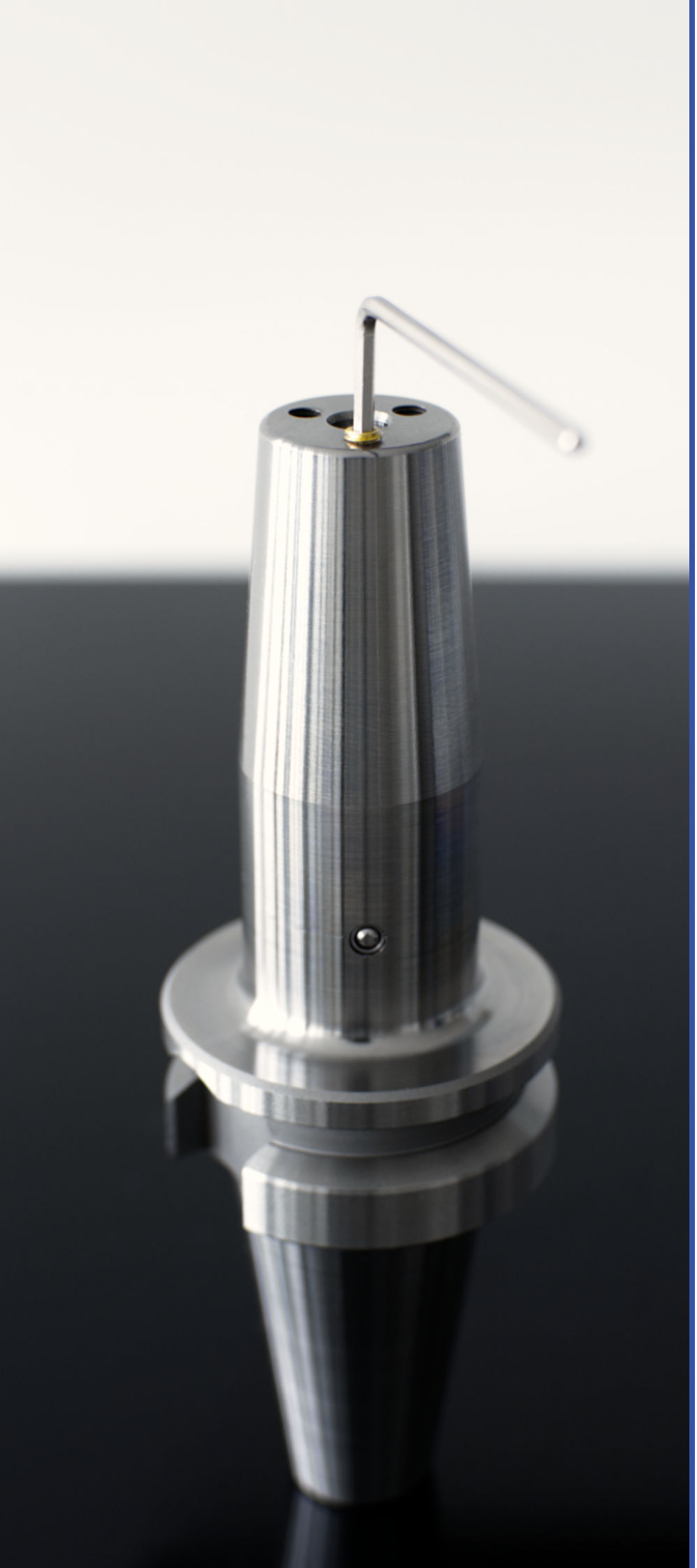
SAB

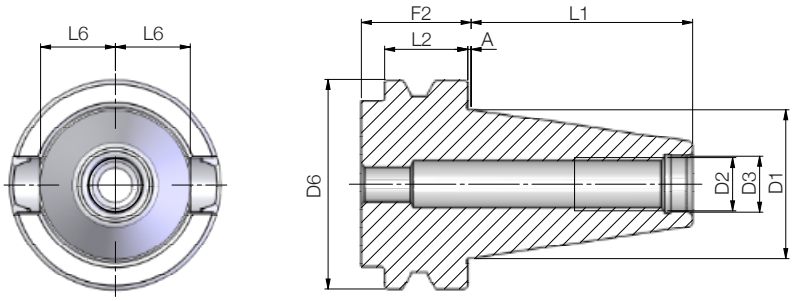
Tool holders
JIS-B-6339 (MAS BT 403)

2024

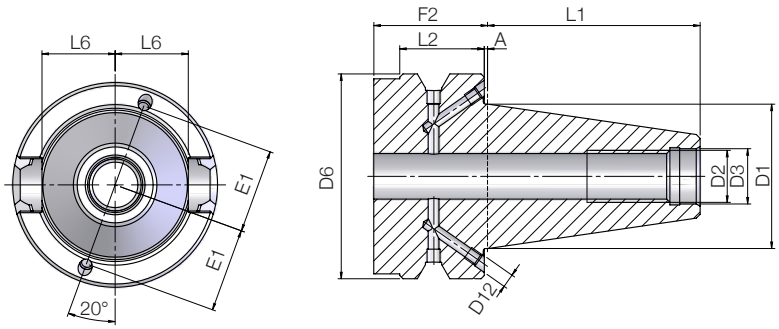
Notes

JIS-B-6339 (MAS-BT 403)





MAS BT 403 A/AD



MAS BT 403 AD+B DoubleContact

MAS BT 403 A/AD , MAS BT 403 AD+B

Cone	D1	D2	D3	D6	D12	L1	L2	L6	A	E1	F2
30	31,75	M12	12,50	46	-	48,40	20	16,30	2	19,5	Min.30
40	44,45	M16	17	63	M4	65,40	25	22,60	2	27	Min.35
50	69,85	M24	25	100	M6	101,80	35	35,50	3	42	Min.48

MAS BT 403 AD+B DoubleContact

Cone	D1	D2	D3	D6	D12	L1	L2	L6	A	E1	F2
30	31,75	M12	12,50	46	-	48,40	21	16,30	1	-	Min.22
40	44,45	M16	17	63	M4	65,40	26	22,60	1	27	Min.35
50	69,85	M24	25	100	M6	101,80	36,5	35,40	1,50	42	Min.49

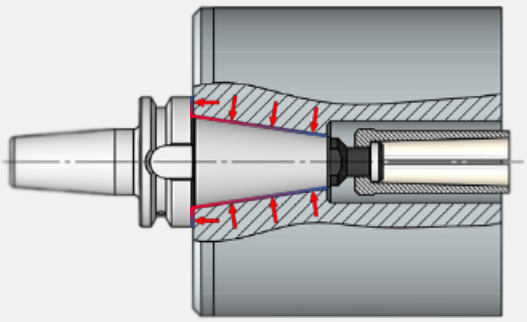
Material: Case hardened steel with min. 900 N/mm² of tensile strength in core.

Execution: Case hardened 58±2 Hrc. Depth of case 0.6 - 0.8 mm. Black oxidised.

Accuracy: Taper angle AT3 quality class. Rougness Ra < 0.4

DoubleContact

Double Contact tool holders enable simultaneous contact between taper and flange face, and machine spindle. This provides higher radial rigidity resulting in higher run-out precision and better machining accuracy.



Key benefits of THERMO Shrink-fit:

Unlike more traditional tool clamping systems, Shrink-fit toolholding employs heating and cooling properties of steel in order to achieve superior clamping force.

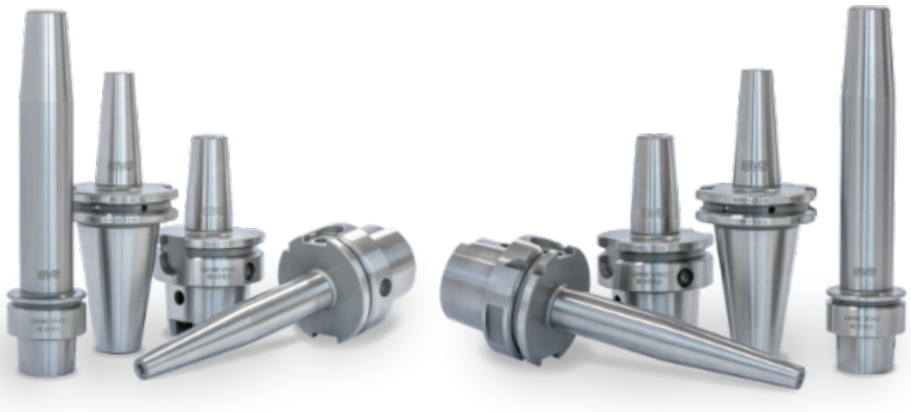
Inside diameter of the toolholder is precisely manufactured to be slightly smaller than the shank diameter of the cutting tool at the room temperature.

