T100 PRO SERIES
LOW PRESSURE

Maximum Flow Rate: 96 gpm (363 l/min) 3292 BPD
Maximum Pressure: 2100 psi (145 bar)

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

AVAILABLE TO MEET API 674

UK CA CE

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

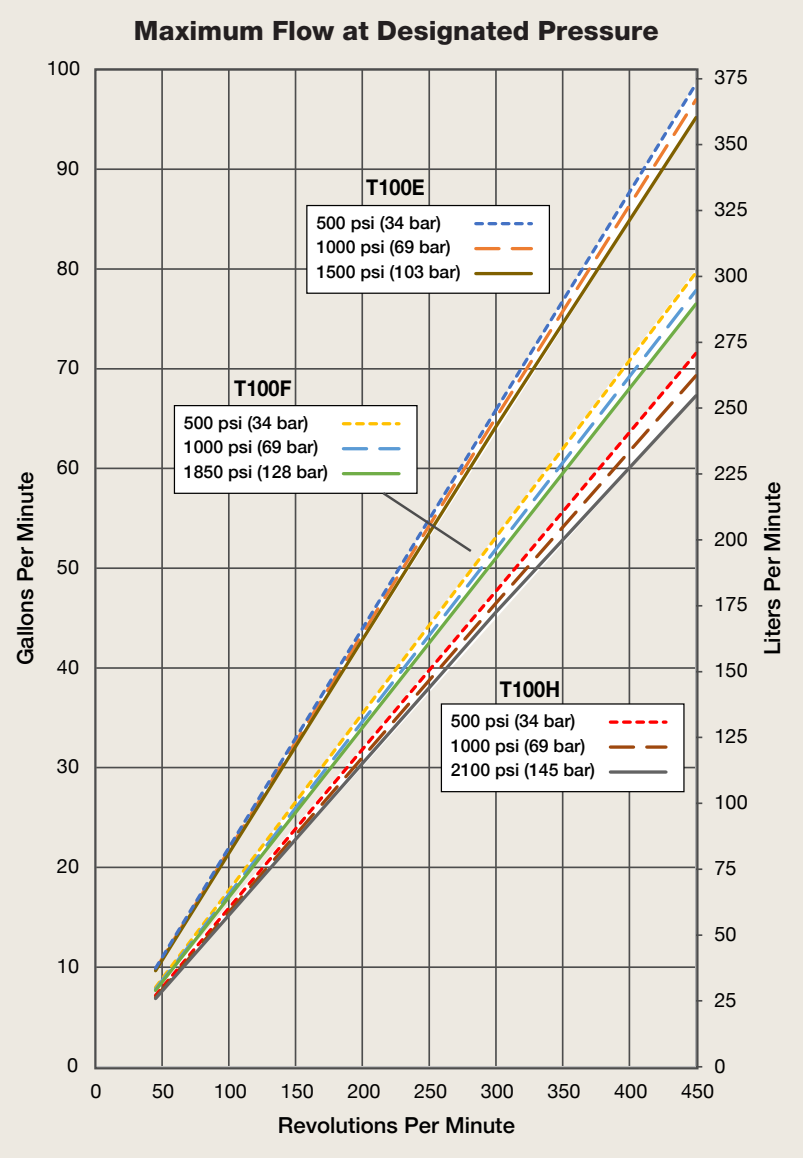
A higher standard of pump performance and energy efficiency.

