

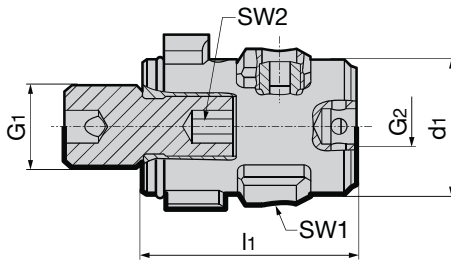
4-point clamping sets for conventional cooling

Product information

- for a coolant pressure up to 80 bar
- for radial manual HSK tool clamping
- for clamping HSK-A/C shanks to ISO 12164-1/DIN 69893

Scope of delivery

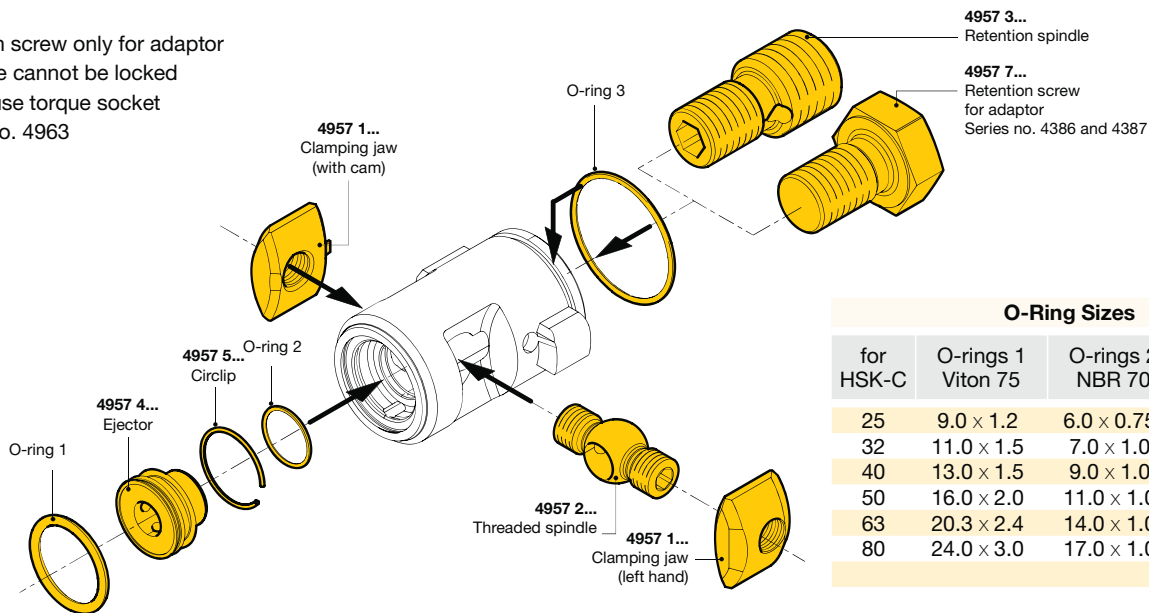
- including installation and operating instructions



									Series no.	4958
HSK-A/C	d ₁ mm	l ₁ mm	G1	G2	SW1	SW2	kg	Code no.	EDP Number	
25	13.8	30.30	M 8	M 4	2.5	3	0.025	19.000	9049580190000	
32	16.7	35.75	M10	M 5	2.5	4	0.050	24.000	9049580240000	
40	20.6	43.70	M12	M 6	3.0	5	0.080	30.000	9049580300000	
50	25.5	53.70	M16	M 8	4.0	6	0.150	38.000	9049580380000	
63	33.0	71.20	M20	M10	5.0	8	0.310	48.000	9049580480000	
80	41.0	90.10	M24	M12	6.0	10	0.640	60.000	9049580600000	

Component parts for 4-point clamping set Series no. 4958. separate or set

- retention screw only for adaptor
- if spindle cannot be locked please use torque socket Series no. 4963



O-Ring Sizes			
for HSK-C	O-rings 1 Viton 75	O-rings 2 NBR 70	O-rings 3 NBR 70
25	9.0 × 1.2	6.0 × 0.75	11.0 × 1.0
32	11.0 × 1.5	7.0 × 1.0	14.0 × 1.0
40	13.0 × 1.5	9.0 × 1.0	17.0 × 1.0
50	16.0 × 2.0	11.0 × 1.0	22.0 × 1.5
63	20.3 × 2.4	14.0 × 1.0	28.0 × 1.5
80	24.0 × 3.0	17.0 × 1.0	35.0 × 1.5

