

TB Type Detachable Pipeline Pump



► Structural Features ◀



Motor

- High efficiency, energy saving
- Angular contact bearing at drive end
- Standard B5 motor
- Safer operation and lower noise



Pump cover

- Professional style design
- Heightened design with protective cover
- Surface electrophoresis
- Good ventilation



Pump body

- Fluid-plastic appearance design
- Sunken passageway design
- Manufactured by machining center
- Good discharge capacity
- Surface electrophoresis
- Reliable hydraulic self-balancing



Base

- Detachable design
- Beautiful appearance and light weight
- Made of high-strength steel sheet



Pump shaft

- Sleeve coupling type
- Through 100,000 reliability tests
- Made of stainless steel



Impeller

- German casting technology
- High-efficiency hydraulic design
- Surface electrophoresis



Shaft seal

- Universal mechanical seal
- More reliable sealing
- Wear-resistant and heat-resistant material



Nut

- Self-locking anti-loose function
- Made of stainless steel

Adopt internationally popular modular design to reduce parts, ensure the versatility of parts, and facilitate procurement, manufacturing and maintenance

► Product Description ◀

TB type detachable pipeline pump (hereinafter referred to as pipeline pump) comes standard with high-efficiency standard motor, and through hydraulic and structural optimization, combined with industrial design and reliability design test, it is featured by high efficiency, energy saving, stable performance, low noise, no overload, large flow, wide high efficiency field, and beautiful appearance and can completely replace the same type of foreign products.

► Working Conditions ◀

The use of TB pumps is subject to the following conditions:

1. Caliber range: DN40 ~ DN250;
2. Flow range: 12.5m³/h~630m³/h;
3. Lift range: 9 m~81 m;
4. Power range: 1.1 kW~132kW;
5. Power requirements: 3~380V, 50Hz
5. Speed: 1450, 2900r/min;
6. System pressure: ≤1.6MPa;
7. Medium: Temperature 0~120° C, PH value 5~9;
8. Ambient temperature: ≤40 °C.

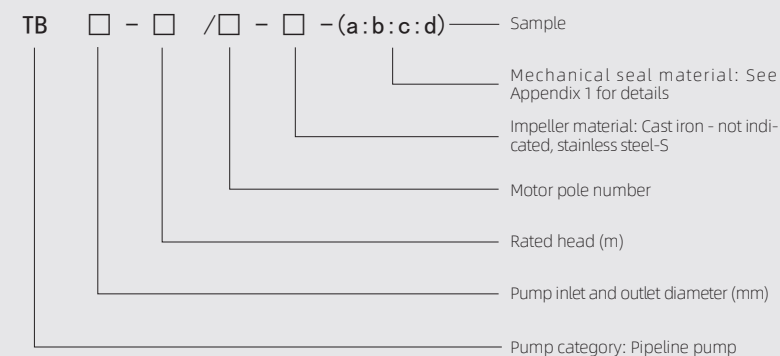


► Application Fields ◀

TB pumps are suitable for clean, non-corrosive, and non-flammable & explosive media that do not contain any solid particles and fibers that can cause physical or chemical damage to the pump. TB pumps are mainly used as liquid delivery, pressurization and circulation equipment, such as:

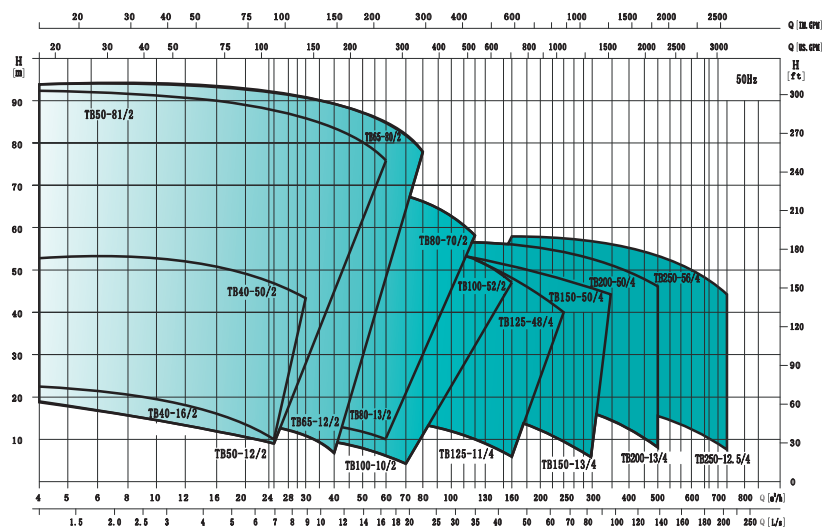
- Heating system
- Regional water supply system
- Secondary pressurization of high-rise building pipe network
- Circulation and cooling system of air conditioning
- Cleaning and circulation system of general industrial equipment
- Boiler water supply
- General domestic water supply

► Model Description ◀



For example: TB50-35/2-SKFC indicates a pipeline pump with the pump inlet and outlet diameter of 50mm, the rated lift of 35m, cast iron impeller, 2-pole motor, and SKFC mechanical seal.

► Performance Curve ◀



Performance Data

| No. | Model | Flow (m³/h) | Head (m) | Speed (r/Min) | Motor Power (kw) | Necessary NPSH (m) |
|-----|-----------|-------------|----------|---------------|------------------|--------------------|
| 1 | TB40-16/2 | 12.5 | 16 | 2900 | 1.1 | 2.0 |
| 2 | TB40-21/2 | 12.5 | 21 | | 1.5 | 2.0 |
| 3 | TB40-20/2 | 20 | 20 | | 2.2 | 2.0 |
| 4 | TB40-26/2 | 20 | 26 | | 3 | 2.0 |
| 5 | TB40-30/2 | 25 | 30 | | 4 | 2.0 |
| 6 | TB40-36/2 | 25 | 36 | | 5.5 | 2.0 |
| 7 | TB40-50/2 | 25 | 50 | | 7.5 | 2.0 |
| 8 | TB50-12/2 | 16 | 12 | | 1.1 | 2.0 |
| 9 | TB50-15/2 | 20 | 15 | | 1.5 | 2.0 |
| 10 | TB50-18/2 | 25 | 18 | | 2.2 | 2.0 |
| 11 | TB50-24/2 | 25 | 24 | | 3 | 2.0 |
| 12 | TB50-28/2 | 30 | 28 | | 4 | 2.0 |
| 13 | TB50-36/2 | 30 | 36 | | 5.5 | 2.0 |
| 14 | TB50-40/2 | 35 | 40 | | 7.5 | 2.0 |
| 15 | TB50-50/2 | 40 | 50 | | 11 | 2.0 |
| 16 | TB50-60/2 | 50 | 60 | | 15 | 2.0 |

Continued Table:

| No. | Model | Flow (m³/h) | Head (m) | Speed (r/Min) | Motor Power (kw) | Necessary NPSH (m) |
|-----|------------|-------------|----------|---------------|------------------|--------------------|
| 17 | TB50-71/2 | 50 | 71 | 2900 | 18.5 | 2.5 |
| 18 | TB50-81/2 | 50 | 81 | | 22 | 2.5 |
| 19 | TB65-12/2 | 30 | 12 | | 1.5 | 2.5 |
| 20 | TB65-15/2 | 30 | 15 | | 2.2 | 2.5 |
| 21 | TB65-20/2 | 30 | 20 | | 3 | 2.5 |
| 22 | TB65-22/2 | 40 | 22 | | 4 | 2.5 |
| 23 | TB65-30/2 | 40 | 30 | | 5.5 | 2.5 |
| 24 | TB65-34/2 | 50 | 34 | | 7.5 | 2.5 |
| 25 | TB65-42/2 | 50 | 42 | | 11 | 2.5 |
| 26 | TB65-52/2 | 50 | 52 | | 15 | 2.5 |
| 27 | TB65-60/2 | 60 | 60 | | 18.5 | 3.0 |
| 28 | TB65-70/2 | 70 | 70 | | 22 | 3.0 |
| 29 | TB65-80/2 | 70 | 80 | | 30 | 3.0 |
| 30 | TB80-13/2 | 50 | 13 | | 3 | 3.0 |
| 31 | TB80-19/2 | 50 | 19 | | 4 | 3.0 |
| 32 | TB80-23/2 | 50 | 23 | | 5.5 | 3.0 |
| 33 | TB80-29/2 | 50 | 29 | | 7.5 | 3.0 |
| 34 | TB80-30/2 | 80 | 30 | | 11 | 3.5 |
| 35 | TB80-38/2 | 80 | 38 | | 15 | 3.5 |
| 36 | TB80-47/2 | 80 | 47 | | 18.5 | 3.5 |
| 37 | TB80-60/2 | 80 | 60 | | 22 | 3.5 |
| 38 | TB80-70/2 | 80 | 70 | | 30 | 3.5 |
| 39 | TB100-10/2 | 60 | 10 | | 3 | 3.5 |
| 40 | TB100-15/2 | 60 | 15 | | 4 | 3.5 |
| 41 | TB100-17/2 | 80 | 17 | | 5.5 | 4.5 |
| 42 | TB100-22/2 | 80 | 22 | | 7.5 | 4.5 |
| 43 | TB100-27/2 | 100 | 27 | | 11 | 4.5 |
| 44 | TB100-34/2 | 100 | 34 | | 15 | 4.5 |
| 45 | TB100-40/2 | 110 | 40 | | 18.5 | 4.0 |
| 46 | TB100-48/2 | 120 | 48 | | 22 | 4.0 |
| 47 | TB100-52/2 | 130 | 52 | | 30 | 4.0 |
| 48 | TB125-11/4 | 120 | 11 | 1450 | 5.5 | 2.5 |
| 49 | TB125-15/4 | 120 | 15 | | 7.5 | 2.5 |
| 50 | TB125-18/4 | 160 | 18 | | 11 | 2.5 |
| 51 | TB125-22/4 | 160 | 22 | | 15 | 2.5 |
| 52 | TB125-28/4 | 160 | 28 | | 18.5 | 2.5 |
| 53 | TB125-33/4 | 160 | 33 | | 22 | 2.5 |
| 54 | TB125-40/4 | 160 | 40 | | 30 | 2.5 |

Continued Table:

| No. | Model | Flow (m ³ /h) | Head (m) | Speed (r/Min) | Motor Power (kW) | Necessary NPSH (m) |
|-----|--------------|--------------------------|----------|---------------|------------------|--------------------|
| 55 | TB125-48/4 | 160 | 48 | 1450 | 37 | 3.0 |
| 56 | TB150-13/4 | 200 | 13 | | 11 | 3.0 |
| 57 | TB150-17/4 | 200 | 17 | | 15 | 3.0 |
| 58 | TB150-22/4 | 200 | 22 | | 18.5 | 3.0 |
| 59 | TB150-25/4 | 200 | 25 | | 22 | 3.0 |
| 60 | TB150-34/4 | 200 | 34 | | 30 | 3.0 |
| 61 | TB150-41/4 | 200 | 41 | | 37 | 3.0 |
| 62 | TB150-50/4 | 200 | 50 | | 45 | 3.0 |
| 63 | TB200-16/4 | 300 | 16 | | 18.5 | 4.0 |
| 64 | TB200-20/4 | 300 | 20 | | 22 | 4.0 |
| 65 | TB200-24/4 | 300 | 24 | | 30 | 4.0 |
| 66 | TB200-32/4 | 300 | 32 | | 37 | 4.0 |
| 67 | TB200-36/4 | 300 | 36 | | 45 | 4.0 |
| 68 | TB200-48/4 | 300 | 48 | | 55 | 3.5 |
| 69 | TB200-53/4 | 300 | 53 | | 75 | 3.5 |
| 70 | TB200-13/4 | 400 | 13 | | 22 | 5.0 |
| 71 | TB200-20/4 | 400 | 20 | | 30 | 5.0 |
| 72 | TB200-23/4 | 400 | 23 | | 37 | 4.5 |
| 73 | TB200-27/4 | 400 | 27 | | 45 | 4.5 |
| 74 | TB200-32/4 | 400 | 32 | | 55 | 4.5 |
| 75 | TB200-43/4 | 400 | 43 | | 75 | 4.0 |
| 76 | TB200-50/4 | 400 | 50 | | 90 | 4.0 |
| 77 | TB250-16/4 | 500 | 16 | | 30 | 5.5 |
| 78 | TB250-19/4 | 500 | 19 | | 37 | 5.5 |
| 79 | TB250-22/4 | 500 | 22 | | 45 | 5.5 |
| 80 | TB250-29/4 | 500 | 29 | | 55 | 5.5 |
| 81 | TB250-36/4 | 500 | 36 | | 75 | 5.5 |
| 82 | TB250-47/4 | 500 | 47 | | 90 | 5.5 |
| 83 | TB250-56/4 | 500 | 56 | | 110 | 5.5 |
| 84 | TB250-12.5/4 | 630 | 12.5 | | 30 | 5.5 |
| 85 | TB250-14/4 | 630 | 14 | | 37 | 5.5 |
| 86 | TB250-17/4 | 630 | 17 | | 45 | 5.5 |
| 87 | TB250-20/4 | 630 | 20 | | 55 | 5.5 |
| 88 | TB250-26/4 | 630 | 26 | | 75 | 5.5 |
| 89 | TB250-32/4 | 630 | 32 | | 90 | 5.5 |
| 90 | TB250-40/4 | 630 | 40 | | 110 | 5.5 |
| 91 | TB250-50/4 | 630 | 50 | | 132 | 5.5 |

Motor

Structure: Full range of fully enclosed, air-cooled three-phase asynchronous standard motors; from 1.1kW to 2.2kW, single-phase motors are available.

Motor protection: Single-phase motors are equipped with built-in thermal protector; three-phase motors must be connected to motor starter according to local regulations.

Ambient temperature: ≤40° C; in the environment exceeding this temperature, or when the motor is installed at an altitude of 1000m or higher, due to the decrease of air density the cooling effect of the motor decreases, the loss of the winding and iron core increases, and the operating efficiency decreases, resulting in that the output power (P2) of the motor decreases; in such case, a motor with a higher output power must be used, as shown in Figure 1.

Position of motor junction box: When the electric pump is delivered from the factory, the motor junction box is installed on the left side of the inlet flange of the pump as a standard; if the customer has special requirements, the junction box can be adjusted by an angle of 0°, 90°, 180°, and 270° in turn. As shown in Figure 2.

