v 1.0

ThermaGenix* Horizontal Pumping Systems

Engineered for High Pressure and High Temperature Surface Pumping

Applications

- · Geothermal brine reinjection
- · Produced water injection/disposal
- Water transfer
- · Mine dewatering
- NGL/Crude oil transfer and pipeline boosting
- · Lean amine pumping
- · Industrial process fluid transfer

HPS GPL Key Features

- · Client focused designs
- Standard BPO (Back Pull Out) design
- · Adaptable HPS bench
- Multistage pumps
- Flowrates to 1,350 gpm (47,000 bpd)
- Minimal system maintenance
- Minimal noise and vibration

Horizontal pumping systems (HPS) are a low capital and cost-effective technology of choice for fluid transfer and water injection geothermal operations. Modular design and a single, low-pressure mechanical seal make Levare HPS units reliable and easy to maintain and re-rate. Readily available components simplify retrofitting with other manufacturers' systems.

Levare designs, engineers and fabricates innovative HPS to provide specific solutions to a wide range of geothermal fluids across a wide range of surface applications.

We offer greater flexibility for your pumping needs and take added measures to provide the following:

- 24-hour technical field service
- Maintenance programs for all HPS units and components
- Maximized use of surplus inventory
- · Site-ready delivery of all units

1. Rigid Skid Structure

Most rigid skid in the industry

All skids are engineered and custom built as per application

All lifting points are built into the skid

2. Motor

100 - 2,000 hp motors 2-pole electric 3,600 rpm

Options include TEFC, WPII, sleeve or ball bearing

Special features: Insulated Bearing, Bearing RTDs, Winding RTDs, and Space Heater

3. Balanced Twin Disc Spacer Coupling

Eliminates vibration

Zero maintenance required

4. Thrust Chamber

Modular load design

Two to four bearing style

Longest industry run life Back pull out for quick seal changes

Minimal maintenance required

5. Mechanical Seal

Standard – Single Bellow Type 2 Seals or single/dual cartridge seals with flush plans as required by application or customer.

6. Intake Assembly

Solid constructed machined intake standard 316 SS - 150 - 900 ANSI RF

Alternative materials and class sizes available for pressure up to 3,000 psi



7. Pump

Standard flow offering of 75-47,000 bpd (12-7,500 m³/d)

Pump diameters range 4" - 9.50"

Standard tungsten carbide bearing and sleeves for abrasion wear

Material: standard Type 1 Ni-Resist

Other: alternate material available upon request

8. Discharge Assembly

Standard 316 SS from 300-2500 ANSI RF or RT.J

Other: alternate materials available upon request

9. Motor Coupling Guard

OSHA approved Non-sparking

10. Instrumentation

Standard offering of intake and discharge pressure transmitters as well as vibration transmitters

All units come with CSA/UL certification available in Class 1 Div 2 and explosion proof