

**SHIMGE**<sup>®</sup>  
----- *for better life*

## SERVICE MANUAL VERTICAL CENTRIFUGAL PUMP

Model:BL(T)



Warning

- Before operation, make sure that electric pump is grounded reliably and leakage protection device is equipped.
- Don't touch electric pump while it is running.
- Don't run electric pump without water.

25025000289  
SYS21-1-1.0



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**SHIMGE PUMP INDUSTRY (ZHEJIANG) CO., LTD.**

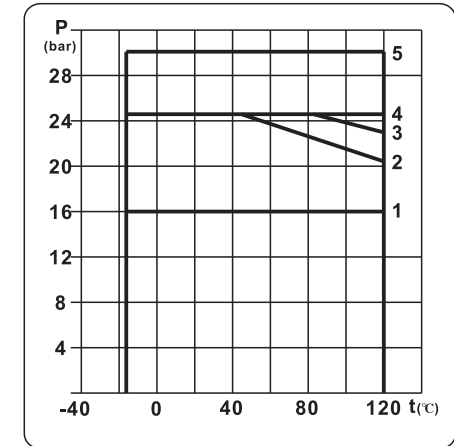
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### ●Max Working Pressure:Figure5

Type	Number
BL(T)2,4	2
BL(T)8,12,16,20	3
BL(T)32-2-2 ~ BL(T)32-7	1
BL(T)32-8-2 ~ BL(T)32-12	4
BL(T)32-13 ~ BL(T)32-15-2	5
BL(T)45-2-2 ~ BL(T)45-6	1
BL(T)45-7-2 ~ BL(T)45-9	4
BL(T)45-10-2 ~ BL(T)45-13-2	5
BL(T)64-2-2 ~ BL(T)64-5-2	1
BL(T)64-5-1 ~ BL(T)64-8	4
BL(T)90-2-2 ~ BL(T)90-4-2	1
BL(T)90-4 ~ BL(T)90-6	4

Figure 6.Said extreme pressure and temperature,pressure and temperature must be within the range shown



### ●See the table below for current corresponding to different motor power

Type	Power (kW)	Voltage (V)	Current (A)	Type	Power (kW)	Voltage (V)	Current (A)	Type	Power (kW)	Voltage (V)	Current (A)
711-2	0.37	380	0.95	132S2-2	7.5	380	14.4	280S-2	75	380	135
712-2	0.55	380	1.34	160M1-2	11	380	20.6	71M1-2	0.37	220	2.67
80M1-2	0.75	380	1.72	160M2-2	15	380	27.9	71M2-2	0.55	220	3.92
80M2-2	1.1	380	2.49	160L-2	18.5	380	34.2	80M1-2	0.75	220	4.96
90S-2	1.5	380	3.34	180M-2	22	380	40.5	80M2-2	1.1	220	6.95
90L-2	2.2	380	4.58	200L1-2	30	380	54.9	90S-2	1.5	220	9.00
100L-2	3	380	6.02	200L2-2	37	380	67.4	90L-2	2.2	220	12.9
112M-2	4	380	7.83	225M-2	45	380	81.8	100L-2	3	220	17.8
132S1-2	5.5	380	10.7	250M-2	55	380	99.6				

**Note:** The figures in this manual are all schematic diagrams, and the product performance is also constantly updated. The purchased products (including appearance, color, etc.) shall be subject to the actual products.

## XII. Appendix

### Calculation of the Minimum Inlet Pressure

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

$P_b$ : Atmospheric Pressure (bar)

$H_f$ : Frictional Resistance in the Inlet Pipe

$H_v$ : Water Vaporization Pressure (Figure 3)

$H_s$ : The safety allowance is usually rated as 0.5m

NPSH: Net Inlet Pressure (Q-NPSH)

If the value of H is positive value, the suction lift is H.

If it is negative, the amount of liquid being poured into the pump is H. (Figure4)

Note: The calculation may be more than under normal circumstances, only when using the pump in the following cases H calculation:

1. A high media temperature,
2. Liquid flow rate exceeds the rating,
3. Improved high suction piping,
4. System pressure is too small,
5. Poor inlet conditions.

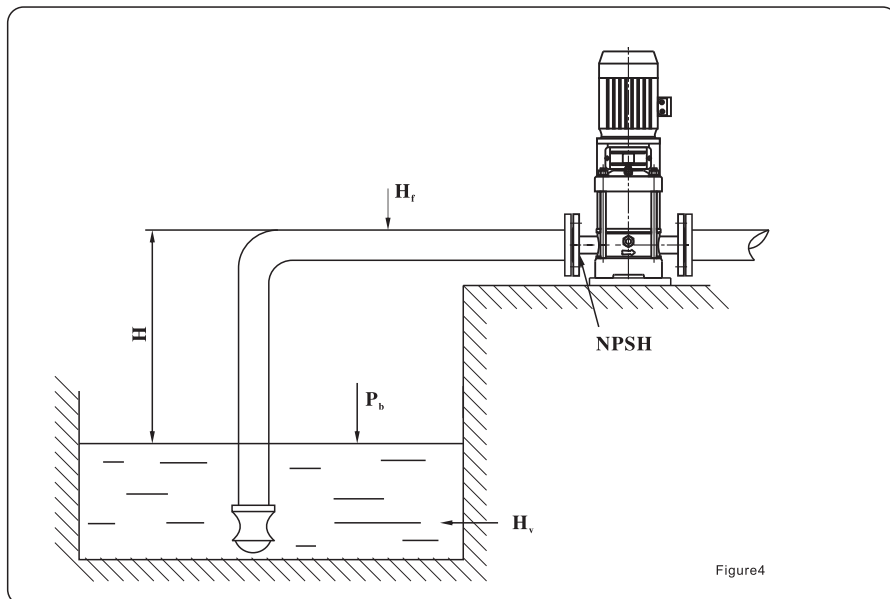


Figure4

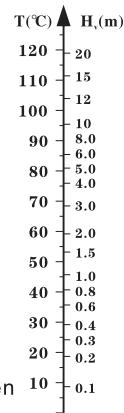


Figure3

Thanks for choosing our product, READ our service instructions carefully before installation and using. Make sure this manual in your safekeeping.

### ⚠ WARNINGS :

#### ⚠ Warnings for Children

1. Any child or any adult who has any physical, sensory or mental defects or lacks of the relevant experience or knowledge, if supervised or given the method on safe use of this product as well as knowing the dangers involved, may use this product.
2. No child shall play with this product as a toy.
3. Without supervision, no child shall be allowed to clean or maintain this product.

#### ⚠ Pressure Warning

1. The system where a pump lies shall be able to withstand the maximum pressure of the pump.

#### ⚠ Electricity Warning

1. The electric power system may be used only when it has the safety protection measures specified by the existing provisions of the country where the product is installed.

#### ⚠ Modification-related Warning

1. Where any electric pump is tampered, modified and/or operates outside the recommended operating scope or goes against any other instruction given in this manual, the manufacturer will not guarantee the correct operation of the electric pump or be responsible for any loss which might be caused by the electric pump.
2. The manufacturer refuses to undertake any responsibility for any error which might appear in this manual due to misprint or misreplication. The manufacturer reserves the right to make any modification to the product, which, in its opinion, is necessary or useful, without affecting basic features of the product.

### I. Overview of the product

BL (T) series light stainless steel multi-stage centrifugal pump (afterwards called pump). This product boasts characters of high efficiency, low noise, steady operation, etc. The pump set adopts the non-self-priming vertical multi-stage structure, which makes a compact whole, its installation easy, its operation and maintenance convenient.

### II. Working Condition

- 2.1. Medium temperature: normal type: 0°C~68°C, hot water type: 0°C~120°C,
- 2.2. Ambient temperature: +40°C,
- 2.3. Max ambient pressure: 1.0MPa,
- 2.4. Advisable to use motor of higher power in case that the density or viscosity of medium is above that of water.

### III. Use Occasions

- 3.1. Used to deliver those non-inflammable and non-explosive materials that are quite thin, clean and without grains or fibers.
- 3.2. Used to pump such liquids as mineral water, softened water, purified water and clean oil etc.
- 3.3. Applied in the system of water treatment, filter and sanitation.
- 3.4. Installed in the water supply and sewerage systems of high-rise constructions.
- 3.5. Used in the agricultural irrigation and the garden sprinkling irrigation etc.

## IV. Specifications

BL (T) 32 - 2 - 2 - F - S - W - S - R

R: Hot water type (Normal temperature is not standard)

S: Three phase, D: Single phase

W: Frequency 50Hz, L: Frequency 60Hz

S: 304, L: 316, P: Standard type

F: Removable flange, L: Thread hole, T: Elliptical flange, F1: Flange with thread

Number of small impellers

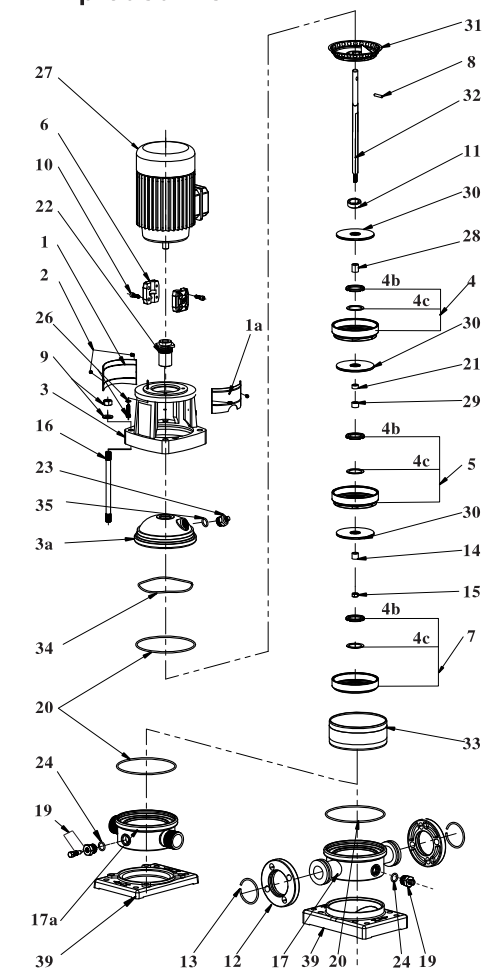
Number of stages

Rated flow (m<sup>3</sup>/h)

Some of the passage components are iron castings, be absent when all the flow passage components are made of stainless steel

Type range

## V. Exploded View



### BL2,4

1. Coupling guard
- 1a. Coupling guard (cutout)
2. Screw M5×8
3. motor stool
- 3a. Pump cover
4. Chamber
- 4b. Neck ring retainer
- 4c. Neck ring complete
5. Chamber with bearing ring
6. Coupling complete
7. Inlet chamber
8. Shaft pin Ø5×25
9. Nut M12, Washer 12
10. Screw
11. Spacing pipe
12. Flange
13. Retaining ring
14. Bush
15. Lock nut M10
16. Staybolt
17. Base
- 17a. Gas thread Base
19. Drain plug G1/2
20. O-ring Ø142.5×3.55
21. Short spacing pipe
22. Shaft seal
23. Plug G1/4
24. O-ring Ø17×2.65
26. Screw, Washer
27. Motor
28. Long spacing pipe
29. Bearing ring
30. Impeller
31. Outlet chamber
32. Pump shaft
33. Outer sleeve
34. Disc spring
35. O-ring Ø11.8×2.65
39. Base plate

10.2 Frost period without pump, the liquid emptying pump to prevent pump damage, using the bottom of pump water valve may be excluded from the liquid in the pump, drainage, pay attention to a person or thing of security

10.3 Need to replace the water drain valve, must first unscrew the valve, then unscrew the screw plug to tighten the drain plug, then tighten bypass valve. (Figure 1)

## XI. Common Fault (exclude) Table


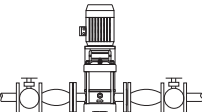
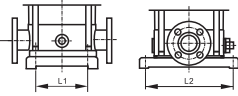
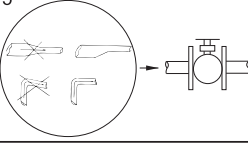
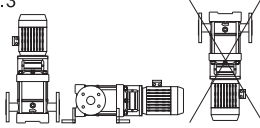
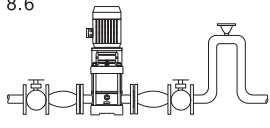


Before opening the terminal box and pump, please make sure that the power supply has been disconnected and can not be opened accidentally.