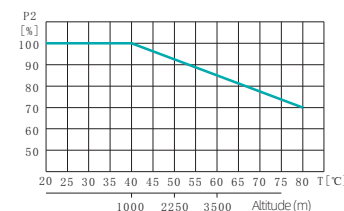


Figure 1: Relationship between motor output power (P2) and ambient temperature

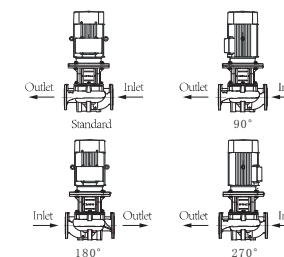


Figure 2: Position of junction box

Parameters of standard high efficiency (IE2) three-phase motor

| Rated power kW | Rated current A | | Rated speed r/min | Power factor COSφ | Efficiency % | Connection | Bearing |
|----------------|-----------------|------|-------------------|-------------------|--------------|------------|---------------------------|
| | 380V | 415V | | | | | |
| 1.1 | 2.53 | 2.32 | 2860 | 0.83 | 79.6 | Y | 6204ZZ |
| 1.5 | 3.34 | 3.06 | 2890 | 0.84 | 81.3 | Y | Front 6305ZZ, rear 6205ZZ |
| 2.2 | 4.73 | 4.33 | 2890 | 0.85 | 83.2 | Y | Front 6305ZZ, rear 6205ZZ |
| 3 | 6.19 | 5.67 | 2880 | 0.87 | 84.6 | Y | Front 6306ZZ, rear 6206ZZ |
| 4 | 8.05 | 7.37 | 2910 | 0.88 | 85.8 | △ | Front 6306ZZ, rear 6206ZZ |
| 5.5 | 10.9 | 10.0 | 2905 | 0.88 | 87.0 | △ | 6308ZZ |
| 7.5 | 14.5 | 13.3 | 2915 | 0.89 | 88.1 | △ | 6308ZZ |
| 11 | 21.0 | 19.2 | 2935 | 0.89 | 89.4 | △ | Front 7309B, rear 6309ZZ |
| 15 | 28.4 | 26.0 | 2935 | 0.89 | 90.3 | △ | Front 7309B, rear 6309ZZ |
| 18.5 | 34.7 | 31.8 | 2935 | 0.89 | 90.9 | △ | Front 7319B, rear 6309ZZ |
| 22 | 41.1 | 37.7 | 2950 | 0.89 | 91.3 | △ | Front 7311B, rear 6311ZZ |
| 30 | 55.7 | 51.0 | 2960 | 0.89 | 92.0 | △ | Front 7312, rear 6312ZZ |
| 5.5 | 11.6 | 10.6 | 1455 | 0.82 | 87.7 | △ | 6308ZZ |
| 7.5 | 15.5 | 14.2 | 1455 | 0.83 | 88.7 | △ | 6308ZZ |
| 11 | 22.4 | 20.5 | 1465 | 0.83 | 89.8 | △ | Front 7309B, rear 6309ZZ |
| 15 | 29.9 | 27.4 | 1465 | 0.84 | 90.6 | △ | Front 7309B, rear 6309ZZ |
| 18.5 | 36.3 | 33.2 | 1470 | 0.85 | 91.2 | △ | Front 7311B, rear 6311ZZ |
| 22 | 42.9 | 39.3 | 1470 | 0.85 | 91.6 | △ | Front 7311B, rear 6311ZZ |

Parameters of standard high efficiency (IE2) three-phase motor (Continued)

| Rated power kW | Rated current A | | Rated speed r/min | Power factor COSφ | Efficiency % | Connection | Bearing |
|-------------------|-----------------|------|----------------------|----------------------|--------------|------------|--------------------------|
| | 380V | 415V | | | | | |
| 30 | 58.1 | 53.2 | 1475 | 0.85 | 92.3 | △ | Front 7312B, rear 6312ZZ |
| 37 | 70.5 | 64.6 | 1480 | 0.86 | 92.7 | △ | Front 7313B, rear 6313ZZ |
| 45 | 85.4 | 78.2 | 1480 | 0.86 | 93.1 | △ | Front 7313B, rear 6313ZZ |
| 55 | 104 | 95 | 1480 | 0.86 | 93.5 | △ | Front 7314B, rear 6314ZZ |
| 75 | 139 | 128 | 1485 | 0.87 | 94.0 | △ | Front 7317B, rear 6317ZZ |
| 90 | 165 | 151 | 1485 | 0.88 | 94.2 | △ | Front 7317B, rear 6317ZZ |
| 110 | 199 | 182 | 1485 | 0.89 | 94.5 | △ | Front 7319B, rear 6319ZZ |
| 132 | 238 | 218 | 1485 | 0.89 | 94.7 | △ | Front 7319B, rear 6319ZZ |

Parameters of ultrahigh efficiency (IE3) three-phase motor

| Rated power kW | Rated current A | | Rated speed r/min | Power factor COSφ | Efficiency % | Connection | Bearing |
|-------------------|-----------------|-------|----------------------|----------------------|--------------|------------|---------------------------|
| | 380V | 415V | | | | | |
| 1.1 | 2.4 | 2.2 | 2880 | 0.83 | 82.7 | Y | 6204ZZ |
| 1.5 | 3.2 | 3.0 | 2895 | 0.84 | 84.2 | Y | Front 6305ZZ, rear 6205ZZ |
| 2.2 | 4.6 | 4.2 | 2895 | 0.85 | 85.9 | Y | Front 6305ZZ, rear 6205ZZ |
| 3 | 6.0 | 5.5 | 2895 | 0.87 | 87.1 | Y | Front 6306ZZ, rear 6206ZZ |
| 4 | 7.8 | 7.2 | 2905 | 0.88 | 88.1 | △ | Front 6306ZZ, rear 6206ZZ |
| 5.5 | 10.6 | 9.8 | 2930 | 0.88 | 89.2 | △ | 6308ZZ |
| 7.5 | 14.4 | 13.2 | 2930 | 0.88 | 90.1 | △ | 6308ZZ |
| 11 | 20.6 | 18.9 | 2945 | 0.89 | 91.2 | △ | Front 7309B, rear 6309ZZ |
| 15 | 27.9 | 25.5 | 2945 | 0.89 | 91.9 | △ | Front 7309B, rear 6309ZZ |
| 18.5 | 34.2 | 31.3 | 2940 | 0.89 | 92.4 | △ | Front 7319B, rear 6309ZZ |
| 22 | 40.5 | 37.1 | 2955 | 0.89 | 92.7 | △ | Front 7311B, rear 6311ZZ |
| 30 | 54.9 | 50.3 | 2960 | 0.89 | 93.3 | △ | Front 7312B, rear 6312ZZ |
| 5.5 | 11.2 | 10.3 | 1440 | 0.83 | 89.6 | △ | 6308ZZ |
| 7.5 | 15.0 | 13.7 | 1460 | 0.84 | 90.4 | △ | 6308ZZ |
| 11 | 21.5 | 19.7 | 1465 | 0.85 | 91.4 | △ | Front 7309B, rear 6309ZZ |
| 15 | 28.8 | 26.4 | 1465 | 0.86 | 92.1 | △ | Front 7309B, rear 6309ZZ |
| 18.5 | 35.3 | 32.3 | 1470 | 0.86 | 92.6 | △ | Front 7311B, rear 6311ZZ |
| 22 | 41.8 | 38.3 | 1470 | 0.86 | 93.0 | △ | Front 7311B, rear 6311ZZ |
| 30 | 56.6 | 51.9 | 1475 | 0.86 | 93.6 | △ | Front 7312B, rear 6312ZZ |
| 37 | 69.6 | 63.7 | 1485 | 0.86 | 93.9 | △ | Front 7313B, rear 6313ZZ |
| 45 | 84.4 | 77.3 | 1485 | 0.86 | 94.2 | △ | Front 7313B, rear 6313ZZ |
| 55 | 102.7 | 94.1 | 1485 | 0.86 | 94.6 | △ | Front 7314B, rear 6314ZZ |
| 75 | 136.3 | 124.8 | 1486 | 0.88 | 95.0 | △ | Front 7317B, rear 6317ZZ |
| 90 | 163.2 | 149.5 | 1486 | 0.88 | 95.2 | △ | Front 7317B, rear 6317ZZ |
| 110 | 196.8 | 180.2 | 1488 | 0.89 | 95.4 | △ | Front 7319B, rear 6319ZZ |
| 132 | 235.7 | 215.8 | 1488 | 0.89 | 95.6 | △ | Front 7319B, rear 6319ZZ |

Product Structure

The product is mainly composed of five core components: pump body, impeller, pump cover, pump shaft and motor; the motor can be separated from the pump, the pump part is designed as top pull-out structure, and all models are equipped with standard motor and mechanical seal.

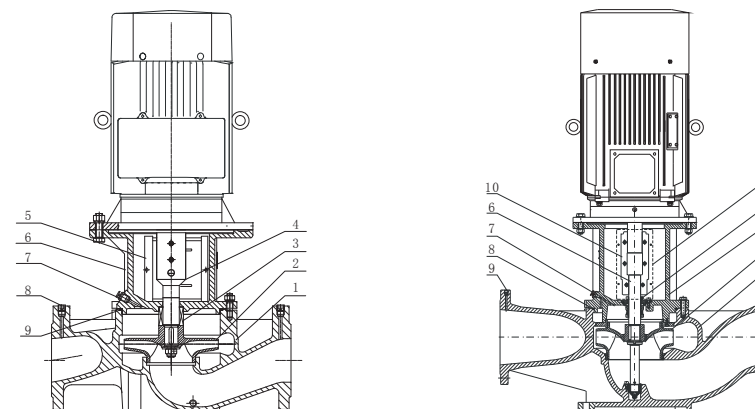
The pump body part is equivalent to a section of pipeline. The pump body can be sealed with blank flange when the pump is maintained, so as not to affect the normal operation of the system.

The impeller is of a closed structure designed with twisted blade for a better guarantee of efficient hydraulic efficiency.

The pump cover plays the dual role of supporting the motor and sealing the pump body, and the seal between the pump cover and the pump body adopts the static seal "O-ring".

The inlet and outlet flanges of the pump are in accordance with the standards of GBT17241.6, ISO7005-2 and DIN2501.

Sectional View of Product



TB40-TB150 MEASUREMENTS

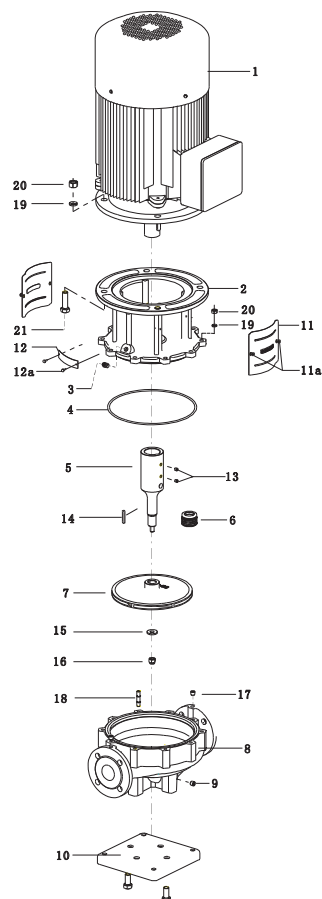
| No. | Name | Material |
|-----|-------------------------|-------------------------------------|
| 1 | Pump body | Cast iron HT200 |
| 2 | Impeller | Cast iron HT200/ stainless steel |
| 3 | Mechanical seal | See Appendix 1 |
| 4 | Pump shaft | Stainless steel 304 |
| 5 | Protection plate | Stainless steel 304 |
| 6 | Pump cover | Cast iron HT200 |
| 7 | Release valve | Brass |
| 8 | Pressure measuring plug | Q235A |
| 9 | O-ring | Fluororubber |

TB200-TB250 MEASUREMENTS

| No. | Name | Material |
|-----|-------------------------|-------------------------------------|
| 1 | Pump body | Cast iron HT200 |
| 2 | Impeller | Cast iron HT200/ stainless steel |
| 3 | Pump cover | Cast iron HT200 |
| 4 | Mechanical seal | See Appendix 1 |
| 5 | Protection plate | Stainless steel 304 |
| 6 | Pump shaft | Stainless steel 304 |
| 7 | Release valve | Brass |
| 8 | O-ring | Nitrile rubber |
| 9 | Pressure measuring plug | Q235A |
| 10 | Coupling | Cast steel |

► Exploded View ◀

Exploded view of pump TB40-TB150

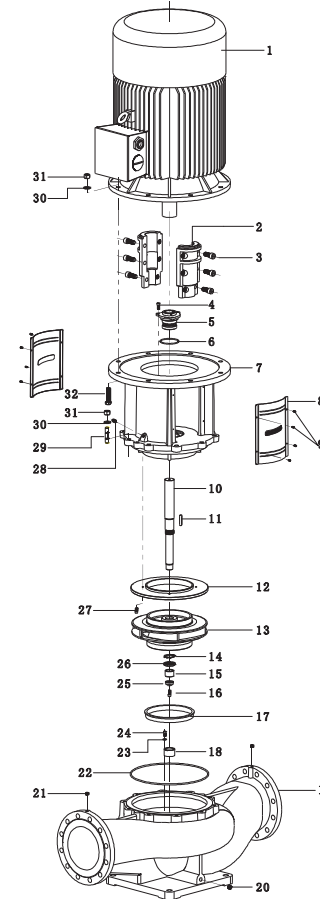


The physical appearance may vary from the above.

| No. | Part name | Material |
|-----|--------------------------------|---|
| 1 | Motor | / |
| 2 | Pump cover | HT 200 |
| 3 | Release valve | Brass |
| 4 | O-ring | Fluororubber |
| 5 | Pump shaft | 304 |
| 6 | Mechanical seal | See Appendix 1 |
| 7 | Impeller | See technical data |
| 8 | Pump body | HT 200 |
| 9 | Drain valve | 304 |
| 10 | Base | A3, see the base dimensions for details |
| 11 | Protection plate | 304 |
| 11a | Gross recessed pan head screws | Q235A |
| 12 | Pump nameplate | Aluminum plate |
| 12a | Rivet for nameplate | T3 |
| 13 | Set screw | Q235A |
| 14 | Flat key | 304 |
| 15 | Impeller washer | 304 |
| 16 | Locknut | 304 |
| 17 | Pressure measuring plug | Q235A |
| 18 | Stud | Q235A |
| 19 | Spring washer | 65Mn |
| 20 | Hexagon nut - Style 1 | Q235A |
| 21 | Hexagon bolt | Q235A |

► Exploded View ◀

Exploded view of pump TB200-TB250



The physical appearance may vary from the above.

| No. | Part name | Material |
|-----|--------------------------------|----------------------|
| 1 | Motor | / |
| 2 | Coupling | Cast steel ZG270-500 |
| 3 | Socket head cap screw | 304 |
| 4 | Socket head cap screw | Q235A |
| 5 | Mechanical seal | See Appendix 1 |
| 6 | O-ring | Fluororubber |
| 7 | Pump cover | HT200 |
| 8 | Protection plate | 304 |
| 9 | Gross recessed pan head screws | Q235A |
| 10 | Pump shaft | 304 |
| 11 | Flat key | 304 |
| 12 | Seal ring | HT200 |
| 13 | Impeller | See technical data |
| 14 | Stop washer | Q235A |
| 15 | Lower bushing | Q235A |
| 16 | Socket head cap screw | Q235A |
| 17 | Mouth ring | 304 |
| 18 | Lower bearing | YG6 |
| 19 | Pump body | HT200 |
| 20 | Drain valve | Q235A |
| 21 | Pressure measuring plug | Q235A |
| 22 | O-ring | Nitrile rubber |
| 23 | Washer | Q235A |
| 24 | Socket head cap screw | Q235A |
| 25 | Gland | Q235A |
| 26 | Round nut | 45 |
| 27 | Socket head cap screw | Q235A |
| 28 | Release valve | Brass |
| 29 | Stud | 65Mn |
| 30 | Spring washer | Q235A |
| 31 | Hexagon nut | Q235A |
| 32 | Hexagon bolt | Q235A |

► Installation Conditions ◀

According to the size and specifications of the product, there are different installation requirements, and the specific installation requirements are as follows:

1. If the system pipeline has the ability to support the pump, pumps equipped with motor of 2.2kW and below can be directly suspended in the pipeline; where the system pipeline does not have the ability to support the pump or the motor power is greater than 2.2kW, pumps must be installed on the support or the base plate, as shown in Figure A.
2. Pumps equipped with motor of 2.2kW and below can be installed horizontally or perpendicular to the pipeline; pumps equipped with motor of greater than 2.2kW can only be installed perpendicular to the pipeline. As shown in Figure B.
3. The pump should be so installed that the tension of the system piping is not transmitted to the pump when the pump is in use.
4. In order to ensure the normal operation of motor, the pump should be installed in a well-ventilated and dry environment, and the ambient temperature should not exceed 40 °C.
5. If the pump is installed outdoors, appropriate protective devices must be installed to ensure that no foreign matter or water enters the motor.
6. In order to facilitate the later maintenance of the pump, there must be enough space around the pump. As shown in Figure C.
7. In order to minimize the vibration and noise of the pump and ensure the best operation effect, it should be considered to take necessary measures at the installation of pump, e.g.: installing a vibration absorbing base, and it is recommended to adopt a cement base provided with vibration isolator, as shown in Figure D.

