



TOTALEC HYDRAULIC NUTS

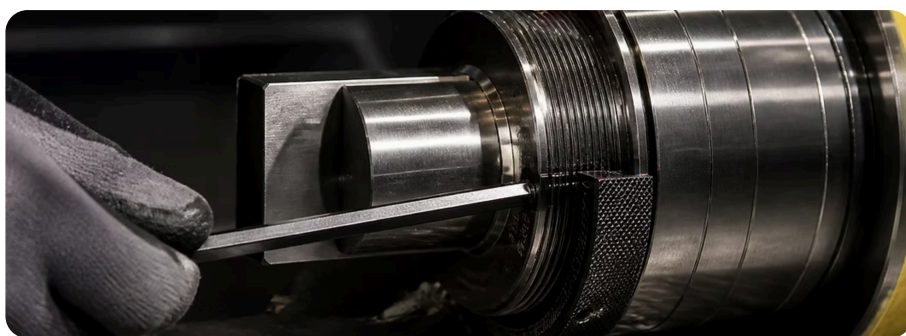
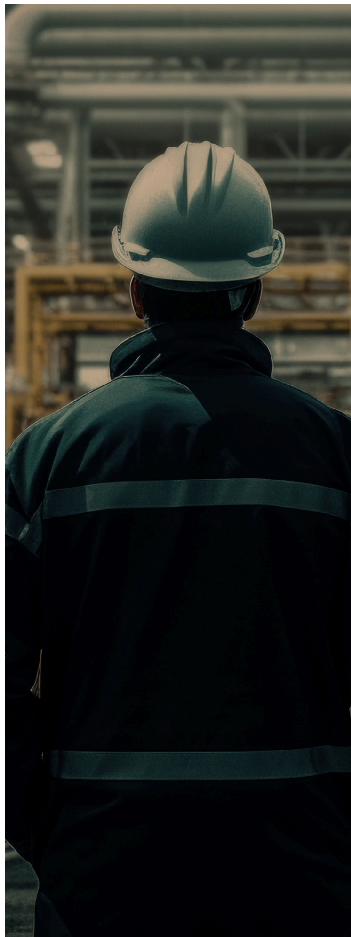
www.totalec.fr
contact@comoindustries.com

FRANCE YOUR HYDRAULIC NUTS MANUFACTURED IN



STELION
Group





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ABOUT US

1ST

MANUFACTURER
OF HYDRAULIC
CLAMPING NUTS
IN EUROPE



**MADE IN
FRANCE**

MANUFACTURED
IN FRANCE, IN
THE PARIS AREA

NUT
MANUFACTURING

**& STANDARD
AND
CUSTOM**



50 YEARS

EXPERTISE IN
HYDRAULIC
SOLUTIONS

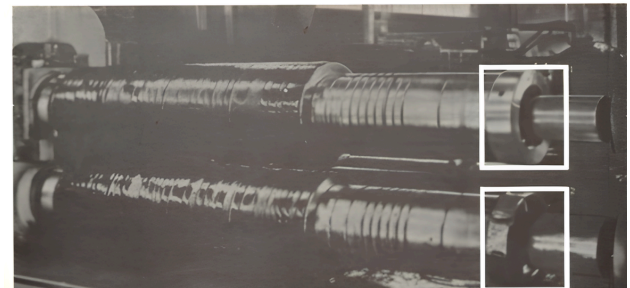
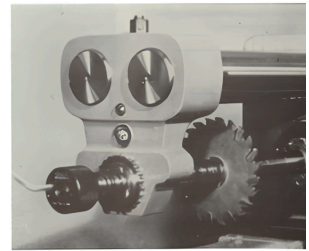
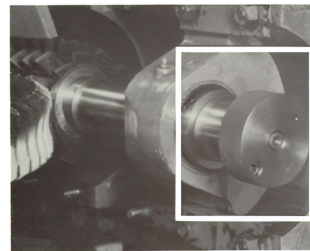
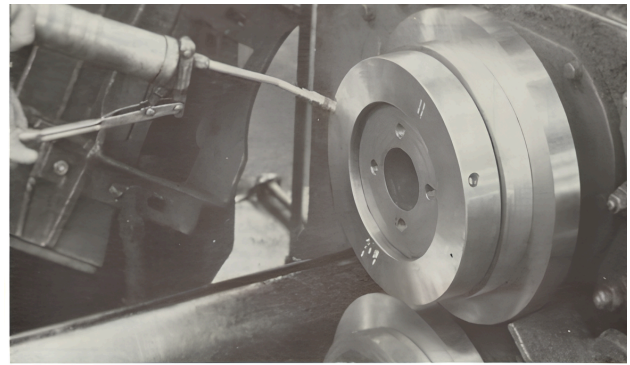
Founded in 1975 under the name TOTALDATOR, TOTALEC was the first European manufacturer to design, produce, and sell hydraulic clamping nuts. Acquired by COMO Industries a few years later, and then joining the Stelion Group in 2025 - a group with over 90 years of industrial expertise - **the company combines deep technical expertise with the dynamism of a forward-looking group.**

