

T200 Series High Pressure Models T200P & T200Q

Maximum Flow Rate: 272 l/min (72 gpm) 2469 BPD
Maximum Pressure: 310 bar (4500 psi)

API 674



WANNER
Hydra-Cell[®]
Seal-less Pump Technology



T200 Series high-pressure model with Nickel Aluminum 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.

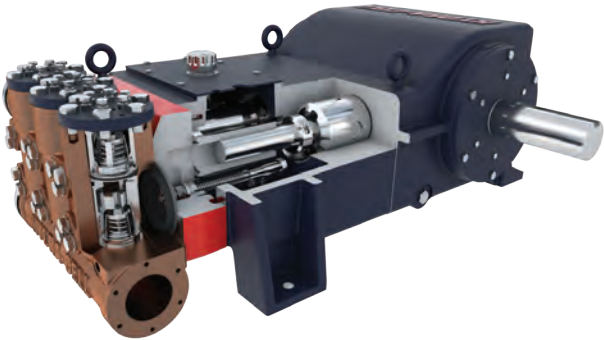
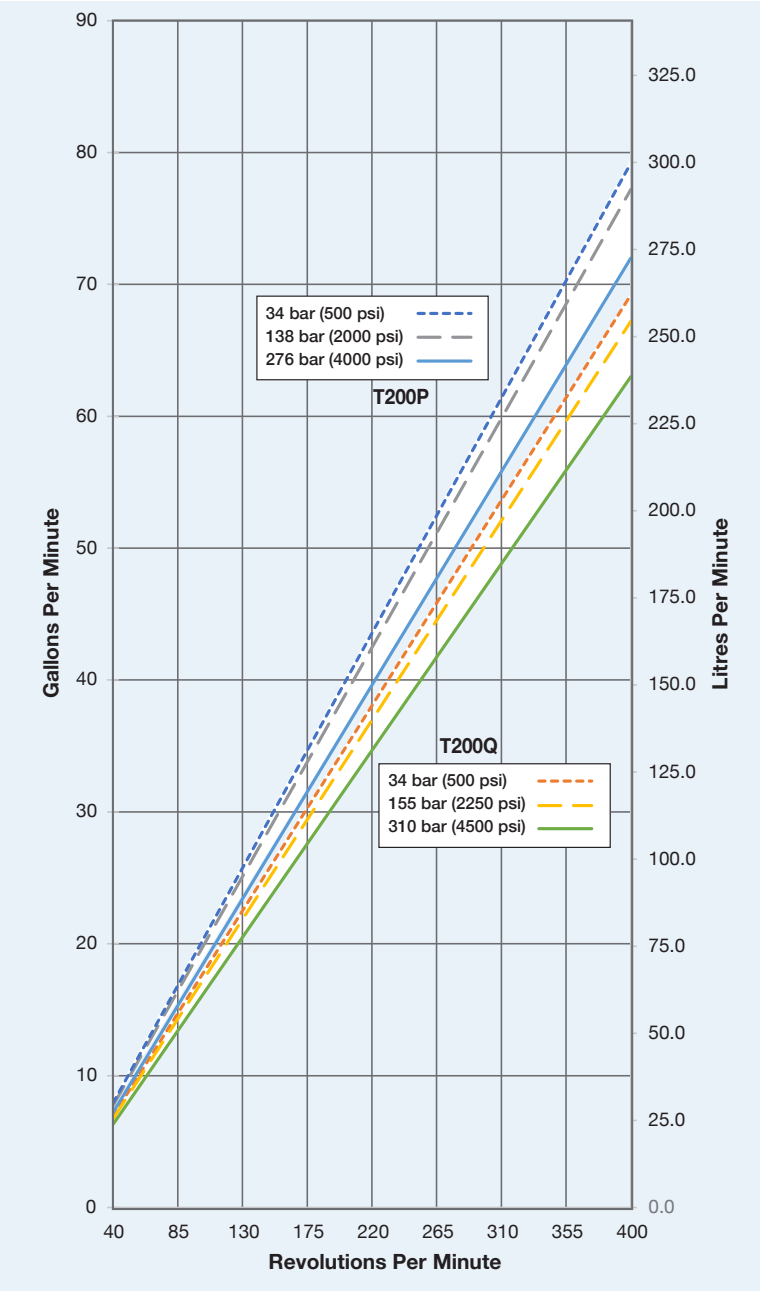
T200 Series High Pressure Performance

