

# T200 PRO SERIES LOW PRESSURE

Maximum Flow Rate: 764 l/min (202 US gpm) 6925 BPD  
Maximum Pressure: 138 bar (2000 psi)

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

AVAILABLE  
TO MEET  
 API  
674



UK  
CA CE

*T200 Series low-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.

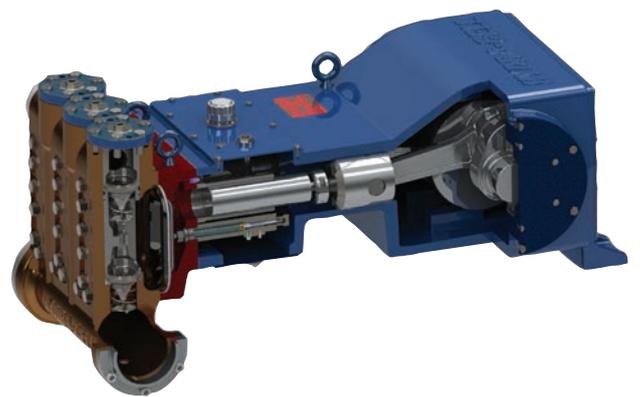
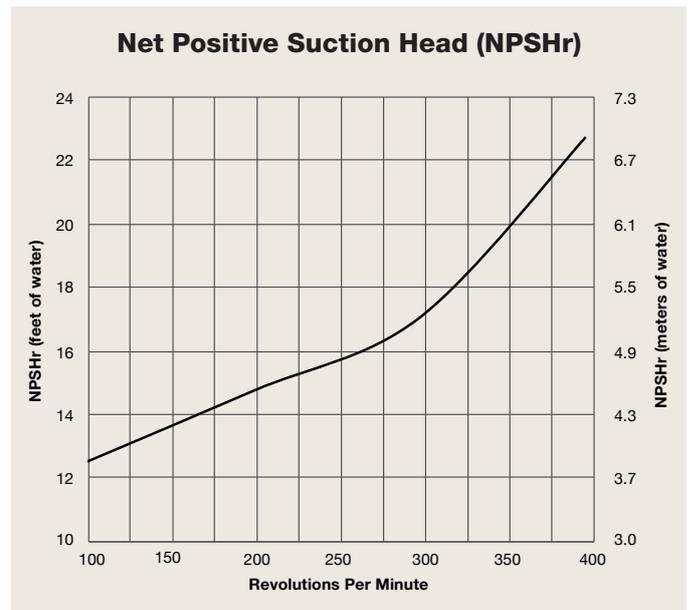
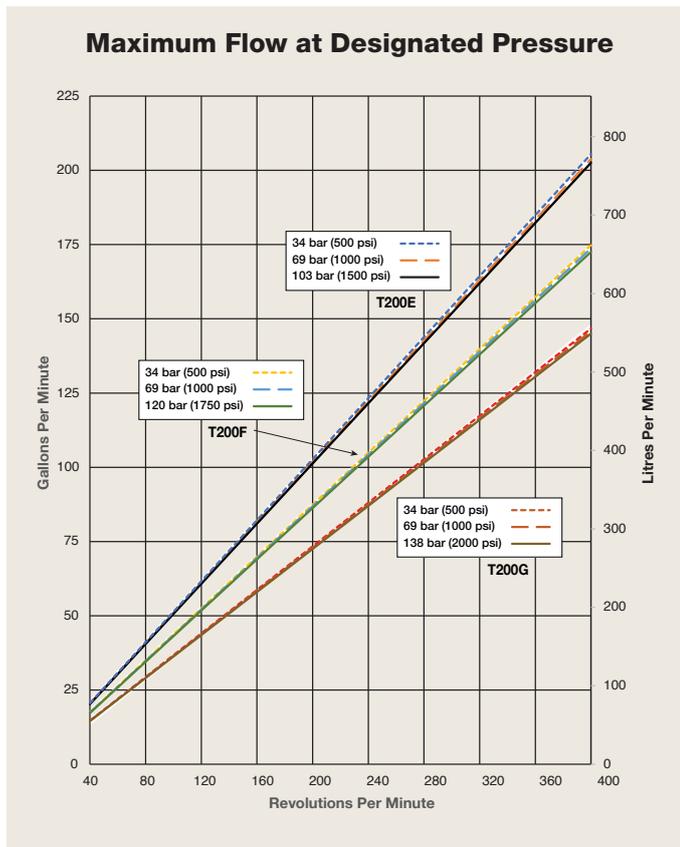
  
**WANNER**®

# T200 Pro Low 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
T200E	400	3.250	82	202	764	6925	103	1500	34	500
T200F	400	3.000	76	172	651	5896	120	1750	34	500
T200G	400	2.750	70	145	548	4971	138	2000	34	500

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

# T200 Pro Low Pressure | Specifications

## Flow Capacities

Model	Pressure bar (psi)	rpm	US gpm	l/min	BPD
T200E	103 (1500)	400	202	764	6925
T200F	120 (1750)	400	172	651	5896
T200G	138 (2000)	400	145	548	4971

## Delivery

	Pressure bar (psi)	gal/rev	litres/rev
T200E	34 (500)	0.514	1.94
	69 (1000)	0.510	1.93
	103 (1500)	0.506	1.92
T200F	34 (500)	0.437	1.65
	69 (1000)	0.434	1.64
	120 (1750)	0.431	1.63
T200G	34 (500)	0.367	1.39
	69 (1000)	0.365	1.38
	138 (2000)	0.363	1.37

## rpm

Maximum:	400
Minimum:	40

Consult Wanner for speeds less than 40 rpm.