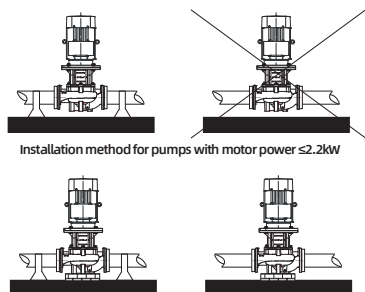


Figure A

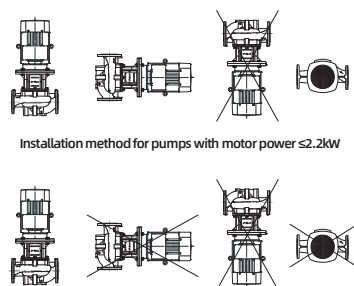


Figure B

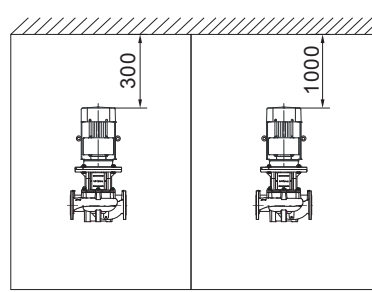


Figure C

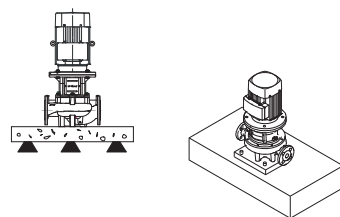
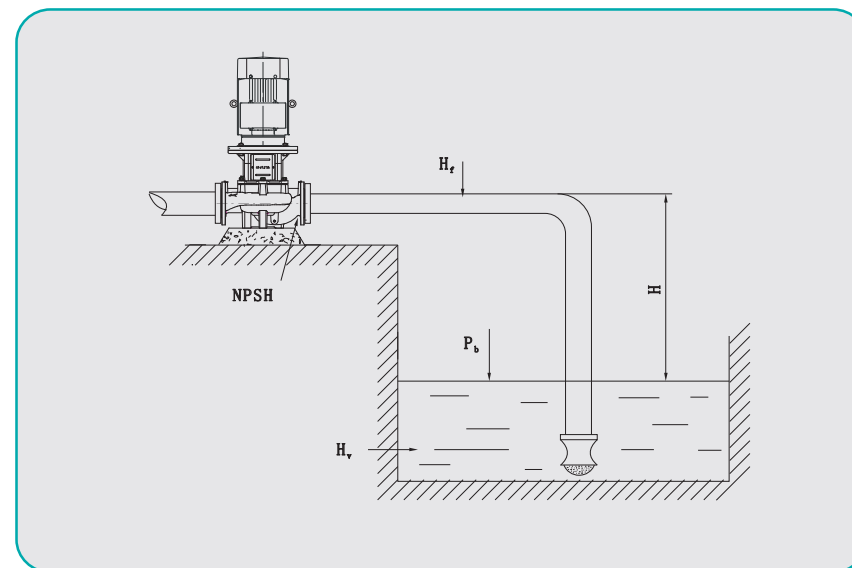


Figure D

► Calculation of Minimum Inlet Pressure ◀



Inlet pressure: In order to ensure that the pump is in optimal operation while ensuring that the noise value is kept to a minimum, the inlet pressure must be correctly calculated and set. If the pressure inside the pump is lower than the vaporization pressure of the conveying medium, cavitation will occur to the pump; in order to ensure a minimum pressure at the pump inlet, the maximum suction head $H(m)$ can be calculated according to the following formula:

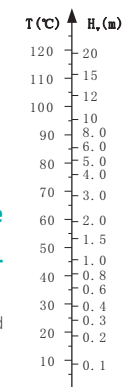
$$H = P_b \times 10.2 - NPSH - H_f - H_v - H_s$$

- P_b : Atmospheric pressure value, unit: ba;
 $NPSH$: Net positive suction height, unit: m (the specific value can be read from the value corresponding to the maximum flow point of the pump in operation on the NPSH curve in the performance curves of the corresponding model);
 H_f : Inlet pipe loss at maximum flow rate of pump in operation, unit: m;
 H_v : Vaporization pressure of liquid, unit: m (see the figure on the right);
 H_s : Safety margin, unit: m, which generally takes 0.5m.

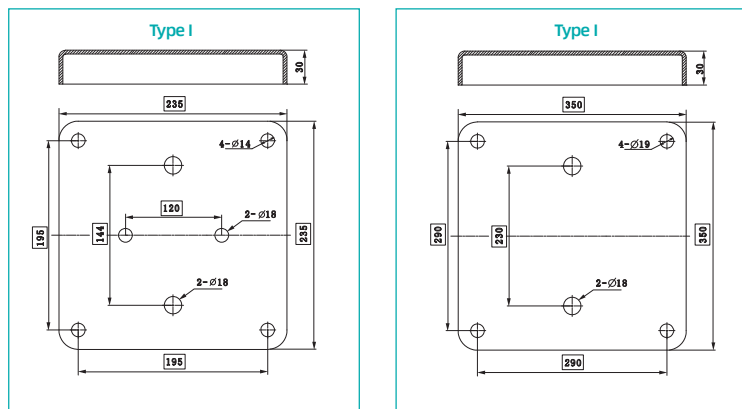
Calculated by the above formula, if the "H" value is positive, the pump can run under the suction head.
 If the "H" value is negative, it is required to ensure that the inlet pressure is under the head of at least "H" meters for normal operation.

Note: In general, the above calculations are not required, and calculations should be carried out in the following circumstances:

1. The liquid temperature is high;
2. The water intake conditions are poor;
3. The inlet pipe is long or the pump needs to be installed for suction;
4. The system pressure is too small;
5. The flow velocity of liquid is too large, resulting in high pipe loss.

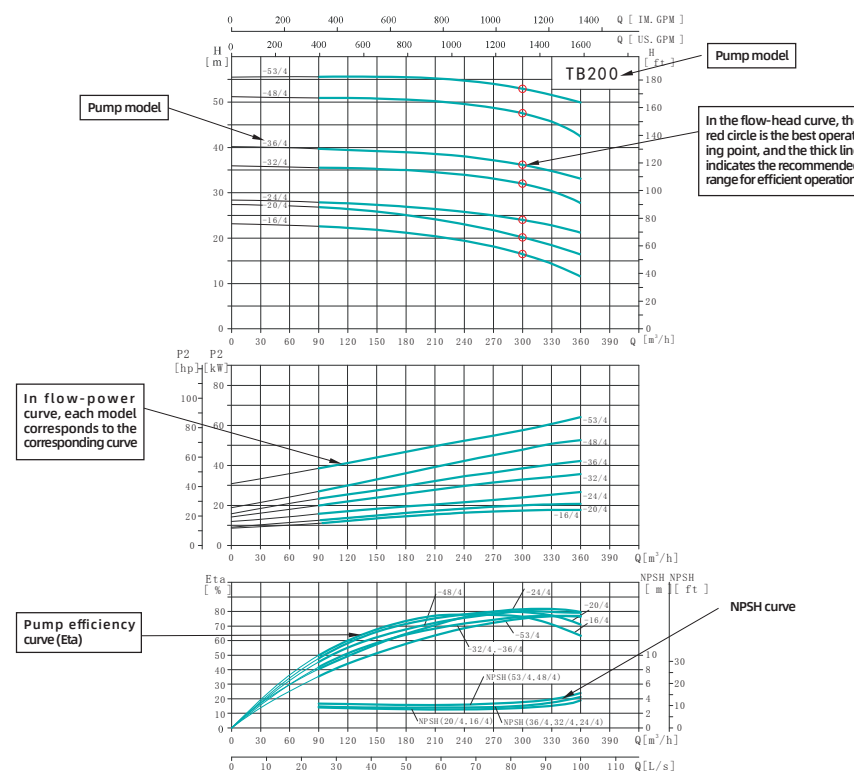


Base dimensions



| No. | Pump model | Base type | No. | Pump model | Base type | No. | Pump model | Base type |
|-----|------------|-----------|-----|------------|-----------|-----|------------|-----------|
| 1 | TB40-16/2 | Type I | 22 | TB65-22/2 | Type I | 43 | TB100-27/2 | Type I |
| 2 | TB40-21/2 | Type I | 23 | TB65-30/2 | Type I | 44 | TB100-34/2 | Type I |
| 3 | TB40-20/2 | Type I | 24 | TB65-34/2 | Type I | 45 | TB100-40/2 | Type II |
| 4 | TB40-26/2 | Type I | 25 | TB65-42/2 | Type I | 46 | TB100-48/2 | Type II |
| 5 | TB40-30/2 | Type I | 26 | TB65-52/2 | Type I | 47 | TB100-52/2 | Type II |
| 6 | TB40-36/2 | Type I | 27 | TB65-60/2 | Type I | 48 | TB125-11/4 | Type II |
| 7 | TB40-50/2 | Type I | 28 | TB65-70/2 | Type I | 49 | TB125-15/4 | Type II |
| 8 | TB50-12/2 | Type I | 29 | TB65-80/2 | Type I | 50 | TB125-18/4 | Type II |
| 9 | TB50-15/2 | Type I | 30 | TB80-13/2 | Type I | 51 | TB125-22/4 | Type II |
| 10 | TB50-18/2 | Type I | 31 | TB80-19/2 | Type I | 52 | TB125-28/4 | Type II |
| 11 | TB50-24/2 | Type I | 32 | TB80-23/2 | Type I | 53 | TB125-33/4 | Type II |
| 12 | TB50-28/2 | Type I | 33 | TB80-29/2 | Type I | 54 | TB125-40/4 | Type II |
| 13 | TB50-36/2 | Type I | 34 | TB80-30/2 | Type I | 55 | TB125-48/4 | Type II |
| 14 | TB50-40/2 | Type I | 35 | TB80-38/2 | Type I | 56 | TB150-13/4 | Type II |
| 15 | TB50-50/2 | Type I | 36 | TB80-47/2 | Type I | 57 | TB150-17/4 | Type II |
| 16 | TB50-60/2 | Type I | 37 | TB80-60/2 | Type I | 58 | TB150-22/4 | Type II |
| 17 | TB50-71/2 | Type I | 38 | TB80-70/2 | Type I | 59 | TB150-25/4 | Type II |
| 18 | TB50-81/2 | Type I | 39 | TB100-10/2 | Type I | 60 | TB150-34/4 | Type II |
| 19 | TB65-12/2 | Type I | 40 | TB100-15/2 | Type I | 61 | TB150-41/4 | Type II |
| 20 | TB65-15/2 | Type I | 41 | TB100-17/2 | Type I | 62 | TB150-50/4 | Type II |
| 21 | TB65-20/2 | Type I | 42 | TB100-22/2 | Type I | | | Type II |

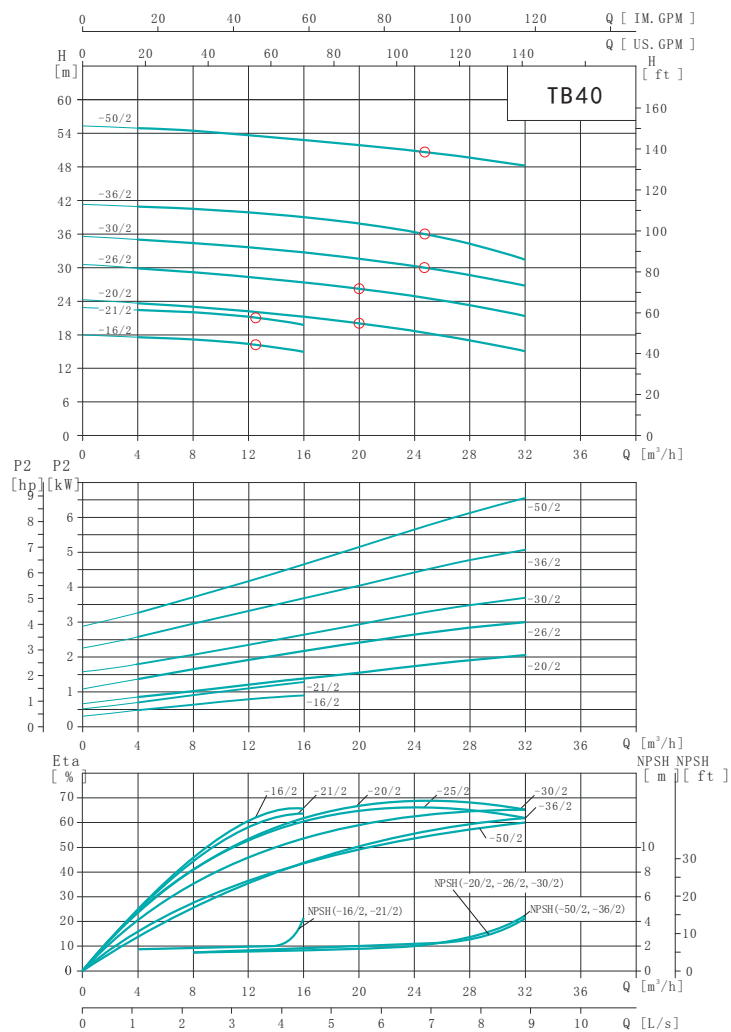
Examples of performance curve



Principles for Application of Performance Curves

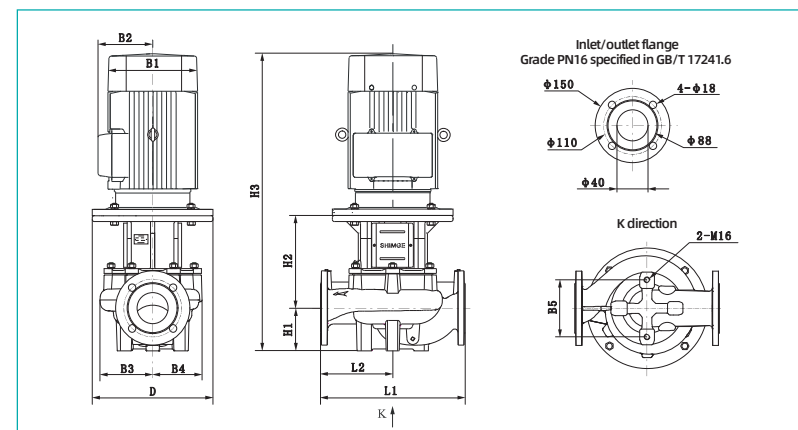
1. The curve tolerance is in accordance with Annex A of ISO9906;
2. The test medium is clean water with the temperature of 20 °C that contain no solid impurity and air;
3. All curves are based on the 3X380V motor with the rated speed of 2900rpm/1450rpm;
4. The curve is suitable for liquids with kinematic viscosity $\nu = 1 \text{ mm}^2/\text{s}$ (1 cst);
5. To prevent the risk of overheating, the pump should be operated within the range of the thick curve to avoid overloading the motor.

