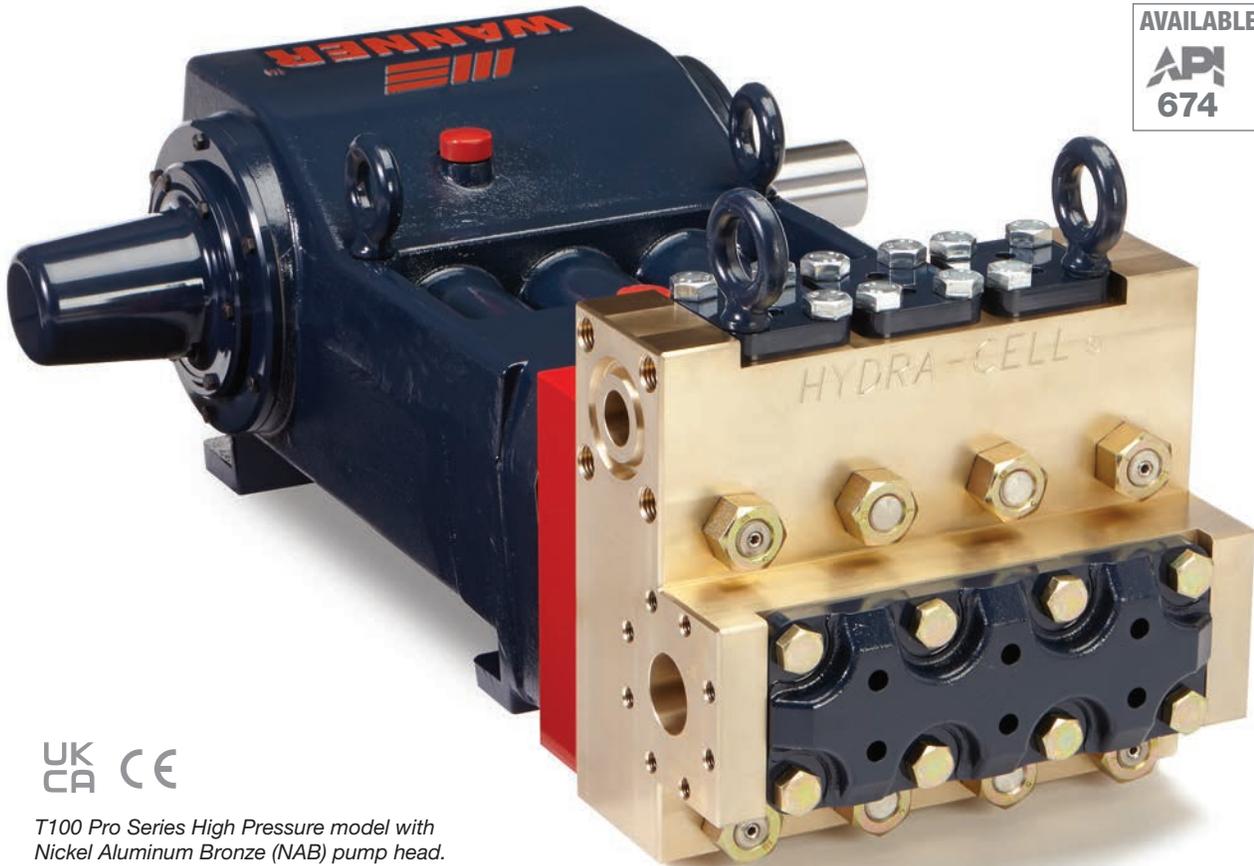


# T100 PRO SERIES HIGH PRESSURE

Maximum Flow Rate: 26 gpm (98 l/min) 891 BPD  
Maximum Pressure: 5000 psi (345 bar)

**WANNER™** HYDRA-CELL® PRO  
SEAL-LESS PUMP TECHNOLOGIES



UK  
CA CE

*T100 Pro Series High Pressure model with  
Nickel Aluminum Bronze (NAB) pump head.*