Failure phenomenon	Analysis	Solution	Remark
Motor not running	a. Power failure b. Power overload c. Control circuit problem d. The fuse burned	a. Check power supply b. Check the system c. Check control circuit d. Change the fuse	Professional electrician check
Pump operation without water	a. Suction is too high b. Less water in pump cavity c. Inlet pipe or pump cavity with air	a. Lower installation height b. Increase water storage c. Exhaust air	
Pump operation with inadequate flow	a. The pump reversal b. Pipeline or impeller blocked c. Mouth ring wear serious d. Choose the wrong model e. The lower voltage	a. Adjust the motor wiring b. Clean the pipeline and impeller c. Change the impeller d. Re-select model e. Adjust the voltage	c. Professional to replace
Power consumption is too large	a. Not use it at rated conditions b. Motor bearing damaged c. Pump cavity parts wearing	a. Adjust the operation conditions b. Change the motor bearing c. Change the spare parts	c. Professional to replace
Pump running with noise and vibration	a. Installation is not stable b. The liquid with air c. Pump cavitation d. Damaged of the bearing or spare parts e. Motor overload operation	a. Fix the installation b. Adjust the high suction pressure and exhaust air c. Lower vacuum degree d. change the bearing or spare parts e. Adjust the normal operation	d. Professional to replace
The pump water leakage	a. The mechanical seal damaged b. The O-ring damaged c. Casting with hole or broken	a. Change the mechanical seal b. Change the O-ring c. Change the spare parts	Professional to replace

## VIII. Installation Notes

To avoid any damage to the pump, please follow the below procedures before installation.

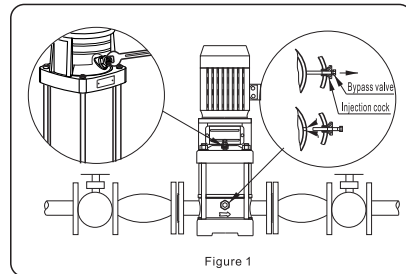
Procedure	Process	Procedure	Process
8.1 	According to the direction of the arrow to install water pump outlet	8.4 	Recommended water inlet and outlet and anti shock tube in the pump
8.2 	The pump base installation size, dimensions of the corresponding types of technical data	8.5 	Installation of piping, to prevent the accumulation of air
8.3 	The pump can be vertical or horizontal installation, no motor rewind. To ensure that the motor is cooled sufficiently, must maintain the air circulation	8.6 	Prevent backflow, a siphon dangerous, install vacuum vent valve

## IX. Program Activation

- ⚠ The pump is not filled with water before, please do not start the pump, in dry running conditions, water bearing and mechanical seal damage.
- ⚠ The exhaust, pay attention to the water don't hurt person or thing, especially for conveying hot water scald, beware of the hot water injection.

### BL(T)2,4,8,12,16,20

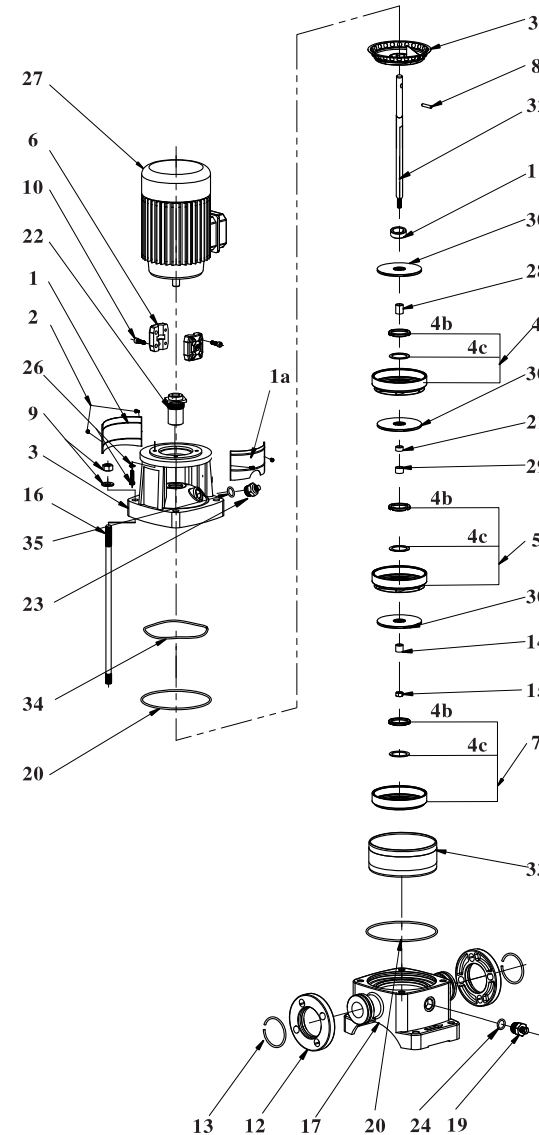
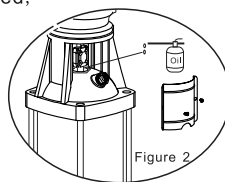
- 9.1 For these pump start-up process, proposal to open the bypass valve, pump inlet and outlet is communicated, filling water into the pump, when the pump runs stably, locking the bypass valve, but the water gas and the working pressure is lower than 6 bar, suggested that open the bypass valve, if the working pressure is higher than that of 6 bar, must be sustained, locking the bypass valve at the outlet of the material, otherwise it will damage due to speed the flow of liquid.
- 9.2 The air is discharged, tighten the bleeder screw using special tool. (Figure 1)



## X. Maintenance and Maintenance

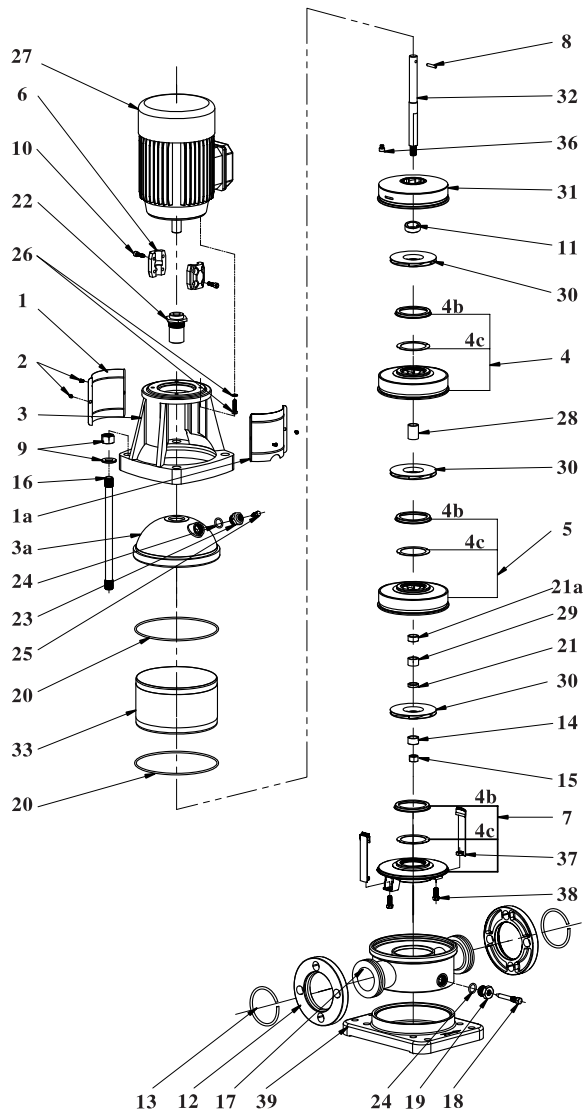
- ⚠ Before maintenance, determine the pump should be disconnected, to prevent accidental start

- 10.1 Pump such as long time need not work, should remove the coupling cover, pour oil on the pump shaft to prevent mechanical sealing surface sticky, then heavy coupling cover. (Figure 2)



## BLT2,4

- Coupling guard
- Coupling guard (cutout)
- Screw M5×8
- motor stool
- Chamber
- Neck ring retainer
- Neck ring complete
- Chamber with bearing ring
- Coupling complete
- Inlet chamber
- Shaft pin  $\varnothing 5 \times 25$
- Nut M12, Washer 12
- Screw
- Spacing pipe
- Flange
- Retaining ring
- Bush
- Lock nut M10
- Staybolt
- Base
- Drain plug G1/2
- O-ring  $\varnothing 142.5 \times 3.55$
- Short spacing pipe
- Shaft seal
- Plug G1/4
- O-ring  $\varnothing 17 \times 2.65$
- Screw, Washer
- Motor
- Long spacing pipe
- Bearing ring
- Impeller
- Outlet chamber
- Pump shaft
- Outer sleeve
- Disc spring
- O-ring  $\varnothing 11.8 \times 2.65$

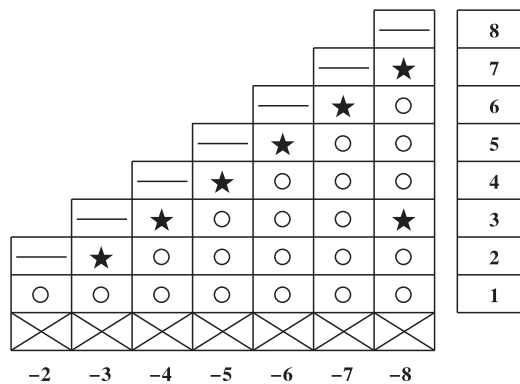


### BL8,12,16,20

1. Coupling guard
- 1a. Coupling guard(cutout)
2. Screw M5×8
3. motor stool
- 3a. Pump cover
4. Chamber
- 4b. Neck ring retainer
- 4c. Neck ring complete
5. Chamber with bearing ring
6. Coupling complete
7. Inlet chamber
8. Shaft pin  $\varnothing 5 \times 30$
9. Nut M16, Washer 16
10. Screw
11. Spacing pipe
12. Flange
13. Retaining ring
14. Bush
15. Lock nut M10
16. Staybolt
17. Base
19. Drain plug G1/2
20. O-ring  $\varnothing 170 \times 3.55$
21. Short spacing pipel
- 21a. Short spacing pipe II
22. Shaft seal
23. Plug G1/2
24. O-ring  $\varnothing 17 \times 2.65$
26. Screw, Washer
27. Motor
28. Long spacing pipe
29. Bearing ring
30. Impeller
31. Outlet chamber
32. Pump shart
33. Outer sleeve
36. Disc spring
37. Strap
38. Screw M8×20
39. Base plate

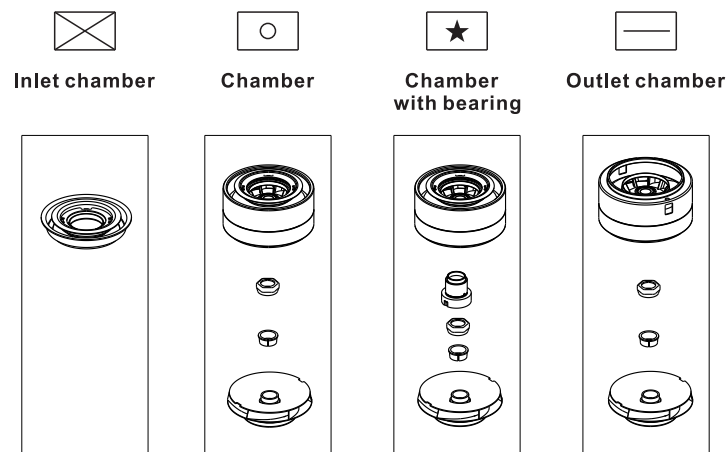
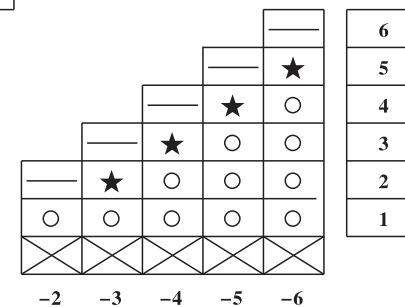
### BL(T)64

Remark:  
Disassembly and assembly the pump core,  
please follow the below sequence



