

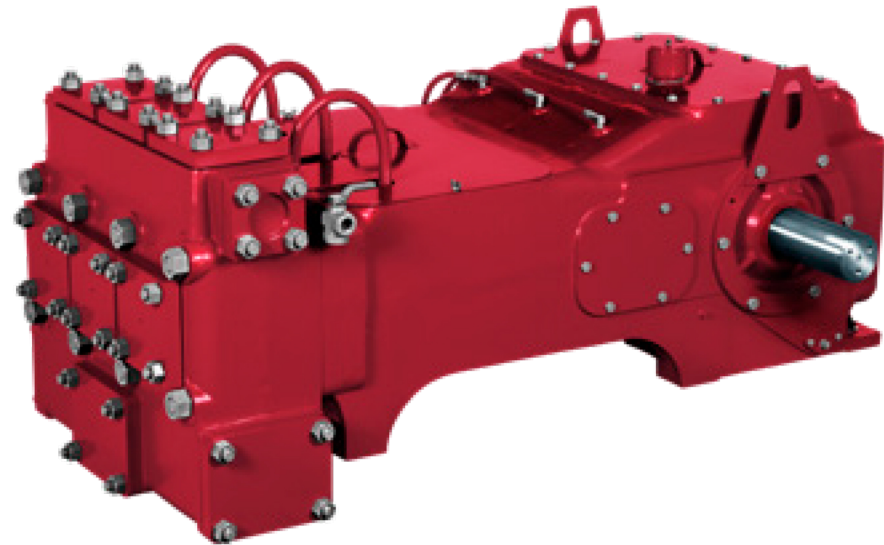
# PUMPS

## THE HORIZONTAL DIRECTIONAL DRILLING PUMPS



### SPECIFICATIONS

Maximum Input	215 BHP (160 kW)
Maximum RPM	300 RPM
Plunger Load	37,000 lbs. (16,965 kg)
Discharge Hydrostatic Test Pressure	3,600 lbs (1,633 kg)
Oil Capacity	12 gal. (45 liters)
Pump Weight	3,990 lbs. (1,180 kg)



PISTON/LINEAR DIAMETER		DISPLACEMENT PER REVOLUTION		DISPLACEMENT AT PUMP RPM											
				50				100				150			
in.	mm.	Gal/ Rev.	Liter/ Rev.	GPM	LPM	PSI	bar	GPM	LPM	PSI	bar	GPM	LPM	PSI	bar
				Forged Steel/Forged SS Autofrettaged SGWS/NX Fluid Ends											
4	102	.816	3.089	41	154	2944	206	82	309	2944	206	122	463	2718	191
4.5	114	1.032	3.907	52	195	2326	163	103	391	2326	163	155	588	2100	148
5	127	1.274	4.824	64	241	1884	132	127	482	1884	132	191	724	1700	120
5.5	140	1.542	5.837	77	292	1557	109	154	584	1557	109	231	876	1435	100
INPUT POWER			BHP kW	79				156				215			
				59				116				160			
PISTON/LINEAR DIAMETER		DISPLACEMENT PER REVOLUTION		200				DISPLACEMENT AT PUMP RPM				300			
				250				300							
in.	mm.	Gal/ Rev.	Liter/ Rev.	GPM	LPM	PSI	bar	GPM	LPM	PSI	bar	GPM	LPM	PSI	bar
				Forged Steel/Forged SS Autofrettaged SGWS/NX Fluid Ends											
4	102	816	3.089	163	618	2034	143	204	772	1625	114	245	927	1354	95
4.5	114	1.032	3.907	206	781	1600	112	258	977	1280	90	310	1173	1070	75
5	127	1.274	4.824	255	965	1300	91	319	1206	1040	73	383	1448	870	61
5.5	140	1.542	5.837	308	1167	1076	76	386	1460	860	60	462	1752	720	51
INPUT POWER			BHP kW	215				215				215			
				160				160				160			

A lubrication system supplying oil at 50 psi, 12 gpm and 200 SUS (44cSt) minimum values is required. Oil cooling recommended and may be required to maintain these values.

For operation in the Grey shaded area expendable part life decreases and excellent NPSH is required to prevent cavitation.

