

# T200 PRO SERIES

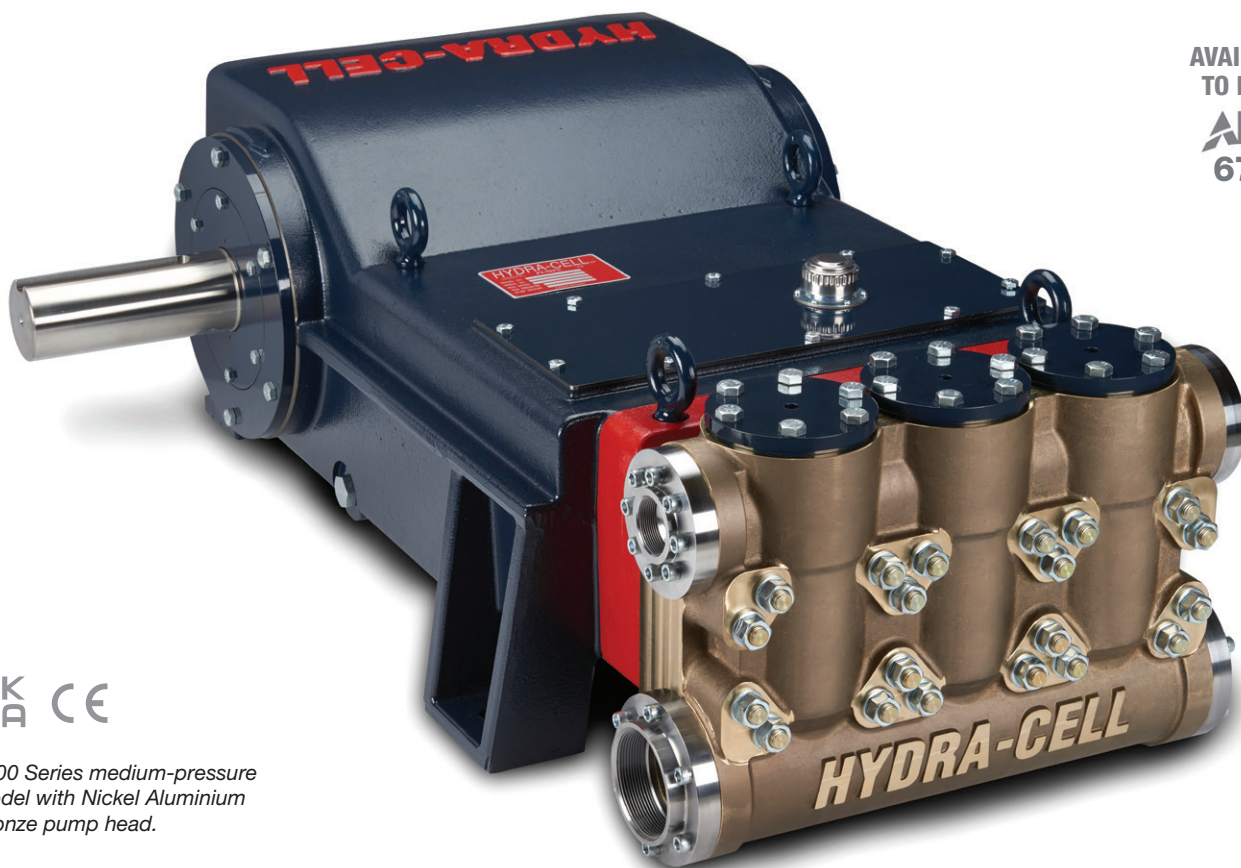
## MEDIUM PRESSURE

Maximum Flow Rate: 355 l/min (94 US gpm) 3222 BPD  
Maximum Pressure: 241 bar (3500 psi)

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

AVAILABLE  
TO MEET

**API**  
674



UK  
CA CE

*T200 Series medium-pressure  
model with Nickel Aluminium  
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™**

