



# P2K Model

## Applications

- ▶ Cylinder & storage filling—medium to heavy duty
- ▶ Unattended, automatic storage filling

## Features & Benefits

- ▶ Vertical pump installation eliminates gravitational loading on the piston, provides smoother suction valve operation, and makes for a more compact system footprint
- ▶ Motor positioned on the backside of the pumping skid, eliminates possible fire or an explosion hazard in case of a liquid oxygen leak
- ▶ V-band clamp secures the sump to the intermediate allowing for quick and easy access to the cold end assembly
- ▶ Spring energized pushrod shaft seals are contained in cartridge housings for fast and easy replacement—takes about twenty minutes without removing the cold end
- ▶ Replaceable wearband on the crosshead piston eliminates wear and reduces maintenance costs
- ▶ Vacuum jacketed cold end minimizes heat leak to reduce product loss and increase system efficiency
- ▶ Relubrication fittings for the roller bearings and crosshead provide extended service life
- ▶ Pump assembly and spare parts are interchangeable with the PD3000 pump

## Liquids Pumped

- ▶ N<sub>2</sub>, O<sub>2</sub>, Ar, Methane (LNG), Ethylene

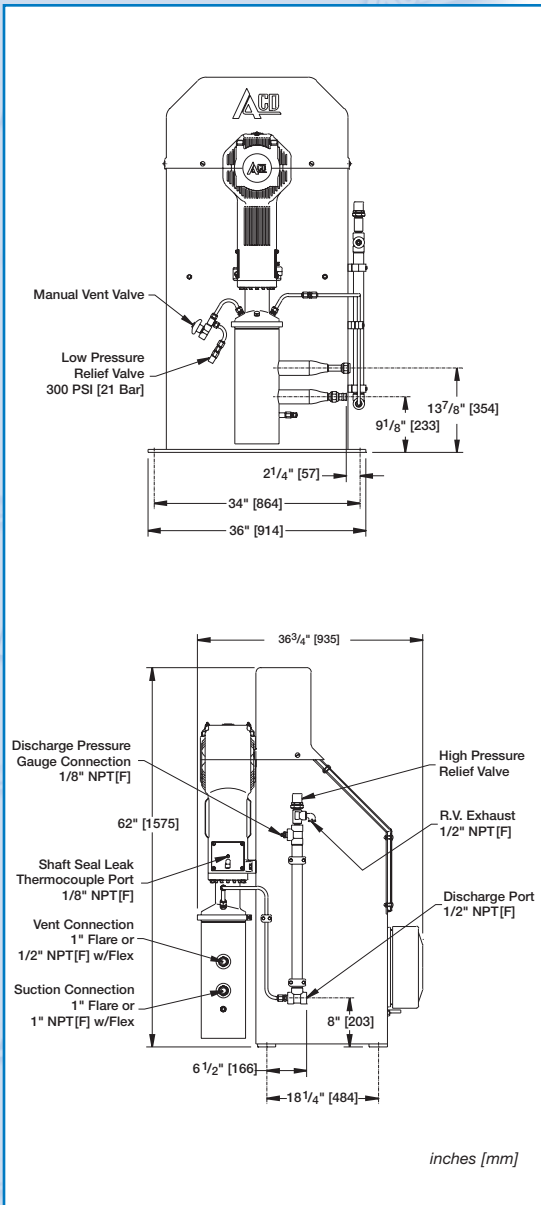


## Specifications

### STANDARD P2K MODELS

	1.25, 1.50 bore x 1.50 stroke (32 mm, 38 mm x 38 mm)	1.75 bore x 1.50 stroke (44.5 mm x 38 mm)	2.00 bore x 1.50 stroke (50.8 mm x 38 mm)
<b>Flow Rate</b>			
gpm	1.12–3.7	2.19–5.0	2.87–6.6
lpm	4.2–14.0	8.3–19.0	10.9–25.0
<b>Pump Design Rating</b>			
hp	15–40	15–40	15–40
kw	11–30	11–30	11–30
<b>Maximum Discharge Pressure</b>			
psi	6,090	6,090	4,700
bar	420	420	324
<b>NPSPR</b>			
psi	2	2	2
bar	0.14	0.14	0.14
<b>Maximum Suction Pressure</b>			
psi	300	300	300
bar	20.7	20.7	20.7

