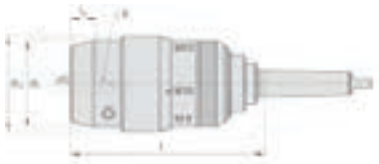
DIN 228

BILZ

Type
Double chuck, clamps shank and square-end. Adjustable safety friction clutch to prevent tool breakage. Pendulum unit balances out alignment errors between machine and workpiece. Elastic length compensation in response to compression and tension.
Scope of supply:
Incl. of wrench.

Use
For cutting internal threads with reversible drills, lathes, and milling machines. Can be mounted horizontally or vertically.

21406



Shank MT	Ø d mm	□ K mm	Metric thread	Whitworth thread	Whitworth pipe thread	Pendulum action mm	Length compensation compr./tension mm	d_1 mm	d_2 mm	l mm	l_1 mm	21406 ...
2	2.5 - 10	0.0 - 8	M 3 - 12	1/8 - 1/2 inch	G 1/8 inch	1.0	10/20	53	58	135	18 - 20	101
3	2.5 - 10	0.0 - 8	M 3 - 12	1/8 - 1/2 inch	G 1/8 inch	1.0	10/20	53	58	135	18 - 20	102
3	6.0 - 16	4.7 - 12	M 8 - 20	1/4 - 13/16 inch	G 1/8 - 1/2 inch	1.5	10/20	76	83	170	23 - 28	103
4	6.0 - 16	4.7 - 12	M 8 - 20	1/4 - 13/16 inch	G 1/8 - 1/2 inch	1.5	10/20	76	83	171	23 - 28	104
4	11.0 - 23	0.0 - 18	M 14 - 30	9/16 - 1.1/8 inch	G 1/4 - 7/8 inch	2.0	10/30	100	106	230	25 - 34	105

21408 Tapping Attachments

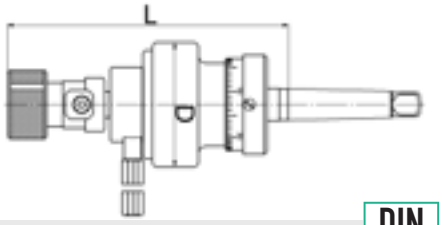
DIN 228

FAHRION® PRAZISION

Type
With infinitely adjustable clamping jaws. Installed return line 2:1. Adjustable safety friction clutch to prevent tool breakage. Rotation change immediately after an exchange of feed direction.

Use
For cutting internal threads on clockwise rotating table and tower drilling machines.

21408



Shank MT	Cutting range	Clamping range shank mm	Rotational speed max. rpm	D mm	L mm	21408 ...
2	M 3 - M 10	2.5 - 10.0	600	69	158	102
3	M 6 - M 16	4.5 - 12.5	400	82	183	104
3	M 14 - M 27	11.0 - 22.4	250	105	244	105

21410 Tapping Attachments

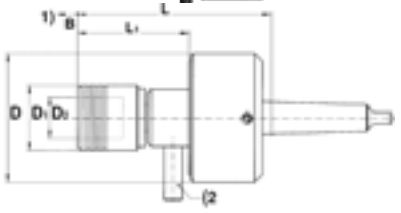
DIN 228

BILZ

Type
With morse taper shank in compliance with DIN 228 B with length compensation in response to tension.
Use
For thread cutting with hand drills and manual feed and without spindle reservation. maintenance-free and for right- and left-hand threads.

Note:
Quick-change sleeves see cat.-no. 21459 - 21460.
Tapping heads with further shanks available on request.
1) Self feed
2) Torque support

21410



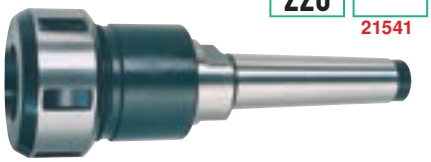
Size	Type	for taps	n max. rpm	B mm	L mm	L_1 mm	D mm	D_1 mm	D_2 mm	21410 ...
1	TA 12/MT 2	M 3 - M 12	1200	6	140	60	80	32	19	102
1	TA 12/MT 3	M 3 - M 12	1200	6	140	60	80	32	19	103
2	TA 20/MT 3	M 8 - M 20	500	8	170	86	100	50	31	104

21541 OZ collet chucks

DIN 228 A

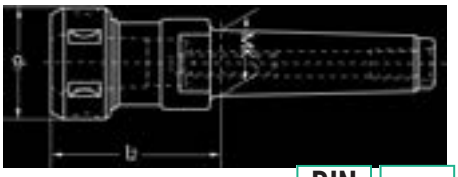
Type
Morse taper shank with internal draw-in thread.
With clamping nut.