Using shrink-fit machine heat is applied to the toolholder allowing it to expand so that the cutting tool can fit in. Upon cooling down toolholder contracts to its original dimension the cutting tool.

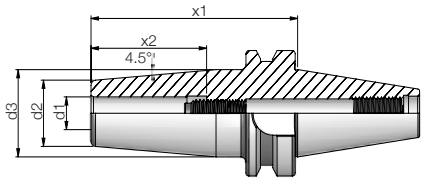
This clamping system allows for certain benefits not found in more traditional clamping:

- **Superior tool runout** - monobloc toolholder, without clamping elements (bolts, nuts, etc.)
- **Higher rigidity** - tool shank is gripped 360 deg., through the whole bore length
- **Straightforward operation** - fast tool change, less accessories required
- **Increased tool life** - better chip load distribution along the cutting edge
- **Easier workpiece approach** - thinner profile, reduced nose diameter, various toolholder lengths
- **Enhanced reach** - with use of cylindrical shrink fit extensions
- **Internal coolant supply** - delivering coolant through the toolholder to the tool edge for better chip removal and superior surface finish.
    - Coolant ports sealable using M4 screws.
    - High pressure nozzles for better coolant direction at higher rpm.
- **Extended spindle life** - tool holders fine balanced G2.5 at 25 000 rpm or more.
- **Costs saving** - higher machine productivity due to stable operation, increased feeds and speeds and cutting depths.

SAB has two decades worth of experience in supplying customers around the world with only top-quality Shrink fit toolholders.



THERMO Shrink-fit chucks



Radial runout ≤ 0,003 mm
G2.5 at 25 000 min^{-1}

d1	d2	d3	x1	x2	Code
3	9	16	65	-	SF03.2B30.065
3	9	16	90	-	SF03.2B30.090
3	9	16	120	-	SF03.2B30.120
3	9	22	160	-	SF03.2B30.160
4	10	17	65	-	SF04.2B30.065
4	10	17	90	-	SF04.2B30.090
4	10	17	120	-	SF04.2B30.120
4	10	22	160	-	SF04.2B30.160
5	11	18	65	-	SF05.2B30.065
5	11	18	90	-	SF05.2B30.090
5	11	18	120	-	SF05.2B30.120
5	11	22	160	-	SF05.2B30.160
6	21	27	65	37	SF06.2B30.065
8	21	27	65	37	SF08.2B30.065
10	24	30.5	65	41	SF10.2B30.065
12	24	30.5	65	47	SF12.2B30.065
14	27	33.5	65	47	SF14.2B30.065
16	27	33.5	65	50	SF16.2B30.065
20	33	42	80	52	SF20.2B30.080

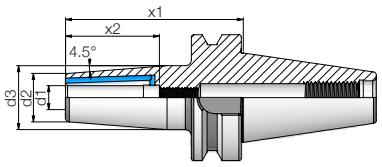
30
Form AD
Double Contact

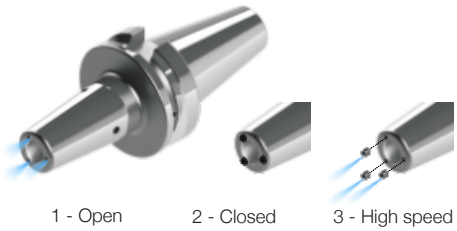
“3-in-1” THERMO Shrink-fit chucks

Internal coolant supply

Radial runout ≤ 0,003 mm

G2.5 at 25 000 min^{-1}





1 - Open 2 - Closed 3 - High speed

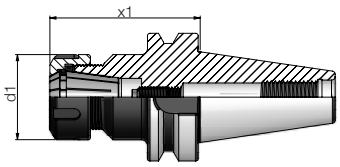
30
Form AD

Double Contact

d1	d2	d3	x1	x2	Code
6	21	27	90	37	SF06.2B30.090.IK
6	21	27	120	37	SF06.2B30.120.IK
6	21	33.8	160	37	SF06.2B30.160.IK
8	21	27	90	37	SF08.2B30.090.IK
8	21	27	120	37	SF08.2B30.120.IK
8	21	33.8	160	37	SF08.2B30.160.IK
10	24	32	90	41	SF10.2B30.090.IK
10	24	32	120	41	SF10.2B30.120.IK
10	24	38	160	41	SF10.2B30.160.IK
12	24	32	90	47	SF12.2B30.090.IK
12	24	32	120	47	SF12.2B30.120.IK
12	24	38	160	47	SF12.2B30.160.IK
14	27	34	90	47	SF14.2B30.090.IK
14	27	34	120	47	SF14.2B30.120.IK
14	27	40.4	160	47	SF14.2B30.160.IK
16	27	34	90	50	SF16.2B30.090.IK
16	27	34	120	50	SF16.2B30.120.IK
16	27	40.4	160	50	SF16.2B30.160.IK
18	33	42	90	50	SF18.2B30.090.IK
18	33	42	120	50	SF18.2B30.120.IK
18	33	47.5	160	50	SF18.2B30.160.IK
20	33	42	90	52	SF20.2B30.090.IK
20	33	42	120	52	SF20.2B30.120.IK
20	33	47.5	160	52	SF20.2B30.160.IK

Including high speed nozzles and sealing plugs

ER Collet chucks



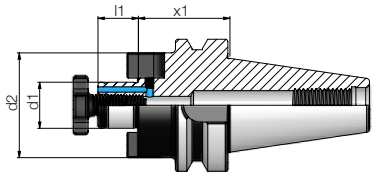
Radial runout ≤ 0,003 mm
G2.5 at 25 000 min^{-1}

ER	Range	x1	d1	Code
16	0.5 - 10	70	28	ER16.2B30.070
16	0.5 - 10	100	28	ER16.2B30.100
20	1 - 13	70	35	ER20.2B30.070
20	1 - 13	100	35	ER20.2B30.100
25	1 - 16	70	42	ER25.2B30.070
25	1 - 16	100	42	ER25.2B30.100
32	2 - 20	70	50	ER32.2B30.070
32	2 - 20	100	50	ER32.2B30.100

30
Form AD
Double Contact

Shell mill holders for cutters with driving slot

Internal coolant supply



Radial runout ≤ 0,003 mm
G2.5 at 25 000 min^{-1}

d1	x1	l1	d2	Code
16	35	17	38	AD16.2B30.035
22	35	19	48	AD22.2B30.035
27	35	21	50	AD27.2B30.035

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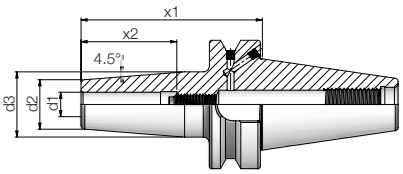
Form AD
Double Contact

THERMO Shrink-fit chucks

Radial runout ≤ 0,003 mm
G2.5 at 25 000 min^{-1}



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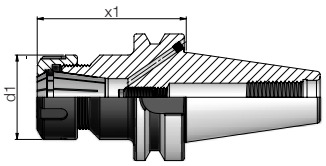
Form AD

d1	d2	d3	x1	x2	Code
3	9	16	65	-	SF03.B30.065
3	9	16	90	-	SF03.B30.090
3	9	16	120	-	SF03.B30.120
4	10	17	65	-	SF04.B30.065
4	10	17	90	-	SF04.B30.090
4	10	17	120	-	SF04.B30.120
5	11	18	65	-	SF05.B30.065
5	11	18	90	-	SF05.B30.090
5	11	18	120	-	SF05.B30.120
6	21	27	65	37	SF06.B30.065
6	21	27	90	37	SF06.B30.090
6	21	27	120	37	SF06.B30.120
8	21	27	65	37	SF08.B30.065
8	21	27	90	37	SF08.B30.090
8	21	27	120	37	SF08.B30.120
10	24	30.5	65	41	SF10.B30.065
10	24	32	90	41	SF10.B30.090
10	24	32	120	41	SF10.B30.120
12	24	30.5	65	47	SF12.B30.065
12	24	32	90	47	SF12.B30.090
12	24	32	120	47	SF12.B30.120
16	27	33.5	65	50	SF16.B30.065
16	27	34	90	50	SF16.B30.090
16	27	34	120	50	SF16.B30.120
20	33	42	80	52	SF20.B30.080
20	33	42	120	52	SF20.B30.120

