

RPG GTR (API 610 OH6 with exceptions)

The GTR Pitot tube pump is a single-stage, 'low-flow, high-pressure' rotodynamic pump.

The revolutionary design behind is remarkable uncomplicated, with a rotating case using centrifugal force to accelerate liquids through a stationary Pitot tube.

The result is a steady, pulsation-free, high-pressure stream achieved with relatively low operating speeds. This simplicity on design compared with other pump solutions practically reduces maintenance:

- There are not wear-rings, throat or throttle bushings
- No complex piston, rods, springs or sophisticated control systems of reciprocating pumps
- Drive shaft isolated from process liquid
- Only one mechanical seal and subject to only suction pressure

Thousand of applications and million of hours of operation experience.

This simple design and improved experience means superior performance, simpler operation, longer pump life and low cost of operation and inventory.

CAPACITY



Up to 110 m³/h

PRESSURE



Up to 1.900 m

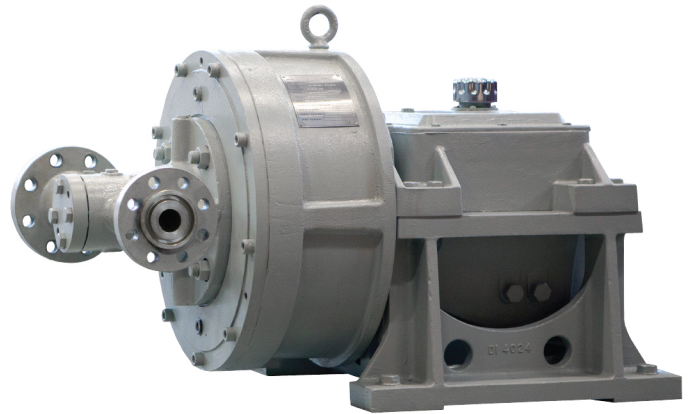
TEMPERATURE



Up to 400 °C

Options

- Gearbox driven or VFD
- Water cooled bearings
- Special drain tool (for horizontal liquid applications)
- Assembly / disassembly tray
- Special tools
- Vibration monitoring and RTD's



Product features

- Optionally available in API 610 model
- Stable 100% pulsation-free flow
- Self-venting
- Wide operating range up and down the curve
- Low-pressure shaft sealing (seal chamber at suction pressure)
- Few moving parts
- Simple control equipment, no need for relief valves, bypass pressure relief or pulsation dampeners
- Simple design; only two basic working parts, rotor and Pitot tube
- Bearings isolated from pumped fluid
- Simple design with lower maintenance cost than other equivalent pumps (BB5, high speed gear integrated pumps, etc)
- Seal removable without disturbing the piping
- Long life design
- High efficiency versus other high-pressure pumps options
- Horizontal motor driven arrangement

Applications

- Petrochemical industry
- Oil and gas industry
- High-pressure injection
- Ammonia
- High-pressure boiler feed
- Paper and pulp industry
- High-pressure cleaning

Materials

- Carbon steel
- Sainless steel
- Duplex
- Cast steel
- Hastelloy
- Ductile
- Cast iron

Technical data

- capacity up to 2.000 m³/h
- Head up to 4.000 m
- Maximum temperature up to 300°C

Key advantage over a traditional multistage pump (BB3, BB5...)

This unique single-stage design can replace other much more complicate multi-stage designs with usually 2 to 3 times more parts.

This design reduces the maintenance and spare parts costs and increase remarkably the MTBF times.

Furthermore, due to its design, it operates from MCSF to end of curve with same low vibration level and bearing load levels than at BEP.

Key advantage over a positive displacement pump

Positive displacement pumps have the disadvantage of very narrow operating capacity ranges.

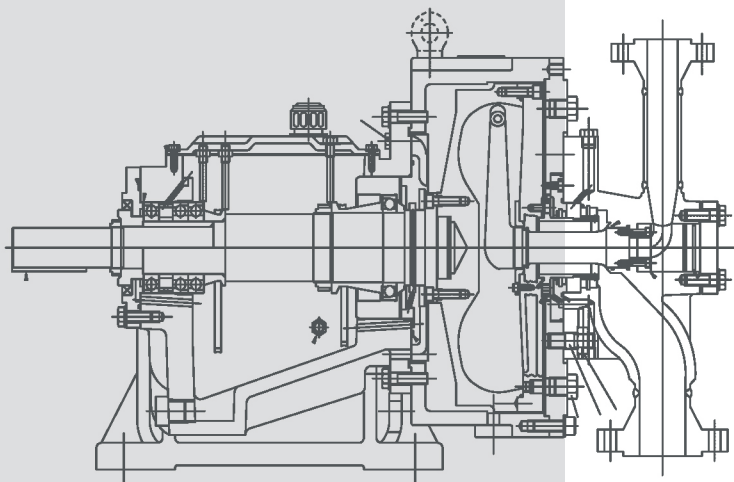
The RPG GTR pump can operate at much wider ranges of capacities.

Key advantage over a high speed centrifugal pump (OH6) and Sundyne pumps

Traditional high-speed centrifugal pumps run typically at 10.000 rpm or even higher.

The high-speed operation degrades the rotating elements, the wear-rings and the bearings exponentially faster. Plus, these parts are more expensive than the low speed ones, the mechanical seal operating at high pressures generate much more heat and degrade quicker. Furthermore, the typically flat curves of these high-speed pumps create problem in controlling them and makes practically impossible the parallel operation.

The RPG GTR pumps operates at much lower speed generating same head, mount only one mechanical seal that is step curve is ideal for operating in parallel or to use standard control systems to control the different duty points.



Head Office

Havennummer 2248
Waalhaven ZZ 52-66
3088 HJ Rotterdam
The Netherlands
Tel: +31 (0) 10 428 52 33