## A higher standard of pump performance and energy efficiency.

- Integrates **Wanner Hydra-Cell® Pro** seal-less pump technologies for the highest levels of volumetric and energy efficiencies across a full rpm range.
- Patented ADPC (Advanced Diaphragm Position Control) and hydraulic oil management system protect diaphragms under closed or restricted inlet conditions.
- Can run dry indefinitely without damage to the pump.
- Pumped fluid is 100% contained – zero environmental impact, no ground contamination, no volatile emissions.
- Seal-less design eliminates leaks, hazards, and the expense associated with seals and plunger packing.
- Exceeds API 675 standards for accuracy, linearity, and repeatability.
- Reliably handles a wide range of viscosities and shear sensitivities, corrosive fluids, abrasives, slurries and particulates.
- Reduced ownership costs – acquisition, operation, service, maintenance and energy use.

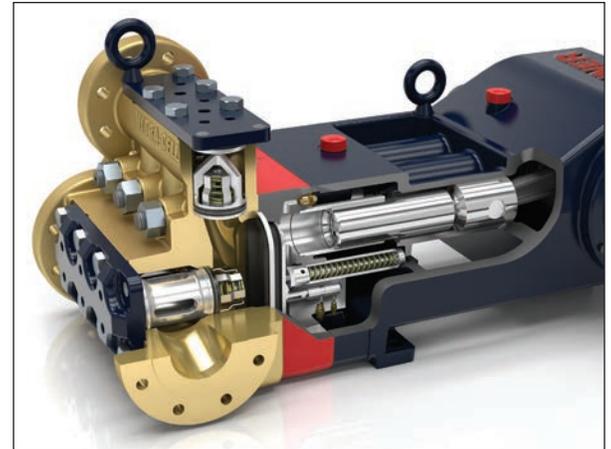
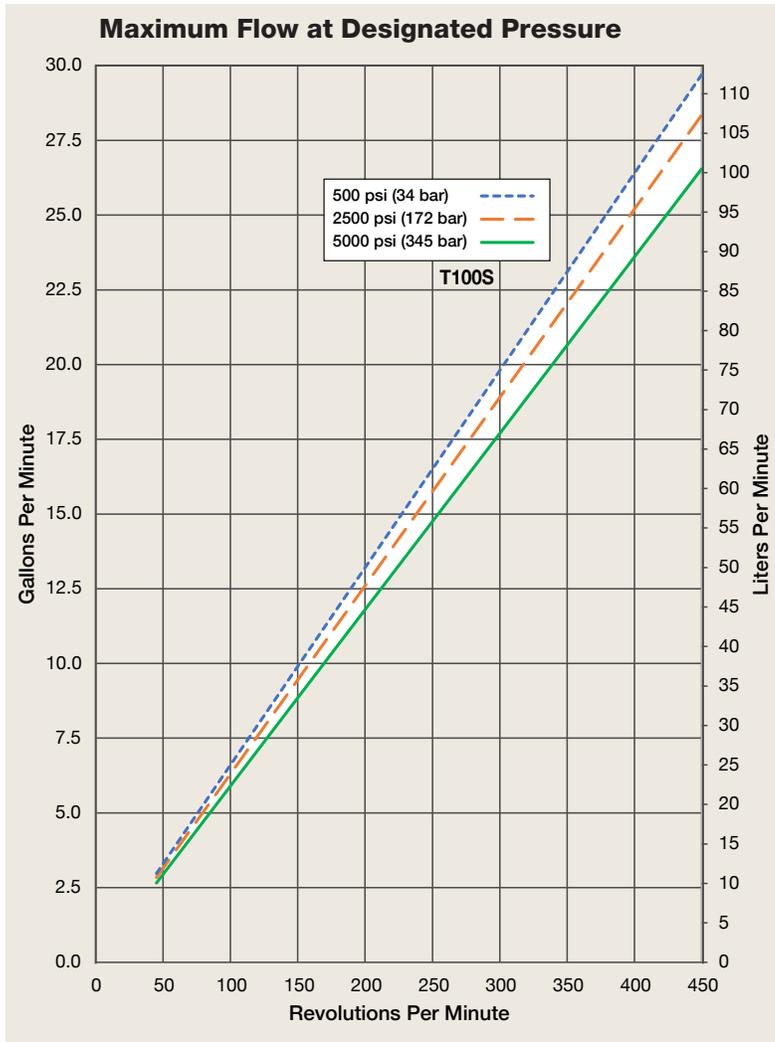
**WANNER™**

