JR3500HD Excalibur™ PUMP
Built to endure and perform

Facing the challenge of higher efficiency requirements on operation, equipment maintenance and cost of current 24/7 continuous frac job, the demand for a durable, versatile, and long-lasting pump has never been greater.

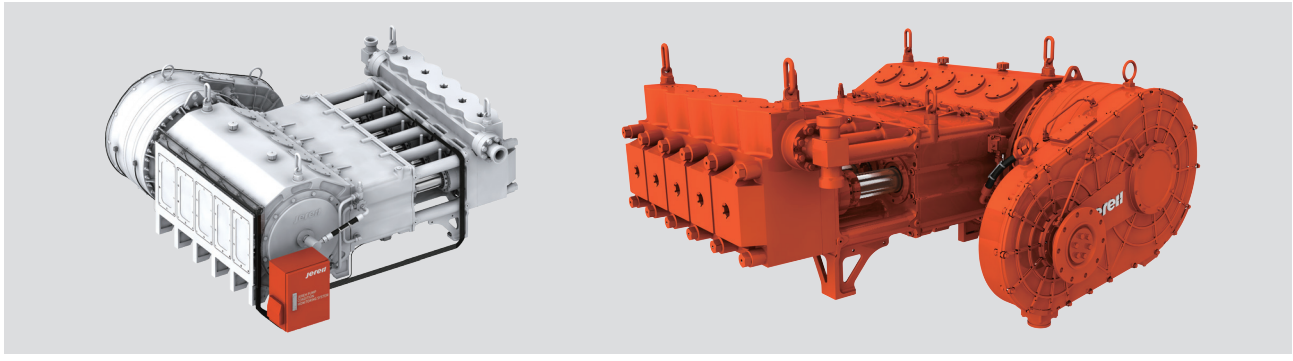
Jereh is proud to introduce the Excalibur™ Pump, designed to address these industry challenges and deliver exceptional performance through extended lifespan, less maintenance and strong compatibility.

This specially designed pump allows 3,150 bhp input at continuous duty. Its unique modularly casted design eliminates the risk of crack failure, a common failure point in conventional welded pump. This innovative design significantly extends the pump's lifespan, reducing downtime and maintenance costs. The re-engineered integral herringbone planetary gearbox delivers smooth and even power transmission, minimizing wear and tear, and reducing the frequency of repairs. The maintenance cycle for power end is twice that of conventional pump.

The platform-based design of the 3500HD accommodates both diesel and electric drive applications, reducing the need for spare parts inventory and lowering overall TCO.

Features & Benefits

- Fully-casted power end casing eliminates the risk of crack, delivering a longer life of more than 15,000 hours.
- The strength of casted gearbox casing improved by 50%, with casing life>15,000 hours. Integrally-forged herringbone gears allow a 200% reduction in vibration, with gear life>10,000 hours, and gearbox life>10,000 hours.
- Longer maintenance cycle (6,000 hours) delivers a 50% reduction in cost compared to conventional maintenance.
- 10" Long stroke length reduces the wear rate of fluid end consumables by 25% under the same working conditions.
- Re-designed lubrication line boosts a 35% reduction in lubrication resistance, ensuring optimal lubrication of critical components, minimizing failure rate and NPT.
- Optional JPCM helps monitor the pump's running state in real time, prevent unexpected failure and reduce the risk of catastrophic malfunctions.



Technical Specification

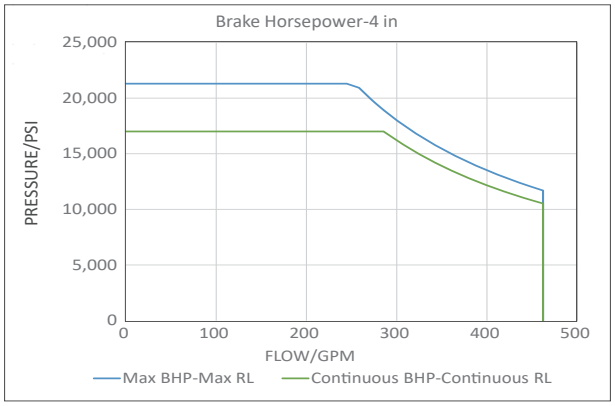
Maximum Input Power	3,500 bhp	Stroke	10"
Continuous Input Power	3,150 bhp	Maximum Rod Load	273,000 lbf
Maximum Speed	190 rpm	Continuous Rod Load	224,000 lbf
Gearbox Ratio	7.8:1	Designed Life of Power End	>15,000 h
Number of Plungers	5	Pump Weight	20,858 lbs

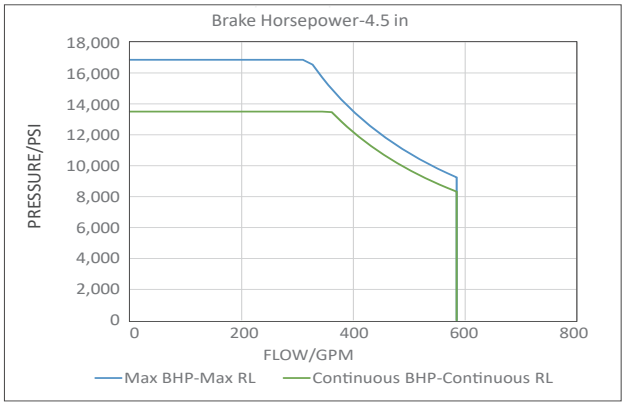
Performance Data

Plunger Diameter	Output	Displacement at Pump Strokes per Minute									
in (mm)	gal/rev (L/rev)	80		100		120		140		160	
		gpm (L/min)	psi (MPa)	gpm (L/min)	psi (MPa)	gpm (L/min)	psi (MPa)	gpm (L/min)	psi (MPa)	gpm (L/min)	psi (MPa)
4 101.6	2.72 10.3	217.5 823.7	21,300 146.9	271.8 1,029.6	19,881.8 137.1	326.2 1,235.6	16,568.2 114.3	380.6 1,441.5	14,201.3 97.9	434.9 1,647.4	12,426.2 85.7
4 1/2 114.3	3.44 13.03	275.2 1,042.5	16,850 116.2	344 1,303.1	15,709.1 108.3	412.8 1,563.7	13,090.9 90.3	481.6 1,824.4	11,220.8 77.4	550.4 2,085	9,818.2 67.7
Max Braking Power (BHP/KW)		2,999.7	2,238.6	3,500	2,611.9	3,500	2,611.9	3,500	2,611.9	3,500	2,611.9
Input Speed (RPM)		624		780		936		1,092		1,248	

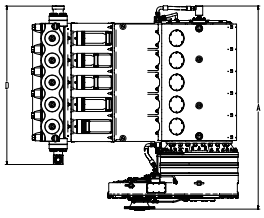
Note: Above data is based on 90% ME & 100% VE, it may vary depends on operation condition.

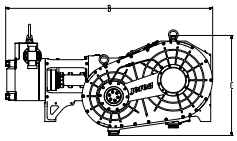
Performance Curve





Dimensions





Stroke	A	B	C	D
10"	92.4"	93.8"	47.9"	71.8"

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