



Gaging for HSK- Toolholders

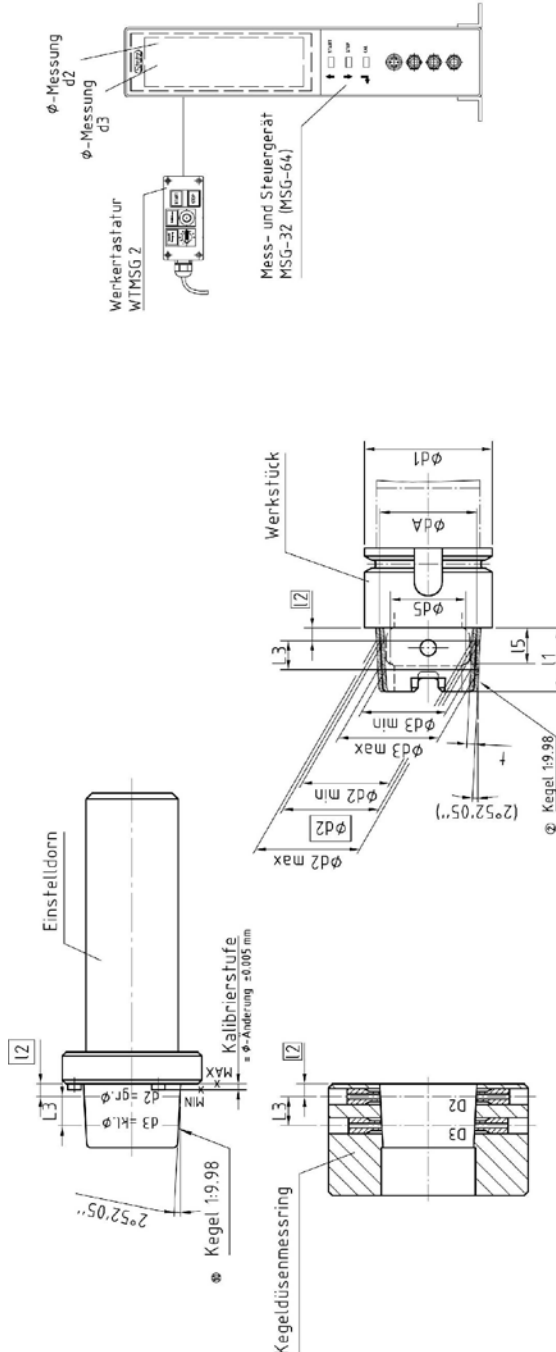


ISO 12164-1



Data Sheet for HSK Toolholder Gages

ISO 12164-1



Bezeichnung Form A	Nenngröße d1	Profilabweichung H7/h6	Nennmaß d2	Einstellhorn Kegel 1:9.98 ± 2'52.05"		Düsenmessring		Kegel-Hohlschäfte mit Plananlage Form A und Form C nach DIN 68893-1 : 2003-05 stimmt mit ISO 12164-1 : 2001 überein					Einstellhorn Kegel 1:9.98 ± 2'52.05"		Stütz Zmngs-Nr.				
				d2 min	d2 max	d3 min	d3 max	dA	d5	l1	l2	l3 Düsenabst.	l5	d3 MIN		d3 MAX			
HSK-A 25	25	0.0020	19.006	19.004	19.008	18.1523	18.1563	19.256 ±0.002	15	13	2.5	8.5	7.21	HA3025-3200-F01	19.001	19.011	18.1493	18.1593	HA4032-0501-501
HSK-A 32	32	0.0020	24.007	24.005	24.009	23.2755	23.2775	24.328 ±0.002	19	16	3.2	7.3	8.92	HA3032-3200-F01	24.002	24.012	23.2705	23.2805	HA4032-0501-501
HSK-A 40	40	0.0020	30.007	30.005	30.009	29.0551	29.0571	30.408 ±0.002	23	20	4	9.5	11.42	HA3040-3200-F01	30.002	30.012	29.0501	29.0601	HA4040-0501-501
HSK-A 50	50	0.0025	38.009	38.0065	38.0115	36.9068	36.9093	38.510 ±0.0025	29	25	5	11	14.13	HA3050-3200-F01	38.004	38.014	36.9018	36.9118	HA4050-0501-501
HSK-A 63	63	0.0030	48.010	48.007	48.013	46.5371	46.5401	48.641 ±0.003	37	32	6.3	14.7	18.13	HA3063-3200-F01	48.005	48.015	46.5321	46.5421	HA4063-0501-501
HSK-A 80	80	0.0040	60.012	60.008	60.016	58.1082	58.1122	60.814 ±0.004	46	40	8	19	22.85	HA3080-3200-F01	60.007	60.017	58.1032	58.1132	HA4080-0501-501
HSK-A 100	100	0.0040	75.013	75.009	75.017	72.6082	72.6122	76.015 ±0.004	58	50	10	24	28.56	HA3100-3200-F01	75.008	75.018	72.6032	72.6132	HA4100-0501-501
HSK-A 125	125	0.0050	95.016	95.011	95.021	91.9599	91.9649	96.269 ±0.005	73	63	12.5	30.5	36.27	HA3125-3200-F01	95.011	95.021	91.9549	91.9649	HA4125-0501-501
