

T100 Series Low Pressure Models T100E, T100F & T100H

Maximum Flow Rate: 96 gpm (366.1 l/min)
Maximum Pressure: 2100 psi (145 bar)

Hydra-Cell[®]
Seal-less Pumps



T100 Series low-pressure model with Nickel Aluminum Bronze (NAB) 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

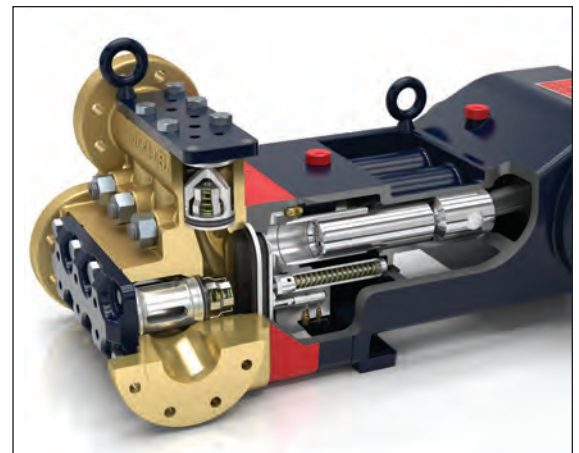
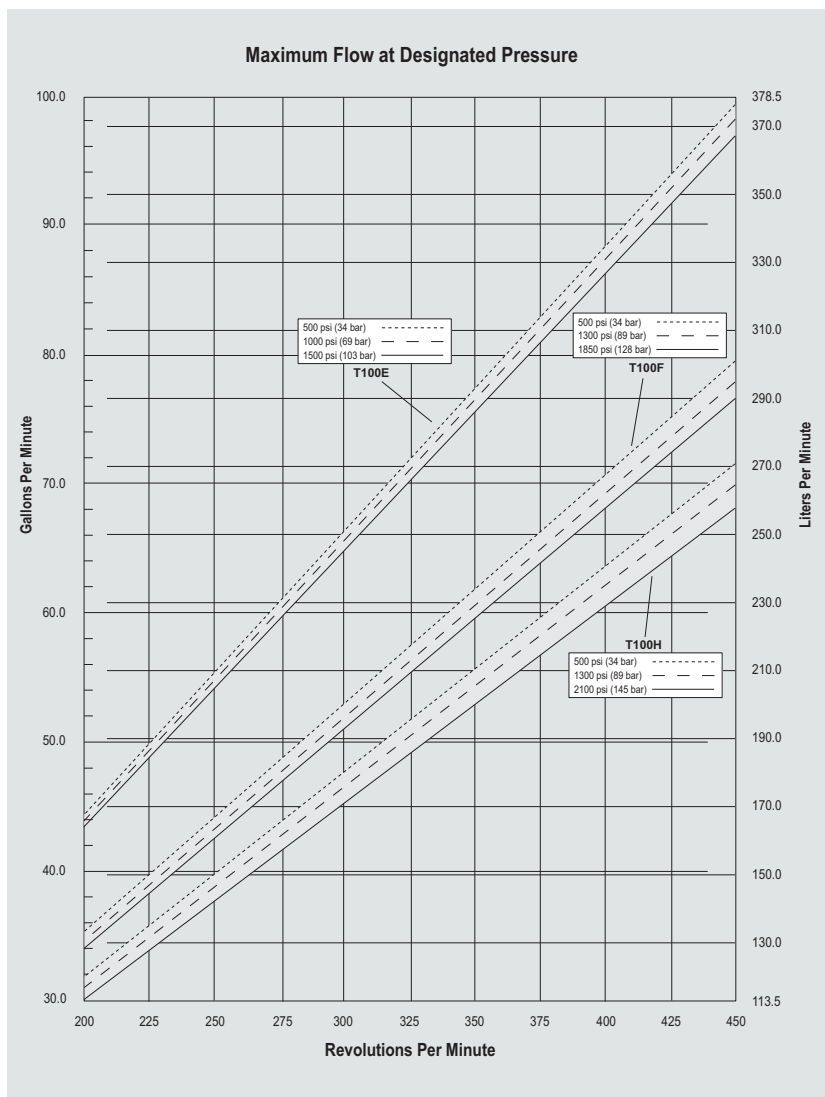
T100 Series Low Pressure Performance

Capacities

Flow				Pressure	
Model	Max. Input rpm	Max. Flow		Maximum Inlet Pressure	
		gpm	l/min	500 psi (34 bar)	
		@ 1500 psi (103 bar)		Maximum Discharge Pressure	
T100E	450	96.0	366.4	T100E:	1500 psi (103 bar)
		@ 1850 psi (128 bar)		T100F:	1850 psi (128 bar)
T100F	450	76.5	289.6	T100H:	2100 psi (145 bar)
		@ 2100 psi (145 bar)			
T100H	450	68.0	257.8		

Consult factory when operating below 44 gpm (166.6 l/min).

