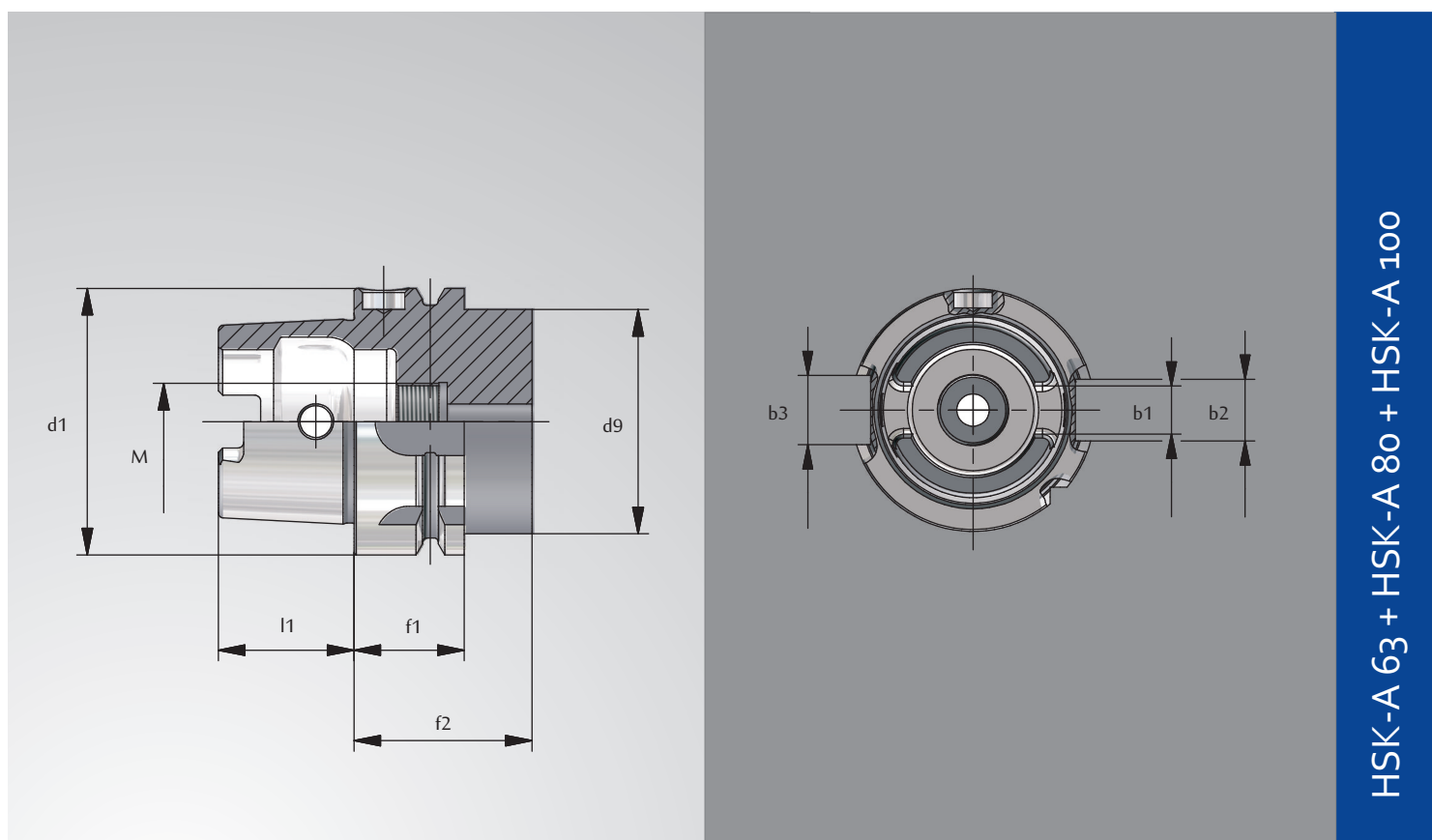


TOOL HOLDERS

WITH SHANK HSK-A 63, HSK-A 80
AND HSK-A 100



HSK-A 63 + HSK-A 80 + HSK-A 100

HSK	d_1	d_9 max.	l_1	f_1	f_2 min.	b_1	b_2	b_3	M
63	63	53	32	26	42	12,54	16	18	M18x1
80	80	68	40	26	42	16,04	18	20	M20x1,5
100	100	85	50	29	45	20,02	20	22	M24x1,5

Collet chuck ER

Application: For clamping tools with cylindrical shank in collets ER

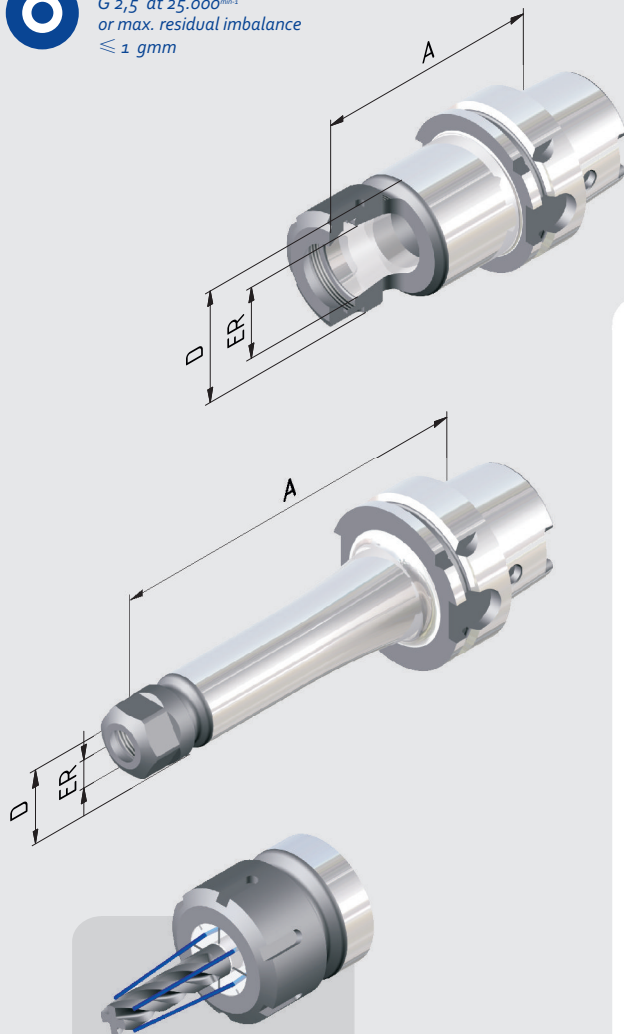
Technical Design: Runout of outer taper to inner taper $\leq 0,003$ mm. Due to adjusted taper tolerances of the ER-Inner taper and the Collet taper max. runout of $\leq 8\mu$ at $2,5 \times D$.

Includes: Clamping nut

Accessories: See page 130.



Fine balanced
 $G 2,5$ at 25.000^{min-1}
or max. residual imbalance
 ≤ 1 gmm



Sealed versions see
pages 132, 133.

Order No.	HSK	ER	Clamping range	A	D
EXTRASHORT					
606302-006	63	11	1-7	75	20
606302-001	63	16	1-10	75	28
606302-002	63	25	1-16	75	42
606302-003	63	32	2-20	75	50
606302-004	63	40	4-26	85	63
SHORT					
606302-01	63	16	1-10	100	28
606302-02	63	25	1-16	100	42
606302-03	63	32	2-20	100	50
606302-04	63	40	4-26	120	63
= 130					
606302-32	63	16	1-10	130	28
606302-34	63	25	1-16	130	42
606302-35	63	32	2-20	130	50
606302-36	63	40	4-26	130	63
= 160					
606302-011	63	16	1-10	160	28
606302-021	63	25	1-16	160	42
606302-031	63	32	2-20	160	50
606302-041	63	40	4-26	160	63
= 200					
606302-012	63	16	1-10	200	28
606302-022	63	25	1-16	200	42
606302-032	63	32	2-20	200	50

Collet chuck ER »Mini«

Application: For clamping tools with cylindrical shank in collets ER.

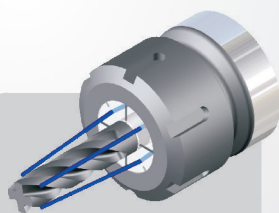
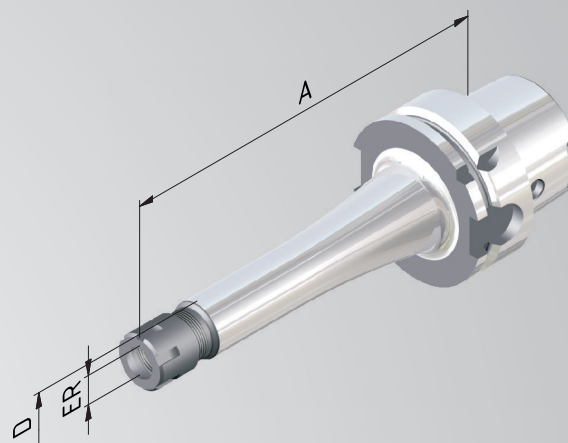
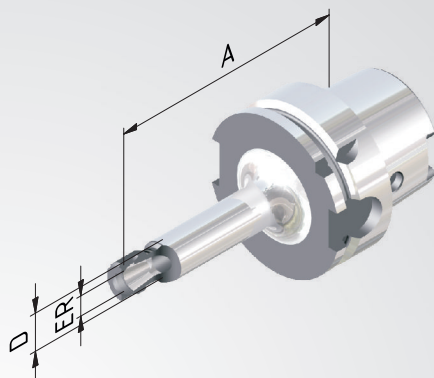
Technical Design: Runout of outer taper to inner taper $\leq 0,003$ mm. Due to adjusted taper tolerances of the ER-Inner taper and the Collet taper max. runout of $\leq 8\mu$ at $2,5 \times D$.

Includes: Clamping nut.

Accessories: See page 130.



Fine balanced
G 2,5 at 25.000^{mm/s}
or max. residual imbalance
 ≤ 1 gmm



Sealed versions see
pages 132, 133.

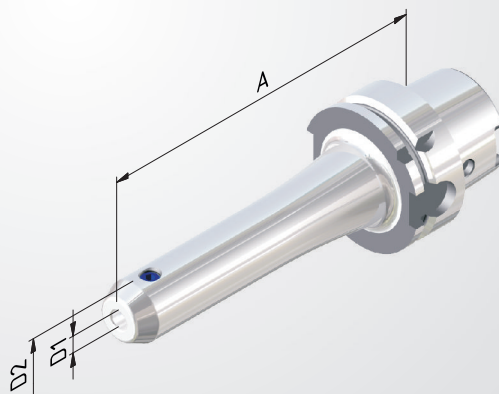
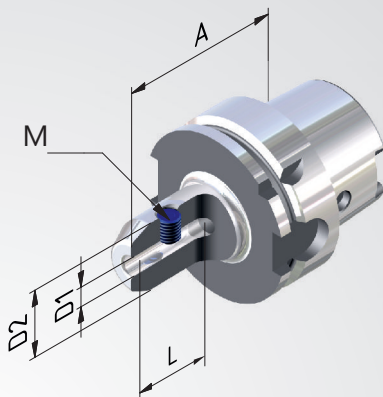
Order No.	HSK	ER	Clamping range	A = 70	D
606302-41	63	11	1-7	70	16
606302-43	63	16	1-10	70	22
= 100					
606302-21	63	11	1-7	100	16
606302-23	63	16	1-10	100	22
606302-25	63	20	1-13	100	28
606302-27	63	25	1-16	100	35
= 130					
606302-51	63	11	1-7	130	16
606302-52	63	16	1-10	130	22
606302-53	63	20	1-13	130	28
606302-54	63	25	1-16	130	35
= 160					
606302-22	63	11	1-7	160	16
606302-24	63	16	1-10	160	22
606302-26	63	20	1-13	160	28
606302-28	63	25	1-16	160	35

Endmill holder Weldon

- Application:** For clamping tools with cylindrical shank according to DIN 1835B/6359HB.
- Technical Design:** Runout of outer taper to $D_1 \leq 0,003$ mm. Tolerance of bore H4 (more accurate as DIN).
- Includes:** Clamping screw.
- Accessories:** See page 134.



