

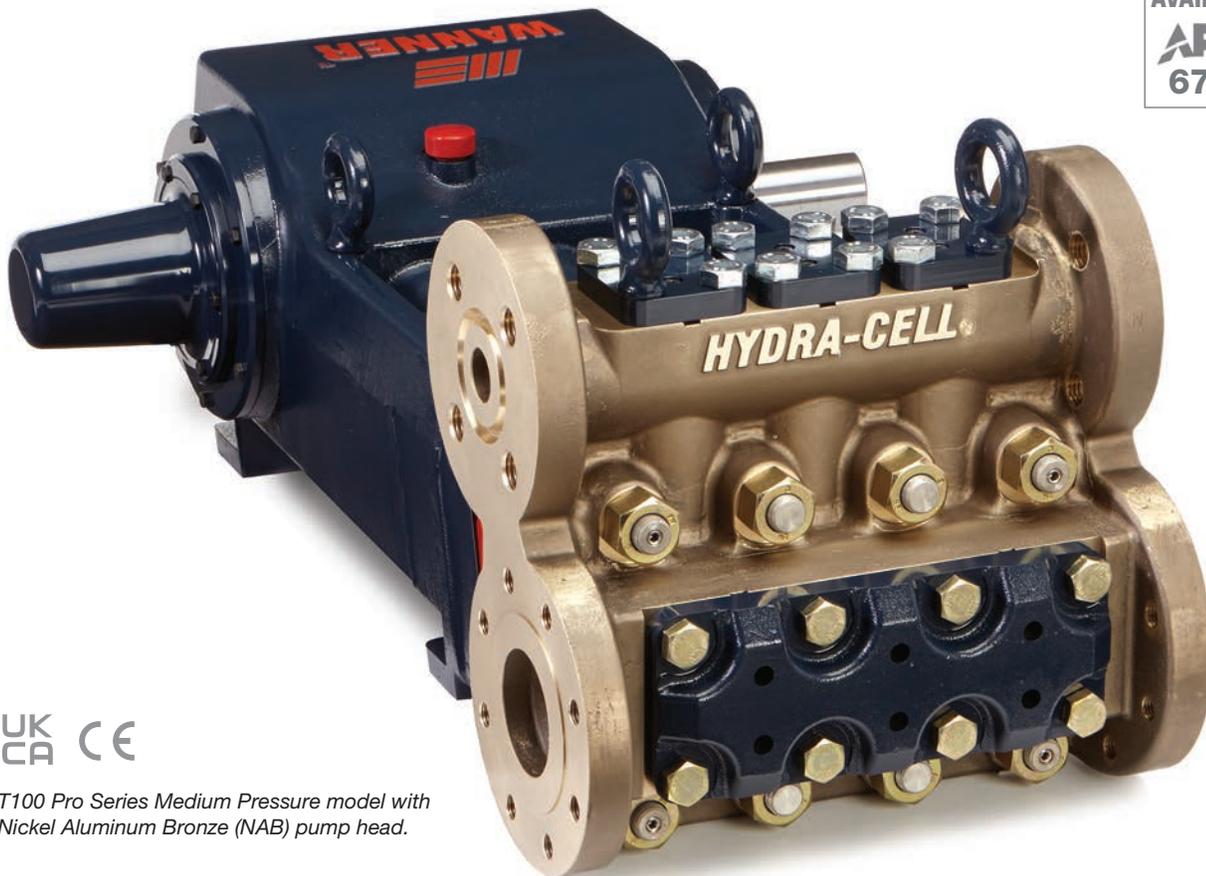
T100 PRO SERIES

MEDIUM PRESSURE

Maximum Flow Rate: 45 gpm (170 l/min) 1543 BPD

Maximum Pressure: 3500 psi (241 bar)

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



UK
CA CE

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

A higher standard of pump performance and energy efficiency.

