

Horizontal Pumping Systems

Levare offers fit-for-purpose HPS technology, products, and services that minimize costs and maximize return on investment

| Applications | HPS GPL Key Features |
|---|--|
| <ul style="list-style-type: none"> Produced water injection/disposal Pipeline boosting Mine dewatering Process fluid transfer Water transfer Crude oil transfer/boosting Jet pumping Lean amine pumping NGLs | <ul style="list-style-type: none"> Client focused designs Standard BPO (Back Pull Out) design Adaptable HPS bench Multistage pumps Flowrates to 1,779 gpm (61,000 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 applications. 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 and fabricates innovative HPS to provide specific solutions to a wide range of fluid-movement 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

4. Thrust Chamber

Modular load design
Two to four bearing style or tilt pad bearing style with cooler offered as required
Longest industry run life
Back pull out for quick seal changes
Minimal maintenance required

7. Pump

Standard flow offering of 75-61,000 bpd (12-9,693 m³/d)
Pump diameters range 4" - 10.50"
Standard tungsten carbide bearing and sleeves for abrasion wear
Material: standard Type 1 Ni-Resist
Other: alternate material available upon request

2. Motor

100 - 2,000 hp motors 2-pole electric 3,600 rpm
Options include TEFC, WPII, sleeve or ball bearing
Special features: bearing winding RTDs and space heaters

5. Mechanical Seal

Standard single bellow seals type 2
Available in single and dual cartridge seals
Flush plans as per customer applications/request

3. Balanced Twin Disc Spacer Coupling

Eliminates vibration
Zero maintenance required
Easy spacer removal for equipment servicing

6. Intake Flange

Solid constructed machined intake - standard 316 SS - 150 - 900 ANSI RF
Alternative materials and class sizes available for pressure up to 3,000 psi
Accommodates all seal applications

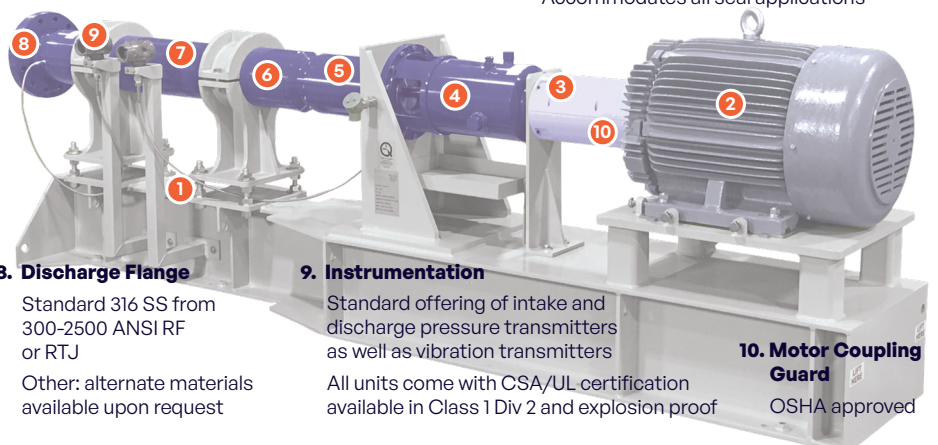
8. Discharge Flange

Standard 316 SS from 300-2500 ANSI RF or RTJ
Other: alternate materials available upon request

