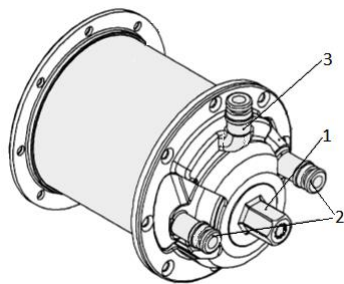




INNOVATIVE PUMP WITH A VARIABLE ADJUSTMENT OF THE WORK SPACE

Ideas on utilisation

The pump is a gear pump with internal gear. The innovation of the pump is a variable adjustment of the work space. The change of the work space is obtained by movement (along the pump axis) of the limiting insert mounted on the drive wheel rotor. The insert is connected by means of a spring with an adjustment screw. Tightening the screw reduces the work space, unscrewing increases the work space. This allows to control the pump's performance. The screw adjusting the work space can be retrofitted with an electronic system. In addition, the pump is equipped with flood channels connected to the work space supplied via the input, so that it does not run dry when it is started up. In addition, the pump has levelling channels.



1. adjustment screw
2. Inlet/outlet duct
3. floodpipe

Potential adopters of technology

There are different ways to use technology, e.g.:

- * as an oil pump
- * as a hydraulic engine
- * as a variable adjustment transmission, e.g. for motorcycle drives (replacing a traditional manual gearbox).

Advantages of technology

Innovation and benefits of the technology

- * variable pump operation at constant engine speed
- * smooth change of the pump efficiency at constant engine speed
- * smooth regulation of the work space

Market and context of technology

The possibility to implement in automotive industry e.g. as a change of motorcycle drives (replacement of a traditional manual gearbox).

Preconditions in adopting enterprises

Slight change of technology approaches. Rather not expensive investment.