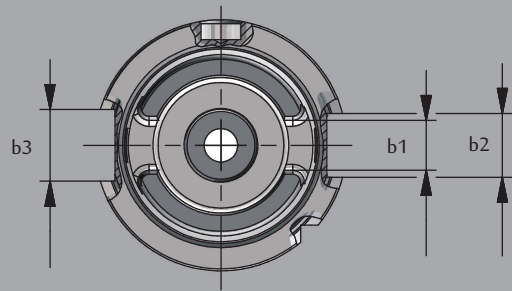
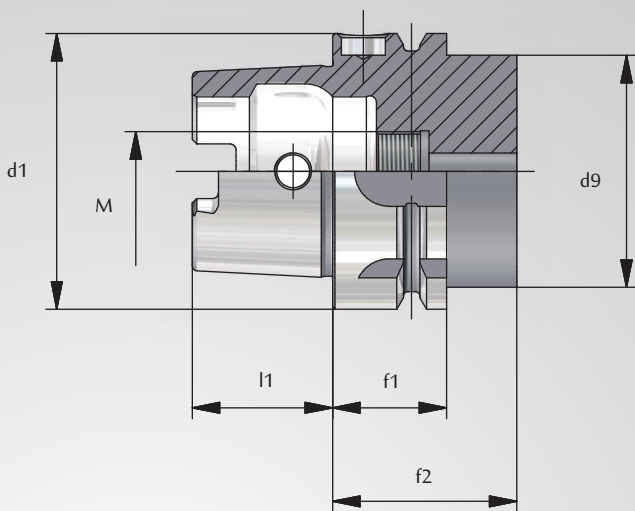


TOOL HOLDERS WITH SHAFT HSK A40+A50

HSK A40 + A50



HSK	d1	dg max.	l1	f1	f2 min.	b1	b2	b3	M
40	40	34	20	20	35	8,05	9	11	M12x1
50	50	42	25	26	42	10,54	12	14	M16x1

Collet chuck ER

Application: For clamping tools with cylindrical shank in collets ER

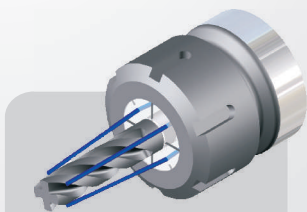
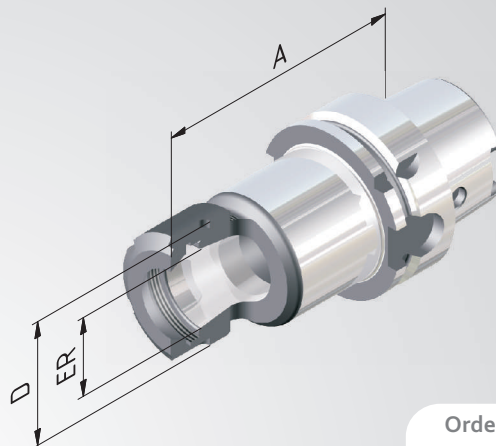
Technical Design: Runout of outer taper to inner taper. Due to adjusted taper tolerances of the ER-Inner taper and the collet taper max. runout of $\leq 8\mu$ at $2,5 \times D$.

Includes: Clamping nut.

Accessories: See page 128.



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



Sealed versions see
 page 130.

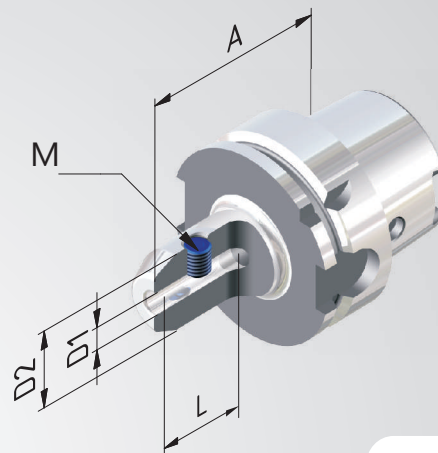
Order No.	HSK	ER	Clamping range	A	D
40					
EXTRA SHORT					
604002-001	40	16	1-10	60	28
604002-002	40	25	1-16	70	42
604002-003	40	32	2-20	70	50
SHORT					
604002-07	40	11	1-7	80	19
604002-01	40	16	1-10	80	28
604002-02	40	25	1-16	80	42
604002-03	40	32	2-20	100	50
50					
EXTRA SHORT					
605002-001	50	16	1-10	60	28
605002-002	50	25	1-16	70	42
605002-003	50	32	2-20	80	50
SHORT					
605002-01	50	16	1-10	100	28
605002-02	50	25	1-16	100	42
605002-03	50	32	2-20	100	50

Endmill holder Weldon

- Application:** For clamping tools with cylindrical shank according to DIN 1835 B.
- 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 132.