HSK-A 160	160	0.0050	120.016	120.011	120.021	116.008	116.013	121.619 ±0.005	92	80	16	4.0	45.98	HA3160-3200-F01	120.011	120.021	116.003	116.013	HA4160-0501-501



Taper Air Jet Ring

Hard Chrome plated with 2 measuring levels according to ISO 12164-1 in accordance with Sketch Nr. 1392 with hose 1.5 meters long and quick connect coupler for connection to MSG.



Type	Part Number
HSK-A32 = HSK-B40	STO-415-2240-004122
HSK-A40 = HSK-B50	STO-415-2240-004123
HSK-A50 = HSK-B63	STO-415-2240-004124
HSK-A63 = HSK-B80	STO-415-2240-004125
HSK-A80 = HSK-B100	STO-415-2240-004126
HSK-A100 = HSK-B125	STO-415-2240-004127
HSK-A125 = HSK-B160	STO-415-2240-004768
HSK-A160	STO-415-2240-004769

Taper Master Plug

With calibration step, according to ISO 12164-1 in accordance with Sketch Nr. 1401, hardened and aged steel with international certification.



Type	Part Number
HSK-A32 = HSK-B40	STO-300-0008-004128
HSK-A40 = HSK-B50	STO-300-0008-004129
HSK-A50 = HSK-B63	STO-300-0008-004130
HSK-A63 = HSK-B80	STO-300-0008-004131
HSK-A80 = HSK-B100	STO-300-0008-004132
HSK-A100 = HSK-B125	STO-300-0008-004133
HSK-A125 = HSK-B160	STO-300-0008-004770
HSK-A160	STO-300-0008-004771

Clamping Shoulder – L5 - Mechanical

For the measurement of the L5 according to ISO 12164-1 in accordance with Sketch Nr. 1421, includes master and dial indicator.



Type	Part Number
HSK-A32 = HSK-B40	STO-421-1102-104170
HSK-A40 = HSK-B50	STO-421-1102-104171
HSK-A50 = HSK-B63	STO-421-1102-104172
HSK-A63 = HSK-B80	STO-421-1102-104173
HSK-A80 = HSK-B100	STO-421-1102-104174
HSK-A100 = HSK-B125	STO-421-1102-104175
HSK-A125 = HSK-B160	STO-421-1102-104797
HSK-A160	STO-421-1102-105199



Pre-measurement device for the Toolholder Flange

HSK tool shank according to ISO 12164-1 and Sketch 1477 incl. Gage with indicator and certificate.



