

T100 Series Low Pressure Models T100E, T100F & T100H

API 674

Maximum Flow Rate: 366 l/min (96 gpm)
Maximum Pressure: 145 bar (2100 psi)



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



T100 Series low 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

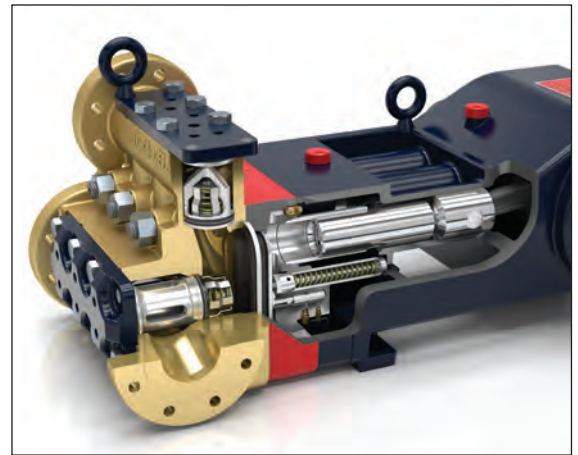
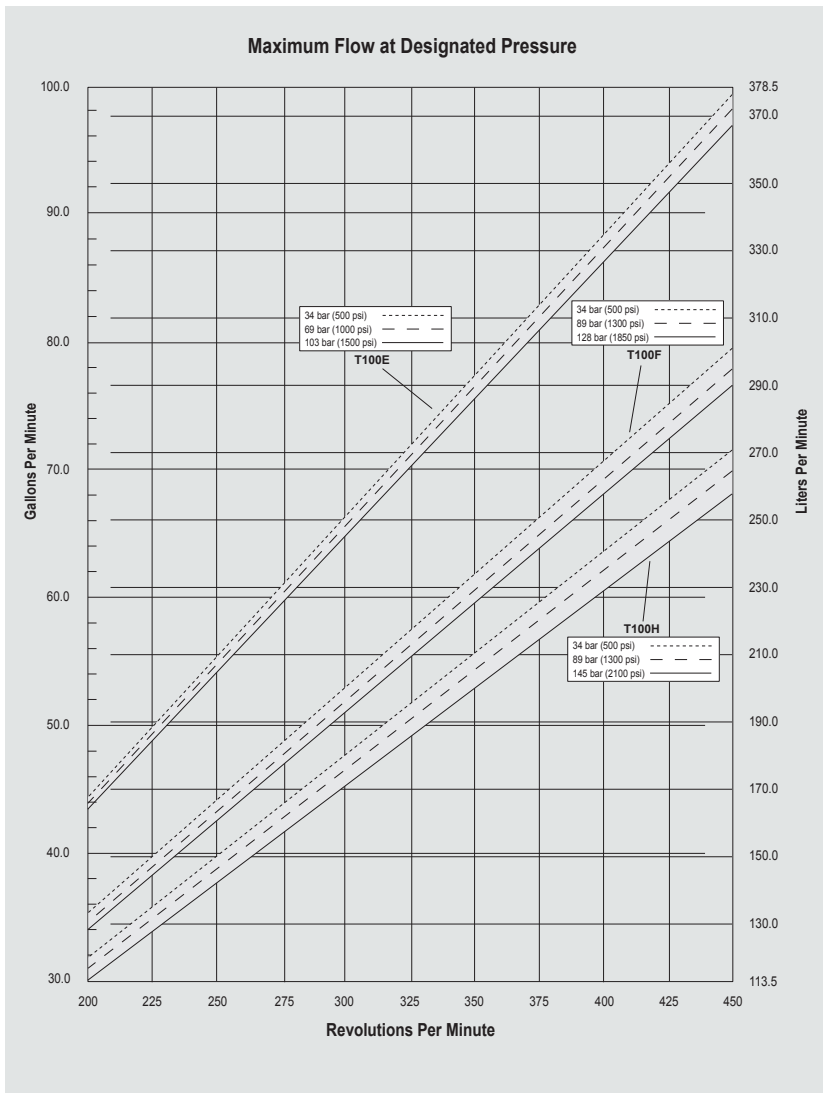
T100 Series Low Pressure Performance

Capacities

Flow				Pressure	
Model	Max. Input rpm	Max. Flow		Maximum Inlet Pressure	
		gpm	l/min	34 bar (500 psi)	
		@ 103 bar (1500 psi)		Maximum Discharge Pressure	
T100E	450	96	366	T100E:	103 bar (1500 psi)
		@ 128 bar (1850 psi)		T100F:	128 bar (1850 psi)
T100F	450	76	290	T100H:	145 bar (2100 psi)
		@ 145 bar (2100 psi)			
T100H	450	68	258		

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.