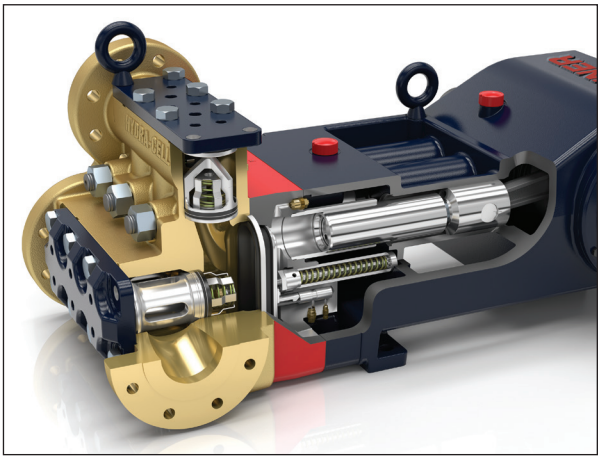
- Integrates **Wanner Hydra-Cell® Pro** seal-less pump technologies for the highest levels of volumetric and energy efficiencies across a full rpm range.
- Patented ADPC (Advanced Diaphragm Position Control) and hydraulic oil management system protect diaphragms under closed or restricted inlet conditions.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

Capacities

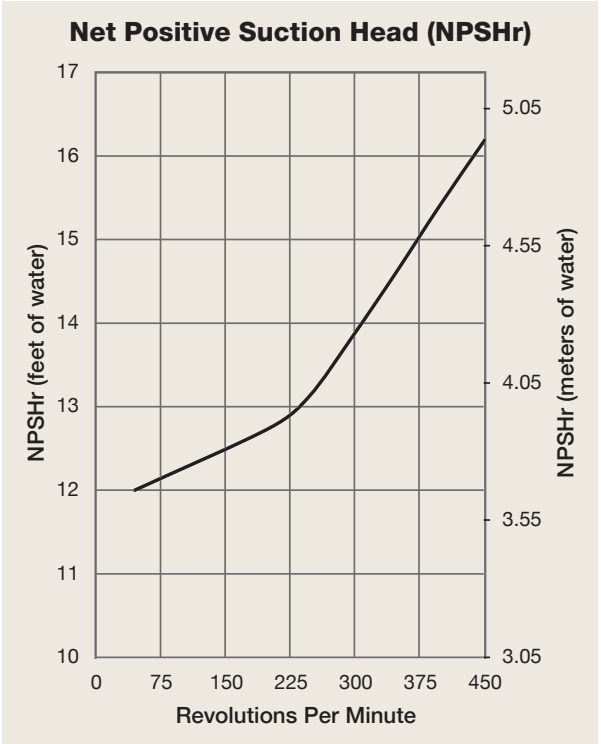
Model	Max. Input rpm	Plunger Dia. inches	mm	Max. Flow Capacities gpm	l/min	BPD	Max. Pressure Ratings Discharge psi	bar	Inlet psi	bar
T100E	450	2.500	64	96	363	3292	1500	103	500	34
T100F	450	2.250	57	76	287	2605	1850	128	500	34
T100H	450	2.125	54	67	253	2297	2100	145	500	34

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 Low Pressure | Specifications

Flow Capacities

Model	Pressure psi (bar)	rpm	gpm	l/min	BPD
T100E	1500 (103)	450	96	363	3292
T100F	1850 (128)	450	76	287	2605
T100H	2100 (145)	450	67	253	2297

Delivery

	Pressure psi (bar)	gal/rev	liters/rev
T100E	500 (34)	0.219	0.829
	1000 (69)	0.216	0.818
	1500 (103)	0.213	0.807
T100F	500 (34)	0.176	0.665
	1000 (69)	0.173	0.656
	1850 (128)	0.170	0.645
T100H	500 (34)	0.159	0.600
	1000 (69)	0.154	0.584
	2100 (145)	0.149	0.565

rpm

Maximum: 450
Minimum: 45
Consult factory for speeds less than 45 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

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

Shaft Diameter 3 inch (76.2 mm)

Shaft Rotation Uni-directional (See rotation arrow.)

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.

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.