Type	Part Number
HSK-A32 = HSK-B40	STO-411-1302-104285
HSK-A40 = HSK-B50	STO-411-1302-104286
HSK-A50 = HSK-B63	STO-411-1302-104287
HSK-A63 = HSK-B80	STO-411-1302-104288
HSK-A80 = HSK-B100	STO-411-1302-104421
HSK-A100 = HSK-B125	STO-411-1302-104558
HSK-A125 = HSK-B160	STO-411-1302-104773
HSK-A160	STO-411-1302-104774

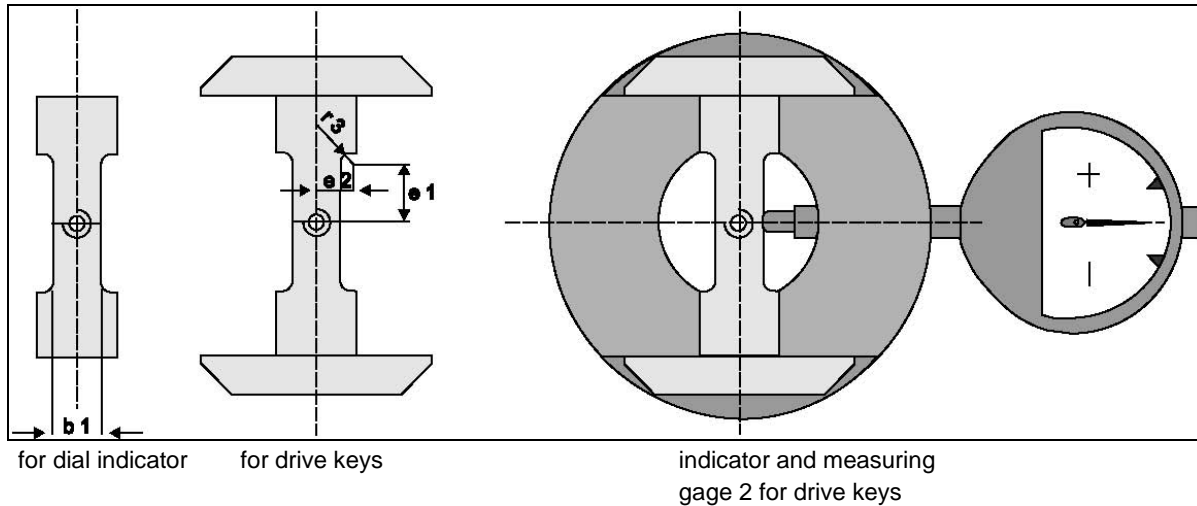
Key Gages

Measures the size and radius of HSK tool holder drive keys.

setting gage

measuring gage 1

gage ring with dial



Tool Taper per ISO 12164-1	Part Number	b1 +/-0.040	e1	e2	r3 +/-0.020
HSK 32	STO-283.001	7.05	8.905	4.903	1.38
HSK 40	STO-283.002	8.05	11.081	5.903	1.88
HSK 50	STO-283.003	10.54	13.997	7.648	2.38
HSK 63	STO-283.004	12.54	18.110	9.150	2.88
HSK 80	STO-283.005	16.04	22.073	11.898	3.88
HSK 100	STO-283.006	20.02	27.561	14.888	4.88
HSK 125	STO-283.007	25.02	35.580	18.388	5.88
HSK 160	STO-283.008	30.02	44.538	22.888	7.88

Description

Complete set with case includes measuring ring with dial indicator, measuring gage for lower deviation, measuring gage for upper deviation, mean deviation and setting gage for dial indicator.

Function

The setting gage is placed into the gage ring, and the dial indicator is set to zero. The measuring gage 1 is then used to measure the lower deviation of the drive key, and the measuring gage 2 the upper deviation.