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

T100 Series Low Pressure Specifications

Flow Capacities

Model	Pressure bar (psi)	rpm	gpm	l/min
T100E	103 (1500)	450	96.0	366.4
T100F	128 (1850)	450	76.5	289.6
T100H	145 (2100)	450	68.0	257.8

Delivery

Pressure psi (bar)	gal/rev	liters/rev
500 (34)	0.221	0.835
1000 (69)	0.218	0.825
1500 (103)	0.215	0.814

rpm

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

Maximum Discharge Pressure

Metallic Heads:	T100E	1500 psi (103 bar)
	T100F	1850 psi (128 bar)
	T100H	2100 psi (145 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

3-1/2 inch Class 300 RF ANSI Flange

Discharge Ports

2 inch Class 900 RF 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

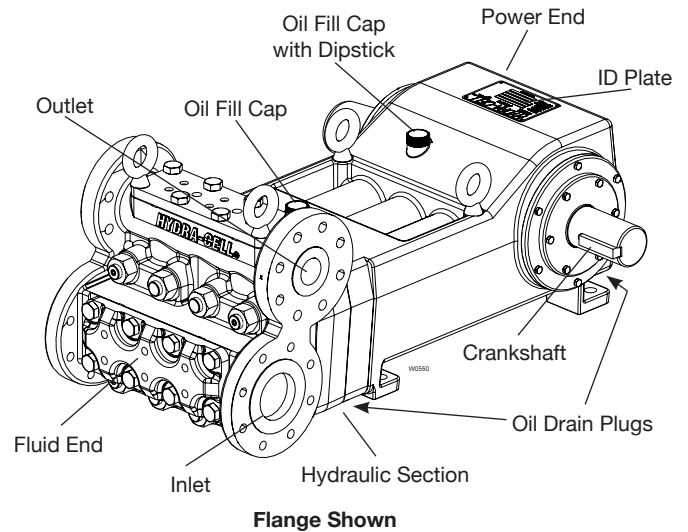
Metallic Heads: 1100 lbs. (499 kg)

Fluid End Materials

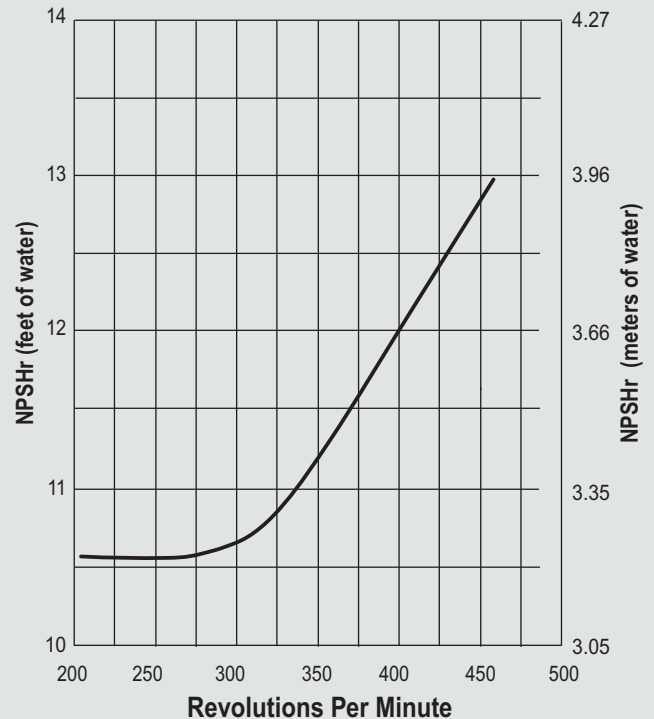
Manifold:	Nickel Aluminum Bronze (NAB) 316L Stainless Steel
Diaphragm/Elastomers:	FKM Buna-N
Diaphragm Follower Screw:	316 Stainless Steel
Valve Spring Retainer:	17-7 Stainless Steel 316 SST Hastelloy C
Check Valve Spring:	Elgiloy
Valve Disc/Seat:	Tungsten Carbide 17-4 PH Stainless Steel Hastelloy C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

