

High Temperature (HT) / High Pressure (HPT) - Design



- High gas handling ability
- Solids Handling Design
- High efficiencies
- Low NPSH required
- Center line mounted
- Heavy duty slurry seals
- Spring loaded Base
- Heated suction (optional)
- Heated/Cooled Seal
- Cooling coil in bearing housing

Discharge: 2" - 20" ANSI
Capacity: up to 21,000 gpm
Head: up to 490 ft
Gas content: up to 25% Vol.
Temp: up to 570 °F
Design press: up to 1450 psi

Pump applications

Circulation of reactors via external heat exchangers - LOOP-reactors for Chemical, Petro-Chemical and Pharmaceutical industry.

Multiphase liquids

- Abrasive catalysts/slurries (Solids content up to 50%)
- Gas content up to 25% Vol.

Examples:

- Hydrogenation
- Polymerization
- Ethoxylation
- Fatty acids & fatty alcohols
- MMA and PMMA
- Suspensions
- Polymers (e.g. HDPE-Slurry)

Description

Horizontal single stage process pump with a unique impeller design capable of pumping liquids containing solids and/or gases.

High efficiency, low NPSH values due to a special impeller entry design, as well as high capabilities of handling homogeneous slurries containing varying amounts of entrained air and gases without clogging or air locks.



Design

HT - Horizontal High Temperature

- Max. service pressure.....360 psi
- Service temp.250°F up to 480 °F
- Casing feet.....Centerline mounted feet - API 610 OH2
- Max. flanges.....ANSI 300lbs
- Materials.....Duplex stainless steel / special materials on request

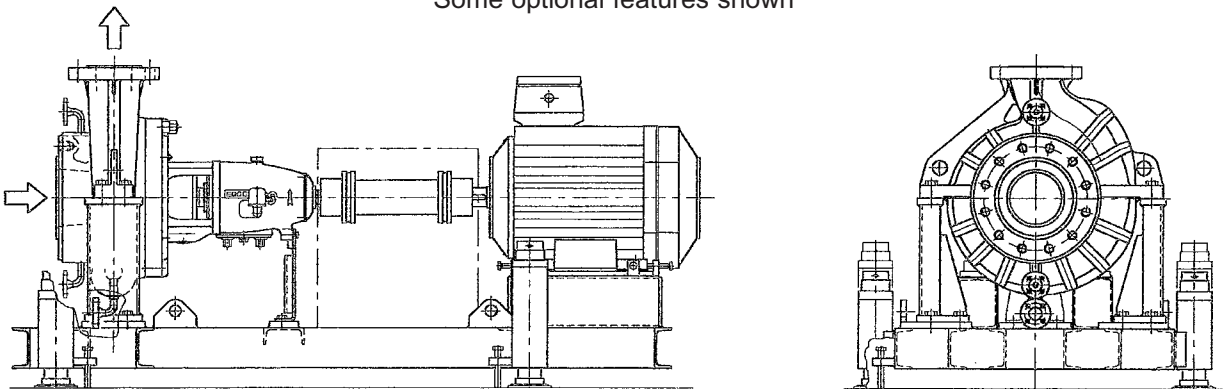
HPT - Horizontal High Pressure and High temperature

- Design pressure1450 psi
- Service temp.250°F up to 600 °F
- Casing feet.....Centerline mounted feet - API 610 OH2
- Max. flanges.....ANSI 600lbs
- Materials.....Duplex stainless steel / special materials on request

Optional Features

- Heating / cooling jacket on suction side
- Heating / cooling jacket on seal side
- Double or triple mechanical seal depending on pumped liquid
- Casing with special drain-off
- Bearing housing with labyrinth type seals
- Bearing housing with cooling coil
- Torsion resistant base plate
- Spring mounted base to compensate for thermal expansion in pipework

Typical General Arrangement
Some optional features shown



Pilot plant pumps are available. Please inquire for more information.