ER Collet chucks



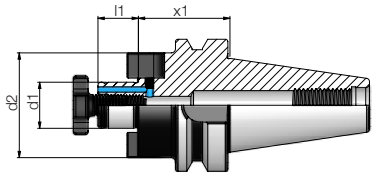
Radial runout ≤ 0,003 mm
G6.3 at 25 000 min^{-1}

ER	Range	x1	d1	Code
16	0.5 - 10	70	28	ER16.B30.070
20	1 - 13	70	35	ER20.B30.070
25	1 - 16	70	42	ER25.B30.070
32	2 - 20	70	50	ER32.B30.070

30 Form AD

Shell mill holders for cutters with driving slot

Internal coolant supply



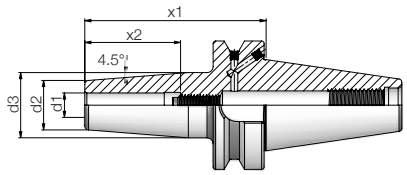
Radial runout ≤ 0,003 mm
G2.5 at 25 000 min^{-1}

d1	x1	l1	d2	Code
16	35	17	38	AD16.B30.035
22	35	19	48	AD22.B30.035
27	35	21	50	AD27.B30.035

30 Form AD

THERMO Shrink-fit chucks

Radial runout ≤ 0,003 mm
G2.5 at 25 000 min^{-1}



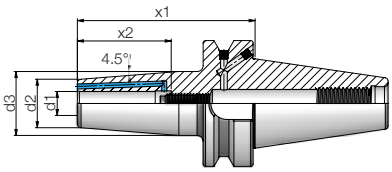
40
Form AD+B
Double Contact

d1	d2	d3	x1	x2	Code
3	9	16	90	-	SF03.2B44.090
3	9	16	120	-	SF03.2B44.120
3	9	22	160	-	SF03.2B44.160
4	10	17	90	-	SF04.2B44.090
4	10	17	120	-	SF04.2B44.120
4	10	22	160	-	SF04.2B44.160
5	11	18	90	-	SF05.2B44.090
5	11	18	120	-	SF05.2B44.120
5	11	22	160	-	SF05.2B44.160

“3-in-1” THERMO Shrink-fit chucks

Internal coolant supply

Radial runout ≤ 0,003 mm
G2.5 at 25 000 min^{-1}



1 - Open 2 - Closed 3 - High speed

40
Form AD+B
Double Contact

d1	d2	d3	x1	x2	Code
6	21	27	90	37	SF06.2B44.090.IK
6	21	27	120	37	SF06.2B44.120.IK
8	21	27	90	37	SF08.2B44.090.IK
8	21	27	120	37	SF08.2B44.120.IK
10	24	32	90	41	SF10.2B44.090.IK
10	24	32	120	41	SF10.2B44.120.IK
12	24	32	90	47	SF12.2B44.090.IK
12	24	32	120	47	SF12.2B44.120.IK
14	27	34	90	47	SF14.2B44.090.IK
14	27	34	120	47	SF14.2B44.120.IK
16	27	34	90	50	SF16.2B44.090.IK
16	27	34	120	50	SF16.2B44.120.IK
18	33	42	90	50	SF18.2B44.090.IK
18	33	42	120	50	SF18.2B44.120.IK
20	33	42	90	52	SF20.2B44.090.IK
20	33	42	120	52	SF20.2B44.120.IK
25	44	53	100	58	SF25.2B44.100.IK
32	44	53	100	63	SF32.2B44.100.IK

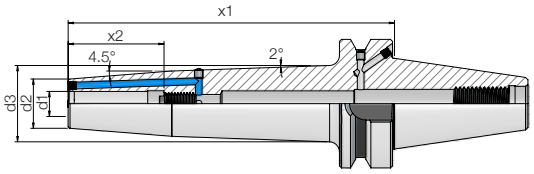
Extended “3-in-1” THERMO Shrink-fit chucks

Internal coolant supply

1 - Open

2 - Closed

3 - High speed



Radial runout ≤ 0,003 mm

G2.5 at 25 000 min^{-1}

d1	d2	d3	x1	x2	Code
6	21	33.3	160	37	SF06.2B44.160.IK
6	21	36.1	200	37	SF06.2B44.200.IK
8	21	33.3	160	37	SF08.2B44.160.IK
8	21	36.1	200	37	SF08.2B44.200.IK
10	24	37.4	160	41	SF10.2B44.160.IK
10	24	40.2	200	41	SF10.2B44.200.IK
12	24	37.4	160	47	SF12.2B44.160.IK
12	24	40.2	200	47	SF12.2B44.200.IK
14	27	39.8	160	47	SF14.2B44.160.IK
14	27	42.6	200	47	SF14.2B44.200.IK
16	27	39.8	160	50	SF16.2B44.160.IK
16	27	42.6	200	50	SF16.2B44.200.IK
18	33	47	160	50	SF18.2B44.160.IK
18	33	49.8	200	50	SF18.2B44.200.IK
20	33	47	160	52	SF20.2B44.160.IK
20	33	49.8	200	52	SF20.2B44.200.IK

40
Form AD+B
Double Contact

Including high speed nozzles and sealing plugs

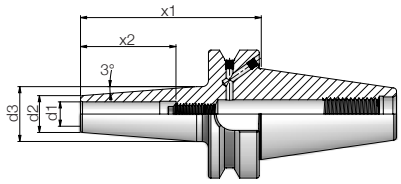
Vibration-dampening tapered profile

3° THERMO Shrink-fit chucks

Slim execution

Radial runout ≤ 0,003 mm

G2.5 at 25 000 min^{-1}



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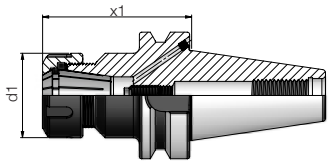
Form AD+B

Double Contact

d1	d2	d3	x1	x2	Code
3	9	14.9	90	-	SF03.2B44.090.3
3	9	18	120	-	SF03.2B44.120.3
3	9	22.1	160	-	SF03.2B44.160.3
4	10	15.9	90	-	SF04.2B44.090.3
4	10	19	120	-	SF04.2B44.120.3
4	10	23.1	160	-	SF04.2B44.160.3
5	11	16.9	90	-	SF05.2B44.090.3
5	11	20	120	-	SF05.2B44.120.3
5	11	24.1	160	-	SF05.2B44.160.3
6	12	18	90	37	SF06.2B44.090.3
6	12	21	120	37	SF06.2B44.120.3
6	12	25.1	160	37	SF06.2B44.160.3
8	14	20	90	37	SF08.2B44.090.3
8	14	23	120	37	SF08.2B44.120.3
8	14	27.1	160	37	SF08.2B44.160.3
10	16	22	90	41	SF10.2B44.090.3
10	16	25	120	41	SF10.2B44.120.3
10	16	29.1	160	41	SF10.2B44.160.3
12	18	24	90	47	SF12.2B44.090.3
12	18	27	120	47	SF12.2B44.120.3
12	18	31.1	160	47	SF12.2B44.160.3
16	24	30	90	47	SF16.2B44.090.3
16	24	33	120	47	SF16.2B44.120.3
16	24	37.1	160	47	SF16.2B44.160.3

ER Collet chucks



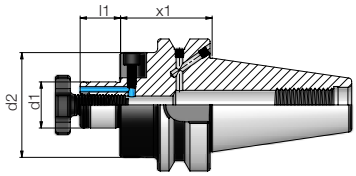
Radial runout ≤ 0,003 mm
G2.5 at 25 000 min^{-1}