# T100 Pro High Pressure | Performance

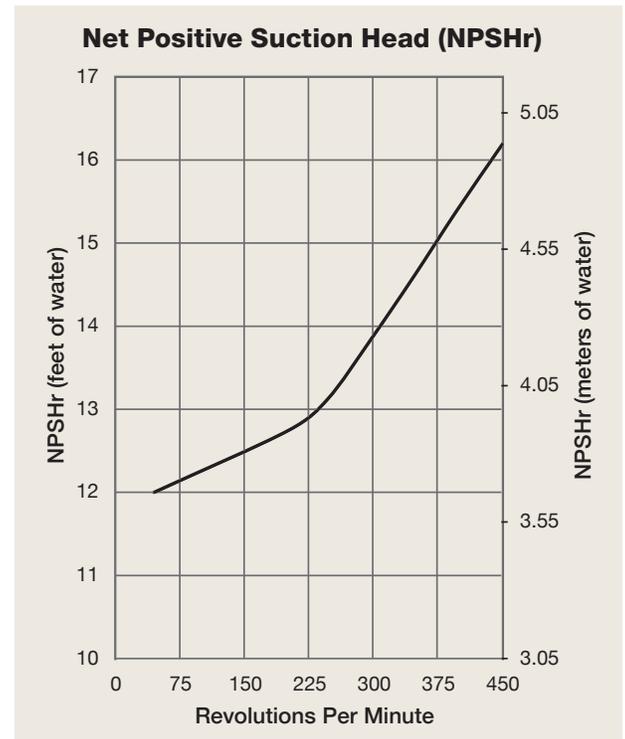
## Capacities

Model	Max. Input rpm	Plunger Dia.		Max. Flow Capacities			Max. Pressure Ratings				
		inches	mm	gpm	l/min	BPD	Discharge		Inlet		
				psi	bar	psi	bar	psi	bar	psi	bar
T100S	450	1.375	35	26	98	891	5000	345	500	34	

Consult factory when operating below 45 rpm



T100 Pro 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 the Wanner Engineering Continuous Improvement Program, specifications and other data are subject to change.

# T100 Pro High Pressure | Specifications

## Flow Capacities

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

## Delivery

	Pressure psi (bar)	gal/rev	liters/rev
T100S	500 (34)	0.066	0.249
	2500 (172)	0.063	0.237
	5000 (345)	0.059	0.222

## rpm

Maximum:	450
Minimum:	45

Consult factory for speeds less than 45 rpm.

## Maximum Discharge Pressure

Metallic Heads:	5000 psi (345 bar)
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**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 RTJ ANSI Flange

**Plunger Stroke Length** 3-1/2 inch (88.9 mm)

**Shaft Diameter** 3 inch (76.2 mm)

**Shaft Rotation** Uni-directional (See rotation arrow.)

**Oil Capacity** 18 US quarts (17 liters) - blank back cover  
20.5 US quarts (19.4 liters) - oil level back cover  
See page 5 for oil selection and specification.

