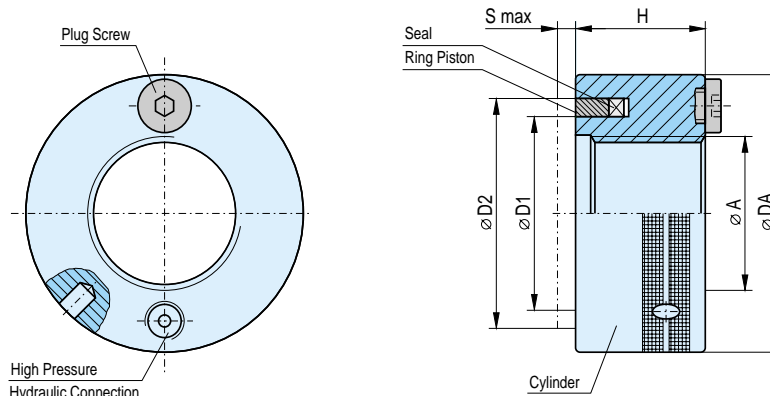
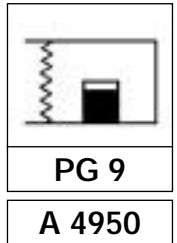


Hydraulic Nut

with 2 hydraulic connection bores on end face
10 mm stroke



Article No.	Thread up to Ø A mm	Ring Piston Area mm ²	Force at 700 bar kN	OD Ø DA mm	Height H mm	Ring Piston		Stroke S _{max.} mm
						Ø D1 mm	Ø D2 mm	
A 4950.05	36	1.759	123	83	60	46	66	10
A 4950.07	52	2.262	158	100	60	62	82	10
A 4950.08	68	2.827	198	120	60	80	100	10
A 4950.09	80	3.299	231	135	60	95	115	10
A 4950.10	100	3.421	239	155	60	112	130	10
A 4950.11	125	5.149	360	185	60	138	160	10
A 4950.12	140	5.184	363	205	60	155	175	10
A 4950.13	165	5.969	418	230	60	180	200	10
A 4950.14	185	6.660	466	252	60	202	222	10
A 4950.15	200	8.934	625	270	60	215	240	10
A 4950.16	225	12.868	901	302	60	240	272	10
A 4950.17	245	10.701	749	315	60	260	285	10
A 4950.18	260	13.902	973	340	65	280	310	10
A 4950.19	280	14.844	1039	360	65	300	330	10
A 4950.20	310	19.679	1378	400	70	330	366	10
A 4950.21	340	23.876	1671	440	70	360	400	10
A 4950.22	370	15.806	1106	455	70	390	415	10
A 4950.23	400	20.499	1435	490	75	420	450	10
A 4950...	1000	Any other design possible due to our own design department.						

The distinguishing feature of Hydraulic Nut A 4950 is the use of oil as a pressure medium. The 2 pressure connection bores allow several Hydraulic Nuts to be interlinked. Interlinked Hydraulic Nuts have all the same pressure = the same clamping force. In particular, these Hydraulic Nuts may be remote controlled: clamping and releasing on push of a button is possible. Operated from the connection bores on the end face.
For stroke of 4 mm: see type A 4954.
Connection bores on the OD: see types A 4900 and A 4904.

Example for ordering: SCHAAF-article No. A 4950.12 with thread M 110 x 4, Right Hand.

Please let us know your requirements; we will be pleased to submit a quick quotation without obligation for you.

How to select:

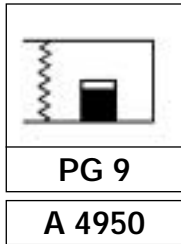
- The thread size must be covered by the type in consideration, e.g. M 110 x 4 RH requires at least A 4950.11.
- The Ring Piston must match the counterface.
If, in the example of M 110 x 4 RH, the counterface has an ID of 150 mm, the next bigger type of Nut is required, i.e. A 4950.12.
- Please check all relevant dimensions.
If they do not fit, ask SCHAAF's consulting service.