ER	Range	x1	d1	Code
16	0.5 - 10	63	28	ER16.2B44.063
16	0.5 - 10	100	28	ER16.2B44.100
16	0.5 - 10	160	28	ER16.2B44.160
25	1 - 16	60	42	ER25.2B44.060
25	1 - 16	100	42	ER25.2B44.100
25	1 - 16	160	42	ER25.2B44.160
32	2 - 20	70	50	ER32.2B44.070
32	2 - 20	100	50	ER32.2B44.100
32	2 - 20	160	50	ER32.2B44.160
40	3 - 26	80	63	ER40.2B44.080
40	3 - 26	100	63	ER40.2B44.100
40	3 - 26	160	63	ER40.2B44.160

40
Form AD+B
Double Contact

Shell mill holders for cutters with driving slot

Internal coolant supply



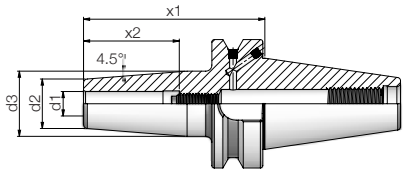
Radial runout ≤ 0,003 mm
G2.5 at 25 000 min^{-1}

d1	x1	l1	d2	Code
16	35	17	38	AD16.2B44.035
16	100	17	38	AD16.2B44.100
22	35	19	48	AD22.2B44.035
22	100	19	48	AD22.2B44.100
22	160	19	48	AD22.2B44.160
27	35	21	50	AD27.2B44.035
27	100	21	50	AD27.2B44.100
27	160	21	50	AD27.2B44.160
32	50	24	78	AD32.2B44.050
32	100	24	78	AD32.2B44.100
32	160	24	78	AD32.2B44.160
40	50	27	89	AD40.2B44.050
40	100	27	89	AD40.2B44.100

40
Form AD+B
Double Contact

THERMO Shrink-fit chucks

Radial runout ≤ 0,003 mm
G2.5 at 25 000 min^{-1}



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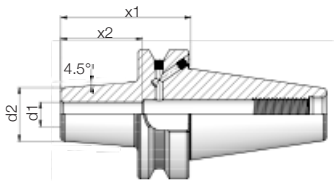
Form AD+B

d1	d2	d3	x1	x2	Code
3	9	16	90	-	SF03.B44.090
3	9	16	120	-	SF03.B44.120
3	9	22	160	-	SF03.B44.160
4	10	17	90	-	SF04.B44.090
4	10	17	120	-	SF04.B44.120
4	10	22	160	-	SF04.B44.160
5	11	18	90	-	SF05.B44.090
5	11	18	120	-	SF05.B44.120
5	11	22	160	-	SF05.B44.160
6	21	27	90	37	SF06.B44.090
6	21	27	120	37	SF06.B44.120
6	21	27	160	37	SF06.B44.160
8	21	27	90	37	SF08.B44.090
8	21	27	120	37	SF08.B44.120
8	21	27	160	37	SF08.B44.160
10	24	32	90	41	SF10.B44.090
10	24	32	120	41	SF10.B44.120
10	24	32	160	41	SF10.B44.160
12	24	32	90	47	SF12.B44.090
12	24	32	120	47	SF12.B44.120
12	24	32	160	47	SF12.B44.160
14	27	34	90	47	SF14.B44.090
14	27	34	120	47	SF14.B44.120
14	27	34	160	47	SF14.B44.160
16	27	34	90	50	SF16.B44.090
16	27	34	120	50	SF16.B44.120
16	27	34	160	50	SF16.B44.160
18	33	42	90	50	SF18.B44.090
18	33	42	120	50	SF18.B44.120
18	33	42	160	50	SF18.B44.160
20	33	42	90	52	SF20.B44.090
20	33	42	120	52	SF20.B44.120
20	33	42	160	52	SF20.B44.160
25	44	52	100	58	SF25.B44.100
25	44	52	120	58	SF25.B44.120
25	44	52	160	58	SF25.B44.160
32	44	53	100	63	SF32.B44.100
32	44	53	120	63	SF32.B44.120
32	44	53	160	63	SF32.B44.160

THERMO Shrink-fit chucks

Compact execution



Radial runout ≤ 0,003 mm

G2.5 at 25 000 min^{-1}

d1	d2	x1	x2	Code
6	21	65	37	SF06.B44.065
8	21	65	37	SF08.B44.065
10	24	65	41	SF10.B44.065
12	27	65	47	SF12.B44.065
14	33	70	47	SF14.B44.070
16	33	70	50	SF16.B44.070
18	44	70	50	SF18.B44.070
20	44	70	50	SF20.B44.070
25	46	70	51	SF25.B44.070
32	47	75	53	SF32.B44.075

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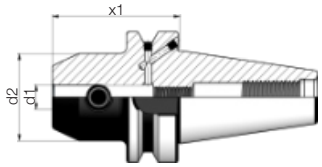
Form AD+B

End mill holders

Radial runout ≤ 0,003 mm
G6.3 at 25 000 min^{-1}



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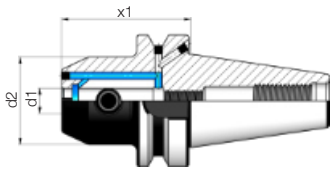
Form AD+B

d1	d2	x1	Code
6	25	50	WE06.B44.050
6	25	100	WE06.B44.100
6	25	160	WE06.B44.160
8	28	50	WE08.B44.050
8	28	100	WE08.B44.100
8	28	160	WE08.B44.160
10	35	63	WE10.B44.063
10	35	100	WE10.B44.100
10	35	160	WE10.B44.160
12	42	63	WE12.B44.063
12	42	100	WE12.B44.100
12	42	160	WE12.B44.160
14	44	63	WE14.B44.063
14	44	100	WE14.B44.100
14	44	160	WE14.B44.160
16	48	63	WE16.B44.063
16	48	100	WE16.B44.100
16	48	160	WE16.B44.160
18	50	63	WE18.B44.063
18	50	100	WE18.B44.100
18	50	160	WE18.B44.160
20	52	35	WE20.B44.035
20	52	63	WE20.B44.063
20	52	100	WE20.B44.100
20	52	160	WE20.B44.160
25	50	35	WE25.B44.035
25	50	63	WE25.B44.063
25	64	100	WE25.B44.100
25	64	160	WE25.B44.160
32	52	45	WE32.B44.045
32	52	63	WE32.B44.063
32	72	100	WE32.B44.100
32	72	160	WE32.B44.160
40	90	120	WE40.B44.120

End mill holders

Internal coolant supply



Radial runout ≤ 0,003 mm

G6.3 at 25 000 min^{-1}

d1	d2	x1	Code
6	25	50	WE06.B44.050.IK
6	25	100	WE06.B44.100.IK
8	28	50	WE08.B44.050.IK
8	28	100	WE08.B44.100.IK
10	35	63	WE10.B44.063.IK
10	35	100	WE10.B44.100.IK
12	42	63	WE12.B44.063.IK
12	42	100	WE12.B44.100.IK
14	44	63	WE14.B44.063.IK
14	44	100	WE14.B44.100.IK
16	48	63	WE16.B44.063.IK
16	48	100	WE16.B44.100.IK
18	50	63	WE18.B44.063.IK
18	50	100	WE18.B44.100.IK
20	52	63	WE20.B44.063.IK
20	52	100	WE20.B44.100.IK
25	64	90	WE25.B44.090.IK
32	72	100	WE32.B44.100.IK
40	90	120	WE40.B44.120.IK

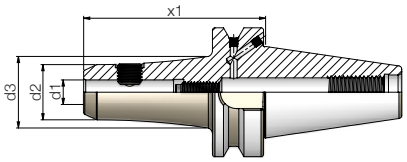
40
Form AD+B

End mill holders

Slim execution

Radial runout ≤ 0,003 mm

G6.3 at 25 000 min^{-1}



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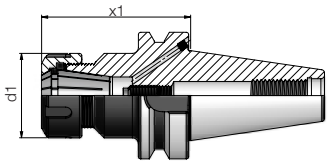
Form AD+B

d1	d2	d3	x1	Code
6	17	23	100	WE06.B44.100F
6	17	28	130	WE06.B44.130F
6	17	29	160	WE06.B44.160F
8	21	27	100	WE08.B44.100F
8	21	32	130	WE08.B44.130F
8	21	33	160	WE08.B44.160F
10	24	30	100	WE10.B44.100F
10	24	35	130	WE10.B44.130F
10	24	36	160	WE10.B44.160F
12	27	33	100	WE12.B44.100F
12	27	38	130	WE12.B44.130F
12	27	39	160	WE12.B44.160F
14	29	35	100	WE14.B44.100F
14	29	40	130	WE14.B44.130F
14	29	41	160	WE14.B44.160F
16	33	39	100	WE16.B44.100F
16	33	44	130	WE16.B44.130F
16	33	45	160	WE16.B44.160F
18	35	41	100	WE18.B44.100F
18	35	46	130	WE18.B44.130F
18	35	47	160	WE18.B44.160F
20	39	45	100	WE20.B44.100F
20	39	48	130	WE20.B44.130F
20	39	49	160	WE20.B44.160F
25	47	47	100	WE25.B44.100F
25	47	47	130	WE25.B44.130F
25	47	47	160	WE25.B44.160F
32	57	57	100	WE32.B44.100F
32	57	57	160	WE32.B44.130F
32	57	57	160	WE32.B44.160F