EDP Numbers for Series 4957							Set no. 4959
for HSK-C	Clamping jaw set	Threaded spindle	Retention spindle	Ejector	Circlip	Retention screw	EDP Numbers
25	9049570010190	9049570020190	9049570030190	9049570040190	9049570050190	9049570070190	9049590190000
32	9049570010240	9049570020240	9049570030240	9049570040240	9049570050240	9049570070240	9049590240000
40	9049570010300	9049570020300	9049570030300	9049570040300	9049570050300	9049570070300	9049590300000
50	9049570010380	9049570020380	9049570030380	9049570040380	9049570050380	9049570070380	9049590380000
63	9049570010480	9049570020480	9049570030480	9049570040480	9049570050480	9049570070480	9049590480000
80	9049570010600	9049570020600	9049570030600	9049570040600	9049570050600	9049570070600	9049590600000

THE 4-POINT CLAMPING TECHNOLOGY FOR CONVENTIONAL COOLING

TECHNICAL INFORMATION AND ADVANTAGES

Conventional 4-point clamping sets offer enormous clamping force and optimal cooling lubricant supply. They are suitable for radial manual HSK tool clamping.



Advantages:

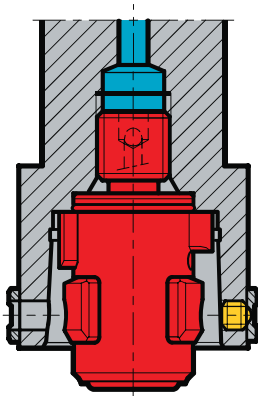
- simple and hence more economic spindle manufacture
- short, small diameter spindles with constricted spindle bearing spacing
- suitable for a pressure up to 80 bar

General notes: Our manual clamping sets must not be operated with motor-driven tools (impulse screwdriver or similar). The hexagonal key should not exceed the key size over its entire length. This largely prevents excessive torque being transferred. We recommend the T-handle hexagonal key, Series no. 4912. For accurate setting of the maximum torque and achieving the maximum interface rigidity, we recommend the application of a torque wrench, Series no. 4915 with hexagonal sockets, Series no. 4916. Removal of the locking ring is made by releasing the pressure ball screw. This is achieved with the use of an Allen key inserted through the opposite access hole and through the hollow threaded spindle and turned anticlockwise. Once released, the locking ring will slide axially off. Production drawings of the spindle contour to suit direct installation are available on request, including .dxf.

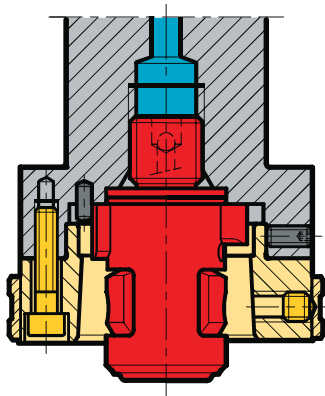
Application examples

Spindle interface

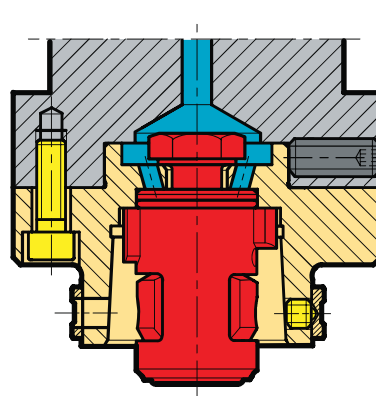
Direct installation in spindle



Spindle adaptor (integrated)

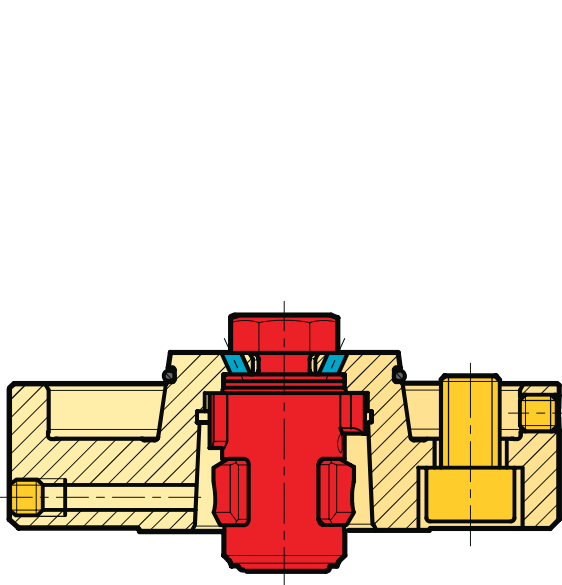


Spindle adaptor (in front)