Our hydraulic nuts are designed, manufactured, and inspected in France, in a controlled and rigorous production environment.

This control over the value chain ensures tight tolerances, consistent quality, and a level of responsiveness that importing simply cannot match.

At TOTALEC, we offer you the option of ordering a custom-made nut, ensuring a solution that is 100% tailored to your needs.

From France to the rest of the world, our hydraulic nuts are delivered to demanding international manufacturers who have chosen to place their trust in us.



**CONSISTENT CLAMPING,
CONTROLLED CLAMPING
FORCE**





TOTALEC hydraulic nuts apply a high, controlled, and uniform clamping force, while simplifying repeated assembly and disassembly operations. They are the solution for situations where conventional tightening cannot guarantee the required repeatability and reliability.

Traditional nut

- Uneven clamping force
- Risk of over- or under-tightening
- Long maintenance times
- Inconsistent repeatability.

Hydraulic nut

- Axial pressure—without unwanted friction
- Controlled and secure clamping
- Quick installation/removal
- Guaranteed repeatability.

6 ADVANTAGES

1

High and uniform pressure

2

Precise calibration – consistent clamping

3

Weight reduction of equipment

4

Time savings in maintenance

5

Easy-access grease fitting – easy maintenance

6

Pressure indicator (optional)

WHY USING A
HYDRAULIC NUT?

CLAMPING PROCESS

1

IMMEDIATE
LOCKING AND
UNLOCKING
GUARANTEED

without any
manual effort

2

TIGHTEN BY
HAND UNTIL THE
PART MAKES
CONTACT.

The lock is engaged by
applying pressure (using an oil
pump or a hex wrench,
depending on the nut)



Totalec protects shafts from any risk of twisting, deformation, or shearing, and eliminates the risk of accidents caused by wrenches coming loose.

3

AUTOMATICALLY
COMPENSATED FOR BY
THE FLOATING SUPPORT
RING.

4.

PROVEN
PERFORMANCE
IN TERMS OF
TEMPERATURE
VARIATIONS,
VIBRATION
RESISTANCE,
AND DURABILITY

HOW TO CHOOSE ?

Both product lines share the same philosophy of controlled hydraulic clamping and the same options. The choice depends primarily on your operating environment and production rate requirements.



CRITERIA

Pressure source	Hex key (Allen)	Grease or oil pump
System Requirements	None	Compressor or external pump
Frequency of use	Occasional to regular	Moderate to intense
Pressure indicator (optional)	Available	Available
Shouldered pressure ring (optional)	Available	Available
Pinned pressure ring (optional)	Available	Available
Custom	Yes	Yes

OUR ADVISE

If you have any questions, our team will identify the right solution for your application within 24 business hours.

Please provide us with: the make and model of your equipment, the thread diameter and pitch, or the manufacturer's part number if available.

contact@comindustries.com

www.totalec.fr



TYPE TL

operated with a hex key

TYPE TL

The nut is locked in place by applying pressure to a grease reservoir, which acts on a support ring that presses against the parts to be clamped. As a result, the nut locks onto the thread flanks without deforming them.

The hydraulic nut is the go-to solution for applications requiring high-pressure tightening without external equipment. The pressure is generated directly by the operator using a hex key (Allen/hex), which activates an internal piston.

