

NITROGEN PUMPER (180000 SCFH)

Hydra Rig high-pressure nitrogen pumps are specifically designed to deliver high flow rates at high pressure while providing exceptional low flow rate turndown. These pumps utilize tapered roller bearings and a pressure feed lubrication system for positive lubrication, insuring increased pump life over conventional pumps.

Hydra Rig high pressure nitrogen pumps consist of three components, the power end, cold ends and gearbox. These can be customized to fit your nitrogen pumping requirements.

Special features are:

- Greater range of flow
- Cold end suppression system for greater turndown ratio
- Easy maintenance
- Continuous or intermittent duty
- Will operate at up to 200 input horsepower
- Rapid cool-down
- Rugged construction
- Balanced design for smooth operation at high and low speeds



NITROGEN PUMP

Specifications – Nitrogen System

Working Pressure:	15,000 psi with 1 1/4" Cold Ends 10,000 psi with 1 5/8" Cold Ends
Hydrostatic Test:	22,500 psi (1,551 bars)
Flow Rates (Maximum):	180,000 scfh
Ambient Temperature Operation (Minimum):	-20°F (-29°C)
Ambient Temperature Operation (Maximum):	120°F (49°C)
Liquid Nitrogen Pump:	Hydra Rig 200
Cold End Bore :	1.625 in. (4.128 cm)
Stroke:	1.38 in. (3.505cm)
Maximum Speed:	1,050 rev/min
Vaporizer Pot:	Hydra Rig Maxey
Capacity:	3,000 scfm
Boost Pump:	100 gal/min
Coolant:	120 gal/min

General Specifications

Weights	
Nitrogen Unit (full water and oil)	19,500 lb 8,845 kg
Dimensions	
Height	107 in. / 272 cm
Length	156 in. / 396 cm
Width	96 in. / 244 cm
Engine (Caterpillar 3406C)	
Speed	2,100 rev/min
Horse Power	550
Controls	
Engine Throttle	Air
Fuel Kill/Ignition	Air
Emergency Engine Kill	Air
Engine Fluid	
Oil	
SAE Viscosity Grade	SAE 15W40
API Classification	CH-4, CG-4, CF-4, CF, SJ, SH
Military Specification	Exceeds MIL-L-2104D
Sulfated Ash	1.3 percent
Fuel	
Fuel must meet properties of ASTM designation D975 of both grades 1-D and 2-D.	
Hydraulic Pumps	
Nitrogen Pump Hydrostat	100 gal/min / 5,500 psi
Heat Builder	90 gal/min / 5,000 psi
Coolant Hydraulic Pump	15 gal/min / 2,500 psi
Boost Hydraulic Pump	10 gal/min / 2,500 psi
Capacities	
Fuel Tank	100 gal (379 L)
Vaporizer Coolant System	50 gal (180 L)
Hydraulic Oil	50 gal (152 L)
Vaporizer	180,000 scfh
Triplex Lube System	10 gal (37.9 L)