TB40-*/2



Performance Table

| Pump model | Motor power (kW) | Q (m³/h) | 4 | 8 | 12.5 | 16 | 20 | 25 | 28 | 32 |
|------------|------------------|----------|------|------|------|------|------|------|------|------|
| TB40-16/2 | 1.1 | H(m) | 17.8 | 16.9 | 16 | 14.5 | | | | |
| TB40-21/2 | 1.5 | | 22.8 | 21.7 | 21 | 19.7 | | | | |
| TB40-20/2 | 2.2 | | 23.6 | 23.4 | 22.1 | 21.4 | 20 | 18.1 | 16.7 | 14.6 |
| TB40-26/2 | 3 | | 29.8 | 29.2 | 28.1 | 27.4 | 26 | 24 | 22.7 | 20.8 |
| TB40-30/2 | 4 | | 35.2 | 34.8 | 33.5 | 32.6 | 31.9 | 30 | 27.4 | 26.1 |
| TB40-36/2 | 5.5 | | 40.2 | 39.5 | 38.7 | 37.5 | 37.1 | 36 | 34.6 | 32.5 |
| TB40-50/2 | 7.5 | | 55.4 | 54.2 | 53.1 | 52.7 | 51.3 | 50 | 49.2 | 48.4 |

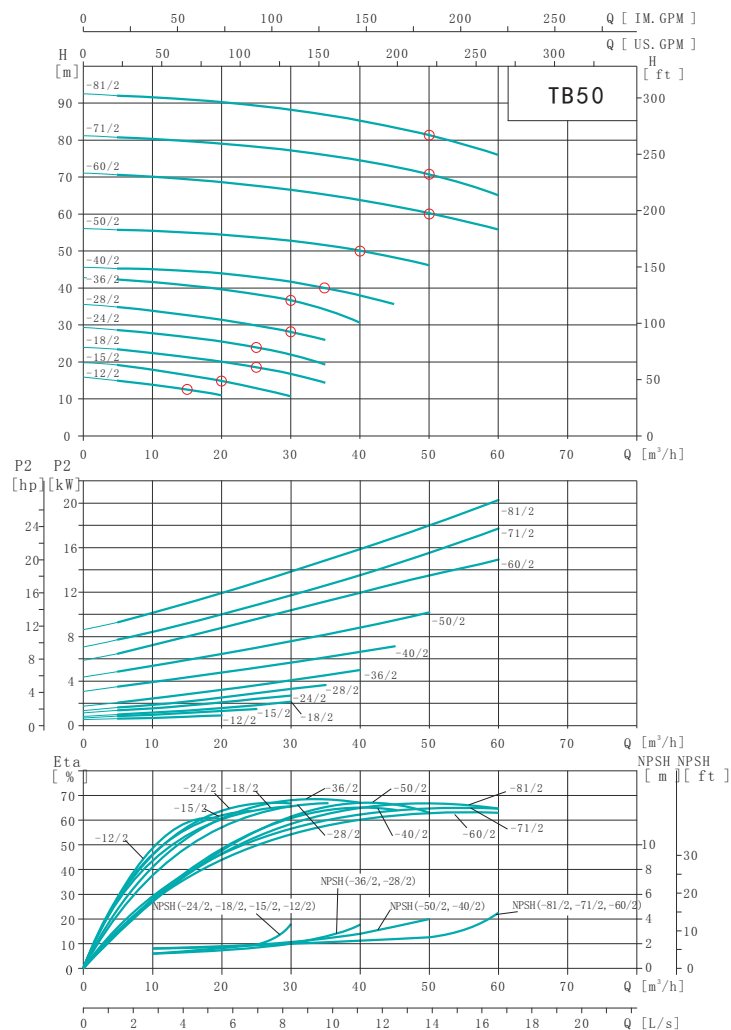


Size and weight

| Pump model | Size [mm] | | | | | | | | | | | Weight [kg] |
|------------|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------------|
| | D | B1 | B2 | B3 | B4 | B5 | H1 | H2 | H3 | L1 | L2 | |
| TB40-16/2 | 200 | 153 | 94 | 122 | 122 | 120 | 68 | 170 | 490 | 320 | 160 | 32 |
| TB40-21/2 | 200 | 168 | 106 | 122 | 122 | 120 | 68 | 170 | 531 | 320 | 160 | 36 |
| TB40-20/2 | 200 | 168 | 106 | 122 | 122 | 144 | 100 | 170 | 563 | 340 | 170 | 39 |
| TB40-26/2 | 250 | 195 | 121 | 122 | 122 | 144 | 100 | 190 | 607 | 340 | 170 | 53 |
| TB40-30/2 | 250 | 215 | 138 | 122 | 122 | 144 | 100 | 190 | 633 | 340 | 170 | 61 |
| TB40-36/2 | 300 | 260 | 160 | 168 | 168 | 144 | 110 | 225 | 755 | 440 | 220 | 90 |
| TB40-50/2 | 300 | 260 | 160 | 168 | 168 | 144 | 110 | 225 | 755 | 440 | 220 | 94 |

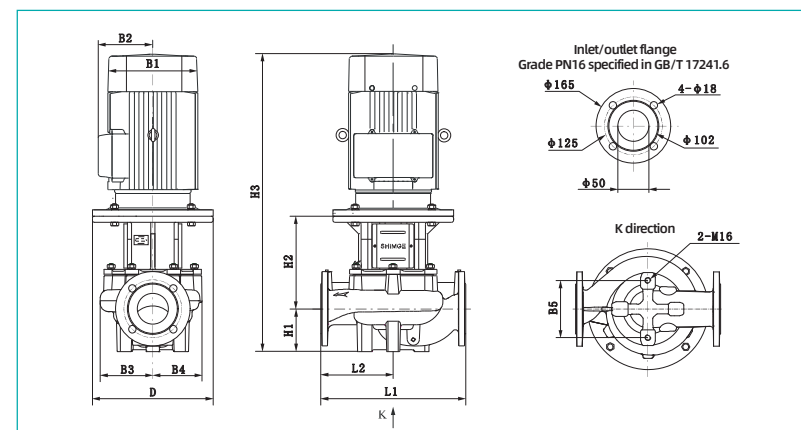
The size of explosion-proof motors has changed, and please contact us for details.

TB50-*/2



Performance Table

| Pump model | Motor power (kW) | Q (m³/h) | 5 | 10 | 16 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 60 |
|------------|------------------|----------|------|------|------|------|------|------|------|------|------|------|------|
| TB50-12/2 | 1.1 | H (m) | 15.2 | 14.8 | 12 | 10.8 | | | | | | | |
| TB50-15/2 | 1.5 | | 18.2 | 17.5 | 16.1 | 15 | 13.2 | 10.5 | | | | | |
| TB50-18/2 | 2.2 | | 23.3 | 22.4 | 21.2 | 20.5 | 18 | 16 | 14 | | | | |
| TB50-24/2 | 3 | | 28.4 | 27.3 | 26.2 | 25.5 | 24 | 21.6 | 19.2 | | | | |
| TB50-28/2 | 4 | | 34.4 | 33.1 | 32.6 | 31.8 | 30.2 | 28 | 26.7 | | | | |
| TB50-36/2 | 5.5 | | 42.2 | 41.5 | 40.2 | 39.6 | 38.1 | 36 | 33.5 | 30.5 | | | |
| TB50-40/2 | 7.5 | | 45.2 | 44.6 | 43.4 | 42.8 | 42.1 | 41.1 | 40 | 38.1 | 35.2 | | |
| TB50-50/2 | 11 | | 56.1 | 55.4 | 55.2 | 54.8 | 54.3 | 53.5 | 52 | 50 | 47.2 | 46.1 | |
| TB50-60/2 | 15 | | 70.7 | 70.4 | 70.2 | 69.2 | 68.5 | 67.6 | 66.1 | 64.2 | 62.2 | 60 | 56.8 |
| TB50-71/2 | 18.5 | | 80.5 | 80.2 | 80 | 79.7 | 79.2 | 78.4 | 77.4 | 75.6 | 73.2 | 71 | 65.1 |
| TB50-81/2 | 22 | | 91.6 | 91.1 | 90.5 | 90.1 | 89.5 | 88.2 | 87.1 | 86 | 84 | 81 | 76 |

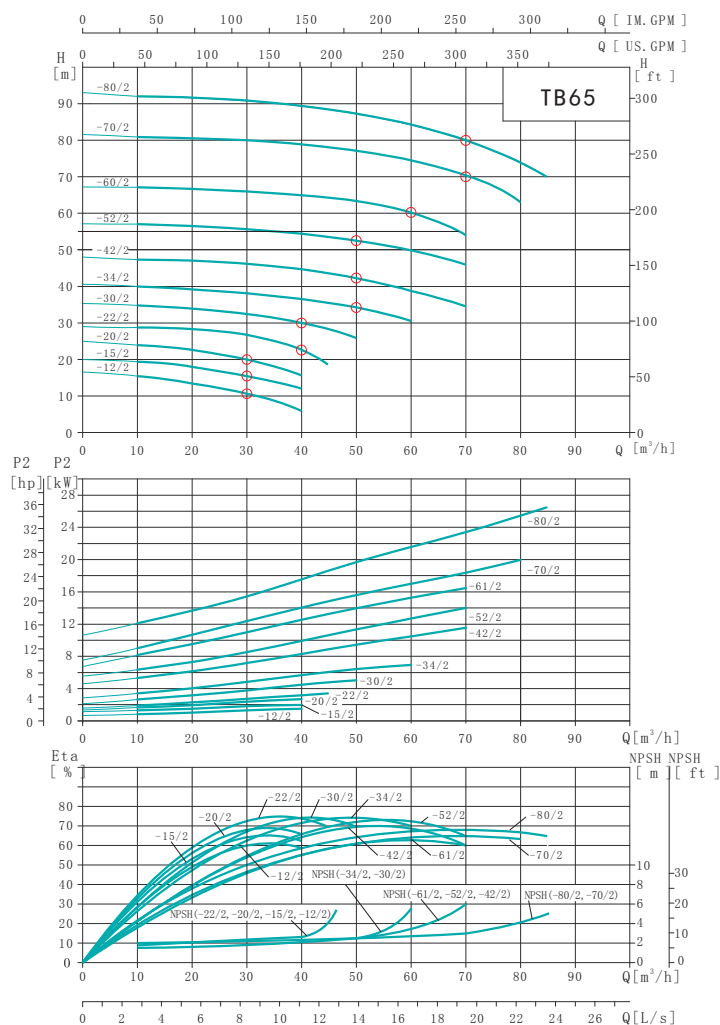


Size and weight

| Pump model | Size [mm] | | | | | | | | | | | | Weight [kg] |
|------------|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------------|
| | D | B1 | B2 | B3 | B4 | B5 | H1 | H2 | H3 | L1 | L2 | | |
| TB50-12/2 | 200 | 153 | 94 | 122 | 122 | 144 | 115 | 150 | 517 | 340 | 170 | 38 | |
| TB50-15/2 | 200 | 168 | 106 | 122 | 122 | 144 | 115 | 150 | 558 | 340 | 170 | 42 | |
| TB50-18/2 | 200 | 168 | 106 | 122 | 122 | 144 | 115 | 150 | 558 | 340 | 170 | 45 | |
| TB50-24/2 | 250 | 195 | 121 | 122 | 122 | 144 | 115 | 170 | 602 | 340 | 170 | 55 | |
| TB50-28/2 | 250 | 215 | 138 | 122 | 122 | 144 | 115 | 182 | 640 | 340 | 170 | 64 | |
| TB50-36/2 | 300 | 260 | 160 | 122 | 122 | 144 | 115 | 222 | 757 | 340 | 170 | 77 | |
| TB50-40/2 | 300 | 260 | 160 | 168 | 168 | 144 | 115 | 223 | 758 | 440 | 220 | 102 | |
| TB50-50/2 | 350 | 314 | 251 | 168 | 168 | 144 | 115 | 258 | 871 | 440 | 220 | 171 | |
| TB50-60/2 | 350 | 314 | 251 | 168 | 168 | 144 | 115 | 258 | 871 | 440 | 220 | 183 | |
| TB50-71/2 | 350 | 314 | 251 | 168 | 168 | 144 | 115 | 258 | 915 | 440 | 220 | 202 | |
| TB50-81/2 | 350 | 355 | 267 | 168 | 168 | 144 | 115 | 258 | 951 | 440 | 220 | 242 | |

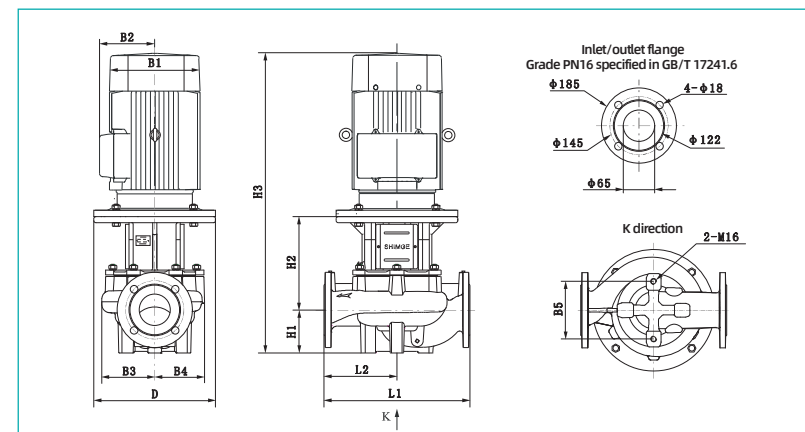
The size of explosion-proof motors has changed, and please contact us for details.