**Pump Weight** 1100 lbs. (499 kg)

## Fluid End Materials

Manifold:	Nickel Aluminum Bronze (NAB) 316L Stainless Steel
Diaphragm/Elastomers:	FKM Buna-N Aflas EPDM
Diaphragm Follower Screw:	316 Stainless Steel Duplex Alloy 2205 Stainless Steel Hastelloy C
Valve Spring Retainer:	PVDF Polypropylene 316 SST Hastelloy C
Check Valve Spring:	Elgiloy Hastelloy C
Valve Disc/Seat:	Tungsten Carbide 17-4 Stainless Steel Nitronic 50 Hastelloy C
Plug-Outlet Valve Port:	316 Stainless Steel Duplex Alloy 2205 Stainless Steel Hastelloy C
Inlet/Outlet Valve Retainer:	316 Stainless Steel Duplex Alloy 2205 Stainless Steel Hastelloy C

## Power End Materials

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

## Calculating Required Horsepower (kW)\*

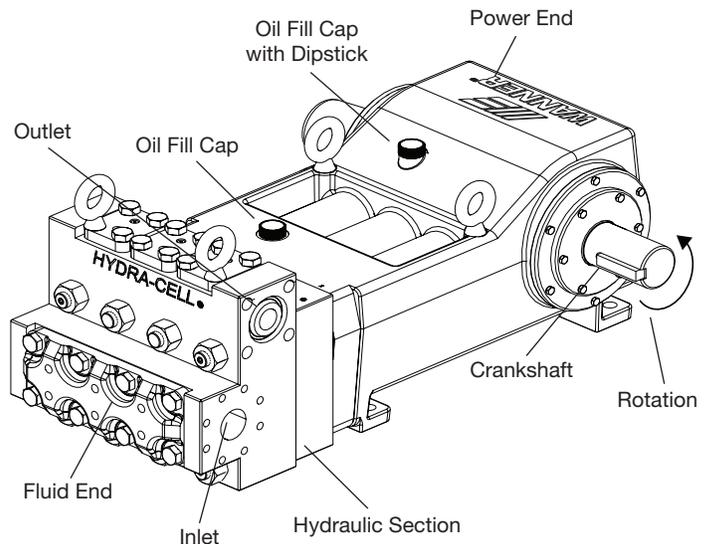
$$\frac{\text{gpm} \times \text{psi}}{1,460} = \text{electric motor hp}^*$$

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

\* hp (kW) is required application power.

## Attention!

When sizing motors with variable frequency 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.

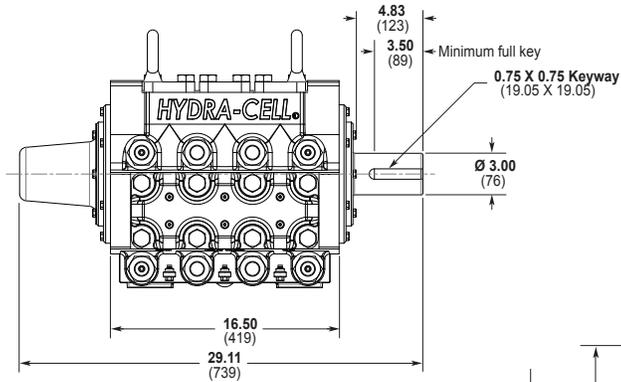


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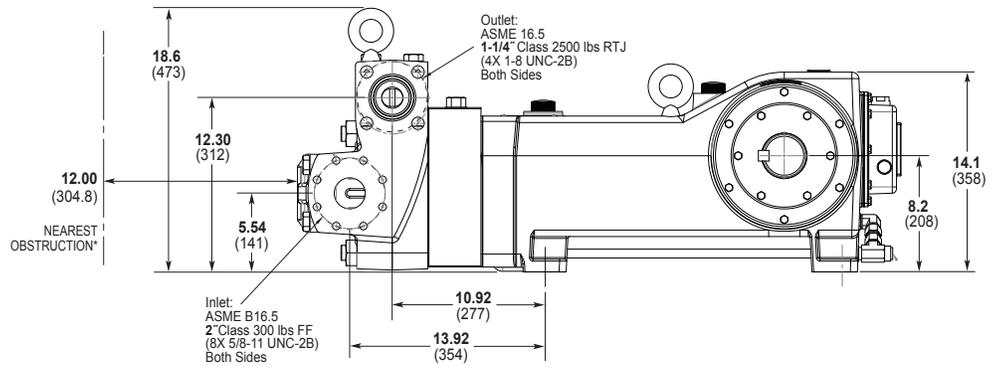
# T100 Pro High Pressure | Drawings