Fine balanced
 $G_{2,5}$ at 25.000^{mm/s}
or max. residual imbalance
 ≤ 1 gmm



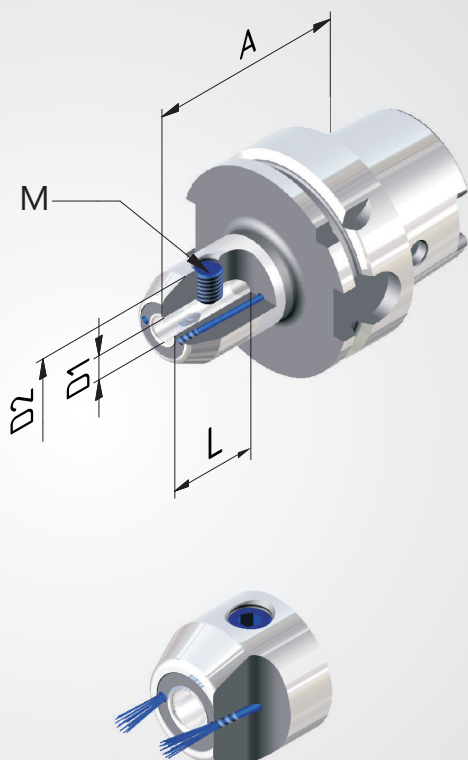
Order No.	HSK	D1	A	D2	L	M
SHORT						
606304-01	63	6	65	25	35	M6
606304-02	63	8	65	28	35	M8
606304-03	63	10	65	35	41	M10
606304-04	63	12	80	42	48	M12
606304-05	63	14	80	42	48	M12
606304-06	63	16	80	48	51	M14
606304-07	63	18	80	50	51	M14
606304-08	63	20	80	52	53	M16
606304-10	63	25	110	65	60	M18x2
606304-11	63	32	110	72	64	M20x2
606304-12	63	40	125	74	80	M20x2
= 120						
606304-31	63	6	120	25	35	M6
606304-32	63	8	120	28	35	M8
606304-33	63	10	120	35	41	M10
606304-34	63	12	120	42	48	M12
606304-35	63	14	120	42	48	M12
606304-36	63	16	120	48	51	M14
606304-37	63	18	120	50	51	M14
606304-38	63	20	120	52	53	M16
= 160						
606304-61	63	6	160	25	35	M6
606304-62	63	8	160	28	35	M8
606304-63	63	10	160	35	41	M10
606304-64	63	12	160	42	48	M12
606304-65	63	14	160	42	48	M12
606304-66	63	16	160	48	51	M14
606304-67	63	18	160	50	51	M14
606304-68	63	20	160	52	53	M16
606304-69	63	25	160	65	60	M18x2
606304-70	63	32	160	72	64	M20x2

Endmill holder Weldon »Cool Tool«

- Application:** Particularly suitable for tools without internal coolant, and for machining at difficult positions with bad chip removal.
- Technical Design:** Two holes in the toolholder lead the coolant directly to the cutting edge. Coolant holes can be re-sealed with screws for the use of tools with internal coolant holes.
- Includes:** Clamping screw and 2 x M3-screws to plug the coolant holes if needed.
- Accessories:** See page 134.



Fine balanced
G 2,5 at 25.000^{mm/s}
or max. residual imbalance
≤ 1 gmm



Order No.	HSK	D1	A SHORT	D2	L	M
6063041-01	63	6	65	25	35	M6
6063041-02	63	8	65	28	35	M8
6063041-03	63	10	65	35	41	M10
6063041-04	63	12	80	42	48	M12
6063041-05	63	14	80	42	48	M12
6063041-06	63	16	80	48	51	M14
6063041-07	63	18	80	50	51	M14
6063041-08	63	20	80	52	53	M16
6063041-10	63	25	110	65	60	M18x2
6063041-11	63	32	110	72	64	M20x2
= 120						
6063041-31	63	6	120	25	35	M6
6063041-32	63	8	120	28	35	M8
6063041-33	63	10	120	35	41	M10
6063041-34	63	12	120	42	48	M12
6063041-35	63	14	120	42	48	M12
6063041-36	63	16	120	48	51	M14
6063041-37	63	18	120	50	51	M14
6063041-38	63	20	120	52	53	M16
= 160						
6063041-61	63	6	160	25	35	M6
6063041-62	63	8	160	28	35	M8
6063041-63	63	10	160	35	41	M10
6063041-64	63	12	160	42	48	M12
6063041-65	63	14	160	42	48	M12
6063041-66	63	16	160	48	51	M14
6063041-67	63	18	160	50	51	M14
6063041-68	63	20	160	52	53	M16

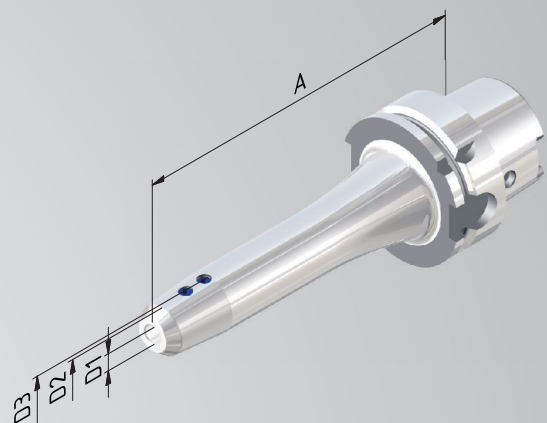
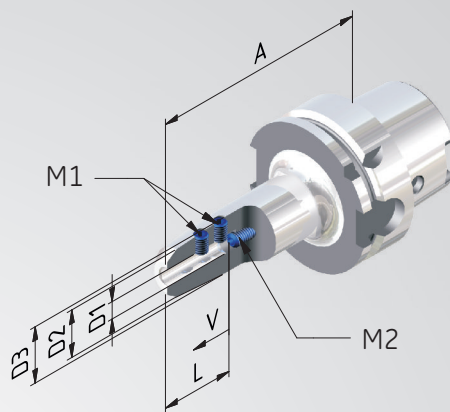
Slim endmill holder Weldon

Application: For clamping tools with cylindrical shank according to DIN 1835B/6359HB and DIN 1835E/6359HE.

Technical Design: Runout of outer taper to $D_1 \leq 0,003$ mm. Tolerance of bore H4 (more accurate as DIN).

Includes: Special clamping screw (with ball head) and set screw.

Accessories: See page 134.



Order No.	HSK	D1	A	D2	D3	L	M1	M2
LONG								
606327-01	63	6	100	13	24	36,5	M6	M6
606327-03	63	8	100	15	26	36,5	M6	M6
606327-05	63	10	100	16	28	40,5	M6	M8x1
606327-07	63	12	120	17	29	45,5	M6	M10x1
606327-09	63	14	120	19	32	45,5	M8	M10x1
606327-11	63	16	120	21	34	48,5	M8	M12x1
606327-13	63	18	120	23	36	48,5	M8	M12x1
606327-15	63	20	120	25	38	50,5	M8	M16x1
= 160								
606327-02	63	6	160	13	24	36,5	M6	M5
606327-04	63	8	160	15	26	36,5	M6	M6
606327-06	63	10	160	16	28	40,5	M6	M8x1
606327-08	63	12	160	17	29	45,5	M6	M10x1
606327-10	63	14	160	19	32	45,5	M8	M10x1
606327-12	63	16	160	21	34	48,5	M8	M12x1
606327-14	63	18	160	23	36	48,5	M8	M12x1
606327-16	63	20	160	25	38	50,5	M8	M16x1

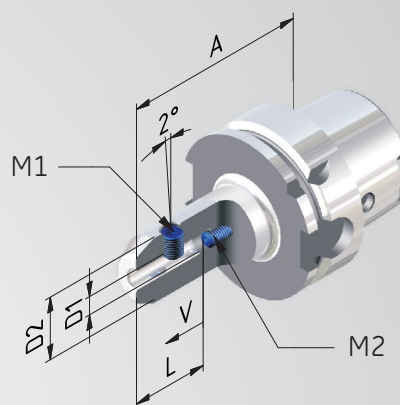
Endmill holder Whistle Notch

Application: For clamping tools with cylindrical shank according to DIN 1835E/6359HE.

Technical Design: Runout of outer taper to $D_1 \leq 0,003$ mm. Tolerance of bore H4 (more accurate as DIN).

Includes: Clamping screw and set screw.

Accessories: See page 135.



Order No.	HSK	D1	A	D2	L	M1	M2	V
			SHORT					
606309-01	63	6	80	25	36,5	M6	M5	10
606309-02	63	8	80	28	36,5	M8	M6	10
606309-03	63	10	80	35	40,5	M10	M8	10
606309-04	63	12	90	42	45,5	M12	M10	10
606309-05	63	14	90	42	45,5	M12	M10	10
606309-06	63	16	100	48	48,5	M14	M12	10
606309-07	63	18	100	50	48,5	M14	M12	10
606309-08	63	20	100	52	50,5	M16	M16	10
606309-10	63	25	110	65	56,5	M18x2	M20	10
606309-11	63	32	110	72	60,5	M20x2	M20	10

Shrink fit holder 4,5°

Application: For clamping tools with cylindrical shank of solid carbide or HSS, tol. h6.

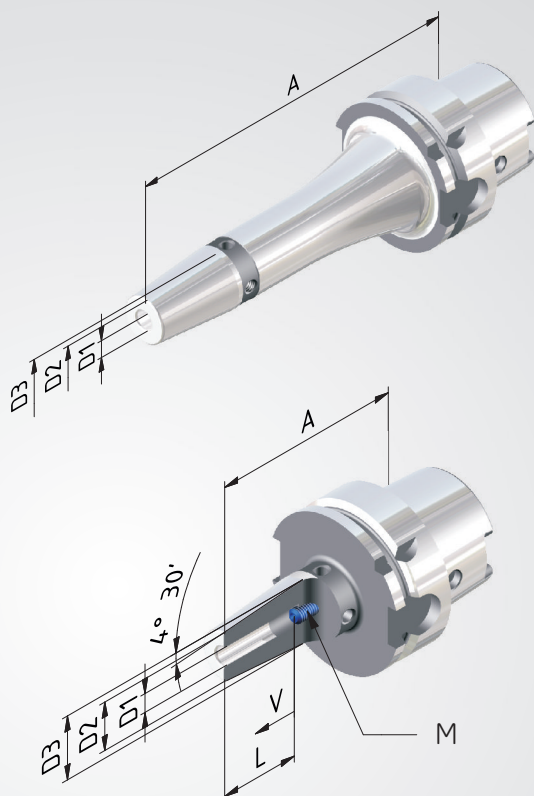
Technical Design: Made of special heat resistant steel. Suitable for inductive shrinking unit. With four additional threads for supplementary fine balancing. Runout of outer taper to $D_1 \leq 0,003$ mm.

Includes: Set screw.

Accessories: See page 135.



Fine balanced
G 2,5 at 25.000^{mm/s}
or max. residual imbalance
≤ 1 gmm



Extra short shrink fit holders
can be found on page 18,
shrink fit holders »Cool Tool«.

