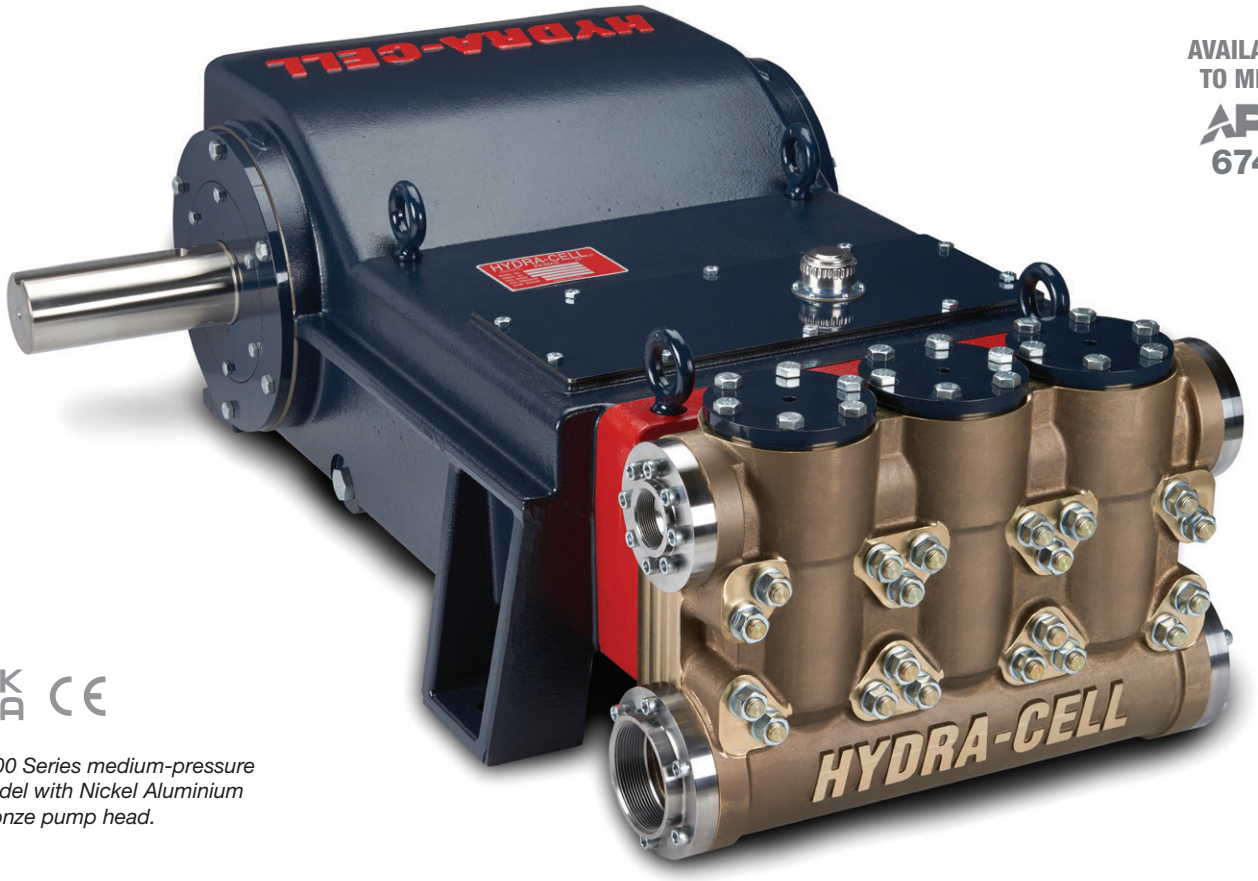
T200 PRO SERIES
MEDIUM PRESSURE

Maximum Flow Rate: 355 l/min (94 US gpm) 3222 BPD
Maximum Pressure: 241 bar (3500 psi)

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

AVAILABLE TO MEET API 674



UK CA CE

T200 Series medium-pressure model with Nickel Aluminium Bronze pump head.

A higher standard of pump performance and energy efficiency.