ER Collet chucks

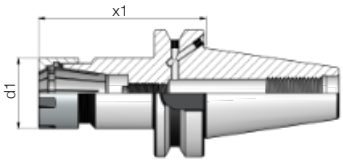


Radial runout ≤ 0,003 mm
G6.3 at 25 000 min^{-1}

ER	Range	x1	d1	Code
16	0.5 - 10	63	28	ER16.B44.063
16	0.5 - 10	100	28	ER16.B44.100
16	0.5 - 10	160	28	ER16.B44.160
20	1 - 13	60	35	ER20.B44.060
20	1 - 13	100	35	ER20.B44.100
20	1 - 13	160	35	ER20.B44.160
25	1 - 16	60	42	ER25.B44.060
25	1 - 16	100	42	ER25.B44.100
25	1 - 16	160	42	ER25.B44.160
32	2 - 20	70	50	ER32.B44.070
32	2 - 20	100	50	ER32.B44.100
32	2 - 20	160	50	ER32.B44.160
40	3 - 26	80	63	ER40.B44.080
40	3 - 26	100	63	ER40.B44.100
40	3 - 26	160	63	ER40.B44.160

40
Form AD+B

ER Collet chucks
Mini execution



Radial runout ≤ 0,003 mm
G6.3 at 25 000 min^{-1}

ER	Range	x1	d1	Code
11	0.5 - 7	70	16	ER11.B44.070M
11	0.5 - 7	100	16	ER11.B44.100M
11	0.5 - 7	160	16	ER11.B44.160M
16	0.5 - 10	70	22	ER16.B44.070M
16	0.5 - 10	100	22	ER16.B44.100M
16	0.5 - 10	160	22	ER16.B44.160M
20	1 - 13	70	28	ER20.B44.070M
20	1 - 13	100	28	ER20.B44.100M
20	1 - 13	160	28	ER20.B44.160M
25	1 - 16	70	35	ER25.B44.070M
25	1 - 16	100	35	ER25.B44.100M
25	1 - 16	160	35	ER25.B44.160M

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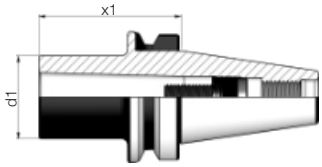
Form AD+B

Morse taper holders for mills

Radial runout ≤ 0,005 mm
G6.3 at 25 000 min^{-1}



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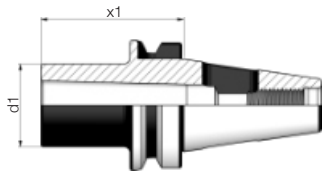
Form AD

MK	x1	d1	Code
1	50	25	MK1A.B40.050
2	50	32	MK2A.B40.050
3	70	40	MK3A.B40.070
4	95	48	MK4A.B40.095

Morse taper holders for drills

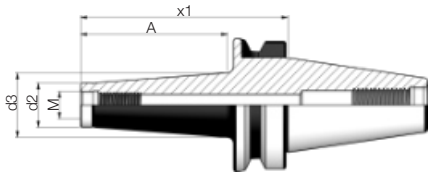
Radial runout ≤ 0,005 mm
G6.3 at 25 000 min^{-1}



40
Form AD

MK	x1	d1	Code
1	50	25	MK1B.B40.050
2	50	32	MK2B.B40.050
3	70	40	MK3B.B40.070
4	95	48	MK4B.B40.095

Threaded shank milling cutter holders



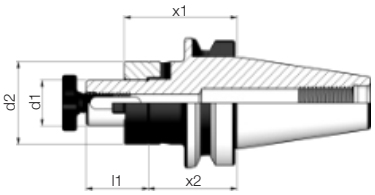
Radial runout ≤ 0,003 mm
G2.5 at 25 000 min^{-1}

M	A	x1	d2	d3	Code
M6	25	52	10	13	EF06.B44.052
M6	50	77	10	20	EF06.B44.077
M6	75	102	10	23	EF06.B44.102
M6	100	127	10	25	EF06.B44.127
M8	25	52	13	15	EF08.B44.052
M8	50	77	13	22.5	EF08.B44.077
M8	75	102	13	23	EF08.B44.102
M8	100	127	13	25	EF08.B44.127
M10	25	52	18	20	EF10.B44.052
M10	50	77	18	23	EF10.B44.077
M10	75	102	18	28	EF10.B44.102
M10	100	127	18	32	EF10.B44.127
M12	25	52	21	24	EF12.B44.052
M12	50	77	21	24	EF12.B44.077
M12	75	102	21	31	EF12.B44.102
M12	100	127	21	33	EF12.B44.127
M12	125	152	21	36	EF12.B44.152
M12	150	177	21	40	EF12.B44.177
M16	25	52	29	29	EF16.B44.052
M16	50	77	29	34	EF16.B44.077
M16	75	102	29	34	EF16.B44.102
M16	100	127	29	39	EF16.B44.127
M16	125	152	29	40	EF16.B44.152
M16	150	177	29	42.5	EF16.B44.177

40
Form AD+B

Combi shell mill holders for milling cutters

Radial runout ≤ 0,005 mm
G6.3 at 25 000 min^{-1}



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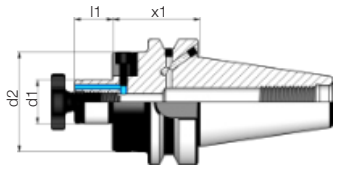
Form AD

d1	x1	x2	d2	l2	Code
16	55	45	32	27	KD16.B40.055
16	100	90	32	27	KD16.B40.100
22	55	43	40	31	KD22.B40.055
22	100	88	40	31	KD22.B40.100
27	55	43	48	33	KD27.B40.055
27	100	88	48	33	KD27.B40.100
32	60	46	58	38	KD32.B40.060
32	100	86	58	38	KD32.B40.100
40	100	86	70	41	KD40.B40.100

Shell mill holders for cutters with driving slot

Internal coolant supply



Radial runout ≤ 0,005 mm

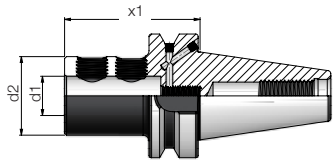
G6.3 at 25 000 min^{-1}

d1	x1	l1	d2	Code
16	35	17	38	AD16.B44.035
16	100	17	38	AD16.B44.100
16	160	17	38	AD16.B44.160
22	35	19	48	AD22.B44.035
22	100	19	48	AD22.B44.100
22	160	19	48	AD22.B44.160
27	35	21	50	AD27.B44.035
27	100	21	50	AD27.B44.100
27	160	21	50	AD27.B44.160
32	50	24	78	AD32.B44.050
32	100	24	78	AD32.B44.100
32	160	24	78	AD32.B44.160
40	50	27	89	AD40.B44.050
40	100	27	89	AD40.B44.100

40
Form AD+B

Holders for indexable inserts drills

Radial runout ≤ 0,005 mm
G6.3 at 25 000 min^{-1}

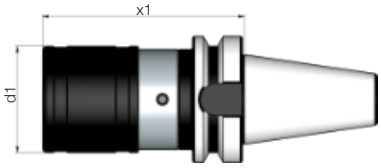


40
Form AD+B

d1	x1	d2	Code
20	75	40	VB20.B44.075
25	80	45	VB25.B44.080
32	85	52	VB32.B44.085

Quick-change tapping heads

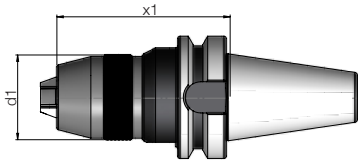
Length compensation in compression and tension.