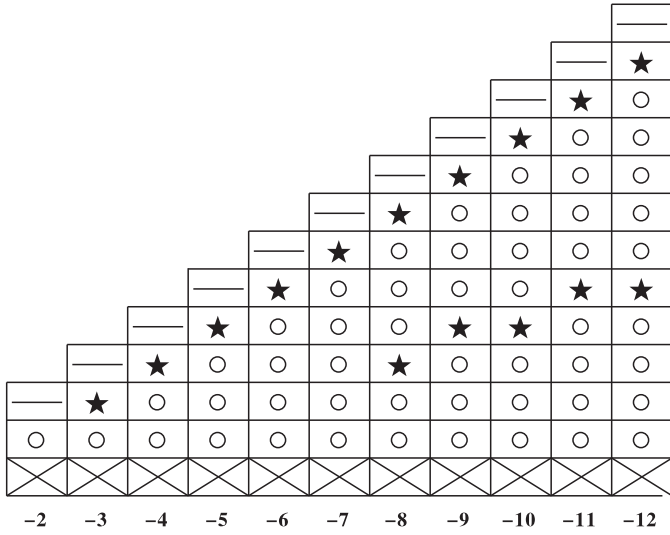
### BL(T)90

Remark:  
Disassembly and assembly the pump core,  
please follow the below sequence

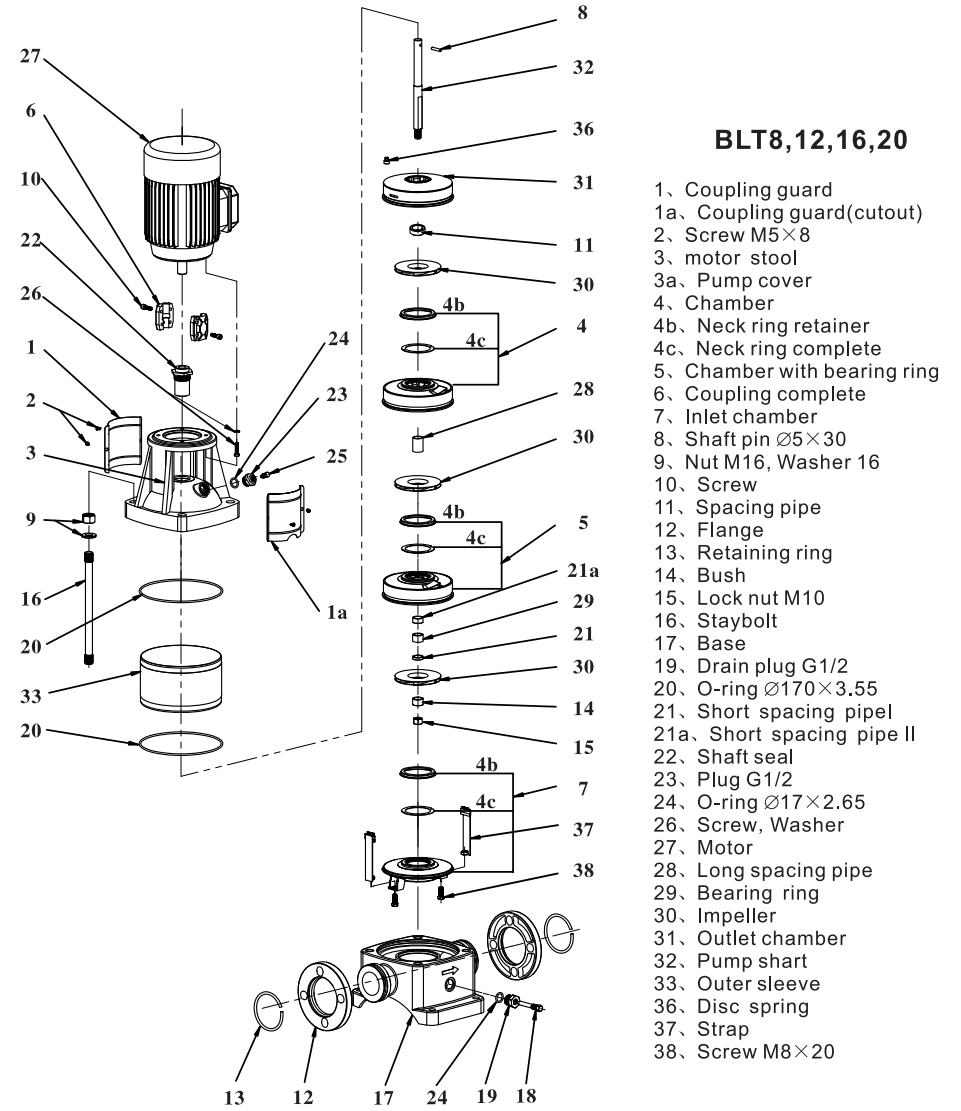
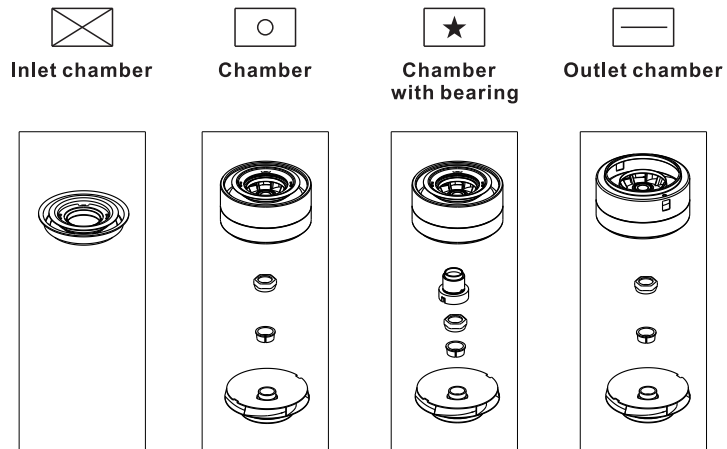


# BL(T)45

Remark:  
Disassembly and assembly the pump core,  
please follow the below sequence

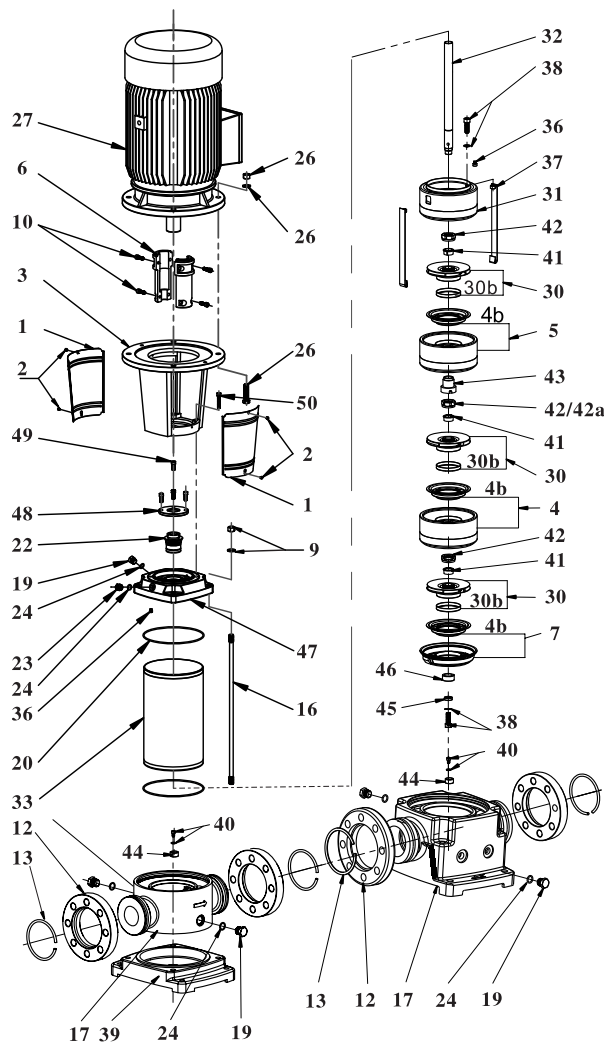


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## BLT8,12,16,20

- 1、Coupling guard
- 1a、Coupling guard(cutout)
- 2、Screw M5×8
- 3、motor stool
- 3a、 Pump cover
- 4、 Chamber
- 4b、 Neck ring retainer
- 4c、 Neck ring complete
- 5、 Chamber with bearing ring
- 6、 Coupling complete
- 7、 Inlet chamber
- 8、 Shaft pin  $\varnothing 5 \times 30$
- 9、 Nut M16, Washer 16
- 10、 Screw
- 11、 Spacing pipe
- 12、 Flange
- 13、 Retaining ring
- 14、 Bush
- 15、 Lock nut M10
- 16、 Staybolt
- 17、 Base
- 19、 Drain plug G1/2
- 20、 O-ring  $\varnothing 170 \times 3.55$
- 21、 Short spacing pipel
- 21a、 Short spacing pipe II
- 22、 Shaft seal
- 23、 Plug G1/2
- 24、 O-ring  $\varnothing 17 \times 2.65$
- 26、 Screw, Washer
- 27、 Motor
- 28、 Long spacing pipe
- 29、 Bearing ring
- 30、 Impeller
- 31、 Outlet chamber
- 32、 Pump shart
- 33、 Outer sleeve
- 36、 Disc spring
- 37、 Strap
- 38、 Screw M8×20

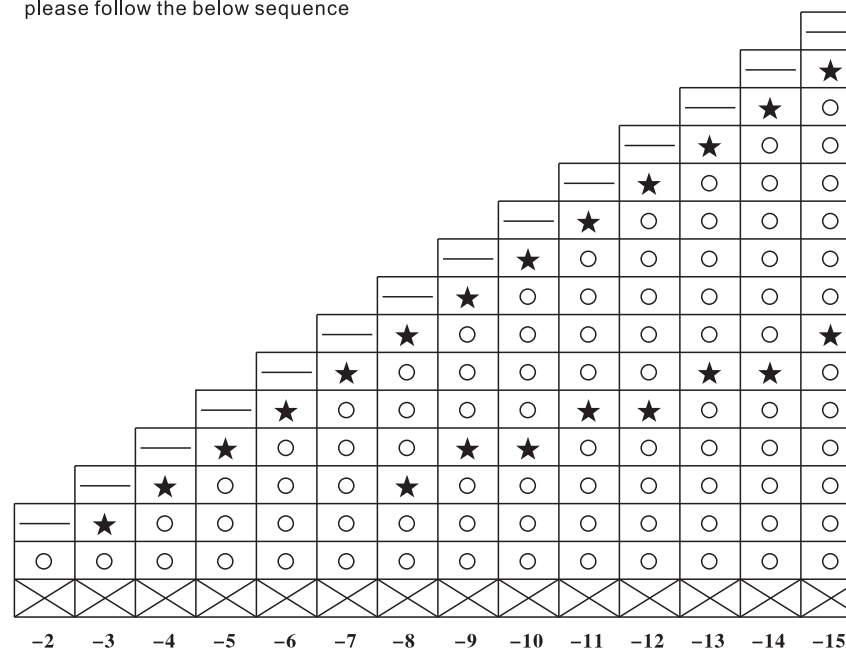


### BL(T)32,45,64,90

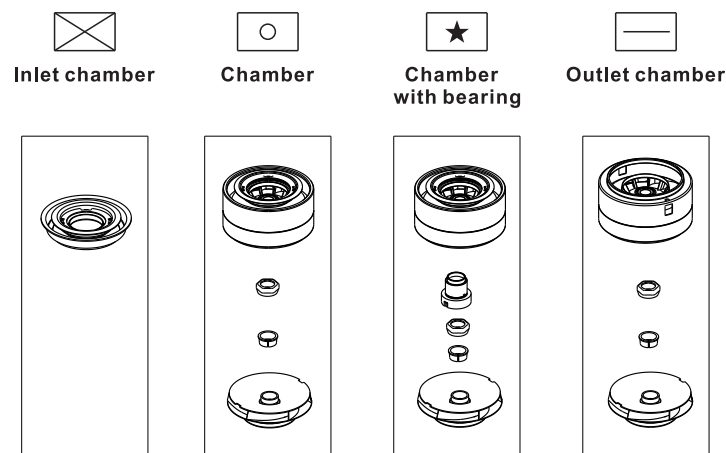
- 1、 Coupling guard
- 2、 Screw M5×8
- 3、 motor stool
- 4、 Chamber
- 4b、 Neck ring complete
- 5、 Chamber with bearing ring
- 6、 Coupling complete
- 7、 Inlet chamber
- 9、 Nut M16, Washer 16
- 10、 Screw
- 12、 Flange
- 13、 Retaining ring
- 16、 Staybolt
- 17、 Base
- 19、 Drain plug G1/2
- 20、 O-ring
- 22、 Shaft seal
- 23、 Plug G1/2
- 24、 O-ring  $\varnothing 17 \times 2,65$
- 26、 Screw, Washer
- 27、 Motor
- 30、 Impeller
- 30b、 Wear ring
- 31、 Outlet chamber
- 32、 Pump shaft
- 33、 Outer sleeve
- 36、 Disc spring
- 37、 Strap
- 38、 Screw M8×20, Washer
- 39、 Base plate
- 40、 Screw M5×10, Washer
- 41、 Split cone
- 42、 Split cone nut
- 42a、 Split cone nut
- 43、 Bearing ring, rotating
- 44、 Bearing ring
- 45、 Washer
- 46、 Bearing ring
- 47、 Pump head
- 48、 Spacer for shaft seal
- 49、 Screw M10×25
- 50、 Screw