Note:
Collets see cat.-no. 21552 - 21554.



21541

Taper MT / draw-in thread	Clamping range mm	for collets Type	l_2 mm	d_1 mm	21541 ...
2 / M 10	2 - 16	415 E	62	43	100
3 / M 12	2 - 25	462 E	70	60	101
4 / M 16	2 - 25	462 E	70	60	102



21648 Combination milling cutter arbors

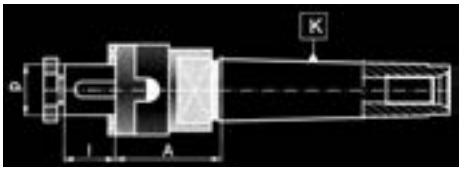
DIN 228 A

Type
Morse taper shank with internal draw-in thread.

Use
With feather key for milling cutters with longitudinal keyway e.g. DIN 841 and driving ring for milling cutters with transverse slot DIN 1880 and milling heads DIN 1830.

21648

Taper MT	d mm	A mm	l mm	21648 ...
3	16	48	17	101
3	22	48	19	102
3	27	48	21	103
4	22	55	19	106
4	27	55	21	107



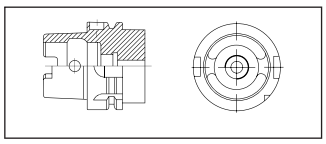
Info Tool supports acc. to DIN 69893

Type
Alloyed case-hardened steel, min. tensile strength 950 N/mm². Taper tolerance less than AT3 acc. to DIN 7187 and DIN 2080.
The case hardness and case depth are adapted to suit each support.
In order to avoid breakage or cracks, the thin-walled HSK chucks are not full-hardened.

The different shapes of the hollow shank taper DIN 69893:

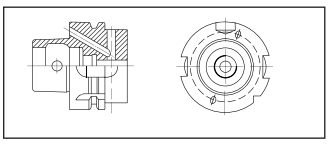
Hollow shank taper HSK for automatice tool exchange with gripper groove

Shape A



- For machining centres with automatic tool changing.
- Central coolant supply through coolant tube.

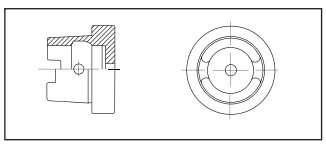
Shape B



- For machining centres and turning machines with automatic tool changing.
- Enlarged contact.
- Coolant through flange or central with coolant tube.

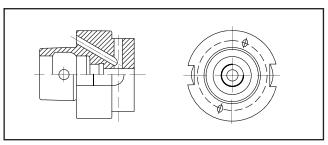
Hollow shank taper HSK for manual tool changing without gripper groove

Shape C



- Preferred type in transfer lines and special machines with manual tool exchange.
- Central coolant supply.

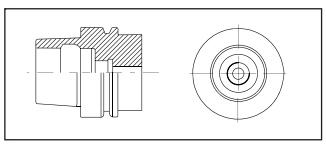
Shape D



- For applications requiring good support through face rest .
- Manual tool exchange.
- Enlarged contact.
- Coolant through flange or central with coolant tube.

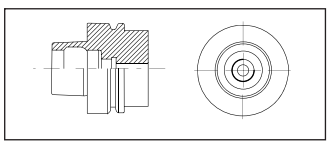
Hollow shank taper HSK for high rotational speed applications during high speed machining (HSC) with gripper groove

Shape E



- Prefered for high-speed machining.
- Symmetric without driver slots.
- Central coolant supply possible through coolant tube.

Shape F



- Enlarged contact.
- Central coolant supply possible through coolant tube.