Capacities

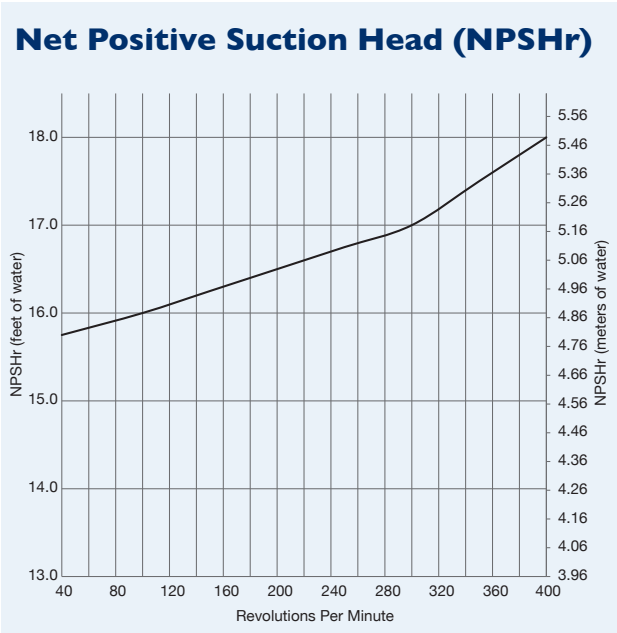
Model	Max. Input rpm	Plunger Dia.		Max. Flow Capacities			Max. Pressure Ratings			
							Discharge		Inlet	
		Inches	mm	gpm	l/min	BPD	bar	psi	bar	psi
T200P	400	2.000	51	72	272	2469	276	4000	34	500
T200Q	400	1.875	48	63	238	2160	310	4500	34	500

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.



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 High Pressure Specifications

Flow Capacities

Model	Pressure bar (psi)	rpm	gpm	l/min	BPD
T200P	276 (4000)	400	72	272	2469
T200Q	310 (4500)	400	63	238	2160

Delivery

	Pressure bar (psi)	gal/rev	litres/rev
T200P	500 (34)	0.198	0.749
	2000 (138)	0.193	0.731
	4000 (276)	0.180	0.681
T200Q	500 (34)	0.173	0.655
	2250 (155)	0.168	0.636
	4500 (310)	0.158	0.596

rpm

Maximum:	400
Maximum API 674:	310
Minimum:	40 (Consult factory for speeds less than 40 rpm.)

Maximum Discharge Pressure

Metallic Heads:	T200P	276 bar (4000 psi)
	T200Q	310 bar (4500 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!

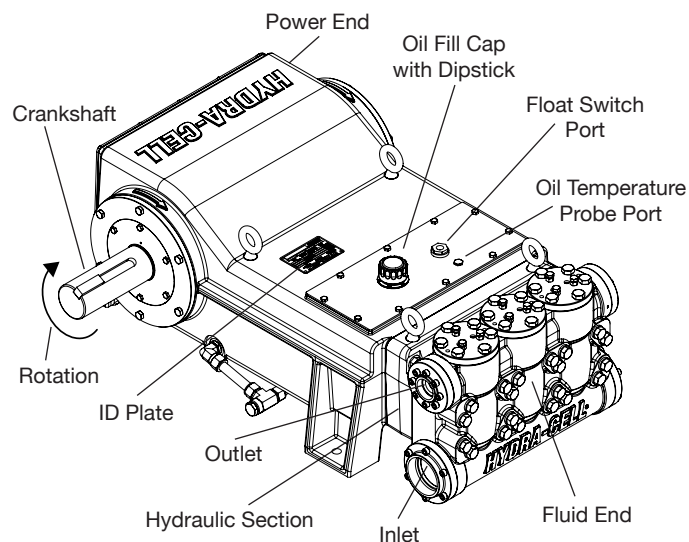
When sizing motors with variable speed drives (VFD): It is very important to select a motor and a VFD rated for constant torque inverter duty service and that the motor is rated to meet the torque requirements of the pump throughout desired speed range.

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

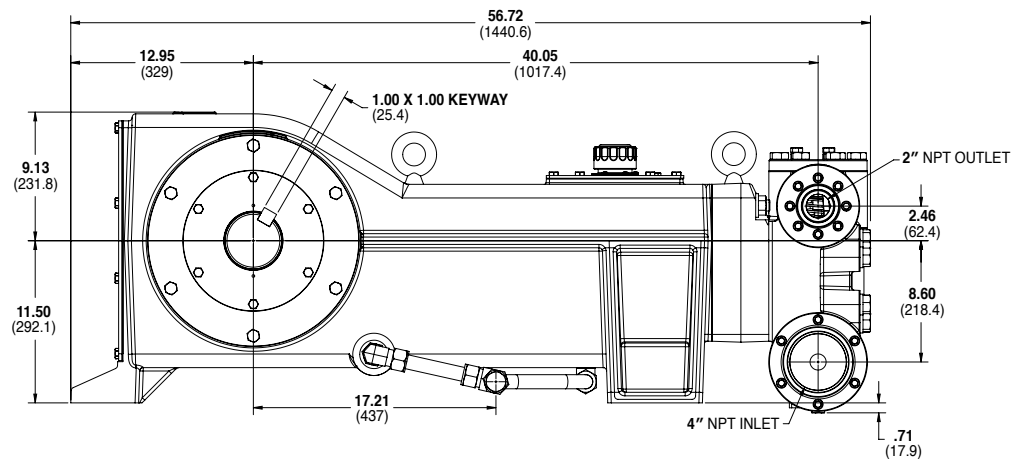
Crankshaft:	Ductile Iron
Connecting Rods:	Ductile Iron
Crossheads:	Ductile Iron
Crankcase:	Ductile Iron
Bearings:	Spherical Roller (main) Steel-backed Tri-metal (crankpin) Bronze (wristpin)