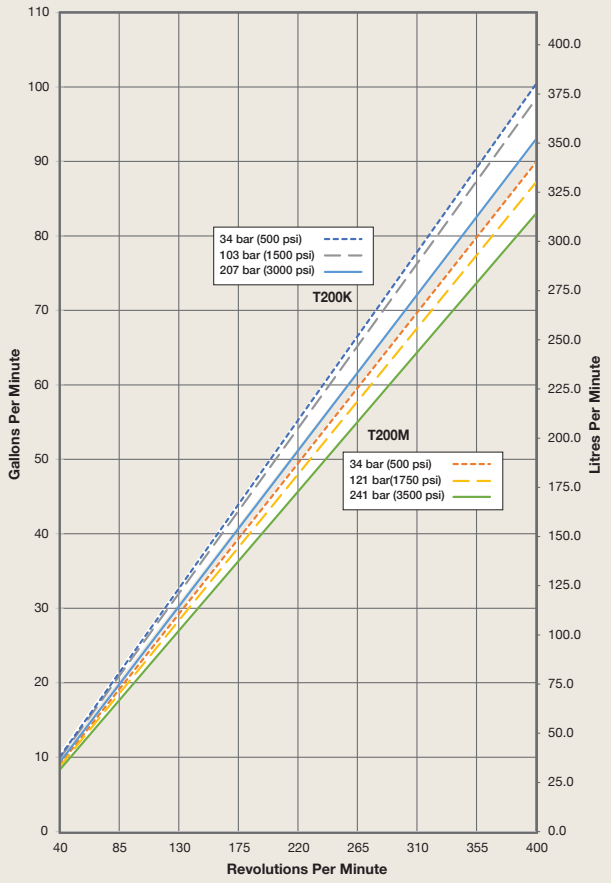
- Integrates **Wanner Hydra-Cell® Pro** seal-less pump technologies for the highest levels of volumetric and energy efficiencies across a full rpm range.
- Patented ADPC (Advanced Diaphragm Position Control) and hydraulic oil management systems protect diaphragms under closed or restricted inlet conditions.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

Capacities

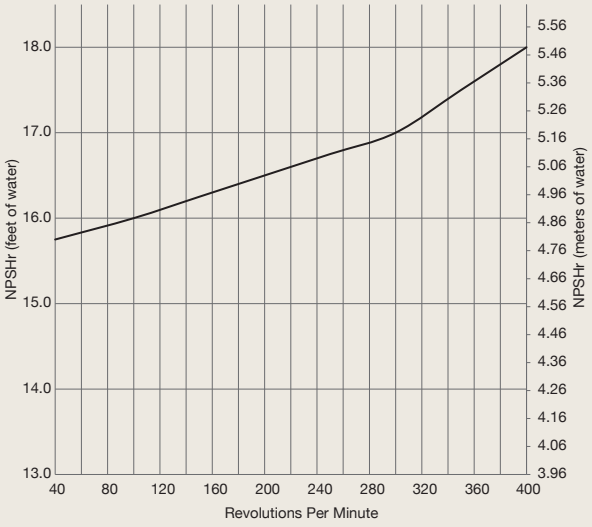
Model	Max. Input rpm	Plunger Dia. inches	Plunger Dia. mm	Max. Flow Capacities US gpm	Max. Flow Capacities l/min	Max. Flow Capacities BPD	Max. Pressure Ratings Discharge bar	Max. Pressure Ratings Discharge psi	Max. Pressure Ratings Inlet bar	Max. Pressure Ratings Inlet psi
T200K	400	2.250	57	94	355	3222	207	3000	34	500
T200M	400	2.125	54	84	318	2880	241	3500	34	500

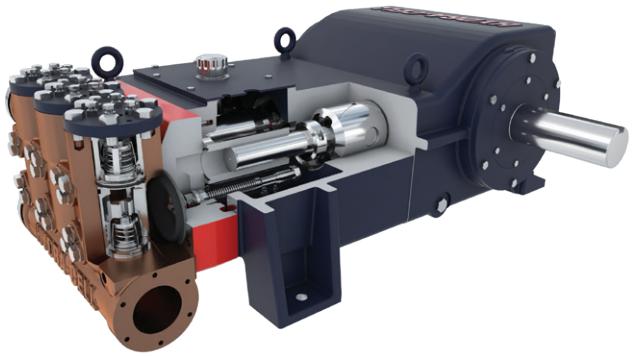
Consult factory when operating below 40 rpm

Maximum Flow at Designated Pressure



Net Positive Suction Head (NPSHr)





T200 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.