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

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

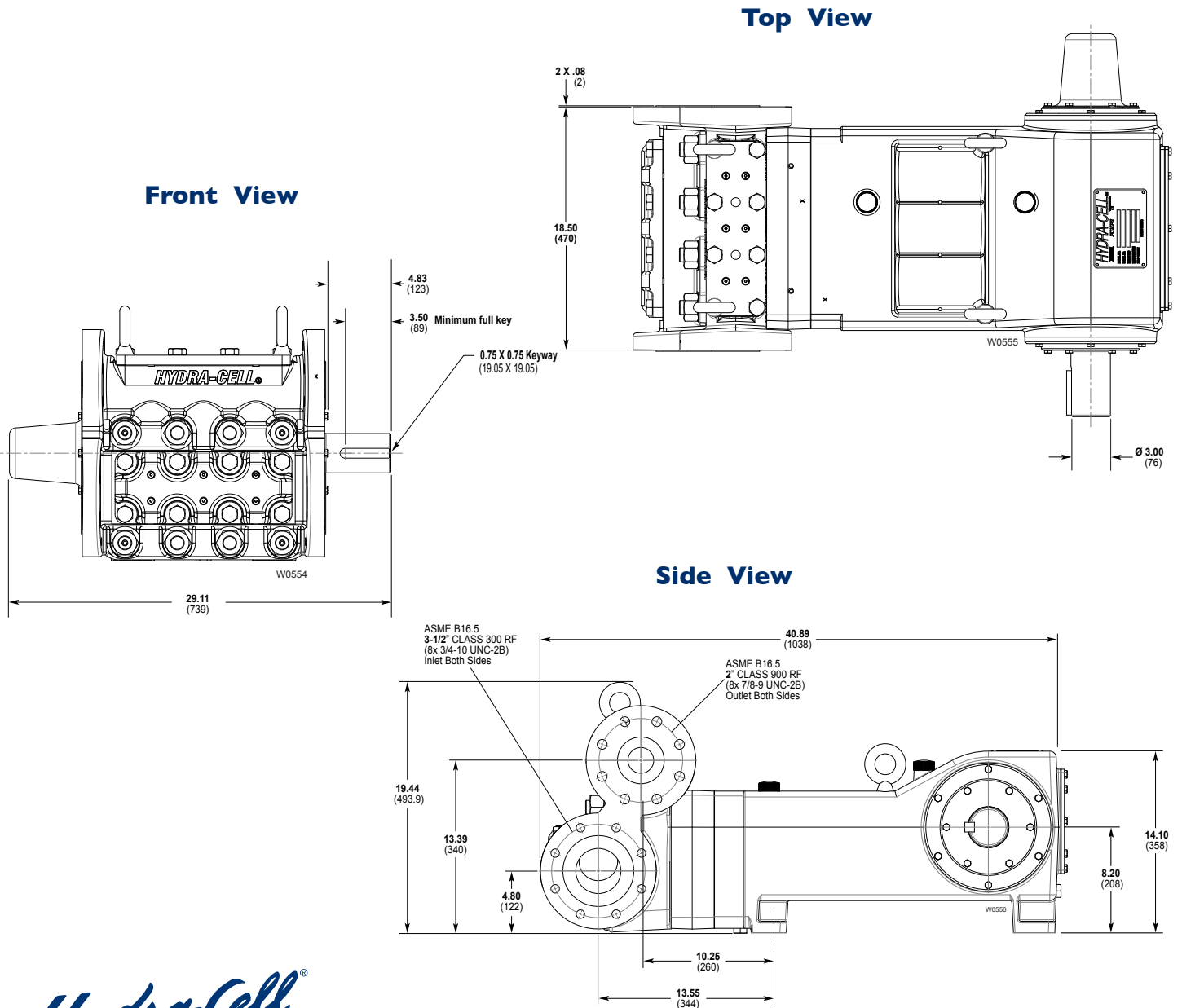
* hp (kW) is required application power.

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.

TI00 Series Low Pressure Dimensions

Flanged Version inches (mm)



www.Hydra-Cell.com

Wanner Engineering, Inc.

World Headquarters & Manufacturing

1204 Chestnut Avenue
 Minneapolis, MN 55403 USA
 Tel: (612) 332-5681 • FAX: (612) 332-6937
 Toll Free FAX (USA only) (800) 332-6812
 Email: sales@wannereng.com
 www.Hydra-Cell.com

Wanner International Ltd.

8 & 9 Fleet Business Park
 Sandy Lane, Church Crookham,
 Hampshire GU52 8BF England
 Tel: +44 (0) 1252 816847
 FAX Tel: +44 (0) 1252 629242
 Email: sales@wannerint.com
 www.Hydra-Cell.eu

Wanner Pumps Ltd.

Flat A, 21 F Chatham Commercial Building
 399 Chatham Road North
 Hunghom, Kowloon, Hong Kong
 Tel: (852) 3428-6534
 FAX: (852) 3188-9145
 Email: sales@wannerpumps.com
 www.WannerPumps.com