T200 Series Medium Pressure
Models T200K & T200M

Maximum Flow Rate: 352 l/min (93 gpm) 3189 BPD
Maximum Pressure: 241 bar (3500 psi)

API 674

CE

WANNER Hydra-Cell® Seal-less Pump Technology

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

Available to Meet API 674

- Seal-less design eliminates leaks, hazards and the expense associated with seals and packing.
- Low NPSH requirements allow for operation with a vacuum condition on the suction. Positive suction pressure is not necessary, and there is no need for a booster or charge pump.
- Patented Diaphragm Positioning Control (DPC) protects the diaphragms against a closed or blocked suction line.
- Can run dry indefinitely without damage, eliminating downtime and repair costs.
- Unique diaphragm design handles more abrasives with less wear than gear, screw or plunger pumps.
- Hydraulically balanced diaphragms to handle high pressures with low stress.
- Significantly lower energy costs than centrifugal pumps.
- Rugged construction for long life with minimal maintenance.
- Compact design offers a variety of installation options.

WANNER INTERNATIONAL

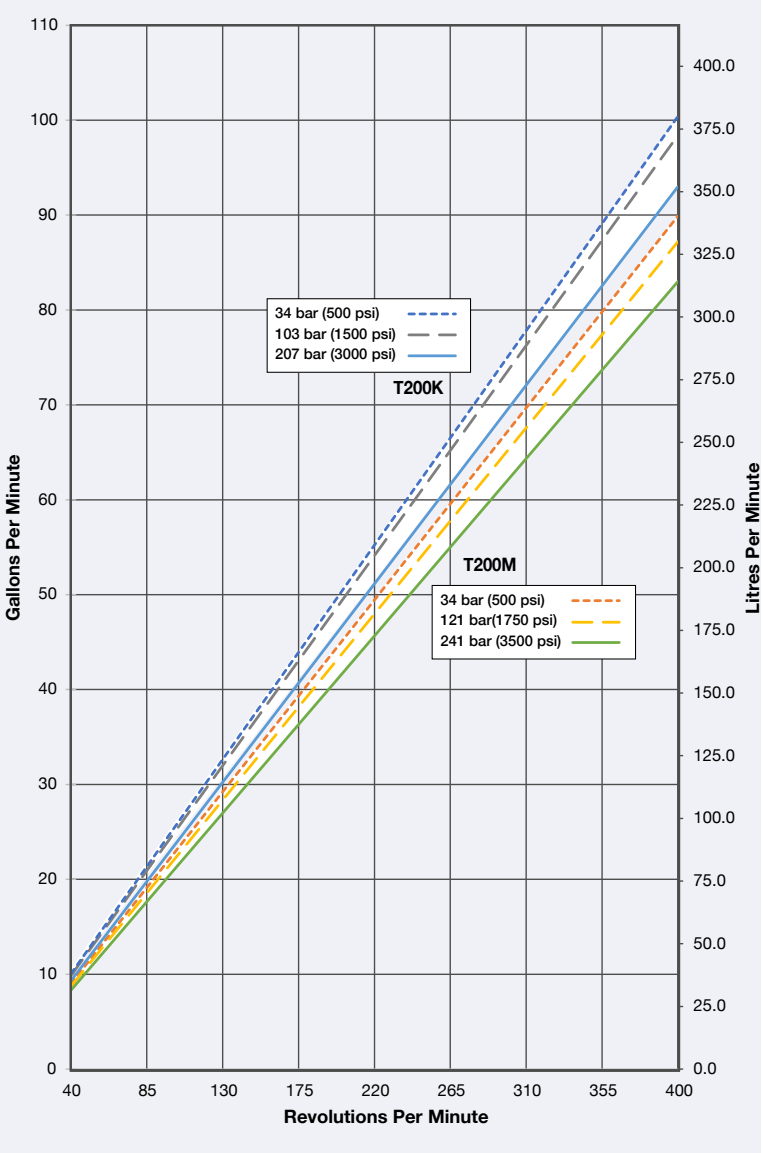
T200 Series Medium Pressure Performance

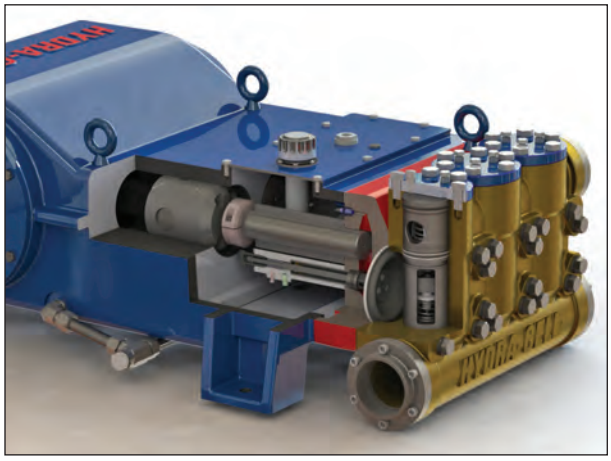
Capacities

Model	Max. Input rpm	Plunger Dia. Inches	Plunger Dia. mm	Max. Flow Capacities 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	93	352	3189	207	3000	34	500
T200M	400	2.125	54	83	314	2846	241	3500	34	500

Consult factory when operating below 40 rpm.