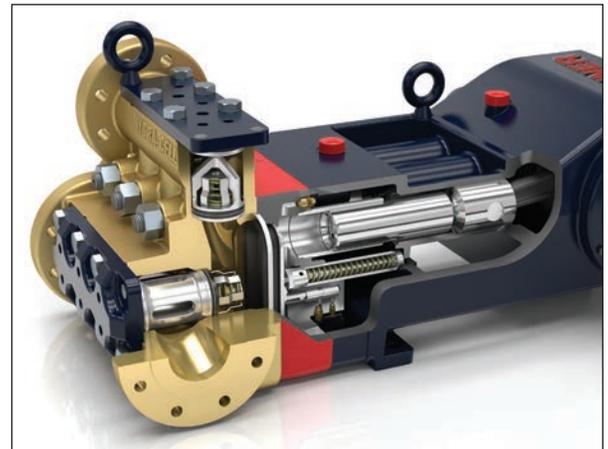
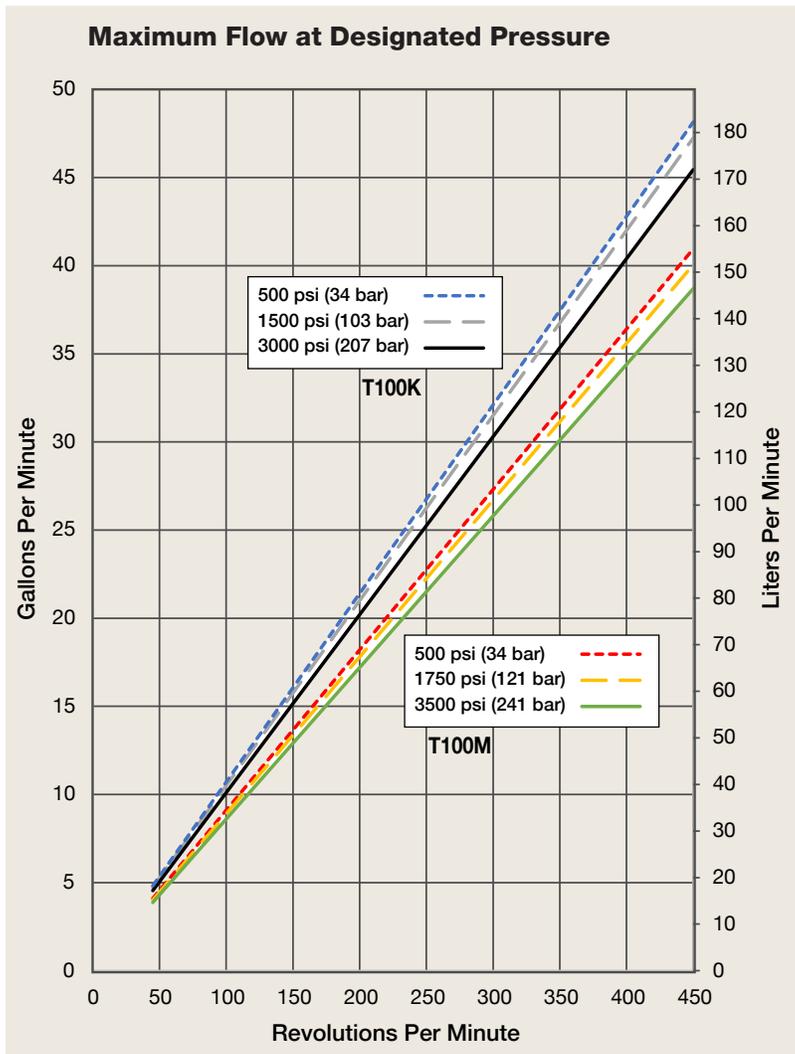
- Integrates **Wanner Hydra-Cell® Pro** seal-less pump technologies for the highest levels of volumetric and energy efficiencies across a full rpm range.
- Patented ADPC (Advanced Diaphragm Position Control) and hydraulic oil management system protect diaphragms under closed or restricted inlet conditions.
- 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.