T200 Pro Medium Pressure | Specifications

Flow Capacities

Model	Pressure bar (psi)	rpm	US gpm	l/min	BPD
T200K	207 (3000)	400	94	355	3222
T200M	241 (3500)	400	84	318	2880

Delivery

	Pressure bar (psi)	gal/rev	litres/rev
T200K	34 (500)	0.251	0.950
	103 (1500)	0.246	0.931
	207 (3000)	0.235	0.887
T200M	34 (500)	0.225	0.851
	121 (1750)	0.218	0.825
	241 (3500)	0.210	0.795

rpm

Maximum: 400
Minimum: 40
Consult factory for speeds less than 40 rpm.

Maximum Discharge Pressure

Metallic Heads: T200K 207 bar (3000 psi)
T200M 241 bar (3500 psi)

Maximum Inlet Pressure 34 bar (500 psi)

Operating Temperature

Maximum: 82.2˚C (180˚F)
Minimum: 4.4˚C (40˚F)
Consult factory for temperatures outside of these ranges

Maximum Solids Size 800 microns

Input Shaft Right Side

Inlet Ports Weld-On: 4" / SCH. 40
4" NPT, 4" Class 300 RF ANSI Flange

Discharge Ports Weld-On: 2" / SCH. 160
2" NPT, 2" Class 2500 RTJ ANSI Flange

Plunger Stroke Length 127 mm (5 inch)

Shaft Diameter 101.6 mm (4 inch)

Shaft Rotation Uni-directional (See rotation arrow.)

Oil Capacity 75.7 litres (80 US quarts)
- blank back cover
See page 5 for oil selection and specification.

Weight

Metallic Heads: 1361 kg (3000 lbs.)

Fluid End Materials

Manifold: Nickel Aluminum Bronze (NAB)
Duplex Alloy 2205 Stainless Steel
CF3M (316L) Stainless Steel
Hastelloy CX2M
Diaphragm/Elastomers: FKM
Buna-N
Diaphragm Follower Screw: 316 Stainless Steel
Duplex Alloy 2205 Stainless Steel
Hastelloy C
Valve Spring Retainer: Hastelloy C / PVDF
Check Valve Spring: Elgiloy
Hastelloy C
Valve Disc/Seat: 17-4 Stainless Steel
Nitronic 50
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: Ductile Iron
Crankcase: Ductile Iron
Bearings: Spherical Roller (main)
Steel-backed Tri-metal (crankpin)
Bronze (wristpin)

