

Spring Force Actuator FUSR

for spring-powered clamping
for balancing machines

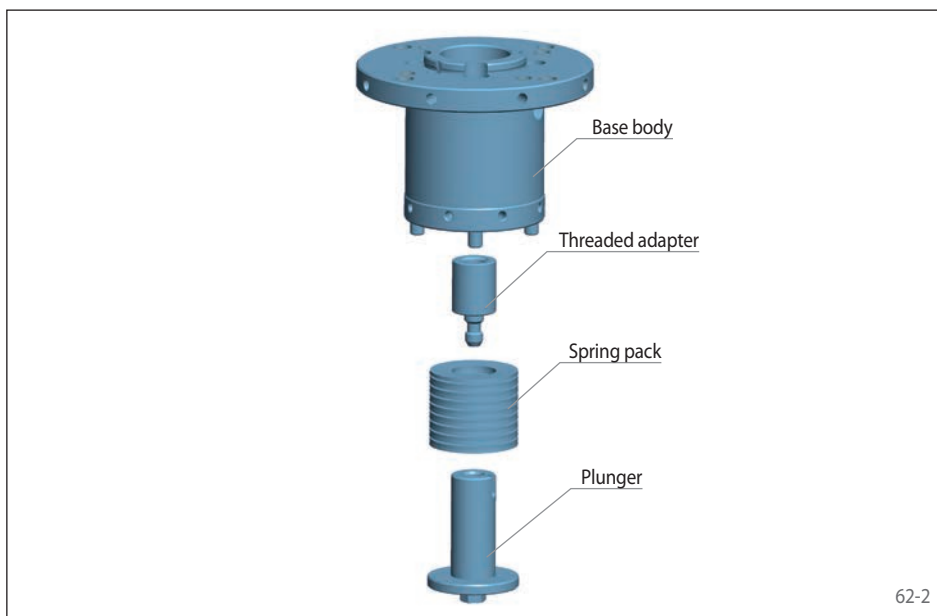


Description

Spring Force Actuators FUSR connect RINGSPANN Precision Clamping Fixtures to the spindles of balancing machines as clamping force unit.

The component is clamped by activating the Precision Clamping Fixture with the belleville springs of the Spring Force Actuator. Release is effected via the machine-side plunger, which counteracts the spring force. The Spring Force Actuator is available in five dimensions and is capable of large clamping ranges when supplemented by different Precision Clamping Fixtures.

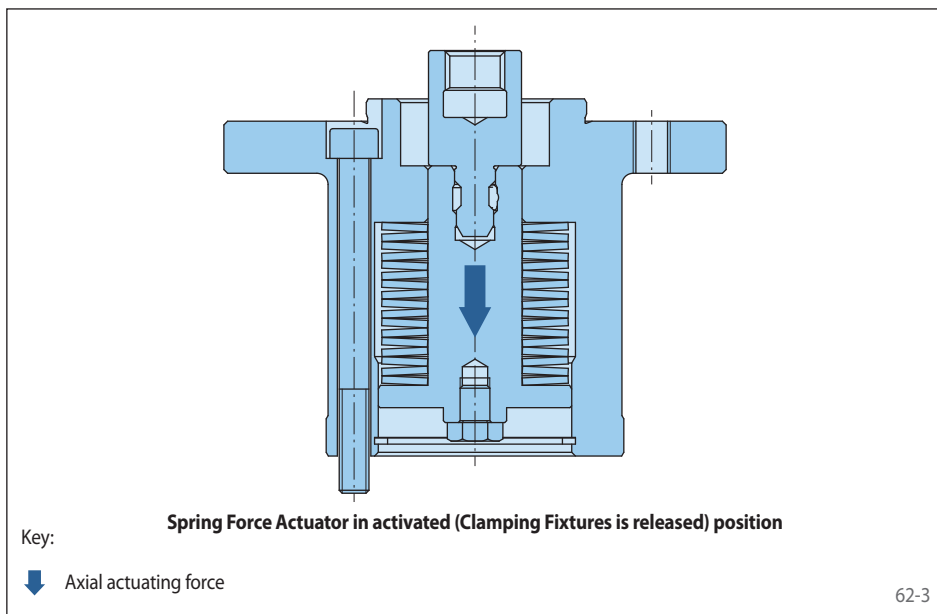
Eight radial threaded bores are provided for the purpose of balancing the Spring Force Actuator with Precision Clamping Fixtures. The unit is mounted on the machine with four M 8 bolts.