40
Form A

Tap size	Compensation	Insert size	x1	d1	Code
M3 - M14	± 7.5	1	74	36	GN12.B40.074
M6 - M24	± 12.5	2	98	53	GN20.B40.098
M14 - M33	± 20	3	169	78	GN33.B40.169
M22 - M48	± 22.5	4	205	96	GN48.B40.205

HV drill chucks for RH and LH rotation



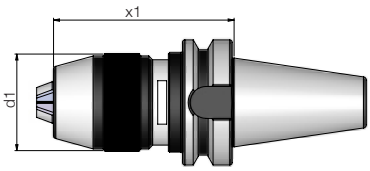
Radial runout ≤ 0,02 mm
G2.5 at 25 000 min^{-1}

mm	x1	d1	Code
0.5 - 13	92	44	HV13.B44.092
1 - 16	95	51	HV16.B44.095

40 Form AD

Integrated precision drill chuck with Hexagonal key lock.
For drilling, milling, reaming and tapping.
Through coolant.
Drill chuck slipping impossible due to chuck being screwed with the holder body.
Compact design, enhanced reach.
Range up to 13 or 16 mm.

NC drill chucks for RH rotation



Special wrench supplied.
Radial runout ≤ 0,03 mm
G6.3 at 12 000 min^{-1}

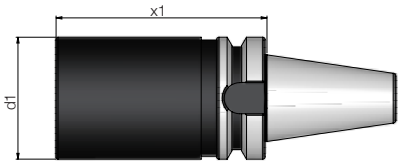
mm	x1	d1	Code
0 - 8	78	37	NC08.B40.078
0 - 10	82	43	NC10.B40.082
1 - 13	86	48	NC13.B40.086
3 - 16	105	53	NC16.B40.105

40 Form A

Integrated drill chuck with high clamping force achieved through special wrench.
2x chucking torque vs. hand tightening.
Drill bit slipping nearly impossible.
Drill chuck slipping impossible due to chuck being screwed with the holder body.
Compact design, external coolant supply.
Range up to 8, 10, 13 or 16 mm.

Blank bars

Cone and flange hardened and finished.
Machineable soft body.
Pre-balanced

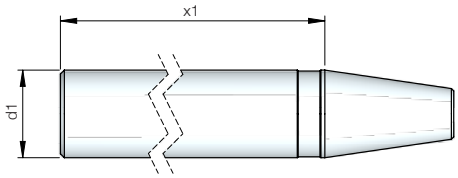


40
Form A

d1	x1	Code
63.5	160	RL63.B40.160
63.5	250	RL63.B40.250

Test bars

Radial runout ≤ 0,003 mm
Precisely ground length and diameter.
Test certificate and protective case supplied.



40
Form A

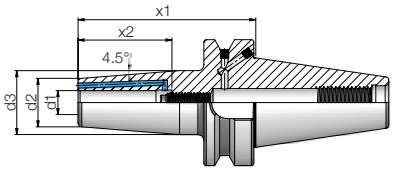
d1	x1	Code
40	250	TB40.B40.250

“3-in-1” THERMO Shrink-fit chucks

Internal coolant supply

Radial runout ≤ 0,003 mm

G2.5 at 25 000 min^{-1}



1 - Open 2 - Closed 3 - High speed

50
Form AD+B

Double Contact

d1	d2	d3	x1	x2	Code
6	21	27	100	37	SF06.2B55.100.IK
6	21	27	130	37	SF06.2B55.130.IK
8	21	27	100	37	SF08.2B55.100.IK
8	21	27	130	37	SF08.2B55.130.IK
10	24	32	100	41	SF10.2B55.100.IK
10	24	32	130	41	SF10.2B55.130.IK
12	24	32	100	47	SF12.2B55.100.IK
12	24	32	130	47	SF12.2B55.130.IK
14	27	34	100	47	SF14.2B55.100.IK
14	27	34	130	47	SF14.2B55.130.IK
16	27	34	100	50	SF16.2B55.100.IK
16	27	34	130	50	SF16.2B55.130.IK
18	33	42	100	50	SF18.2B55.100.IK
18	33	42	130	50	SF18.2B55.130.IK
20	33	42	100	52	SF20.2B55.100.IK
20	33	42	130	52	SF20.2B55.130.IK
25	44	53	100	58	SF25.2B55.100.IK
25	44	53	130	58	SF25.2B55.130.IK
32	44	53	100	63	SF32.2B55.100.IK
32	44	53	130	63	SF32.2B55.130.IK

Including high speed nozzles and sealing plugs

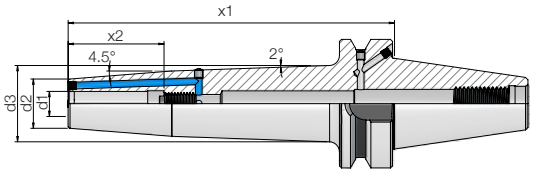
Extended “3-in-1” THERMO Shrink-fit chucks

Internal coolant supply

1 - Open

2 - Closed

3 - High speed



Radial runout ≤ 0,003 mm

G2.5 at 25 000 min^{-1}

d1	d2	d3	x1	x2	Code
6	21	32.5	160	37	SF06.2B55.160.IK
6	21	35.5	200	37	SF06.2B55.200.IK
8	21	32.5	160	37	SF08.2B55.160.IK
8	21	35.5	200	37	SF08.2B55.200.IK
10	24	36.6	160	41	SF10.2B55.160.IK
10	24	39.5	200	41	SF10.2B55.200.IK
12	24	36.6	160	47	SF12.2B55.160.IK
12	24	39.5	200	47	SF12.2B55.200.IK
14	27	39.1	160	47	SF14.2B55.160.IK
14	27	41.9	200	47	SF14.2B55.200.IK
16	27	39.1	160	50	SF16.2B55.160.IK
16	27	41.9	200	50	SF16.2B55.200.IK
18	33	46.2	160	50	SF18.2B55.160.IK
18	33	49	200	50	SF18.2B55.200.IK
20	33	46.2	160	52	SF20.2B55.160.IK
20	33	49	200	52	SF20.2B55.200.IK
25	44	57.2	160	58	SF25.2B55.160.IK
25	44	60	200	58	SF25.2B55.200.IK
32	44	57.2	160	63	SF32.2B55.160.IK
32	44	60	200	63	SF32.2B55.200.IK

50
Form AD+B

Double Contact

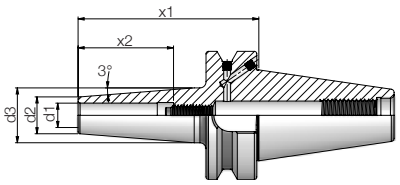
Including high speed nozzles and sealing plugs

3° THERMO Shrink-fit chucks

Slim execution

Radial runout ≤ 0,003 mm

G2.5 at 25 000 min^{-1}



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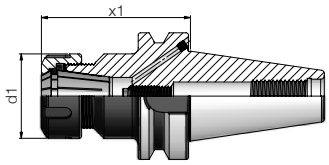
Form AD+B

Double Contact

d1	d2	d3	x1	x2	Code
6	12	18	100	37	SF06.2B55.100.3
6	12	21	130	37	SF06.2B55.130.3
6	12	24	160	37	SF06.2B55.160.3
8	14	20	100	37	SF08.2B55.100.3
8	14	23	130	37	SF08.2B55.130.3
8	14	26	160	37	SF08.2B55.160.3
10	16	22	100	41	SF10.2B55.100.3
10	16	25	130	41	SF10.2B55.130.3
10	16	28	160	41	SF10.2B55.160.3
12	18	24	100	47	SF12.2B55.100.3
12	18	27	130	47	SF12.2B55.130.3
12	18	30	160	47	SF12.2B55.160.3
16	24	30	100	47	SF16.2B55.100.3
16	24	33	130	47	SF16.2B55.130.3
16	24	36	160	47	SF16.2B55.160.3