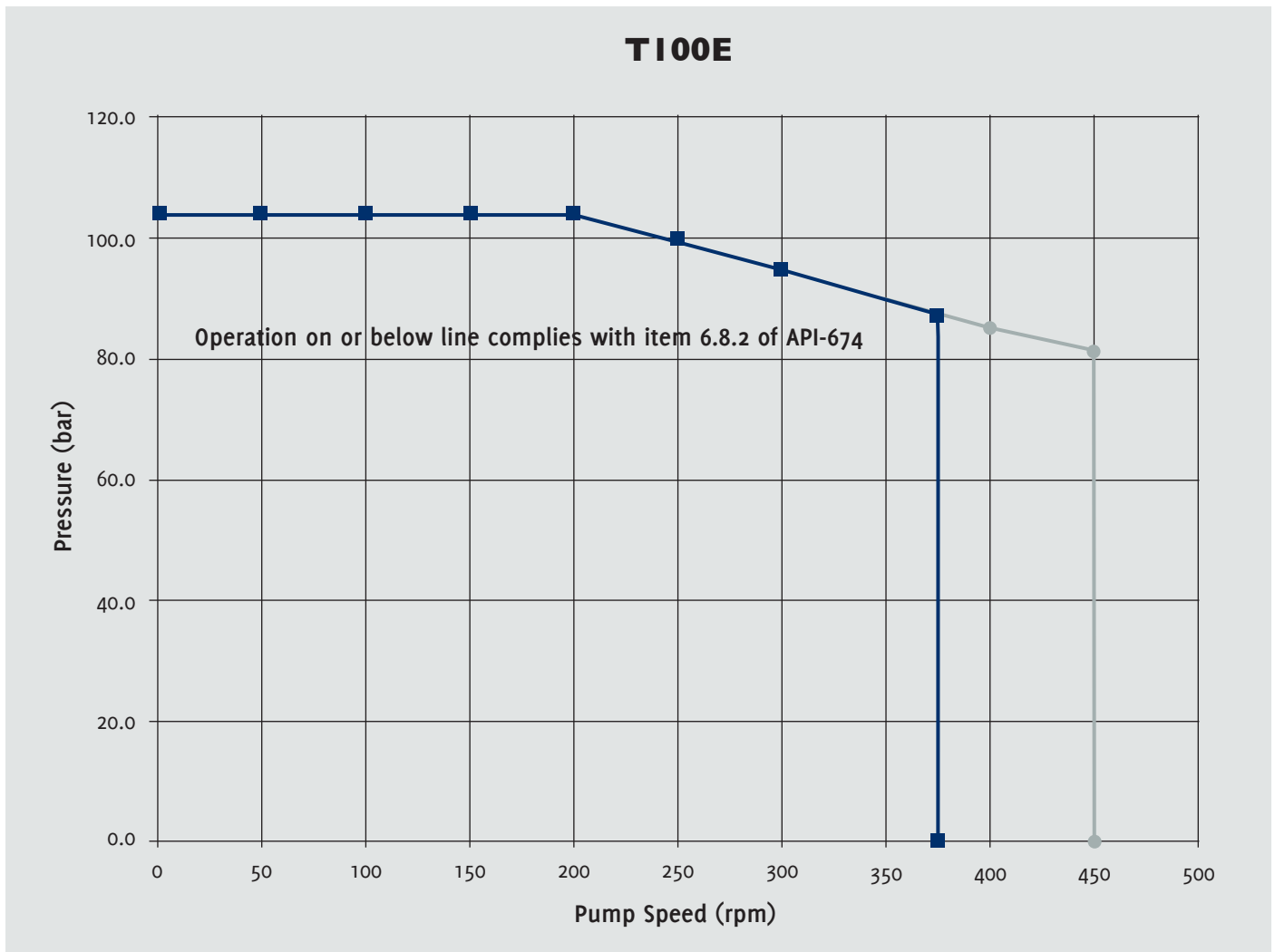
T100 Series Model T100E API 674 Performance

Capacities

Flow					Pressure	
Model	Max. Input rpm	Duty	Max. Flow @ 103 bar (1500 psi)		Maximum Inlet Pressure	Maximum Discharge Pressure
			gpm	l/min		
T100E	450	Intermittent	96	366	34 bar (500 psi)	103 bar (1500 psi)
	375	Continuous	81	306		

