

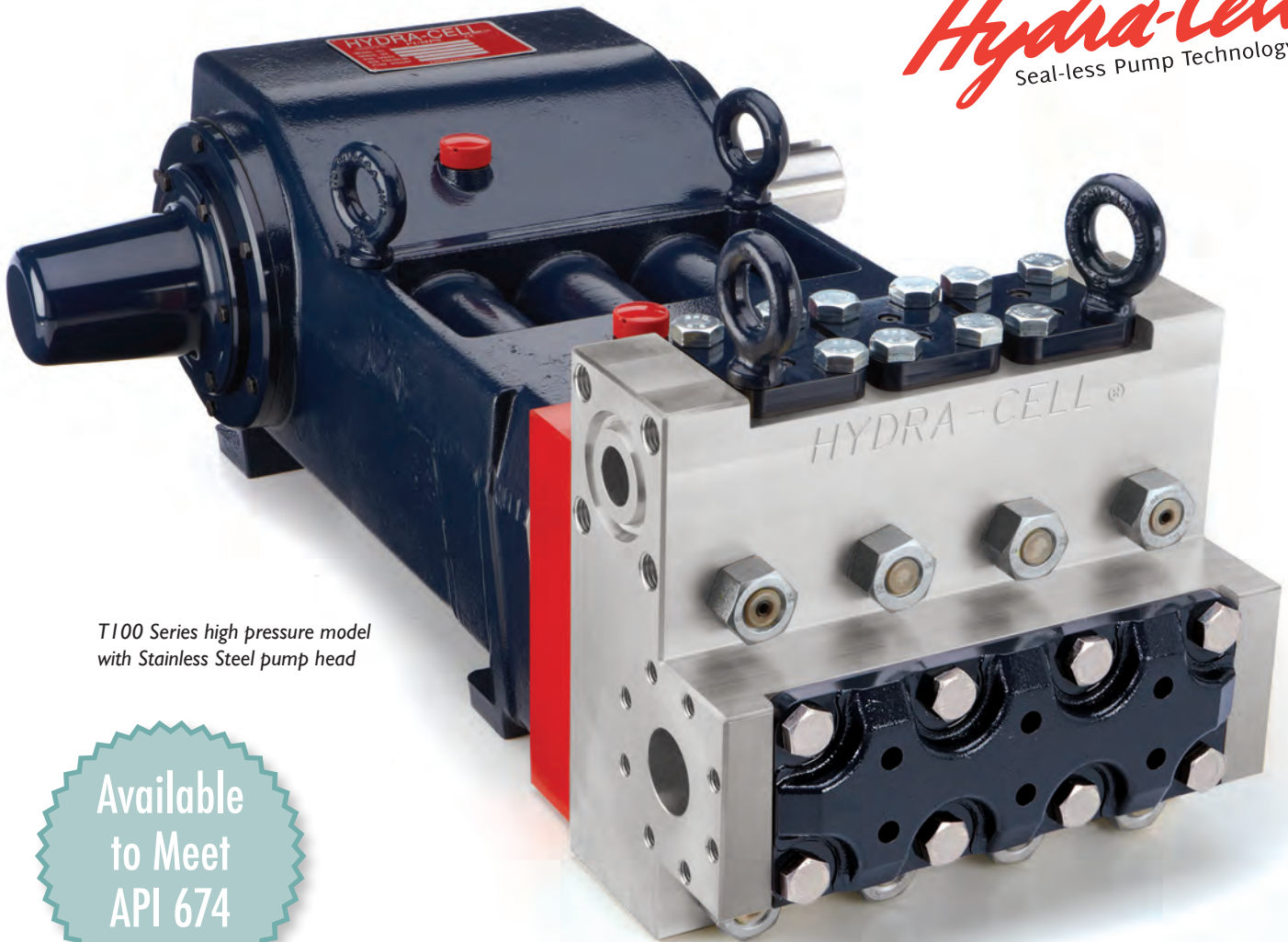
T100 Series High Pressure

Maximum Flow Rate: 98 l/min (26 gpm) 89l BPD
Maximum Pressure: 345 bar (5000 psi)

