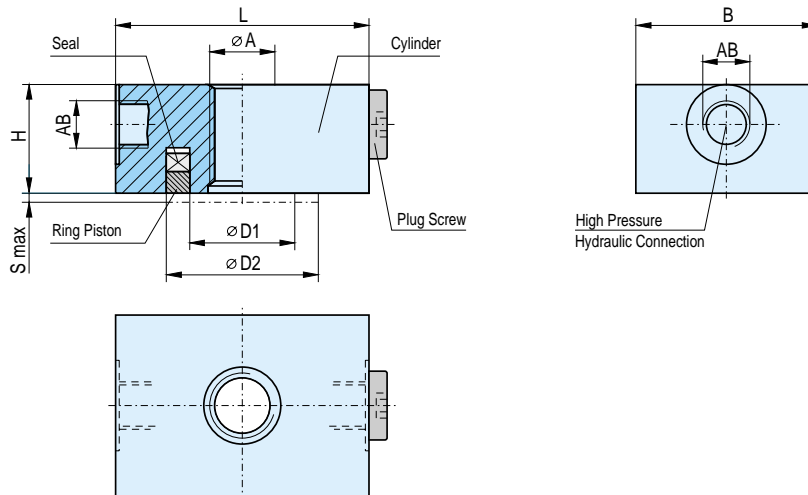
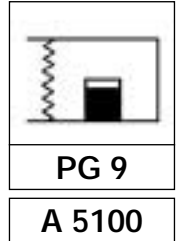


Hydraulic Nut

with 2 hydraulic connection bores on the side
rectangular design



Article No.	Thread up to $\varnothing A$ mm	Ring Piston Area mm ²	Force at 400 bar kN	Length L mm	Width B mm	Height H mm	Ring Piston		Stroke S _{max.} mm	Hydraulic Connection AB
							$\varnothing D1$ mm	$\varnothing D2$ mm		
A 5100.01	12	550	22	60	40	25	18	32	2,5	2 x G 1/8
A 5100.02	12	550	22	70	40	30	18	32	2,5	2 x G 1/4
A 5100.03	18	643	26	70	50	30	25	38	2,5	2 x G 1/4
A 5100.04	18	643	26	70	50	35	25	38	5	2 x G 1/4
A 5100.05	36	1.759	70	80	80	50	46	66	4	2 x G 1/4
A 5100.06	30	2.062	82	80	80	45	40	65	2,5	2 x G 1/4
A 5100.07	25	1.501	60	90	70	40	35	56	2,5	2 x G 1/4
A 5100.08	25	1.501	60	90	70	40	35	56	2,5	2xM14x1,5
A 5100...	100	Any other design possible due to our own design department.								

The distinguishing feature of Hydraulic Nut A 5100 is the use of oil as a pressure medium. The 2 pressure connection bores allow several Hydraulic Nuts to be interlinked. Interlinked Hydraulic Nuts all have 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 outside faces.

In particular, designed for piping in series.

There are also designs with the connection bores out of axis of symmetry or with holes for fastening screws.

Example for ordering: SCHAAF-article No. A 5100.05 with thread M 24 x 3, 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 24 x 3 RH requires A 5100.05 through A 5100.08.
- The Ring Piston must match the counterface.
If, in the example of M 24 x 3 RH, the counterface has an ID of 42 mm, the right type of Nut is A 5100.05.
- Please check all relevant dimensions.
If they do not fit, ask SCHAAF's consulting service.

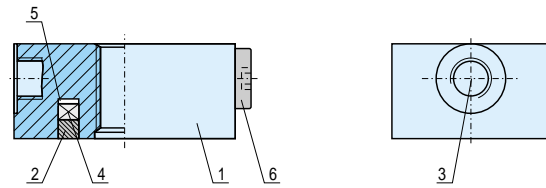
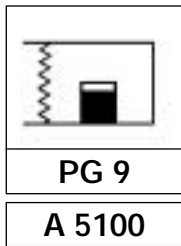
Product quality
and co-operation
as you want!





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 5100**, the pressure is generated by an external hand or motor pump or by the machine hydraulic system resp. 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 numbers of 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 shear blades at cut-to length lines
- Continuously variable clamping of the edge trimmer heads to the base plate
- Clamping the slides in working position, i.e. at grinding machines or horizontal broaching machines
- Fixing tools on presses and punching presses

Note:

- Designed stroke is 2,5 ... 5 mm (bigger strokes on request).
- Clamping force is precisely monitored by the pressure gauge of the pump or control unit resp.

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 5100, consist of:

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

and are equipped with:

- thread recess for centering
- surface treatment (chemi-blackened)
- 1 Plug Screw (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**