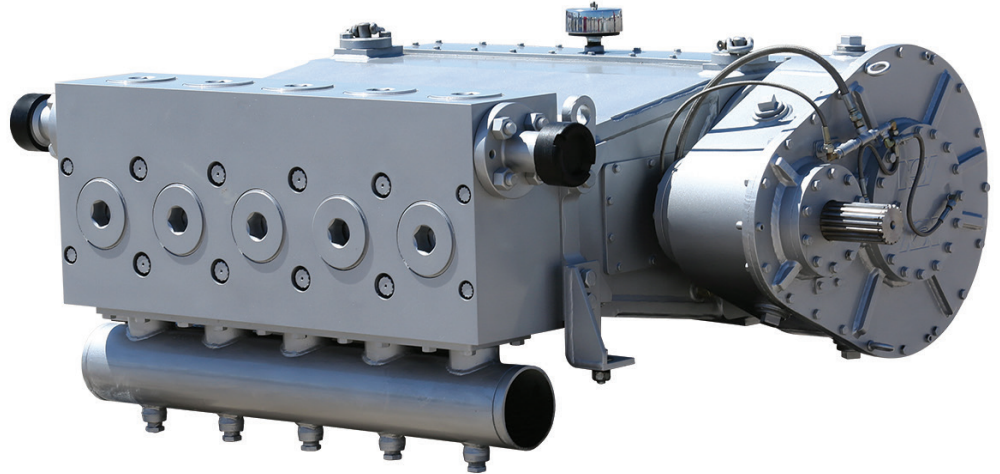


WS-1000-S Quintuplex Well Service Pump



Our MISSION™ well servicing pumps reduce downtime and cost by providing the highest customer support, quality, and easy-to-maintain products in the oil and gas industry. We provide a full range of expendables and quality replacement fluid ends for popular industry well service pumps, as well as our durable pump models.

Combining a small footprint, ability to be mounted in a back to back configuration, 1,000-input horsepower and a total weight of 7,250 lb, the WS-1000-S is suitable to a wide range of applications. Featuring a 100,000-lb rod load, the WS-1000-S quintuplex pump provides durability unmatched by other pumps possessing the same horsepower and footprint.

