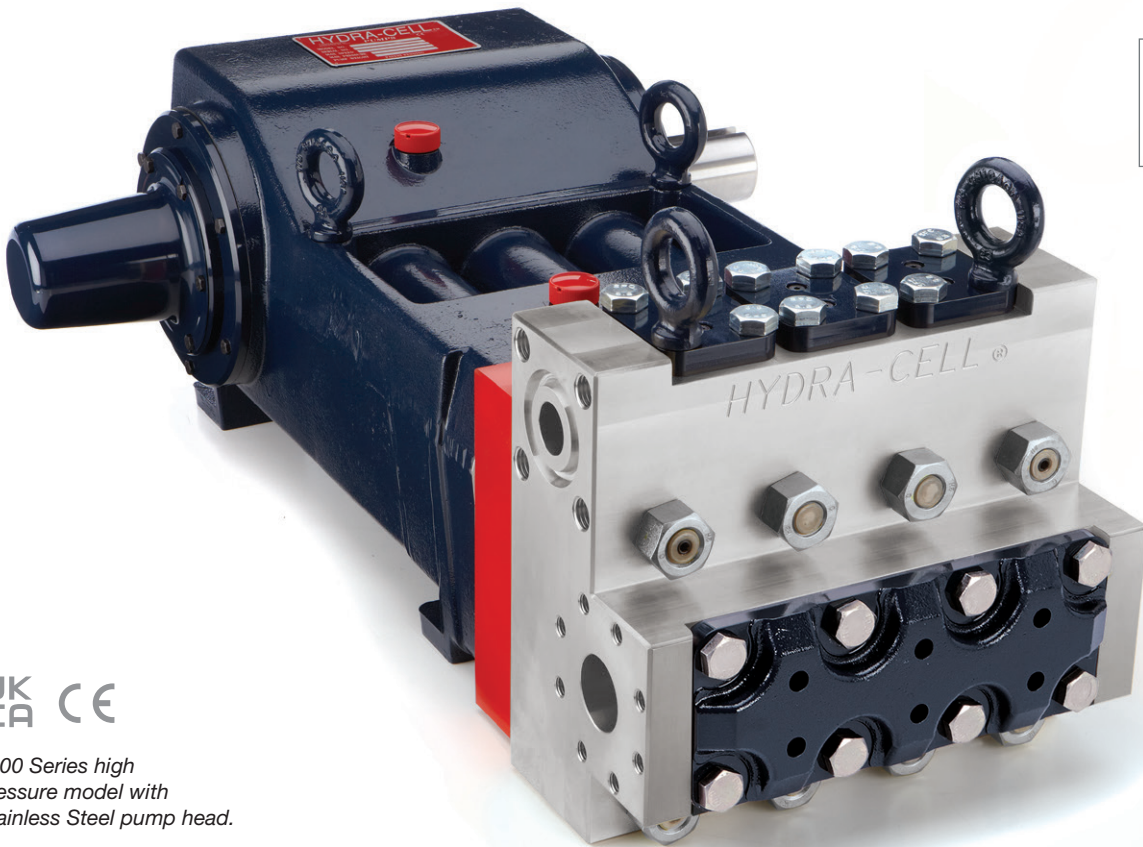


T100 PRO SERIES HIGH PRESSURE

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

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



UK
CA CE

T100 Series high
pressure model with
Stainless Steel pump head.

A higher standard of pump performance and energy efficiency.

