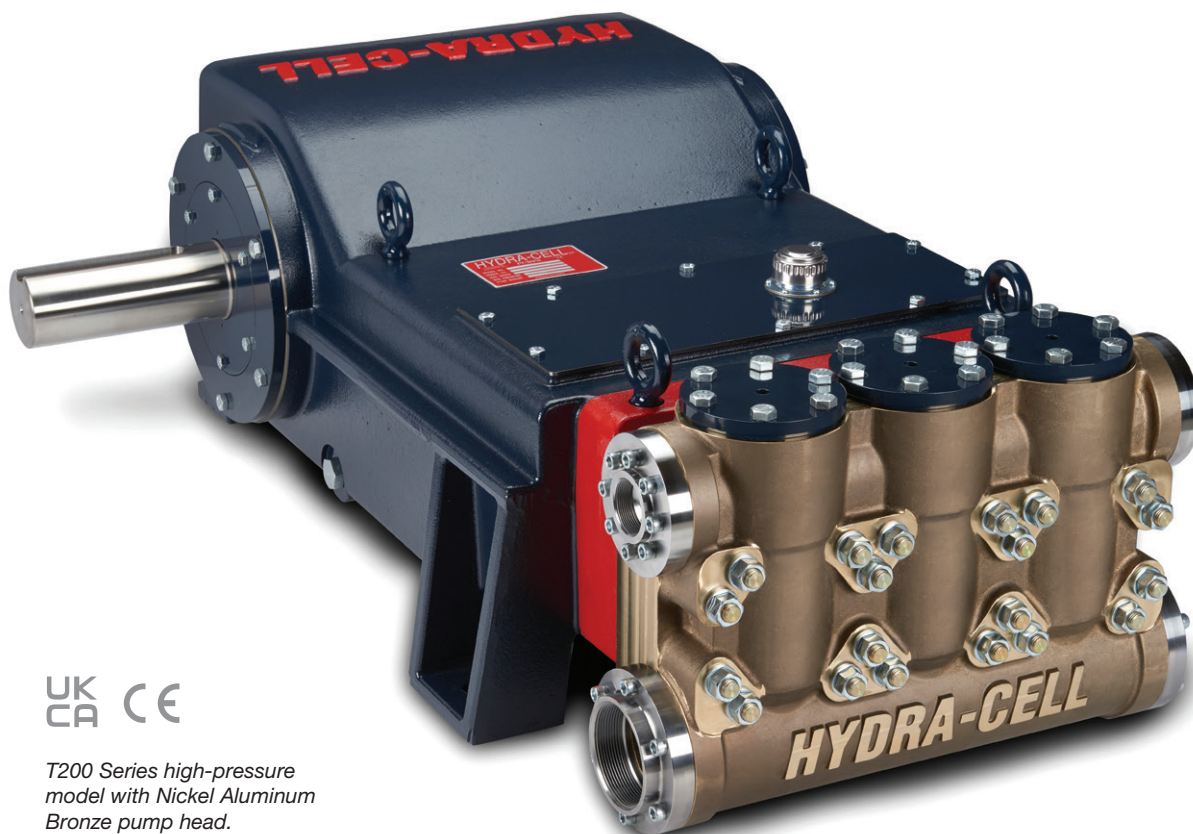


T200 PRO SERIES HIGH PRESSURE

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

API
674

UK
CA CE

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

A higher standard of pump performance and energy efficiency.