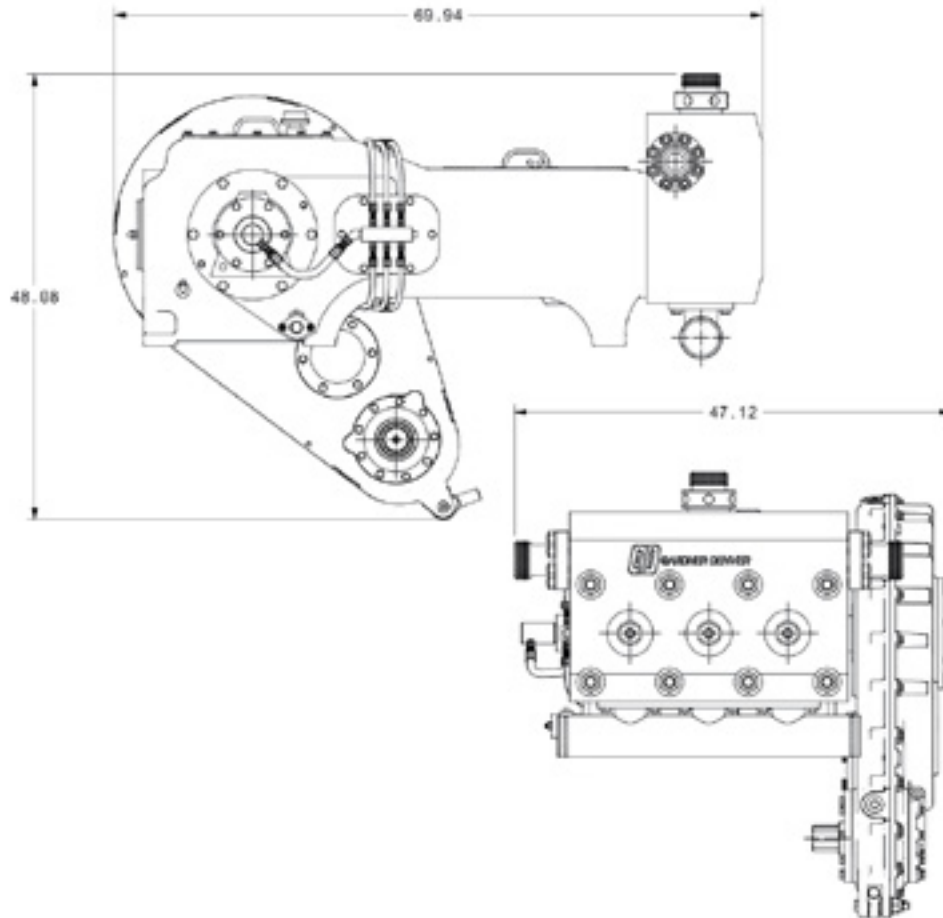
Performance figures based on 100% volumetric efficiency and 90% mechanical efficiency. These figures are for use in directional drilling duty cycle.

\*This equals full rod load 33% of the time, 60% rod load 50% of the time and 25% rod load 17% of the time, for a total of 1456 hours per year.

# THE

## HORIZONTAL DIRECTIONAL DRILLING PUMPS

### SPECIFICATIONS



Note: All installations must contain a pressure relief valve in the discharge line near the pump to help prevent breakage.

### STANDARD FEATURES

- Eccentric construction
- Left or right side suction and discharge connections
- Left or right handed keyed shaft extension
- Pressure lubricated power end (via engine driven oil pump - not supplied)
- Bronze rod and eccentric bearings
- Fluid end, cast iron nodular iron
- Solid connecting rods
- Stainless steel, abrasion resistant, wing-guided valves
- Piston and liner construction
- Clamp style connections between
- Piston rod and crosshead extensions
- Chrome liners in 4, 4.5, 5, and 5.5 inch sizes
- Rod wash spray bar and baffles

### OPTIONAL FEATURES

- Splined drive shaft: O.D. 3.833", Class 5 fit, 6/12 pitch, 22 teeth
- Flange for gear reducer
- Ceramic sleeved liners

### SUCTION FLANGE SIZE 6" • DISCHARGE FLANGE SIZE 3"

Dimensions: Length 36.50", Width 38.75", Height 17.375"