TB65-*/2



Performance Table

| Pump model | Motor power (kW) | Q (m³/h) | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 85 |
|------------|------------------|----------|------|------|------|------|-------|------|------|----|----|
| TB65-12/2 | 1.5 | H (m) | 15.5 | 14.1 | 12 | 8 | | | | | |
| TB65-15/2 | 2.2 | | 20.4 | 18.8 | 15 | 12.5 | | | | | |
| TB65-20/2 | 3 | | 25.2 | 23.5 | 20 | 18.2 | | | | | |
| TB65-22/2 | 4 | | 29.5 | 28.2 | 25.6 | 22 | 43/15 | | | | |
| TB65-30/2 | 5.5 | | 34.3 | 33.1 | 32.2 | 30 | 26.6 | | | | |
| TB65-34/2 | 7.5 | | 40.2 | 39.3 | 37.7 | 36.8 | 34 | 30.6 | | | |
| TB65-42/2 | 11 | | 47.9 | 46.4 | 45.5 | 44.1 | 42 | 38.3 | 35.1 | | |
| TB65-52/2 | 15 | | 58.4 | 56.6 | 55.8 | 54.2 | 52 | 48.5 | 45.1 | | |
| TB65-60/2 | 18.5 | | 67.4 | 66.7 | 66.1 | 65.1 | 62.4 | 60 | 55.4 | | |
| TB65-70/2 | 22 | | 81.4 | 80.9 | 80.2 | 79.3 | 77.6 | 74.3 | 70 | 62 | |
| TB65-80/2 | 30 | | 92.1 | 92.0 | 90.0 | 89.0 | 87.0 | 84.0 | 80 | 74 | 70 |

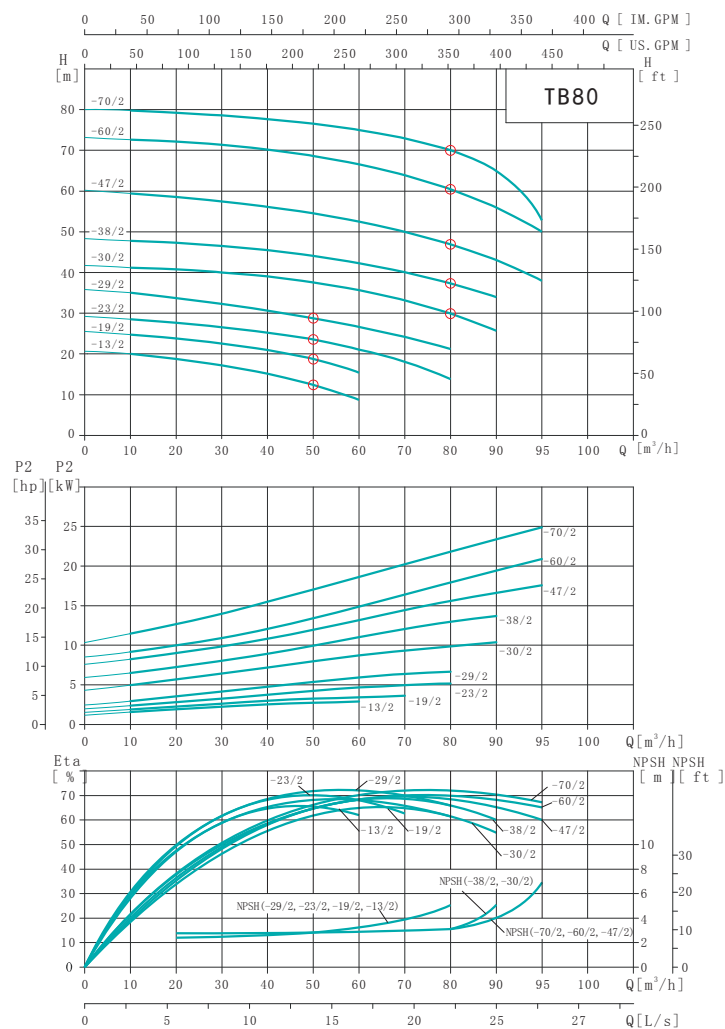


Size and weight

| Pump model | Size [mm] | | | | | | | | | | | Weight [kg] |
|------------|-----------|-----|-----|-----|-----|-----|-----|-----|------|-----|-------|-------------|
| | D | B1 | B2 | B3 | B4 | B5 | H1 | H2 | H3 | L1 | L2 | |
| TB65-12/2 | 200 | 168 | 106 | 133 | 122 | 144 | 105 | 170 | 568 | 360 | 180 | 45 |
| TB65-15/2 | 200 | 168 | 106 | 133 | 122 | 144 | 105 | 170 | 568 | 360 | 180 | 48 |
| TB65-20/2 | 250 | 195 | 121 | 133 | 122 | 144 | 105 | 190 | 612 | 360 | 180 | 57 |
| TB65-22/2 | 250 | 215 | 138 | 133 | 122 | 144 | 105 | 190 | 638 | 360 | 180 | 66 |
| TB65-30/2 | 300 | 260 | 160 | 133 | 122 | 144 | 105 | 230 | 755 | 360 | 180 | 79 |
| TB65-34/2 | 300 | 260 | 160 | 133 | 122 | 144 | 105 | 230 | 755 | 360 | 180 | 89 |
| TB65-42/2 | 350 | 314 | 251 | 170 | 168 | 144 | 125 | 260 | 883 | 475 | 237.5 | 175 |
| TB65-52/2 | 350 | 314 | 251 | 170 | 168 | 144 | 125 | 260 | 883 | 475 | 237.5 | 185 |
| TB65-60/2 | 350 | 314 | 251 | 170 | 168 | 144 | 125 | 260 | 927 | 475 | 237.5 | 206 |
| TB65-70/2 | 350 | 355 | 267 | 170 | 168 | 144 | 125 | 260 | 963 | 475 | 237.5 | 246 |
| TB65-80/2 | 400 | 397 | 299 | 170 | 168 | 144 | 125 | 260 | 1046 | 475 | 237.5 | 316 |

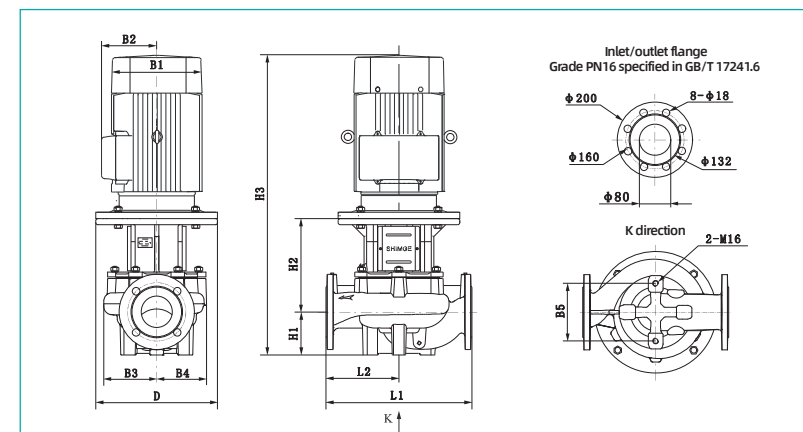
The size of explosion-proof motors has changed, and please contact us for details.

TB80-*/2



Performance Table

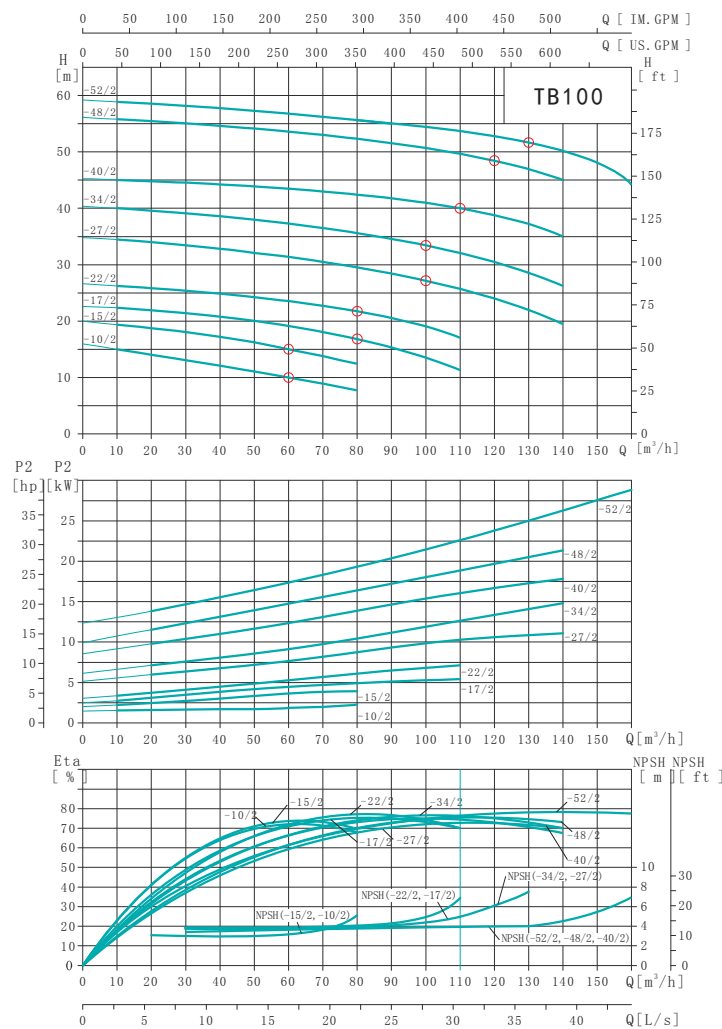
| Pump model | Motor power (kW) | Q (m³/h) | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 95 |
|------------|------------------|----------|------|------|------|------|------|------|------|------|------|------|
| TB80-13/2 | 3 | H (m) | 20 | 18.3 | 16.7 | 14.7 | 13 | 9.2 | | | | |
| TB80-19/2 | 4 | | 25 | 24.2 | 22.5 | 20.8 | 19 | 15.2 | | | | |
| TB80-23/2 | 5.5 | | 28.3 | 27.8 | 26.4 | 24.6 | 23 | 20.5 | 17.7 | 13.6 | | |
| TB80-29/2 | 7.5 | | 34.6 | 33.5 | 32.7 | 31.2 | 29 | 25.4 | 23.3 | 21.5 | | |
| TB80-30/2 | 11 | | 41.8 | 41.3 | 40.4 | 39.1 | 37.4 | 35.2 | 33.1 | 30 | 26.5 | |
| TB80-38/2 | 15 | | 48.1 | 47.9 | 47.3 | 46.1 | 45.2 | 42.7 | 40.1 | 38 | 34 | |
| TB80-47/2 | 18.5 | | 59.2 | 57.6 | 57.1 | 55.7 | 54.1 | 52 | 49.8 | 47 | 42.6 | 38.2 |
| TB80-60/2 | 22 | | 72.1 | 71 | 70.4 | 69.2 | 68.1 | 65.4 | 62.8 | 60 | 55.4 | 50.2 |
| TB80-70/2 | 30 | | 79.7 | 79.2 | 78.7 | 78 | 76 | 74.8 | 71.5 | 70 | 65.2 | 53.2 |



Size and weight

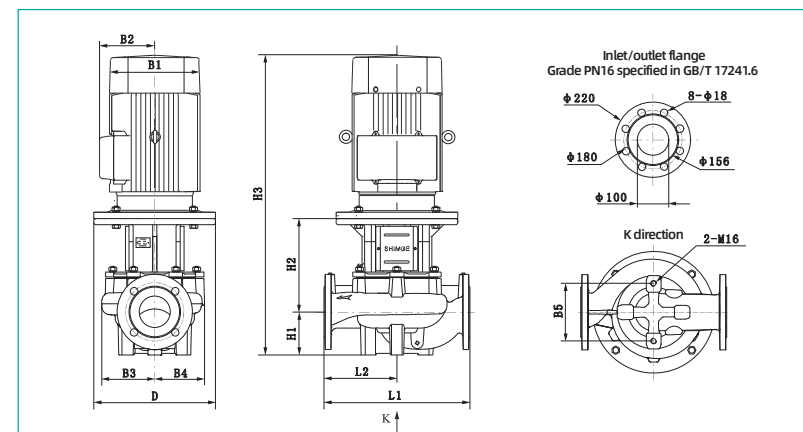
| Pump model | Size [mm] | | | | | | | | | | | Weight [kg] |
|------------|-----------|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-------------|
| | D | B1 | B2 | B3 | B4 | B5 | H1 | H2 | H3 | L1 | L2 | |
| TB80-13/2 | 250 | 195 | 121 | 132 | 122 | 144 | 97 | 200 | 614 | 440 | 220 | 61 |
| TB80-19/2 | 250 | 215 | 138 | 132 | 122 | 144 | 97 | 200 | 640 | 440 | 220 | 69 |
| TB80-23/2 | 300 | 260 | 160 | 132 | 122 | 144 | 97 | 240 | 757 | 440 | 220 | 83 |
| TB80-29/2 | 300 | 260 | 160 | 132 | 122 | 144 | 97 | 240 | 757 | 440 | 220 | 93 |
| TB80-30/2 | 350 | 314 | 251 | 175 | 167 | 144 | 115 | 275 | 888 | 500 | 250 | 176 |
| TB80-38/2 | 350 | 314 | 251 | 175 | 167 | 144 | 115 | 275 | 888 | 500 | 250 | 187 |
| TB80-47/2 | 350 | 314 | 251 | 175 | 167 | 144 | 115 | 275 | 932 | 500 | 250 | 208 |
| TB80-60/2 | 350 | 355 | 267 | 175 | 167 | 144 | 115 | 275 | 968 | 500 | 250 | 247 |
| TB80-70/2 | 400 | 397 | 299 | 175 | 167 | 144 | 115 | 275 | 1051 | 500 | 250 | 318 |

The size of explosion-proof motors has changed, and please contact us for details.