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



Order No.	HSK	D1	A	D2	L	M1
	40		SHORT			
604004-01	40	6	60	25	35	M6
604004-02	40	8	60	28	35	M8
604004-03	40	10	60	35	41	M10
604004-04	40	12	70	42	48	M12
604004-05	40	14	75	42	48	M12
604004-06	40	16	75	48	51	M14
	50		SHORT			
605004-01	50	6	65	25	35	M6
605004-02	50	8	65	28	35	M8
605004-03	50	10	65	35	41	M10
605004-04	50	12	80	42	48	M12
605004-06	50	16	80	48	51	M14
605004-08	50	20	80	52	53	M16

Shrink fit holder

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

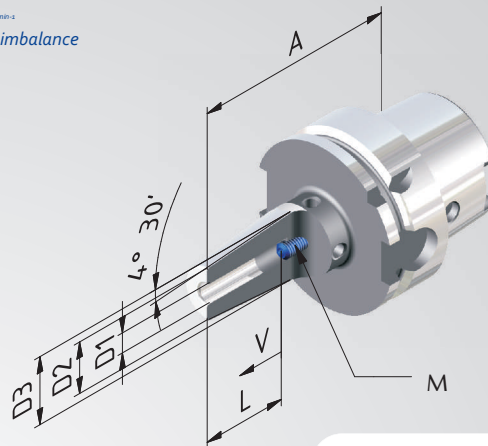
Technical Design: Made of special heat resistant steel. Suitable for inductive shrinking unit. With four additional threads for supplementary fine balancing. Runout of outer taper to $D_1 \leq 0,003$ mm.

Includes: Set screw.

Accessories: See page 133.



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



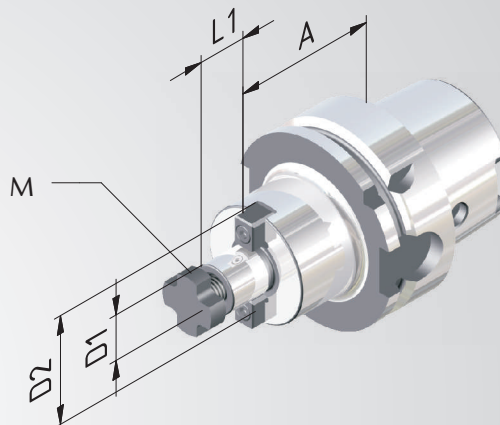
Order No.	HSK	D1	A	D2	D3	V	L	M
	40		SHORT					
604021-13	40	3	60	12	17	-	-	-
604021-14	40	4	60	12	17	-	-	-
604021-15	40	5	60	12	17	-	-	-
604021-01	40	6	80	21	27	10	37	M5
604021-02	40	8	80	21	27	10	37	M6
604021-03	40	10	80	24	32	10	42	M8x1
604021-04	40	12	90	24	32	10	48	M10x1
604021-05	40	14	90	27	34	10	48	M10x1
604021-06	40	16	90	27	34	10	51	M12x1
	50		SHORT					
605021-13	50	3	60	12	17	-	-	-
605021-14	50	4	60	12	17	-	-	-
605021-15	50	5	60	12	17	-	-	-
605021-01	50	6	80	21	27	10	37	M5
605021-02	50	8	80	21	27	10	37	M6
605021-03	50	10	85	24	32	10	42	M8x1
605021-04	50	12	90	24	32	10	48	M10x1
605021-05	50	14	90	27	34	10	48	M10x1
605021-06	50	16	95	27	34	10	51	M12x1
605021-07	50	18	95	33	42	10	51	M12x1
605021-08	50	20	100	33	42	10	53	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 134.



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



Order No.	HSK	D1	A	D2	l1	M
	40	SHORT				
604005-01	40	16	50	38	17	M8
604005-02	40	22	60	48	19	M10
	50					
605005-01	50	16	50	38	17	M8
605005-02	50	22	60	48	19	M10
605005-03	50	27	60	60	21	M12