Q300 Quintuplex Power Pump

Q300 Quintuplex 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	300 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*)	10,700 *4,853*
Weight (lb/*kg*)	H: 6840 *(3,103)* M: 6750 *(3,062)* L: 7000 *(3,175)*
Oil capacity (gal/*L*)	12.0 *46.0*
Mechanical efficiency	90%

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Performance Ratings

Plunger Size (in.)	Displacement (gal/rev)	Rated Pressure (psi/*mPa*)	Cylinder Rating	Rated Capacity (gal/min, *b/d*)					
				100 rpm	200 rpm	250 rpm	310 rpm (API-674)	350 rpm	400 rpm
1.500	0.1912	5,000 *34.5*	H	19.1 *656*	38.2 *1,311*	47.8 *1,639*	59.3 *2,033*	66.9 *2,295*	76.5 *2,623*
1.625	0.2245	5,000 *34.5*		22.4 *770*	44.9 *1,539*	56.1 *1,924*	69.6 *2,386*	78.6 *2,693*	89.8 *3,078*
1.750	0.2603	4,450 *30.7*		26.0 892	52.1 1,785	65.1 2,231	80.7 2,767	91.1 3,124	104.1 3,570
1.875	0.2988	3,880 *26.8*		29.9 *1,025*	59.8 *2,049*	74.7 *2,561*	92.6 *3,176*	104.6 *3,586*	119.5 *4,098*
2.000	0.3400	3,410 *23.5*		34.0 *1,166*	68.0 *2,331*	85.0 *2,914*	105.4 *3,614*	119.0 *4,080*	136.0 *4,663*
2.000	0.3400	3,000 *20.7*	M	34.0 *1,166*	68.0 *2,331*	85.0 *2,914*	105.4 *3,614*	119.0 *4,080*	136.0 *4,663*
2.125	0.3838	3,000 *20.7*		38.4 *1,316*	76.8 *2,632*	96.0 *3,290*	119.0 *4,080*	134.3 *4,606*	153.5 *5,264*
2.250	0.4303	2,690 *18.5*		43.0 1,475	86.1 2,951	107.6 3,688	133.4 4,574	150.6 5,164	172.1 5,901
2.375	0.4795	2,420 *16.7*		47.9 *1,644*	95.9 *3,288*	119.9 *4,110*	148.6 *5,096*	167.8 *5,753*	191.8 *6,575*
2.500	0.5312	2,180 *15.0*		53.1 *1,821*	106.2 *3,643*	132.8 *4,554*	164.7 *5,646*	185.9 *6,375*	212.5 *7,286*
2.750	0.6428	*1,800* *12.4*		64.3 *2,204*	128.6 *4,408*	160.7 *5,510*	199.3 *6,832*	225.0 *7,714*	257.1 *8,816*
2.750	0.6428	1,800 *12.4*	L	64.3 *2,204*	128.6 *4,408*	160.7 *5,510*	199.3 *6,832*	225.0 *7,714*	257.1 *8,816*
3.000	0.7650	1,510 *10.4*		76.5 *2,623*	153.0 *5,246*	191.2 *6,557*	237.1 *8,131*	267.7 *9,180*	306.0 *10,491*
3.250	0.8978	1,290 *8.9*		89.8 *3,078*	179.6 *6,156*	224.5 *7,696*	278.3 *9,542*	314.2 *10,774*	359.1 *12,313*
3.500	1.0412	1,110 *7.7*		104.1 *3,570*	208.2 *7,140*	260.3 *8,925*	322.8 *11,067*	364.4 *12,495*	416.5 *14,280*
3.750	1.1953	970 *6.7*		119.5 *4,098*	239.1 *8,196*	298.8 *10,246*	370.5 *12,704*	418.4 *14,344*	478.1 *16,393*
4.000	1.3600	850 *5.9*		136.0 *4,663*	272.0 *9,326*	340.0 *11,657*	421.6 *14,455*	476.0 *16,320*	544.0 *18,651*

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 Yalong representative for specific details and exceptions to these standards.
4. Standard plunger sizes are shown, however, other sizes are available upon request. Contact a Yalong representative for performance and pressure ratings.
5. Contact a Yalong 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.

Technical Support

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