Performance Table

| Pump model | Motor power (kW) | Q (m^3/h) | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 140 | 160 |
|------------|------------------|---------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| TB100-10/2 | 3 | H (m) | 15.4 | 15 | 14.5 | 13 | 11.8 | 10 | 9 | 7.3 | | | | | | | |
| TB100-15/2 | 4 | | 19.2 | 19.1 | 18.7 | 17.7 | 16.7 | 15 | 14.4 | 12.8 | | | | | | | |
| TB100-17/2 | 5.5 | | 22.2 | 21.5 | 20.9 | 20.5 | 19.7 | 18.6 | 17.8 | 17 | 15.5 | 13.6 | 11.1 | | | | |
| TB100-22/2 | 7.5 | | 26.7 | 26.3 | 25.8 | 25.1 | 24.4 | 23.8 | 22.9 | 22 | 21.1 | 19.6 | 17.5 | | | | |
| TB100-27/2 | 11 | | 34.5 | 34.2 | 33.6 | 32.8 | 32.2 | 31.7 | 30.8 | 29.9 | 28.3 | 27 | 25.5 | 23.6 | 20.8 | 19.6 | |
| TB100-34/2 | 15 | | 40.5 | 40.2 | 39.7 | 39.4 | 39.1 | 38.4 | 37.3 | 36.8 | 35.2 | 34 | 32.2 | 31.2 | 27.5 | 26.5 | |
| TB100-40/2 | 18.5 | | 44.7 | 44.6 | 44.4 | 44.2 | 43.9 | 43.6 | 43.3 | 43.0 | 42.2 | 41 | 40 | 38.2 | 37.2 | 35.5 | |
| TB100-48/2 | 22 | | 56.7 | 56.5 | 56.3 | 56.2 | 55.7 | 55.1 | 54.2 | 53.6 | 52.4 | 51.3 | 49.3 | 48 | 46.4 | 45.5 | |
| TB100-52/2 | 30 | | 57.9 | 57.6 | 57.2 | 56.9 | 56.8 | 56.7 | 56.5 | 56.2 | 55.7 | 54.5 | 53.2 | 52.5 | 52 | 49.5 | 44.5 |

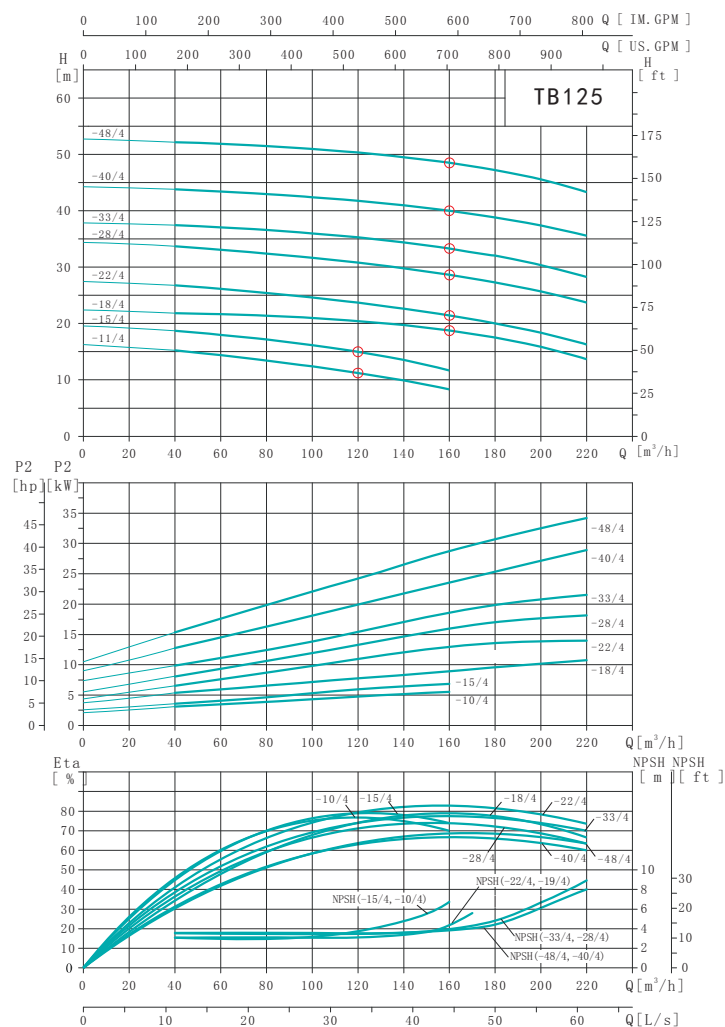


Size and weight

| Pump model | Size [mm] | | | | | | | | | | | Weight [kg] |
|------------|-----------|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-------------|
| | D | B1 | B2 | B3 | B4 | B5 | H1 | H2 | H3 | L1 | L2 | |
| TB100-10/2 | 250 | 195 | 121 | 148 | 122 | 144 | 105 | 190 | 612 | 450 | 225 | 61 |
| TB100-15/2 | 250 | 215 | 138 | 148 | 122 | 144 | 105 | 190 | 638 | 450 | 225 | 65 |
| TB100-17/2 | 300 | 260 | 160 | 148 | 122 | 144 | 140 | 230 | 790 | 500 | 250 | 92 |
| TB100-22/2 | 300 | 260 | 160 | 148 | 122 | 144 | 140 | 230 | 790 | 500 | 250 | 102 |
| TB100-27/2 | 350 | 314 | 251 | 148 | 123 | 144 | 140 | 265 | 903 | 550 | 275 | 172 |
| TB100-34/2 | 350 | 314 | 251 | 148 | 123 | 144 | 140 | 265 | 903 | 550 | 275 | 182 |
| TB100-40/2 | 350 | 314 | 251 | 168 | 168 | 230 | 140 | 270 | 952 | 550 | 275 | 221 |
| TB100-48/2 | 350 | 355 | 267 | 168 | 168 | 230 | 140 | 270 | 988 | 550 | 275 | 260 |
| TB100-52/2 | 400 | 397 | 299 | 168 | 168 | 230 | 140 | 270 | 1071 | 550 | 275 | 331 |

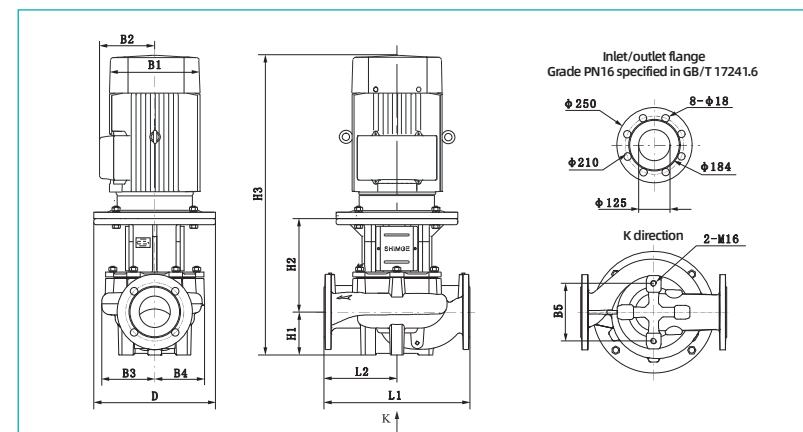
The size of explosion-proof motors has changed, and please contact us for details.

TB125-**-4



Performance Table

| Pump model | Motor power (kW) | Q (m³/h) | 40 | 60 | 80 | 100 | 120 | 140 | 160 | 180 | 200 | 220 |
|------------|------------------|----------|------|------|------|------|------|------|------|------|------|------|
| TB125-11/4 | 5.5 | H (m) | 15.3 | 14.6 | 14.1 | 13.1 | 11 | 10 | 8 | | | |
| TB125-15/4 | 7.5 | | 18.4 | 18.1 | 17.4 | 16.4 | 15 | 13.4 | 11.8 | | | |
| TB125-18/4 | 11 | | 22.7 | 22.6 | 22.4 | 21.8 | 21.1 | 20.2 | 18 | 17.7 | 16.5 | 14.3 |
| TB125-22/4 | 15 | | 25.9 | 25.7 | 25.4 | 24.5 | 23.8 | 23.1 | 22 | 20.8 | 19.2 | 16.5 |
| TB125-28/4 | 18.5 | | 33.5 | 33.2 | 32.6 | 31.4 | 30.9 | 29.2 | 28 | 27.1 | 26.3 | 23.7 |
| TB125-33/4 | 22 | | 37.3 | 37.1 | 36.8 | 36.5 | 35.3 | 34.2 | 33 | 31.8 | 30.7 | 28.4 |
| TB125-40/4 | 30 | | 44.0 | 43.4 | 42.8 | 42.3 | 41.7 | 41.1 | 40 | 39.2 | 37.8 | 35.6 |
| TB125-48/4 | 37 | | 51.6 | 51.1 | 50.8 | 50.5 | 50.1 | 49.2 | 48 | 46.8 | 44.6 | 42.7 |

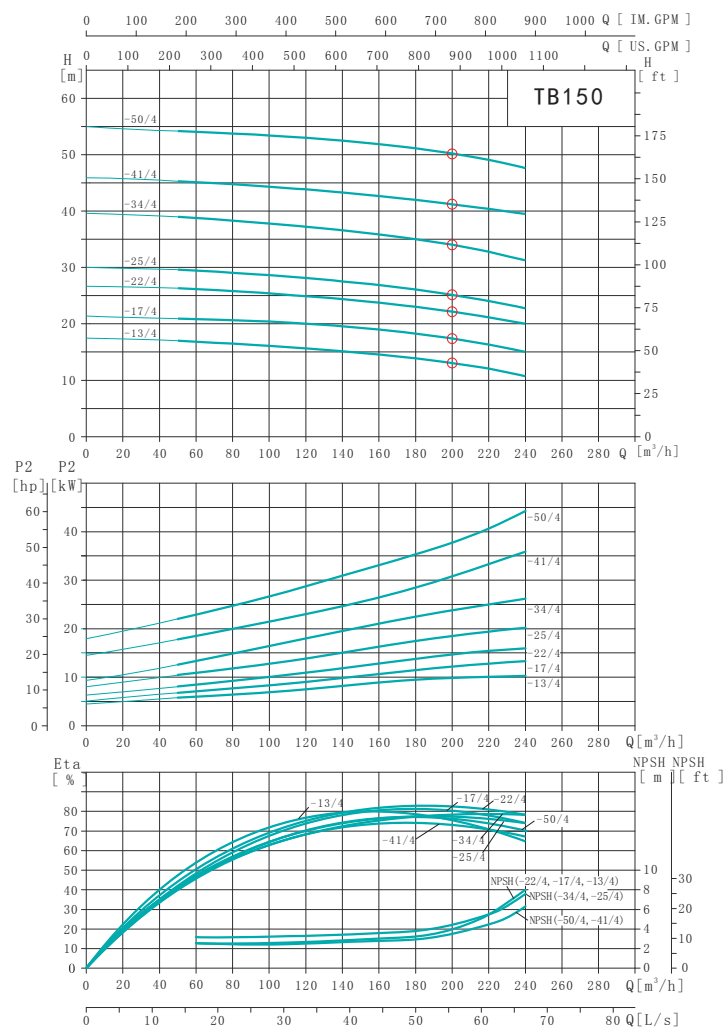


Size and weight

| Pump model | Size [mm] | | | | | | | | | | | Weight [kg] |
|------------|-----------|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-------------|
| | D | B1 | B2 | B3 | B4 | B5 | H1 | H2 | H3 | L1 | L2 | |
| TB125-11/4 | 300 | 260 | 160 | 205 | 170 | 230 | 215 | 235 | 870 | 620 | 310 | 145 |
| TB125-15/4 | 300 | 260 | 160 | 205 | 170 | 230 | 215 | 235 | 870 | 620 | 310 | 155 |
| TB125-18/4 | 350 | 314 | 251 | 225 | 191 | 230 | 215 | 290 | 1003 | 800 | 400 | 252 |
| TB125-22/4 | 350 | 314 | 251 | 225 | 191 | 230 | 215 | 290 | 1047 | 800 | 400 | 273 |
| TB125-28/4 | 350 | 355 | 267 | 248 | 219 | 230 | 215 | 285 | 1078 | 800 | 400 | 333 |
| TB125-33/4 | 350 | 355 | 267 | 248 | 219 | 230 | 215 | 285 | 1116 | 800 | 400 | 362 |
| TB125-40/4 | 400 | 397 | 299 | 273 | 261 | 230 | 215 | 320 | 1196 | 800 | 400 | 454 |
| TB125-48/4 | 450 | 446 | 322 | 273 | 261 | 230 | 215 | 320 | 1219 | 800 | 400 | 524 |

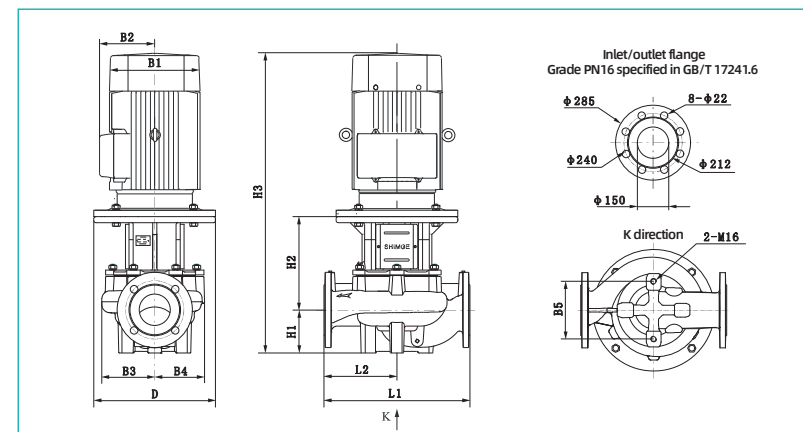
The size of explosion-proof motors has changed, and please contact us for details.