API 674



WANNER
Hydra-Cell[®]
Seal-less Pump Technology



*T100 Series high pressure model
with Stainless Steel pump head*

Available
to Meet
API 674

- Seal-less design eliminates leaks, hazards and the expense associated with seals and packing
- Low NPSH requirements allow for operation with a vacuum condition on the suction - positive suction pressure is not necessary
- Can operate with a closed or blocked suction line and run dry indefinitely without damage, eliminating downtime and repair costs
- Unique diaphragm design handles more abrasives with less wear than gear, screw or plunger pumps
- Hydraulically balanced diaphragms to handle high pressures with low stress
- Lower energy costs than centrifugal pumps
- Rugged construction for long life with minimal maintenance
- Compact design and double-ended shaft provide a variety of installation options
- Hydra-Cell T100 Series pumps can be configured to meet API 674 standards – consult factory for details

T100 Series High Pressure Performance

Capacities

Flow

Model	Max. Input rpm	Max. Flow			@ Pressure Rating	
		gpm	l/min	BPD	psi	bar
T100S	450	26.0	98.4	891	5000	345

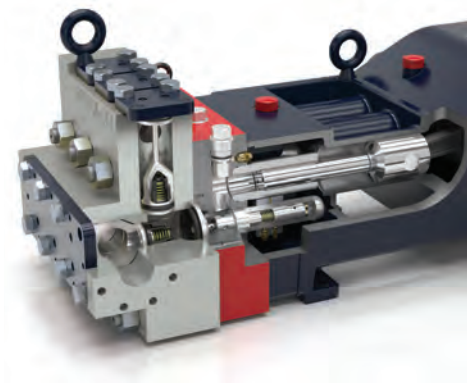
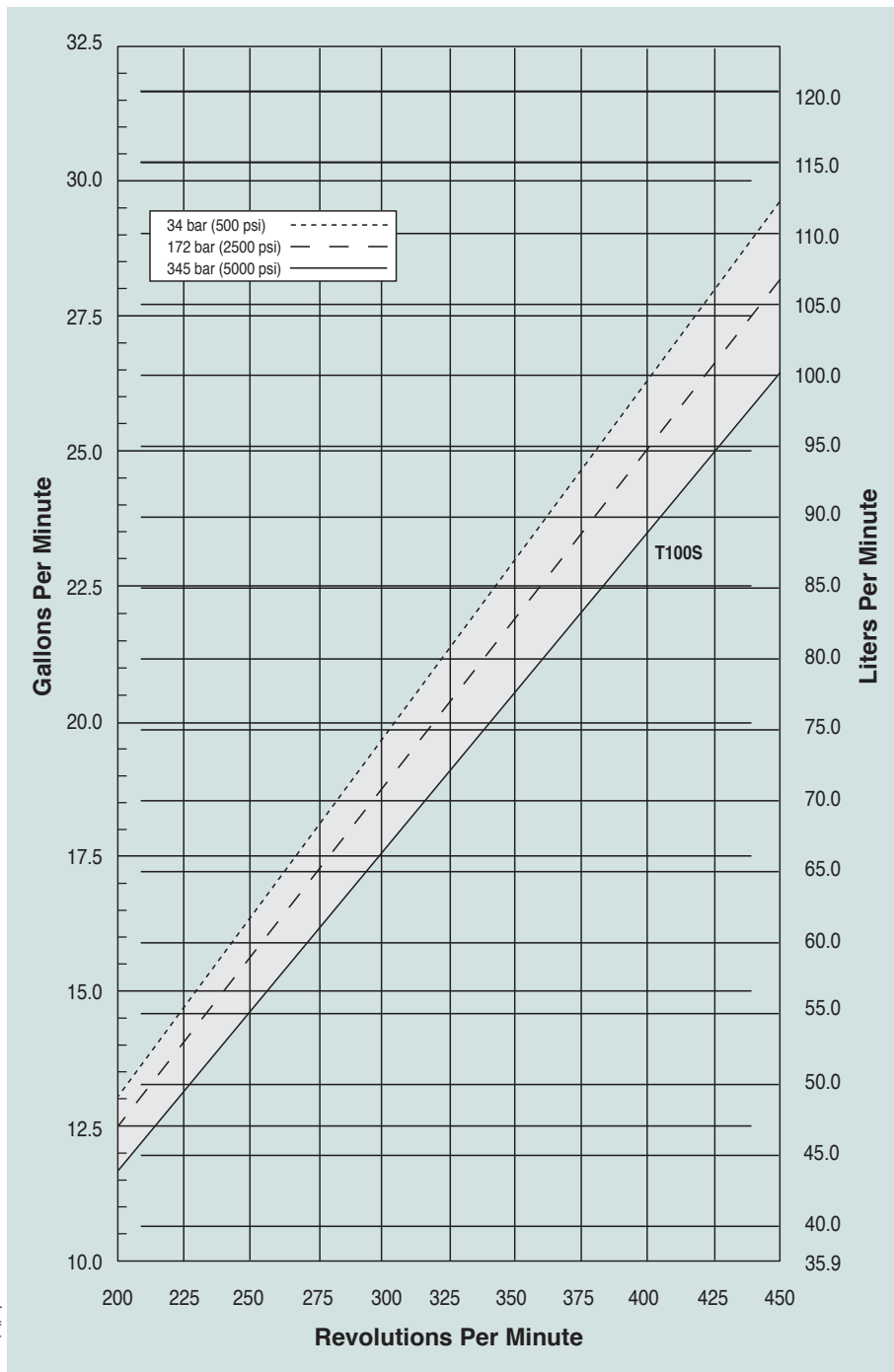
Consult factory when operating below 200 rpm.