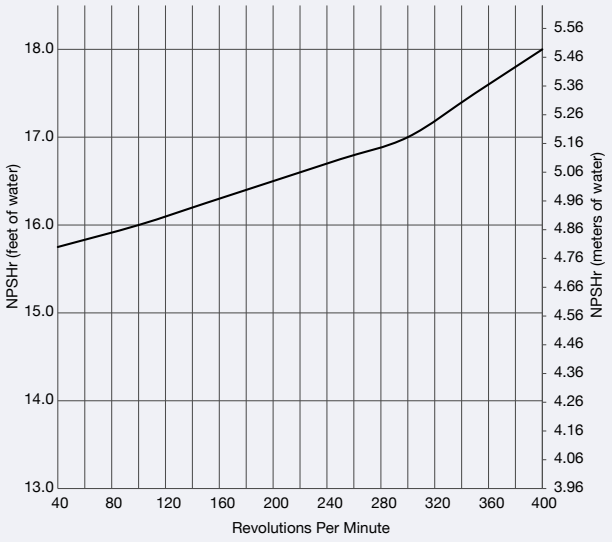
Maximum Flow at Designated Pressure





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.

Net Positive Suction Head (NPSHr)



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 may change without notice.

T200 Series Medium Pressure Specifications

Flow Capacities

Model	Pressure bar (psi)	rpm	gpm	l/min	BPD
T200K	207 (3000)	400	93	352	3189
T200M	241 (3500)	400	83	314	2846

Delivery

	Pressure bar (psi)	gal/rev	litres/rev
T200K	34 (500)	0.251	0.950
	103 (1500)	0.246	0.931
	207 (3000)	0.233	0.880
T200M	34 (500)	0.225	0.851
	121 (1750)	0.218	0.825
	241 (3500)	0.208	0.785

rpm

Maximum:	400
Maximum API 674:	310
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)

Liquid Operating Temperature

Maximum:	82.2 °C (180 °F)
Minimum:	4.4 °C (40 °F)

Consult factory for temperatures outside this range.

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.)

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!

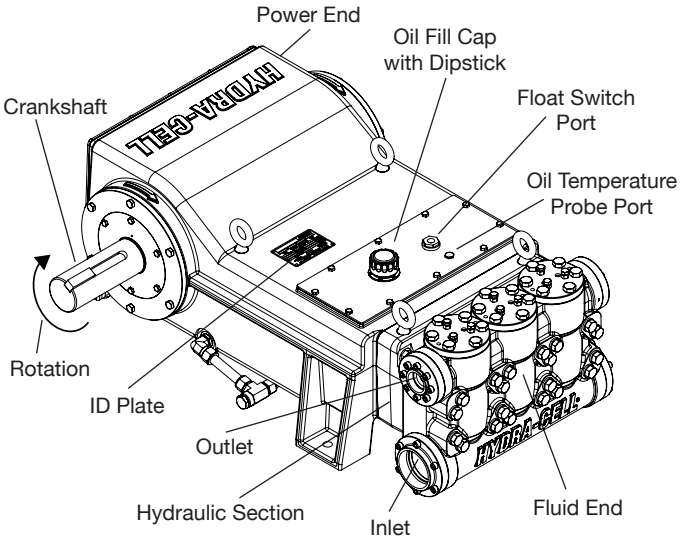
When sizing motors with variable speed drives (VFD): It is very important to select a motor and a VFD rated for constant torque inverter duty service and that the motor is rated to meet the torque requirements of the pump throughout desired speed range.

Fluid End Materials

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

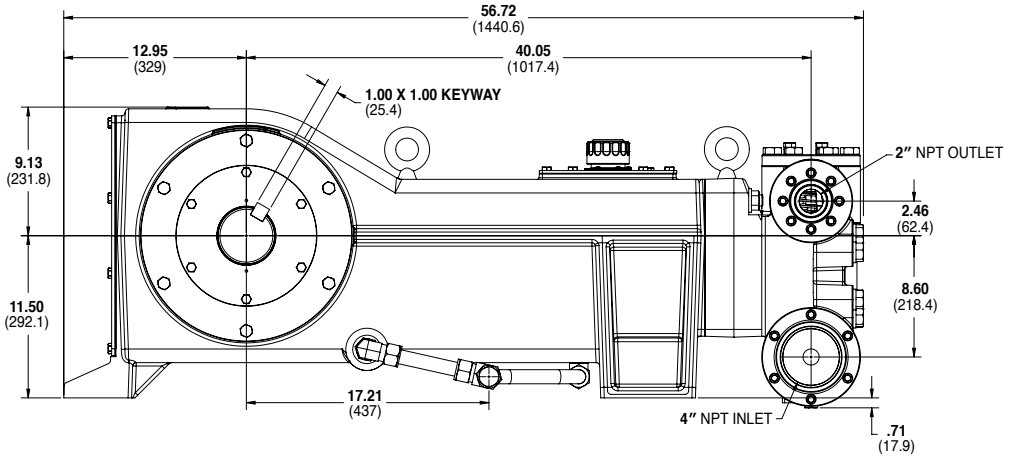
Crankshaft:	Ductile Iron
Connecting Rods:	Ductile Iron
Crossheads:	Ductile Iron
Crankcase:	Ductile Iron
Bearings:	Spherical Roller (main)
	Steel-backed Tri-metal (crankpin)
	Bronze (wristpin)



