T80 Series Model T8030

Maximum Flow Rate: 26 gpm (98.4 l/min)

Maximum Pressure: 5000 psi (345 bar)

Hydra-Cell® Seal-less Pumps

T8030 with Nickel Aluminum Bronze pump head

- 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

Wanner Engineering, Inc.

T80 Series Model T8030 Performance

Capacities

Flow

Model	Max. Input rpm	Max. Flow @ 5000 psi (345 bar) gpm	l/min
T8030	450	26.0	98.4

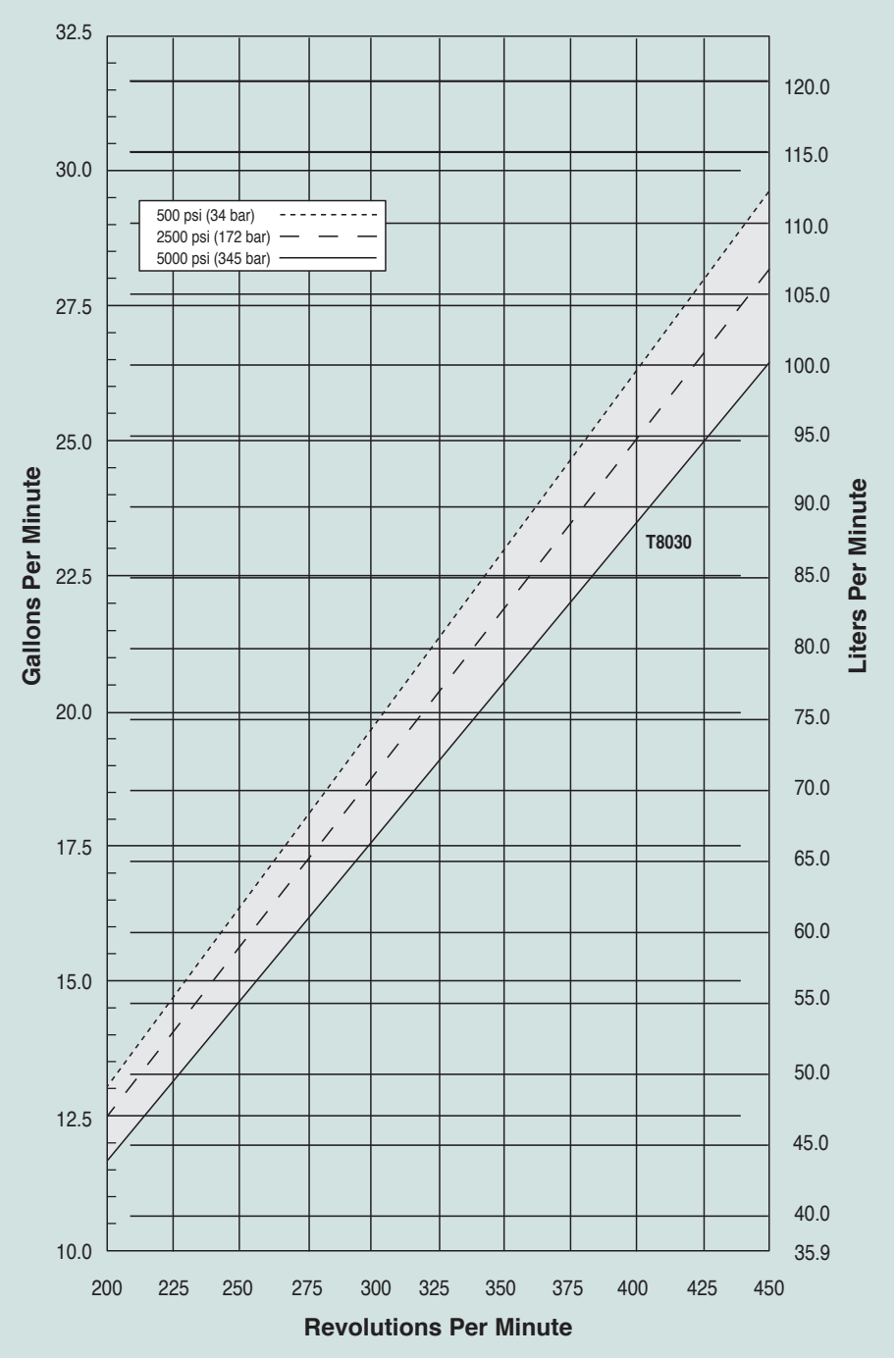
Consult factory when operating below 12 gpm (45.4 l/min).