## Threaded Version inches (mm)

### Front View

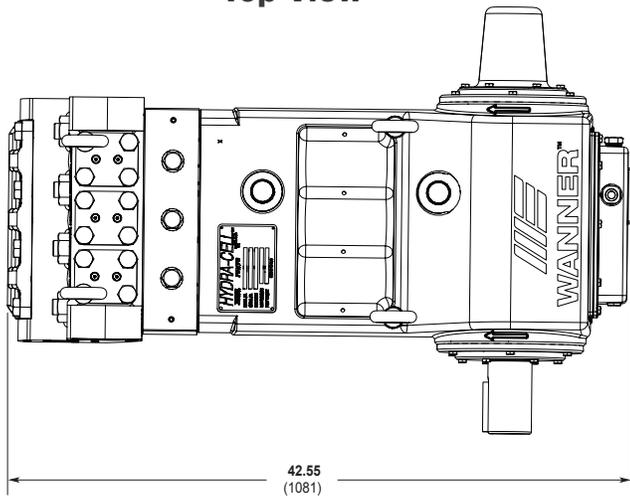


### Side View

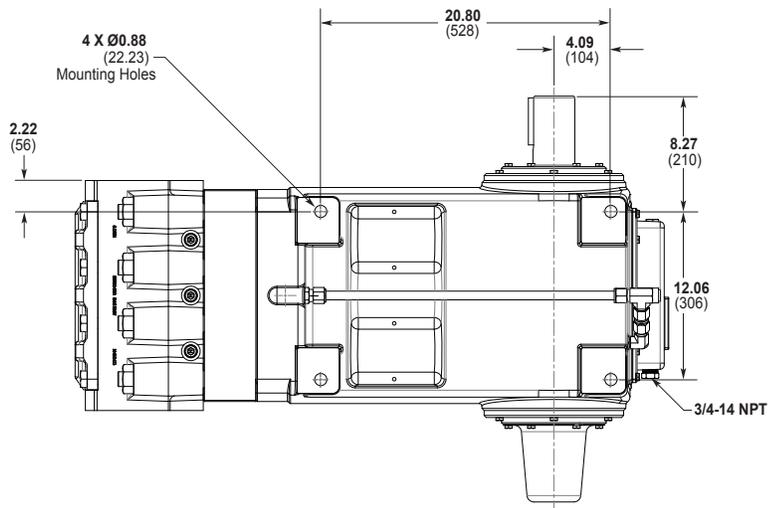


\*Contact factory for obstruction distances closer than 12 inches (304.8 mm).

### Top View



### Bottom View



Note: Dimensions are for reference only. Contact factory for certified drawings.

# T100 Pro High Pressure | How to Order

## Ordering Information

A complete T100 Pro Series High Pressure Model Number contains 14 digits including 8 customer-specified design and materials options, for example: T100SRDTHFEPAC.

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

## High Pressure

Digit	Order Code	Description
1-4	T100	<b>Pump Configuration</b> Shaft-driven
5	S	<b>Performance</b> Max. 26 gpm (98 l/min) 891 BPD @ 5000 psi (345 bar)
6	R	<b>Pump Head Version</b> ANSI Flanged Ports (RF on Inlet / RTJ on Discharge)
7	D S	<b>Pump Head Material</b> Nickel Aluminum Bronze (NAB) 316L Stainless Steel
8	A E G T	<b>Diaphragm &amp; O-ring Material</b> Aflas EPDM (requires EPDM-compatible oil - Digit 13 oil code D) FKM Buna-N
9	D H N T	<b>Valve Seat Material</b> Tungsten Carbide* 17-4 Stainless Steel Nitronic 50 Hastelloy C
10	D F N T	<b>Valve Material</b> Tungsten Carbide* 17-4 Stainless Steel Nitronic 50 Hastelloy C
11	D E T	<b>Valve Springs</b> Elgiloy for Tungsten Carbide valves* Elgiloy Hastelloy C