### BL(T)32

Remark:  
Disassembly and assembly the pump core,  
please follow the below sequence

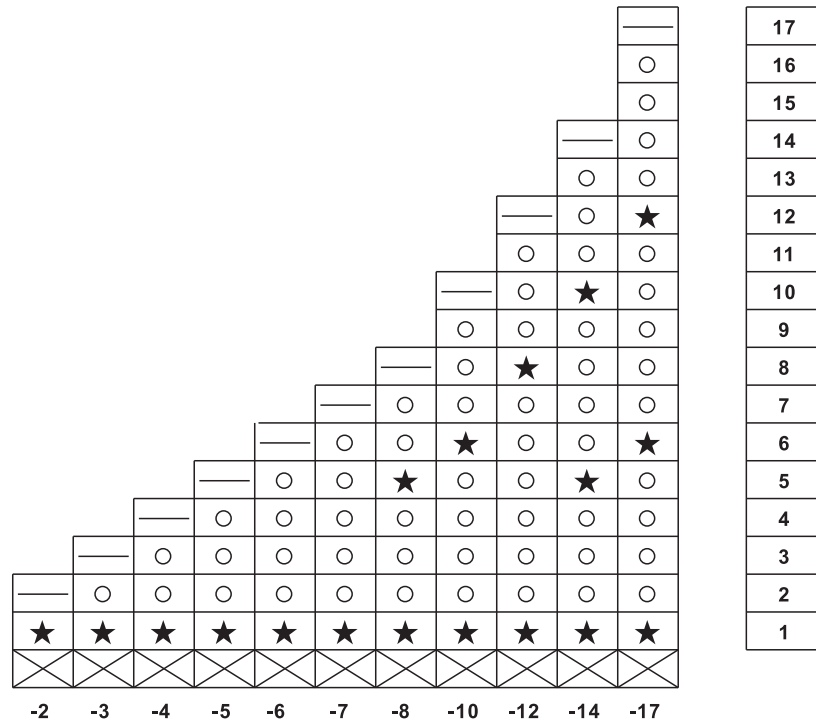


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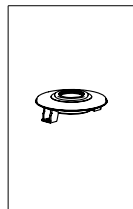



## BL(T)20

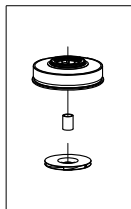
Remark:  
Disassembly and assembly the pump core,  
please follow the below sequence



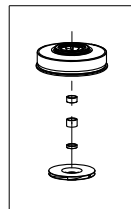
 Inlet chamber



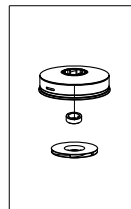
 Chamber



 Chamber with bearing

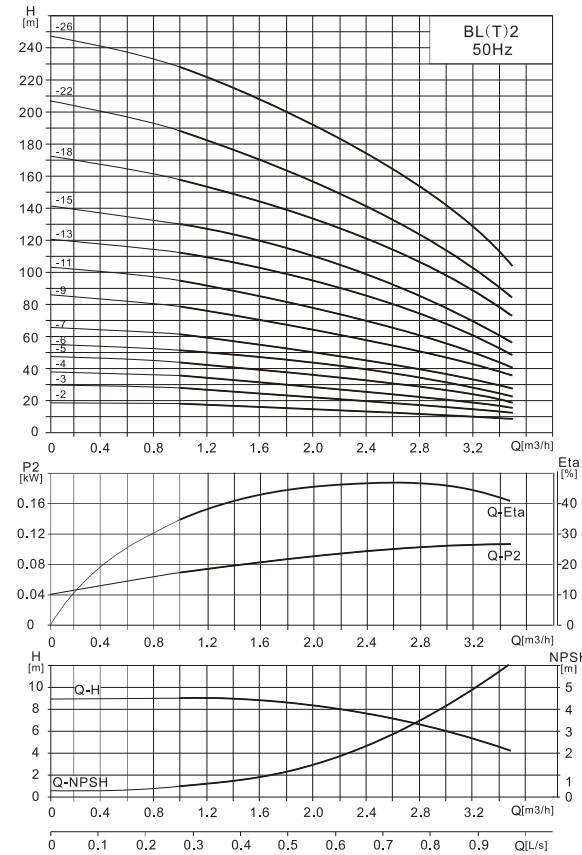


 Outlet chamber

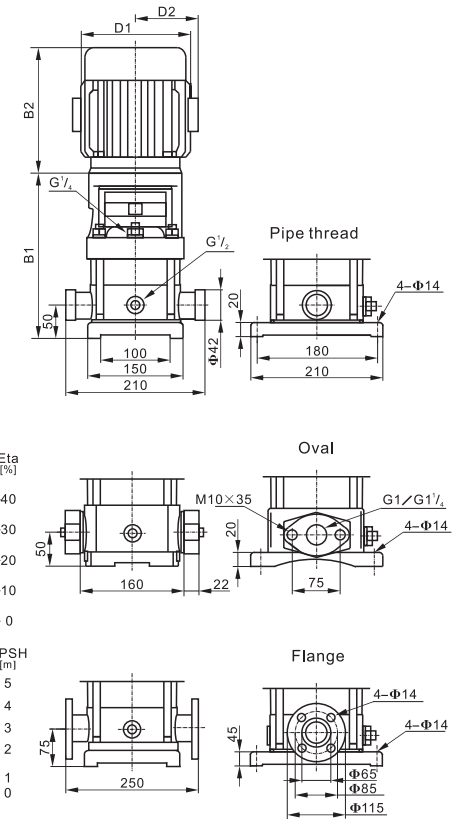


## VI. Technical Data

### Performance curves



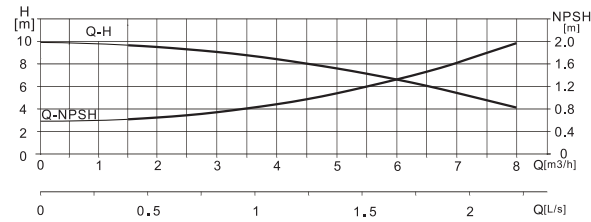
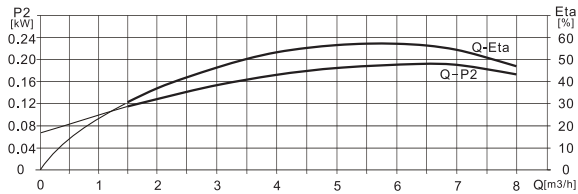
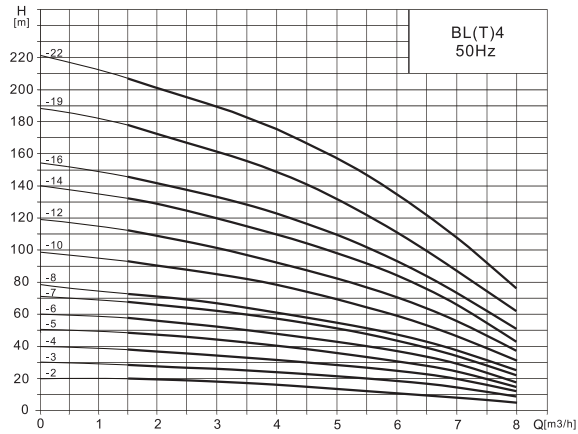
### Installation dimensions



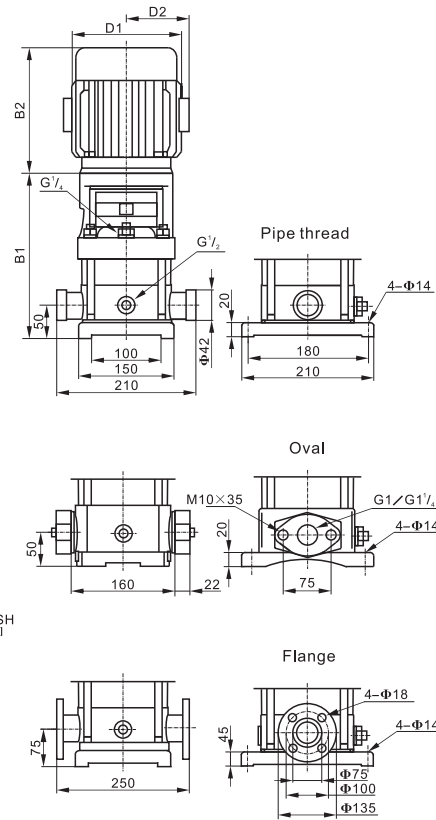
### Performance parameters and dimensions weight

Type	Power (kW)	Q (m³/h)	1	1.2	1.6	2	2.4	2.8	3.2	Lift range (m)	B1 (mm)	B2 (mm)	B1+B2 (mm)	D1 (mm)	D2 (mm)	WT (kg)
BL(T)2-2	0.37	H (m)	18	17	16	15	13	12	10	10-18	278	220	498	135	86	21/26
BL(T)2-3	0.37		27	26	24	22	20	18	15	15-27	278	220	498	135	86	21/26
BL(T)2-4	0.55		36	35	33	30	26	24	20	20-36	296	220	516	135	86	23/28
BL(T)2-5	0.55		45	43	40	37	33	30	24	24-45	314	220	534	135	86	23/28
BL(T)2-6	0.75		53	52	50	45	40	36	30	30-53	340	255	595	148	96	27/31
BL(T)2-7	0.75		63	61	57	52	47	41	35	35-63	358	255	613	148	96	27/32
BL(T)2-9	1.1		80	78	73	67	61	54	45	45-80	394	255	649	148	96	30/34
BL(T)2-11	1.1		98	95	89	82	73	64	54	54-98	430	255	685	148	96	31/35
BL(T)2-13	1.5		116	114	106	98	89	78	65	65-116	479	300	779	166	115	34/39
BL(T)2-15	1.5		134	130	123	112	100	90	73	73-134	515	300	815	166	115	35/40
BL(T)2-18	2.2		161	157	148	136	121	108	91	91-161	569	300	869	166	115	39/44
BL(T)2-22	2.2		197	192	180	165	148	130	110	110-197	641	300	941	166	115	41/46
BL(T)2-26	3		232	228	214	198	179	158	130	130-232	722	325	1047	191	128	49/54

