Pump and Fluid Systems



W200 Triplex Power Pump

Weatherford's W200 triplex power pumps are offered with fluid cylinders of nickel-aluminum bronze, forged carbon steel or duplex stainless steel. A variety of packing and valve arrangements are available to meet the requirements of any application. The critical components of the power end—crankshaft, connecting rods, crossheads and bearings—are comparatively larger than industry-standard components enabling them to withstand continuous-duty service and harsh operating conditions.



Applications

- Amine-gas sweetening
- Chemical injection
- Crude transfer
- Fracturing-fluid recovery
- Glycol-gas dehydration
- Horizontal directional drilling
- Hot-oil truck injection

- Hydrostatic testing
- Light-hydrocarbon transportation
- Methanol injection
- Municipal jetting
- Oil production
- Polymer flood
- Produced-water disposal

- · Pulp and paper
- Reverse osmosis
- Secondary recovery
- Steam-boiler feed
- Steel mill descaling
- Water injection

Specifications

Rated power	200 HP
Stroke length (in./mm)	5.0 127.0
API-674 speed	310 rpm
Maximum speed	400 rpm
Minimum speed	100 rpm
Rated rod load (lb/kg)	11,870 <i>5,384</i>
Weight (lb/kg)	4,486 2,035
Oil capacity (gal/L)	8.0 30.3
Mechanical efficiency	90%



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Performance Ratings

Plunger	Displacement (gal/rev)	Rated Pressure (psi/ <i>mPa</i>)	Cylinder Rating	Rated Capacity (gal/min <i>b/d</i>)					
Size (in.)				100 rpm	200 rpm	250 rpm	310 rpm (API-674)	350 rpm	400 rpm
1 250	0.0797	5,000		8.0	15.9	19.9	24.7	27.9	31.9
	0.0707	34.5		273	546	683	847	956	1,093
1.375	0.0964	34.5		321	19.5 661	24.1 826	29.9	33.7 1 157	30.0
1.500	0.1147	5.000		11.5	22.9	28.7	35.6	40.2	45.9
		34.5	H	393	787	984	1,220	1.377	1,574
1.625 0.	0 1347	5,000		13.5	26.9	33.7	41.7	47.1	53.9
	0.1047	34.5		462	923	1,154	1,431	1,616	1,847
1.7500.11.8750.1	0.1562	4,930		15.6	31.2	39.0	48.4	54.7	62.5
		<u> </u>		<u> </u>	35.9	44.8	55.6	62.8	<u>2,142</u> 71.7
	0.1793	29.6		615	1 229	1.537	1 906	2 152	2 4 5 9
0.000	0.0040	3,780		20.4	40.8	51.0	63.2	71.4	81.6
2.000	0.2040	26.1		699	1,399	1,749	2,168	2,448	2,798
2 000	0 2040	3,780	 	20.4	40.8	51.0	63.2	71.4	81.6
	0.2010	26.1		699	1,399	1,749	2,168	2,448	2,798
2.125	0.2303	3,350		23.0	40.1	57.0	71.4	80.0	92.1
2.250	0.2582	2 990		25.8	51.6	64.5	2,440	90.4	103.3
		20.6		885	1 770	2 213	2 744	3 098	3 541
0.075	0.0077	2,680		28.8	57.5	71.9	89.2	100.7	115.1
2.375	0.2077	18.5		986	1,973	2,466	3,058	3,452	3,945
2.500	0.3187	2,420		31.9	63.7	79.7	98.8	111.6	127.5
		<u>16.7</u>		1.093	2,186	2,732	3,388	3,825	4,371
2.625	0.3514	2,190		1 205	70.5	2 01.9	2 725	123.0	140.0
		2.000		38.6	77.1	96.4	119.6	135.0	154.3
2.750	0.3857	13.8		1.322	2.645	3.306	4.099	4.628	5.289
2 750	0.2957	2,000	L	38.6	77.1	96.4	119.6	135.0	154.3
2.750	0.3057	13.8		1,322	2,645	3,306	4,099	4,628	5,289
3 000	0.4590	1,680		45.9	91.8	114.7	142.3	160.6	183.6
3.250	0.5387	11.6		<u>1,574</u>	3,147	3,934	4,879	5,508	6,295
		1,430		1 947	2 604	1.54.7	5 725	6 464	7 299
3.500	0.6247	1.230		62.5	124.9	156.2	193.7	218.7	249.9
		8.5		2,142	4,284	5,355	6.640	7,497	8,568
3.750	0.7172	1,070		71.7	143.4	179.3	222.3	251.0	286.9
		7.4		2,459	4,918	6,147	7,623	8,606	9,836
4.000	0.8160	940		81.6	163.2	204.0	253.0	285.6	326.4
	1	0.5		2.798	5,595	0.994	0.0/3	9.792	11,191

General Notes

1. Capacities shown are based on 100% volumetric efficiency. Actual capacities are lower, based on discharge pressure and fluid compressibility.

2. Operating power required by the pump is calculated by the formula: HP = (psi × gal/min) / 1,543, where psi is the actual operating pressure in psi units, and gal/min is the actual pumping capacity.

API-674 and NACE-compliant designs are available upon request. Contact a Weatherford representative for specific details and exceptions to these standards.
Standard plunger sizes are shown, however, other sizes are available upon request. Contact a Weatherford representative for performance and pressure ratings.

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Contact a Weatherford representative for assistance with pump selection on applications where actual operating inlet pressures are greater than 10% of the rated discharge pressure of the selected pump model.

For operation below 100 rpm, an auxiliary power end lubrication system is required.

Spherical valves are required for plungers above 3.75 in.

Technical Support

pumps@weatherford.com weatherford.com/pumps +1-281-252-7867

weatherford.com

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