Pressure

Maximum Inlet Pressure
34 bar (500 psi)

Maximum Discharge Pressure
345 bar (5000 psi)

Maximum Flow at Designated Pressure



T100 Series pumps feature the Hydra-Cell seal-less design, eliminating clean-up costs from leaking seals or packing and protecting operators from dangerous fluids such as those containing hydrogen sulfide.

Due to Wannan Engineering continuous improvement practices, performance data and specifications may change without notice.

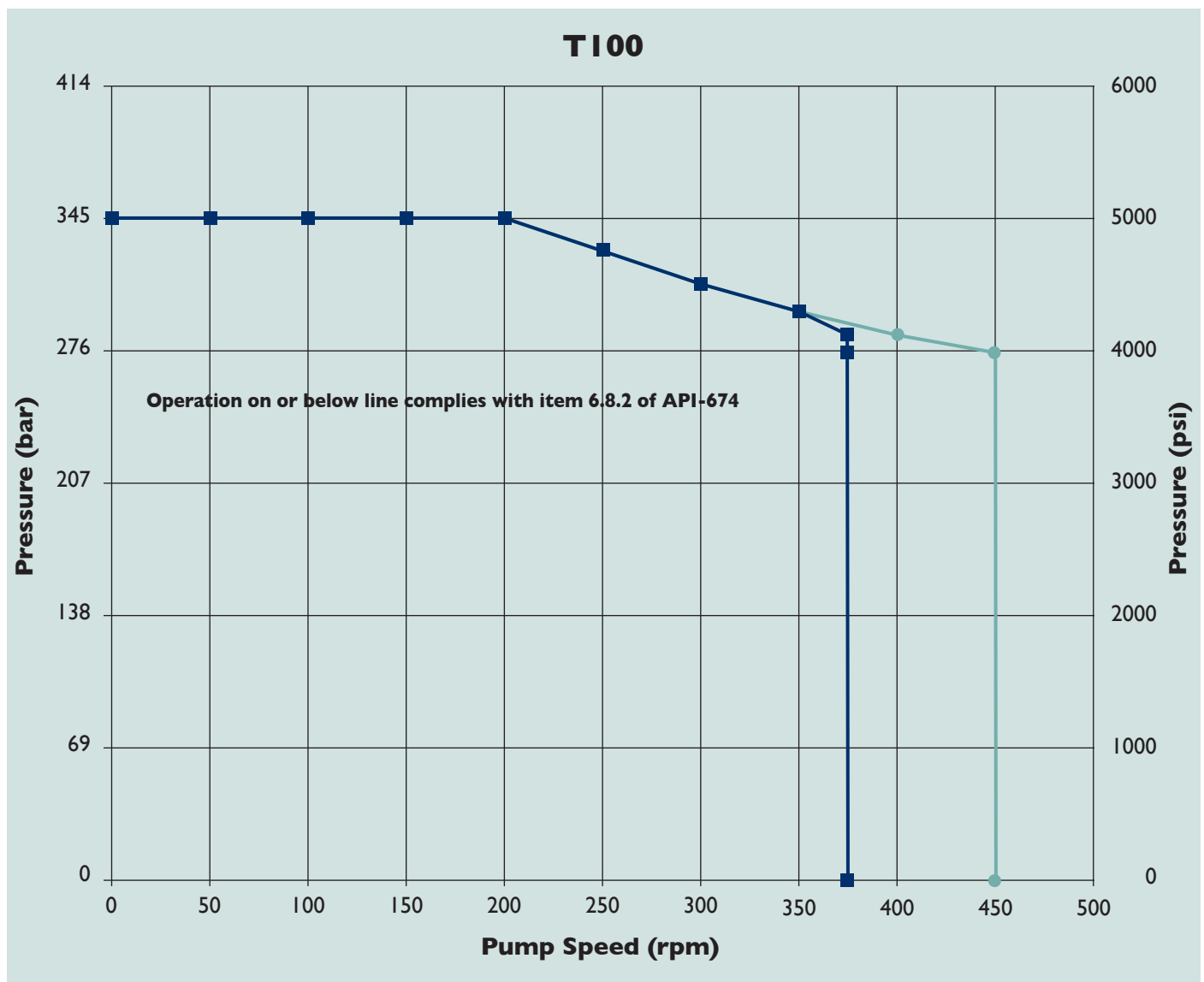
T100 Series High Pressure API 674 Performance