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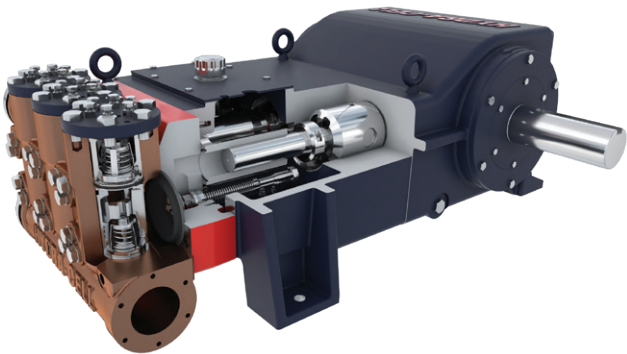
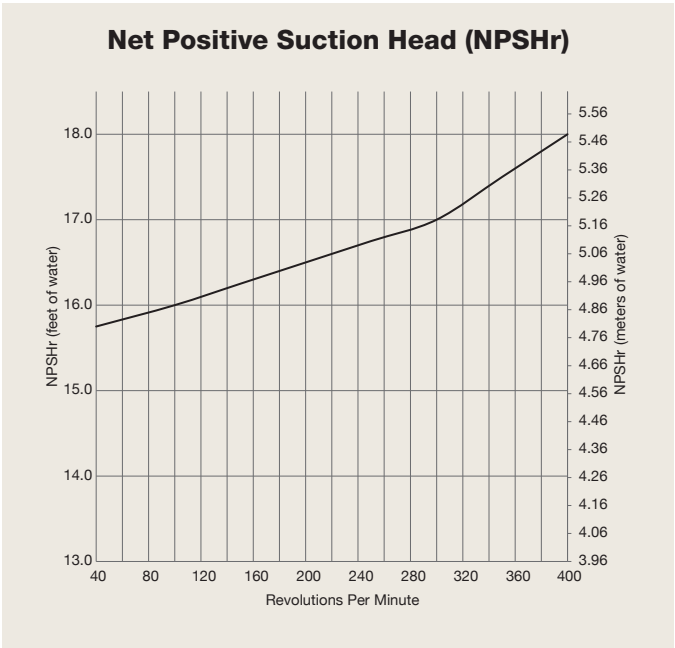
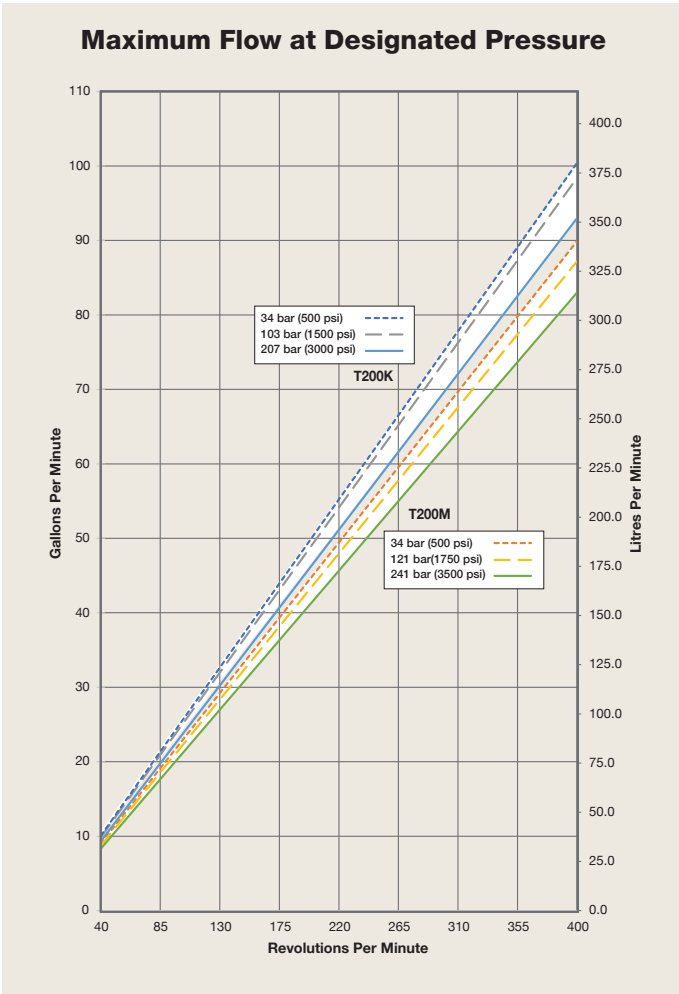
HYDRA-CELL.CO.UK