Order No.	HSK	D1	A	D2	D3	V	L	M
SHORT								
606321-13	63	3	80	12	17	-	-	-
606321-14	63	4	80	12	17	-	-	-
606321-15	63	5	80	12	17	-	-	-
606321-01	63	6	80	21	27	10	37	M5
606321-02	63	8	80	21	27	10	37	M6
606321-03	63	10	85	24	32	10	42	M8x1
606321-04	63	12	90	24	32	10	48	M10x1
606321-05	63	14	90	27	34	10	48	M10x1
606321-06	63	16	95	27	34	10	51	M12x1
606321-07	63	18	95	33	42	10	51	M12x1
606321-08	63	20	100	33	42	10	53	M16x1
606321-09	63	25	115	44	53	10	59	M16x1
606321-10	63	32	120	44	53	10	63	M16x1

= 120

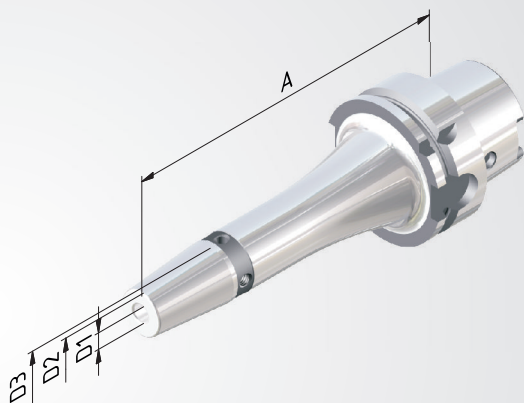
606321-313	63	3	120	12	17	-	-	-
606321-314	63	4	120	12	17	-	-	-
606321-315	63	5	120	12	17	-	-	-
606321-31	63	6	120	21	27	10	37	M5
606321-32	63	8	120	21	27	10	37	M6
606321-33	63	10	120	24	32	10	42	M8x1
606321-34	63	12	120	24	32	10	48	M10x1
606321-35	63	14	120	27	34	10	48	M10x1
606321-36	63	16	120	27	34	10	51	M12x1
606321-37	63	18	120	33	42	10	51	M12x1
606321-38	63	20	120	33	42	10	53	M16x1
606321-39	63	25	120	44	53	10	59	M16x1

Long versions see next page >>

Shrink fit holder 4,5°



Fine balanced
 $G_{2,5}$ at $25.000^{mm/s}$
or max. residual imbalance
 $\leq 1 \text{ gmm}$



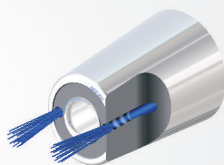
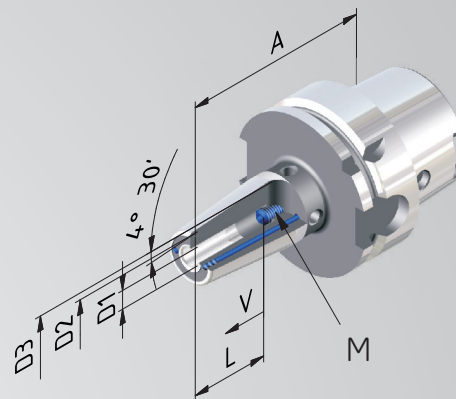
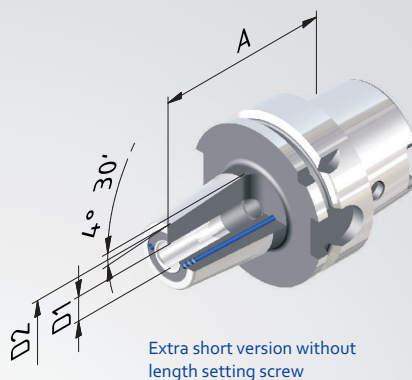
Order No.	HSK	D1	A	D2	D3	V	L	M
			= 130					
606321-513	63	3	130	12	17	-	-	-
606321-514	63	4	130	12	17	-	-	-
606321-515	63	5	130	12	17	-	-	-
606321-51	63	6	130	21	27	10	37	M5
606321-52	63	8	130	21	27	10	37	M6
606321-53	63	10	130	24	32	10	42	M8x1
606321-54	63	12	130	24	32	10	48	M10x1
606321-55	63	14	130	27	34	10	48	M10x1
606321-56	63	16	130	27	34	10	51	M12x1
606321-57	63	18	130	33	42	10	51	M12x1
606321-58	63	20	130	33	42	10	53	M16x1
606321-59	63	25	130	44	53	10	59	M16x1
606321-60	63	32	130	44	53	10	63	M16x1
			= 160					
606321-613	63	3	160	12	17	-	-	-
606321-614	63	4	160	12	17	-	-	-
606321-615	63	5	160	12	17	-	-	-
606321-61	63	6	160	21	27	10	37	M5
606321-62	63	8	160	21	27	10	37	M6
606321-63	63	10	160	24	32	10	42	M8x1
606321-64	63	12	160	24	32	10	48	M10x1
606321-65	63	14	160	27	34	10	48	M10x1
606321-66	63	16	160	27	34	10	51	M12x1
606321-67	63	18	160	33	42	10	51	M12x1
606321-68	63	20	160	33	42	10	53	M16x1
606321-69	63	25	160	44	53	10	59	M16x1
606321-70	63	32	160	44	53	10	63	M16x1
			= 200					
606321-81	63	6	200	21	27	10	37	M5
606321-82	63	8	200	21	27	10	37	M6
606321-83	63	10	200	24	32	10	42	M8x1
606321-84	63	12	200	24	32	10	48	M10x1
606321-85	63	14	200	27	34	10	48	M10x1
606321-86	63	16	200	27	34	10	51	M12x1
606321-87	63	18	200	33	42	10	51	M12x1
606321-88	63	20	200	33	42	10	53	M16x1
606321-89	63	25	200	44	53	10	59	M16x1

Shrink fit holder 4,5° »Cool Tool«

- Application:** Particularly suitable for tools without internal coolant, and for machining at difficult positions with bad chip removal.
- Technical Design:** Two holes in the toolholder lead the coolant directly to the cutting edge. Coolant holes can be re-sealed with screws for the use of tools with internal coolant holes.
- Includes:** Set screw and 2 x M3 screws to plug the coolant holes if needed.
- Accessories:** See page 134.



Fine balanced
 $G_{2,5}$ at 25.000 min^{-1}
or max. residual imbalance
 $\leq 1\text{ gmm}$



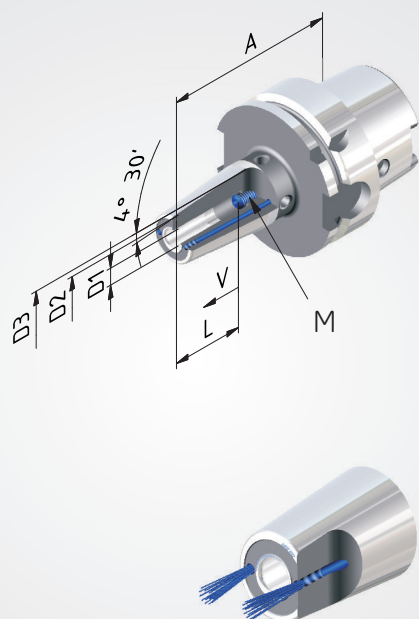
Order No.	HSK	D1	A	D2	D3	V	L	M
EXTRA SHORT								
6063219-03	63	10	70	26	33	-	42	-
6063219-04	63	12	70	26	33	-	45	-
6063219-06	63	16	75	29	37	-	50	-
6063219-08	63	20	75	35	43	-	50	-
6063219-09	63	25	85	45	50	-	59	-
SHORT								
606321-139*	63	3	80	12	17	-	-	-
606321-149*	63	4	80	12	17	-	-	-
606321-159*	63	5	80	12	17	-	-	-
606321-019	63	6	80	21	27	10	37	M5
606321-029	63	8	80	21	27	10	37	M6
606321-039	63	10	85	24	32	10	42	M8x1
606321-049	63	12	90	24	32	10	48	M10x1
606321-059	63	14	90	27	34	10	48	M10x1
606321-069	63	16	95	27	34	10	51	M12x1
606321-079	63	18	95	33	42	10	51	M12x1
606321-089	63	20	100	33	42	10	53	M16x1
606321-099	63	25	115	44	53	10	59	M16x1

Long versions see next page >>

Shrink fit holder 4,5° »Cool Tool«



Fine balanced
G 2,5 at 25.000^{min} L
or max. residual imbalance
≤ 1 gmm



Order No.	HSK	D1	A	D2	D3	V	L	M
			= 120					
606321-319	63	6	120	21	27	10	37	M5
606321-329	63	8	120	21	27	10	37	M6
606321-339	63	10	120	24	32	10	42	M8x1
606321-349	63	12	120	24	32	10	48	M10x1
606321-359	63	14	120	27	34	10	48	M10x1
606321-369	63	16	120	27	34	10	51	M12x1
606321-379	63	18	120	33	42	10	51	M12x1
606321-389	63	20	120	33	42	10	53	M16x1
			= 130					
606321-5139*	63	3	130	12	17	-	-	-
606321-5149*	63	4	130	12	17	-	-	-
606321-5159*	63	5	130	12	17	-	-	-
606321-519	63	6	130	21	27	10	37	M5
606321-529	63	8	130	21	27	10	37	M6
606321-539	63	10	130	24	32	10	42	M8x1
606321-549	63	12	130	24	32	10	48	M10x1
606321-559	63	14	130	27	34	10	48	M10x1
606321-569	63	16	130	27	34	10	51	M12x1
606321-579	63	18	130	33	42	10	51	M12x1
606321-589	63	20	130	33	42	10	53	M16x1
606321-599	63	25	130	44	53	10	59	M16x1
606321-609	63	32	130	44	53	10	63	M16x1
			= 160					
606321-619	63	6	160	21	27	10	37	M5
606321-629	63	8	160	21	27	10	37	M6
606321-639	63	10	160	24	32	10	42	M8x1
606321-649	63	12	160	24	32	10	48	M10x1
606321-669	63	16	160	27	34	10	51	M12x1
606321-689	63	20	160	33	42	10	53	M16x1

* Cool tool holes can not be plugged.

Extended slim shrink fit holder 4,5°

Application: For clamping tools with cylindrical shank of solid carbide or HSS, tol. h6.

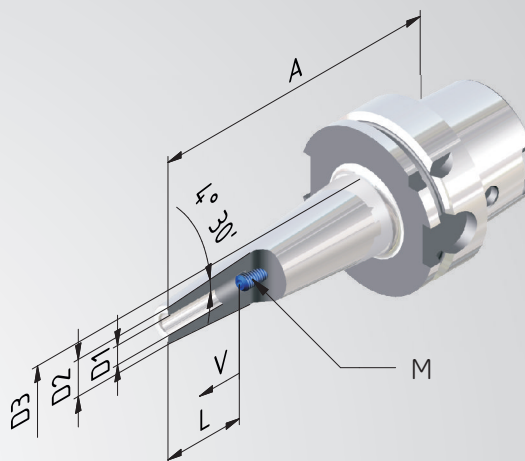
Technical Design: Made of special heat resistant steel. Suitable for inductive shrinking unit. Runout of outer taper to $D_1 \leq 0,003$ mm.

Includes: Set screw.

Accessories: See page 135.



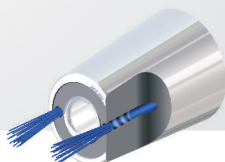
Fine balanced
 $G 2,5$ at 25.000^{min}
or max. residual imbalance
 ≤ 1 gmm



Order No.	HSK	D1	A	D2	D3	V	L	M
			= 120					
606321-41	63	6	120	15	30	10	37	M5
606321-42	63	8	120	15	30	10	37	M6
606321-43	63	10	120	18	33	10	42	M8x1
606321-44	63	12	120	18	33	10	48	M10x1

Version »Cool Tool«

6063219-41	63	6	120	15	30	10	37	M5
6063219-42	63	8	120	16	31	10	37	M6
6063219-43	63	10	120	18	33	10	42	M8x1
6063219-44	63	12	120	20	35	10	48	M10x1



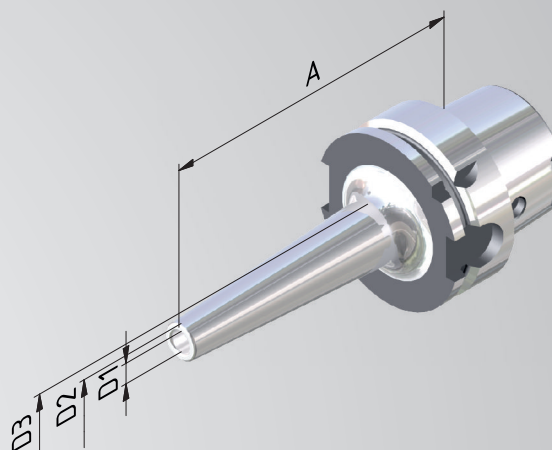
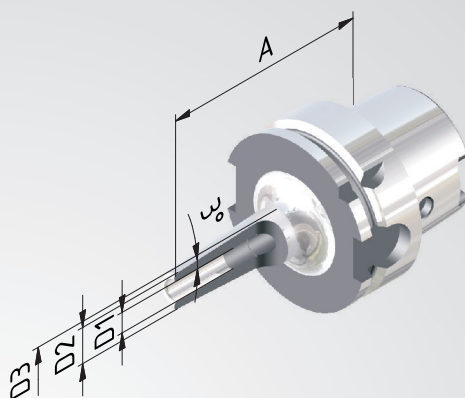
Shrink fit holder 3°

Application: For clamping tools with cylindrical shank of solid carbide or HSS, tol. h6.

Technical Design: Made of special heat resistant steel. Suitable for inductive shrinking unit. Runout of outer taper to $D_1 \leq 0,003$ mm.



Fine balanced
 $G_{2,5}$ at 25.000^{min-1}
or max. residual imbalance
 ≤ 1 gmm



Order No.	HSK	D1	A	D2	D3
SHORT					
606351-13	63	3	80	9	14
606351-14	63	4	80	10	15
606351-15	63	5	80	11	16
606351-01	63	6	80	12	18
606351-02	63	8	80	14	20
606351-03	63	10	80	16	22
606351-04	63	12	80	18	24
= 120					
606351-313	63	3	120	9	18
606351-314	63	4	120	10	19
606351-315	63	5	120	11	20
606351-31	63	6	120	12	22
606351-32	63	8	120	14	24
606351-33	63	10	120	16	26
606351-34	63	12	120	18	28

Thread shank adapter

Application: For clamping threaded shank end mill bodies.

