

OPTIMEX

CANNED MOTOR PUMPS



PMO
CONSULTING

PMO Consulting Sàrl
Rampe de la Gare 1
CH-1290 Versoix - Genève
Tél +41 (0) 22 779 09 83
pmo-consulting@bluewin.ch

Technical documentation
**Vertical Inline Pump
with a Canned Motor**
INRI

INRI

Application range :

All industrial process : chemical, oil & gas, nuclear
 Heating installation, Cold installation like cryogeny.
 Some example of pumping liquid:

Liquified gas (Ammoniac, Butane, Propane, Ethane, Ethylène), **Thermal oils** (Therminol, Syltherm), **Dangerous liquid** (H2S)

Everywhere where the reliability and security are the first exigence.

Temperature range -150 °C to +500°C

Dimension:

In-Line pump can be proposed in both option:

- Directly **mounting on the pipe**
- With a baseplate to support the machine, with **sole plate** or **baseplate**.

Optimex is able to propose **customized arrangement** to revamping or retrofitting existing pump.

Construction:

Mono-cellular pump in **PN16***. Suction and discharge flanges are on the same axe.
 Two slide bearings lubrificated by the pumping liquid are used to support mobile parts.
 In standard bearings are proposed in 316L/Graphit.

** Other design are possible on demand*

ATEX:

Product in compliance with ATEX directive 94/9/CE.

Motor certified to Ex II 2 G Ex de II C T1 to T6

Motor:

Speed: 1450 rpm or 2900 rpm at 50Hz
 1750 rpm or 3600 rpm at 60Hz
 Voltage: 220 to 660V
 Frequency: Working with VFD is always possible
 Motor protection: PTC or PT100 in windings

Material:

Stainless steel is the standard construction.
 All materials of construction are possible.

Documentation :

- Vendor databook
- Pump datasheet
- Dimensionnal drawing
- Sectional drawing
- Parts list
- Spare parts list
- Test curve of the machine
- CE declaration

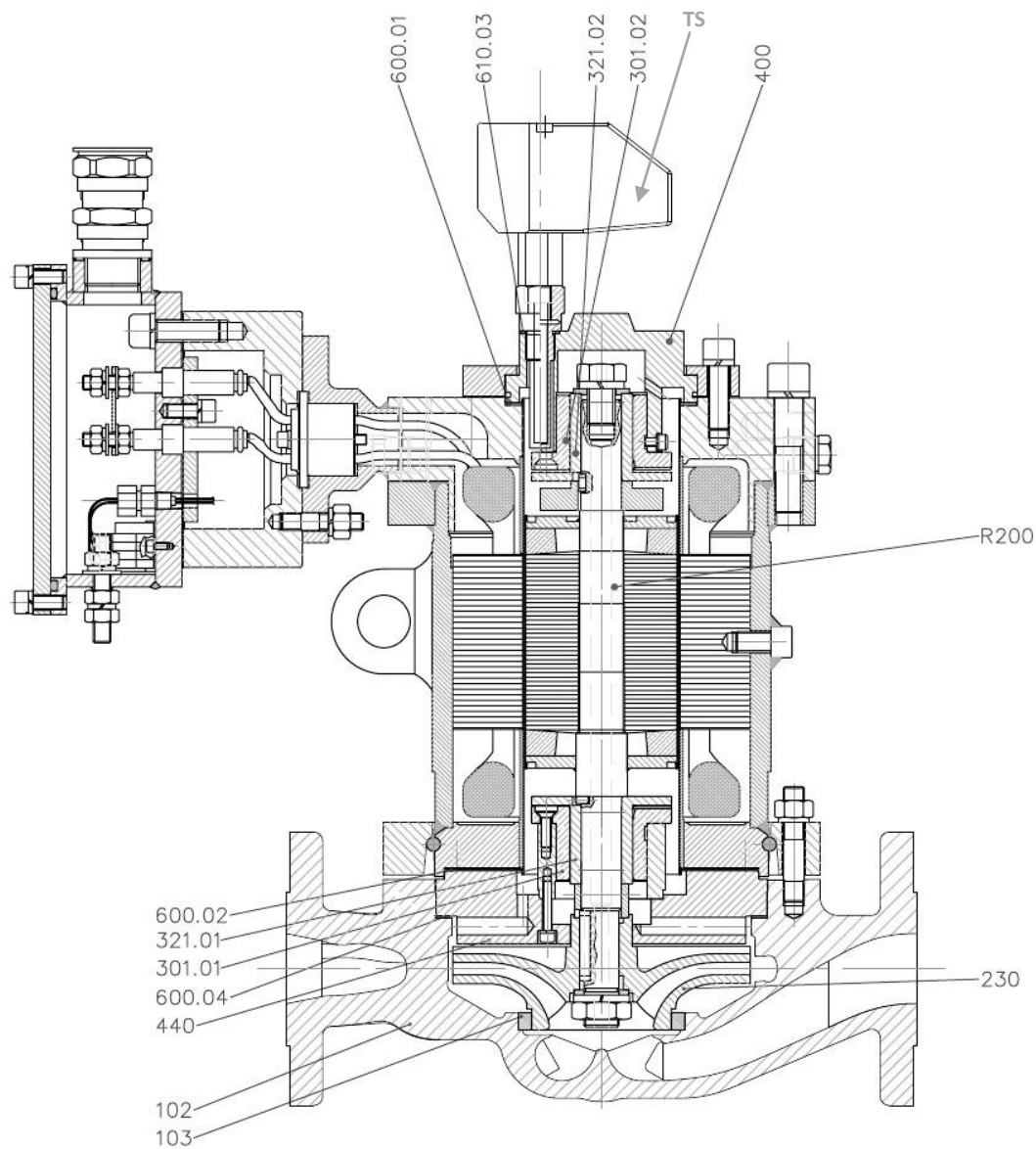
Workshop control:

