

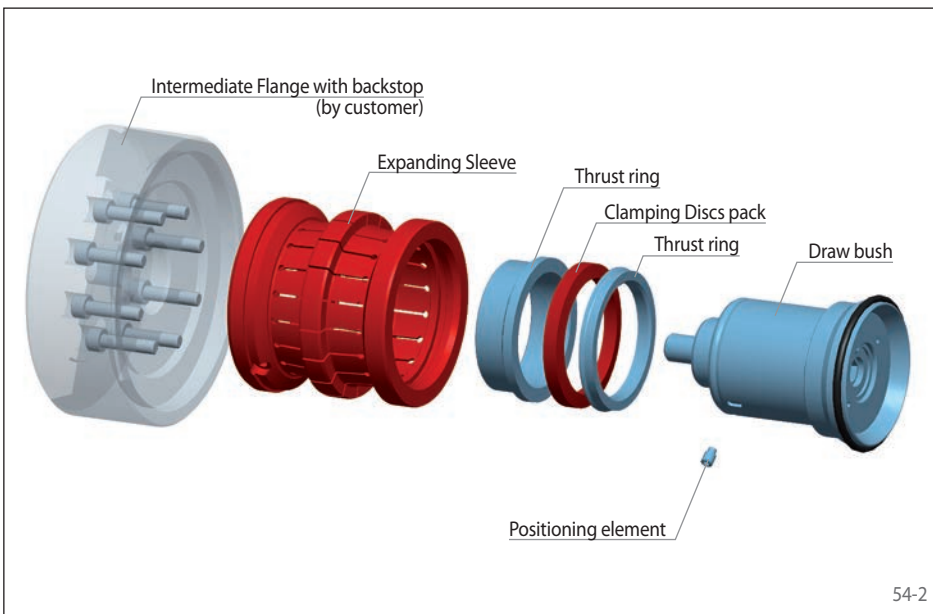
54-1

Features

- For clamping diameters from 25 mm to 82,5 mm
- Excellent suitability for the clamping of workpieces to gearing processing works
- High true running accuracy $\leq 0,005$ mm
- Permissible component tolerance up to IT 10
- Pull-back against external Intermediate Flange ring by the customer
- Also suitable for clamping on short clamping lengths or clamping surfaces interrupted by grooves
- Hand clamping optional possible
- Impervious to ingress of foreign objects due to the rubberized slots in the Expanding Sleeve

Configuration

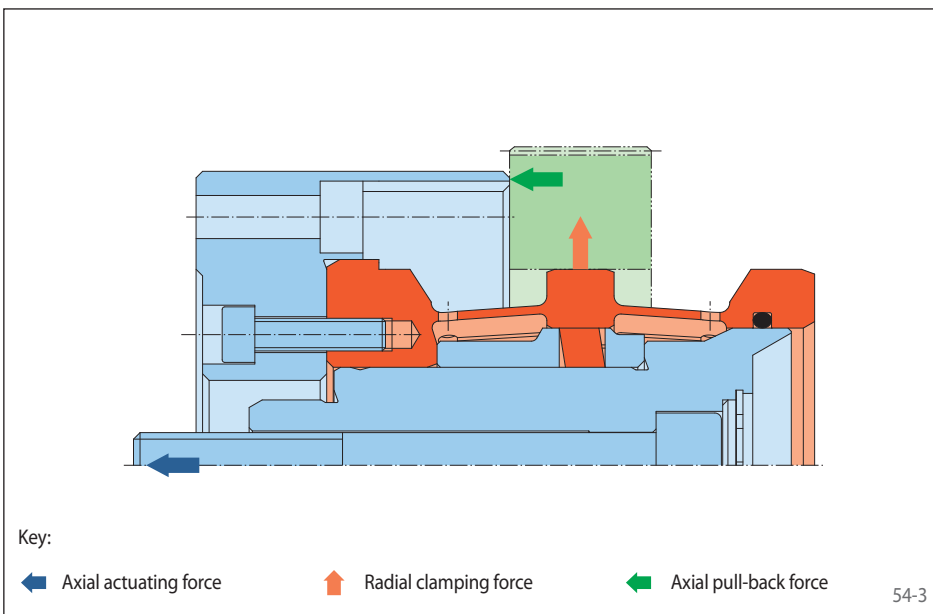
The Expanding Sleeve Mandrel is composed of the assembly group draw bush and the assembly group Expanding Sleeve. For manual clamping, the addition of a threaded plate is required. The Expanding Sleeve Mandrel is screwed together with the Intermediate Flange to the machine connection. The highest level of true running accuracy is achieved when the Expanding Sleeve is finished by grinding with the Intermediate Flange after assembly. The Clamping Fixture is operated by the central assembly group draw bush, which is connected to the power clamping device of the machine.



