

# T200 PRO SERIES HIGH PRESSURE

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

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

AVAILABLE  
TO MEET  
  
674



UK  
CA CE

*T200 Series high-pressure  
model with Nickel Aluminum  
Bronze pump head.*

## A higher standard of pump performance and energy efficiency.

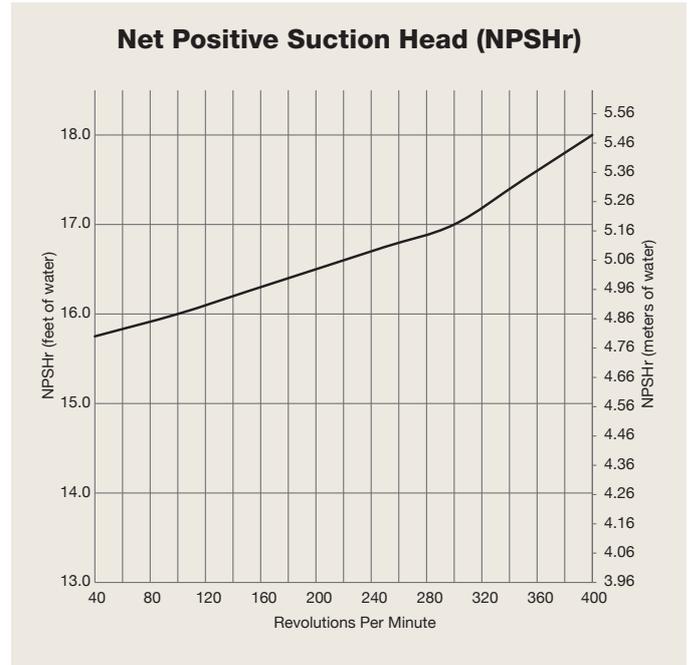
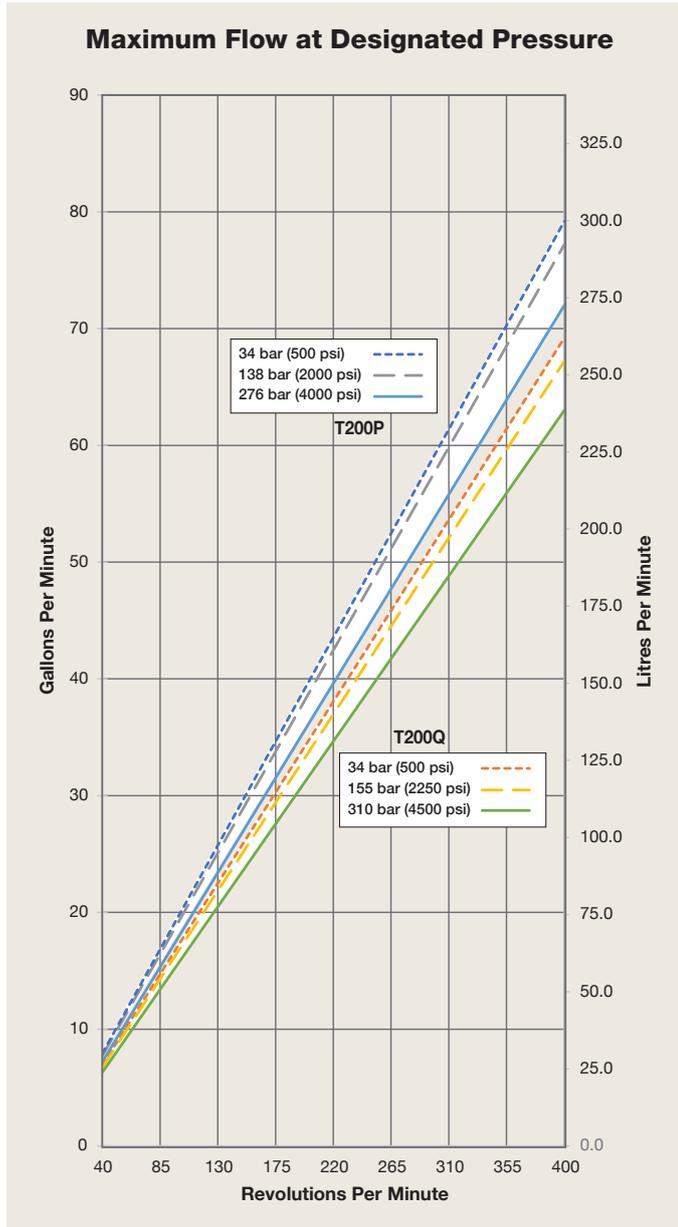
- Integrates **Wanner Hydra-Cell Pro**® seal-less pump technologies for the highest levels of volumetric and energy efficiencies across a full rpm range.
- Patented ADPC (Advanced Diaphragm Position Control) and hydraulic oil management systems protect diaphragms under closed or restricted inlet conditions.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

# T200 Pro High Pressure | Performance

## Capacities

Model	Max. Input rpm	Plunger Dia.		Max. Flow Capacities			Max. Pressure Ratings			
		inches	mm	US gpm	l/min	BPD	Discharge		Inlet	
							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 Wannner when operating below 40 rpm



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 Wannner Engineering Continuous Improvement Program, specifications and other data are subject to change.