# T200 Pro Medium Pressure | Performance

## Capacities

| Model | Max. Input<br>rpm | Plunger Dia.<br>inches    mm |    | Max. Flow Capacities<br>US gpm    l/min    BPD |     |      | Max. Pressure Ratings |      |       |     |
|-------|-------------------|------------------------------|----|------------------------------------------------|-----|------|-----------------------|------|-------|-----|
|       |                   |                              |    |                                                |     |      | Discharge             |      | Inlet |     |
|       |                   |                              |    |                                                |     |      | bar                   | psi  | bar   | psi |
| T200K | 400               | 2.250                        | 57 | 94                                             | 355 | 3222 | 207                   | 3000 | 34    | 500 |
| T200M | 400               | 2.125                        | 54 | 84                                             | 318 | 2880 | 241                   | 3500 | 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 Medium Pressure | Specifications

## Flow Capacities

| Model | Pressure bar (psi) | rpm | US gpm | l/min | BPD  |
|-------|--------------------|-----|--------|-------|------|
| T200K | 207 (3000)         | 400 | 94     | 355   | 3222 |
| T200M | 241 (3500)         | 400 | 84     | 318   | 2880 |

## Delivery

|       | Pressure bar (psi) | gal/rev | litres/rev |
|-------|--------------------|---------|------------|
| T200K | 34 (500)           | 0.251   | 0.950      |
|       | 103 (1500)         | 0.246   | 0.931      |
|       | 207 (3000)         | 0.235   | 0.887      |
| T200M | 34 (500)           | 0.225   | 0.851      |
|       | 121 (1750)         | 0.218   | 0.825      |
|       | 241 (3500)         | 0.210   | 0.795      |

## rpm

|          |     |
|----------|-----|
| Maximum: | 400 |
| 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)

## Operating Temperature

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

Consult factory for temperatures outside of these ranges

## 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  
CF3M (316L) Stainless Steel  
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:

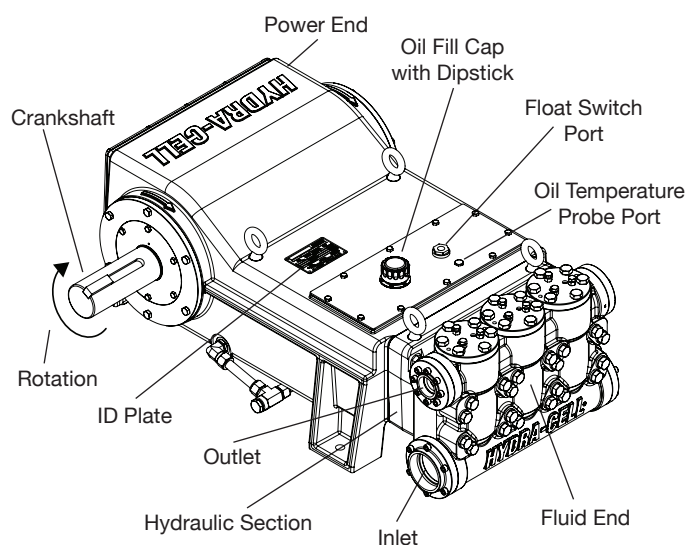
17-4 Stainless Steel  
Nitronic 50  
Hastelloy C

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)