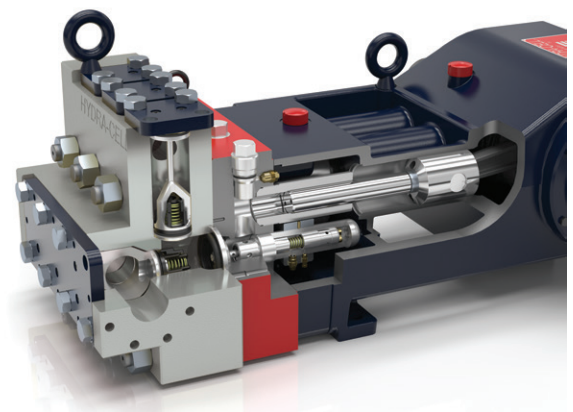
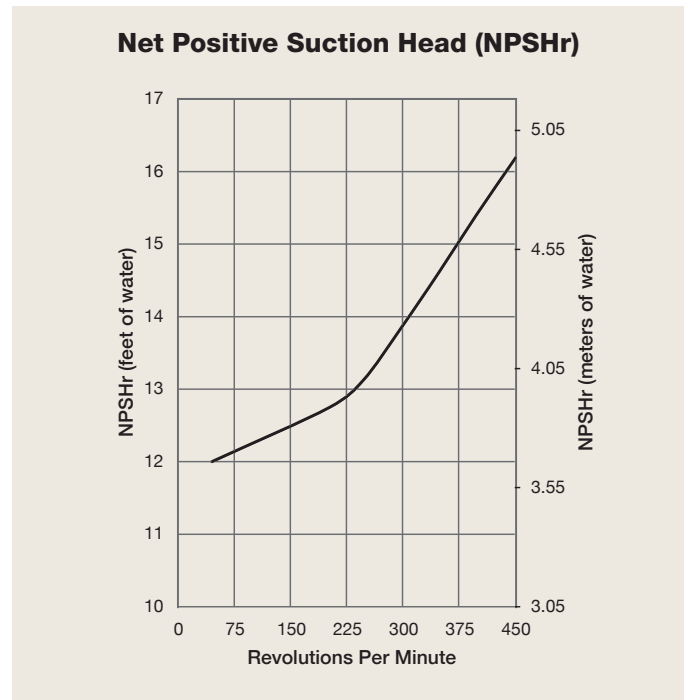
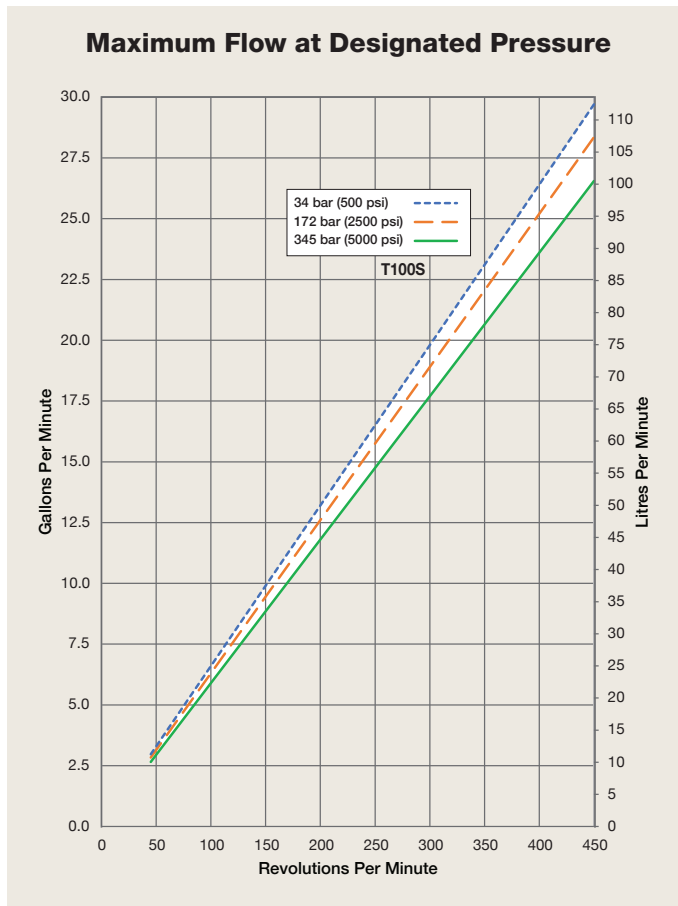
- Integrates **Wanner Hydra-Cell® Pro** seal-less pump technologies for the highest levels of volumetric and energy efficiencies across a full rpm range.
- Patented ADPC (Advanced Diaphragm Position Control) and hydraulic oil management systems protect diaphragms under closed or restricted inlet conditions.
- Can run dry indefinitely without damage to the pump, eliminating downtime and repair costs.
- Pumped liquid is 100% contained, eliminating environmental risks, ground contamination and volatile emissions.
- Seal-less design eliminates leaks, hazards and costs associated with seals and plunger packing.
- Exceeds API 675 standards for accuracy, linearity and repeatability.
- Wider range and higher inlet pressures to 34 barg.
- Self-priming – eliminates need for charge pumps.
- Unique diaphragm design reliably handles a wide range of viscosities and shear sensitivities, corrosive liquids, abrasives, slurries and suspended solids.
- Lower total cost of ownership in acquisition, operation, service, maintenance, and energy use.

T100 Pro High Pressure | Performance

Capacities

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

Consult factory when operating below 45 rpm



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.

Note: Each pump complies with item 6.8.2 of API 674 across the full performance range.

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

Delivery

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

rpm

Maximum:	450
Minimum:	45

Consult factory for speeds less than 45 rpm.