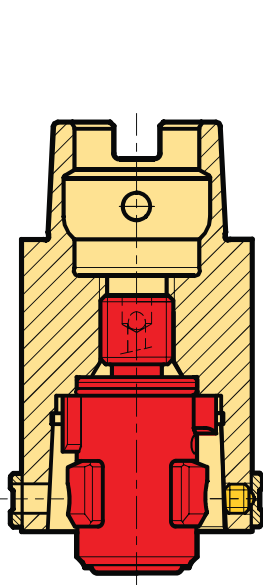


Adaptor

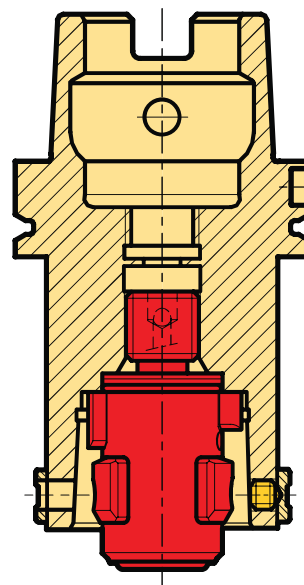
Basic adaptor for ISO taper spindles



HSK-C extension

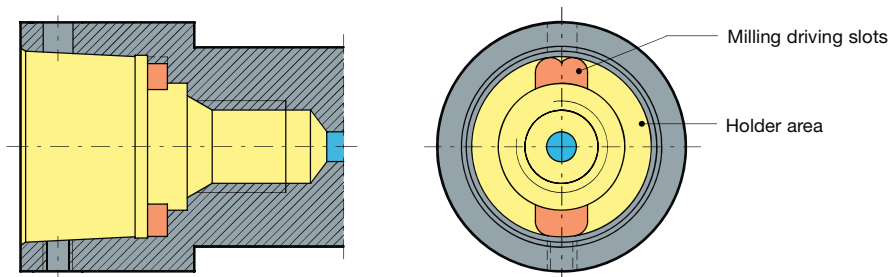


HSK-A reduction

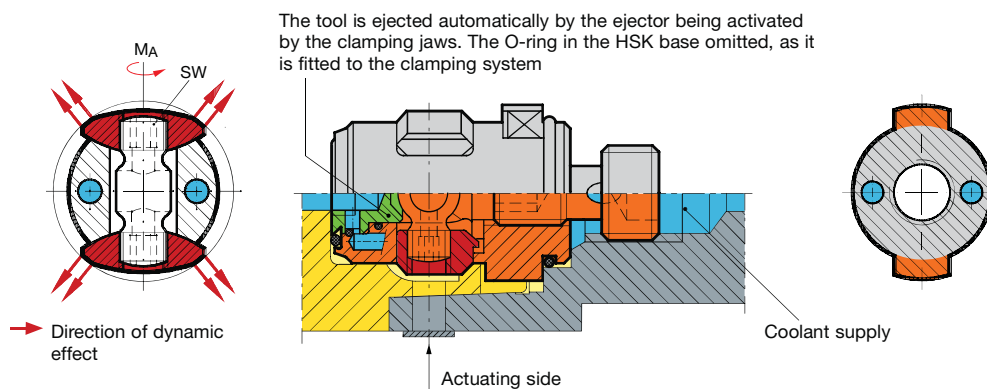


HSK
clamping technology

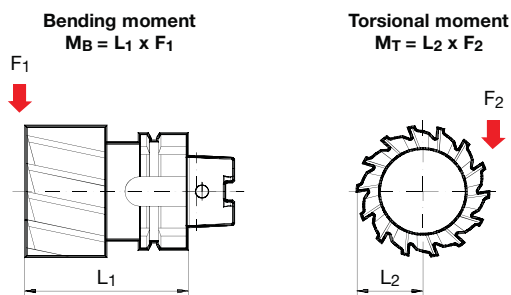
Internal contour of spindle



Installation and principle of operation



Bending torsional and tightening moment for 4-point clamping sets for conventional cooling



- ① We recommend M_A max. for rough machining and milling operations. For drilling and reaming operations a lower deviation of M_A max. up to 30% is permissible. Please check the torque with a torque wrench.
- ② Depending on temperature and lubricating conditions these values can be up to 15% lower.
- ③ Due to the screwed connection. M_T max. can be lower with adaptors.

HSK-C	max. torque M_A [Nm] ①	Key size	max. drawing force [kN] ②	max. linear bending moment M_B [Nm] ②	max. transferrable torsional moment M_T [Nm] ② ③
25	1.5	2.5	4.5	30	30
32	3.0	2.5	7.0	60	100
40	6.0	3.0	12.0	130	170
50	14.0	4.0	20.0	280	350
63	27.0	5.0	28.0	500	640
80	54.0	6.0	40.0	900	1330