T100 Pro Medium Pressure | Performance

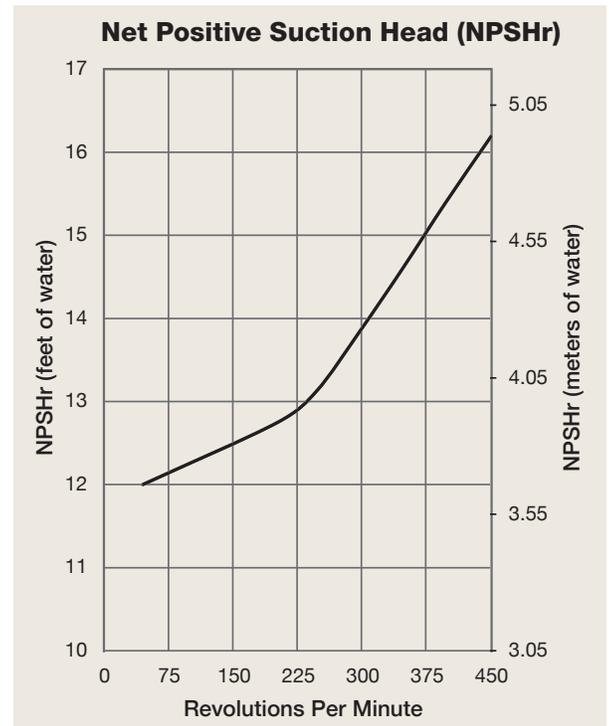
Capacities

Model	Max. Input rpm	Plunger Dia.		Max. Flow Capacities			Max. Pressure Ratings Discharge		Max. Pressure Ratings Inlet	
		inches	mm	gpm	l/min	BPD	psi	bar	psi	bar
T100K	450	1.750	44	45	170	1543	3000	207	500	34
T100M	450	1.625	41	38	143	1302	3500	241	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 Medium Pressure | Specifications

Flow Capacities

Model	Pressure psi (bar)	rpm	gpm	l/min	BPD
T100K	3000 (207)	450	45	170	1543
T100M	3500 (241)	450	38	143	1302

Delivery

	Pressure psi (bar)	gal/rev	liters/rev
T100K	500 (34)	0.107	0.406
	1500 (103)	0.105	0.397
	3000 (207)	0.101	0.384
T100M	500 (34)	0.091	0.345
	1750 (121)	0.089	0.338
	3500 (241)	0.086	0.327

rpm

Maximum:	450
Minimum:	45

Consult factory for speeds less than 45 rpm.

Maximum Discharge Pressure

Metallic Heads:	T100K	3000 psi (207 bar)
	T100M	3500 psi (241 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 or 2-1/2 inch NPT

Discharge Ports

1-1/2 inch Class 2500 RTJ ANSI Flange or 1-1/2 inch NPT

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.

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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Pump Weight

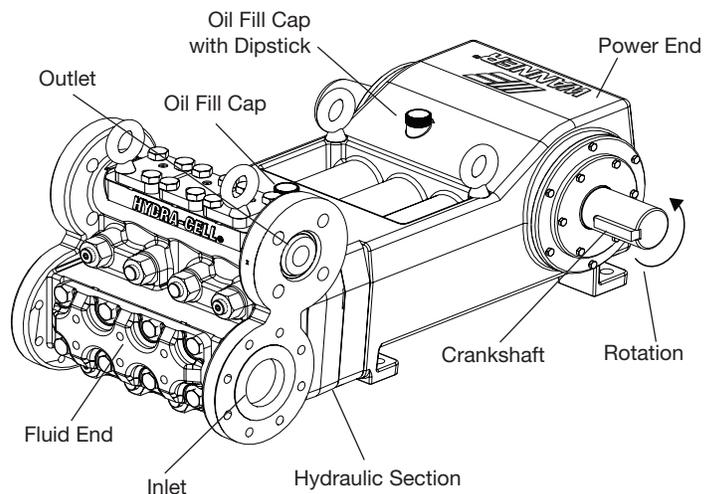
1100 lbs. (499 kg)

Fluid End Materials

Manifold:	Nickel Aluminum Bronze (NAB) Duplex Alloy 2205 Stainless Steel 316L Stainless Steel CF3M Hastelloy CX2MW
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