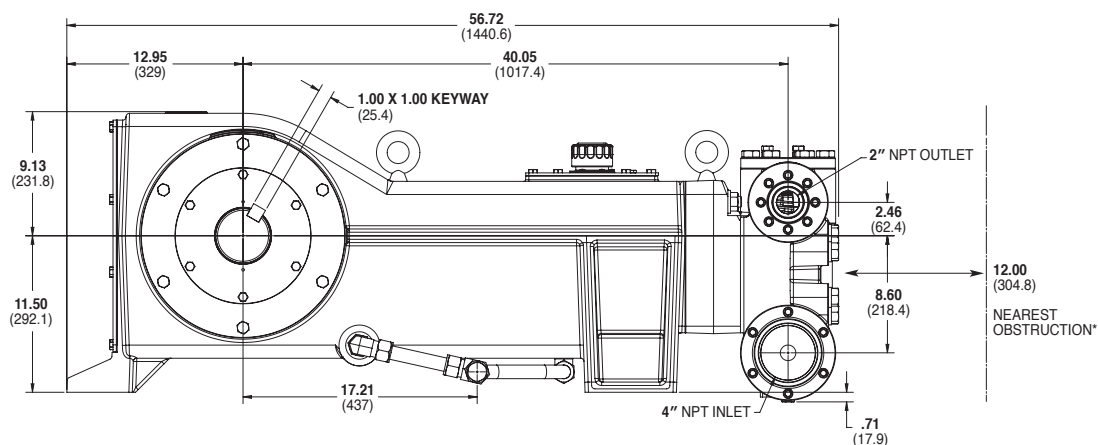


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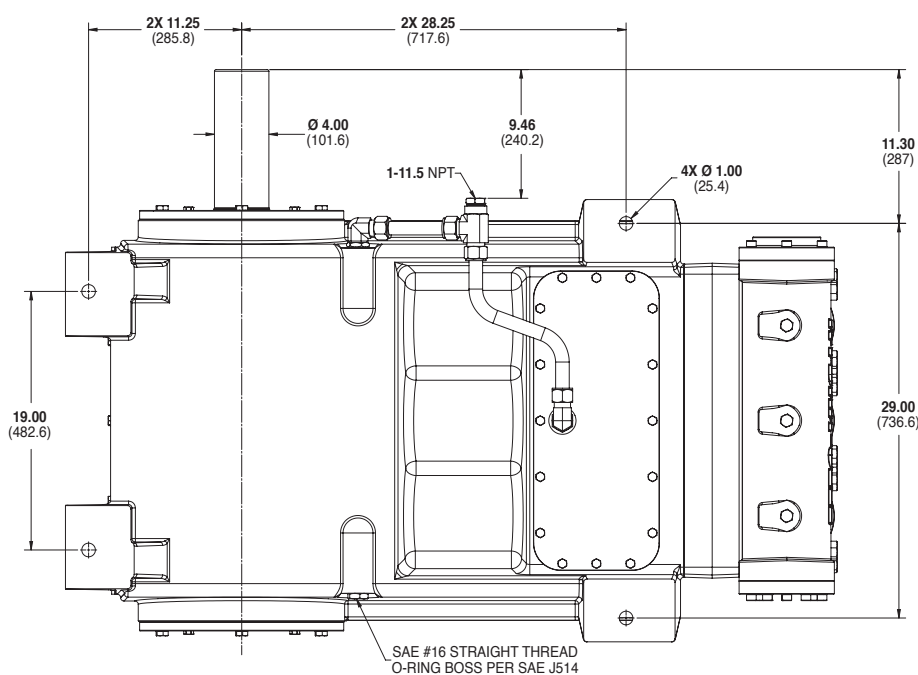
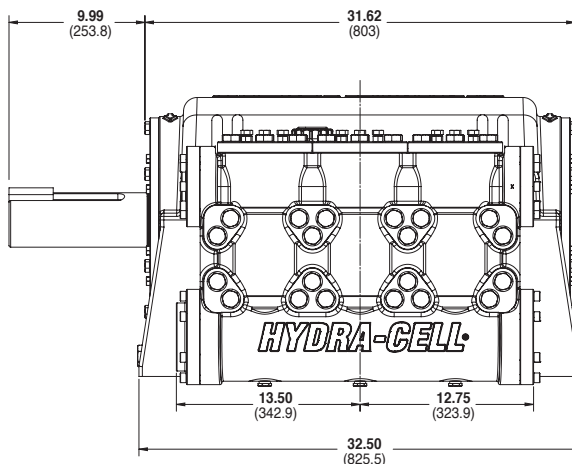
# T200 Pro Medium Pressure | Representative Drawings