Standard control:

- Balancing test of mobile in G6.3 according to ISO 1940
- Hydrostatic test of the first containment system
- Secondary containment system air test
- Performance test according to ISO9906 level 2
- Axial displacement & forces measurement
- Material certificate 2.2 according to EN 10204 (parts under pressure)

Complementary control can be made on demand

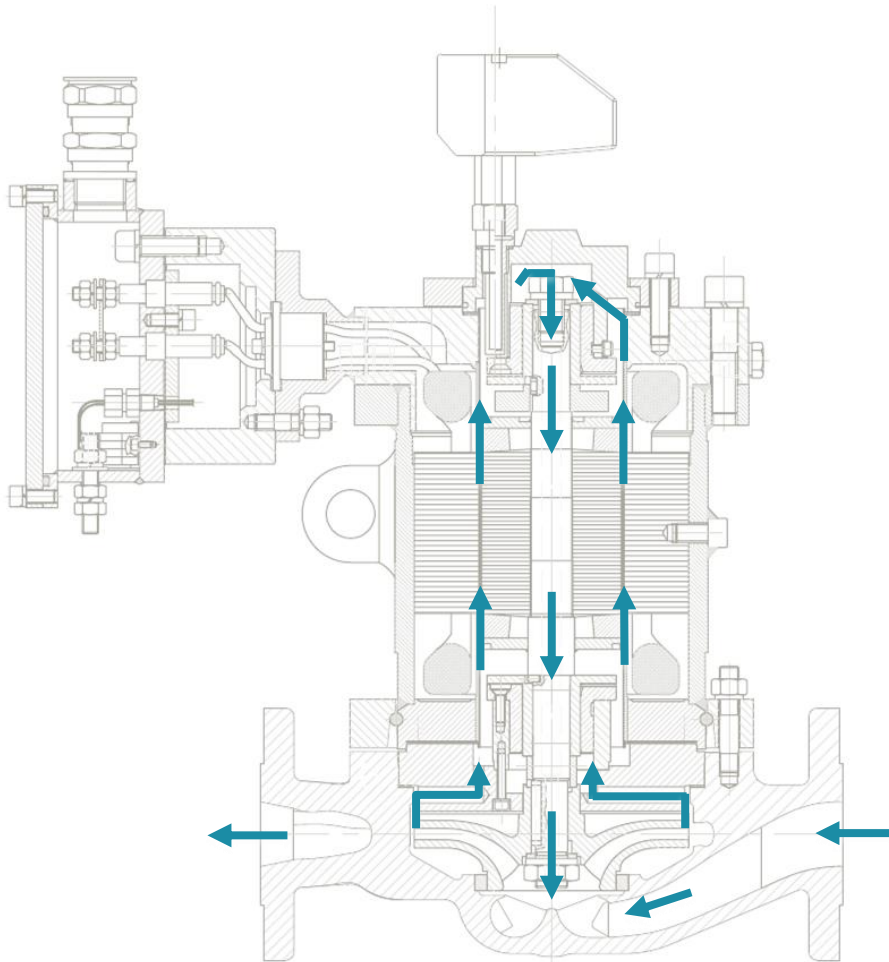
Vertical Inline Pump with Canned Motor



Mark(s)	Designation
102	Casing
103	Casing wear ring
R200	Shaft
230	Impeller
301.01 301.02	Thrust bearings
321.01 321.02	Shaft sleeve
400	Rear support bearing
440	Front support bearing
600.1	Gasket
600.2	Gasket
600.4	Gasket
610.3	Gasket
TS	Temperature sensor

Material on demand

Working Circulation



Description:

Plan API 1-S

Injection of pumped liquid in the motor from pump casing (impeller periphery), passing through the stator/rotor gap, returning to suction through the hollow shaft.