STOTZ[®]

Air Gaging HSK-Spindle

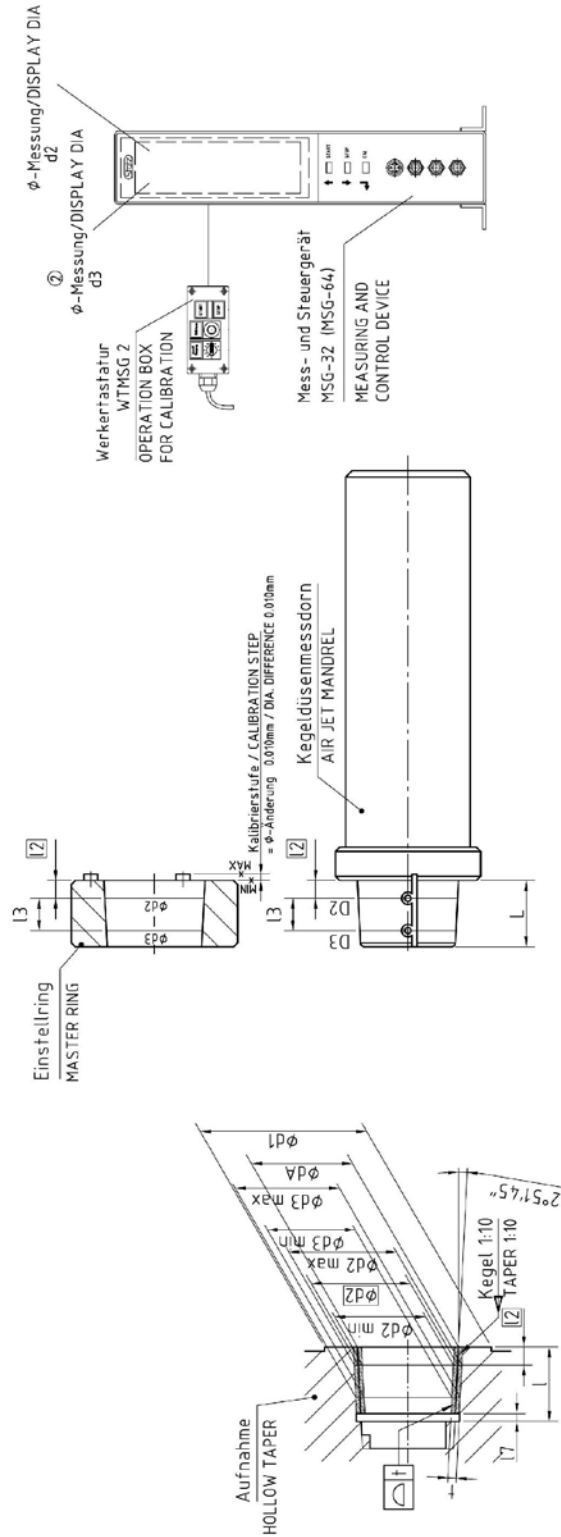


ISO 12164-2



Data Sheet for HSK Spindle Gages

ISO 12164-2



Bezeichnung TAPER HSK Form A TYPE A	NOMINAL SIZE d1	FT ⁽¹⁾	Kegeldüsenmessdorn AIR JET MANDREL				Einstellring MASTER RING				Stoß-Zöbings-Nr. Stoiz Zöbings-Nr.									
			d2 min	d2 max	d3 min	d3 max	d4	L +0.2	L3	17 ±0.1		d2 MIN	d2 MAX	d3 MIN	d3 MAX					
HSK - A 25	25	0.0010	18.998	18.9970	18.9990	18.598	18.5970	18.5990	19.248	+0.0010	9.4	2.5	4.0	1.5	HA1025-3200-001	18.993	19.003	18.593	18.603	HA2025-0501-501
HSK - A 32	32	0.0015	23.998	23.9965	23.9995	23.548	23.5465	23.5495	74.318	+0.0015	11.4	3.2	4.5	2.0	HA1032-3200-F01	23.993	24.003	23.543	23.553	HA2032-0501-501
HSK - A 40	40	0.0015	29.998	29.9965	29.9995	29.348	29.3465	29.3495	30.398	+0.0015	14.4	4	6.5	2.0	HA1040-3200-F01	29.993	30.003	29.343	29.353	HA2040-0501-501
HSK - A 50	50	0.0020	37.998	37.996	38.000	37.198	37.196	37.200	38.498	+0.0020	17.9	5	8	2.0	HA1050-3200-F01	37.993	38.003	37.193	37.203	HA2050-0501-501
HSK - A 63	63	0.0020	47.998	47.996	48.000	46.828	46.826	46.830	48.628	+0.0020	22.4	6.3	11.7	2.5	HA1063-3200-F01	47.993	48.003	46.823	4.6833	HA2063-0501-501
HSK - A 80	80	0.0025	59.997	59.9945	59.9995	58.447	58.4445	58.4495	60.797	+0.0025	28.4	8	15.5	3.0	HA1080-3200-F01	59.992	60.002	58.442	58.452	HA2080-0501-501
HSK - A 100	100	0.0030	74.997	74.994	75.000	72.997	72.994	73.000	75.997	+0.0030	35.4	10	20.0	3.0	HA1100-3200-F01	74.992	75.002	72.992	73.002	HA2100-0501-501
HSK - A 125	125	0.0035	94.996	94.9925	94.9995	92.446	92.4425	92.4495	96.246	+0.0035	44.4	12.5	25.5	4.0	HA1125-3200-F01	94.991	95.001	92.441	92.451	HA2125-0501-501