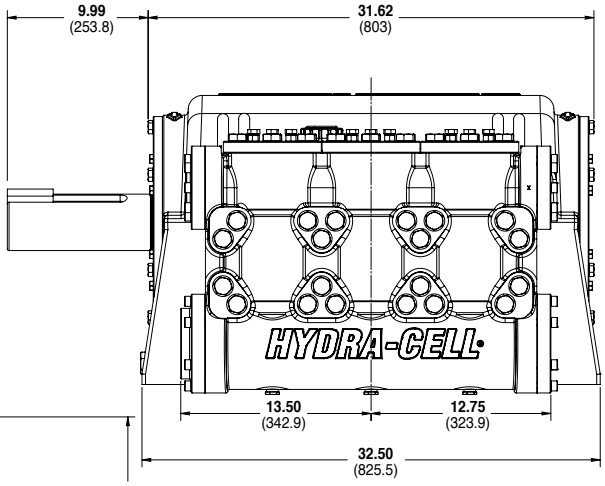
T200 Series Medium Pressure
Representative Drawings

Threaded Version Inches (mm)

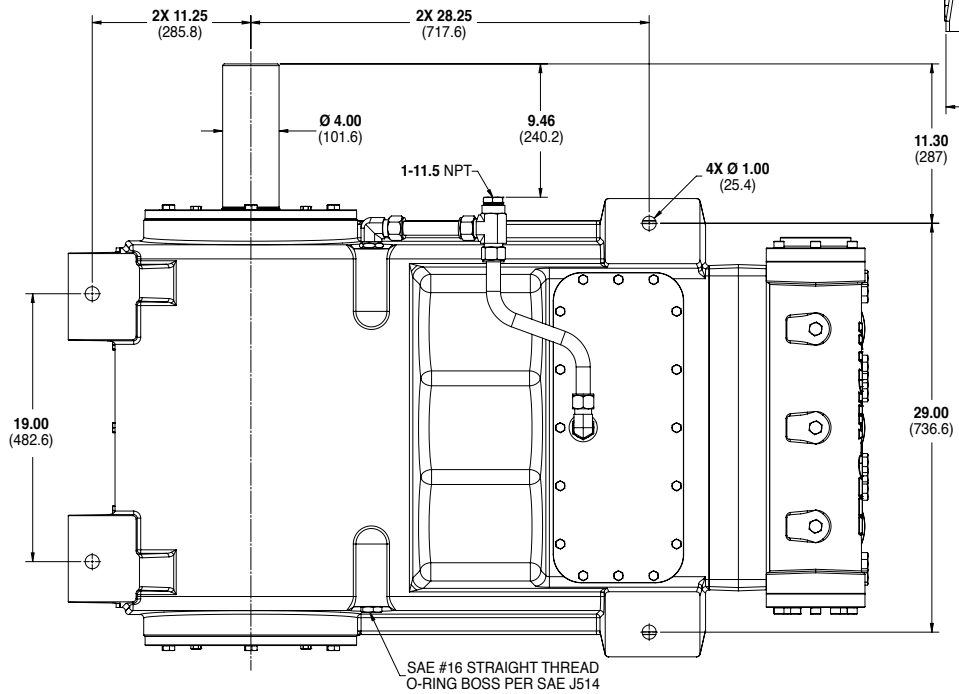
Side View



Front View



Bottom View



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

T200 Series Medium Pressure How to Order

Ordering Information

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

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

Medium Pressure

Digit	Order Code	Description
1-4		**Pump Configuration**
	T200	Shaft-driven API 674 - Contact Wanner International
5		**Performance**
	K	Max. 352 l/min (93 gpm) 3189 BPD @ 207 bar (3000 psi)
	M	Max. 314 l/min (83 gpm) 2846 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)
	R	ANSI Flange Ports (Steel)
	S	ANSI Flange Ports (316L Stainless Steel)
	T	ANSI Flange Ports (Hastelloy C)
7		**Pump Head Material**
	D	Nickel Aluminium Bronze (NAB)
	G	Duplex Alloy 2205 Stainless Stee
	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

Digit	Order Code	Description
11		**Valve Springs**
	E	Elgiloy
	T	Hastelloy C
12		**Valve Spring Retainers**
	T	Hastelloy C / PVDF
13		**Hydra-Oil**
	A	10W30 standard-duty oil
	B	40-wt.
	H	15W50 high-temp severe-duty synthetic oil
14		**Oil Level Monitoring**
	C	Float switch, normally closed (recommended)
	O	Float Switch, normally open

T200 Series Medium Pressure

WANNER Hydra-Cell®

Partners in over 70 Countries

Standards Compliance

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