Other circulations can be proposed on demand and in function of process criteria.

S: Overpressured circulation

High vapor liquid

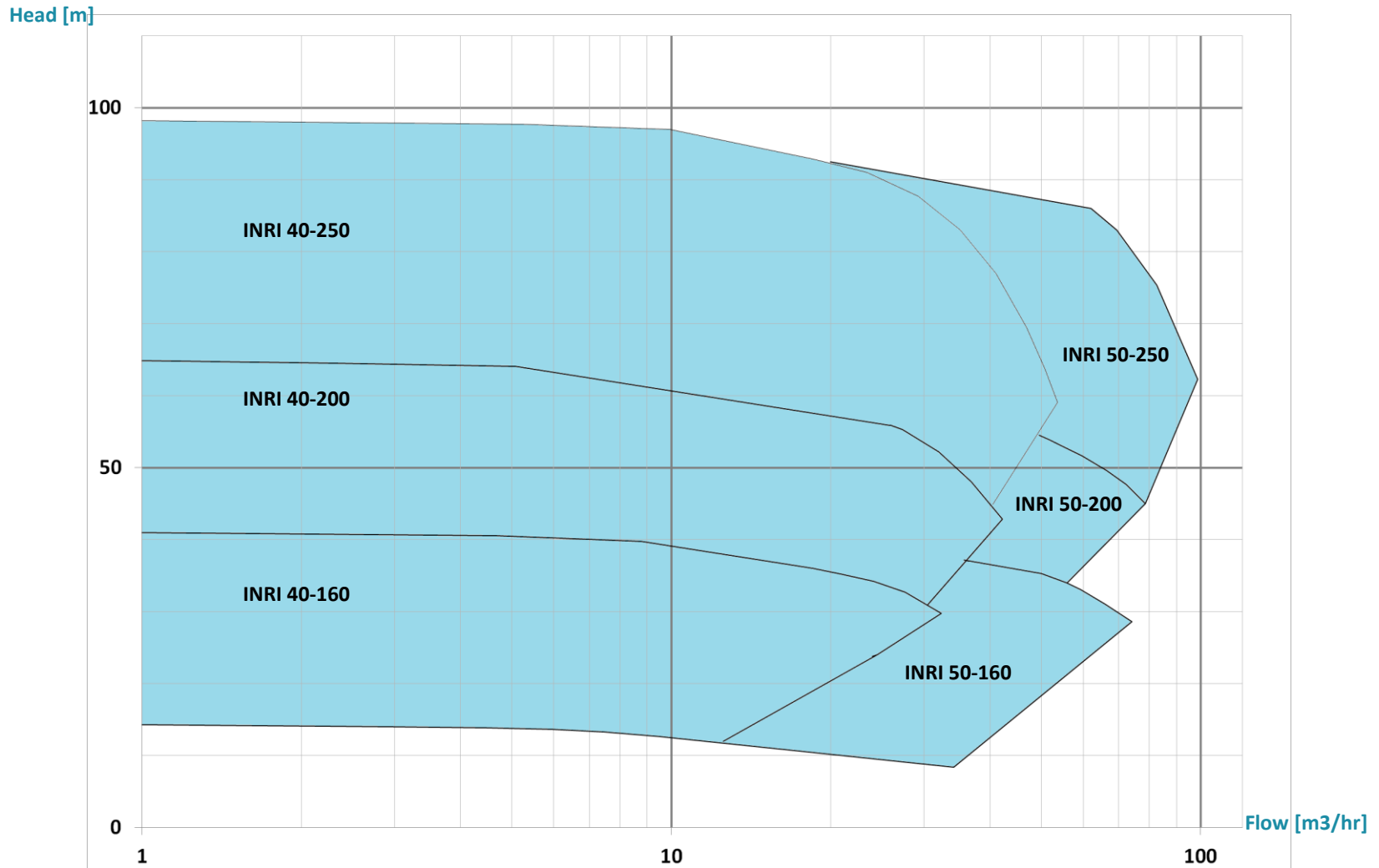
R: Cooled circulation

Hot application 160°C to 500°C

F: Filtered circulation

Dirty and slurry liquid

Curve range - 2900 rpm





 **OPTIMEX**
CANNED MOTOR PUMPS

PMO
CONSULTING

PMO Consulting Sàrl
Rampe de la Gare 1
CH-1290 Versoix - Genève
Tél +41 (0) 22 779 09 83
pmo-consulting@bluewin.ch

www.optimex-pumps.com