Hydraulic pressure is generated by the action of a screw driven by a hex wrench on a piston. The clamping force of the nut is proportional to the ratio of the piston's cross-sectional area multiplied by the contact area of the pressure ring.

The nut is released by displacing the volume of grease as the piston retracts.

High-quality materials and processes —

+ Corrosion-resistant steel

Each nut is machined from steel that has been treated to withstand moisture, industrial fluids, and extreme temperature fluctuations. This durable protection ensures that mechanical performance is maintained over time, even in harsh environments.

+ Grease / oil

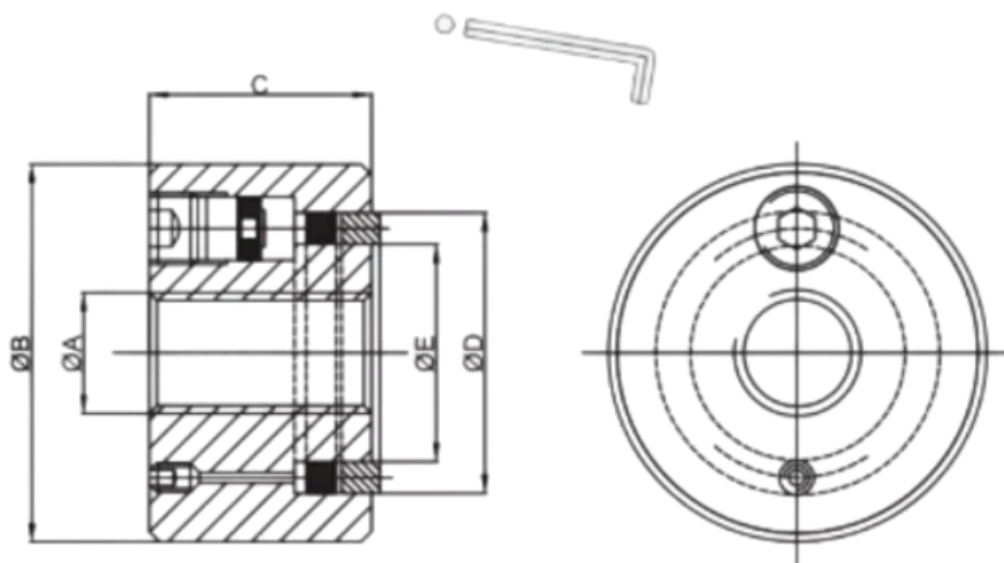
The internal hydraulic fluid is selected to maintain its lubricating properties from -20 °C to +110 °C. No degradation under high-temperature conditions, no freezing in cold environments—the clamping remains reliable regardless of the machine's temperature.

+ Precise torque

Each nut is factory-calibrated to ensure a specific and consistent tightening force.

+ Balancing (option)

The nut body is balanced to eliminate any residual vibration. On high-speed rotating shafts, this protects the bearings.



