Hydraulic Lock Nuts

Granting of the patent in 1953 was the basis for the production of our hydraulic lock nuts.

Besides our standard program shown in our catalogue we manufacture a great variety of machine and customer-specific lock nuts.

Our hydraulic lock nuts are mainly used with machine tools, wood working machines and the food industry. Therefore our hydraulic lock nuts are manufactured from steel, stainless steel, and aluminium with the application-specific respective sealing and hydraulic medium.

It is self-evident that we manufacture besides our pressure-screw activated hydraulic lock nuts also lock nuts, where the hydraulic is activated via grease nipple/grease gun, hydraulic aggregate or machine hydraulic with pressure pin. Even the extent of the stroke at the ring piston can be adapted according to the requirements.

The "clamping" principle
How do hydraulic clamping elements work?

The actuation of the pressure screws or the addition of the hydraulic medium activates the self-contained hydraulic system with the pressure transformation.

This induces at the mostly annular hydraulic piston a force clamping the parts to be clamped on an arbour in a purely axial direction against a positive stop. The amount of the acting clamping pressure can be identified and monitored via an integrated pressure indicator.

Advantages:
- purely axial clamping pressure
- defined clamping pressure
- if needed, much higher clamping pressure
- floating clamping surface
- the part remains in the predefined position
- during the clamping procedure no radial forces
Hydraulic retract

Our hydraulic lock nuts are also available with hydraulic retract.

Constructions with hydraulic retract reset the hydraulic automatically to the zero/starting position as soon as the internal hydraulic pressure breaks down.

Possible combinations

Following some typical design examples are shown. Furthermore many additional designs and design combinations are conceivable.

Should you look for a solution of this type of task, simply ask us and we will readily help you.

The clamping pressure can be achieved by

- **Pressure screws:**
  For un-clamping turn back the pressure screws

- **High pressure grease pump:**
  Un-clamping is achieved by release of the hydraulic medium with the drain plug

- **Un-clamping is achieved by feeding back of the medium to the grease pump**

- **Fixed hydraulic connection**
  Un-clamping is achieved by feeding back of the medium into the hydraulic unit

ALBERT SCHREM
Werkzeugfabrik GmbH
Ulmer Straße 56 · D-89537 Giengen/Brenz
PO Box 1504 · D-89530 Giengen/Brenz
Telephone +49 (0) 73 22-60 06
Telefax +49 (0) 73 22-60 08
info@schrem-tools.com · www.schrem-tools.com