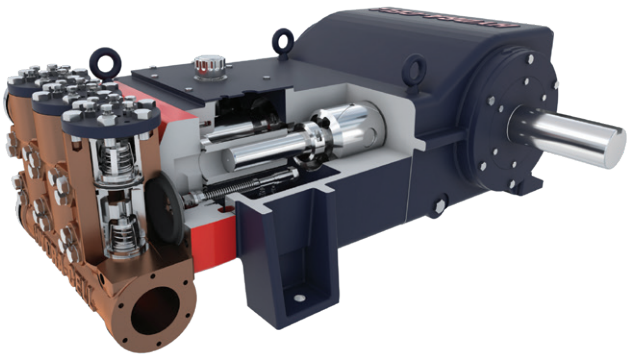
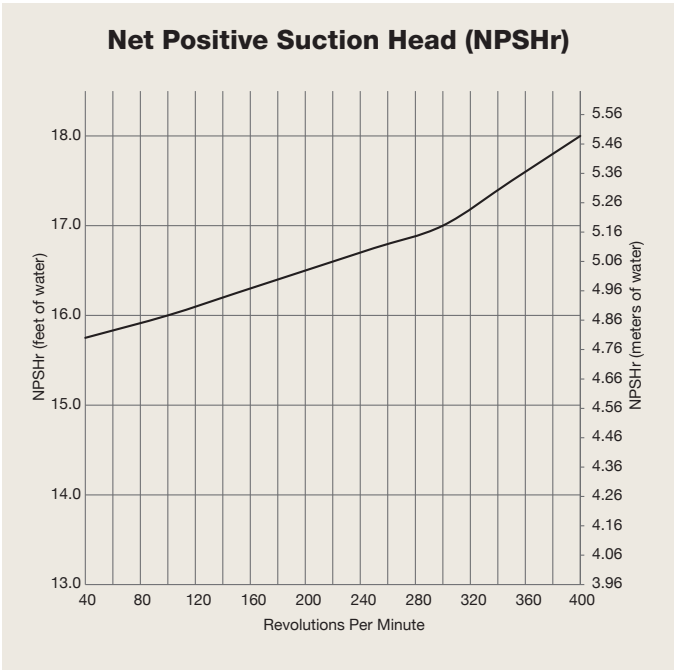
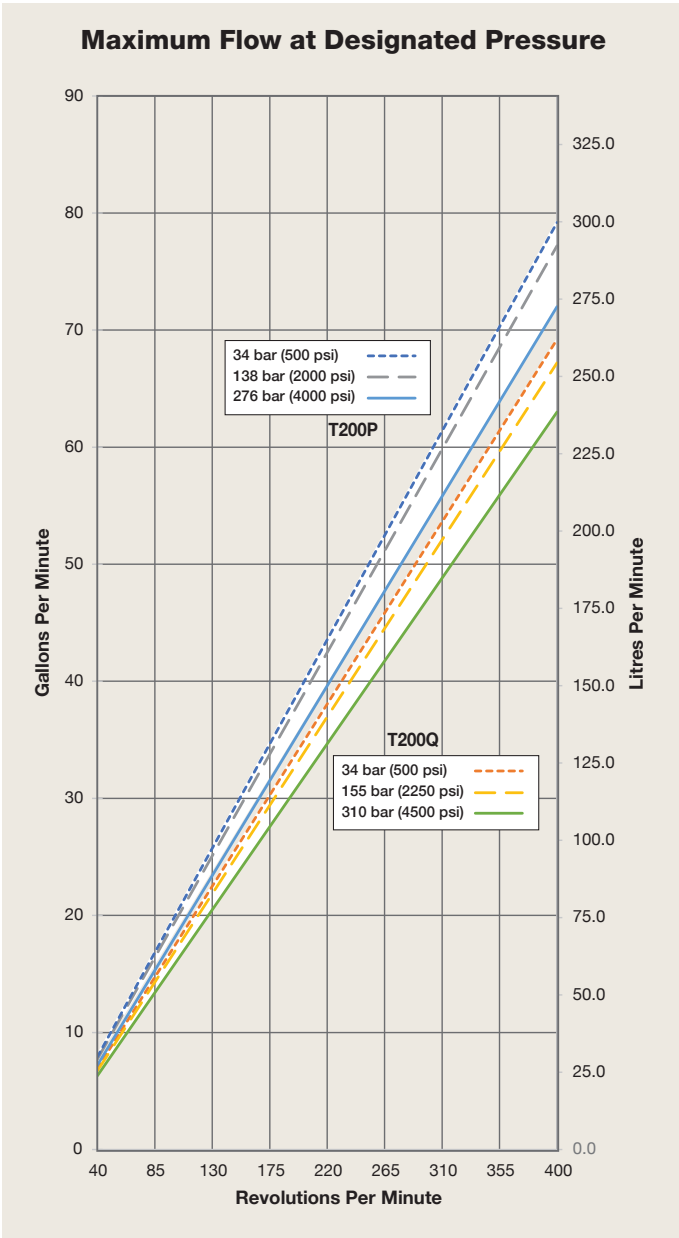
- Integrates **Wanner Hydra-Cell® Pro** seal-less pump technologies for the highest levels of volumetric and energy efficiencies across a full rpm range.
- Patented ADPC (Advanced Diaphragm Position Control) and hydraulic oil management systems protect diaphragms under closed or restricted inlet conditions.
- 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. inches mm		Max. Flow Capacities US gpm l/min BPD			Max. Pressure Ratings			
							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 factory 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 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 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)

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.)

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.