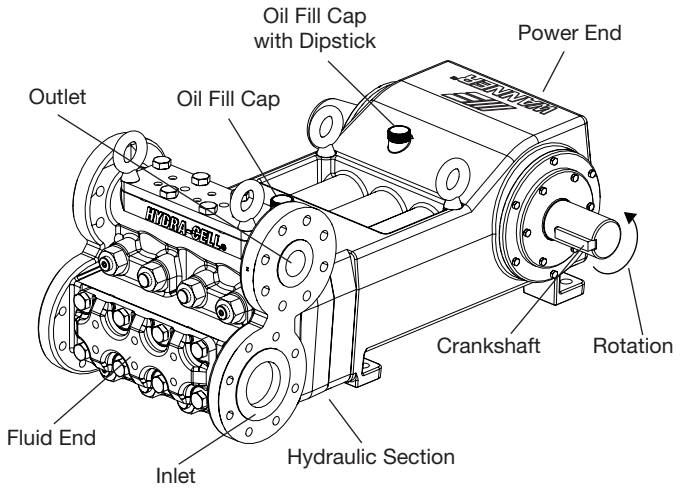
Pump Weight 1100 lbs. (499 kg)

Fluid End Materials

Manifold:	Nickel Aluminum Bronze (NAB)
	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:	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

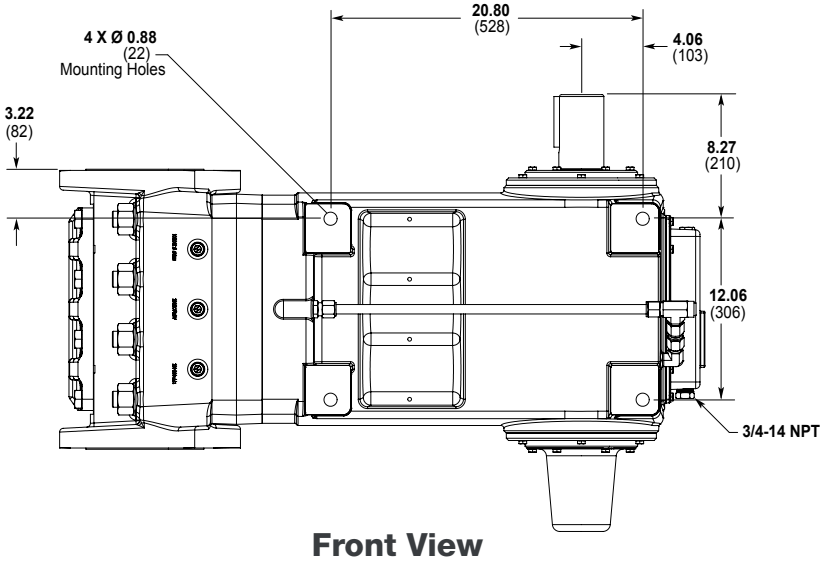
Crankshaft:	Forged Q&T Alloy Steel
Connecting Rods:	Ductile Iron
Crossheads:	12L14 Steel
Crankcase:	Ductile Iron
Bearings:	Spherical Roller (main bearing)
	Steel Backed Babbit (crankpin)
	Bronze (wristpin)



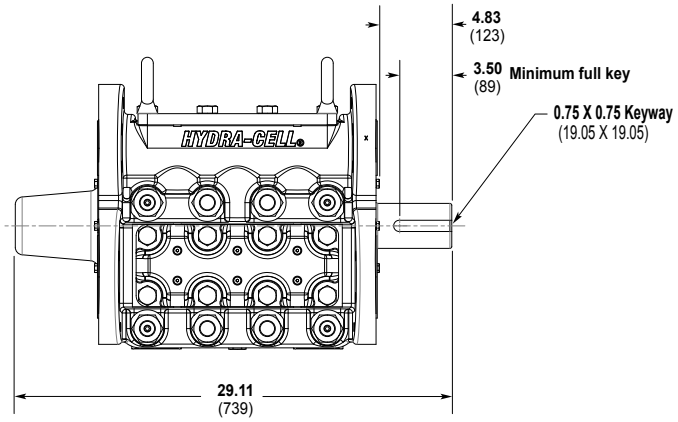
Due to the Wanner Engineering Continuous Improvement Program, specifications and other data are subject to change.