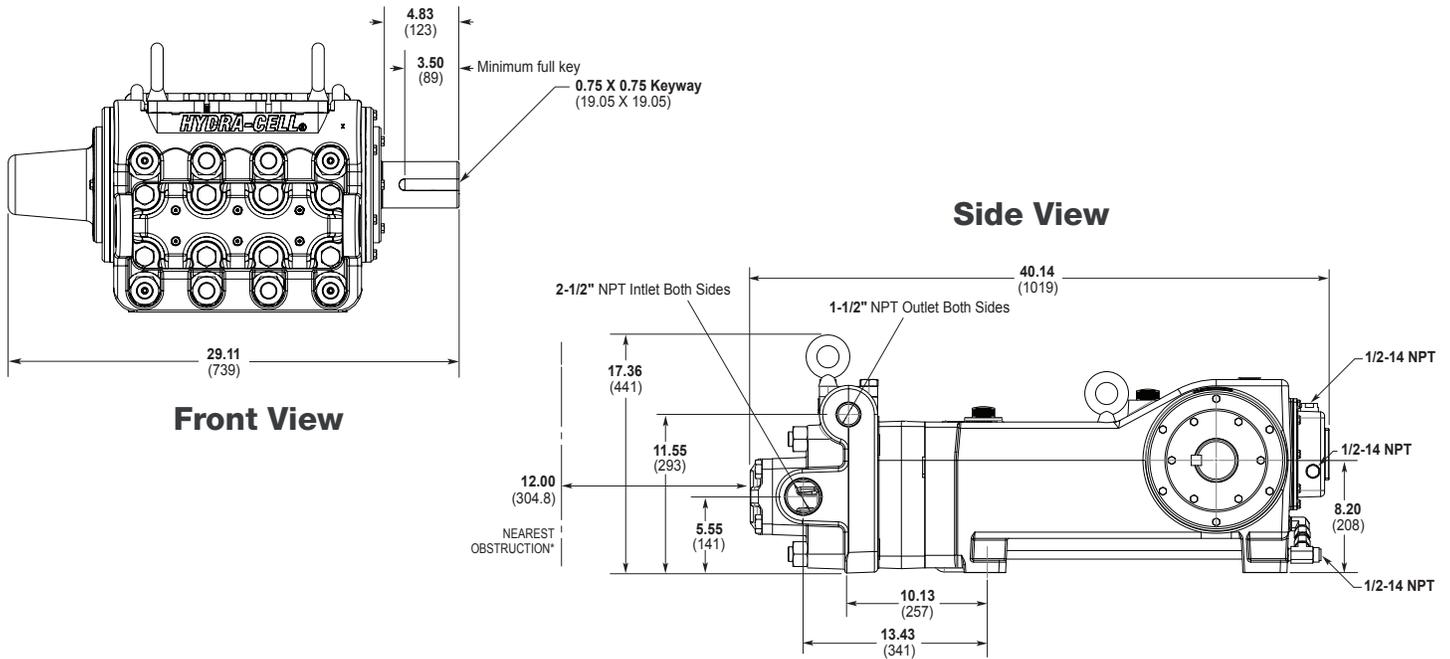
Crankshaft:	Forged Q&T Alloy Steel
Connecting Rods:	Ductile Iron
Crossheads:	12L14 Steel
Crankcase:	Ductile Iron
Bearings:	Spherical Roller (main bearing) Steel Backed Babbit (crankpin) Bronze (wristpin)



