

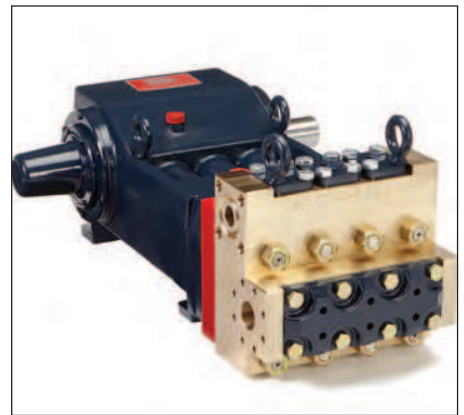
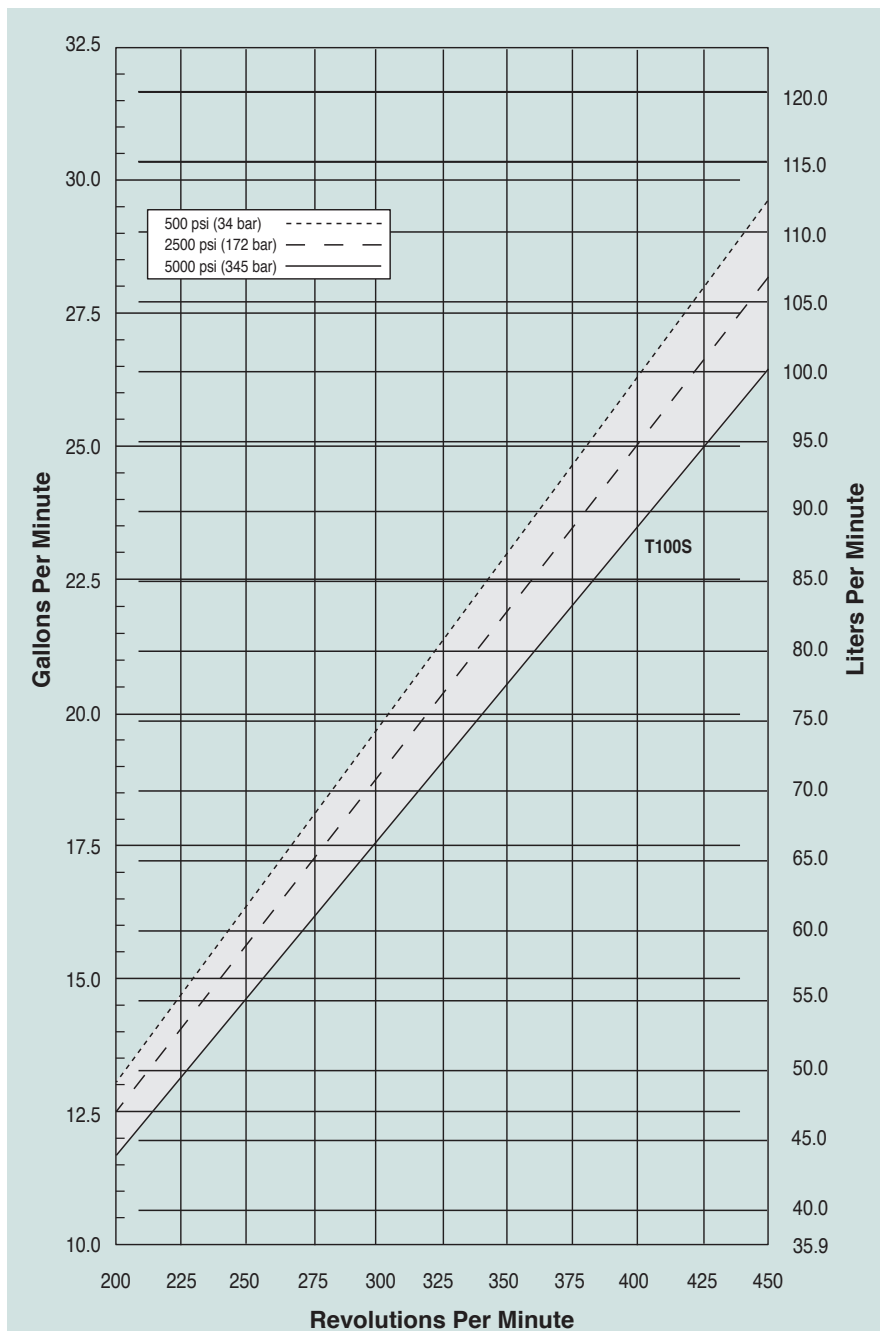
T100 Series High Pressure Performance