Flanged Version inches (mm)

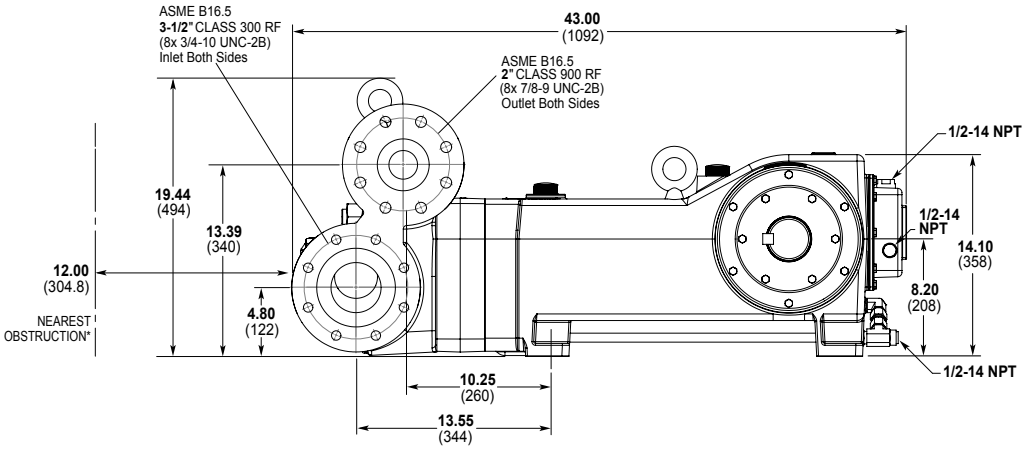
Bottom View



Front View



Side View



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

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

Ordering Information

A complete T100 Pro Series Low Pressure Model Number contains 14 digits including 9 customer-specified design and materials options, for example: T100ERDTHFESAC.

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

Low Pressure

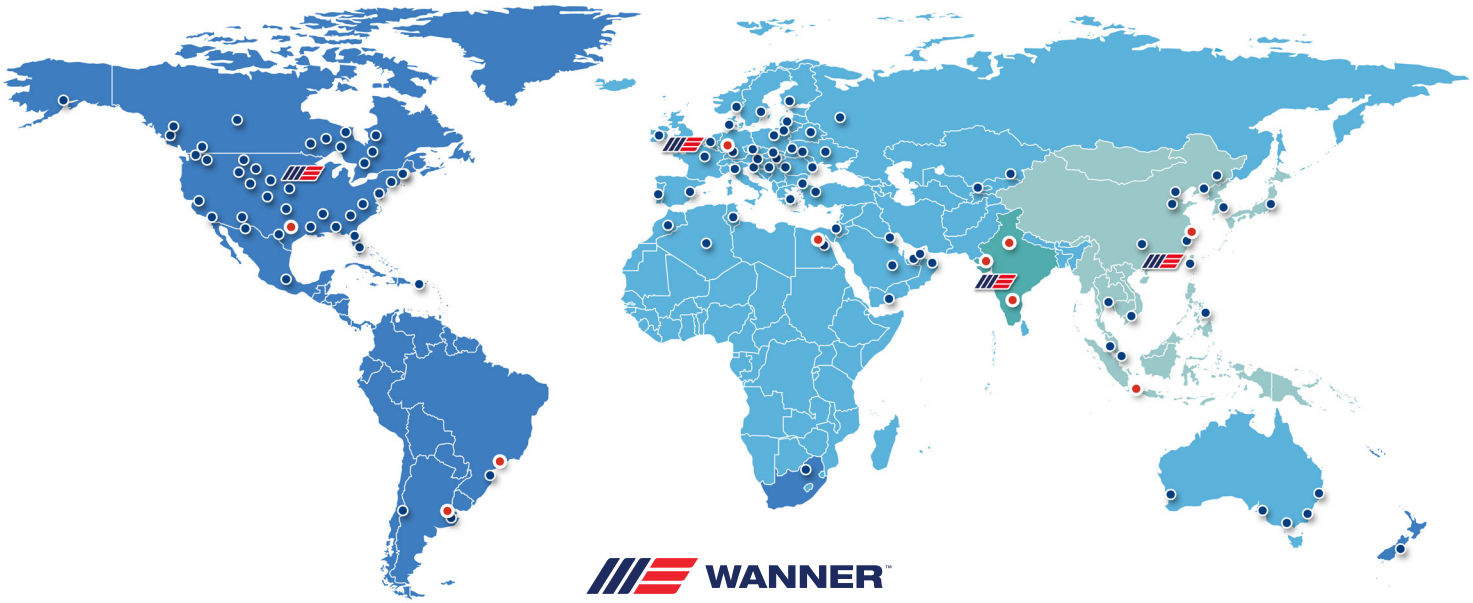
Digit	Order Code	Description
1-4		**Pump Configuration**
	T100	Shaft-driven
5		**Performance**
	E	Max. 96 gpm (363 l/min) 3292 BPD @ 1500 psi (103 bar)
	F	Max. 76 gpm (287 l/min) 2605 BPD @ 1850 psi (128 bar)
	H	Max. 67 gpm (253 l/min) 2297 BPD @ 2100 psi (145 bar)
6		**Pump Head Version**
	R	ANSI Flanged Ports (RF on Inlet / RF on Discharge)
7		**Pump Head Material**
	D	Nickel Aluminum Bronze (NAB)
	G	Duplex Alloy 2205 Stainless Steel
	S	316L Stainless Steel CF3M
	T	Hastelloy CX2MW
8		**Diaphragm & O-ring Material**
	A	Aflas
	E	EPDM (requires EPDM-compatible oil – Digit 13 oil code D)
	G	FKM
	T	Buna-N
9		**Valve Seat Material**
	D	Tungsten Carbide*
	H	17-4 Stainless Steel
	N	Nitronic 50
	T	Hastelloy C
10		**Valve Material**
	D	Tungsten Carbide*
	F	17-4 Stainless Steel
	N	Nitronic 50
	T	Hastelloy C
11		**Valve Springs**
	D	Elgiloy for Tungsten Carbide valves*
	E	Elgiloy
	T	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		**Valve Spring Retainers**
	S	316 Stainless Steel
	T	Hastelloy C
13		**Hydra-Oil**
	A	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		**Oil Level Monitor Cover**
	C	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.