Flanged Version Shown

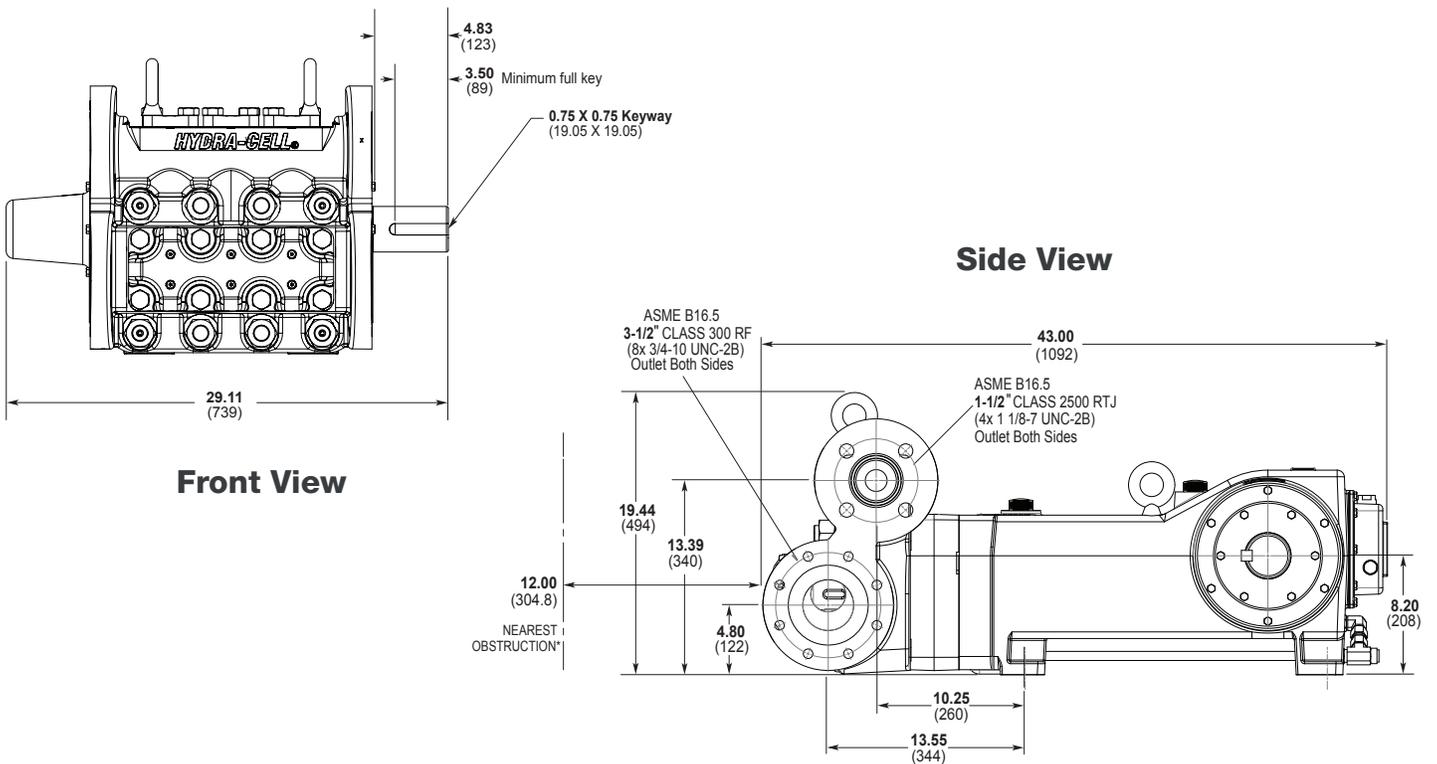
T100 Pro Medium Pressure | Drawings

Threaded Version inches (mm)



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

Flanged Version inches (mm)



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

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

T100 Pro Medium Pressure | How to Order

Ordering Information

A complete T100 Series Medium Pressure Model Number contains 14 digits including 10 customer-specified design and materials options, for example: T100KRDTHFEPAC.

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

Medium Pressure

Digit	Order Code	Description
1-4	T100	Pump Configuration Shaft-driven
5	K	Performance Max. 45 gpm (170 l/min) 1543 BPD @ 3000 psi (207 bar)
	M	Max. 38 gpm (143 l/min) 1302 BPD @ 3500 psi (241 bar)
6	A	Pump Head Version NPT Ports (for NAB only)
	R	ANSI Flanged Ports (RF on Inlet / RTJ on Discharge)
7	D	Pump Head Material Nickel Aluminum Bronze (NAB)
	G	Duplex Alloy 2205 Stainless Steel
	S	316L Stainless Steel CF3M
	T	Hastelloy CX2MW
8	A	Diaphragm & O-ring Material Aflas
	E	EPDM (requires EPDM-compatible oil - Digit 13 oil code D)
	G	FKM
	T	Buna-N
9	D	Valve Seat Material Tungsten Carbide*
	H	17-4 Stainless Steel
	N	Nitronic 50
	T	Hastelloy C
10	D	Valve Material Tungsten Carbide*
	F	17-4 Stainless Steel
	N	Nitronic 50
	T	Hastelloy C
11	D	Valve Springs Elgiloy for Tungsten Carbide valves*
	E	Elgiloy
	T	Hastelloy C
	V	Hastelloy C for Tungsten Carbide valves*

* 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	Valve Spring Retainers PVDF
	P	Polypropylene
	S	316 SST
	T	Hastelloy C
13	A	Hydra-Oil 10W30 standard-duty oil
	B	40-wt. oil
	D	EPDM-compatible oil
	H	15W50 high-temp severe-duty synthetic oil
	M	Food-contact oil
14	C	Oil Level Monitor Cover Float switch, normally closed (recommended)
	O	Float switch, normally open
	S	Float switch, Class I, Div. 1, Groups A, B, C, D, normally closed
	T	Float switch, Class I, Div. 1, Groups A, B, C, D, normally open
	W	Float switch, ATEX/IECEx, 4-20 mA analog output (qualification required)
	X	Float switch, ATEX/IECEx, discrete output (qualification required)
	Y	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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