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

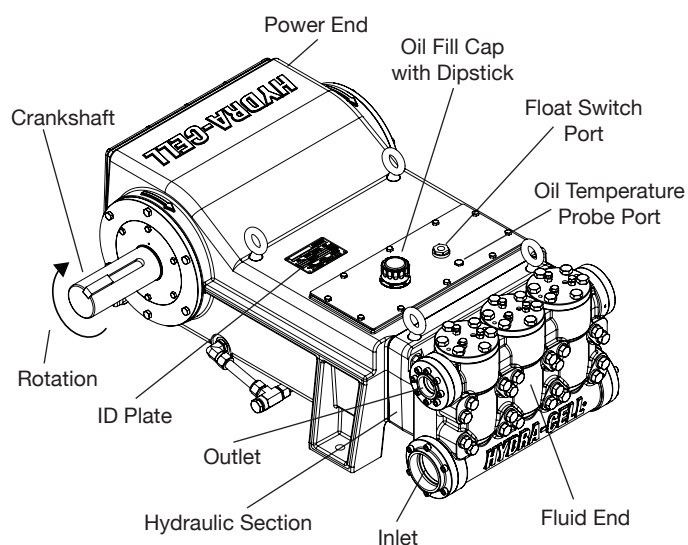
Check Valve Spring: Elgiloy
Hastelloy C

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)



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

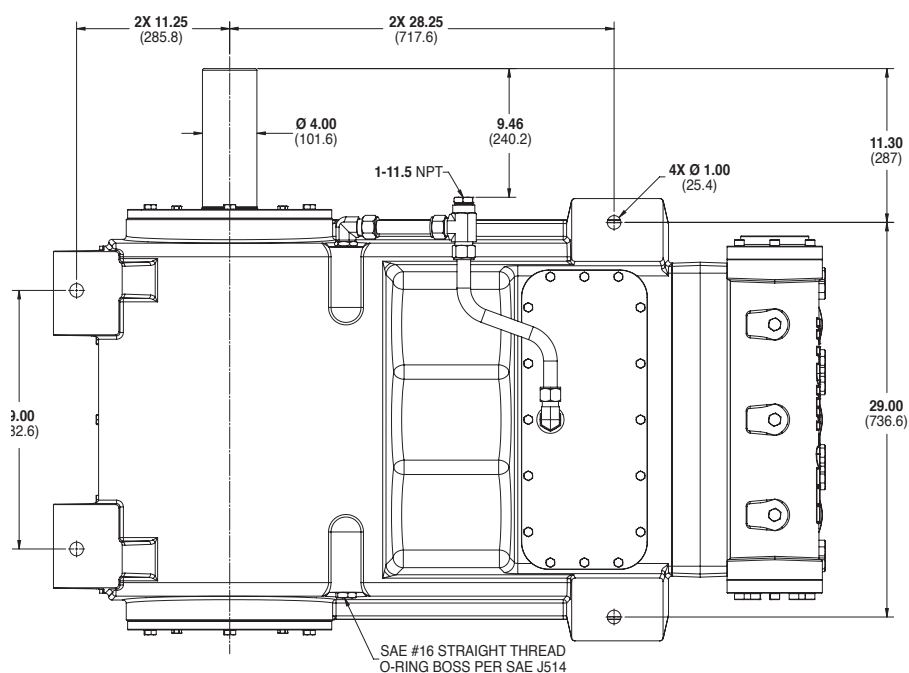
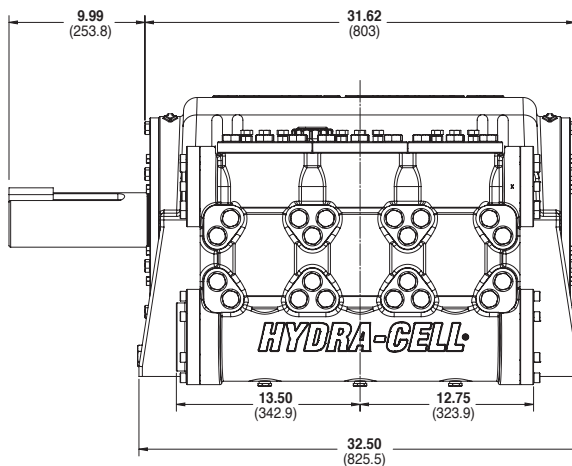
Threaded Version inches (mm)

Technical drawing of the 1000 Series Horizontal Split Case Centrifugal Pump, showing dimensions in inches and millimeters.