Configuration

The Spring Force Actuator for balancing machines comprises a base body, a spring pack, a plunger and a threaded adapter. Installation is effected via the flange connection of the Spring Force Actuator specifically designed for balancing machines. The Clamping Fixture is activated by spring force and released by the machine-side clamping device, which counteracts the spring force of the Spring Force Actuator via the machine-side plunger.

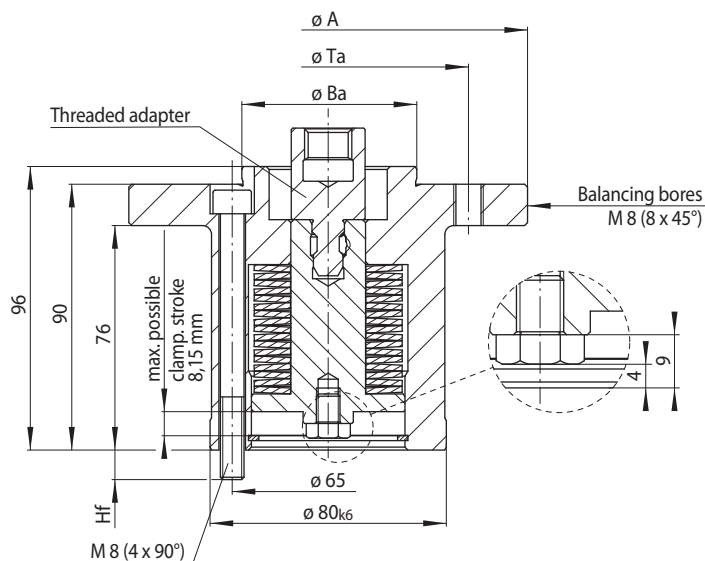
By exchanging the supplied thread adapters to any size, the connection to the various Precision Clamping Fixtures is made possible, according to the table opposite.



Clamping principle

When the machine-side axial releasing force is removed, the spring force is exerted on the clamping bolt. This moves in the axial direction and activates the Clamping Element of the Clamping Fixtures, which is connected to the clamping bolt.

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Spring Force Actuator FUSR for centring in bore diameter Ba						for Complete Clamping Fixtures					
Size	for size Aa* mm	A mm	Ba _{-0,02} mm	Hf mm	Ta mm	Effective clamping force F ^{**}		Taper Collet		Taper Sleeve	
						Clamp. stroke 0 mm min. N	Clamp. stroke 6 mm max. N	Flange Chuck	Flange Mandrel	Flange Chuck	Flange Mandrel
70	70	85	37	10	50	3840	2300		BKDF 6 BKDF 7 BKDF 12 BKDF 18		
90	90	85	50	10	70	3840	2300	BKFF 35	BKDF 19 BKDF 27		HKDF 4 HKDF 6 HKDF 7 HKDF 12
120	120 140	135	60	10	95 115	3840	2300	BKFF 44 BKFF 56	BKDF 32*** BKDF 43*** BKDF 44*** BKDF 54***	HKFF 40 HKFF 45 HKFF 55 HKFF 66 HKFF 76	HKDF 19
160	160	160	90	12	135	3840	2300	BKFF 79***		HKFF 86 HKFF 96	HKDF 30 HKDF 40
185	185 200 225	225	125	12	160 175 200	3840	2300	BKFF 110***		HKFF 106 HKFF 114 HKFF 124 HKFF 134 HKFF 150	HKDF 60

* Corresponds to diameter Aa of the Precision Clamping Fixture.

** The effective clamping force and thus the transmissible torque depend on the tolerance of the clamping diameter.

*** When a Spring Force Actuator is in use, the maximum clamping stroke is 6 mm, i.e. maximum diameter change D for Taper Collet Flange Chucks BKFF 79 and BKFF 110 and Taper Collet Flange Mandrels BKDF 32 to BKDF 54 is max. 1.2 mm. To be able to use the other clamping range in each case of the Taper Collet, the use of further adapters is necessary.

Example for ordering Spring Force Actuator

Spring Force Actuator FUSR for balancing machines, size 120, for centering a Taper Sleeve Flange Mandrel BKDF 44 in bore diameter Ba:

- FUSR 120

Example for ordering adapter

Adapter ADFU for Spring Force Actuator FUSR 120 for Complete Clamping Fixtures HKFF 40 with a clamping diameter of 18 mm:

- ADFU 120- HKFF 40-18

Spring Force Actuator and adapter are separate ordering and delivery options.

Note

When using a Spring Force Actuator FUSR, the max. transmissible torque of the Clamping Fixture is reduced according to the Technical points on page 74. This is due to the lower actuating force of the Spring Force Actuator.