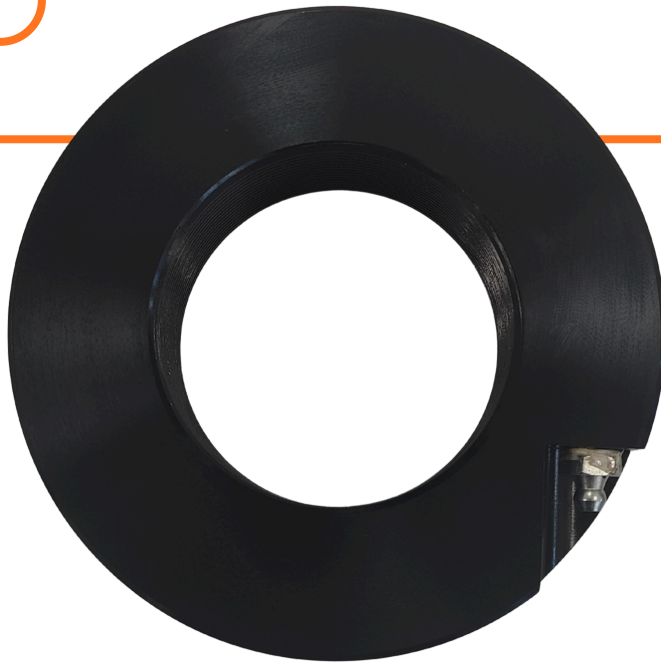
TYPE TL

operated with a hex key

Ref.	Ø A*	Ø Ext. B	Height C	Pressure Ring		Ring Stroke (mm)	Pulling Force daN**
				Ø ext. D	Ø int. E		
TLA	14	47,5	36	25,4	19,05	1	1 550
TLB	20	50,5	36	38,1	31,75	1	2 449
TLC	24	63,5	44	44,45	31,75	1,2	5 350
TLD	30	69	44	50,8	38,1	1,2	6 213
TLE	36	79	46	57,15	44,45	1,2	7 120
TLF	47	95	50	69,85	57,15	1,5	8 900

*Ø Maximum bore or thread diameter achievable for this type

** Tensile force developed by the nut when a manual force between 1.62 m.daN and 3.6 m.daN is applied to the hex wrench



TYPE TLP

operated grease/oil pump

TYPE TLP

The nut is locked in place by applying pressure to a grease reservoir, which acts on a support ring that presses against the parts to be clamped. As a result, the nut locks onto the thread flanks without deforming them.

The hydraulic pressure is generated by an external source: a manual compressor, a pneumatic compressor, an existing hydraulic system, etc. The clamping force of the nut is proportional to the applied pressure multiplied by the contact area of the pressure ring.

Pressure retention and sealing are ensured by high-pressure check valves and special seals capable of withstanding continuous temperature fluctuations ranging from -20° to $+80^{\circ}$. Upon request, TOTALEC nuts can be equipped with Viton seals capable of withstanding temperatures ranging from -5° to $+200^{\circ}$.

The nut is released by draining the fluid as the drain screw is unscrewed.

High-quality materials and processes —

+ Corrosion-resistant steel

Each nut is machined from steel that has been treated to withstand moisture, industrial fluids, and extreme temperature fluctuations. This durable protection ensures that mechanical performance is maintained over time, even in harsh environments.

+ Grease / oil

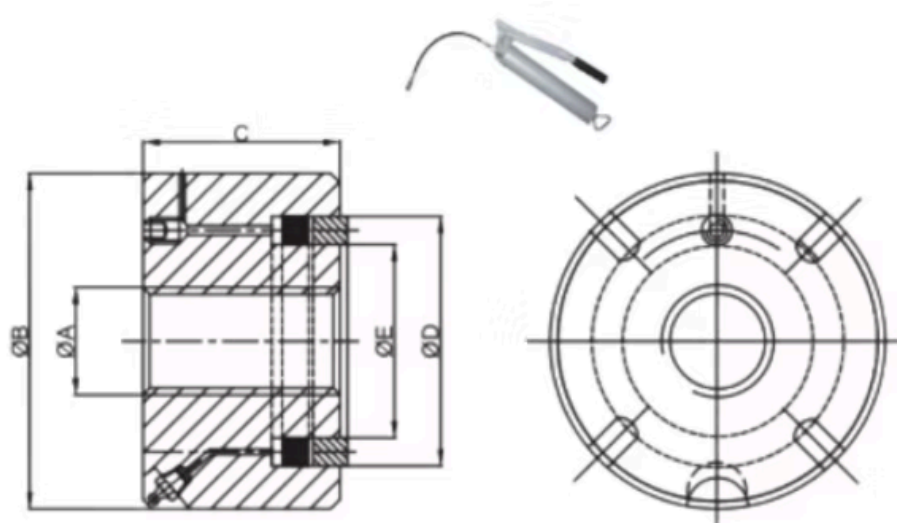
The internal hydraulic fluid is selected to maintain its lubricating properties from -20°C to $+110^{\circ}\text{C}$. No degradation under high-temperature conditions, no freezing in cold environments—the clamping remains reliable regardless of the machine's temperature.

+ Precise torque

Each nut is factory-calibrated to ensure a specific and consistent tightening force.

+ Balancing (option)

The nut body is balanced to eliminate any residual vibration. On high-speed rotating shafts, this protects the bearings.