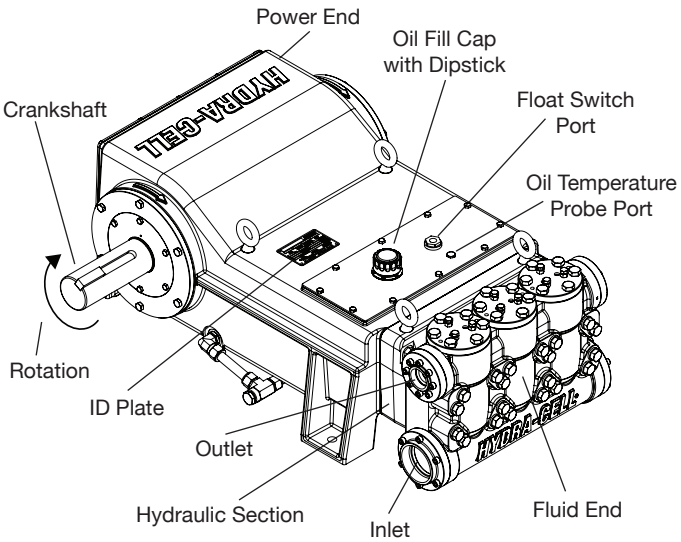
Calculating Required Horsepower (kW)*

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

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

** 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.



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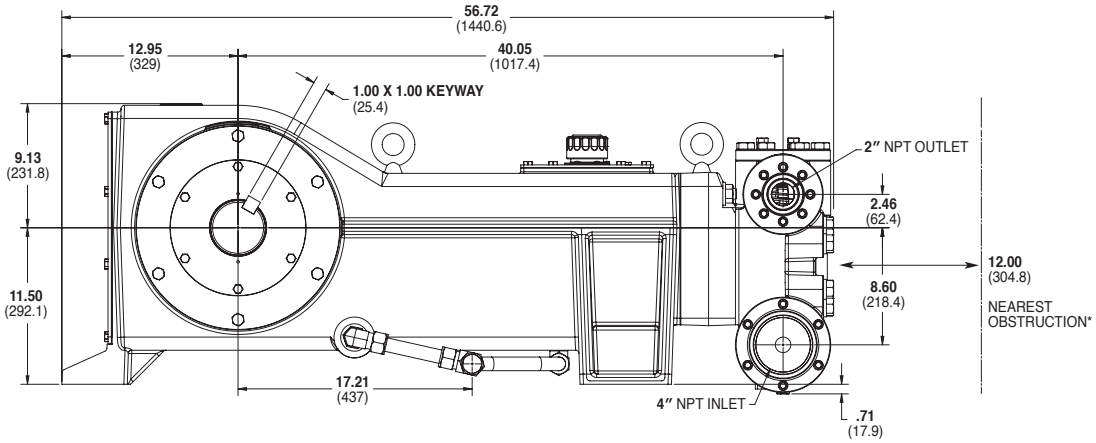
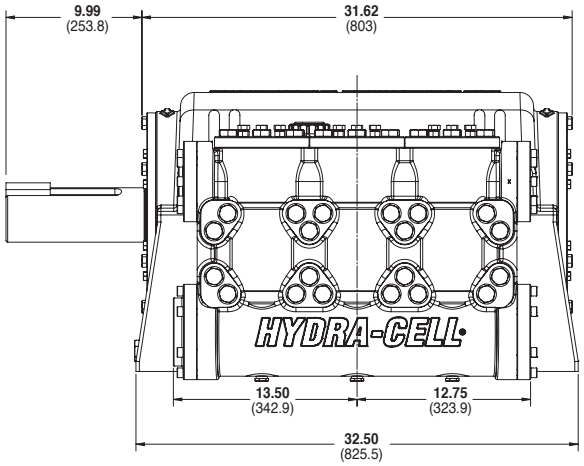
Threaded Version inches (mm)

Side View

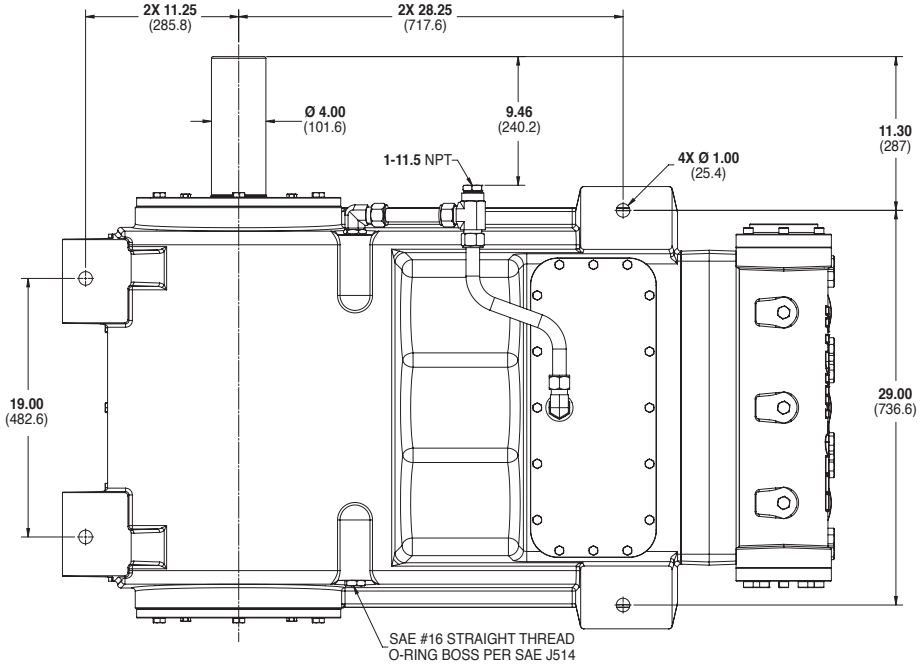


*Contact factory for obstruction distances closer than 12 inches (304.8 mm).

Front View



Bottom View



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

Ordering Information

A complete T200 Series Medium Pressure Model Number contains 14 digits including 9 customer-specified design and materials options, for example: T200KADGHFETAC.