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

Maximum RPM at Designated Pressure



● Intermittent duty 2.5" plunger
Defined as up to 24/7 365 days pa

■ Continuous duty 2.5" plunger
Defined as 24/7 365 days pa

T100 Series Low Pressure Specifications

Flow Capacities

Model	Pressure bar (psi)	rpm	gpm	l/min
T100E	103 (1500)	450	96	366
T100F	128 (1850)	450	76	290
T100H	145 (2100)	450	68	258

Delivery

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

rpm

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

Maximum Discharge Pressure

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

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 3-1/2 inch Class 300 RF ANSI Flange

Discharge Ports 2 inch Class 900 RF ANSI Flange

Shaft Diameter 76.2 mm (3 inch)

Shaft Rotation Reverse (bi-directional)

Oil Capacity 7.7 litres (18 US quarts) 10W30 standard-duty oil

Weight

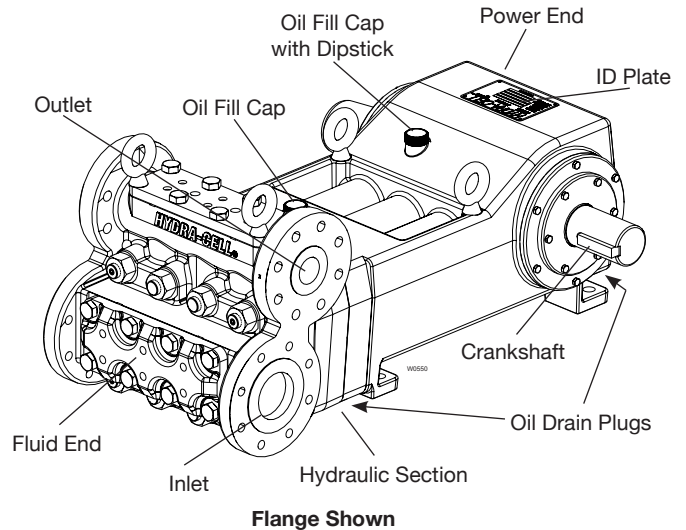
Metallic Heads:	499 kg (1100 lbs.)
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Fluid End Materials

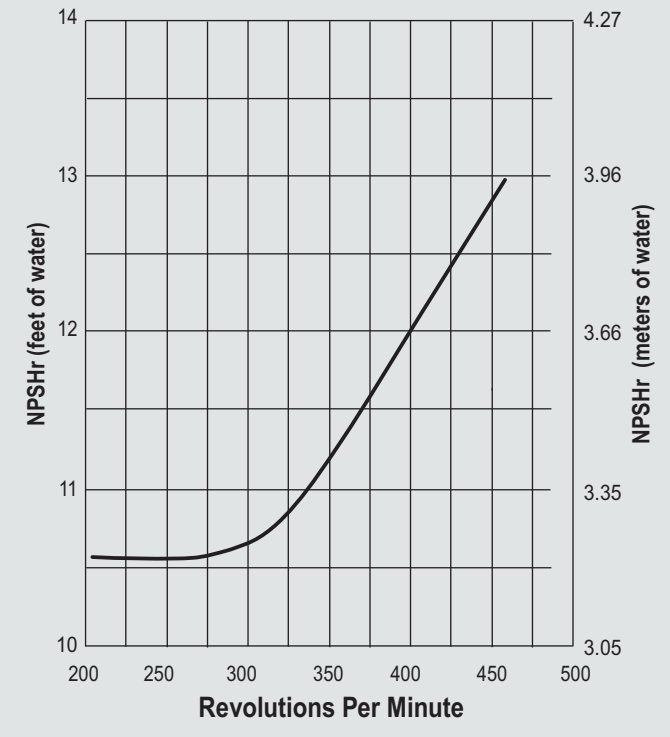
Manifold:	Nickel Aluminum Bronze (NAB) 316L Stainless Steel
Diaphragm/Elastomers:	FKM Buna-N
Diaphragm Follower Screw:	316 Stainless Steel
Valve Spring Retainer:	17-7 Stainless Steel 316 SST Hastelloy C
Check Valve Spring:	Elgiloy
Valve Disc/Seat :	Tungsten Carbide 17-4 PH Stainless Steel Hastelloy C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

T100 Series Low Pressure How to Order

Ordering Information



A complete T100 Series Low Pressure Model Number contains 13 digits including 4 customer-specified design and materials options, for example: T100ERDGHFEHA.