# T200 Pro High Pressure | Specifications

## Flow Capacities

Model	Pressure bar (psi)	rpm	US 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	34 (500)	0.198	0.749
	69 (1000)	0.156	0.590
	276 (4000)	0.180	0.681
T200Q	34 (500)	0.173	0.655
	155 (2250)	0.168	0.636
	310 (4500)	0.158	0.595

## rpm

Maximum:	400
Minimum:	40

Consult Wanner 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)

## Operating Temperature

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

Consult Wanner 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.)

## 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: 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)\*

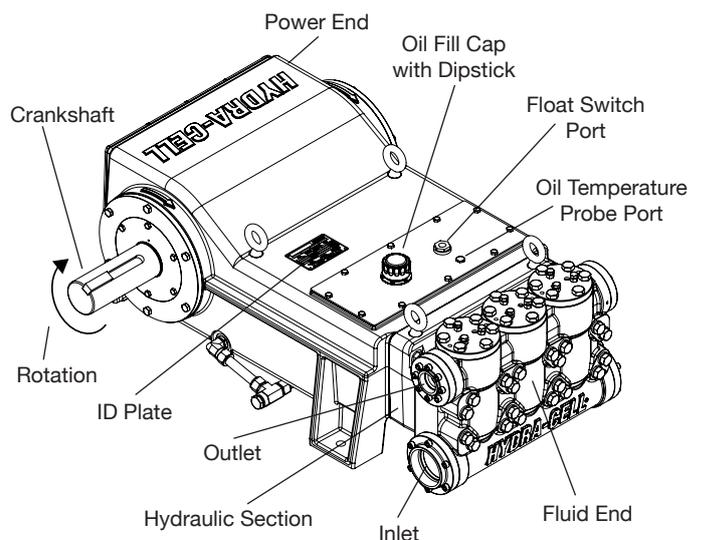
$$\frac{\text{US gpm} \times \text{psi}}{1,460} = \text{electric motor hp}^*$$

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

\* 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.

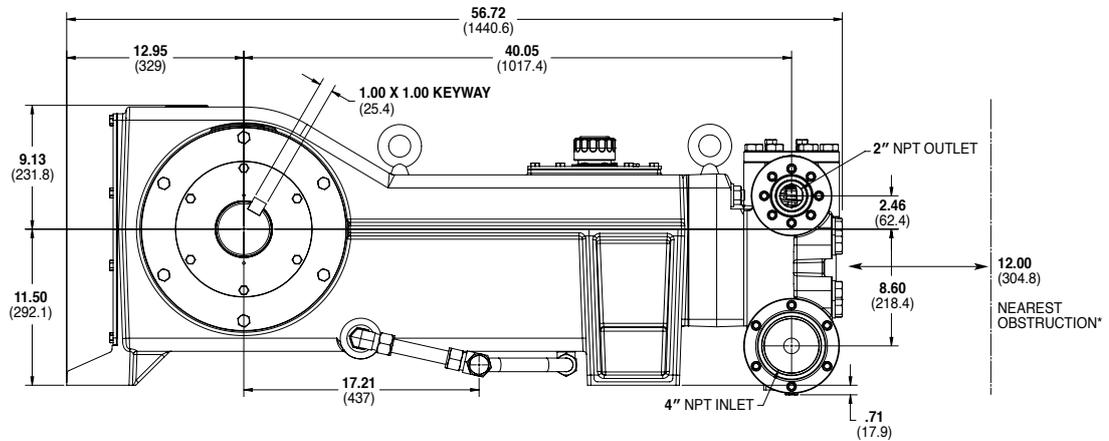


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# T200 Pro High Pressure | Representative Drawings