Maximum Discharge Pressure

Metallic Heads: 345 bar (5000 psi)

Maximum Inlet Pressure 34 bar (500 psi)

Operating Temperature

Maximum Liquid Temperature: 82.2°C (180°F)
Consult factory for use with higher liquid temperatures

Diaphragm Material Minimum Service Temperature
(Ambient & Liquid):

Aflas	30°C
EPDM	-20°C
FKM	5°C
Buna-N (HBNR)	-5°C

Consult factory for temperatures outside of these ranges

Maximum Solids Size 800 microns

Input Shaft Left or Right Side

Inlet Ports 2 inch Class 300 FF ANSI Flange

Discharge Ports 1-¼ inch Class 2500 RTJ ANSI Flange

Plunger Stroke Length 88.9 mm (3-½ inch)

Shaft Diameter 76.2 mm (3 inch)

Shaft Rotation Uni-directional (See rotation arrow.)

Oil Capacity 19.4 litres (20.5 US quarts)

See page 5 for oil selection and specification.

Weight

Metallic Heads: 499 kg (1100 lbs.)

Calculating Required Horsepower (kW)*

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

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

* hp (kW) is required application power.

Attention!

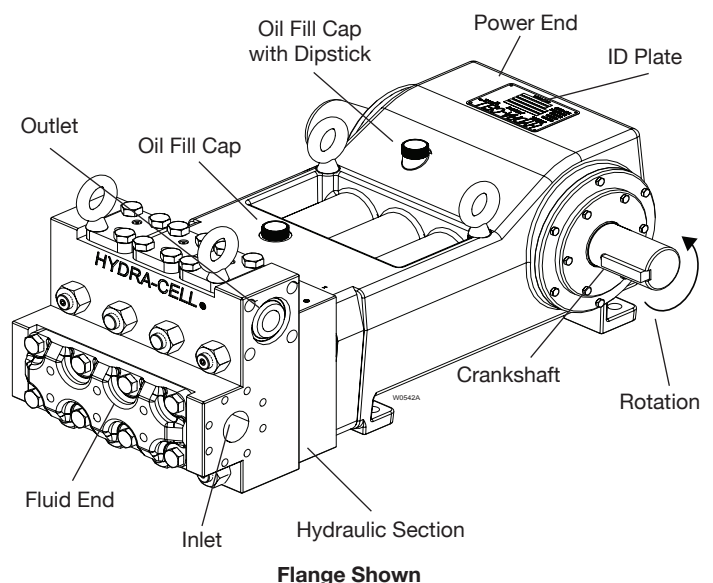
When sizing motors with variable speed drives (VFD): It is very important to select a motor and a VFD rated for constant torque inverter duty service and that the motor is rated to meet the torque requirements of the pump throughout desired speed range.

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/Journal (outer mains) Steel Backed Babbitt (crankpin) Bronze (wristpin)

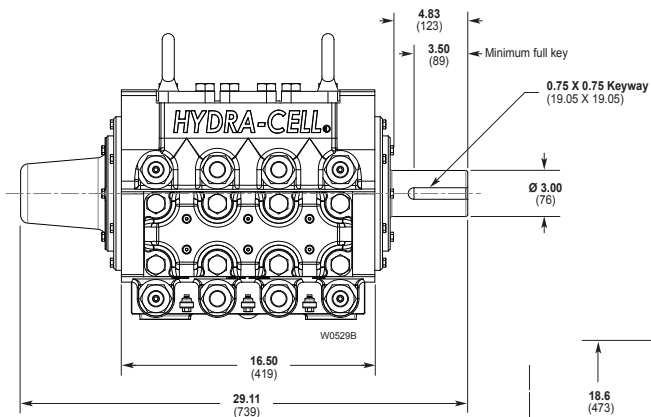


Due to the Wanner Engineering Continuous Improvement Program, specifications and other data are subject to change.

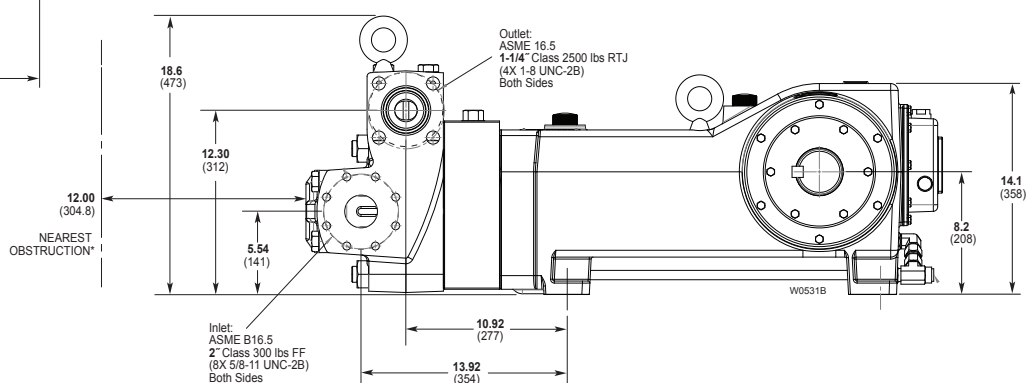
T100 Pro High Pressure | Representative Drawings