ER Collet chucks



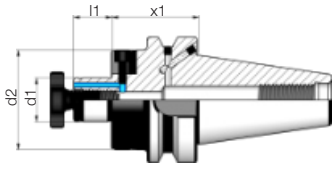
Radial runout ≤ 0,003 mm
G6.3 at 18 000 min^{-1}

ER	Range	x1	d1	Code
16	0.5 - 10	100	28	ER16.2B55.100
16	0.5 - 10	160	28	ER16.2B55.160
16	0.5 - 10	200	28	ER16.2B55.200
25	1 - 16	100	42	ER25.2B55.100
25	1 - 16	160	42	ER25.2B55.160
25	1 - 16	200	42	ER25.2B55.200
32	2 - 20	100	50	ER32.2B55.100
32	2 - 20	160	50	ER32.2B55.160
32	2 - 20	200	50	ER32.2B55.200
40	3 - 26	100	63	ER40.2B55.100
40	3 - 26	160	63	ER40.2B55.160
40	3 - 26	200	63	ER40.2B55.200

50
Form AD+B
Double Contact

Shell mill holders for cutters with driving slot

Internal coolant supply



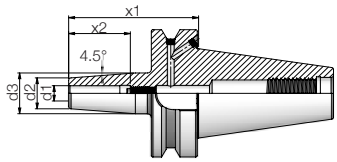
Radial runout ≤ 0,005 mm
G6.3 at 18 000 min^{-1}

d1	x1	l1	d2	Code
16	50	17	38	AD16.2B55.050
16	100	17	38	AD16.2B55.100
16	160	17	38	AD16.2B55.160
22	55	19	48	AD22.2B55.055
22	100	19	48	AD22.2B55.100
22	160	19	48	AD22.2B55.160
27	55	21	50	AD27.2B55.055
27	100	21	50	AD27.2B55.100
27	160	21	50	AD27.2B55.160
32	55	24	78	AD32.2B55.055
32	100	24	78	AD32.2B55.100
32	160	24	78	AD32.2B55.160
40	55	27	89	AD40.2B55.055
40	100	27	89	AD40.2B55.100
40	160	27	89	AD40.2B55.100

50
Form AD+B
Double Contact

THERMO Shrink-fit chucks

Radial runout ≤ 0,003 mm
G2.5 at 25 000 min^{-1}



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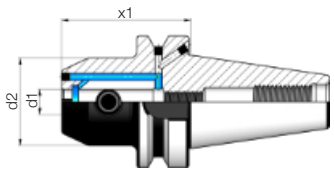
Form AD+B

d1	d2	d3	x1	x2	Code
3	9	16	100	-	SF03.B55.100
3	9	16	130	-	SF03.B55.130
3	9	22	160	-	SF03.B55.160
4	10	17	100	-	SF04.B55.100
4	10	17	130	-	SF04.B55.130
4	10	22	160	-	SF04.B55.160
5	11	18	100	-	SF05.B55.100
5	11	18	130	-	SF05.B55.130
5	11	22	160	-	SF05.B55.160
6	21	27	100	37	SF06.B55.100
6	21	27	130	37	SF06.B55.130
6	21	27	160	37	SF06.B55.160
8	21	27	100	37	SF08.B55.100
8	21	27	130	37	SF08.B55.130
8	21	27	160	37	SF08.B55.160
10	24	32	100	41	SF10.B55.100
10	24	32	130	41	SF10.B55.130
10	24	32	160	41	SF10.B55.160
12	24	32	100	47	SF12.B55.100
12	24	32	130	47	SF12.B55.130
12	24	32	160	47	SF12.B55.160
14	27	32	100	47	SF14.B55.100
14	27	32	130	47	SF14.B55.130
14	27	32	160	47	SF14.B55.160
16	27	34	100	50	SF16.B55.100
16	27	34	130	50	SF16.B55.130
16	27	34	160	50	SF16.B55.160
18	33	42	100	50	SF18.B55.100
18	33	42	130	50	SF18.B55.130
18	33	42	160	50	SF18.B55.160
20	33	42	100	52	SF20.B55.100
20	33	42	130	52	SF20.B55.130
20	33	42	160	52	SF20.B55.160
25	44	53	100	58	SF25.B55.100
25	44	53	130	58	SF25.B55.130
25	44	53	160	58	SF25.B55.160
32	44	53	100	63	SF32.B55.100
32	44	53	130	63	SF32.B55.130
32	44	53ß	160	63	SF32.B55.160

End mill holders

Internal coolant supply



Radial runout ≤ 0,003 mm

G6.3 at 18 000 min^{-1}

d1	d2	x1	Code
6	25	63	WE06.B55.063.IK
8	28	63	WE08.B55.063.IK
10	35	80	WE10.B55.080.IK
12	42	80	WE12.B55.080.IK
14	44	80	WE14.B55.080.IK
16	48	80	WE16.B55.080.IK
18	50	80	WE18.B55.080.IK
20	52	80	WE20.B55.080.IK
25	65	100	WE25.B55.100.IK
32	72	105	WE32.B55.105.IK
40	90	105	WE40.B55.105.IK

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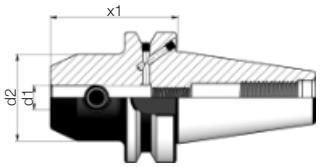
Form AD+B

End mill holders

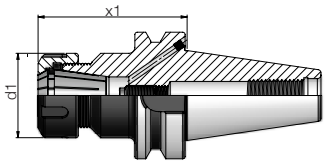
Radial runout ≤ 0,003 mm
G6.3 at 18 000 min^{-1}



50
Form AD+B

d1	d2	x1	Code
6	25	63	WE06.B55.063
6	25	100	WE06.B55.100
6	25	160	WE06.B55.160
8	28	63	WE08.B55.063
8	28	100	WE08.B55.100
8	28	160	WE08.B55.160
10	35	80	WE10.B55.080
10	35	100	WE10.B55.100
10	35	160	WE10.B55.160
12	42	80	WE12.B55.080
12	42	100	WE12.B55.100
12	42	160	WE12.B55.160
14	44	80	WE14.B55.080
14	44	100	WE14.B55.100
14	44	160	WE14.B55.160
16	48	80	WE16.B55.080
16	48	100	WE16.B55.100
16	48	160	WE16.B55.160
18	50	80	WE18.B55.080
18	50	100	WE18.B55.100
18	50	160	WE18.B55.160
20	52	80	WE20.B55.080
20	52	100	WE20.B55.100
20	52	160	WE20.B55.160
25	65	100	WE25.B55.100
25	65	160	WE25.B55.160
32	72	105	WE32.B55.105
32	72	160	WE32.B55.160
40	90	105	WE40.B55.105
50	90	125	WE50.B55.125

ER Collet chucks



Radial runout ≤ 0,003 mm
G6.3 at 18 000 min^{-1}

ER	Range	x1	d1	Code
16	0.5 - 10	63	28	ER16.B55.063
16	0.5 - 10	100	28	ER16.B55.100
16	0.5 - 10	160	28	ER16.B55.160
16	0.5 - 10	200	28	ER16.B55.200
25	1 - 16	60	42	ER25.B55.060
25	1 - 16	100	42	ER25.B55.100
25	1 - 16	160	42	ER25.B55.160
25	1 - 16	200	42	ER25.B55.200
32	2 - 20	70	50	ER32.B55.070
32	2 - 20	100	50	ER32.B55.100
32	2 - 20	160	50	ER32.B55.160
32	2 - 20	200	50	ER32.B55.200
40	3 - 26	80	63	ER40.B55.080
40	3 - 26	100	63	ER40.B55.100
40	3 - 26	160	63	ER40.B55.160
40	3 - 26	200	63	ER40.B55.200

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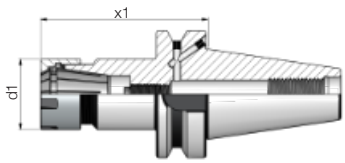
Form AD+B

ER Collet chucks
Mini execution



Radial runout ≤ 0,003 mm
G6.3 at 18 000 min^{-1}

ER	Range	x1	d1	Code
16	0.5 - 10	100	22	ER16.B55.100M
16	0.5 - 10	160	22	ER16.B55.160M
20	1 - 13	100	28	ER20.B55.100M
20	1 - 13	160	28	ER20.B55.160M
25	1 -16	100	35	ER25.B55.100M
25	1 - 16	160	35	ER25.B55.160M