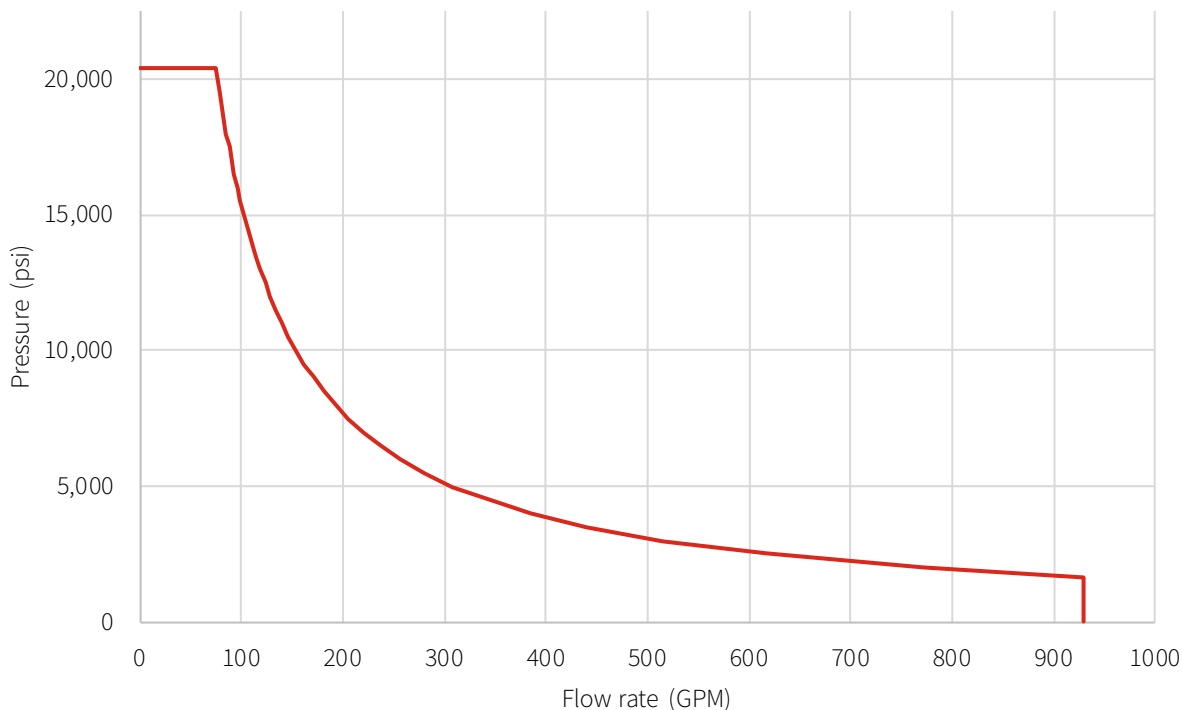
Applications

- Coiled-tubing support
- Cementing
- Well acidizing
- Gravel packing
- Snubbing operations

Features and benefits

- One-piece wiper seal for improved ingress protection
- Redesigned power frame with reinforced rib support for rigidity
- Enhanced gear set
- Precise fluid end to power end alignment made easy
- Robust one-piece fluid cylinder with integral inserts
- Intelligent gland nut design to reduce stress failures in high pressure applications
- Longer-lasting, anti-rotation wrist pin to lock orientation ensuring high stress areas remain out of the load path
- Spring-loaded splash guard for increased wiper seal life

WS-1000-S Hydraulic Horsepower



NOTE: Volumetric rate is based on 100% volumetric efficiency. Brake horsepower/kilowatts required are based on 90% mechanical efficiency. These ratings are for intermittent service. Pressure up to those shown may be utilized for a period not to exceed a total of 8 hours in 24 hours.

WS-1000-S Plunger Pump Specifications: 6-in. Stroke

Plunger diameter in. (mm)	Displacement per revolution GPR (LPR)	Displacement at pump									
		50 RPM		100 RPM		200 RPM		300 RPM		400 RPM	
		GPM (LPM)	psi (kPa)	GPM (LPM)	psi (kPa)	GPM (LPM)	psi (kPa)	GPM (LPM)	psi (kPa)	GPM (LPM)	psi (kPa)
4.50 (114.30)	2.065 (7.817)	103 (390)	6,288 (43,354)	207 (784)	6,288 (43,354)	413 (1,563)	3,735 (25,752)	620 (2,347)	2,488 (17,154)	929 (3,517)	1,660 (11,445)
4.00 (101.60)	1.632 (6.178)	82 (310)	7,958 (54,689)	163 (617)	7,958 (54,689)	326 (1,234)	4,732 (32,626)	490 (1,855)	3,148 (21,705)	734 (2,778)	2,102 (14,493)
3.50 (88.90)	1.249 (4.728)	62 (235)	10,394 (71,664)	125 (473)	10,394 (71,664)	250 (946)	6,170 (42,541)	375 (1,420)	4,114 (28,365)	562 (2,127)	2,745 (18,296)
3.00 (76.20)	0.918 (3.475)	46 (174)	14,147 (97,540)	92 (348)	14,147 (97,540)	184 (697)	8,384 (57,806)	275 (1,041)	5,609 (38,673)	413 (1,563)	3,735 (25,752)
2.75 (69.85)	0.771 (2.919)	39 (148)	16,836 (116,080)	77 (291)	16,836 (116,080)	154 (583)	10,017 (69,065)	231 (874)	6,678 (46,043)	347 (1,314)	4,446 (30,654)
2.50 (63.50)	0.637 (2.411)	32 (121)	20,372 (140,460)	64 (242)	20,372 (140,460)	127 (481)	12,146 (83,744)	191 (723)	8,076 (55,682)	287 (1,086)	5,375 (37,059)
Brake required: HP (kW)		421 (314)		842 (628)		1,000 (746)		1,000 (746)		1,000 (746)	
Pinion shaft speed		231		461		922		1,383		2,075	