Partners in over 70 countries



Americas
- Minneapolis, Minnesota USA
- Wichita Falls, Texas USA
- São Paulo, Brazil
- Buenos Aires, Argentina

EMEA | Australia
- Hampshire, United Kingdom
- Cairo, Egypt
- Remagen, Germany

Asia | Pacific
- Kowloon, Hong Kong
- Shanghai, China
- Jakarta, Indonesia

India
- Mumbai, India
- New Delhi
- Bangalore
- Gujarat

Wanner worldwide

GLOBAL SALES & TECHNICAL SUPPORT

WANNER ENGINEERING, INC.
WORLD HEADQUARTERS & MANUFACTURING

Minneapolis, Minnesota USA
t: 612-332-5681
e: sales@wannereng.com
Hydra-Cell.com

REGIONAL OFFICE
Wichita Falls, Texas USA
t: 940-322-7111
e: sales@wannereng.com

LATIN AMERICAN OFFICE
São Paulo, Brazil
t: +55 (11) 99582-1969
e: mmagoni@wannereng.com
Hydra-Cell-Pumps.com.br

WANNER INTERNATIONAL, LTD.
UNITED KINGDOM

Church Crookham,
Hampshire UK GU52 8BF

t: +44 (0) 1252 816847
e: support@wannerint.com
Hydra-Cell.co.uk

WANNER PUMPS, LTD.
Kowloon, HONG KONG
t: +852 3428 6534
e: sales@wannerpumps.com
WannerPumps.com

Shanghai, CHINA
t: +86-21-6876 3700
e: sales@wannerpumps.com
WannerPumps.com

WANNER INDIA PVT. LTD.
Mumbai, INDIA
t: +91 (22) 22044766
e: support@wannerindia.com
WannerIndia.com

WANNER™