Product quality
and co-operation
as you want!

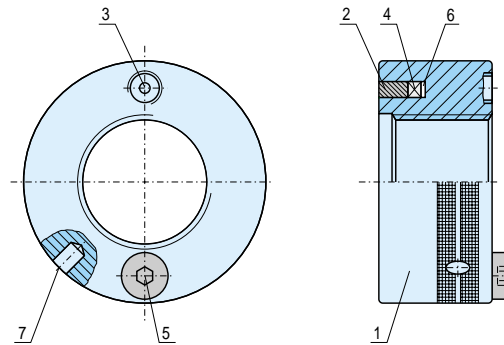




SCHAAF



Hydraulic Nut



Functional Characteristics

A SCHAAF Hydraulic Nut of this design has a circular groove which is sealed to the exterior by an axially sliding ring piston and, thus, forms an annular hydraulic chamber. When pressurized, the ring piston is pushed out, contacts the counterface and generates an axial pressure force. Since the ring piston is self-aligning it can, within certain limits, adapt to errors in run-out and to an uneven counterface. This characteristic offers a great advantage, in a lot of applications.

In the case of the Hydraulic Nuts, type **A 4950**, the pressure is generated by an external hand or by the machine hydraulic system which is connected to the hydraulic connection bores (3).

Advantages:

- torsion free, purely axial generation of the clamping force
- high clamping forces in compact design, accurate repeatability
- long service life without constant pumping due to leakproof seal systems (short duty cycle of the pump)
- completely even distribution of the clamping forces
- resulting clamping force is independent of the stroke
- no friction in the thread since the Hydraulic Nut is not turned under load (no thread wear)
- quick and easy operation, even large Hydraulic Nuts with appropriate hand or motor pump
- SCHAAF-Hydraulic Nuts can be serviced by the customer on site (overhaul by our service department on request)

Examples for Application:

- Fixing machine frames to the base plate
- Clamping the tie-rods at presses, punching presses and forging machines
- Fixing shear knives at cut-to-length lines
- Fixing tools on pressure and punching presses

Note:

- Designed stroke is 10 mm max. (4 mm stroke: see type A 4954; bigger stroke on request)
- Clamping force is precisely monitored by the pressure gauge of the pump or control unit resp.
- Radial hydraulic connection bores with types A 4900 and A 4904.

SCHAAF - Quality means:

- Components manufactured from high tensile materials (wear resisting)
- Constant monitoring to improve quality for all products
- Each Hydraulic Nut and other hydraulic accessories are tested to the operating pressure or higher
- All products are delivered ready for operation
- Detailed technical documentation are part of the delivery (operating manual, drawing and parts list)

Standard Features

Standard SCHAAF Hydraulic Nuts, Type A 4950, consist of:

- Cylinder, knurled (1)
- Ring Piston (retained in the cylinder to prevent loss) (2)
- 2 Hydraulic Connection Bores G 1/4, radial (3)
- High Pressure Seal Set for temperatures from -30°C through to +100°C (4)
- Pressure medium (hydraulic oil) (6)

and are equipped with:

- radial tommy bar holes (7)
- thread recess for centering
- surface treatment (chemi-blackened)
- 1 Plug Screw G 1/4 (5)

Variations in equipment:

- **Material**
 - stainless and acidproof steel
 - aluminium alloys
 - various combinations of material
 - seals for elevated temperatures
- **Pressure control by**
 - indicator pin
 - pressure gauge
 - other methods
- **Locking of the hydraulically generated pre-tensioning force**
 - shims
- **Surface finish**
 - lacquered
 - chemi-nickel coating
 - on customer's request
- **Certificates and Approvals**
 - force characteristic curve
 - work's test certificate
 - approval to customer's specifications

Accessories (optional)

- **Assembly Tools**
 - guiding shaft
 - guiding sleeve
 - sling gear
 - auxiliaries to customer's requirements
- **Service Set for Maintenance by the Customer**