Capacities

Flow			Max. Flow @ 345 bar (5000 psi)			Pressure
Model	Max. Input rpm	Duty	gpm	l/min	BPD	
T100	450	Intermittent	26	98	891	Maximum Inlet Pressure 34 bar (500 psi)
	375	Continuous	22	83	754	Maximum Discharge Pressure 345 bar (5000 psi)

Consult factory when operating below 200 rpm.

Maximum RPM at Designated Pressure



—●— Intermittent duty 1.375" plunger
Defined as up to 24/7 365 days pa

—■— Continuous duty 1.375" plunger
Defined as 24/7 365 days pa

T100 Series High Pressure Specifications

Flow Capacities

Model	Pressure bar (psi)	rpm	gpm	l/min	BPD
T100S	345 (5000)	450	26	98	891

Delivery

Pressure bar (psi)	gal/rev	liters/rev
34 (500)	0.066	0.249
172 (2500)	0.063	0.237
345 (5000)	0.059	0.222

rpm

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

Maximum Discharge Pressure

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

Liquid Operating Temperature

Maximum:	82.2 °C (180 °F)
Minimum:	4.4 °C (40 °F)
Consult factory for temperatures outside this range	

Maximum Solids Size 800 microns

Input Shaft Left or Right Side

Inlet Ports 2 inch Class 300 FF ANSI Flange

Discharge Ports 1-1/4 inch Class 2500 RTJ ANSI Flange

Shaft Diameter 76.2 mm (3 inch)

Shaft Rotation Reverse (bi-directional)

Oil Capacity 19.4 litres (20.5 US quarts) See page 5 for oil selection and specification.

Weight

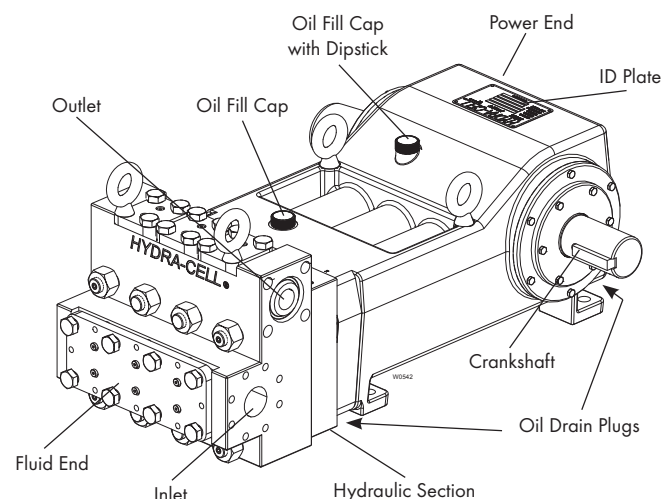
Metallic Heads:	499 kg (1100 lbs.)
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Fluid End Materials