TB150-*/4



Performance Table

| Pump model | Motor power (kW) | Q (m³/h) | 50 | 80 | 100 | 120 | 140 | 160 | 180 | 200 | 220 | 240 |
|------------|------------------|----------|------|------|------|------|------|------|------|-----|------|------|
| TB150-13/4 | 11 | H (m) | 16.7 | 16.4 | 15.6 | 15.2 | 14.6 | 13.8 | 13.4 | 13 | 12.5 | 11 |
| TB150-17/4 | 15 | | 20.7 | 20.3 | 19.9 | 19.6 | 18.8 | 17.9 | 17.4 | 17 | 16.1 | 15.2 |
| TB150-22/4 | 18.5 | | 26.3 | 26.1 | 25.7 | 25.2 | 24.6 | 23.4 | 22.8 | 22 | 21.1 | 20.2 |
| TB150-25/4 | 22 | | 29.6 | 29.3 | 28.8 | 28.2 | 27.4 | 26.5 | 25.9 | 25 | 24.1 | 22.4 |
| TB150-34/4 | 30 | | 39.1 | 38.7 | 38.2 | 37.8 | 37.1 | 36.1 | 35.2 | 34 | 32.7 | 31.6 |
| TB150-41/4 | 37 | | 45.4 | 45 | 44.7 | 44.4 | 43.7 | 43.2 | 42.3 | 41 | 40.5 | 39.3 |
| TB150-50/4 | 45 | | 54.5 | 54.2 | 54.1 | 53.8 | 53.3 | 52.1 | 51.3 | 50 | 49.3 | 48.7 |

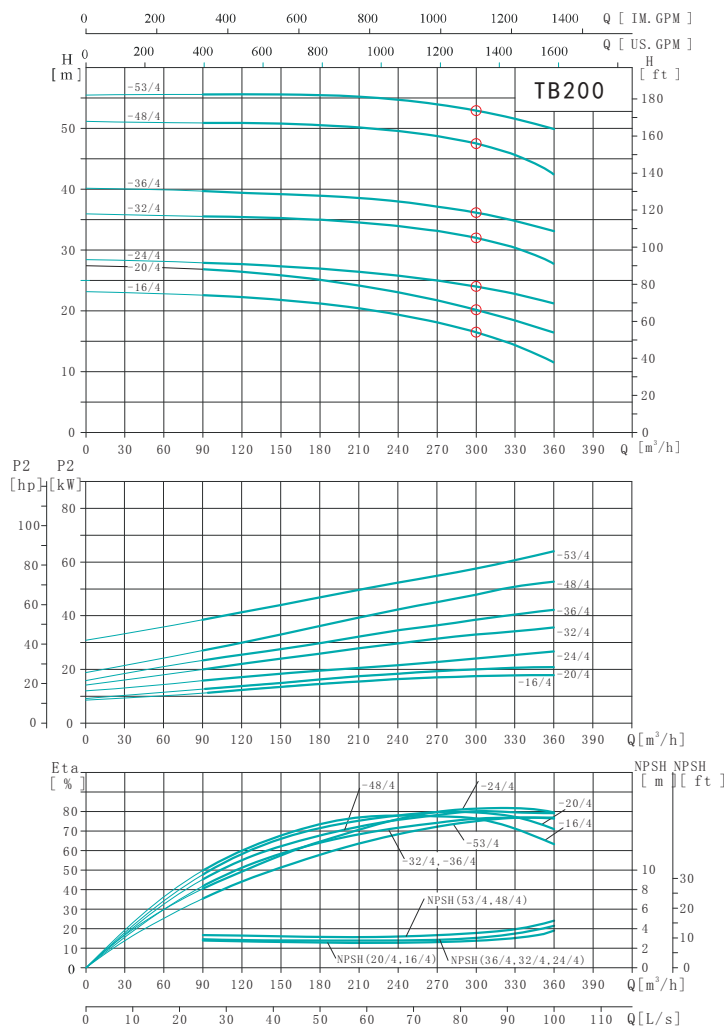


Size and weight

| Pump model | Size [mm] | | | | | | | | | | | Weight [kg] |
|------------|-----------|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-------------|
| | D | B1 | B2 | B3 | B4 | B5 | H1 | H2 | H3 | L1 | L2 | |
| TB150-13/4 | 350 | 314 | 251 | 242 | 202 | 230 | 215 | 275 | 988 | 800 | 400 | 244 |
| TB150-17/4 | 350 | 314 | 251 | 242 | 202 | 230 | 215 | 275 | 1032 | 800 | 400 | 281 |
| TB150-22/4 | 350 | 355 | 267 | 265 | 231 | 230 | 215 | 285 | 1078 | 800 | 400 | 346 |
| TB150-25/4 | 350 | 355 | 267 | 265 | 231 | 230 | 215 | 285 | 1116 | 800 | 400 | 379 |
| TB150-34/4 | 400 | 397 | 299 | 265 | 231 | 230 | 215 | 315 | 1181 | 800 | 400 | 457 |
| TB150-41/4 | 450 | 446 | 322 | 285 | 262 | 230 | 230 | 285 | 1199 | 900 | 450 | 536 |
| TB150-50/4 | 450 | 446 | 322 | 285 | 262 | 230 | 230 | 285 | 1224 | 900 | 450 | 559 |

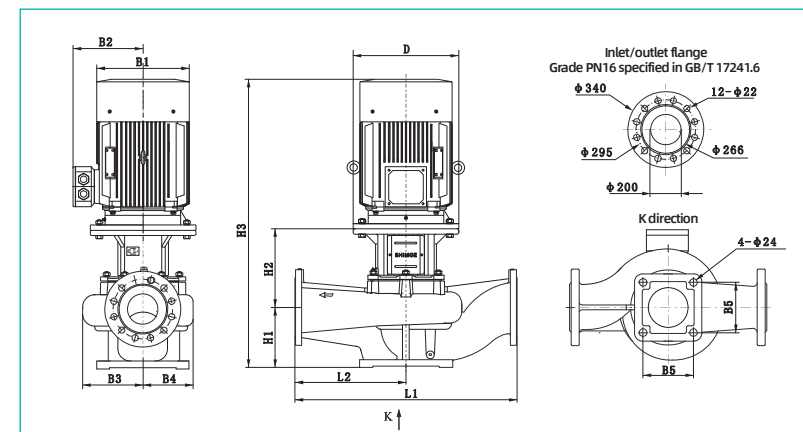
The size of explosion-proof motors has changed, and please contact us for details.

TB200-*/4



Performance Table

| Pump model | Motor power (kW) | Q (m³/h) | 90 | 120 | 150 | 180 | 210 | 240 | 270 | 300 | 330 | 360 |
|------------|------------------|----------|------|------|------|------|------|------|------|-----|------|------|
| TB200-16/4 | 18.5 | H (m) | 23.5 | 23.2 | 22.8 | 22.3 | 21.5 | 19.3 | 18.6 | 16 | 14.3 | 12.1 |
| TB200-20/4 | 22 | | 27.4 | 27.2 | 26.6 | 25.1 | 24.2 | 22.8 | 21.4 | 20 | 18.5 | 16.3 |
| TB200-24/4 | 30 | | 28.6 | 27.5 | 26.9 | 26.4 | 25.8 | 25.4 | 24.8 | 24 | 23.5 | 21.5 |
| TB200-32/4 | 37 | | 35.6 | 35.4 | 35.2 | 35.0 | 34.7 | 34.1 | 33.1 | 32 | 30.4 | 28.7 |
| TB200-36/4 | 45 | | 39.6 | 39.4 | 39.1 | 38.8 | 38.5 | 37.9 | 37 | 36 | 34.7 | 33 |
| TB200-48/4 | 55 | | 52.6 | 52.1 | 51.4 | 50.7 | 50.2 | 49.5 | 48.9 | 48 | 45.2 | 42.9 |
| TB200-53/4 | 75 | | 55.7 | 55.6 | 55.6 | 55.4 | 55.1 | 54.7 | 54.2 | 53 | 51.5 | 50.1 |

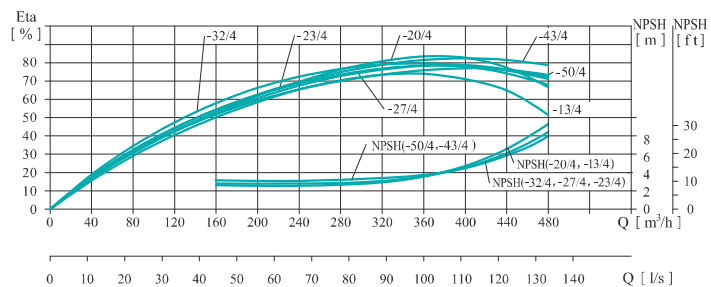
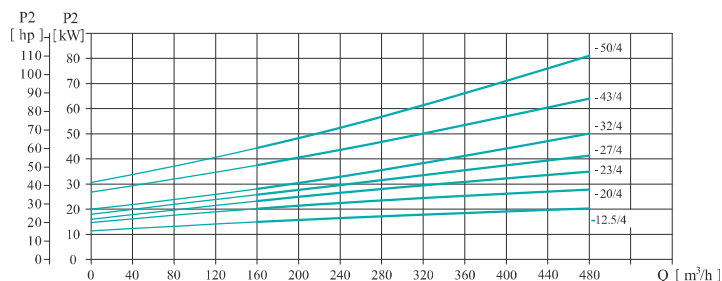
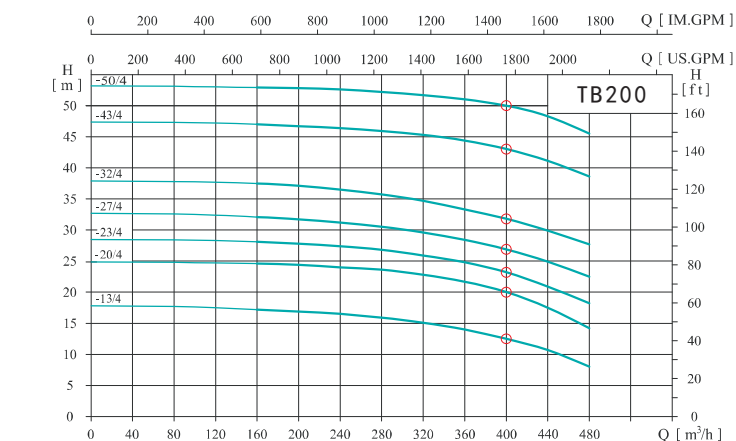


Size and weight

| Pump model | D | B1 | B2 | B3 | B4 | B5 | H1 | H2 | H3 | L1 | L2 | Weight [kg] |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-------------|
| TB200-16/4 | 350 | 355 | 267 | 278 | 219 | 360 | 270 | 415 | 1263 | 1000 | 500 | 415 |
| TB200-20/4 | 350 | 355 | 267 | 278 | 219 | 360 | 270 | 415 | 1301 | 1000 | 500 | 427 |
| TB200-24/4 | 400 | 397 | 299 | 303 | 252 | 360 | 270 | 415 | 1346 | 1100 | 550 | 490 |
| TB200-32/4 | 450 | 446 | 322 | 303 | 252 | 360 | 270 | 445 | 1399 | 1100 | 550 | 602 |
| TB200-36/4 | 450 | 446 | 322 | 303 | 252 | 360 | 270 | 445 | 1424 | 1100 | 550 | 635 |
| TB200-48/4 | 550 | 485 | 358 | 315 | 270 | 360 | 270 | 455 | 1495 | 1100 | 550 | 706 |
| TB200-53/4 | 550 | 547 | 387 | 315 | 270 | 360 | 270 | 455 | 1567 | 1100 | 550 | 777 |

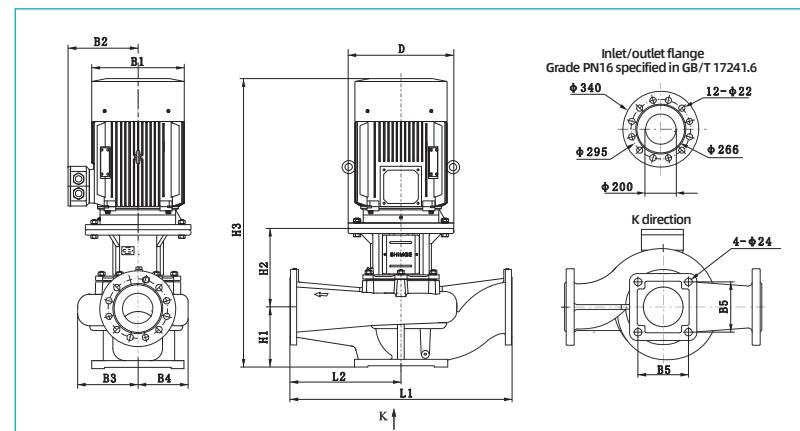
The size of explosion-proof motors has changed, and please contact us for details.

TB200-*/4



Performance Table

| Pump model | Motor power (kW) | Q (m³/h) | 160 | 200 | 240 | 280 | 320 | 360 | 400 | 440 | 480 |
|------------|------------------|----------|------|------|------|------|------|------|-----|------|------|
| TB200-13/4 | 22 | H (m) | 17.5 | 16.9 | 16.4 | 15.8 | 14.8 | 13.8 | 13 | 11.3 | 9.5 |
| TB200-20/4 | 30 | | 24.6 | 24.4 | 24.1 | 23.4 | 22.8 | 21.5 | 20 | 18.2 | 15.5 |
| TB200-23/4 | 37 | | 28.5 | 27.8 | 27.3 | 26.6 | 25.8 | 24.5 | 23 | 20.8 | 18.5 |
| TB200-27/4 | 45 | | 32.2 | 31.8 | 31.4 | 30.8 | 29.6 | 28.7 | 27 | 25.8 | 22.7 |
| TB200-32/4 | 55 | | 37.5 | 37.1 | 36.5 | 35.8 | 34.7 | 33.5 | 32 | 29.5 | 27.2 |
| TB200-43/4 | 75 | | 47.1 | 46.3 | 45.7 | 45.2 | 44.5 | 43.7 | 43 | 41.4 | 38.3 |
| TB200-50/4 | 90 | | 56.5 | 55.8 | 54.7 | 53.5 | 52.3 | 51.2 | 50 | 48.2 | 45.6 |