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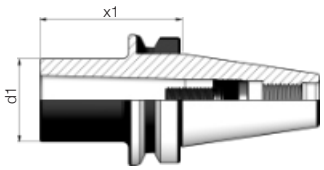
Form AD+B

Morse taper holders for mills

Radial runout ≤ 0,005 mm
G6.3 at 18 000 min^{-1}

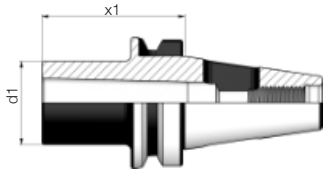


50
Form AD

MK	x1	d1	Code
1	45	25	MK1A.B50.045
2	60	32	MK2A.B50.060
3	65	40	MK3A.B50.065
4	70	48	MK4A.B50.070

Morse taper holders for drills

Radial runout ≤ 0,005 mm
G6.3 at 18 000 min^{-1}



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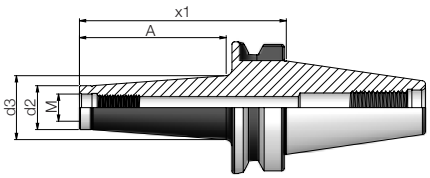
Form AD

MK	x1	d1	Code
1	45	25	MK1B.B50.045
2	60	32	MK2B.B50.060
3	65	40	MK3B.B50.065
4	95	48	MK4B.B50.095
5	100	63	MK5B.B50.105

Threaded shank milling cutter holders



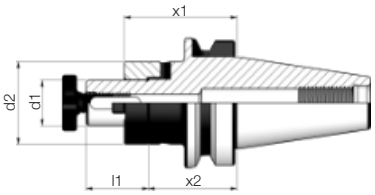
Radial runout ≤ 0,003 mm
G2.5 at 25 000 min^{-1}

M	A	x1	d2	d3	Code
M8	50	88	13	22.5	EF08.B55.088
M8	100	138	13	25	EF08.B55.138
M8	150	188	13	30	EF08.B55.188
M10	50	88	18	23	EF10.B55.088
M10	100	138	18	31.5	EF10.B55.138
M10	150	188	18	36	EF10.B55.188
M12	50	88	21	24	EF12.B55.088
M12	100	138	21	32.5	EF12.B55.138
M12	150	188	21	39.5	EF12.B55.188
M16	50	88	29	34	EF16.B55.088
M16	100	138	29	36	EF16.B55.138
M16	150	188	29	42	EF16.B55.188

50
Form AD+B

Combi shell mill holders for milling cutters

Radial runout ≤ 0,003 mm
G6.3 at 18 000 min^{-1}

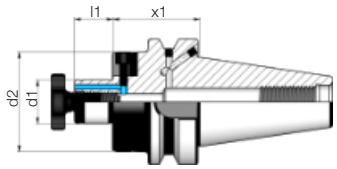


50
Form AD

d1	x1	x2	d2	l2	Code
16	70	45	32	27	KD16.B50.070
16	100	90	32	27	KD16.B50.100
22	70	43	40	31	KD22.B50.070
22	100	88	40	31	KD22.B50.100
27	70	43	48	33	KD27.B50.070
27	100	88	48	33	KD27.B50.100
32	70	41	58	38	KD32.B50.070
32	100	86	58	38	KD32.B50.100
40	70	41	70	41	KD40.B50.070
40	100	86	70	41	KD40.B50.100
50	70	54	90	46	KD50.B50.070

Shell mill holders for cutters with driving slot

Internal coolant supply



Radial runout ≤ 0,003 mm

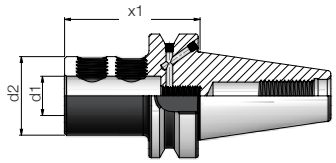
G6.3 at 18 000 min^{-1}

d1	x1	l1	d2	Code
16	50	17	38	AD16.B55.050
16	100	17	38	AD16.555.100
16	160	17	38	AD16.B55.160
22	55	19	48	AD22.B55.055
22	100	19	48	AD22.B55.100
22	160	19	48	AD22.B55.160
22	200	19	48	AD22.B55.200
27	55	21	50	AD27.B55.055
27	100	21	50	AD27.B55.100
27	160	21	50	AD27.B55.160
27	200	21	50	AD27.B55.200
32	55	24	78	AD32.B55.055
32	100	24	78	AD32.B55.100
32	160	24	78	AD32.B55.160
32	200	24	78	AD32.B55.200
40	55	27	89	AD40.B55.055
40	100	27	89	AD40.B55.100
40	160	27	89	AD40.B55.160
40	200	27	89	AD40.B55.200
60	80	40	129	AD60.B50.070

50
Form AD+B

Holders for indexable inserts drills

Radial runout ≤ 0,005 mm
G6.3 at 18 000 min^{-1}



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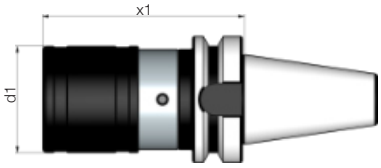
Form AD+B

d1	x1	d2	Code
20	90	40	VB20.B55.090
25	90	45	VB25.B55.090
32	90	52	VB32.B55.090
40	100	60	VB40.B55.100

Quick-change tapping head

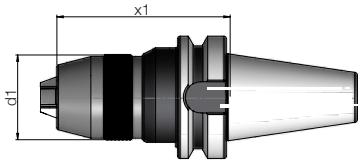
Length compensation in compression and tension



50
Form A

Tap size	Compensation	Insert size	x1	d1	Code
M3 - M14	± 7.5	1	83	36	GN12.B50.083
M6 - M24	± 12.5	2	107	53	GN20.B50.107
M14 - M33	± 20.0	3	168	78	GN33.B50.168
M22 - M48	± 22.5	4	184	96	GN48.B50.175

HV drill chucks for RH and LH rotation



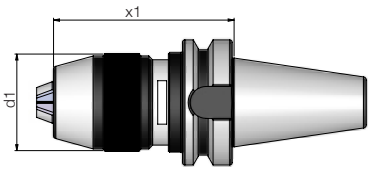
Radial runout ≤ 0,02 mm
G6.3 at 18 000 min^{-1}

mm	x1	d1	Code
1 - 16	106	51	HV16.B55.106

50
Form AD

Integrated precision drill chuck with Hexagonal key lock.
For drilling, milling, reaming and tapping.
Through coolant.
Drill chuck slipping impossible due to chuck being screwed with the holder body.
Compact design, enhanced reach.

NC drill chucks for RH rotation



Special wrench supplied.
Radial runout ≤ 0,03 mm
G6.3 at 12 000 min^{-1}

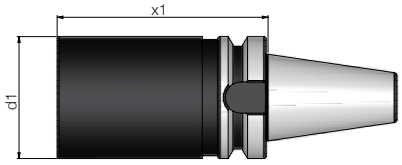
mm	x1	d1	Code
1 - 13	93	48	NC13.B50.096
3 - 16	96	53	NC16.B50.115

50
Form A

Integrated drill chuck with high clamping force achieved through special wrench
2x chucking torque vs. hand tightening
Drill bit slipping nearly impossible
Drill chuck slipping impossible due to chuck being screwed with the holder body.
Compact design, external coolant supply.
Range up to 8, 10, 13 or 16 mm.

Blank bars

Cone and flange hardened and finished.
Machineable soft body.
Pre-balanced

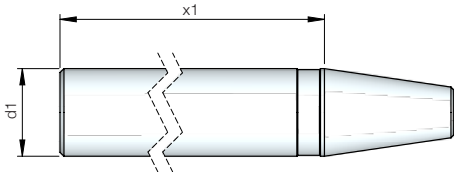


50 Form A

d1	x1	Code
100	160	RL10.B50.160
100	250	RL10.B50.250

Test bars

Precisely ground length and diameter.
Test certificate and protective case supplied.
Radial runout ≤ 0,003 mm



50 Form A

d1	x1	Code
63	250	TB63.B50.250

Notes

SAB

Find additional information and product catalogues

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SAB d.o.o.
Podborska 1b / 43500 Daruvar
tel. + 385 43 675 850
fax. + 385 43 334 700
sab@sab.hr / www.sab.hr