TYPE TLP

operated grease/oil pump

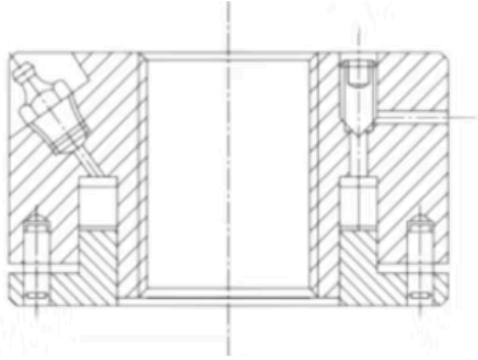
Ref.	Ø A*	Ø Ext. B	Height C	Pressure Ring		Ring Stroke (mm)	Pulling Force daN**
				Ø ext. D	Ø int. E		
TLPA	36	79	44,5	57,15	44,45	5	7 120
TLPB	47	95	46	69,85	57,15	5	8 915
TLPC	70	114	50	95,25	82,55	5	12 500
TLPD	83	127	50	107,95	95,25	5	14 250
TLPE	95	139	50	120,65	107,95	5	15 976
TLPF	125	177	50	152,40	139,7	5	20 412
TLPG	153	198	50	177,80	165,1	5	24 040
TLPH	180	228	50	203,20	190,5	5	27 650
TLPI	195	249	50	228,60	209,55	5	46 100
TLPJ	220	271	50	254	234,95	5	51 000
TLPK	245	296	50	279,4	260,35	5	56 699
TLPL	270	342	50	304,8	285,75	5	62 142
TLPM	295	368	63	330,2	311,15	5	62 131
TLPN	320	393	63	355,6	336,55	5	72 624

*Ø maximum bore or thread diameter achievable for this type

** Traction force developed by the nut at an applied pressure of 700 bar



ADVANTAGES

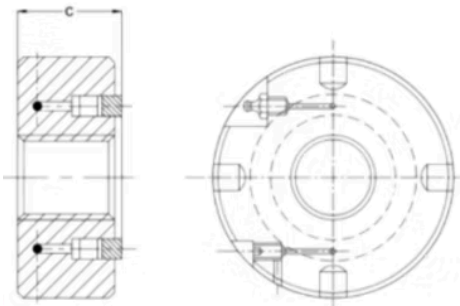


Pinned pressure ring

This design is based on the principle of the shoulder-type ring with a pin-lock mechanism. It is designed for applications where repeated vibrations or shocks could cause unwanted rotation.

- Complete immobilization—zero risk of rotation
- Maintains seal integrity under sustained vibration
- Enhanced reliability in heavy-duty applications

ADVANTAGES

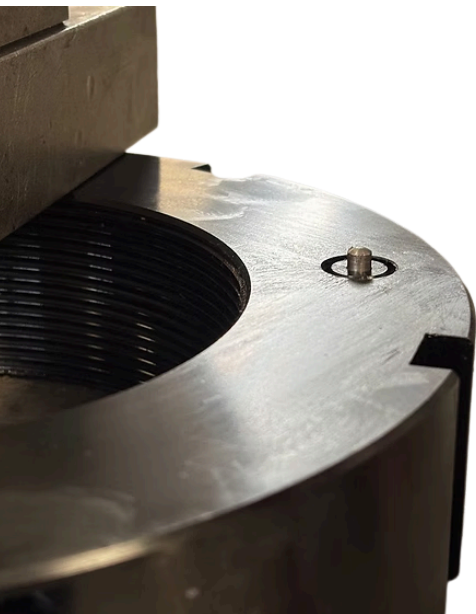


Shouldered pressure ring

Protective interface mounted on the shaft shoulder. Limits direct mechanical stress on the seals

- Prevention of premature seal wear
- Long-lasting seal integrity
- Fewer seal replacement operations
- Significantly extended overall service life of the nut

ADVANTAGES



Pinned pressure ring

A visual indicator built into the nut instantly confirms, without the need for external tools, that the required tightening torque has been reached.

- Immediate and unambiguous verification of the tightening status
- Consistent results every time—reproducibility guaranteed
- Reduced maintenance time
- No additional measuring equipment required



LUBRICATOR LOCATION

available as an option only on the TLP

ADVANTAGES

Standard lubricator

TOTALEC hydraulic nuts are available in standard metric sizes and are compatible with the major industrial shafts and equipment on the market.