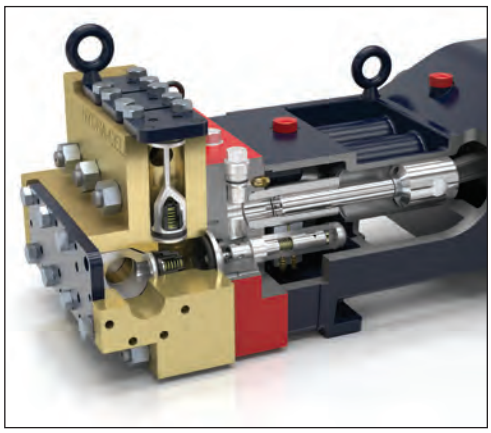
Pressure

Maximum Inlet Pressure
500 psi (34 bar)

Maximum Discharge Pressure
5000 psi (345 bar)

Maximum Flow at Designated Pressure





T 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 Wanner Engineering continuous improvement practices, performance data and specifications may change without notice.

Hydra-Cell® Seal-less Pumps

T80 Series Model T8030 Specifications

Flow Capacities @5000 psi (345 bar)

Model	rpm	gpm	l/min
T8030	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)

Maximum Inlet Pressure 500 psi (34 bar)

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

Input Shaft Left or Right Side

Inlet Ports 2 inch Class 300 FF ANSI Flange

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

Shaft Diameter 3 inch (76.2 mm)

Shaft Rotation Reverse (bi-directional)

Oil Capacity 18 US quarts (17 liters)
10W30 standard-duty oil

Weight

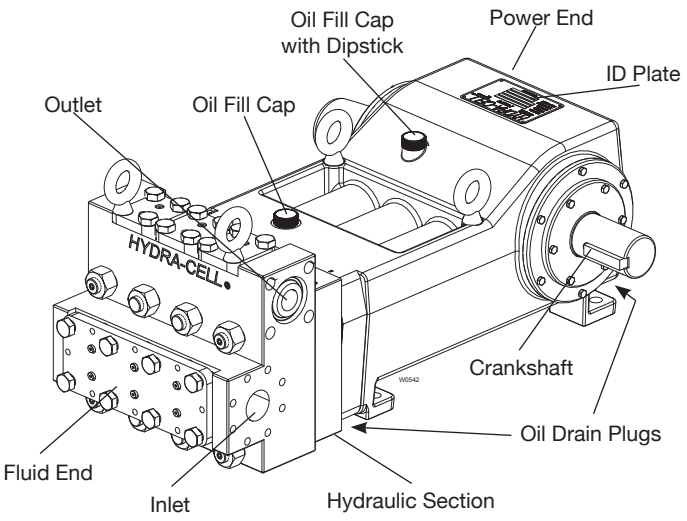
Metallic Heads: 1100 lbs. (499 kg)

Fluid End Materials

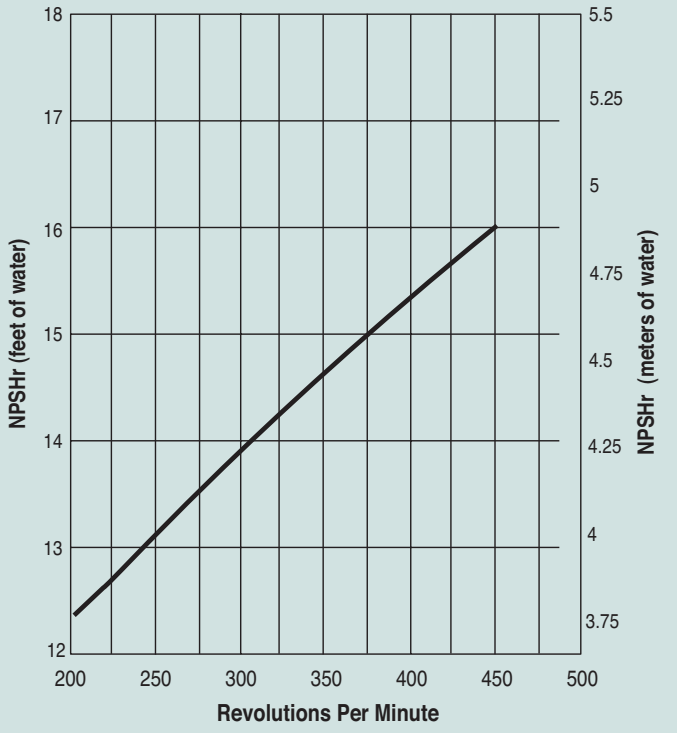
Manifold:	Nickel Aluminum Bronze (NAB)
Diaphragm/Elastomers:	FKM
	Buna-N
Diaphragm Follower Screw:	316 Stainless Steel
Valve Spring Retainer:	Polypropylene
Check Valve Spring:	Elgiloy
Valve Disc/Seat:	17-4 Stainless Steel
	Hastelloy C
Outlet Valve Retainer:	316 Stainless Steel
Plug-Outlet Valve Port:	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 Babbit (crankpin)
	Bronze (wristpin)