HSK - A 160	160	0.0035	119.995	119.9915	119.9985	116.495	116.4915	116.4985	121.595	+0.0035	57.4	16	35	4.0	HA1160-3200-F01	119.990	120.000	116.490	116.500	HA2160-0501-501



Taper Air Jet Mandrel

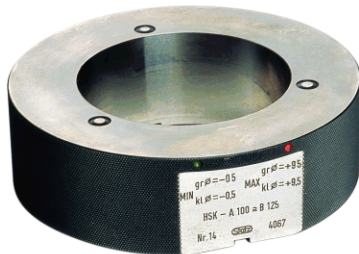
Hard Chrome plated with 2 measuring levels according to ISO 12164-2 in accordance with Sketch Nr. 1395 with hose 1.5 meters long and quick connect coupler for connect to MSG.



Type	Part Number
HSK-A32 = HSK-B40	STO-310-2240-004095
HSK-A40 = HSK-B50	STO-310-2240-004094
HSK-A50 = HSK-B63	STO-310-2240-004060
HSK-A63 = HSK-B80	STO-310-2240-004061
HSK-A80 = HSK-B100	STO-310-2240-004062
HSK-A100 = HSK-B125	STO-310-2240-004063
HSK-A125 = HSK-B160	STO-310-2240-004756
HSK-A160	STO-310-2240-004757

Taper Master Ring

With calibration step, according to ISO 12164-2 in accordance to Sketch Nr. 1396, hardened and aged steel with international certificate.



Type	Part Number
HSK-A32 = HSK-B40	STO-405-0009-004097
HSK-A40 = HSK-B50	STO-405-0009-004096
HSK-A50 = HSK-B63	STO-405-0009-004064
HSK-A63 = HSK-B80	STO-405-0009-004065
HSK-A80 = HSK-B100	STO-405-0009-004066
HSK-A100 = HSK-B125	STO-405-0009-004067
HSK-A125 = HSK-B160	STO-405-0009-004758
HSK-A160	STO-405-0009-004759

Pre-measurement device for Spindle,

HSK spindle according to ISO 12164-2 and Sketch 1578 including dial indicator and certificate. (No master).



Type	Part Number
HSK-A32 = HSK-B40	STO-411-2302-104713
HSK-A40 = HSK-B50	STO-411-2302-104714
HSK-A50 = HSK-B63	STO-411-2302-104715
HSK-A63 = HSK-B80	STO-411-2302-104716
HSK-A80 = HSK-B100	STO-411-2302-104717
HSK-A100 = HSK-B125	STO-411-2302-104718
HSK-A125 = HSK-B160	STO-411-2302-104777
HSK-A160	STO-411-2302-107195