Technical Design: Runout of outer taper to $D_1 \leq 0,005$ mm.



Fine balanced
G 2,5 at 25.000^{rpm}
or max. residual imbalance
 ≤ 1 gmm

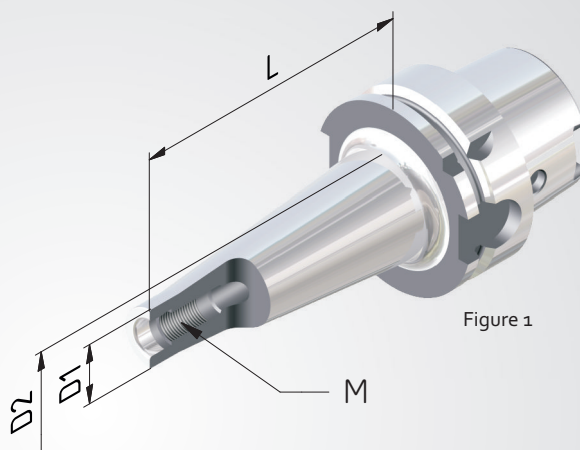


Figure 1

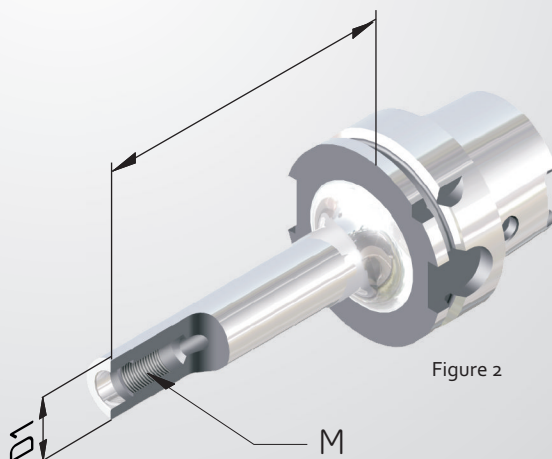


Figure 2

Order No. HSK M L D1 D2
Conical (Figure 1)

606308-01	63	M8	25	13	15
606308-02	63	M8	50	13	23
606308-03	63	M8	75	13	25
606308-04	63	M8	100	13	30
606310-01	63	M10	25	18	23
606310-02	63	M10	50	18	25
606310-03	63	M10	75	18	30
606310-04	63	M10	100	18	35
606310-06	63	M10	150	18	45
606312-01	63	M12	25	21	24
606312-02	63	M12	50	21	30
606312-03	63	M12	75	21	35
606312-04	63	M12	100	21	38
606312-06	63	M12	150	21	45
606316-01	63	M16	25	29	29
606316-02	63	M16	50	29	34
606316-03	63	M16	75	29	35
606316-04	63	M16	100	29	40
606316-06	63	M16	150	29	48

Cylindrical (Figure 2)

6063067-01	63	M6	25	10	
6063087-01	63	M8	25	13	
6063087-02	63	M8	50	13	
6063087-03	63	M8	75	13	
6063087-04	63	M8	100	13	
6063107-01	63	M10	25	18	
6063107-02	63	M10	50	18	
6063107-03	63	M10	75	18	
6063107-04	63	M10	100	18	
6063107-06	63	M10	150	18	
6063127-01	63	M12	25	21	
6063127-02	63	M12	50	21	
6063127-03	63	M12	75	21	
6063127-04	63	M12	100	21	
6063127-05	63	M12	125	21	
6063127-06	63	M12	150	21	
6063167-01	63	M16	25	29	
6063167-02	63	M16	50	29	
6063167-03	63	M16	75	29	
6063167-04	63	M16	100	29	
6063167-06	63	M16	150	29	

ABS holder

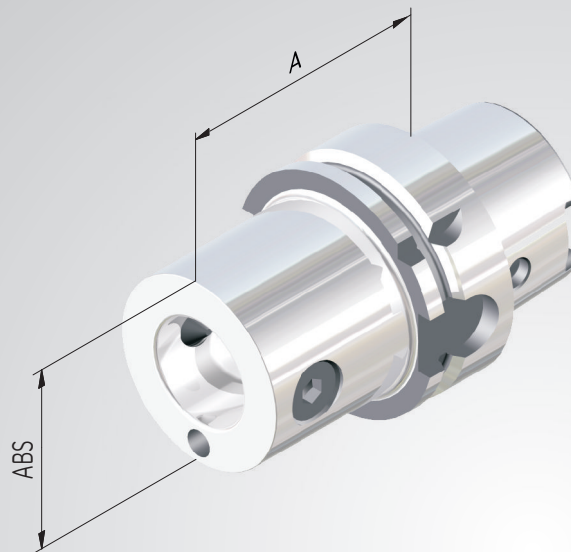
Application: For holding modular tool shanks with ABS-interface.

Technical Design: With ABS mounting parts.

Includes: See page 138.



Balanced
G 6,3 at 8.000^{1/min}



Order No.	HSK	ABS	A
606326-01	63	25	50
606326-02	63	32	50
606326-03	63	40	60
606326-04	63	50	70
606326-05	63	63	80

Shell mill holder

Application: For adapting shell mills with transverseslot.

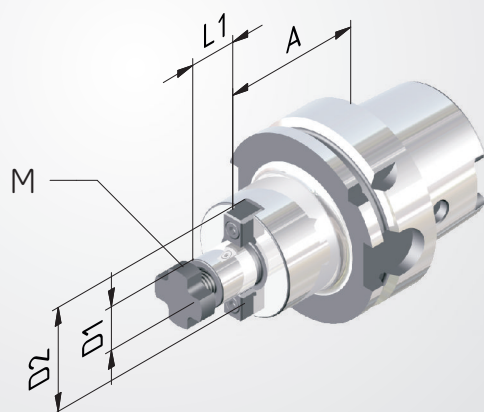
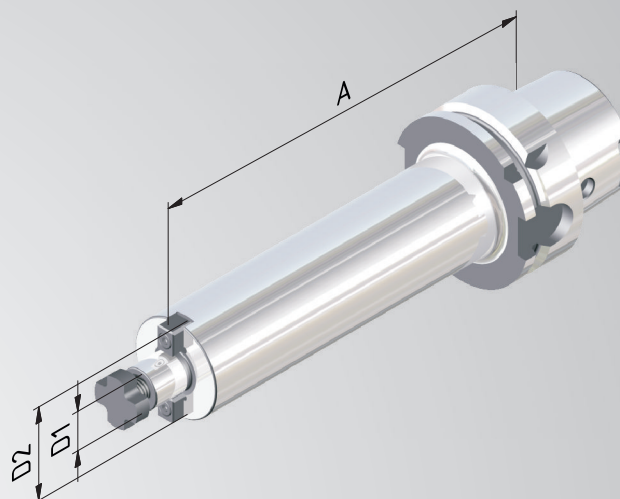
Technical Design: With extended flange. Runout of outer taper to $D_1 \leq 0,006 \text{ mm}$.

Includes: Clamping screw and drive keys.

Accessories: See page 136.



Fine balanced
 $G 2,5$ at 25.000 mm^2
or max. residual imbalance
 $\leq 1 \text{ gmm}$



Order No.	HSK	D1	A	D2	L1	M
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SHORT

606305-01	63	16	50	38	17	M8
606305-02	63	22	50	48	19	M10
606305-03	63	27	60	60	21	M12
606305-04	63	32	60	78	24	M16
606305-05	63	40	60	89	27	M20

= 100

606305-011	63	16	100	38	17	M8
606305-021	63	22	100	48	19	M10
606305-031	63	27	100	60	21	M12
606305-041	63	32	100	78	24	M16
606305-051	63	40	100	89	27	M20

= 160

606305-611	63	16	160	38	17	M8
606305-621	63	22	160	48	19	M10
606305-631	63	27	160	60	21	M12
606305-641	63	32	160	78	24	M16

Shell mill holder »Cool Tool«

Application: For adapting shell mills with coolant through to the cutting edges.

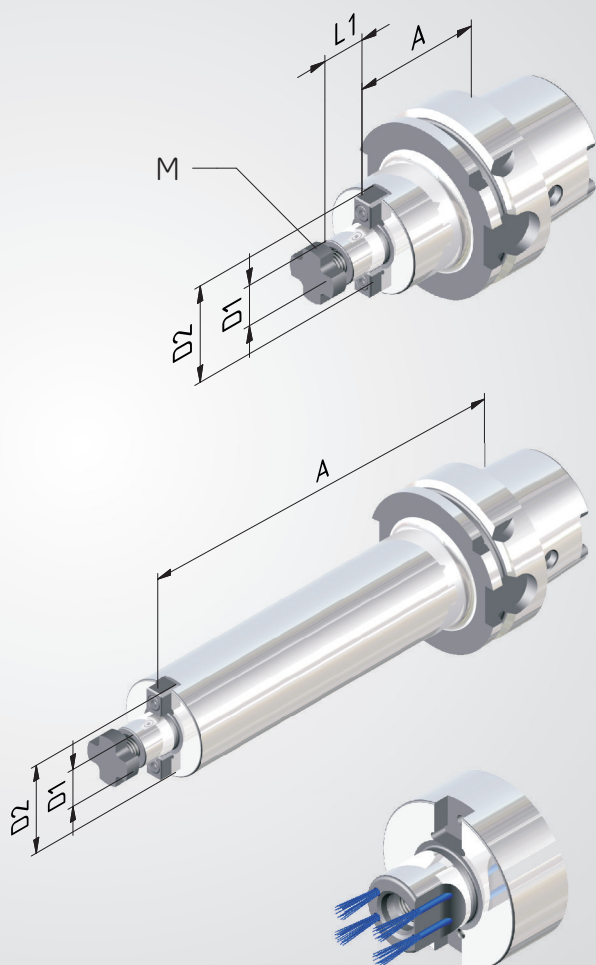
Technical Design: With extended flange. Runout of outer taper to $D_1 \leq 0,006$ mm.

Includes: Clamping screw and drive keys.

Accessories and Spareparts: See page 134.



Fine balanced
 $G_{2,5}$ at 25.000 mm^2
or max. residual imbalance
 $\leq 1 \text{ gmm}$



Bestell-Nr.	HSK	D1	A	D2	L1	M
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SHORT

606305-21	63	16	50	38	17	M8
606305-22	63	22	50	48	19	M10
606305-23	63	27	60	60	21	M12
606305-24	63	32	60	78	24	M16

MEDIUM

606305-319	63	16	75	38	17	M8
606305-329	63	22	75	48	19	M10
606305-339	63	27	80	60	21	M12
606305-349	63	32	80	78	24	M16
606305-359	63	40	80	89	27	M20

= 100

606305-211	63	16	100	38	17	M8
606305-221	63	22	100	48	19	M10
606305-231	63	27	100	60	21	M12
606305-241	63	32	100	78	24	M16
606305-251	63	40	100	89	27	M20

= 130

606305-519	63	16	130	38	17	M8
606305-529	63	22	130	48	19	M10
606305-539	63	27	130	60	21	M12
606305-549	63	32	130	78	24	M16
606305-559	63	40	130	89	27	M20

= 160

606305-619	63	16	160	38	17	M8
606305-629	63	22	160	48	19	M10
606305-639	63	27	160	60	21	M12
606305-649	63	32	160	78	24	M16

Combi shell mill holder

Application: For adapting shell mills with transverse and longitudinal groove.

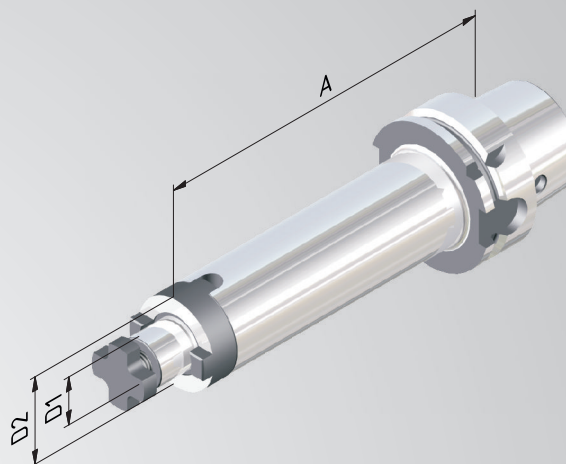
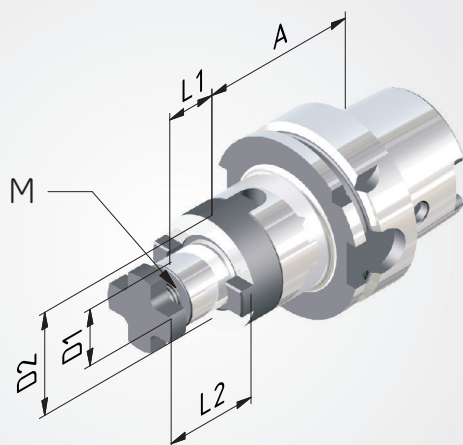
Technical Design: Runout of outer taper to $D_1 \leq 0,006$ mm.

