

## Operating Instructions Manually Operated Chucks HSPF with Safety Key

### 1. Product features

- compact design (taking little space and with no projecting jaws as occurs with conventional chucks)
- contamination and dirt ingress almost eliminated
- higher clamping force and improved concentricity holding work with collets as compared with a 3 jaw chuck
- large clamping range Ø 1,0 up to 42,0 mm (HSPF40) resp. Ø 4,0 up to 60,0 mm (HSPF60) with free bar passage
- low surface stresses due to large clamping surface area of the collet, therefore reducing pressure marks and distortion of thin walled work pieces
- standard, emergency, multi-range and profiled collets eliminate the time taken to exchange of chucks and/or jaws when changing from round to profiled material
- no problem using on machines with CE-mark

### 2. Executions

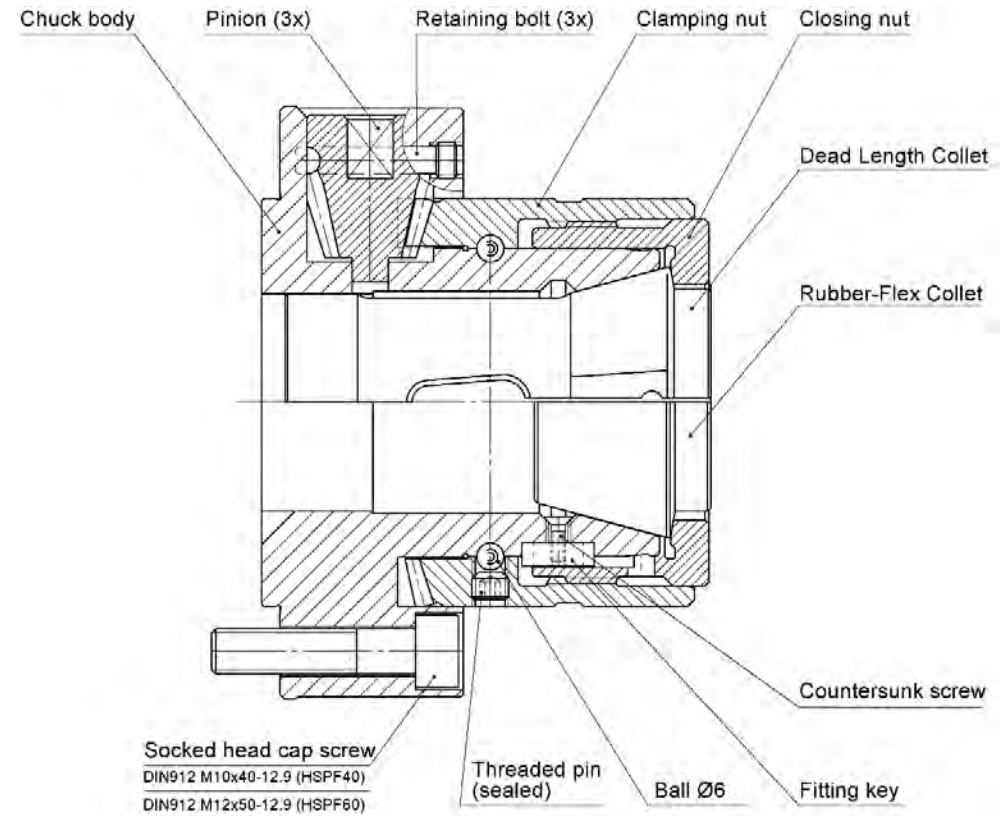
The HSPF are available as standard with cylindrical flat back mount.

The following short taper intermediate flanges to DIN/ISO are deliverable as set with the corresponding manually operated chuck HSPF:

	DIN 55026/ ISO 702/I		DIN 55027/ ISO 702/III		DIN 55029/ ISO 702/II (Camlock)		
	Size 5.1	Size 6.1	Size 5	Size 6	C4	C5	C6
HSPF40	X	X	X	X	X	X	X
HSPF60		X		X			X

Other executions are available upon request.

### 3. Construction



### 4. Function

By turning the pinion approx. 1.½ to 2 turns using the safety key the clamping nut is axially drawn against the collet, till it clamps. The pinion can also be tightened with an accumulator or a pneumatically operated screw driver. The max. tightening torque must not exceed 80 Nm both at HSPF40 and HSPF60. Higher torque can lead to the breakage of the pinion.

### 5. Clamping

Insert collet. Assemble closing nut onto chuck body and turn radially so as to locate the key into the keyway. Pushing lightly engage the thread by turning the safety key supplied. Load component and tighten fully taking care not to exceed the max. tightening torque. Never use an old three jaw chuck wrench → Danger of accident!

**6. Fitting collets (interchangeable DIN6343)**

<p><b><u>FM1148 (173E)</u></b> <b><u>DIN 6343 48-R42 (HSPF40)</u></b> <b><u>resp. FM1149 (185E)</u></b> <b><u>DIN 6343 66-R60 (HSPF60):</u></b></p>	<p>Dead length steel collet: available in the profiles round (with standard, higher or highest TIR), hexagon, square and specials (eroded e.g. octagonal).</p>
<p><b><u>FM1148-V (HSPF40) resp.</u></b> <b><u>FM1149-V (HSPF60):</u></b></p>	<p>Emergency collet: completely ground, hardened and tempered to 45 HRC. By means of three fixing pins, which can be inserted from the grinding face, they can be clamped in the collet chuck and be refinished directly on the machine to the desired bore-Ø or to a step bore. Advantage: best concentricity with high flexibility.</p>
<p><b><u>FM1148-RF (HSPF40) resp.</u></b> <b><u>FM1149-RF (HSPF60):</u></b></p>	<p>Rubber-Flex collet: with vulcanised slots and 2 mm gripping range. Only round profile is deliverable. Available with plain bore (RFG) and Full-Grip serration (RF) in order to achieve highest axial and radial gripping forces. <b><u>Important hint:</u></b> Rubber-Flex resp. other multi range collets according to DIN 6343 are <b>no longer part of our delivery program</b>, however, they are still available in the market from other suppliers.</p>

**7. Inner stop**

An inner stop is optionally available to be built into the collet.

**8. Mounting of the chuck on the spindle nose of the machine**

Please pay attention to the instructions of the machine builders. If necessary, adjust the runout of the chuck by truing the inner cone into line with the machine spindle before clamping the chuck tight.

**9. Maintenance**

The life of the manually operated chuck can be extended significantly by careful and regular maintenance. Please pay attention to the following:

- The chuck should be cleaned at regular intervals to remove chips and remainders of the coolant, especially when changing the collets.
- Avoid cleaning with a compressed air pistol.
- Check when disassembling the chuck the pinions for wear and tear. If necessary they should be replaced.

- When storing the chuck must be cleaned. Protect it if possible from dust and similar influences. Spray it lightly with rust preventive oil.
- Damaged parts should be only replaced by original spare parts.

**10. Intermediate flange (manufactured by the customer)**

Due to high forces only use the socket head cap screw DIN 912 M10x40-12.9 (HSPF40) resp. DIN 912 M12x50-12.9 (HSPF60) supplied to secure the intermediate flange to the chuck.

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