- Wide range of sizes available
- Compatibility with existing equipment

ADVANTAGES

Front lubricator

The face of the TOTALEC hydraulic nut is precision-machined to ensure a perfectly flat contact surface against the shaft, guaranteeing an even distribution of clamping forces.

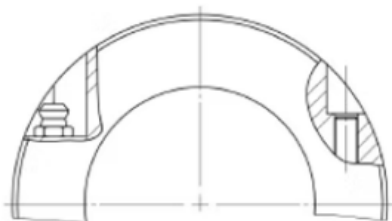
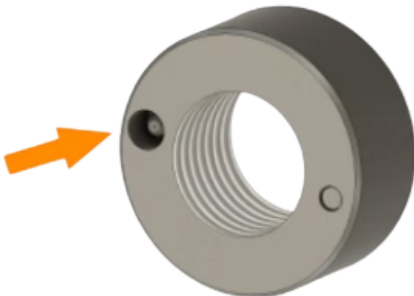
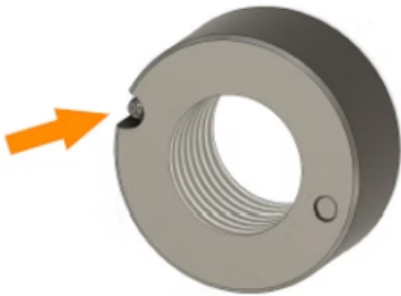
- Factory-controlled flatness
- Uniform distribution of clamping force
- Minimized wear on contact surfaces

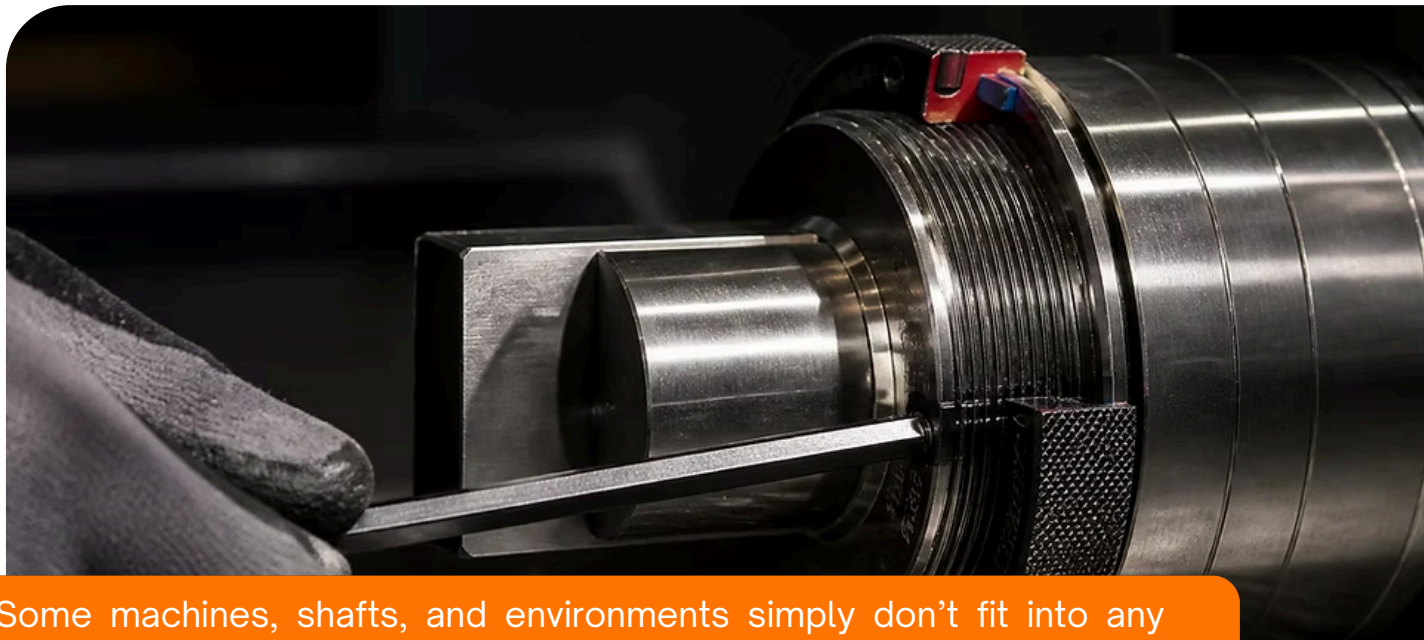
ADVANTAGES

Radial lubricator

On Totalec hydraulic nuts, the grease fitting is located in a radial hole—that is, on the outer side of the nut—and is accessible from the side without disassembly.