Includes: Clamping screw, drive key and adjusting spring.

Accessories: See page 137.



Fine balanced
 $G 2,5$ at 25.000^{min-1}
or max. residual imbalance
 ≤ 1 gmm



Order No.	HSK	D1	A	D2	L1	L2	M
SHORT							
606306-01	63	16	60	32	17	27	M8
606306-02	63	22	60	40	19	31	M10
606306-03	63	27	60	48	21	33	M12
606306-04	63	32	60	58	24	38	M16
606306-05	63	40	70	70	27	41	M20
= 100							
606306-011	63	16	100	32	17	27	M8
606306-021	63	22	100	40	19	31	M10
606306-031	63	27	100	48	21	33	M12
606306-041	63	32	100	58	24	38	M16
= 160							
606306-61	63	16	160	32	17	27	M8
606306-62	63	22	160	40	19	31	M10
606306-63	63	27	160	48	21	33	M12
606306-64	63	32	160	58	24	38	M16
606306-65	63	40	160	70	27	41	M20

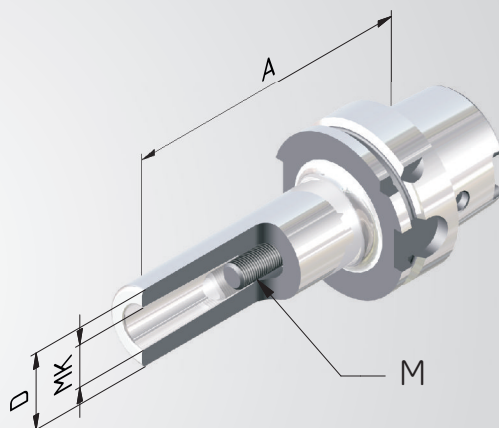
Morse taper adapter according to DIN 228A

Application: For holding morse taper tools with tang according to DIN 228A.

Technical Design: Runout of outer taper to $D_1 \leq 0,008$ mm.



Balanced
G 6,3 at 8.000^{min-1}



Order No.	HSK	MK	M	A	D
606314-01	63	1	M6	100	25
606314-02	63	2	M10	120	32
606314-03	63	3	M12	140	40
606314-04	63	4	M16	160	48

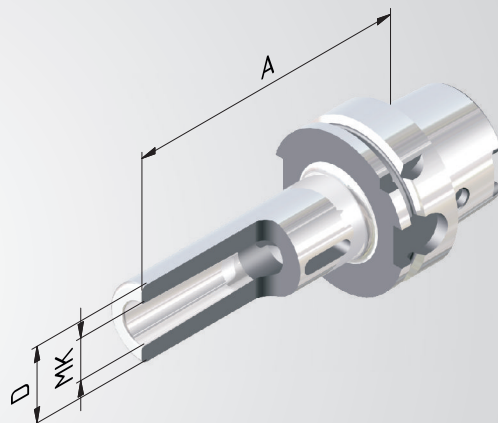
Morse taper adapter according to DIN 228B

Application: For holding morse taper tools with tang according to DIN 228B

Technical Design: Runout of outer taper to $D_1 \leq 0,008$ mm.



Balanced
G 6,3 at 8.000^{min-1}

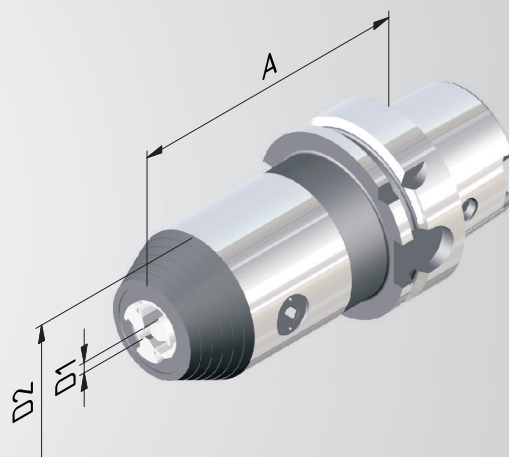


Order No.	HSK	MK	A	D
606313-01	63	1	100	25
606313-02	63	2	120	32
606313-03	63	3	140	40
606313-04	63	4	160	48

Short drill chuck

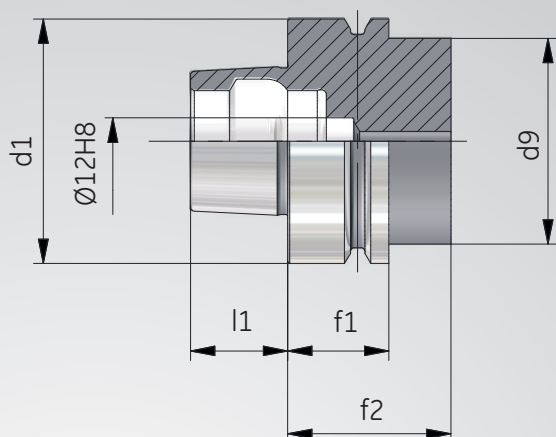
Application: For clamping tools with cylindrical shank. Also suitable for tools with internal coolant.

Technical Design: Wrench.



Order No.	HSK	Clamping range	D1	A	D2
606395-52	63	1/16		98	50

TOOL HOLDERS WITH SHANK HSK-F 63



HSK-F 63

HSK	d_1	d_9 max.	l_1	f_1	f_2 min.
63	63	53	25	26	42

Collet chuck ER

Application: For clamping tools with cylindrical shank in collets ER

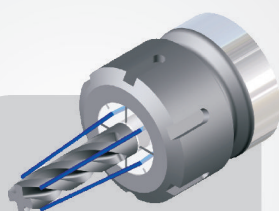
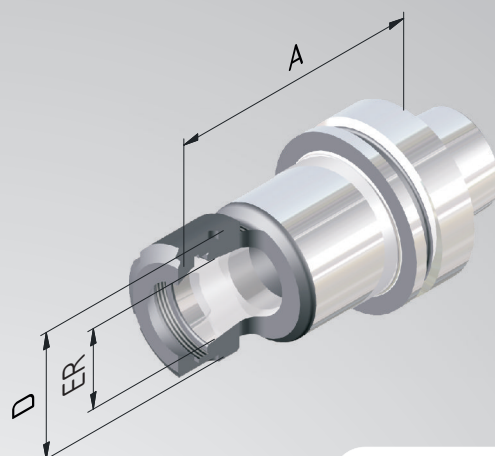
Technical Design: Runout of outer taper to inner taper $\leq 0,003$ mm. Due to adjusted taper tolerances of the ER-Inner taper and the Collet taper max. runout of $\leq 8\mu$ at $2,5 \times D$.

Includes: Clamping nut.

Accessories: See page 130.



Fine balanced
 $G 2,5$ at $25.000^{rev/s}$
or max. residual imbalance
 ≤ 1 gmm



Sealed versions see
pages 132, 133.

Order No.	HSK	ER	Clamping Range	A	D
206302-001	63	11	1-7	75	20
206302-002	63	16	1-10	75	28
206302-003	63	20	1-13	75	34
206302-004	63	25	1-16	75	42
206302-005	63	32	2-20	75	50
206302-006	63	40	4-26	75	63
206302-01	63	11	1-7	100	20
206302-02	63	16	1-10	100	28
206302-03	63	20	1-13	100	34
206302-04	63	25	1-16	100	42
206302-05	63	32	2-20	100	50
206302-06	63	40	4-26	120	63

Shrink fit holder 4,5°

Application: For clamping tools with cylindrical shank of solid carbide or HSS, tol. h6.

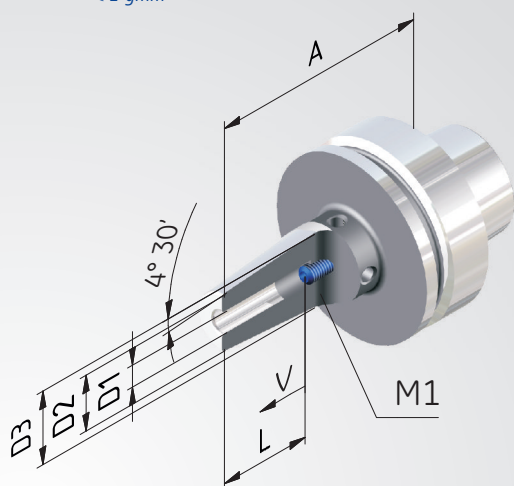
Technical Design: Made of special heat resistant steel. Suitable for inductive shrinking unit. With four additional threads for supplementary fine balancing. Runout of outer taper to $D_1 \leq 0,003$ mm.

Includes: Set screw.

Accessories: See page 135.



Fine balanced
 $G_{2,5}$ at 25.000^{min-1}
or max. residual imbalance
 ≤ 1 gmm



Order No.	HSK	D1	A	D2	L	M	D3	V
			SHORT					
206321-13	63	3	80	12	—	—	17	—
206321-14	63	4	80	12	—	—	17	—
206321-15	63	5	80	12	—	—	17	—
206321-01	63	6	80	21	37	M5	27	10
206321-02	63	8	80	21	37	M6	27	10
206321-03	63	10	85	24	42	M8x1	32	10
206321-04	63	12	90	24	48	M10x1	32	10
206321-06	63	16	95	27	51	M12x1	34	10
206321-08	63	20	100	33	53	M16x1	42	10
206321-09	63	25	115	44	59	M16x1	53	10
			= 130					
206321-51	63	6	130	21	37	M5	27	10
206321-52	63	8	130	21	37	M6	27	10
206321-53	63	10	130	24	42	M8x1	32	10
206321-54	63	12	130	24	48	M10x1	32	10
206321-56	63	16	130	27	51	M12x1	34	10
206321-58	63	20	130	33	53	M16x1	42	10
206321-59	63	25	130	44	59	M16x1	53	10

Collet chuck ER

Application: For clamping tools with cylindrical shank in collets ER

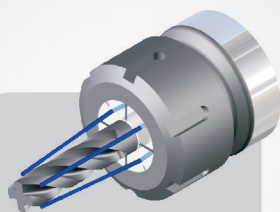
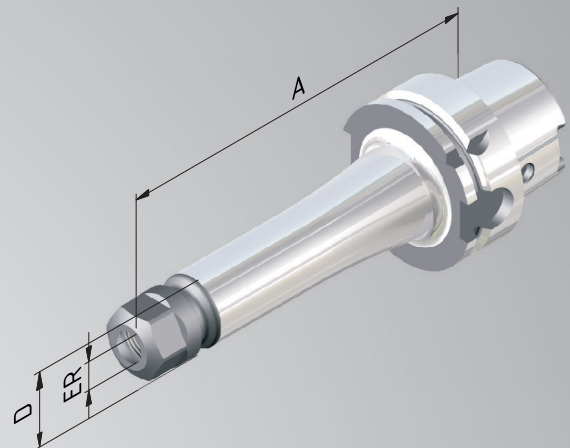
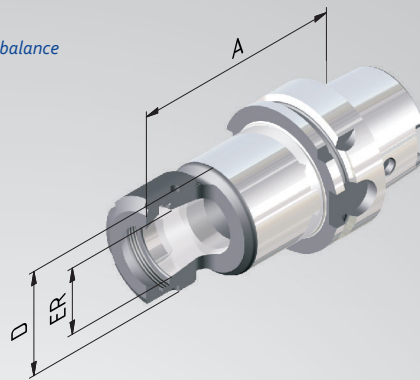
Technical Design: Runout of outer taper to inner taper $\leq 0,003$ mm. Due to adjusted taper tolerances of the ER-Inner taper and the Collet taper max. runout of $\leq 8\mu$ at $2,5 \times D$.

Includes: Clamping nut

Accessories: See page 130.



Fine balanced
 $G_{2,5}$ at 25.000^{min-1}
or max. residual imbalance
 ≤ 1 gmm



Sealed versions see
pages 132, 133.