## Dimensions



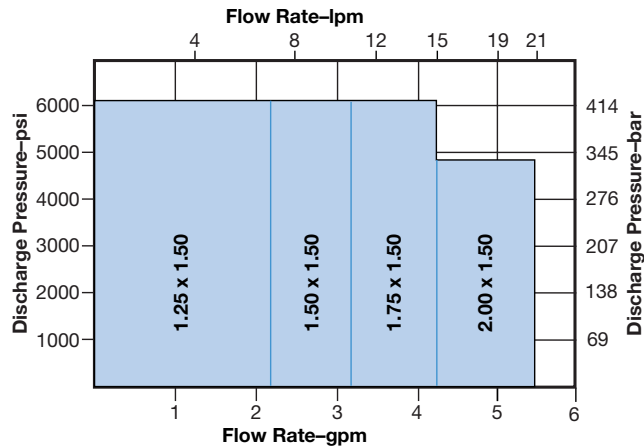
## Scope of Supply

- ▶ Grease lubricated drive assembly and vacuum jacketed cold end
- ▶ Electric motor with belt drive and guard
- ▶ Hot dipped galvanized steel skid frame
- ▶ Over pressure switch gauge (shipped loose)
- ▶ Control panel (NEMA 4) with combination motor starter and running time meter (shipped loose), relay logic
- ▶ Vent line with manual valve and low pressure relief valve
- ▶ Monel suction strainer
- ▶ High pressure relief valve with discharge line and surge chamber

## Optional Accessories

- ▶ PLC control panel
- ▶ Automatic control panel
- ▶ Loss of prime detector
- ▶ Discharge check valve
- ▶ Cavitation protector
- ▶ Shaft seal leak detection
- ▶ Flex sections for suction and tank return lines
- ▶ Installation kits (based on supply tank)
- ▶ Auto cooldown temperature controller
- ▶ Auto unloader valve
- ▶ Extended cooldown lock-up
- ▶ Drive purge
- ▶ ASME high pressure relief valve

## Pump Performance Map



### Maximum Capacity Rating:

- 5.0 gpm (19.0 lpm) @ 6090 psi (420 bar)
- 6.6 gpm (25.0 lpm) @ 4700 psi (324 bar)

Lower flows are available by running the pump slower or by using smaller pistons. Contact ACD Engineering for recommendations for flow/pressure specifications not listed.

## Worldwide Sales & Service Centers



2321 S. Pullman Street  
Santa Ana, CA 92705 USA  
Tel 800.525.4216 (USA only)  
Tel +1.949.261.7533  
Fax +1.949.261.6285  
acd@acdcom.com  
www.acdcom.com



Gutenbergstrasse 1  
CH-4142 Muenchenstein  
Switzerland  
Tel +41.61.413.0230  
Fax +41.61.413.0233  
sales@acd cryo.com  
www.acd cryo.com

Rheinauenstrasse 2  
D-79415 Bad Bellingen  
Germany  
Tel +49.7635.8105.0  
Fax +49.7635.8965  
info@acd cryo.com  
www.acd cryo.com

**Cryogenic Industries - Headquarters**  
Murrieta, California, USA  
+1 951.696.7840 • Fax +1 951.698.7484  
info@cryoind.com  
www.cryoind.com

**CryoAtlanta, Inc.**  
Atlanta, Georgia, USA  
+1 404.696.8113 • Fax +1 404.696.8116  
sales@cryoatlanta.com  
www.cryoindservice.com

**CryoCal, Inc.**  
Santa Ana, California, USA  
+1 949.724.8636 • Fax +1 714.641.1921  
sales@cryocal.com  
www.cryoindservice.com

**CryoCanada Incorp.**  
North York, Ontario, Canada  
+1 416.502.1950 • Fax +1 416.502.1952  
info@cryocanada.com  
www.cryoindservice.com

**CryoCanada Incorp.**  
Red Deer, Alberta, Canada  
+1.403.352.4436 • Fax +1.403.352.4439  
sales@cryocanada.com  
www.cryoindservice.com

**Cryogenic Industries - Houston**  
Houston, Texas, USA  
+1 281.590.4800 • Fax +1 281.590.4801  
sales@cihouston.com  
www.cryoindservice.com

**Cryogenic Industries - Malaysia**  
Port Klang, Selangor, Malaysia  
+60 (3) 3165.4801 • Fax +60 (3) 3165.4798  
sales@cimalaysia.com  
www.cimalaysia.com

**Cryogenic Industries - China**  
Hangzhou, China  
+86.571.8619.4778 • Fax +86.571.8619.4787  
hci@mail.hz.zj.cn  
www.cryoind.com

**Cryogenic Industries - Korea**  
Yongin-si, Gyeonggi-do, Korea  
+82.31.286.6114 • Fax +82.31.286.6118  
info@ci-korea.co.kr  
www.ci-korea.co.kr

**Cryoquip - Australia**  
Dandenong, Victoria, Australia  
+61.3.9791.7888 • Fax +61.3.9769.2788  
sales.au@cryoquip.com  
www.cryoquip.com

**Pittsburgh Cryogenic Services, Inc.**  
Imperial, Pennsylvania, USA  
+1 724.695.1910 • Fax +1 724.695.1926  
pittcryo@pittcryogenic.com  
www.cryoindservice.com