- Reduced downtime
- Maximum accessibility even in tight spaces
- Uninterrupted production.





Some machines, shafts, and environments simply don't fit into any standard catalog. It is precisely for these cases that TOTALEC has developed the capability to design and manufacture fully custom hydraulic nuts.

Our engineering department evaluates your needs, from defining your requirements to selecting the appropriate material and technical treatment.

OUR 5-STEP CUSTOM PROCESS



YOUR CUSTOM NUT

Accessories and spare parts



Used during the installation and removal of your TL-type hydraulic nuts

Hex wrench



- Elbow fitting + 1 three-jaw clamp
- Reinforced hose, 430 mm long + 1 three-jaw clamp
- Pressure gauge (0–600 bar) + reinforced hose, 430 mm long + 1 three-jaw clamp

TYPE A 2002 Hand Pump (0–400 bar)



Ø6 – Ø8 – Ø10

Pin



- 0.400 m with connector and clamp
- 1 m with connector and clamp
- 1.5 m with connector and clamp

High-pressure hose, 0–1000 bar, Lg



Relief valve option on the pressure gauge block

Mounting block + Pressure gauge (0–1000 bar)



- 1142 & A 2002

Box of 12 grease cartridges for pumps

Accessories and spare parts



Per pack of 20.

High-pressure grease gun



Chuck filler cap



**NEOPRENE Glue Tube
50 ml**



Rigid elbow fitting



- Includes a 430 mm reinforced hose + 1 three-jaw clamp
- Optional 0–90 bar booster handle for pneumatic cart

**Steel control screw
for TL (TLA to TLF)**



- FIMI n°1 - FIMI n°3
- filetage M22

Brass control screw

Accessoires et pièces détachées



TL and TLP

Bleed screw with ball



- Ø9.52 : TLA / TLB / TLC-R / TLD-R / TLE-R
- Ø14.28 : TLC / TLD / TLE
- Ø17.46 : TLF

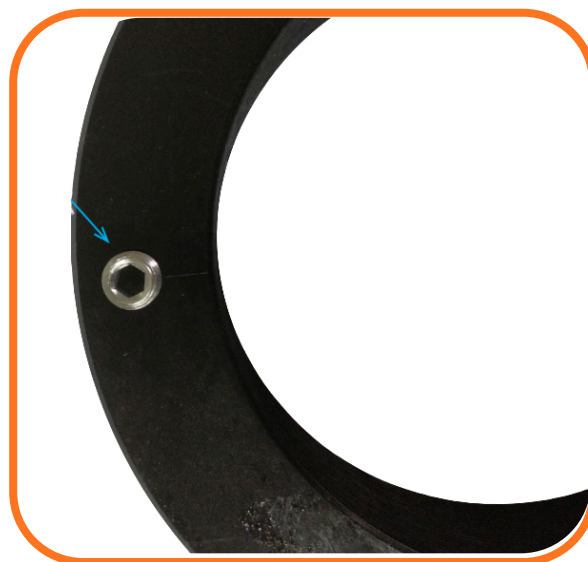
Piston TL

User guide - locking

USER GUIDE

STEP 1

Use the hex wrench to check that the bleed valve is open (without unscrewing it completely)



STEP 2

Tighten the nut until the support ring is fully seated, then close the bleed valve with the hex wrench



STEP 3

Set up the grease gun and pump until you feel resistance (without forcing it)



YOUR NUT IS LOCKED

User guide - unlocking

STEP 1

Open the drain and let the grease drain out



STEP 2

Grease will continue to come out if you leave the bleed screw open; tighten the nut all the way to push the retaining ring back in and allow the grease to drain out completely.



STEP 3

Unscrew the nut by hand; the ring must be repositioned in the groove of the nut.



STEP 4

Close the bleed valve using the hex wrench



YOUR NUT IS UNLOCKED



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