

W80 Triplex Power Pump

Weatherford's W80 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

8437.00

Water injection

Specifications

Rated power	80 HP
Stroke length (in./mm)	3.0 76.2
API-674 speed	400 rpm
Maximum speed	500 rpm
Minimum speed	200 rpm
Rated rod load (lb/kg)	6,336 2,874
Weight (lb/kg)	1,195 <i>542</i>
Oil capacity (gal/L)	2.0 7.6
Mechanical efficiency	90%



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Performance Ratings

Plunger Size (in.)	Displacement (gal/rev)	Rated Pressure (psi/mPa) Cyline Ratii	Culindon	Rated Capacity (gal/min, b/d)					
			Rating	200 rpm	300 rpm	350 rpm	400 rpm (API-674)	450 rpm	500 rpm
1.250	0.0478	5,000 34.5	Н	9.6 328	14.3 <i>4</i> 92	16.7 <i>574</i>	19.1 <i>656</i>	21.5 738	23.9 820
1.375	0.0579	4,270 29.4		11.6 397	17.4 595	20.2 694	23.1 793	26.0 893	28.9 992
1.375	0.0579	4,270 29.4	М	11.6 397	17.4 <i>5</i> 95	20.2 694	23.1 793	26.0 893	28.9 992
1.500	0.0688	3,590 24.8		13.8 <i>4</i> 72	20.7 708	24.1 826	27.5 944	31.0 1,062	34.4 1,180
1.625	0.0808	3,060 21.1		16.2 <i>554</i>	24.2 831	28.3 970	32.3 1,108	36.4 1,247	40.4 1,385
1.750	0.0937	2,630 18.1		18.7 <i>643</i>	28.1 964	32.8 1,125	37.5 1,285	42.2 1,446	46.9 1,606
2.000	0.1224	2,020 13.9		24.5 839	36.7 1,259	42.8 1,469	49.0 1,679	55.1 1,888	61.2 2,098
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2.250	0.1549	1,590 <i>11.0</i>		31.0 1,062	46.5 1,593	54.2 1,859	62.0 2,125	69.7 2,390	77.5 2,656
2.500	0.1912	1,290 8.9		38.2 1,311	57.4 1,967	66.9 2,295	76.5 2,623	86.1 2,951	95.6 3,279
2.750	0.2314	1,070 7.4		46.3 1,587	69.4 2,380	81.0 2,777	92.6 3,174	104.1 3,570	115.7 3,967
3.000	0.2754	900 6.2		55.1 1,888	82.6 2,833	96.4 3,305	110.2 3,777	123.9 <i>4</i> ,249	137.7 4,721
3.250	0.3232	760 5.2		64.6 2,216	97.0 3,324	113.1 3,879	129.3 <i>4,4</i> 33	145.4 <i>4</i> ,987	161.6 <i>5,541</i>
3.375	0.3486	710 <i>4.</i> 9		69.7 2,390	104.6 3,585	122.0 <i>4,183</i>	139.4 <i>4,780</i>	156.8 5,378	174.3 5,975

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.
- 3. 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.
 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.
- 6. For operation below 200 rpm, an auxiliary power end lubrication system is required.
- Spherical valves are required for plungers above 3.00 in.

Technical Support

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