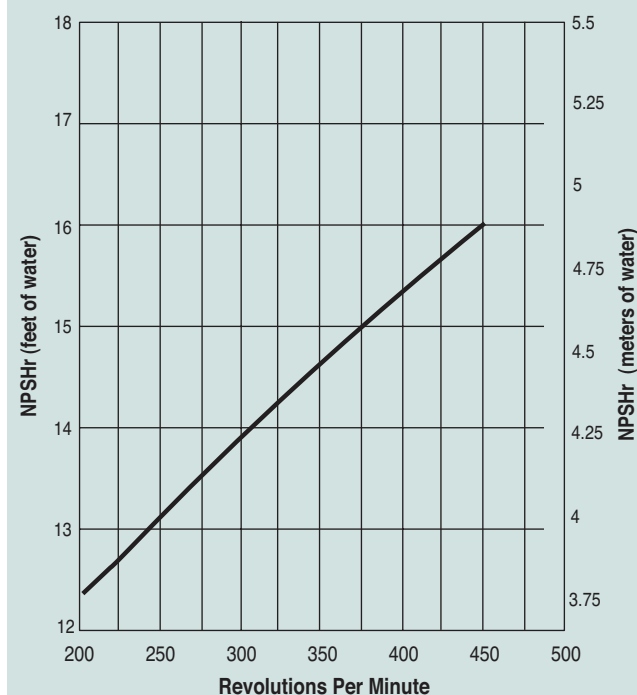
Diaphragm Follower Screw:	316 Stainless Steel
Outlet Valve Retainer:	316 Stainless Steel
Plug-Outlet Valve Port:	316 Stainless Steel
Inlet Valve Retainer:	316 Stainless Steel
See page 5 for customer-specified fluid end materials choices.	

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 **How to Order**

Ordering Information

1	2	3	4	5	6	7	8	9	10	11	12	13	14
T	1	0	0	S	R							A	

A complete T100 Series High Pressure Model Number contains 14 digits including 7 customer-specified design and materials options, for example: T100SRDTHFEPAX.

High Pressure

Digit	Order Code	Description
1-4	T100	Pump Configuration Shaft-driven API 674 - Contact Wanner International
5	S -	Performance Max. 98 l/min (26 gpm) 891 BPD @ 345 bar (5000 psi) ATEX - Contact Wanner International (Note: ATEX 2014/34/EU Certified, Category 2, Zone 1, Hazardous Liquids)
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 N T	Valve Seat Material Tungsten Carbide* 17-4 Stainless Steel Nitronic 50 Hastelloy C
10	D F N T	Valve Material Tungsten Carbide* 17-4 Stainless Steel Nitronic 50 Hastelloy C
11	E T	Valve Springs Elgiloy Hastelloy C

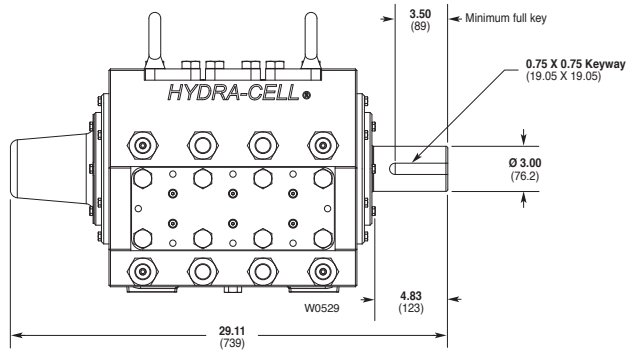
Digit	Order Code	Description
12	H M P S T	Valve Spring Retainers 17-7 Stainless Steel PVDF Polypropylene 316 SST Hastelloy C
13	A B E H	Hydra-Oil 10W30 standard-duty oil 40-wt. Food-contact oil 15W50 high-temp severe-duty synthetic oil
14	C O X Y	Oil Level Monitor Cover Float switch, normally closed Float switch, normally open Float switch, explosion proof, normally closed No switch

Note: The Oil Level Monitor Cover is an assembly that replaces the previous back cover on T100 Series pumps. It contains a float switch assembly that can trigger an alarm or shutdown when pre-defined levels of high or low oil are reached. It may also be ordered without a float switch cover.



