

EQ-2200 Quintuplex Mud Pump

It's good to have a choice.

Weatherford's Ellis Williams EQ-2200 pump represents the next step in mud-pump evolution. Lightweight, compact EQ-2200 pumps are designed around a unique five cylinder, quintuplex frame that offers several advantages over industry standard conventional triplex pumps. Designed to meet demanding drilling program requirements, EQ-2200 pumps achieve significantly higher flow rates than triplex pumps and deliver them with smooth, low-pulsation performance characteristic of the quintuplex design. Best of all, EQ-2200 pumps offer conventional triplex pump durability and are just as easy for maintenance crews to service and maintain.

All of the above makes the EQ-2200 pump the ideal choice for today's offshore drilling environments.

Features, Advantages and Benefits

- Increased performance envelope for higher flow rates
- Reduced pump operating pulse (fluid-flow variation) results in smoother operation and reduced vibration downstream
- · Compact footprint uses less deck space
- Four main bearing design compared to two main bearings in triplex designs for reduced bearing loads
- Conventional design ensures durability and keeps maintenance procedures simple and straightforward



Mud-Pump Comparisons

Constitution	Mud Pump		
Specification	EQ-2200	14P-220	
Rated power (hp)	2,200	2,200	
Maximum rated pressure (psi)	7,500	7,500	
Stroke length (in., cm)	12 30.48	14 35.56	
Maximum flow rate (gpm, <i>lpm</i>)	1,549 5,863	960¹ 3,634	
Maximum flow rate at 7,500 psi (gpm, <i>lpm</i>)	441 1,669	375 1,415	
Total flow variation	7%	23%	
Smallest rated liner, working pressure 7,500 psi, and liner weight (lb, <i>kg</i>)	230 104	320 145	
Footprint (sq ft, sq m)	189 17.6	209.6 19.5	
Bare pump weight (lb, kg)	67,500 30,617	86,000 39,000	
Pump package volume ² —Type 141M (cu ft, <i>cu m</i>)	2,889 82	3,011 79	
Package weight ² —Type 141M (lb, kg)	100,625 <i>40,460</i>	115,273 52,287	
Pump package volume ³ —Type 101M (cu ft, <i>cu m</i>)	2,150 60.88	N/A	
Pump package weight³—Type 101M (lb, kg)	89,060 <i>42,438</i>	N/A	

¹Maximum liner size is 8-in. for 960 gpm rating. A 1215 gpm flow rate can be achieved with a proprietary 9-in. liner retention accessory.

²Type 141M package—approximate based on typical designs using dual, top mounted AC motors, v-belt drive, in an offshore package configuration.

³Type 101M package—offshore package configuration includes EQ-2200 on master skid, permanent magnet motors, pressure relief valve, liner wash and externally mounted lube pump.

Specifications

Performance Ratings

		<u> </u>						
EQ-2200		Pump speed (spm)	135	130	120	110	100	90
		Input power (HP, kW)*	2,239 1,671	2,156 <i>1,60</i> 9	1,991 <i>1,485</i>	1,825 <i>1,361</i>	1,659 1,237	1,493 1,114
Piston size (in.)	Rated pressure (psi, MPa)	Displacement (gal/rev)	Output (gal/min, <i>bbl/min</i>)					
7.50	2,230 15.4	11.475	1,549 36.9	1,492 <i>35.5</i>	1,377 32.8	1,262 <i>30.1</i>	1,147 27.3	1,033 <i>24.6</i>
6.50	2,975 20.5	8.619	1,164 27.7	1,120 26.7	1,034 <i>24.6</i>	948 22.6	862 20.5	776 18.5
6.00	3,475 24.0	7.344	991 23.6	955 22.7	881 21.0	808 19.2	734 17.5	661 <i>15.7</i>
5.50	4,125 28.4	6.171	833 19.8	802 19.1	741 17.6	679 16.2	617 <i>14.7</i>	555 13.2
5.00	5,000 <i>34.5</i>	5.100	688 16.4	663 15.8	612 <i>14.6</i>	561 <i>13.4</i>	510 <i>12.1</i>	459 10.9
4.50	6,150 <i>42.4</i>	4.131	558 13.3	537 12.8	496 11.8	454 10.8	413 9.8	372 8.9
4.00	7,500 <i>51.7</i>	3.264	441 10.5	424 10.1	392 9.3	359 <i>8.5</i>	326 7.8	294 7.0

^{*} Input power required assumes 90% mechanical efficiency.