Key dimensions and features:

- Overall length: 56.72 (1440.6)
- Distance from front face to centerline: 12.95 (329)
- Distance from centerline to 4" NPT Inlet: 40.05 (1017.4)
- Front face diameter: 9.13 (231.8)
- Distance from front face to 1.00 X 1.00 Keyway: 11.50 (292.1)
- Keyway dimensions: 1.00 X 1.00 KEYWAY (25.4)
- Distance from front face to 2" NPT Outlet: 17.21 (437)
- Distance from centerline to 2" NPT Outlet: 8.60 (218.4)
- Distance from centerline to 4" NPT Inlet: 8.60 (218.4)
- Distance from 4" NPT Inlet to 2" NPT Outlet: 12.00 (304.8) NEAREST OBSTRUCTION*
- Distance from 4" NPT Inlet to 2" NPT Outlet: 2.46 (62.4)
- 4" NPT Inlet
- 2" NPT Outlet
- 1.00 X 1.00 KEYWAY (25.4)
- 17.21 (437)
- 9.13 (231.8)
- 11.50 (292.1)
- 56.72 (1440.6)
- 12.95 (329)
- 40.05 (1017.4)
- 8.60 (218.4)
- 2.46 (62.4)
- 12.00 (304.8) NEAREST OBSTRUCTION*
- .71 (17.9)

Front View



Bottom View

4 | WANNER INTERNATIONAL, LTD.

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

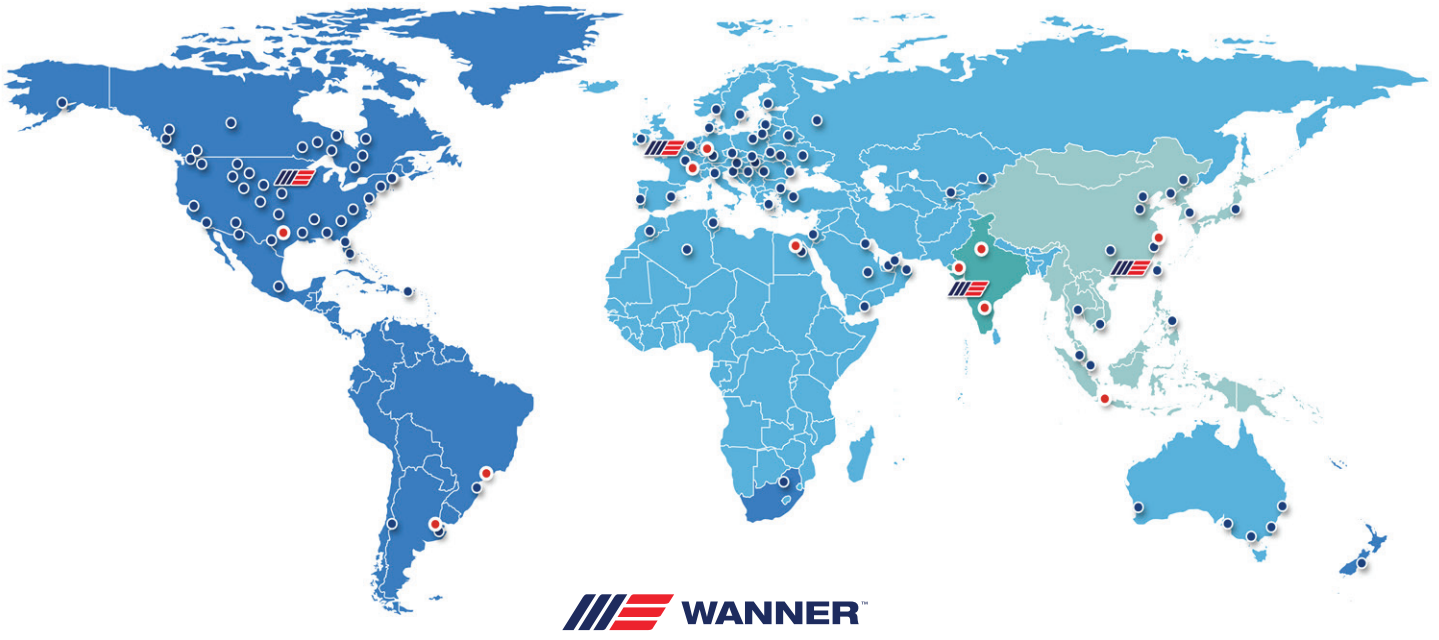
Digit	Order Code	Description
1-4	T200	Pump Configuration Shaft-driven API 674 - Contact Wanner International
5	P	Performance Max. 272 l/min (72 US gpm) 2469 BPD @ 276 bar (4000 psi)
	Q	Max. 238 l/min (63 US gpm) 2160 BPD @ 310 bar (4500 psi)
6	A	Pump Head Version NPT Threaded Ports (Steel)
	C	Weld Neck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

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

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



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