■ Performance curves



■ Installation dimensions

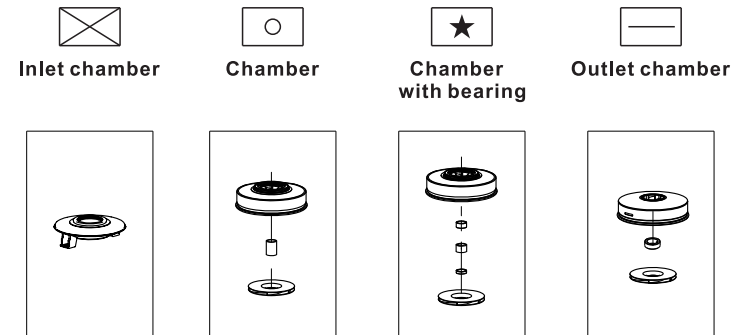
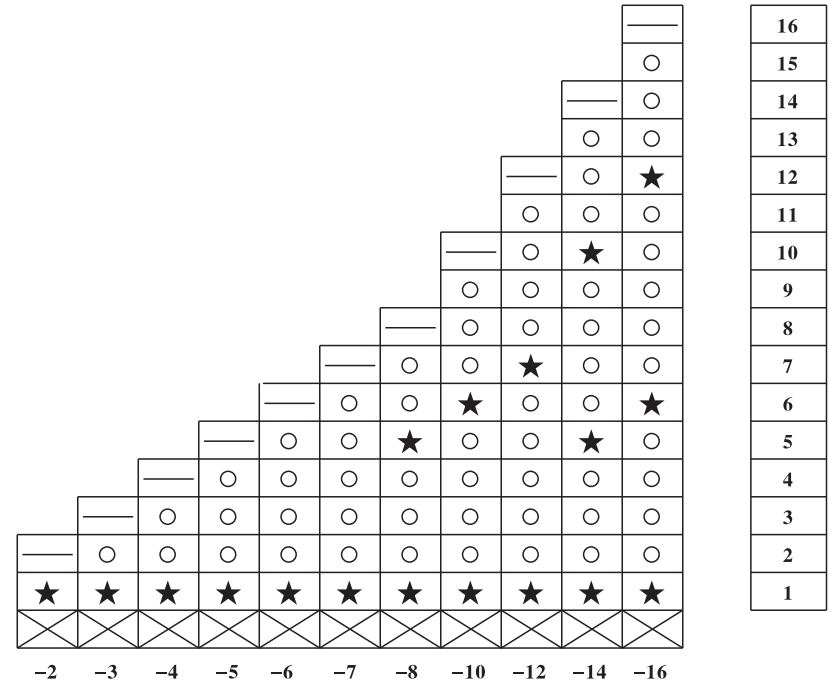


■ Performance parameters and dimensions weight

Type	Power (kW)	Q (m³/h)	1.5	2	3	4	5	6	7	Lift range (m)	B1 (mm)	B2 (mm)	B1+B2 (mm)	D1 (mm)	D2 (mm)	WT (kg)
BL(T)4-2	0.37	H (m)	19	18	17	15	13	10	8	8-19	278	220	498	135	86	21/26
BL(T)4-3	0.55		28	27	26	24	20	18	13	13-28	305	220	525	135	86	23/28
BL(T)4-4	0.75		38	36	34	32	27	24	19	19-38	340	255	595	148	96	27/32
BL(T)4-5	1.1		47	45	43	40	34	31	23	23-47	367	255	622	148	96	29/34
BL(T)4-6	1.1		56	54	52	48	41	37	28	28-56	394	255	649	148	96	29/34
BL(T)4-7	1.5		66	63	61	56	48	43	33	33-66	434	300	734	166	115	33/38
BL(T)4-8	1.5		74	72	70	64	55	50	38	38-74	461	300	761	166	115	33/39
BL(T)4-10	2.2		96	90	87	81	71	62	48	48-96	515	300	815	166	115	37/42
BL(T)4-12	2.2		114	108	104	95	85	75	58	58-114	569	300	869	166	115	38/44
BL(T)4-14	3		136	126	122	112	101	89	68	68-136	632	325	957	191	128	46/51
BL(T)4-16	3		152	144	140	129	115	101	78	78-152	686	325	1011	191	128	47/52
BL(T)4-19	4		183	171	168	153	137	122	93	93-183	767	355	1122	212	140	56/61
BL(T)4-22	4		211	200	192	178	160	138	108	108-211	848	355	1203	212	140	58/62

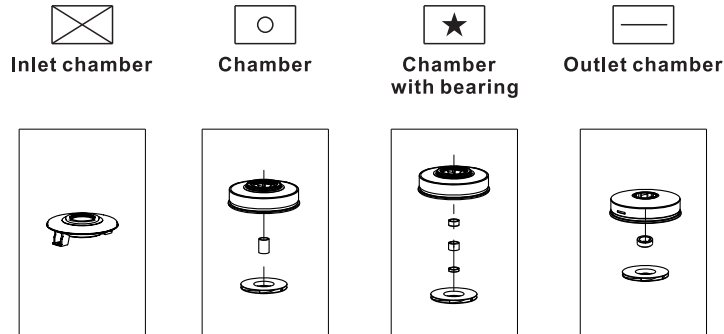
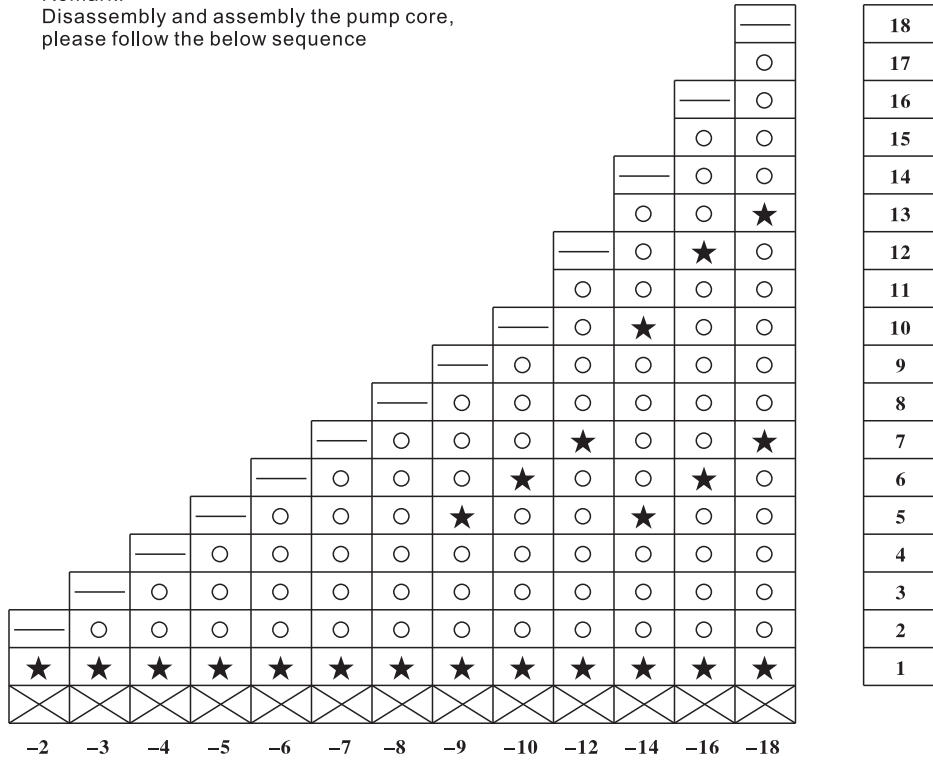
BL(T)16

Remark:  
Disassembly and assembly the pump core,  
please follow the below sequence

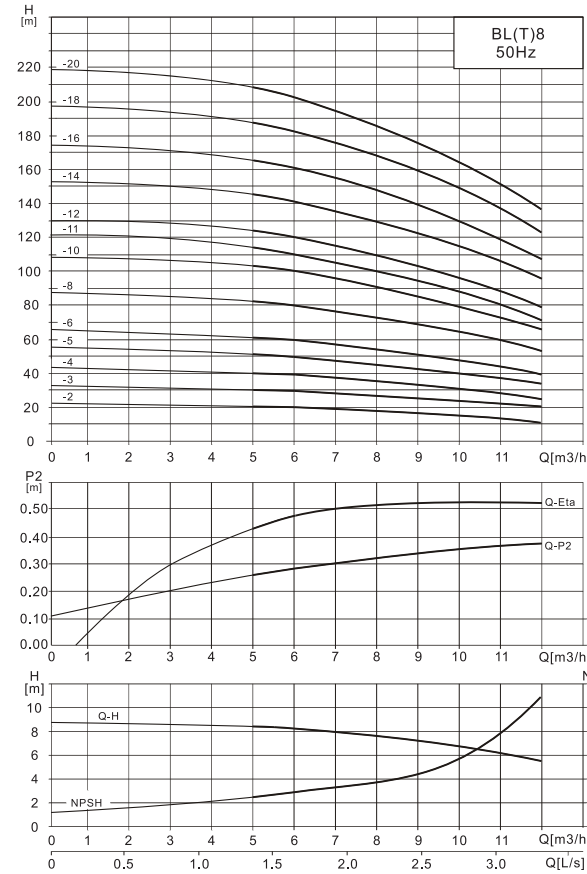


# BL(T)12

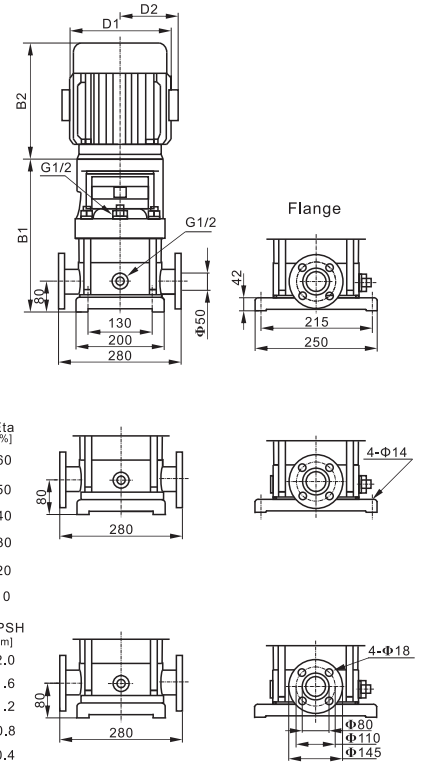
Remark:  
Disassembly and assembly the pump core,  
please follow the below sequence



## Performance curves



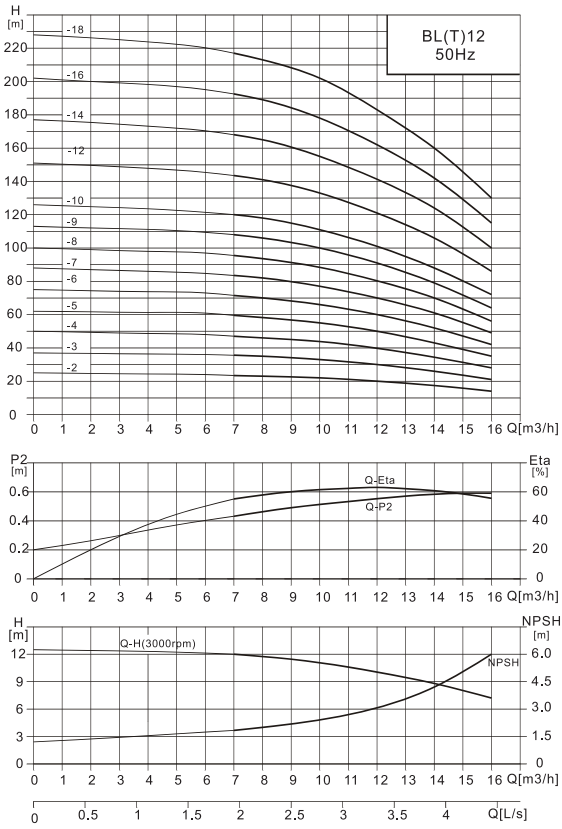
## Installation dimensions



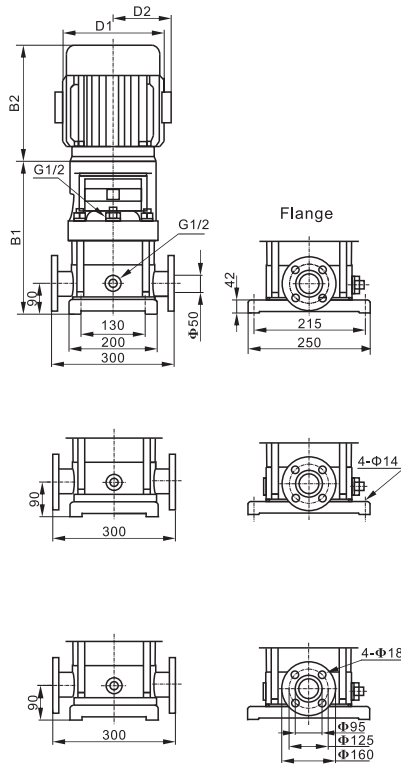
## Performance parameters and dimensions weight