9. 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

10. Motor Coupling Guard
OSHA approved



Specifications

| Housing outside diameter, in. (mm) | Pump | Shaft rating * standard hp (kW) | Shaft rating * high-strength hp (kW) | Recommended operating range | | | Maximum discharge pressure psi (bar / kPa) |
|------------------------------------|-----------|---------------------------------|--------------------------------------|-----------------------------|-------------------|---------------|--|
| | | | | 50 Hz - 2,917 rpm | 60 Hz - 3,500 rpm | | |
| | | | | m ³ /d | bpd | gpm | |
| 400 Series | | | | | | | |
| 4.00 (101.6) | 400-180 | | | 10 - 40 | 75 - 300 | 2 - 9 | 6,000 (414 / 41,368) |
| | 400-350 | 88 (55) | 169 (105) | 27 - 56 | 203 - 320 | 6 - 9 | |
| | 400-500 | 122 (76) | 230 (143) | 43 - 83 | 325 - 625 | 9 - 18 | |
| | 400-750 | | | 66 - 119 | 500 - 900 | 15 - 26 | |
| | 400-950 | 88 (56) | 169 (106) | 86 - 159 | 650 - 1,200 | 19 - 35 | |
| | 400-1250 | | | 106 - 212 | 800 - 1,600 | 24 - 46 | |
| | 400-1750 | 122 (76) | 230 (143) | 159 - 272 | 1,200 - 2,050 | 35 - 59 | |
| | 400-2200 | | | 199 - 351 | 1,550 - 2,650 | 45 - 77 | |
| | 400-3000 | | | 278 - 516 | 2,100 - 3,900 | 62 - 113 | |
| | 400-4500 | 159 (122) | 485 (301) | 397 - 715 | 3,000 - 5,400 | 88 - 157 | |
| | 400-5800 | | | 563 - 994 | 4,250 - 7,500 | 124 - 219 | |
| 538 Series | | | | | | | |
| 5.38 (136.7) | 538-1900 | | | 139 - 305 | 1,050 - 2,300 | 31 - 67 | 6,000 (414 / 41,368) |
| | 538-2600 | 159 (122) | 485 (301) | 212 - 424 | 1,600 - 3,200 | 47 - 93 | |
| | 538-3600 | | | 318 - 609 | 2,400 - 4,600 | 70 - 134 | |
| | 538-5000 | | | 490 - 842 | 3,700 - 6,350 | 108 - 185 | |
| | 538-7000 | 380 (236) | 725 (451) | 660 - 1,325 | 5,000 - 10,000 | 146 - 291 | |
| 675 Series | | | | | | | |
| 6.75 (171.5) | 675-6500 | 380 (236) | 725 (451) | 530 - 1,060 | 4,000 - 8,000 | 117 - 233 | 3,600 (248 / 24,821) |
| | 675-9000 | | | 662 - 1,722 | 5,000 - 13,000 | 146 - 379 | |
| | 675-12500 | | | 994 - 2,120 | 7,500 - 16,000 | 219 - 467 | |
| | 675-16000 | 645 (401) | 1,230 (765) | 1,456 - 2,251 | 11,000 - 17,000 | 321 - 495 | |
| | 675-21000 | | | 2,120 - 3,313 | 16,000 - 25,000 | 466 - 729 | |
| 862 Series | | | | | | | |
| 8.62 (218.9) | 862-18000 | | | 1,590 - 3,114 | 12,000 - 23,500 | 350 - 685 | 3,600 (248 / 24,821) |
| | 862-25000 | 985 (612) | 1,885 (1,172) | 2,518 - 4,305 | 19,000 - 32,500 | 555 - 947 | |
| 950 Series | | | | | | | |
| 9.50 (241.3) | 950-1050 | 1,275 (793) | 2,400 (1,492) | 3,640 - 6,128 | 27,500 - 46,250 | 350 - 685 | 2,400 (207 / 16,547) |
| 1050 Series | | | | | | | |
| 10.50 (266.7) | 1050-1500 | 1,275 (793) | 2,400 (1,492) | 5,035 - 8,080 | 38,000 - 61,000 | 1,109 - 1,779 | 2,400 (207 / 16,547) |

*Shaft rating: kW @ 50 Hz; hp @ 60 Hz

Patented Low Pro Mini HPS

The best solution for small applications with zero maintenance

Features

- Motor direct coupled to pump
- Pump thrust load carried by the motor bearing
- Standard single or dual cartridge seals
- Standard Intake 3" or 4" 150 ANSI 316 SS
- Standard instrumentation mounted on the skid including:
suction and discharge transmitters, vibration transmitter
- All CSA/UL and Class 1 Div 2 or explosion proof

Benefits

- Thrust-chamberless system
- Maintenance free
- Economical low-profile solution
- Quick delivery