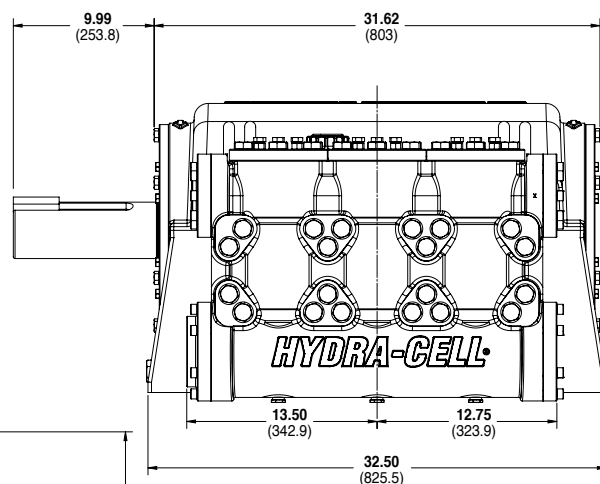
T200 Series High Pressure Representative Drawings

Threaded Version Inches (mm)

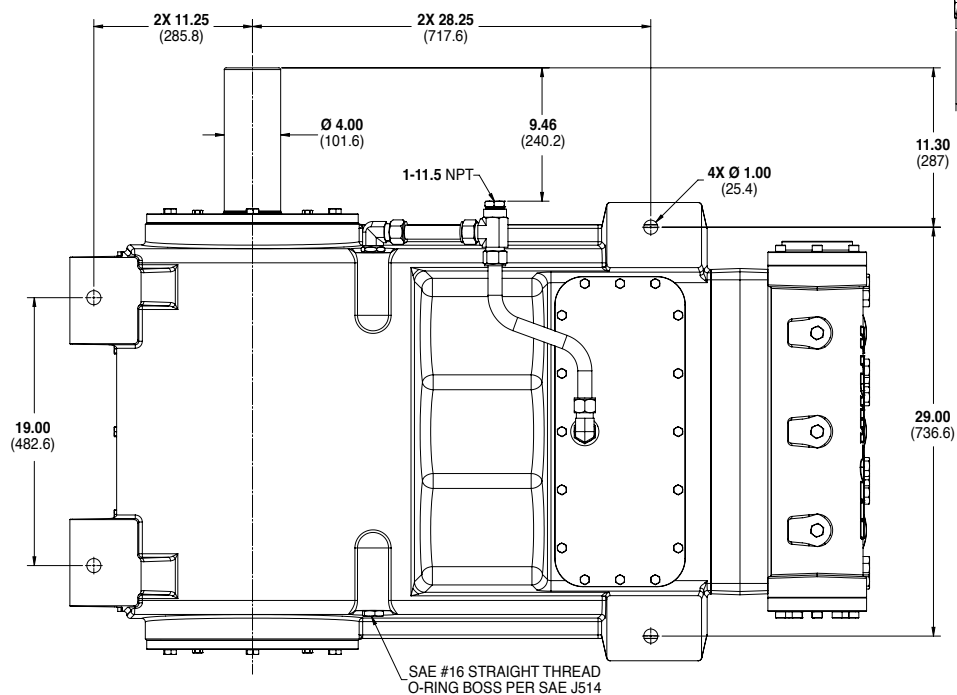
Side View



Front View



Bottom View



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

T200 Series High Pressure **How to Order**

Ordering Information

1	2	3	4	5	6	7	8	9	10	11	12	13	14
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A complete T200 Series High Pressure Model Number contains 14 digits including 9 customer-specified design and materials options, for example: T200PADGHFETAC.

High Pressure

Digit	Order Code	Description
1-4		Pump Configuration
	T200	Shaft-driven API 674 - Contact Wanner International
5		Performance
	P	Max. 272 l/min (72 gpm) 2469 BPD @ 207 bar (4000 psi)
	Q	Max. 238 l/min (63 gpm) 2160 BPD @ 241 bar (4500 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 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

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 High Pressure



WANNER

Hydra-Cell®

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