Type	Power (kW)	Q (m³/h)	5	6	7	8	9	10	11	Lift range (m)	B1 (mm)	B2 (mm)	B1+B2 (mm)	D1 (mm)	D2 (mm)	WT (kg)
BL(T)8-2	0.75	H (m)	20	19.5	19	18	17	16	14	14-20	368	255	623	155	96	36/43
BL(T)8-3	1.1		30	29.5	28.5	27	25	24	21	21-30	400	255	655	155	96	39/45
BL(T)8-4	1.5		41	39.5	38	36	34	32	28	28-41	437	300	737	175	115	42/49
BL(T)8-5	2.2		52	50	48	45	42	40	36	36-52	469	300	769	175	115	46/53
BL(T)8-6	2.2		62	60	57	54	51	48	43	43-62	501	300	801	175	115	47/54
BL(T)8-8	3		83	80	77	73	69	65	58	58-83	575	325	900	191	128	56/62
BL(T)8-10	4		104	100	97	92	87	81	73	73-104	639	355	994	212	140	65/71
BL(T)8-11	4		114	110	106	101	95	86	80	80-114	671	355	1026	212	140	66/72
BL(T)8-12	4		124	120	116	111	104	92	87	87-124	703	355	1058	212	140	68/74
BL(T)8-14	5.5		145	141	136	130	122	113	102	102-145	791	430	1221	258	163	86/93
BL(T)8-16	5.5		166	161	156	148	139	130	118	118-166	855	430	1285	258	163	89/95
BL(T)8-18	7.5		187	182	175	167	157	146	134	134-187	919	430	1349	258	163	95/101
BL(T)8-20	7.5		208	202	195	186	175	163	150	150-208	983	430	1413	258	163	97/103

■ Performance curves



■ Installation dimensions

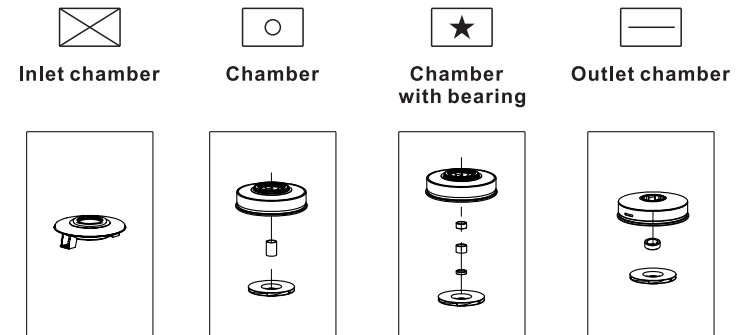
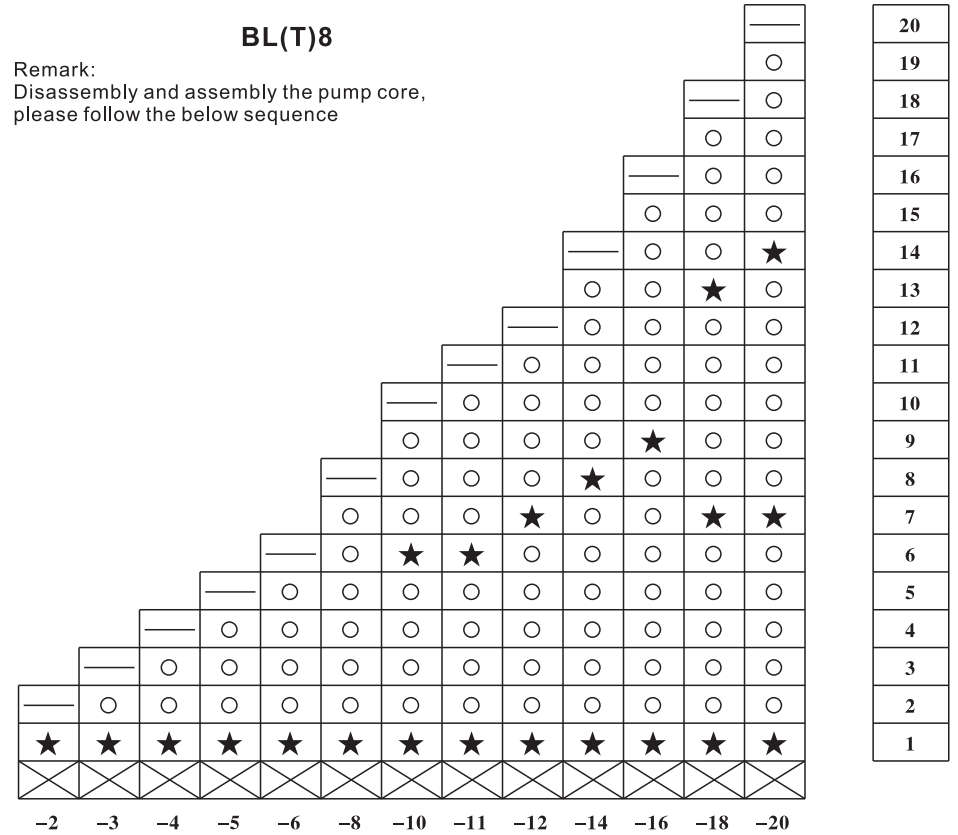


■ Performance parameters and dimensions weight

Type	Power (kW)	Q (m³/h)	7	8	10	12	14	15	16	Lift range (m)	B1 (mm)	B2 (mm)	B1+B2 (mm)	D1 (mm)	D2 (mm)	WT (kg)
BL(T)12-2	1.5	H (m)	23.5	23	22	20	17	15	14	14~23.5	383	300	683	166	115	41/48
BL(T)12-3	2.2		35.5	35	33	30	26	23	21	21~35.5	415	300	715	166	115	44/51
BL(T)12-4	3		47	46	44	40	34	31	28	28~47	456	325	781	191	128	52/59
BL(T)12-5	3		59.5	58	55	50	43	39	35	35~59.5	488	325	813	191	128	53/60
BL(T)12-6	4		71.5	70	66	60	52	47	42	42~71.5	519	355	874	212	140	61/69
BL(T)12-7	5.5		83.5	82	77	70	61	55	49	49~83.5	575	395	970	258	163	79/87
BL(T)12-8	5.5		95.5	94	88	80	70	63	56	56~95.5	606	395	1001	258	163	80/88
BL(T)12-9	5.5		108	106	100	91	79	71	64	64~108	638	395	1033	258	163	81/89
BL(T)12-10	7.5		120	118	111	101	88	80	72	72~120	669	395	1064	258	163	86/94
BL(T)12-12	7.5		143.5	141	133	121	106	96	86	86~143.5	733	395	1128	258	163	88/96
BL(T)12-14	11		168	165	155	141	124	112	100	100~168	825	498	1323	315	251	163/171
BL(T)12-16	11		192.5	189	178	162	142	128	115	115~192.5	888	498	1386	315	251	165/173
BL(T)12-18	11		217	213	202	183	160	145	130	130~217	951	498	1449	315	251	167/175

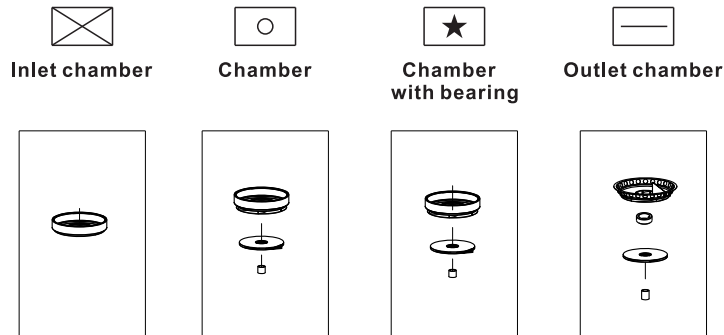
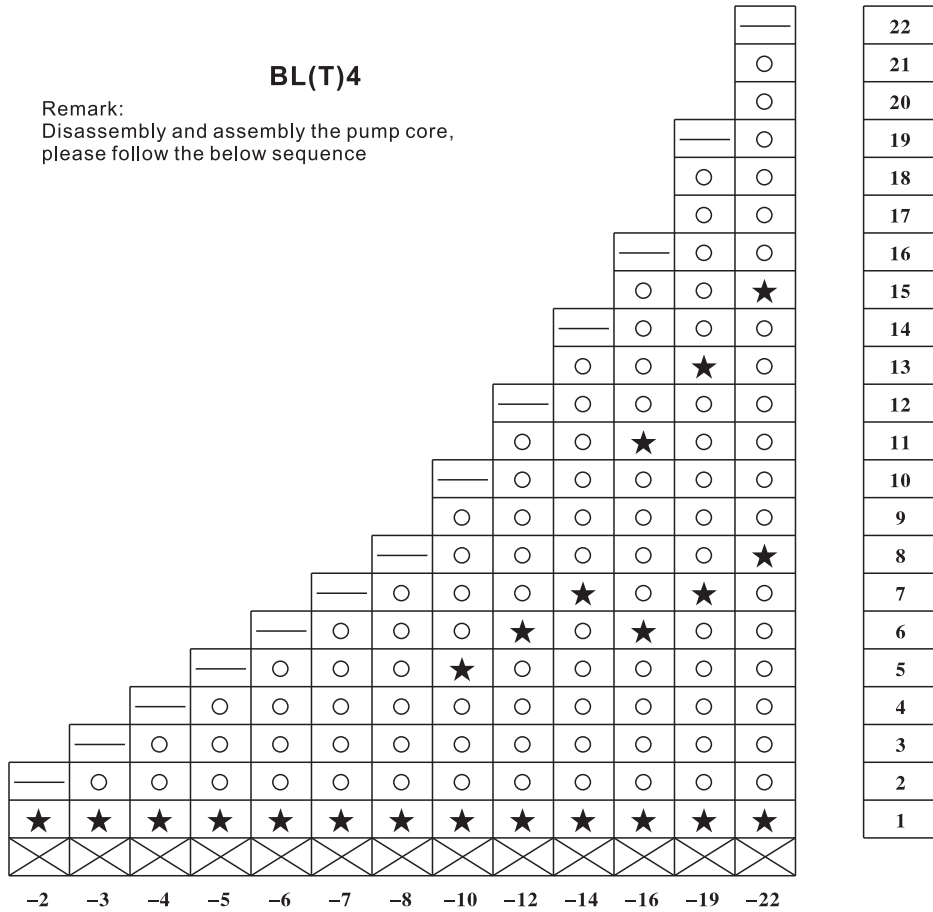
BL(T)8

Remark:  
Disassembly and assembly the pump core,  
please follow the below sequence

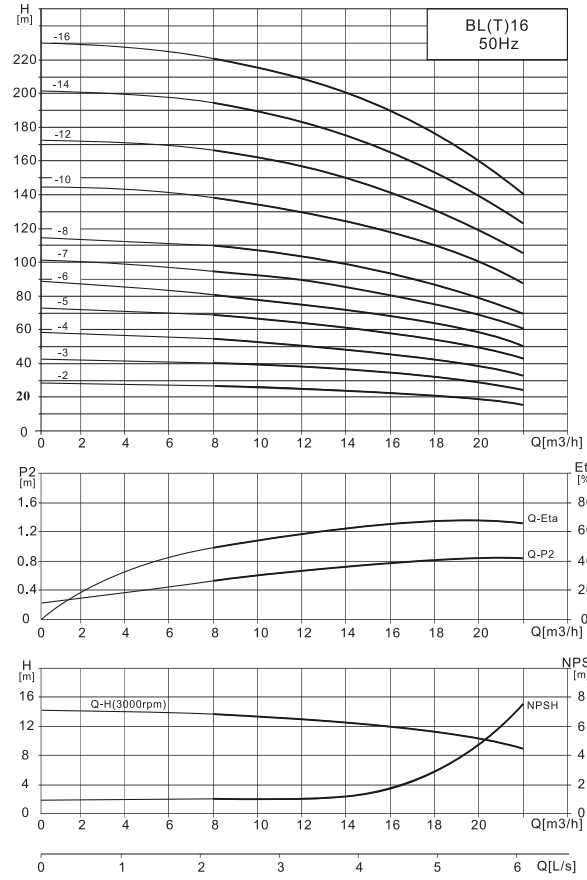


# BL(T)4

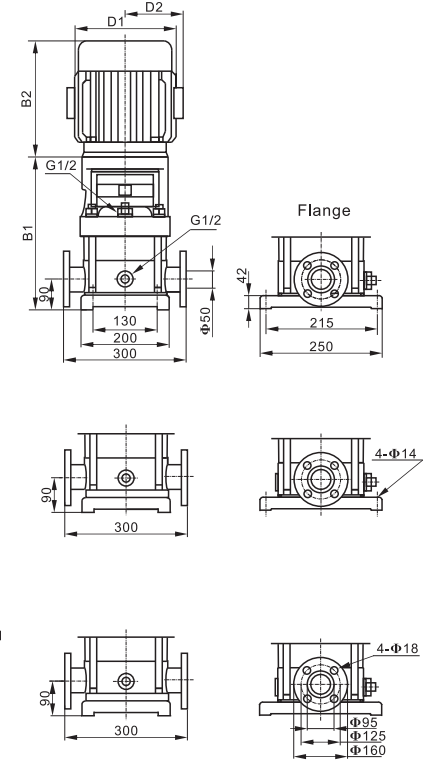
Remark:  
Disassembly and assembly the pump core,  
please follow the below sequence