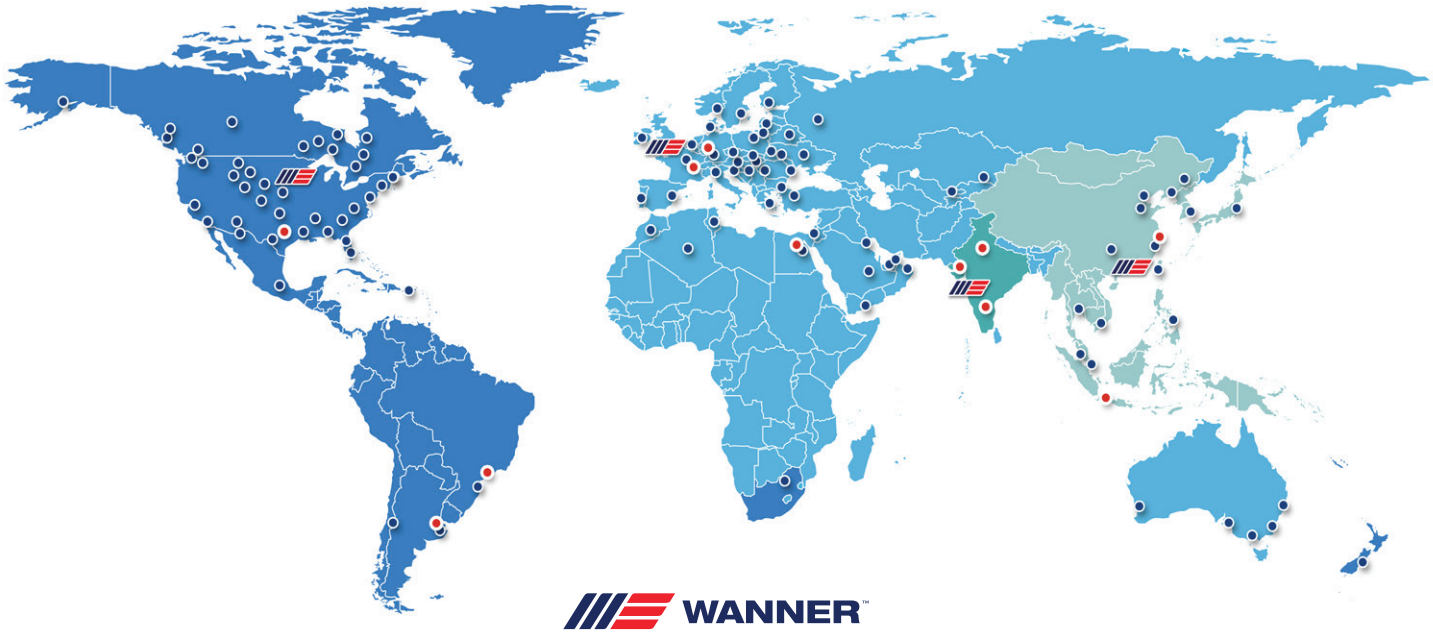
1	2	3	4	5	6	7	8	9	10	11	12	13	14
T	2	0	0								T		

T200 Medium Pressure

Digit	Order Code	Description
1-4		**Pump Configuration**
	T200	Shaft-driven API 674 - Contact Wanner International
5		**Performance**
	K	Max. 355 l/min (94 US gpm) 3222 BPD @ 207 bar (3000 psi)
	M	Max. 318 l/min (84 US gpm) 2880 BPD @ 241 bar (3500 psi)
6		**Pump Head Version**
	A	NPT Threaded Ports (Steel)
	C	Weld Neck (Steel)
	D	Weld Neck (316L Stainless Steel)
	E	Weld Neck (Hastelloy C)
	F	Weld Neck (Duplex Alloy 2205 Stainless Steel)
	G	ANSI Flange Ports (Duplex Alloy 2205 Stainless Steel)
	T	ANSI Flange Ports (Hastelloy C)
7		**Pump Head Material**
	D	Nickel Aluminium Bronze (NAB)
	G	Duplex Alloy 2205 Stainless Steel
	S	316L Stainless Steel CF3M
	T	Hastelloy CX2M
8		**Diaphragm & O-ring Material**
	G	FKM
	T	Buna-N
9		**Valve Seat Material**
	H	17-4 Stainless Steel
	N	Nitronic 50
	T	Hastelloy C
10		**Valve Material**
	F	17-4 Stainless Steel
	N	Nitronic 50
	T	Hastelloy C
11		**Valve Springs**
	E	Elgiloy
	T	Hastelloy C

Digit	Order Code	Description
12		**Valve Spring Retainers**
	T	Hastelloy C / PVDF
13		**Hydra-Oil**
	A	10W30 standard-duty oil
	B	40-wt. oil
	H	15W50 high-temp severe-duty synthetic oil
14		**Oil Level Monitoring**
	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

Partners in over 70 countries



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