54-2

Clamping principle

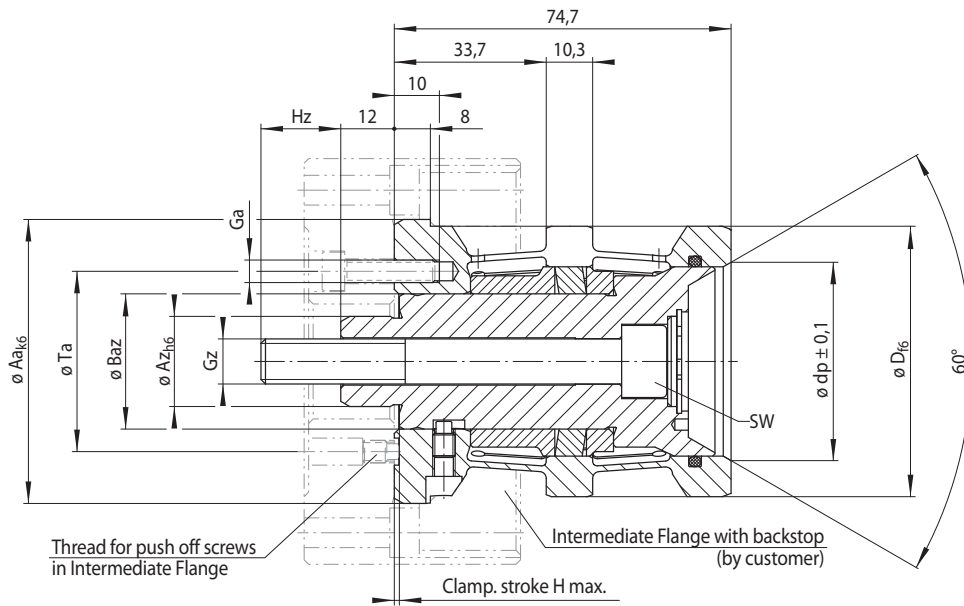
A pack of RINGSPANN Clamping Discs sits on the draw bush. Above that, there is a slotted Expanding Sleeve screwed together with a Intermediate Flange. When axial actuating force is applied, the Clamping Discs are evenly expanded over their entire circumference – and the Expanding Sleeve at the same time as a result. Reinforced by tapered design of the deformation zones, the slotted Expanding Sleeve shortens causing the clamped workpiece to be pulled back against the backstop. An additional tailstock or centering tip gives the Expanding Sleeve Mandrel a greater total stiffness after the clamping action. The tailstock or centering tip supports the Expanding Sleeve only.



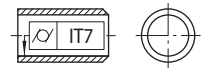
54-3

Key:

- ← Axial actuating force
- ↑ Radial clamping force
- Axial pull-back force



Please note



55-1

Size	Clamping range D mm	Maximum diameter change* ΔD mm	Max. transmissible torque** M Nm	Max. actuating force F kN	Tightening torque M_A Nm	Aa mm	Az mm	Baz mm	Bzs mm	dp mm	Ga*** mm	Gz mm	H max. mm	Hz mm	SW mm	Ta mm	Y****	Z*****	Hole pattern
HDDS 11	25,00 - 32,50	0,10	22	3,2	2,7	33	11	11	5	20,8	M 4	M 5	0,3	8,5	4	24	6	2	1
HDDS 15	32,00 - 42,50	0,10	28	4,5	4,5	43	15	15	5	24,3	M 4	M 6	0,6	7,2	5	24	6	2	1
HDDS 20	42,00 - 52,50	0,15	77	7,2	9,6	53	15	20	6	34,3	M 5	M 8	1,0	17,0	6	30	6	3	2
HDDS 30	52,00 - 62,50	0,15	120	10,4	17,0	63	20	30	6	44,0	M 5	M 10	1,0	17,7	8	40	8	4	3
HDDS 40	62,00 - 72,50	0,15	158	10,3	20,2	73	20	40	6	54,0	M 5	M 12	1,0	17,1	10	50	8	4	3
HDDS 50	72,00 - 82,50	0,15	205	11,4	22,2	83	30	50	6	65,0	M 6	M 12	1,0	17,7	10	60	6	3	4

* of the clamping diameter of the Clamping Element.

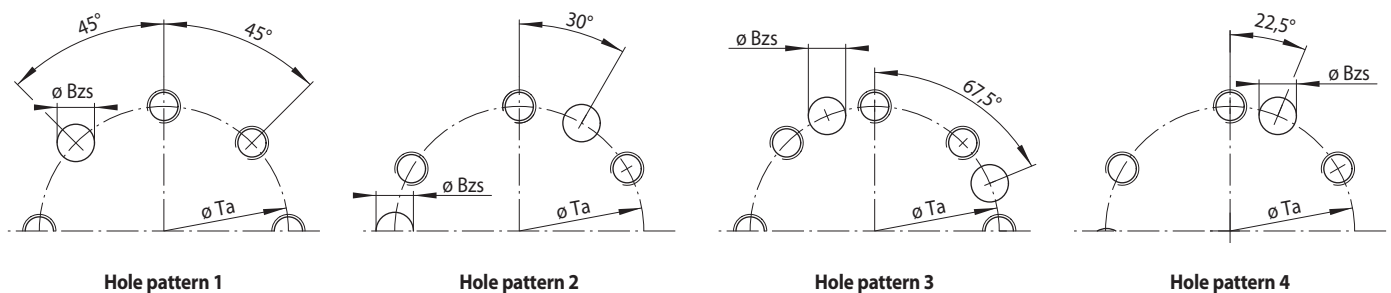
** The max. transmissible torque refers to the min. clamping diameter. For larger clamping diameters, the max. transmissible torque can be linearly extrapolated with the clamping diameter.

*** for screws of strength class 10.9

**** Y = Number of threaded holes Ga on pitch circle diameter Ta

***** Z = Number of counterbores Bzs on pitch circle diameter Ta, depth of counterbore 1 mm

Pattern of fixing threads and counterbores for push off screws (View from the left)



Example for ordering

Please indicate the size of the Clamping Fixture and the clamping diameter of your component, including component tolerance, in your order:

Size: HDDS 20
Clamping diameter: 42,50 mm
Component tolerance: H7

➔ HDDS 20-42,50H7