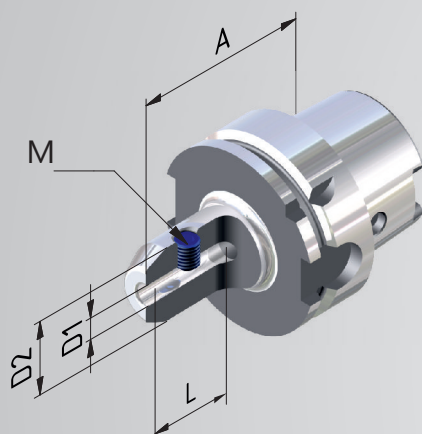
Order No.	HSK	ER	Clamping range	A	D
				= 100	
608002-01	80	16	1–10	100	28
608002-02	80	25	1–16	100	42
608002-03	80	32	2–20	100	50
				= 160	
608002-011	80	16	1–10	160	28
608002-021	80	25	1–16	160	42
608002-031	80	32	2–20	160	50

Endmill holder Weldon

- Application:** For clamping tools with cylindrical shank according to DIN 1835B/6359HB
- Technical Design:** Runout of outer taper to $D_1 \leq 0,003$ mm. Tolerance of bore H4 (more accurate as DIN).
- Includes:** Clamping screw.
- Accessories:** See page 134.



Fine balanced
G 2,5 at 25.000^{min-1}
or max. residual imbalance
≤ 1 gmm



Order No.	HSK	D1	A = 80	D2	L	M
608004-01	80	6	80	25	35	M6
608004-02	80	8	80	28	35	M8
608004-03	80	10	80	35	41	M10
608004-04	80	12	80	42	48	M12
608004-06	80	16	100	48	51	M14
608004-08	80	20	100	52	53	M16
608004-09	80	25	100	65	60	M18x2
608004-10	80	32	110	72	64	M20x2

Shrink fit holder 4,5°

Application: For clamping tools with cylindrical shank of solid carbide or HSS, tol. h6.

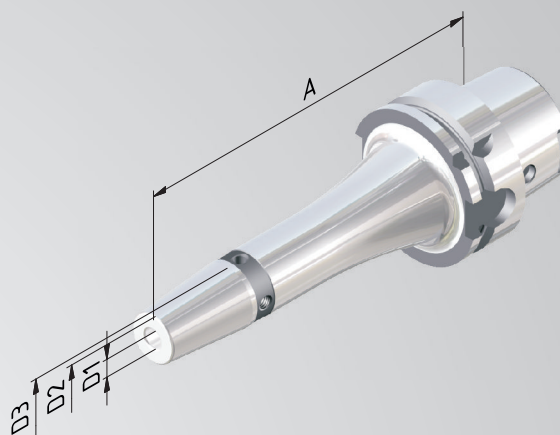
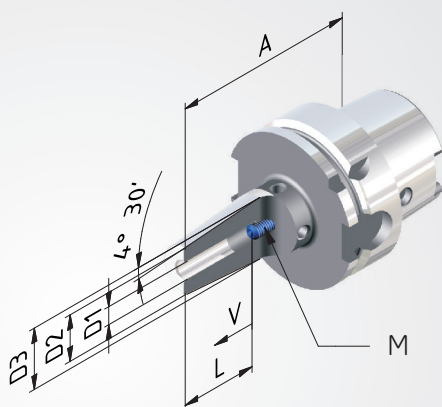
Technical Design: Made of special heat resistant steel. Suitable for inductive shrinking unit. With four additional threads for supplementary fine balancing. Runout of outer taper to $D_1 \leq 0,003$ mm.

Includes: Set screw.

Accessories: See page 135.



Fine balanced
 $G 2,5$ at 25.000^{min}
or max. residual imbalance
 ≤ 1 gmm



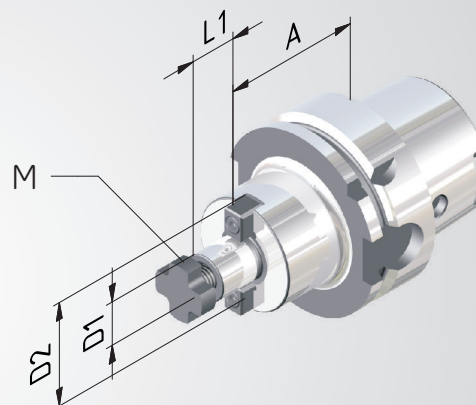
Order No.	HSK	D1	A	D2	D3	V	L	M
			SHORT					
608021-01	80	6	85	21	27	10	37	M5
608021-02	80	8	85	21	27	10	37	M6
608021-03	80	10	90	24	32	10	42	M8x1
608021-04	80	12	95	24	32	10	48	M10x1
608021-05	80	14	95	27	34	10	48	M10x1
608021-06	80	16	100	27	34	10	51	M12x1
608021-07	80	18	100	33	42	10	51	M12x1
608021-08	80	20	105	33	42	10	53	M16x1
608021-09	80	25	115	44	53	10	59	M16x1
608021-10	80	32	120	44	53	10	63	M16x1
			= 160					
608021-61	80	6	160	21	27	10	37	M5
608021-62	80	8	160	21	27	10	37	M6
608021-63	80	10	160	24	32	10	42	M8x1
608021-64	80	12	160	24	32	10	48	M10x1
608021-66	80	16	160	27	34	10	51	M12x1
608021-68	80	20	160	33	42	10	53	M16x1
608021-69	80	25	160	44	53	10	59	M16x1

Shell mill holder

- Application:** For adapting shell mills with transverse slot.
- Technical Design:** With extended flange. Runout of outer taper to $D_1 \leq 0,006$ mm.
- Includes:** Clamping screw and drive keys.
- Accessories:** See page 136.



Fine balanced
 $G 2,5$ at 25.000^{min-1}
or max. residual imbalance
 ≤ 1 gmm



Order No.	HSK	D1	A	D2	L1	M
			SHORT			
608005-02	80	22	50	48	19	M8
608005-03	80	27	50	60	21	M10
608005-04	80	32	60	78	24	M12
608005-05	80	40	60	89	27	M16

Collet chuck ER

Application: For clamping tools with cylindrical shank in collets ER

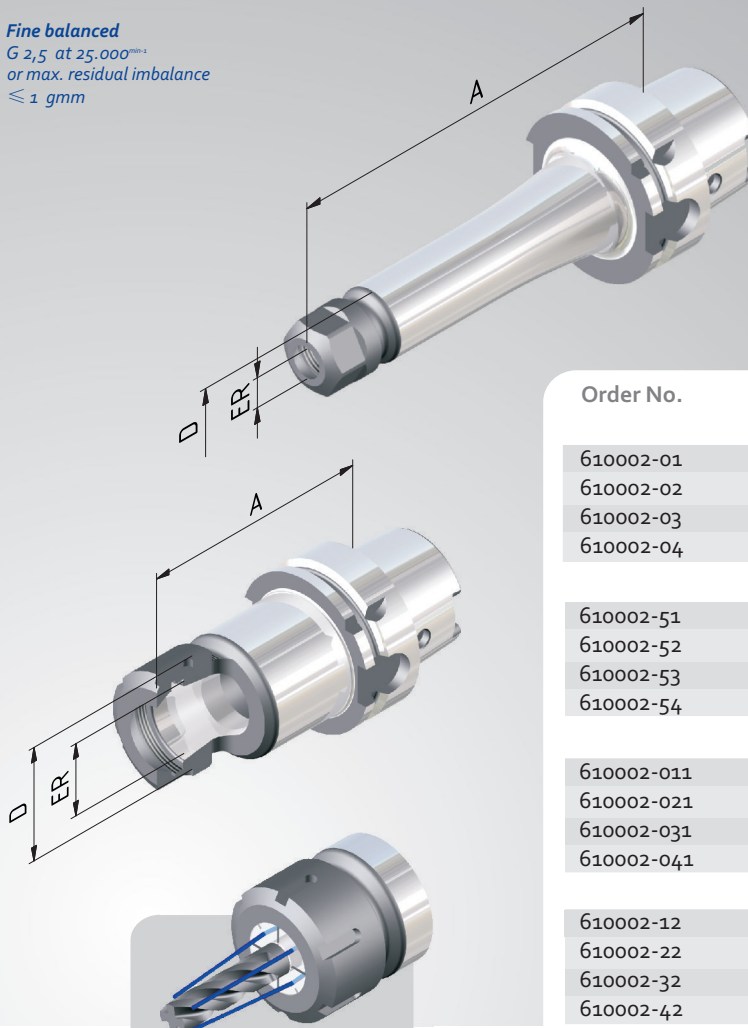
Technical Design: Runout of outer taper to inner taper $\leq 0,003$ mm. Due to adjusted taper tolerances of the ER-Inner taper and the Collet taper max. runout of $\leq 8\mu$ at $2,5 \times D$.

Includes: Clamping nut

Accessories: See page 130.



Fine balanced
G 2,5 at 25.000^{min}1
or max. residual imbalance
 ≤ 1 gmm



Sealed versions see
pages 132, 133.

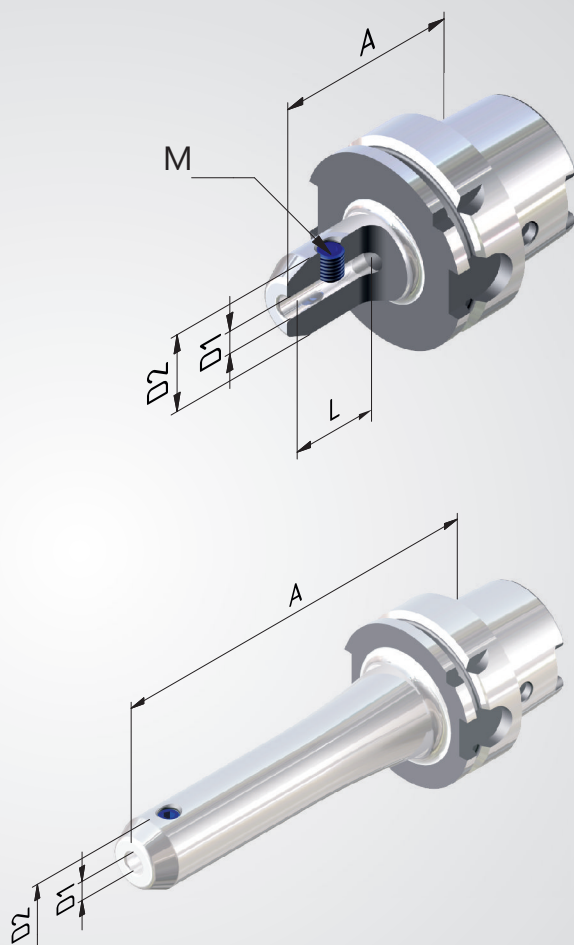
Order No.	HSK	ER	Clamping Range	A	D
SHORT					
610002-01	100	16	1-10	100	28
610002-02	100	25	1-16	100	42
610002-03	100	32	2-20	100	50
610002-04	100	40	4-26	120	63
= 130					
610002-51	100	16	1-10	130	28
610002-52	100	25	1-16	130	42
610002-53	100	32	2-20	130	50
610002-54	100	40	4-26	130	63
= 160					
610002-011	100	16	1-10	160	28
610002-021	100	25	1-16	160	42
610002-031	100	32	2-20	160	50
610002-041	100	40	4-26	160	63
= 200					
610002-12	100	16	1-10	200	28
610002-22	100	25	1-16	200	42
610002-32	100	32	2-20	200	50
610002-42	100	40	4-26	200	63

Endmill holder Weldon

- Application:** For clamping tools with cylindrical shank according to DIN 1835B/6359HB
- Technical Design:** Runout of outer taper to $D_1 \leq 0,003$ mm. Tolerance of bore H4 (more accurate as DIN).
- Includes:** Clamping screw.
- Accessories:** See page 134.