Net Positive Suction Head (NPSHr)



Calculating Required Horsepower (kW)*

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

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

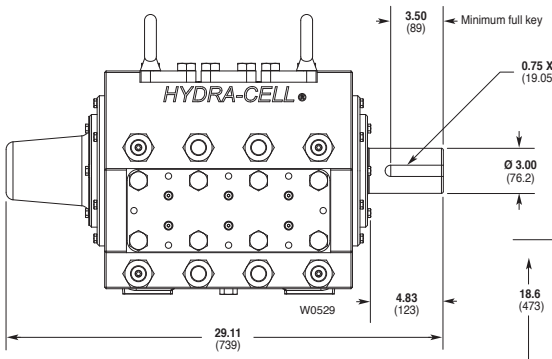
** hp (kW) is required application power.*

Attention!

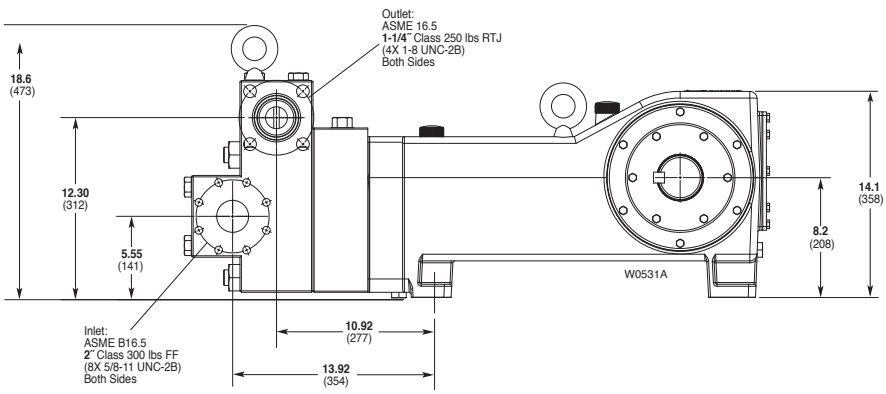
When sizing motors with variable speed drives (VFD): It is very important to select a motor and a VFD rated for constant torque inverter duty service and that the motor is rated to meet the torque requirements of the pump throughout desired speed range.

T80 Series Model T8030 Dimensions

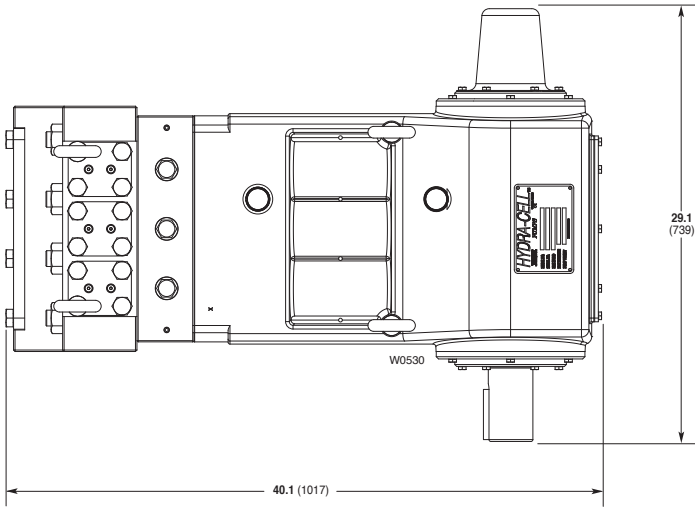
Model T8030 Threaded Version inches (mm)



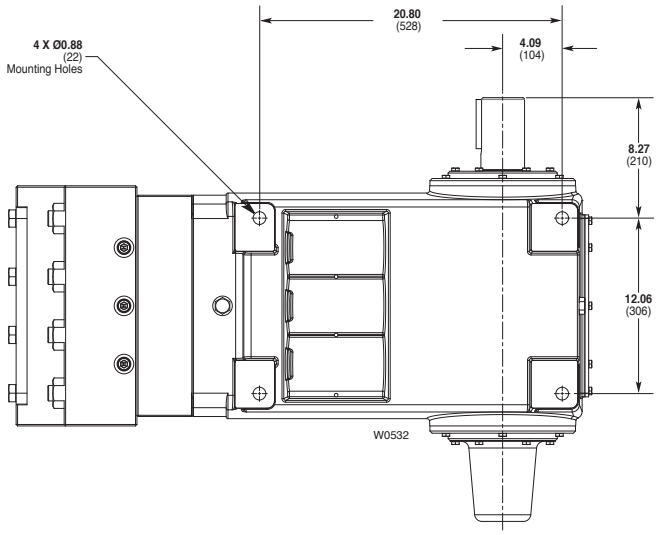
Front View



Side View



Top View



Bottom View

Hydra-Cell® Seal-less Pumps

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