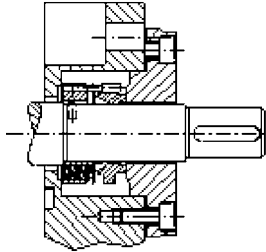


## Shaft seals

Because of the modular design of variopumps gear pumps there are various possibilities of shaft seals available.

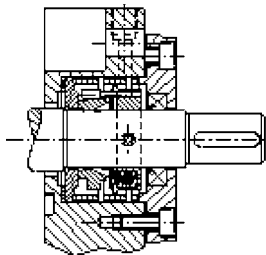
Depending on the specific operating data you can choose - even years after first start up - the best seal. And you will match both: best technical solution in connection with cost optimization.

For special applications sealing types may also be combined (e.g. gap seal with lip seal).



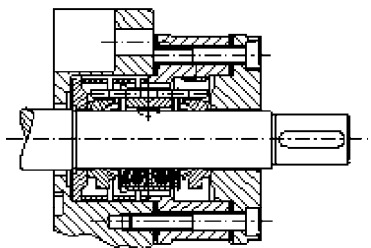
### *single internal mechanical seal*

- universal
- all purpose applications
- low and medium viscosity
- max. 16 bar system pressure
- up to 320 °C



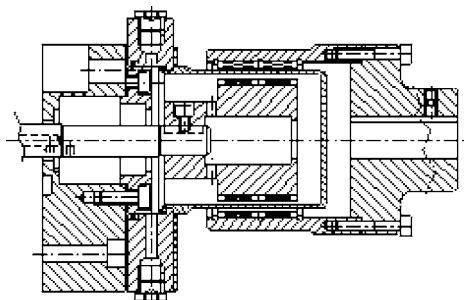
### *single external mechanical seal*

- for high viscous, sticky or crystallizing materials
- low up to high viscosity
- low system pressure
- up to 320 °C
- pressure less flushable (suitable for vacuum extraction)



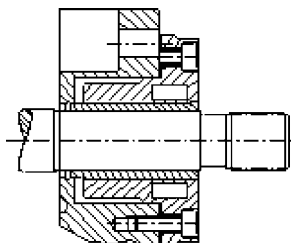
### *double mechanical seal*

- for toxic, sticky, polymerizing or crystallizing materials
- low up to high viscosity
- up to 16 bar system pressure
- up to 320 °C
- flushable up to 16 bar



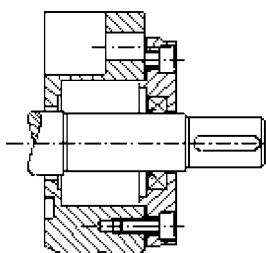
### *hermetic seal with magnetic coupling*

- for toxic, malodorous or hazardous materials
- hermetic seal
- low or medium viscosity
- high system pressure
- up to 400 °C
- double can for heating / cooling and observance



### *gap seal*

- for hot melts , plastics and high viscous materials
- high and ultra high viscosity
- high system pressure
- up to more than 400 °C
- coolable, heatable



### *lip seal*

- cheap solution for simple applications
- low viscosity
- up to -120 °C