## Maximum Discharge Pressure

Metallic Heads:	T200E 103 bar (1500 psi)
	T200F 120 bar (1750 psi)
	T200G 138 bar (2000 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 (left side available on request)

## Inlet Ports

Weld-On: 6" / SCH. 40  
6" NPT, 6" Class 300 RTJ ANSI Flange

## Discharge Ports

Weld-On: 3" / SCH. 80  
3" NPT, 3" Class 2500 RTJ ANSI Flange

## Plunger Stroke Length

127 mm (5 Inch)

## 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.

## Shaft Diameter

101.6 mm (4 inch)

## Shaft Rotation

Uni-directional (See rotation arrow.)

## Oil Capacity

75.7 litres (80 US quarts)

See page 5 for oil selection and specification.

## Weight

Metallic Heads: 1588 kg (3500 lbs.)

## Fluid End Materials

Manifold: Nickel Aluminum Bronze (NAB)  
Duplex Alloy 2205 Stainless Steel  
CF3M (316L) Stainless Steel  
Hastelloy CX2MW

Diaphragm/Elastomers: Aflas  
FKM  
Buna-N

Diaphragm Follower Screw: 316 Stainless Steel  
Duplex Alloy 2205 Stainless Steel  
Hastelloy C

Valve Spring Retainer: Nitronic 50  
Hastelloy C

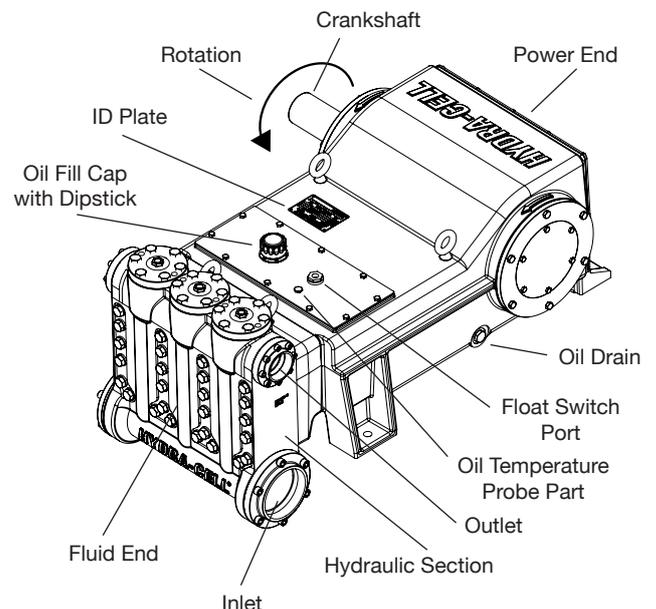
Check Valve Spring: Elgiloy  
Hastelloy C

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)



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# T200 Pro Low Pressure | How to Order

## Ordering Information

A complete T200 Series Low Pressure Model Number contains 14 digits including 9 customer-specified design and material options, for example, T200ERDGHFETAC.

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

## T200 Low Pressure

Digit	Order Code	Description
<b>1-4</b>	<b>T200</b>	<b>Pump Configuration</b> Shaft-driven
<b>5</b>		<b>Performance</b>
	<b>E</b>	Max. 764 l/min (202 US gpm) 6925 BPD @ 103 bar (1500 psi)
	<b>F</b>	Max. 651 l/min (172 US gpm) 5896 BPD @ 120 bar (1750 psi)
	<b>G</b>	Max. 548 l/min (145 US gpm) 4971 BPD @ 138 bar (2000 psi)
<b>6</b>		<b>Pump Head Version</b>
	<b>A</b>	NPT 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>Pump Head Material</b>
	<b>D</b>	Nickel Aluminium Bronze (NAB)
	<b>G</b>	Duplex Alloy 2205 Stainless Steel
	<b>S</b>	CF3M (316L) Stainless Steel
	<b>T</b>	Hastelloy CX2MW
<b>8</b>		<b>Diaphragm &amp; O-ring Material</b>
	<b>A</b>	Aflas
	<b>G</b>	FKM
	<b>T</b>	Buna-N
<b>9</b>		<b>Valve Seat Material</b>
	<b>H</b>	17-4 Stainless Steel
	<b>N</b>	Nitronic 50
	<b>T</b>	Hastelloy C
<b>10</b>		<b>Valve Material</b>
	<b>F</b>	17-4 Stainless Steel
	<b>N</b>	Nitronic 50
	<b>T</b>	Hastelloy C
<b>11</b>		<b>Valve Springs</b>
	<b>E</b>	Elgiloy
	<b>T</b>	Hastelloy C

Digit	Order Code	Description
<b>12</b>		<b>Valve Spring Retainers / Valve Guide</b>
	<b>N</b>	Nitronic 50 / PVDF
	<b>T</b>	Hastelloy C / PVDF
<b>13</b>		<b>Hydra-Oil</b>
	<b>A</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>Oil Level Monitor Cover</b>
	<b>C</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)



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