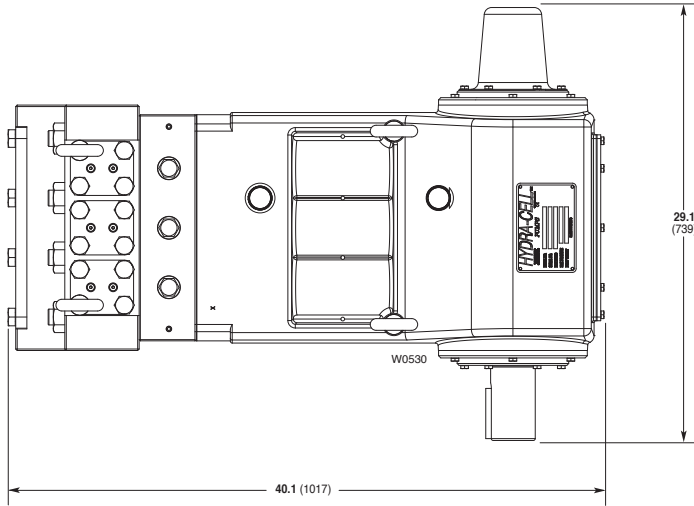
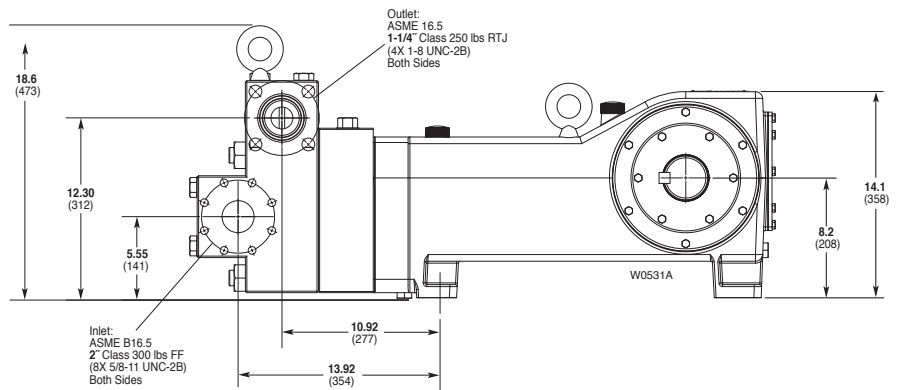
T100 Series High Pressure Dimensions

Threaded Version inches (mm)



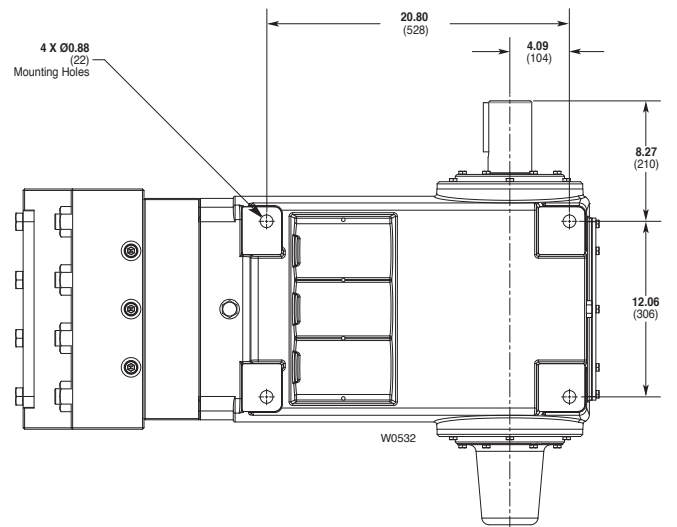
Front View

Side View



Top View

Bottom View





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