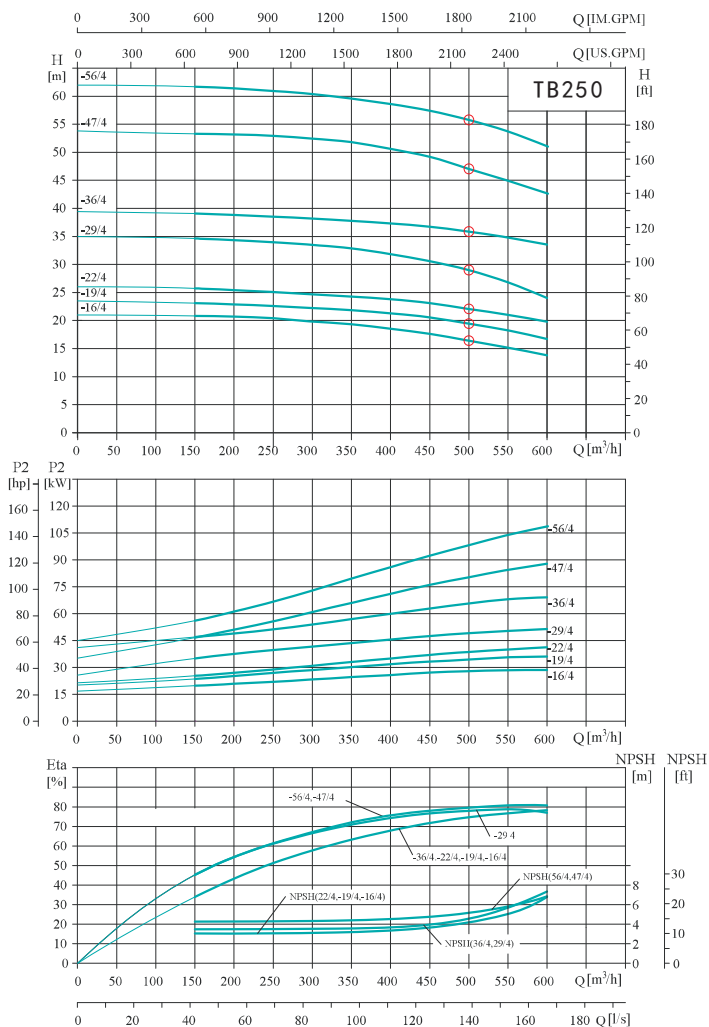


Size and weight

| Pump model | Size [mm] | | | | | | | | | | | Weight [kg] |
|------------|-----------|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-------------|
| | D | B1 | B2 | B3 | B4 | B5 | H1 | H2 | H3 | L1 | L2 | |
| TB200-13/4 | 350 | 355 | 267 | 278 | 219 | 360 | 270 | 415 | 1301 | 1000 | 500 | 430 |
| TB200-20/4 | 400 | 397 | 299 | 278 | 219 | 360 | 270 | 415 | 1346 | 1000 | 500 | 492 |
| TB200-23/4 | 450 | 446 | 322 | 303 | 252 | 360 | 270 | 415 | 1399 | 1100 | 550 | 605 |
| TB200-27/4 | 450 | 446 | 322 | 303 | 252 | 360 | 270 | 445 | 1424 | 1100 | 550 | 638 |
| TB200-32/4 | 550 | 486 | 358 | 303 | 252 | 360 | 270 | 445 | 1495 | 1100 | 550 | 710 |
| TB200-43/4 | 550 | 547 | 387 | 315 | 270 | 360 | 270 | 455 | 1567 | 1100 | 550 | 880 |
| TB200-50/4 | 550 | 547 | 387 | 315 | 270 | 360 | 270 | 455 | 1618 | 1100 | 550 | 972 |

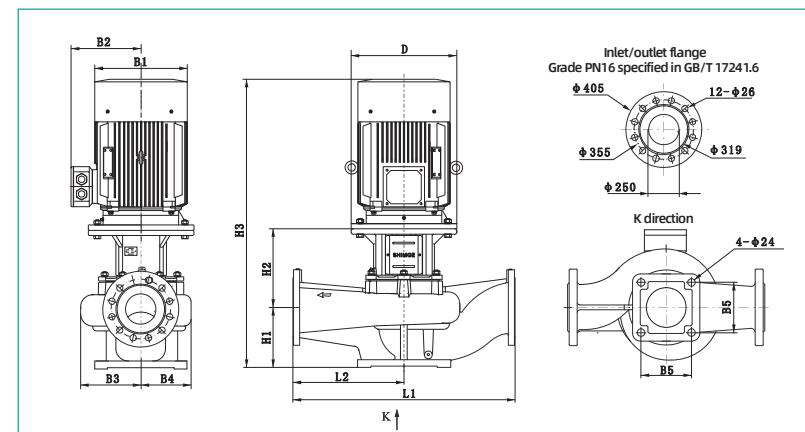
The size of explosion-proof motors has changed, and please contact us for details.

TB250-*/4



Performance Table

| Pump model | Motor power (kW) | Q (m³/h) | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 |
|------------|------------------|----------|------|------|------|------|------|------|------|-----|------|------|
| TB250-16/4 | 30 | H (m) | 20.6 | 20.4 | 20.1 | 19.6 | 19.1 | 18.5 | 17.2 | 16 | 14.7 | 13.2 |
| TB250-19/4 | 37 | | 22.7 | 22.4 | 22.2 | 21.6 | 21.1 | 20.3 | 19.5 | 19 | 17.5 | 16.6 |
| TB250-22/4 | 45 | | 26.2 | 25.8 | 25.4 | 24.8 | 24.4 | 23.7 | 23.1 | 22 | 21.2 | 19.8 |
| TB250-29/4 | 55 | | 34.6 | 34.2 | 33.9 | 33.1 | 32.4 | 31.6 | 30.7 | 29 | 27.2 | 24.1 |
| TB250-36/4 | 75 | | 39.2 | 38.8 | 38.5 | 37.8 | 37.4 | 37.1 | 36.6 | 36 | 34.3 | 32.4 |
| TB250-47/4 | 90 | | 53.6 | 53.1 | 52.8 | 52.4 | 51.8 | 50.6 | 48.8 | 47 | 45.6 | 42.2 |
| TB250-56/4 | 110 | | 61.6 | 61.1 | 60.5 | 60.1 | 59.7 | 58.5 | 57.4 | 56 | 53.6 | 51.2 |

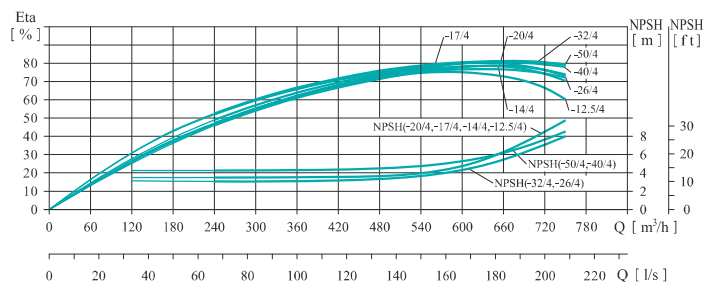
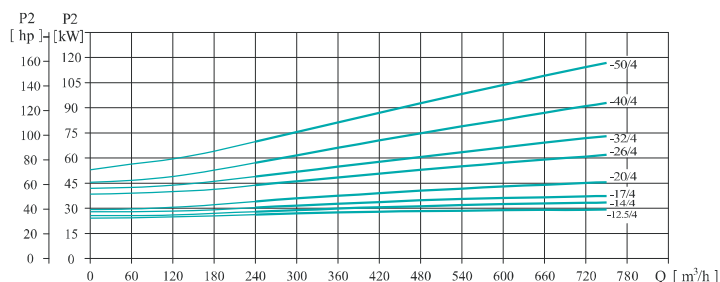
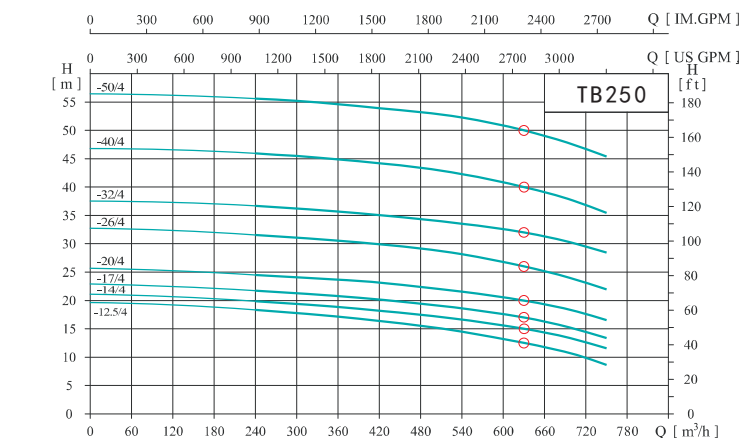


Size and weight

| Pump model | Size [mm] | | | | | | | | | | | Weight [kg] |
|------------|-----------|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-------------|
| | D | B1 | B2 | B3 | B4 | B5 | H1 | H2 | H3 | L1 | L2 | |
| TB250-16/4 | 400 | 397 | 299 | 320 | 245 | 390 | 300 | 465 | 1426 | 1100 | 550 | 543 |
| TB250-19/4 | 450 | 446 | 322 | 320 | 245 | 390 | 300 | 495 | 1479 | 1100 | 550 | 615 |
| TB250-22/4 | 450 | 446 | 322 | 320 | 245 | 390 | 300 | 495 | 1504 | 1100 | 550 | 645 |
| TB250-29/4 | 550 | 485 | 358 | 330 | 265 | 440 | 300 | 505 | 1575 | 1100 | 550 | 770 |
| TB250-36/4 | 550 | 547 | 387 | 330 | 265 | 440 | 300 | 505 | 1647 | 1100 | 550 | 895 |
| TB250-47/4 | 550 | 547 | 387 | 345 | 295 | 440 | 305 | 495 | 1693 | 1200 | 600 | 1021 |
| TB250-56/4 | 660 | 620 | 527 | 345 | 295 | 440 | 305 | 525 | 1884 | 1200 | 600 | 1357 |

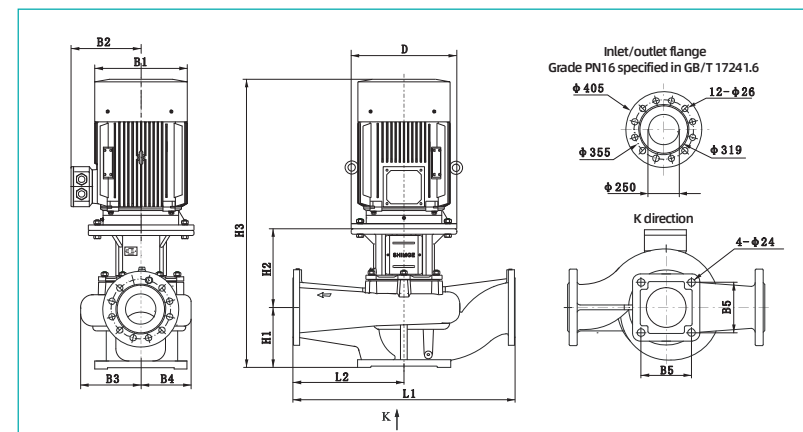
The size of explosion-proof motors has changed, and please contact us for details.

TB250-*/4



Performance Table

| Pump model | Motor power (kW) | Q (m³/h) | 240 | 300 | 360 | 420 | 480 | 540 | 600 | 630 | 660 | 720 | 750 |
|--------------|------------------|----------|------|------|------|------|------|------|------|------|------|------|------|
| TB250-12.5/4 | 45 | H (m) | 18.5 | 17.9 | 17.4 | 16.8 | 15.7 | 14.4 | 13.8 | 12.5 | 11.7 | 10.2 | 9.1 |
| TB250-14/4 | 37 | | 20.5 | 19.8 | 19.2 | 18.6 | 17.8 | 16.6 | 15.7 | 14 | 13.3 | 12.5 | 11.2 |
| TB250-17/4 | 45 | | 22.3 | 21.7 | 20.8 | 20.2 | 19.5 | 18.8 | 17.5 | 17 | 16.4 | 15.2 | 13.8 |
| TB250-20/4 | 55 | | 24.5 | 24.2 | 23.6 | 23.1 | 22.6 | 21.7 | 20.8 | 20 | 19.2 | 18.1 | 16.7 |
| TB250-26/4 | 75 | | 31.5 | 31.1 | 30.6 | 29.8 | 28.9 | 27.7 | 26.8 | 26 | 25.1 | 24.2 | 22.5 |
| TB250-32/4 | 90 | | 37.2 | 36.8 | 35.7 | 35.2 | 34.7 | 33.8 | 32.6 | 32 | 31.3 | 29.2 | 28.1 |
| TB250-40/4 | 110 | | 46.5 | 45.9 | 45.3 | 44.3 | 43.6 | 42.5 | 41.1 | 40 | 38.8 | 36.2 | 35.2 |
| TB250-50/4 | 132 | | 55.2 | 54.9 | 54.5 | 53.8 | 53.2 | 52.4 | 51.2 | 50 | 48.7 | 46.2 | 45.3 |



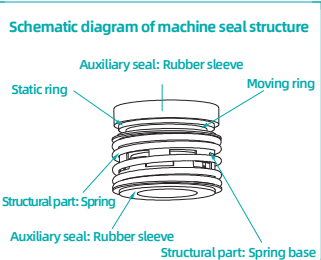
Size and weight

| Pump model | Size [mm] | | | | | | | | | | Weight [kg] |
|--------------|-----------|-----|-----|-----|-----|-----|-----|-----|------|------|-------------|
| | D | B1 | B2 | B3 | B4 | B5 | H1 | H2 | H3 | L1 | |
| TB250-12.5/4 | 400 | 397 | 299 | 205 | 170 | 390 | 300 | 465 | 1426 | 1100 | 545 |
| TB250-14/4 | 450 | 446 | 322 | 205 | 170 | 390 | 300 | 495 | 1479 | 1100 | 617 |
| TB250-17/4 | 450 | 446 | 322 | 225 | 191 | 390 | 300 | 495 | 1504 | 1100 | 648 |
| TB250-20/4 | 550 | 485 | 358 | 225 | 191 | 390 | 300 | 505 | 1575 | 1100 | 774 |
| TB250-26/4 | 550 | 547 | 387 | 248 | 219 | 440 | 300 | 505 | 1647 | 1100 | 898 |
| TB250-32/4 | 550 | 547 | 387 | 248 | 219 | 440 | 300 | 495 | 1693 | 1100 | 1024 |
| TB250-40/4 | 660 | 620 | 527 | 273 | 261 | 440 | 305 | 525 | 1884 | 1200 | 1361 |
| TB250-50/4 | 660 | 620 | 527 | 273 | 261 | 440 | 305 | 525 | 1994 | 1200 | 1445 |

The size of explosion-proof motors has changed, and please contact us for details.

► Appendix I ◀

The mechanical seal adopts the bellows series, and the assembled length conforms to the national standards. For the choice of mechanical seal material under different working conditions:

| Pump model | Applicable conditions | Material code | Schematic diagram of machine seal structure  |
|------------------|--|---------------|---|
| TB series | 0°C ~ 90°C conventional water, PH = 5 ~ 9 | *SKFC | |
| | 0°C ~ 90°C, containing solid particles or other impurities | SSFC | |
| | 90°C ~ 120°C boiler water supply | SSFC | |
| | 90°C ~ 120°C, containing solid particles or other impurities | WWFC | |

Note: * indicates standard configuration, other configurations need to be customized.

Mechanical seal material code

Locations (a) through (d) represent four pieces of information about the mechanical seal, respectively.

| Example | (a) | (b) | (c) | (d) |
|---------------------------|-----|-----|-----|-----|
| Material: Moving ring | | | | |
| Material: Static ring | | | | |
| Material: Auxiliary seal | | | | |
| Material: Structural part | | | | |

The following table explains the above codes (a), (b), (c) and (d).

| Position | Model | Material description |
|-------------|-------|---------------------------------------|
| (a) and (b) | A | Hot pressing graphite |
| | K | Impregnated resin sintered graphite |
| | W | Tungsten carbide |
| | S | Pressureless sintered silicon carbide |
| | A | Silicon carbide |
| Position | Model | Material description |
| (c) | P | Nitrile rubber |
| | F | Fluororubber |
| | E | Ethylene propylene rubber |
| Position | Model | Material description |
| (d) | C | 06Cr19Ni10 |
| | T | Chrome-faced manganese steel |
| | G | 0Cr18Ni12Mo2Ti |