Threaded Version inches (mm)

Front View

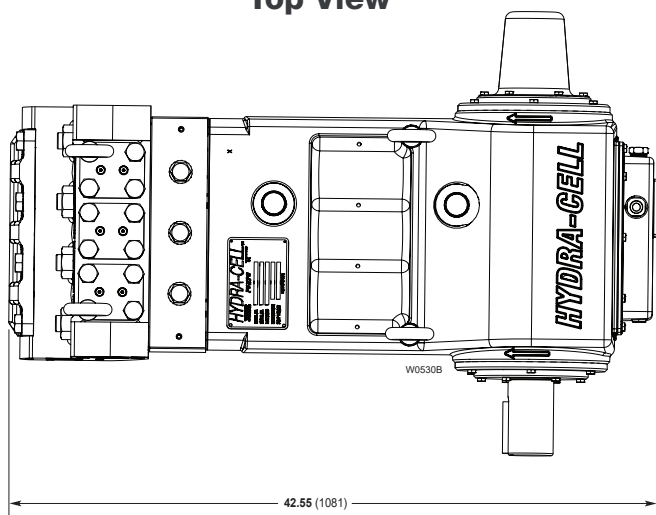


Side View

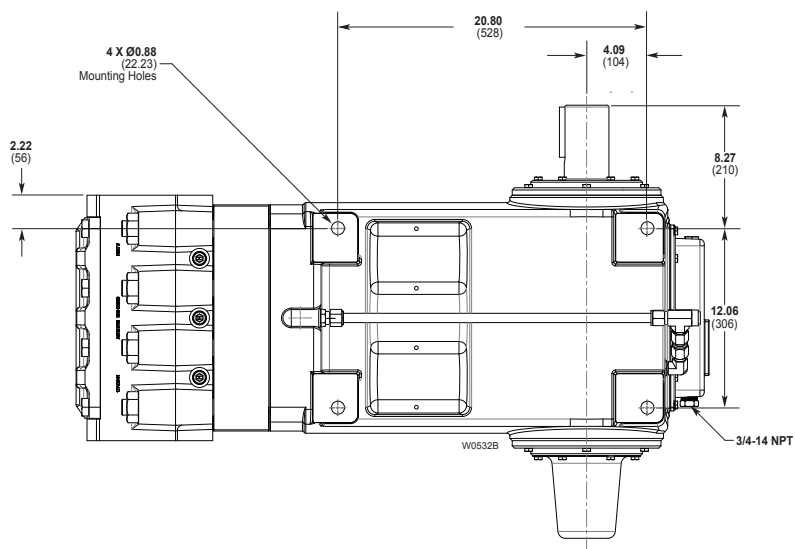


*Contact factory for obstruction distances closer than 12 inches (304.8 mm).

Top View



Bottom View



Note: Dimensions are for reference only. Contact Wanner International for certified drawings.

T100 Pro High Pressure | How to Order

Ordering Information

A complete T100 Series High Pressure Model Number contains 14 digits including 8 customer-specified design and materials options, for example: T100SRDTHFEPAX.

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

T100 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 US gpm) 891 BPD @ 345 bar (5000 psi)
6	R	Pump Head Version ANSI Flanged Ports (FF on Inlet / RTJ on Discharge)
7	D S	Pump Head Material Nickel Aluminium Bronze (NAB) 316L Stainless Steel
8	A E G T	Diaphragm & O-ring Material Aflas EPDM (requires EPDM-compatible oil - digit 13 code D) FKM Buna-N (HBNR)
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	D E T	Valve Springs* Elgiloy for Tungsten Carbide valves* Elgiloy Hastelloy C
12	M P S T	Valve Spring Retainers PVDF Polypropylene 316 SST Hastelloy C

Digit	Order Code	Description
13	A B D H M	Hydra-Oil 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	Oil Level Monitoring 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**)

* Tungsten Carbide valve seat and disc are a matched set and must be purchased together - and only available with non-metallic retainers.

** ATEX instrument only, pump as standard.

*** ATEX-compliant pump and float 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.



ATEX Certification Kit Options

As a separate line on your order, please add the required ATEX Certification Kit Option.

– ATEX 2014/34/EU Certified, Category 2, Zone 1

– ATEX 2014/34/EU Certified, Category 3, Zone 2

• All options include Certificate, Oil Level Monitor or Sight Glass, Earth Stud & Secondary ATEX Label.

• Extra oil is required to fill the oil bowl during installation of ATEX pumps. This oil is not included and must be ordered separately.

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