Capacities

Flow				Pressure	
Model	Max. Input rpm	Max. Flow @ 5000 psi (345 bar)		Maximum Inlet Pressure	Maximum Discharge Pressure
		gpm	l/min		
T100S	450	26.0	98.4	500 psi (34 bar)	5000 psi (345 bar)

Consult factory when operating below 12 gpm (45.4 l/min).

Maximum Flow at Designated Pressure



T100 high pressure model shown with Nickel Aluminum Bronze (NAB) manifold. (Also available with Stainless Steel manifold.)

T100 Series High Pressure Specifications

Flow Capacities @5000 psi (345 bar)

Model	rpm	gpm	l/min
T100S	450	26.0	98.4

Delivery

Pressure psi (bar)	gal/rev	liters/rev
500 (34)	0.066	0.249
2500 (172)	0.063	0.237
5000 (343)	0.059	0.222

rpm

Maximum:	450
Minimum:	200 (Consult factory for speeds less than 200 rpm)

Maximum Discharge Pressure

Metallic Heads:	5000 psi (345 bar)
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Maximum Inlet Pressure	500 psi (34 bar)
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Operating Temperature

Maximum:	180 °F (82.2 °C)
Minimum:	40 °F (4.4 °C)

Consult factory for temperatures outside this range

Maximum Solids Size	800 microns
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Input Shaft	Left or Right Side
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Inlet Ports	2 inch Class 300 FF ANSI Flange
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Discharge Ports	1-1/4 inch Class 2500 RTJ ANSI Flange
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Shaft Diameter	3 inch (76.2 mm)
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Shaft Rotation	Reverse (bi-directional)
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Oil Capacity	18 US quarts (17 liters) 10W30 standard-duty oil
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Weight

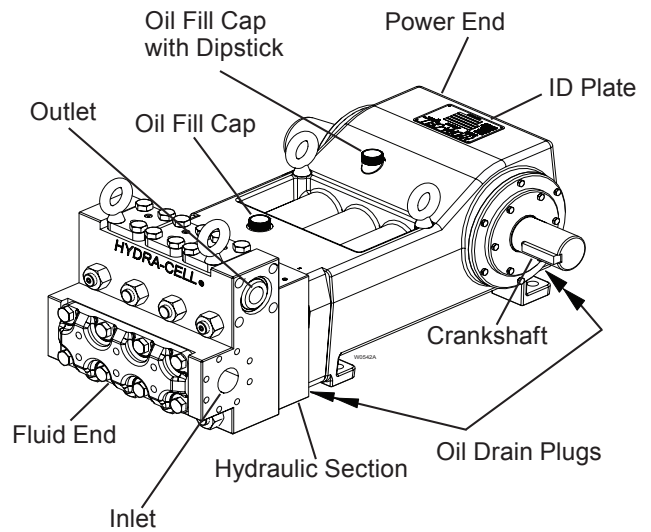
Metallic Heads:	1100 lbs. (499 kg)
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Fluid End Materials

