

High pressure sealing system

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Description:

The patent application “High pressure sealing system” describes an innovative system for creating a seal for hydraulic or pneumatic pumps and motors.

Problem to be solved

The technical problem solved by the invention is a sealing system of the intake and exhaust chamber of a hydraulic pump or motor which avoids contact between the piston, cylinder and work fluid and works at high pressures without flow loss.

Solution

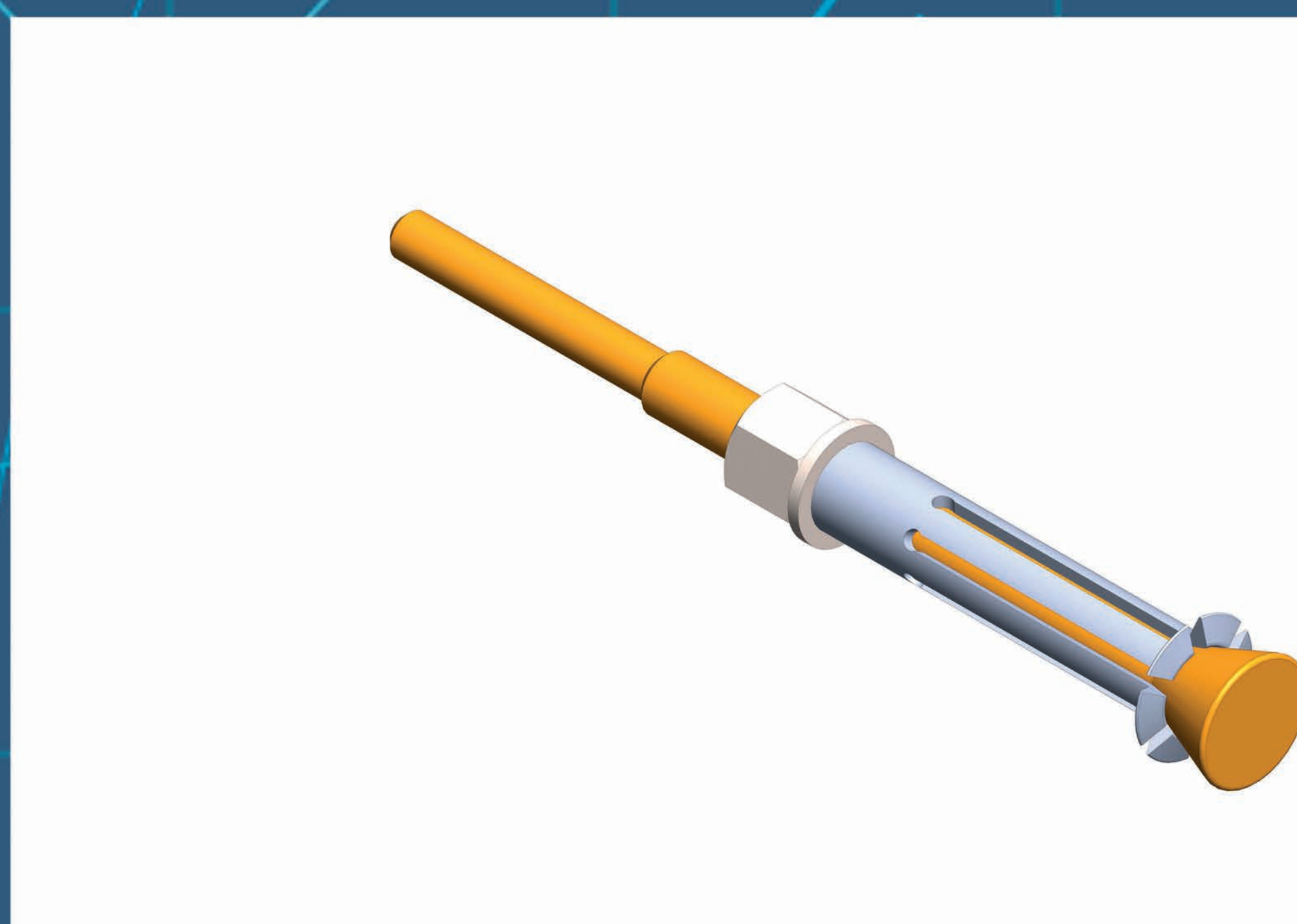
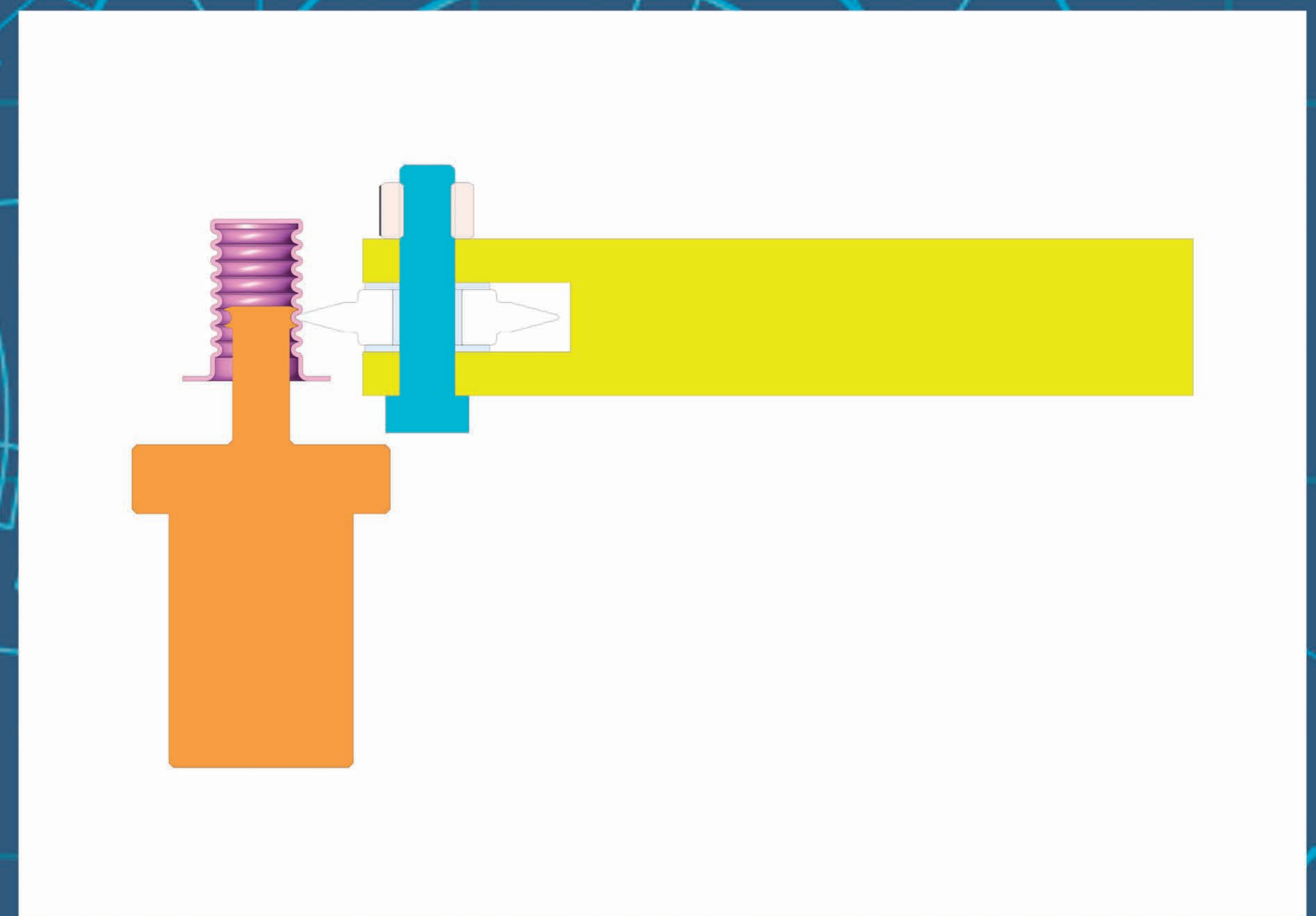
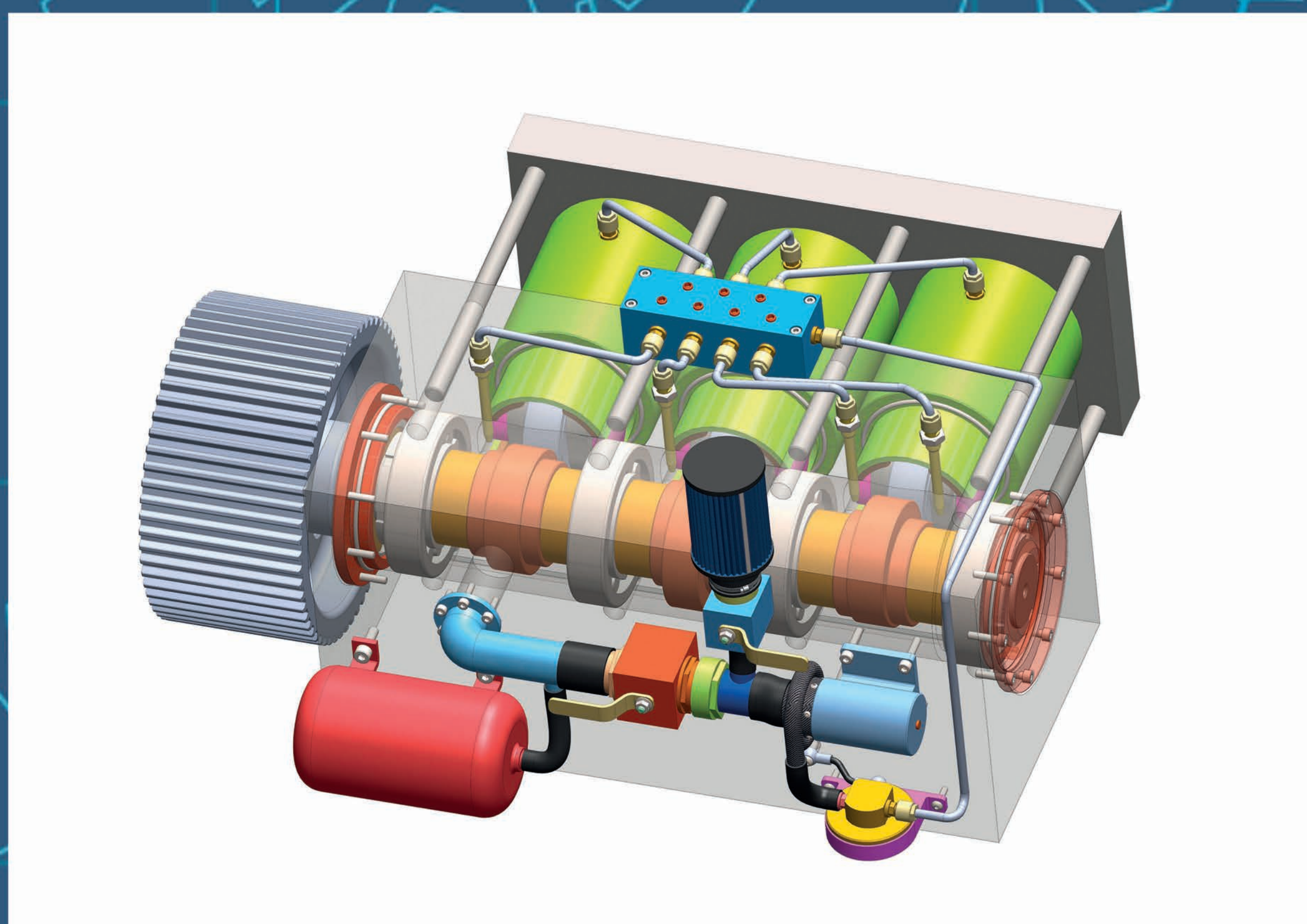
The solution to the technical problem is to separate the piston and the cylinder from the pressured fluid by using a metal membrane composed of a cylindrical section with folds which has a border at one of the ends that is tightly fastened between the cylinder and the cylinder head, while at the other end the membrane is closed and sits on the piston.

Advantages

The sealing system has the following advantages:

- 100% volumetric efficiency (doesn't have any fluid leaks)
- simple construction and high reliability
- can be constructed out of materials resistant to corrosive and chemical agents.

No. Patent or patent application: A 2013 00595



Applicability:
Hydraulics