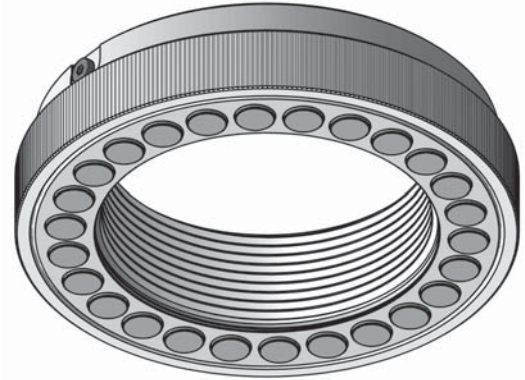


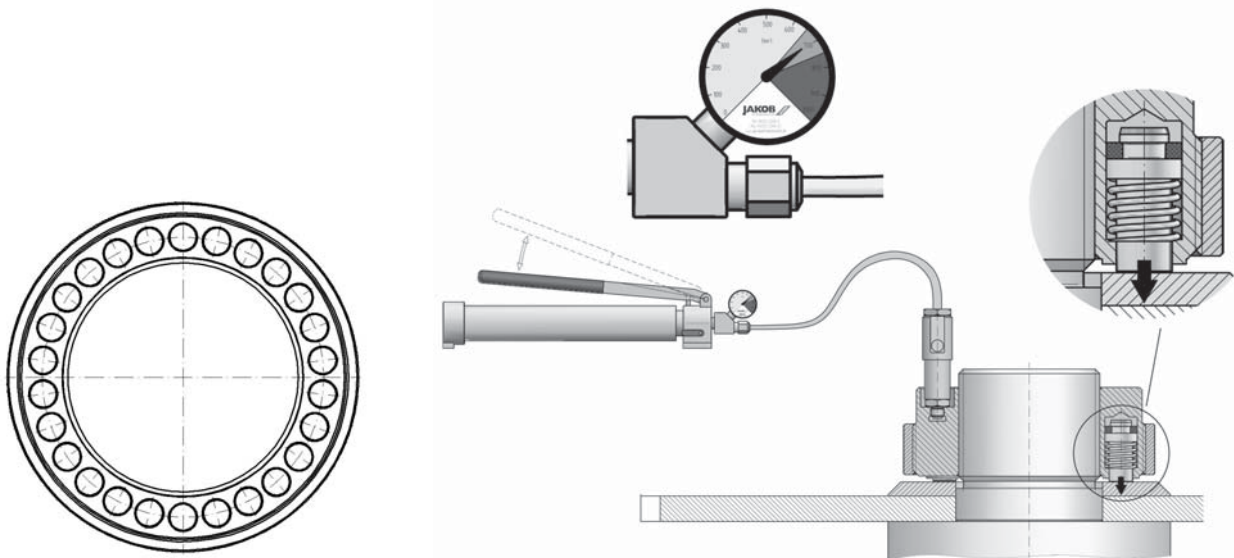
# Hydromechanical power clamping nut | general

JAKOB hydromechanical power clamping nuts of series HM are designed for maximum clamping forces and to address the highest demands concerning reliability, operating comfort and product quality. The innovative multi-forcer piston system offers many advantages compared to conventional ring hub designs.

The user can choose from several standard models, customized versions are also available. The JAKOB clamping nuts can solve many clamping problems in all industries, including machine building, the steel industry, in refineries, in chemical plants till powerhouse and off-shore.



## Functional principle multi-forcer-system:



The JAKOB multipiston system is a genuine innovation in the hydraulic clamping sector. The main design feature is a ring-shaped cylinder housing with internal threads. Several small thrust pistons are arranged concentrically on its base. The individual piston bores are connected hydraulically using a special tangential relief cut. A patent has been registered for this principle.

The pressurisation is carried out either via a high-pressure connection or a quick-action coupling using a hand-foot operated pump or a hydraulic unit, or as an independent system by threading down a pressure screw. The piston seals guarantee a permanent leakproof design without pressure drops up to


1500 bar, even during long-term operation. Maximum reliability can be achieved with an additional counter or blocking ring. Using return springs, when each individual piston is released, it rotates back into the home position and the hydraulic oil is returned to the pump without leaking.

The ring nut in robust cage design guarantees the greatest stiffness and minimum material expansion, even under maximum pressure loads. The multipiston system always permits base element design in any geometric form, whether as a ring segment or as a rectangular block housing. That means even highly unusual clamping problems can be solved.

# Hydromechanical power clamping nut I general

## Special characteristics:

- ✓ highest clamping forces ✓ large operating path
- ✓ simple manual operating with clamping force control
- ✓ maximal reliability with counter ring
- ✓ no torsional and lateral forces by clamping
- ✓ compensation of uneven surfaces
- ✓ spring return of hubs ✓ leak proof oil refeed
- ✓ compact – robust – corrosion-resistant

Series	HMG	HMP	HMP-HD
			
Clamping force	high	high	very high
Nominal pressure	10.150 PSI (700 bar)	10.150 PSI (700 bar)	17.400 PSI (1200 bar)
Operating stroke	1-2 mm	max. 8 mm	max. 8 mm
Operating mode	manual • actuation by hexagon key	manual / automatic • hand-foot-pump • aggregate	manual / automatic • hand-foot-pump • aggregate
Hydraulic connection	self- contained	G 1/8 - screwed joint	G 1/4 -hydraulic trip coupling
Clamping force- or pressure controll	Indicator	Manometer	Manometer
Counter-ring	optional	optional	required
Dimension	very compact	very compact	compact

### Notice:

The power clamping nuts Series HMP and HMP-HD are generally equipped with a radial and axial hydraulic connection plus a high-pressure connection nipple and a plug screw. The corresponding hydraulic couplings, high-pressure hoses with variable lengths, hand-foot operated pumps or electric pumps and fittings can be supplied on request. Please turn to Page 27 for hand-foot operated pumps and other accessories.