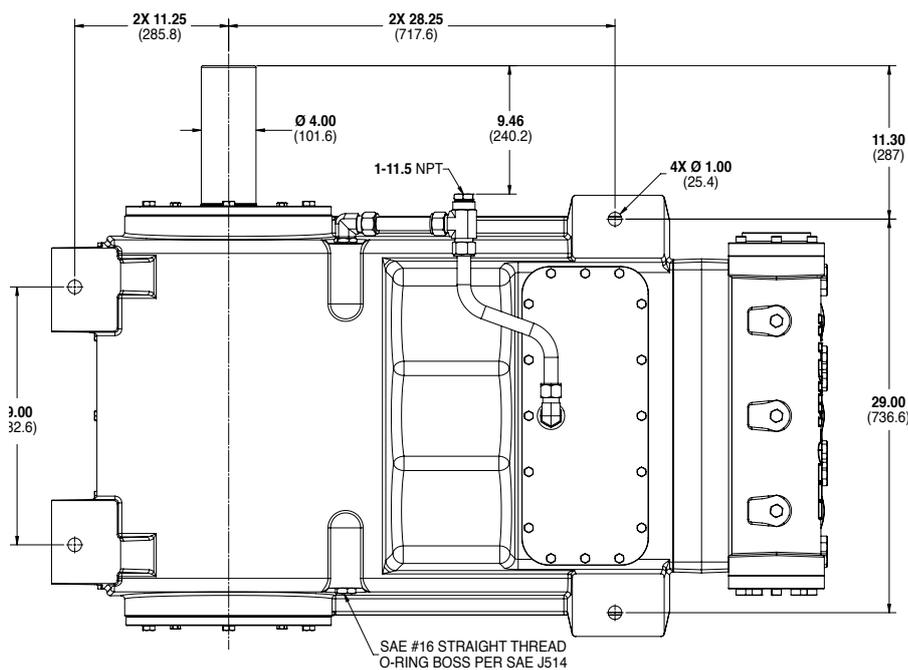
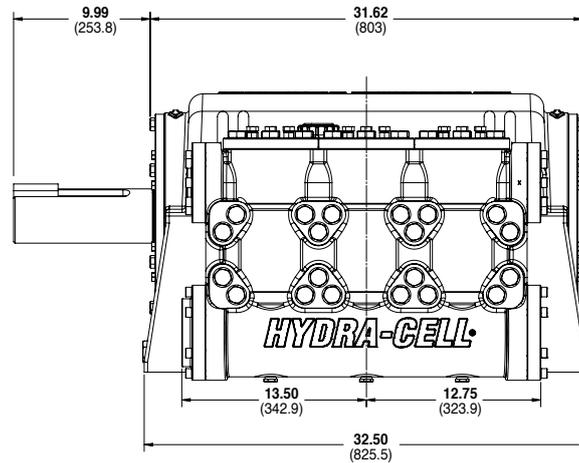
**Threaded Version inches (mm)**

**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 for certified drawings.

# T200 Pro High Pressure | How to Order

## Ordering Information

A complete T200 Series High Pressure Model Number contains 14 digits including 9 customer-specified design and materials options, for example: T200PADGHFETAC.

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

## T200 High Pressure

Digit	Order Code	Description
<b>1-4</b>	<b>T200</b>	<b>Pump Configuration</b> Shaft-driven API 674 - Contact Wanner International
<b>5</b>	<b>P</b>	<b>Performance</b> Max. 272 l/min (72 US gpm) 2469 BPD @ 276 bar (4000 psi)
	<b>Q</b>	Max. 238 l/min (63 US gpm) 2160 BPD @ 310 bar (4500 psi)
<b>6</b>	<b>A</b>	<b>Pump Head Version</b> NPT Threaded Ports (Steel)
	<b>C</b>	Weld Neck (Steel)
	<b>D</b>	Weld Neck (316L Stainless Steel)
	<b>E</b>	Weld Neck (Hastelloy C)
	<b>F</b>	Weld Neck (Duplex Alloy 2205 Stainless Steel)
	<b>G</b>	ANSI Flange Ports (Duplex Alloy 2205 Stainless Steel)
	<b>T</b>	ANSI Flange Ports (Hastelloy C)
<b>7</b>	<b>D</b>	<b>Pump Head Material</b> Nickel Aluminium Bronze (NAB)
	<b>G</b>	Duplex Alloy 2205 Stainless Steel
	<b>S</b>	316L Stainless Steel CF3M
	<b>T</b>	Hastelloy CX2M
<b>8</b>	<b>G</b>	<b>Diaphragm &amp; O-ring Material</b> FKM
	<b>T</b>	Buna-N
<b>9</b>	<b>D</b>	<b>Valve Seat Material</b> Tungsten Carbide*
	<b>H</b>	17-4 Stainless Steel
	<b>N</b>	Nitronic 50
	<b>T</b>	Hastelloy C
<b>10</b>	<b>D</b>	<b>Valve Material</b> Tungsten Carbide*
	<b>F</b>	17-4 Stainless Steel
	<b>N</b>	Nitronic 50
	<b>T</b>	Hastelloy C
<b>11</b>	<b>D</b>	<b>Valve Springs</b> Elgiloy for Tungsten Carbide*
	<b>E</b>	Elgiloy
	<b>T</b>	Hastelloy C

Digit	Order Code	Description
<b>12</b>	<b>T</b>	<b>Valve Spring Retainers</b> Hastelloy C / PVDF
<b>13</b>	<b>A</b>	<b>Hydra-Oil</b> 10W30 standard-duty oil
	<b>B</b>	40-wt. oil
	<b>H</b>	15W50 high-temp severe-duty synthetic oil
<b>14</b>	<b>C</b>	<b>Oil Level Monitor Cover</b> Float Switch, normally closed (recommended)
	<b>O</b>	Float Switch, normally open
	<b>S</b>	Float switch, Class I, Div. 1, Groups A, B, C, D, normally closed
	<b>T</b>	Float switch, Class I, Div. 1, Groups A, B, C, D, normally open
	<b>X</b>	Float switch, ATEX, discrete output (ATEX-certified pump and float switch)

\* Tungsten Carbide valve seat and disc are a matched set and must be purchased together along with appropriate valve springs.



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