## Performance curves



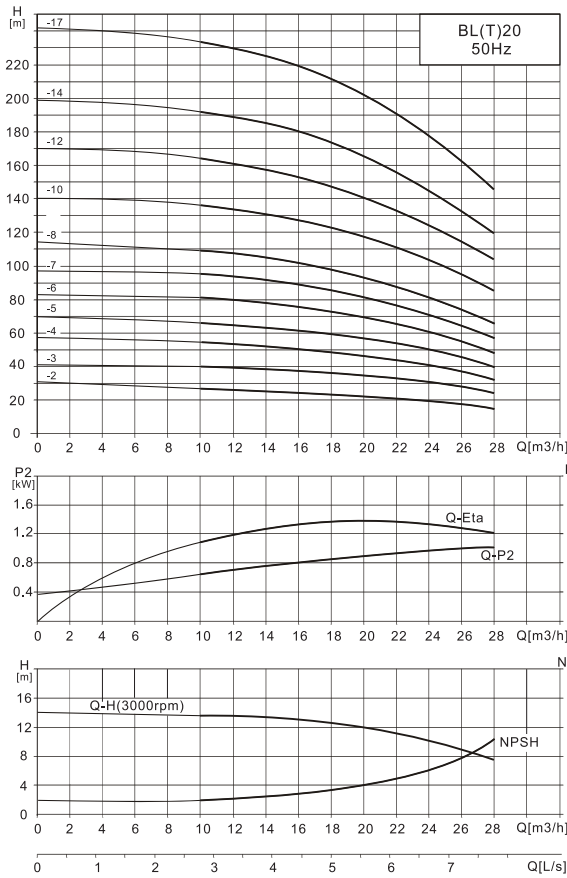
## Installation dimensions



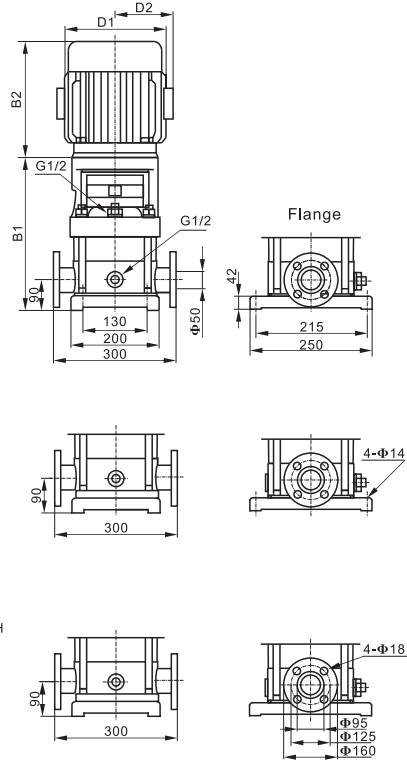
## Performance parameters and dimensions weight

Type	Power (kW)	Q (m³/h)	8	10	12	14	16	18	20	Lift range (m)	B1 (mm)	B2 (mm)	B1+B2 (mm)	D1 (mm)	D2 (mm)	WT (kg)
BL(T)16-2	2.2	H (m)	27	26	25	24	22	21	19	19-27	410	300	710	166	115	44/51
BL(T)16-3	3		41	40	38	37	34	32	29	29-41	465	325	790	191	128	52/59
BL(T)16-4	4		54	53	52	49	46	43	38	38-54	510	355	865	212	140	60/68
BL(T)16-5	5.5		68	67	65	62	58	54	48	48-68	581	395	976	258	163	79/86
BL(T)16-6	5.5		82	80	78	74	70	64	58	58-82	626	395	1021	258	163	80/88
BL(T)16-7	7.5		96	95	91	87	82	76	68	68-96	671	395	1066	258	163	84/93
BL(T)16-8	7.5		110	108	104	99	94	86	77	77-110	716	395	1111	258	163	85/95
BL(T)16-10	11		138	136	131	125	118	109	97	97-138	837	498	1335	315	251	163/171
BL(T)16-12	11		166	162	157	150	141	130	116	116-166	927	498	1425	315	251	167/173
BL(T)16-14	15		194	190	184	175	166	152	136	136-194	1017	498	1515	315	251	181/186
BL(T)16-16	15		222	217	210	200	189	174	156	156-222	1107	498	1605	315	251	183/189

■ Performance curves



■ Installation dimensions



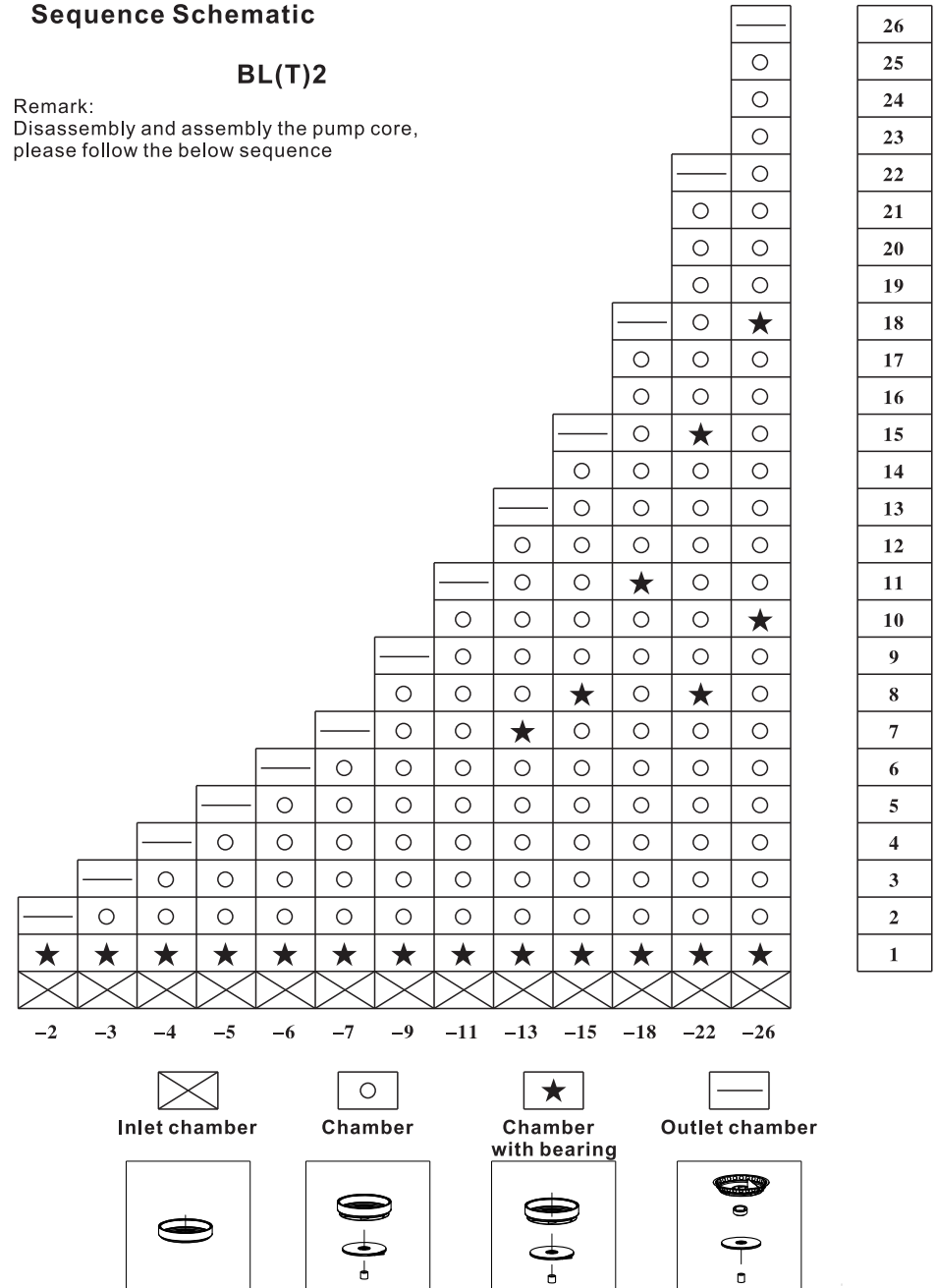
■ Performance parameters and dimensions weight

Type	Power (kW)	Q (m³/h)	14	16	18	20	22	24	26	28	Lift range (m)	B1 (mm)	B2 (mm)	B1+B2 (mm)	D1 (mm)	D2 (mm)	WT (kg)
BL(T)20-2	2.2	H (m)	26	25	24	23	22	20	18	15	15~26	410	300	710	166	115	44/51
BL(T)20-3	4		39	38	37	35	33	30	27	24	24~39	465	355	820	212	140	59/66
BL(T)20-4	5.5		52	51	49	47	44	41	37	33	33~52	536	395	931	258	163	77/85
BL(T)20-5	5.5		64	62	60	58	55	50	45	40	40~64	581	395	976	258	163	79/87
BL(T)20-6	7.5		77	75	73	70	66	61	55	49	49~77	626	395	1021	258	163	82/92
BL(T)20-7	7.5		91	89	86	82	77	71	65	58	58~91	671	395	1066	258	163	83/94
BL(T)20-8	11		105	102	99	94	89	82	75	67	67~105	747	498	1245	315	251	160/168
BL(T)20-10	11		131	128	124	118	111	103	95	85	85~131	837	498	1335	315	251	163/171
BL(T)20-12	15		158	154	149	142	133	124	114	102	102~158	927	498	1425	315	251	177/184
BL(T)20-14	15		185	180	174	166	156	145	133	119	119~185	1017	498	1515	315	251	180/187
BL(T)20-17	18.5		225	219	212	202	190	177	162	145	145~225	1152	542	1694	315	251	200/208

VII. Chamber and Impeller Assembly Sequence Schematic

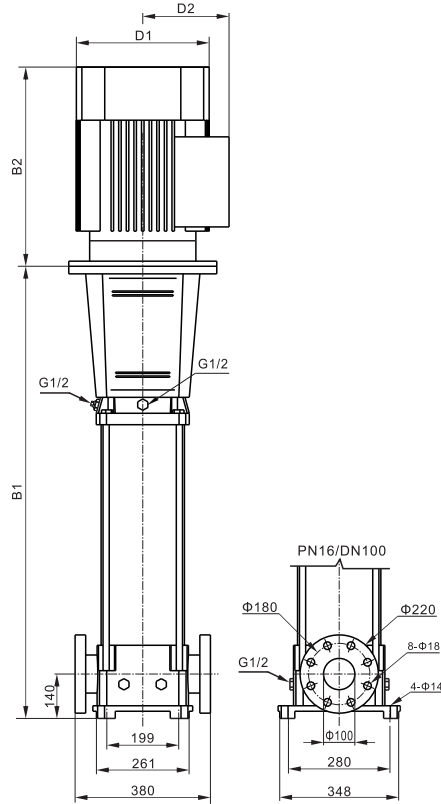
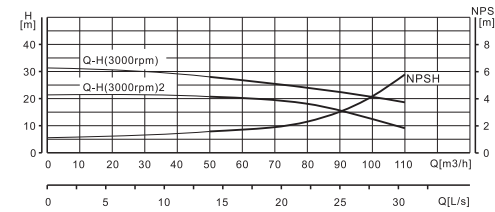
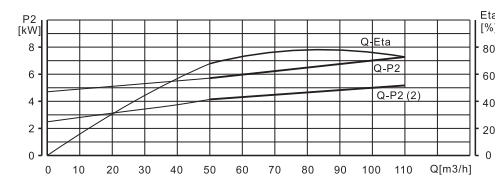
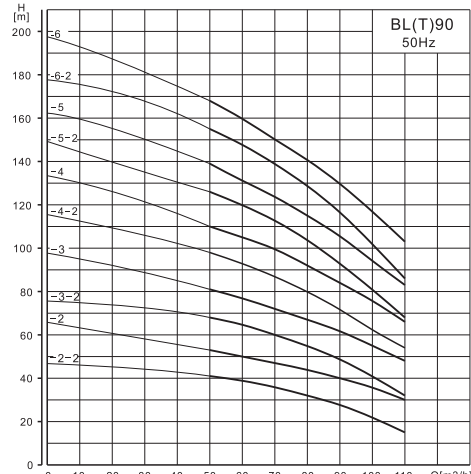
BL(T)2