Low Pressure

Digit	Order Code	Description
1-4	T100	Pump Configuration Shaft-driven
5	E F H	Performance Max. 366 l/min (96 gpm) @ 103 bar (1500 psi) Max. 289 l/min (76 gpm) @ 128 bar (1850 psi) Max. 257 l/min (68 gpm) @ 145 bar (2100 psi)
6	R	Pump Head Version ANSI Flange Ports (RF)
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 PH Stainless Steel Hastelloy C
10	D F T	Valve Material Tungsten Carbide* 17-4 PH Stainless Steel Hastelloy C
11	E	Valve Springs Elgiloy
12	H S T	Valve Spring Retainers 17-7 Stainless Steel 316 SST Hastelloy C
13	A	Hydra-Oil 10W30 standard-duty oil

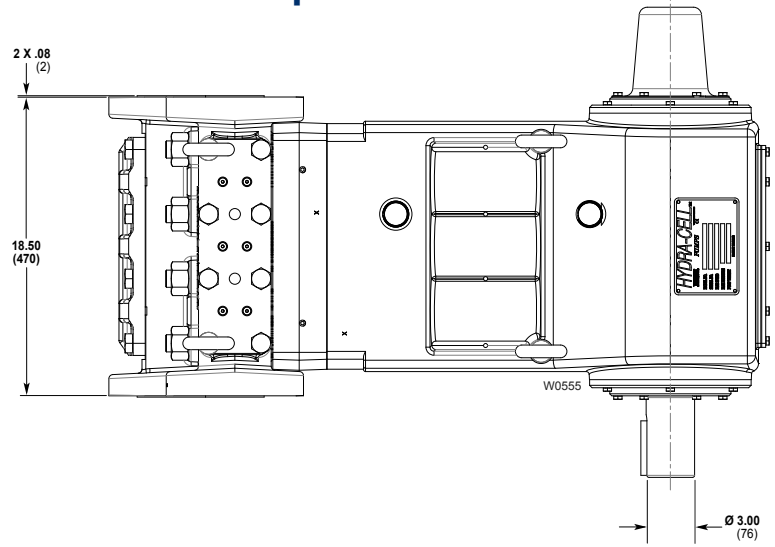
*Tungsten Carbide valve seat and disc are a matched set and must be purchased together.



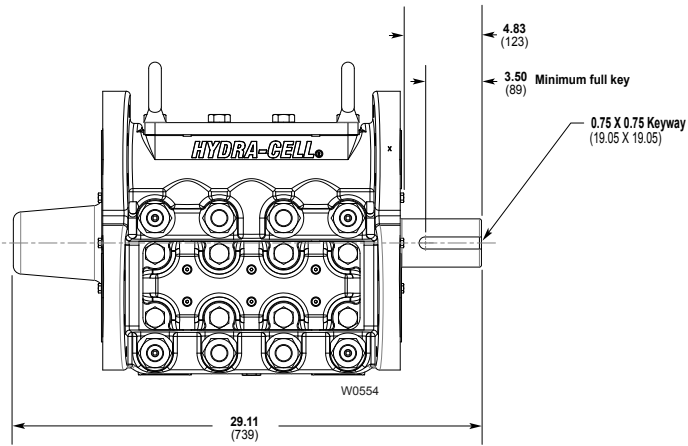
T100 Series Low Pressure Dimensions

Flanged Version inches (mm)

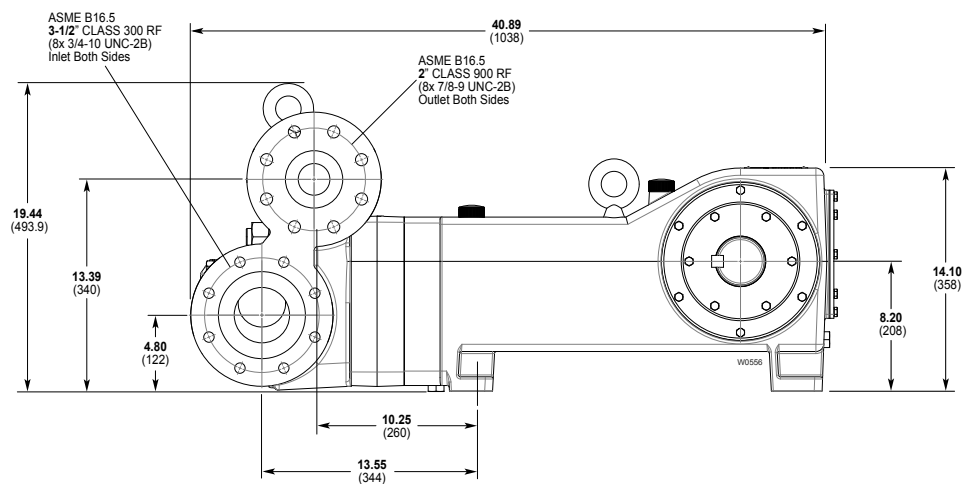
Top View



Front View



Side View





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