Fine balanced
G 2,5 at 25.000^{min-1}
or max. residual imbalance
 ≤ 1 gmm



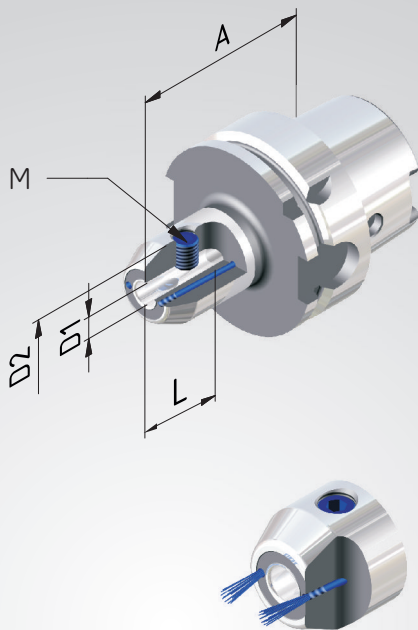
Order No.	HSK	D1	A	D2	L	M
			SHORT			
610004-01	100	6	80	25	35	M6
610004-02	100	8	80	28	35	M8
610004-03	100	10	80	35	41	M10
610004-04	100	12	80	42	48	M12
610004-05	100	14	80	42	48	M12
610004-06	100	16	100	48	51	M14
610004-07	100	18	100	50	51	M14
610004-08	100	20	100	52	53	M16
610004-10	100	25	100	65	60	M18x2
610004-11	100	32	100	72	64	M20x2
610004-12	100	40	120	80	74	M20x2
			= 160			
610004-61	100	6	160	25	35	M6
610004-62	100	8	160	28	35	M8
610004-63	100	10	160	35	41	M10
610004-64	100	12	160	42	48	M12
610004-65	100	14	160	42	48	M12
610004-66	100	16	160	48	51	M14
610004-67	100	18	160	50	51	M14
610004-68	100	20	160	52	53	M16
610004-69	100	25	160	65	60	M18x2
610004-70	100	32	160	72	64	M20x2

Endmill holder Weldon »Cool Tool«

- Application:** Particularly suitable for tools without internal coolant, and for machining at difficult positions with bad chip removal.
- Technical Design:** Two holes in the toolholder lead the coolant directly to the cutting edge. Coolant holes can be re-sealed with screws for the use of tools with internal coolant holes.
- Includes:** Clamping screw and 2 x M3-screws to plug the coolant holes if needed.
- Accessories:** See page 134.



Fine balanced
G 2,5 at 25.000^{mm/s}
or max. residual imbalance
≤ 1 gmm



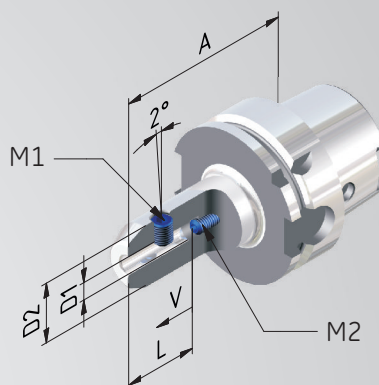
Order No.	HSK	D1	A	D2	L	M
			SHORT			
6100041-01	100	6	80	25	35	M6
6100041-02	100	8	80	28	35	M8
6100041-03	100	10	80	35	41	M10
6100041-04	100	12	80	42	48	M12
6100041-05	100	14	80	42	48	M12
6100041-06	100	16	100	48	51	M14
6100041-07	100	18	100	50	51	M14
6100041-08	100	20	100	52	53	M16
6100041-09	100	25	100	65	60	M18x2
6100041-10	100	32	100	72	64	M20x2

= 160

6100041-61	100	6	160	25	35	M6
6100041-62	100	8	160	28	35	M8
6100041-63	100	10	160	35	41	M10
6100041-64	100	12	160	42	48	M12
6100041-65	100	14	160	42	48	M12
6100041-66	100	16	160	48	51	M14
6100041-67	100	18	160	50	51	M14
6100041-68	100	20	160	52	53	M16

Endmill holder Whistle Notch

- Application:** For clamping tools with cylindrical shank according to DIN 1835E/6359HE.
- Technical Design:** Runout of outer taper to $D_1 \leq 0,003$ mm. Tolerance of bore H4 (more accurate as DIN).
- Includes:** Clamping screw and set screw.
- Accessories:** See page 135.



Order No.	HSK	D1	A	D2	L	M1	M2
			SHORT				
610009-01	100	6	90	25	36,5	M6	M5
610009-02	100	8	90	28	36,5	M8	M6
610009-03	100	10	90	35	40,5	M10	M8
610009-04	100	12	100	42	45,5	M12	M10
610009-05	100	14	100	42	45,5	M12	M10
610009-06	100	16	100	48	48,5	M14	M12
610009-07	100	18	100	50	48,5	M14	M12
610009-08	100	20	110	52	50,5	M16	M16
610009-10	100	25	120	65	56,5	M18x2	M20
610009-11	100	32	120	72	60,5	M20x2	M20

Shrink fit holder 4,5°

Application: For clamping tools with cylindrical shank of solid carbide or HSS, tol. h6.

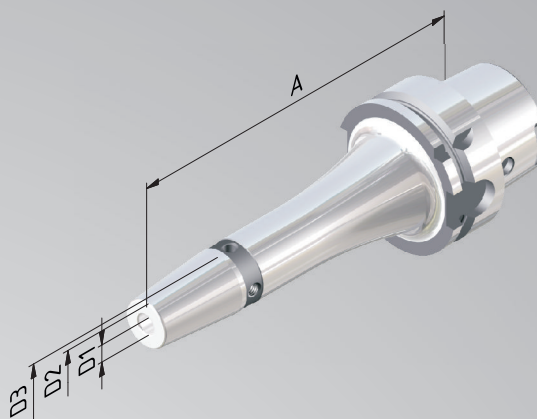
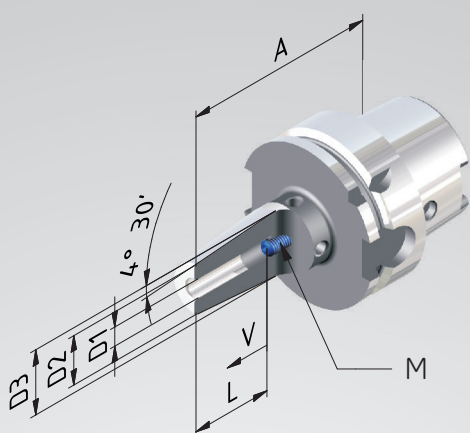
Technical Design: Made of special heat resistant steel. Suitable for inductive shrinking unit. With four additional threads for supplementary fine balancing. Runout of outer taper to $D_1 \leq 0,003$ mm.

Includes: Set screw.

Accessories: See page 135.



Fine balanced
 $G_{2,5}$ at 25.000^{min} s
or max. residual imbalance
 ≤ 1 gmm



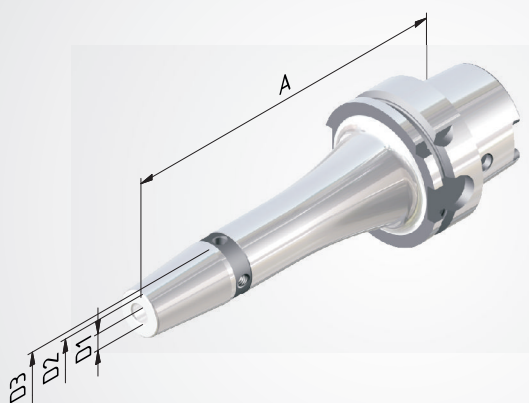
Order No.	HSK	D1	A	D2	D3	V	L	M
SHORT								
610021-01	100	6	85	21	27	10	37	M5
610021-02	100	8	85	21	27	10	37	M6
610021-03	100	10	90	24	32	10	42	M8x1
610021-04	100	12	95	24	32	10	48	M10x1
610021-05	100	14	95	27	34	10	48	M10x1
610021-06	100	16	100	27	34	10	51	M12x1
610021-07	100	18	100	33	42	10	51	M12x1
610021-08	100	20	105	33	42	10	53	M16x1
610021-09	100	25	115	44	53	10	59	M16x1
610021-10	100	32	120	44	53	10	63	M16x1
= 120								
610021-31	100	6	120	21	27	10	37	M5
610021-32	100	8	120	21	27	10	37	M6
610021-33	100	10	120	24	32	10	42	M8x1
610021-34	100	12	120	24	32	10	48	M10x1
610021-35	100	14	120	27	34	10	48	M10x1
610021-36	100	16	120	27	34	10	51	M12x1
610021-37	100	18	120	33	42	10	51	M12x1
610021-38	100	20	120	33	42	10	53	M16x1

Long versions see next page >>

Shrink fit holder 4,5°



Fine balanced
G 2,5 at 25.000^{mm/s}
or max. residual imbalance
≤ 1 gmm



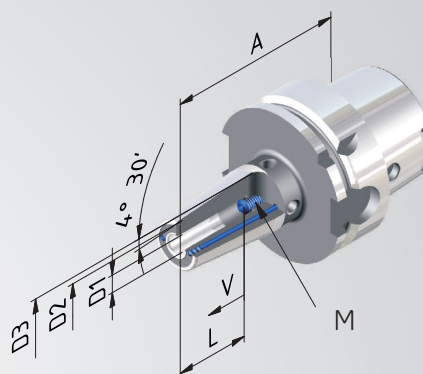
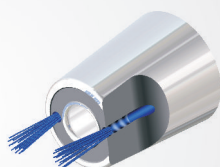
Order No.	HSK	D1	A	D2	D3	V	L	M
= 130								
610021-51	100	6	130	21	27	10	37	M5
610021-52	100	8	130	21	27	10	37	M6
610021-53	100	10	130	24	32	10	42	M8x1
610021-54	100	12	130	24	32	10	48	M10x1
610021-55	100	14	130	27	34	10	48	M10x1
610021-56	100	16	130	27	34	10	51	M12x1
610021-57	100	18	130	33	42	10	51	M12x1
610021-58	100	20	130	33	42	10	53	M16x1
610021-59	100	25	130	44	53	10	59	M16x1
610021-60	100	32	130	44	53	10	63	M16x1
= 160								
610021-61	100	6	160	21	27	10	37	M5
610021-62	100	8	160	21	27	10	37	M6
610021-63	100	10	160	24	32	10	42	M8x1
610021-64	100	12	160	24	32	10	48	M10x1
610021-65	100	14	160	27	34	10	48	M10x1
610021-66	100	16	160	27	34	10	51	M12x1
610021-67	100	18	160	33	42	10	51	M12x1
610021-68	100	20	160	33	42	10	53	M16x1
610021-69	100	25	160	44	53	10	59	M16x1
610021-70	100	32	160	44	53	10	63	M16x1
= 200								
610021-81	100	6	200	21	27	10	37	M5
610021-82	100	8	200	21	27	10	37	M6
610021-83	100	10	200	24	32	10	42	M8x1
610021-84	100	12	200	24	32	10	48	M10x1
610021-85	100	14	200	27	34	10	48	M10x1
610021-86	100	16	200	27	34	10	51	M12x1
610021-87	100	18	200	33	42	10	51	M12x1
610021-88	100	20	200	33	42	10	53	M16x1
610021-89	100	25	200	44	53	10	59	M16x1
610021-90	100	32	200	44	53	10	63	M16x1

Shrink fit holder 4,5° »Cool Tool«

- Application:** Particularly suitable for tools without internal coolant, and for machining at difficult positions with bad chip removal.
- Technical Design:** Two holes in the toolholder lead the coolant directly to the cutting edge. Coolant holes can be re-sealed with screws for the use of tools with internal coolant holes.
- Includes:** Set screw and 2 x M3 screws to plug the coolant holes if needed.
- Accessories:** See page 134.



Fine balanced
G 2,5 at 25.000^{mm/s}
or max. residual imbalance
≤ 1 gmm



Order No.	HSK	D1	A SHORT	D2	D3	V	L	M
610021-019	100	6	85	21	27	10	37	M5
610021-029	100	8	85	21	27	10	37	M6
610021-039	100	10	90	24	32	10	42	M8x1
610021-049	100	12	95	24	32	10	48	M10x1
610021-059	100	14	95	27	34	10	48	M10x1
610021-069	100	16	100	27	34	10	51	M12x1
610021-079	100	18	100	33	42	10	51	M12x1
610021-089	100	20	105	33	42	10	53	M16x1
610021-099	100	25	115	44	53	10	59	M16x1

ABS holder

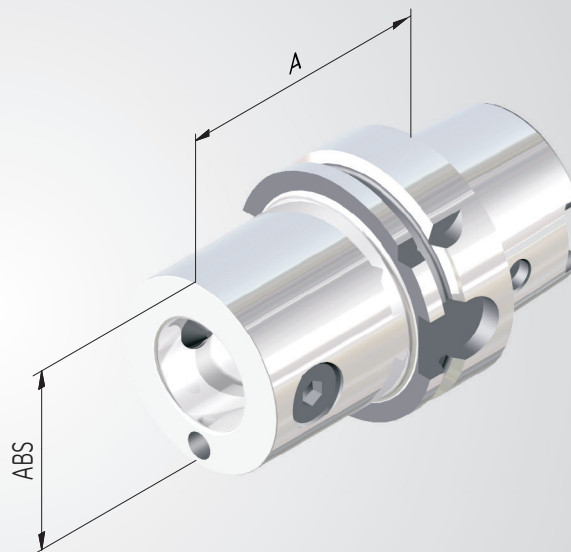
Application: For holding modular tool shanks with ABS-interface.