## Threaded Version inches (mm)

### Side View



### Front View



### Bottom View

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

# T200 Pro Medium Pressure | How to Order

## Ordering Information

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

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

## T200 Medium Pressure

| Digit | Order Code                      | Description                                                                                                                                                                                                                                                                             |
|-------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1-4   | T200                            | <b>Pump Configuration</b><br>Shaft-driven<br>API 674 - Contact Wanner International                                                                                                                                                                                                     |
| 5     | K<br>M                          | <b>Performance</b><br>Max. 355 l/min (94 US gpm) 3222 BPD @ 207 bar (3000 psi)<br>Max. 318 l/min (84 US gpm) 2880 BPD @ 241 bar (3500 psi)                                                                                                                                              |
| 6     | A<br>C<br>D<br>E<br>F<br>G<br>T | <b>Pump Head Version</b><br>NPT Threaded Ports (Steel)<br>Weld Neck (Steel)<br>Weld Neck (316L Stainless Steel)<br>Weld Neck (Hastelloy C)<br>Weld Neck (Duplex Alloy 2205 Stainless Steel)<br>ANSI Flange Ports (Duplex Alloy 2205 Stainless Steel)<br>ANSI Flange Ports (Hastelloy C) |
| 7     | D<br>G<br>S<br>T                | <b>Pump Head Material</b><br>Nickel Aluminium Bronze (NAB)<br>Duplex Alloy 2205 Stainless Steel<br>316L Stainless Steel CF3M<br>Hastelloy CX2M                                                                                                                                          |
| 8     | G<br>T                          | <b>Diaphragm &amp; O-ring Material</b><br>FKM<br>Buna-N                                                                                                                                                                                                                                 |
| 9     | H<br>N<br>T                     | <b>Valve Seat Material</b><br>17-4 Stainless Steel<br>Nitronic 50<br>Hastelloy C                                                                                                                                                                                                        |
| 10    | F<br>N<br>T                     | <b>Valve Material</b><br>17-4 Stainless Steel<br>Nitronic 50<br>Hastelloy C                                                                                                                                                                                                             |
| 11    | E<br>T                          | <b>Valve Springs</b><br>Elgiloy<br>Hastelloy C                                                                                                                                                                                                                                          |

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





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WORLD HEADQUARTERS &  
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Minneapolis, Minnesota USA  
t: 612-332-5681  
e: sales@wannereng.com  
Hydra-Cell.com

### REGIONAL OFFICE

Wichita Falls, Texas USA  
t: 940-322-7111  
e: sales@wannereng.com

### LATIN AMERICAN OFFICE

São Paulo, Brazil  
t: +55 (11) 99582-1969  
e: mmagoni@wannereng.com  
Hydra-Cell-Pumps.com.br

### WANNER INTERNATIONAL, LTD.

UNITED KINGDOM

Church Crookham,  
Hampshire UK GU52 8BF

t: +44 (0) 1252 816847  
e: support@wannerint.com  
Hydra-Cell.co.uk

### WANNER PUMPS, LTD.

Kowloon, HONG KONG

t: +852 3428 6534  
e: sales@wannerpumps.com  
WannerPumps.com

Shanghai, CHINA

t: +86-21-6876 3700  
e: sales@wannerpumps.com  
WannerPumps.com

### WANNER INDIA PVT. LTD.

Mumbai, INDIA

t: +91 (22) 22044766  
e: support@wannerindia.com  
WannerIndia.com