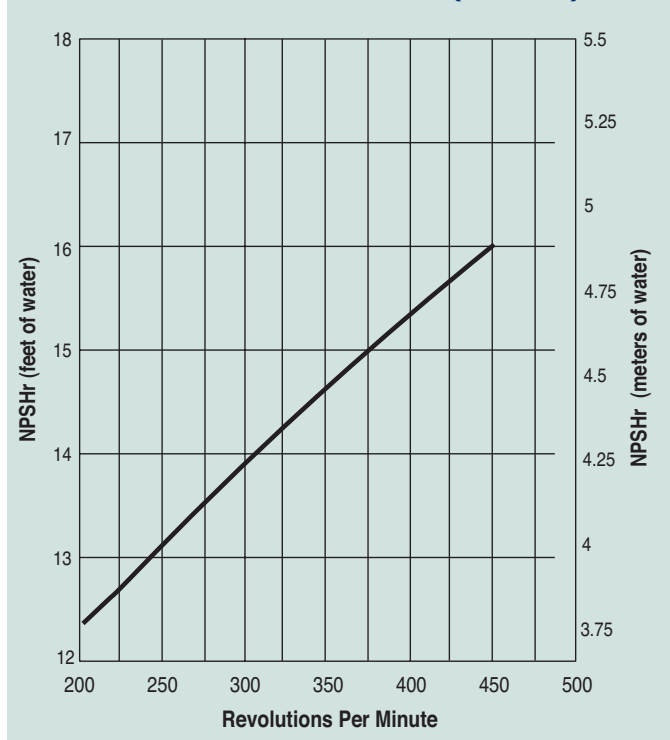
Manifold:	Nickel Aluminum Bronze (NAB) 316L Stainless Steel
Diaphragm/Elastomers:	FKM Buna-N
Diaphragm Follower Screw:	316 Stainless Steel
Valve Spring Retainer:	17-7 Stainless Steel PVDF Polypropylene 316 SST Hastelloy C
Check Valve Spring:	Elgiloy
Valve Disc/Seat:	Tungsten Carbide 17-4 Stainless Steel Hastelloy C
Outlet Valve Retainer:	316 Stainless Steel
Plug-Outlet Valve Port:	316 Stainless Steel
Inlet Valve Retainer:	316 Stainless Steel

Power End Materials

Crankshaft:	Forged Q&T Alloy Steel
Connecting Rods:	Ductile Iron
Crossheads:	12L14 Steel
Crankcase:	Ductile Iron
Bearings:	Spherical Roller/Journal (main) Steel Backed Babbitt (crankpin) Bronze (wristpin)



Net Positive Suction Head (NPSHr)



Calculating Required Horsepower (kW)*

$$\frac{\text{gpm} \times \text{psi}}{1,460} = \text{electric motor hp}^*$$

$$\frac{\text{lpm} \times \text{bar}}{511} = \text{electric motor kW}^*$$

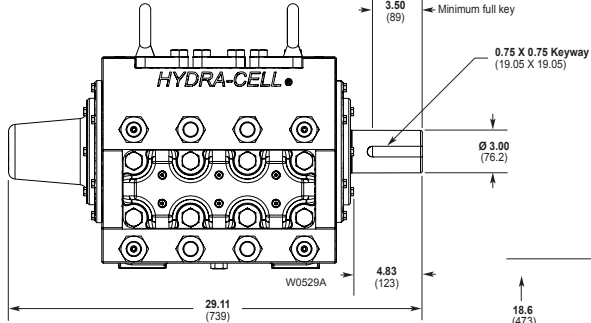
* hp (kW) is required application power.

Attention!

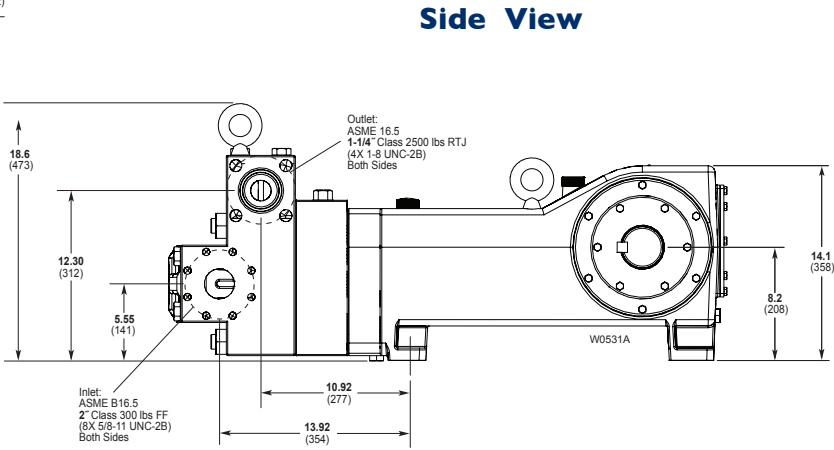
When sizing motors with variable speed drives (VFD): It is very important to select a motor and a VFD rated for constant torque inverter duty service and that the motor is rated to meet the torque requirements of the pump throughout desired speed range.