Technical Design: With ABS mounting parts.

Includes: See page 138.



Balanced
G 6,3 at 8.000 mm/s²



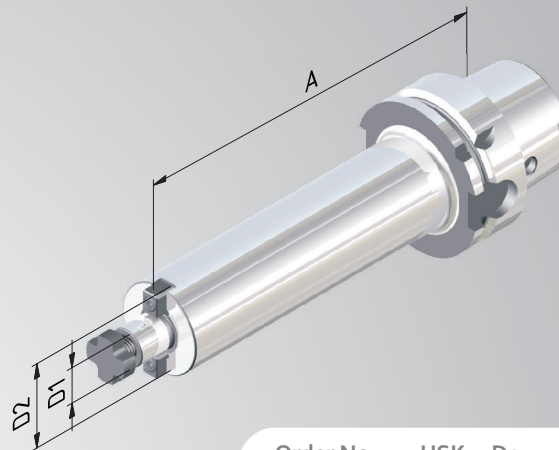
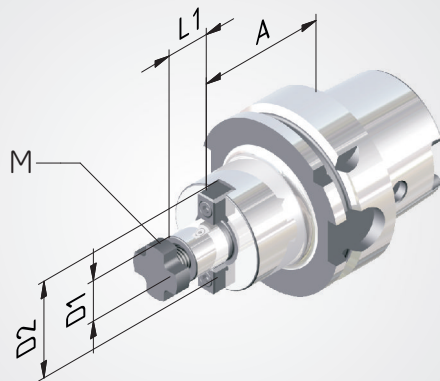
Order No.	HSK	ABS	A
610026-02	100	32	60
610026-03	100	40	80
610026-04	100	50	80
610026-05	100	63	90
610026-06	100	80	90
610026-07	100	100	100

Shell mill holder

- Application:** For adapting shell mills with transverseslot.
- Technical Design:** With extended flange. Runout of outer taper to $D_1 \leq 0,006$ mm.
- Includes:** Clamping screw and drive keys.
- Accessories:** See page 136.



Fine balanced
 $G_{2,5}$ at 25.000^{min-1}
or max. residual imbalance
 ≤ 1 gmm



Order No.	HSK	D1	A	D2	L1	M
SHORT						
610005-01	100	16	50	38	17	M8
610005-02	100	22	50	48	19	M10
610005-03	100	27	50	60	21	M12
610005-04	100	32	50	78	24	M16
610005-05	100	40	60	89	27	M20
610005-07	100	60	70	140	40	M32
= 100						
610005-011	100	16	100	38	17	M8
610005-021	100	22	100	48	19	M10
610005-031	100	27	100	60	21	M12
610005-041	100	32	100	78	24	M16
610005-051	100	40	100	89	27	M20
= 160						
610005-611	100	16	160	38	17	M8
610005-621	100	22	160	48	19	M10
610005-631	100	27	160	60	21	M12
610005-641	100	32	160	78	24	M16
610005-651	100	40	160	89	27	M20

Shell mill holder »Cool Tool«

Application: For adapting shell mills with coolant through to the cutting edges.

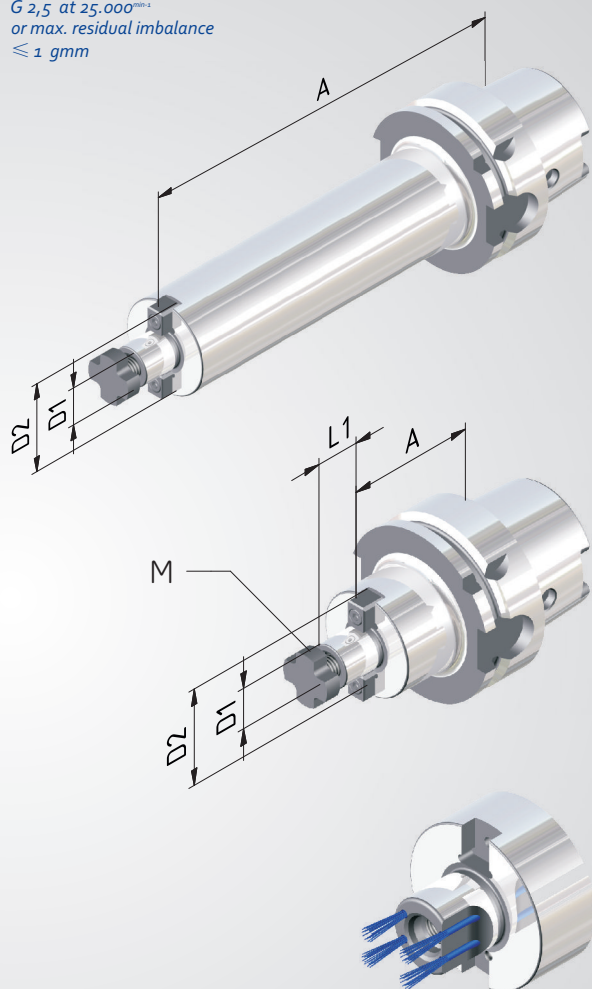
Technical Design: With extended flange. Runout of outer taper to $D_1 \leq 0,006$ mm.

Includes: Clamping screw and drive keys.

Accessories and Spareparts: See page 134.



Fine balanced
 $G 2,5$ at 25.000 min^{-1}
or max. residual imbalance
 $\leq 1 \text{ gmm}$



Order No.	HSK	D1	A	D2	L1	M
SHORT						
610005-21	100	16	50	38	17	M8
610005-22	100	22	50	48	19	M10
610005-23	100	27	50	60	21	M12
610005-24	100	32	50	78	24	M16
610005-25	100	40	60	89	27	M20
610005-27	100	60	70	140	40	M30
= 100						
610005-211	100	16	100	38	17	M8
610005-221	100	22	100	48	19	M10
610005-231	100	27	100	60	21	M12
610005-241	100	32	100	78	24	M16
610005-251	100	40	100	89	27	M20
= 130						
610005-519	100	16	130	38	17	M8
610005-529	100	22	130	48	19	M10
610005-539	100	27	130	60	21	M12
610005-549	100	32	130	78	24	M16
610005-559	100	40	130	89	27	M20
= 160						
610005-619	100	16	160	38	17	M8
610005-629	100	22	160	48	19	M10
610005-639	100	27	160	60	21	M12
610005-649	100	32	160	78	24	M16
610005-659	100	40	160	89	27	M20

Combi shell mill holder

Application: For adapting shell mills with transverse and longitudinal groove.

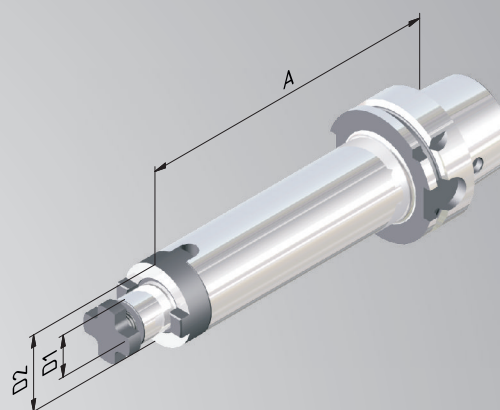
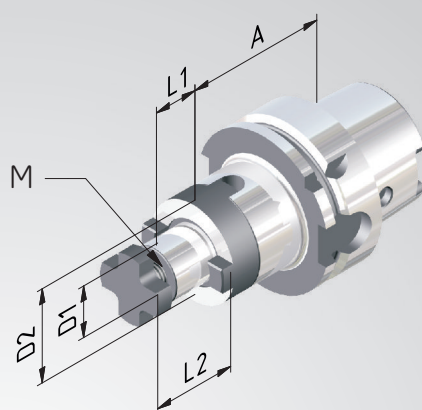
Technical Design: Runout of outer taper to $D_1 \leq 0,006 \text{ mm}$.

Includes: Clamping screw, drive key and adjusting spring.

Accessories: See page 137.



Fine balanced
 $G 2,5$ at 25.000 min^{-1}
or max. residual imbalance
 $\leq 1 \text{ gmm}$



Order No.	HSK	D1	A	D2	L1	L2	M
SHORT							

610006-01	100	16	60	32	17	27	M8
610006-02	100	22	60	40	19	31	M10
610006-03	100	27	60	48	21	33	M12
610006-04	100	32	60	58	24	38	M16
610006-05	100	40	70	70	27	41	M20

= 100

610006-011	100	16	100	32	17	27	M8
610006-021	100	22	100	40	19	31	M10
610006-031	100	27	100	48	21	33	M12
610006-041	100	32	100	58	24	38	M16
610006-051	100	40	100	70	27	41	M20

= 160

610006-61	100	16	160	32	17	27	M8
610006-62	100	22	160	40	19	31	M10
610006-63	100	27	160	48	21	33	M12
610006-64	100	32	160	58	24	38	M16
610006-65	100	40	160	70	27	41	M20

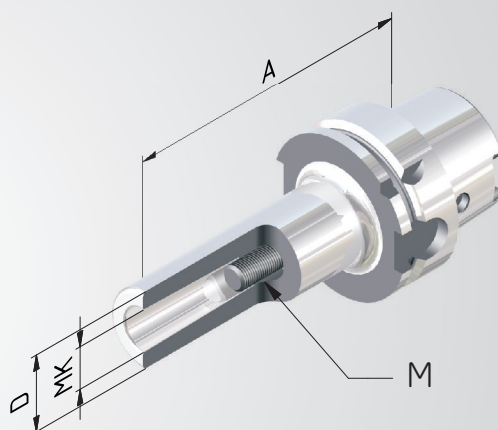
Morse taper adapter according to DIN 228A

Application: For holding morse taper tools with tang according to DIN 228A.

Technical Design: Runout of outer taper to $D_1 \leq 0,008$ mm.



Balanced
G 6,3 at 8.000^{min-1}



Order No.	HSK	MK	M	A	D
610014-02	100	2	M10	120	32
610014-03	100	3	M12	150	40
610014-04	100	4	M16	170	48

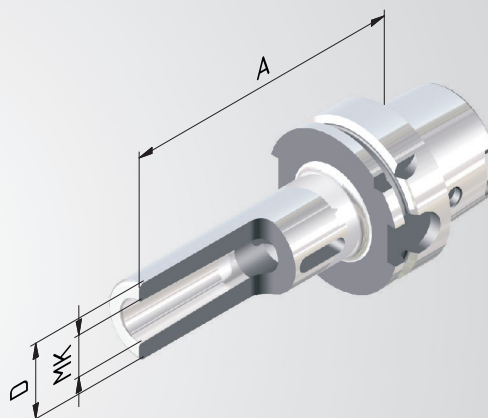
Morse taper adapter according to DIN 228B

Application: For holding morse taper tools with tang according to DIN 228B

Technical Design: Runout of outer taper to $D_1 \leq 0,008$ mm.



Balanced
G 6,3 at 8.000^{min-1}

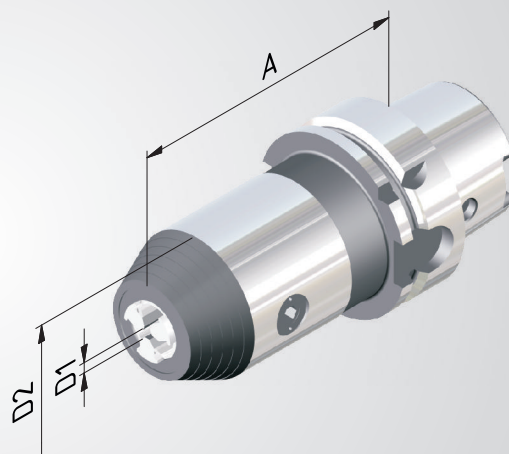


Order No.	HSK	MK	A	D
610013-01	100	1	110	25
610013-02	100	2	120	32
610013-03	100	3	150	40
610013-04	100	4	170	48

Short drill chuck

Application: For clamping tools with cylindrical shank. Also suitable for tools with internal coolant.

Technical Design: Wrench.



Order No.	HSK	Clamping range D1	A	D2
610095-52	100	1/16	104	50