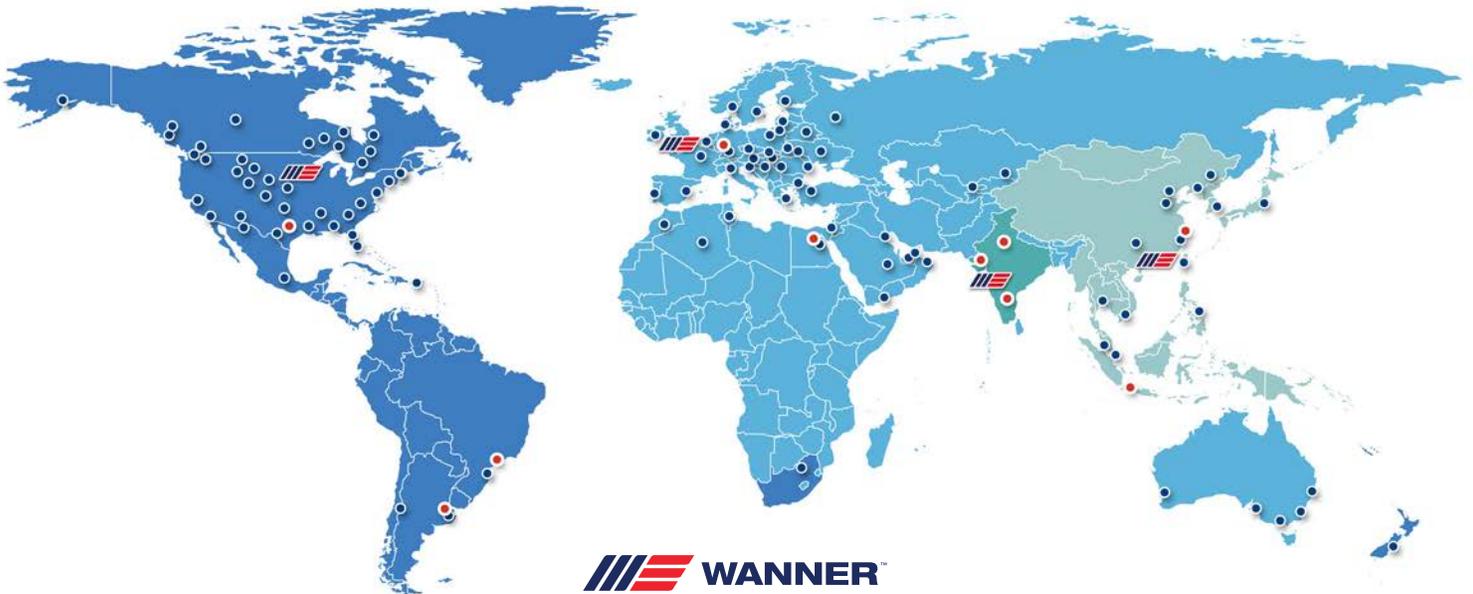
\* Tungsten Carbide valve seat and disc are a matched set and must be purchased together along with appropriate valve springs.

Digit	Order Code	Description
12	M P S T	<b>Valve Spring Retainers</b> PVDF Polypropylene 316 SST Hastelloy C
13	A B D H M	<b>Hydra-Oil</b> 10W30 standard-duty oil 40-wt. oil EPDM-compatible oil 15W50 high-temp severe-duty synthetic oil Food-contact oil
14	C O S T W X Y	<b>Oil Level Monitor Cover</b> Float switch, normally closed (recommended) Float switch, normally open Float switch, Class I, Div. 1, Groups A, B, C, D, normally closed Float switch, Class I, Div. 1, Groups A, B, C, D, normally open Float switch, ATEX/IECEx, 4-20 mA analog output (qualification required) Float switch, ATEX/IECEx, discrete output (qualification required) No switch, flat back cover

**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.



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