T100 Series High Pressure Representative Drawings

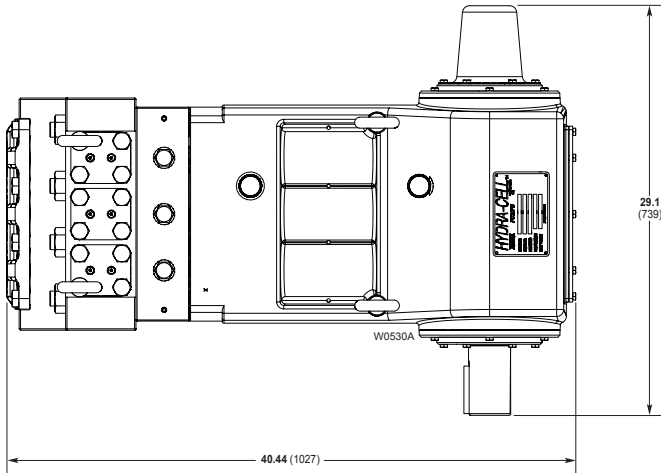
Threaded Version Inches (mm)



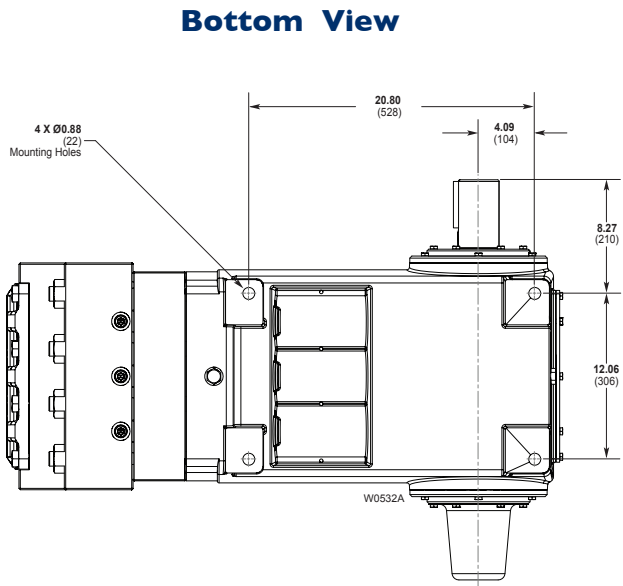
Front View



Side View



Top View



Bottom View

T100 Series High Pressure How to Order

Ordering Information

1 T	2 1	3 0	4 0	5	6	7	8	9	10	11	12	13
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A complete T100 Series High Pressure Model Number contains 13 digits including 9 customer-specified design and materials options, for example: T100SRDTHFEPA.

High Pressure

Digit	Order Code	Description
1-4	T100	Pump Configuration Shaft-driven
5	S	Performance Max 26 gpm (98.4 l/min) @ 5000 psi (345 bar)
6	R	Pump Head Version ANSI Flange Ports (FF on Inlet / RTJ on Discharge)
7	D S	Pump Head Material Nickel Aluminum Bronze (NAB) 316L Stainless Steel
8	G T	Diaphragm & O-ring Material FKM Buna-N
9	D H T	Valve Seat Material Tungsten Carbide* 17-4 Stainless Steel Hastelloy C
10	D F T	Valve Material Tungsten Carbide* 17-4 Stainless Steel Hastelloy C
11	E	Valve Springs Elgiloy
12	H M P S T	Valve Spring Retainers 17-7 Stainless Steel PVDF Polypropylene 316 SST Hastelloy C
13	A	Hydra-Oil 10W30 standard-duty oil

*Tungsten Carbide valve seat and disc are a matched set and must be purchased together.