Remark:  
Disassembly and assembly the pump core,  
please follow the below sequence



■ Performance curves

■ Installation dimensions

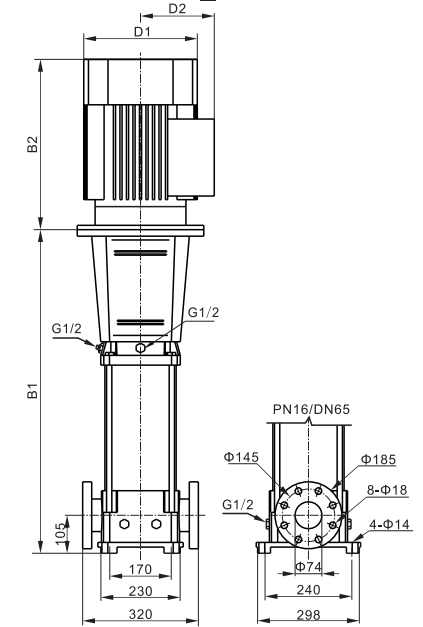
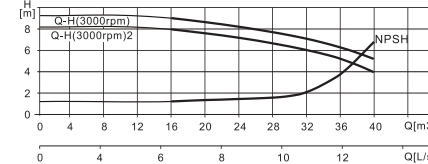
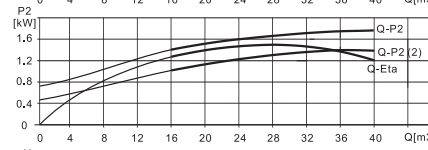
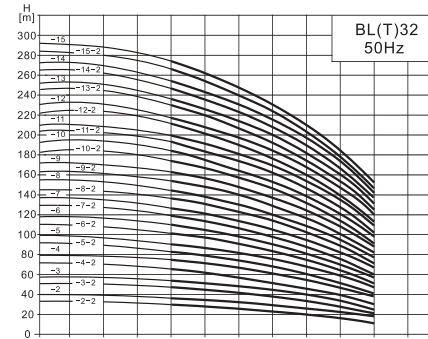


■ Performance parameters and dimensions weight

Type	Power (kW)	Q (m³/h)	50	60	70	80	90	100	110	Lift range (m)	B1 (mm)	B2 (mm)	B1+B2 (mm)	D1 (mm)	D2 (mm)	WT (kg)
BL(T)90-2-2	11	H (m)	41	39	36	32	28	22	15	15-41	771	498	1269	315	251	190/202
BL(T)90-2	15		53	50	47	44	40	36	30	30-53	771	498	1269	315	251	200/212
BL(T)90-3-2	18.5		68	65	60	55	49	41	32	32-68	863	542	1405	315	251	221/232
BL(T)90-3	22		81	77	72	67	62	55	48	48-81	863	578	1441	355	267	263/274
BL(T)90-4-2	30		98	93	87	80	72	62	50	50-98	955	669	1624	397	299	334/345
BL(T)90-4	30		110	105	100	92	84	76	66	66-110	955	669	1624	397	299	334/345
BL(T)90-5-2	37		126	120	113	104	93	81	68	68-126	1047	669	1716	397	299	369/380
BL(T)90-5	37		139	131	124	115	106	94	83	83-139	1047	669	1716	397	299	369/380
BL(T)90-6-2	45		155	148	139	129	117	102	86	86-155	1139	709	1848	446	322	432/442
BL(T)90-6	45		168	160	150	141	130	117	103	103-168	1139	709	1848	446	322	432/442

■ Performance curves

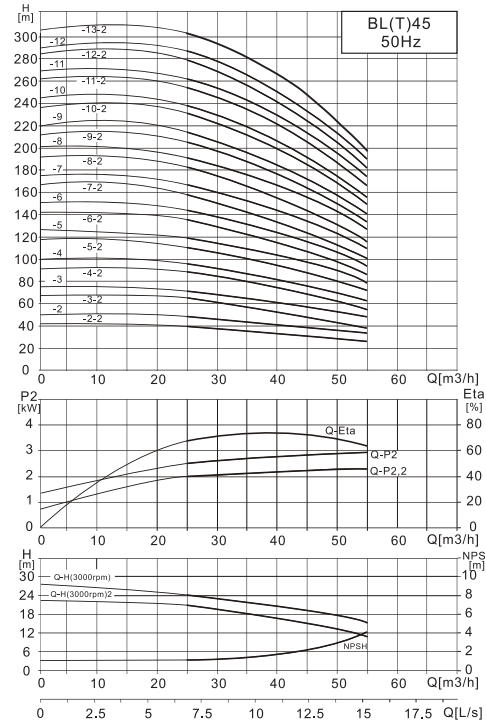
■ Installation dimensions



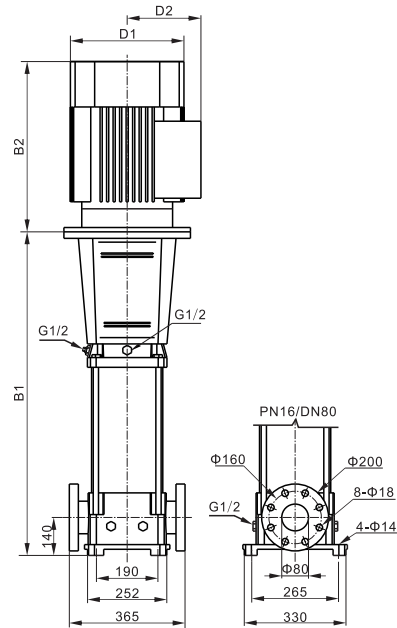
■ Performance parameters and dimensions weight

Type	Power (kW)	Q (m³/h)	16	20	24	28	32	36	40	Lift range (m)	B1 (mm)	B2 (mm)	B1+B2 (mm)	D1 (mm)	D2 (mm)	WT (kg)
BL(T)32-2-2	3	H (m)	29	28	26	23	20	16	11	11-29	634	325	959	191	128	72/77
BL(T)32-2	4		36	34	32	29	27	23	18	18-36	634	355	989	212	140	80/84
BL(T)32-3-2	5.5		47	44	41	38	33	28	21	21-47	724	395	1119	258	163	98/103
BL(T)32-3	5.5		54	51	48	44	40	35	27	27-54	724	395	1119	258	163	98/103
BL(T)32-4-2	7.5		65	62	58	53	46	40	30	30-65	794	395	1189	258	163	103/108
BL(T)32-4	7.5		72	69	65	59	53	47	37	37-72	794	395	1189	258	163	103/108
BL(T)32-5-2	11		83	79	74	68	60	52	41	41-83	894	498	1392	315	251	181/187
BL(T)32-5	11		90	86	81	74	67	59	47	47-90	894	498	1392	315	251	181/187
BL(T)32-6-2	11		101	97	90	83	74	65	51	51-101	964	498	1462	315	251	185/190
BL(T)32-6	11		108	104	97	90	81	72	57	57-108	964	498	1462	315	251	185/190
BL(T)32-7-2	15		119	114	107	98	88	78	60	60-119	1034	498	1532	315	251	198/203
BL(T)32-7	15		126	121	113	105	95	85	67	67-126	1034	498	1532	315	251	198/203
BL(T)32-8-2	15		136	131	123	114	102	90	71	71-136	1104	498	1602	315	251	201/207
BL(T)32-8	15		144	138	130	120	109	97	77	77-144	1104	498	1602	315	251	201/207
BL(T)32-9-2	18.5		154	148	140	129	117	102	82	82-154	1174	542	1716	315	251	221/227
BL(T)32-9	18.5		162	156	147	136	124	109	88	88-162	1174	542	1716	315	251	221/227
BL(T)32-10-2	18.5		175	166	157	146	131	115	91	91-175	1244	542	1786	315	251	224/230
BL(T)32-10	18.5		182	173	164	152	138	122	98	98-182	1244	542	1786	315	251	224/230
BL(T)32-11-2	22		193	184	173	164	146	128	102	102-193	1314	578	1892	355	267	269/275
BL(T)32-11	22		200	191	180	168	153	135	109	109-200	1314	578	1892	355	267	269/275
BL(T)32-12-2	22		211	201	189	178	160	140	113	113-211	1384	578	1962	355	267	272/278
BL(T)32-12	22		218	208	196	184	167	147	120	120-218	1384	578	1962	355	267	272/278
BL(T)32-13-2	30		230	218	206	193	174	153	124	124-230	1454	669	2123	397	299	350/357
BL(T)32-13	30		237	225	213	200	181	160	131	131-237	1454	669	2123	397	299	350/357
BL(T)32-14-2	30		247	235	222	210	189	165	135	135-247	1524	669	2193	397	299	353/360
BL(T)32-14	30		255	242	229	216	196	172	142	142-255	1524	669	2193	397	299	353/360
BL(T)32-15-2	30		266	253	239	224	203	178	145	145-266	1594	669	2263	397	299	356/363
BL(T)32-15	30		274	260	246	231	210	185	152	152-274	1594	669	2263	397	299	356/363

■ Performance curves



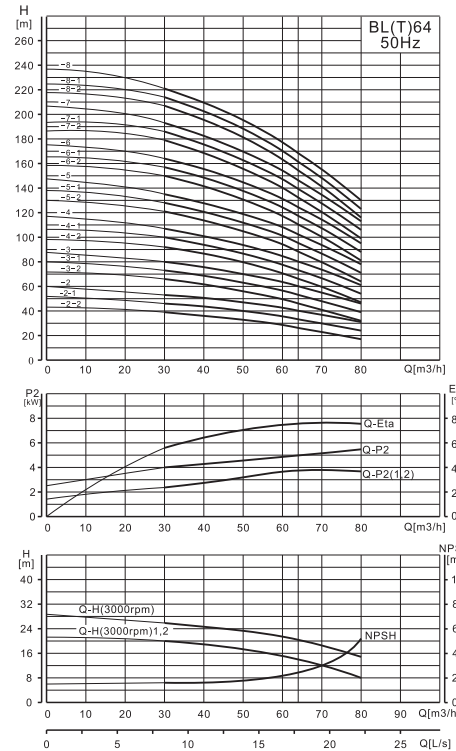
■ Installation dimensions



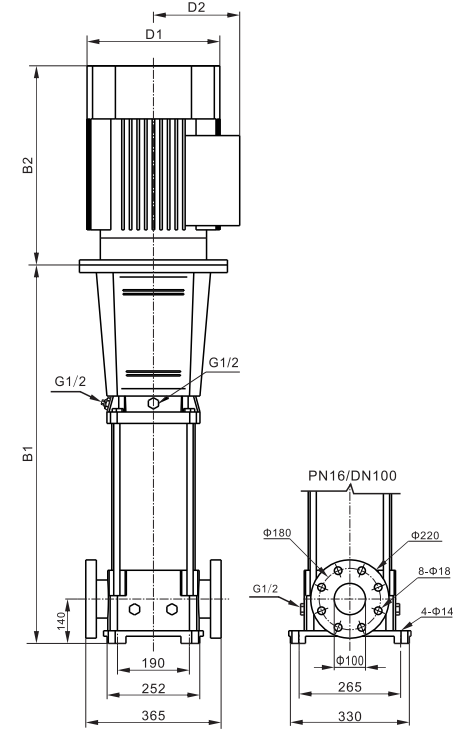
■ Performance parameters and dimensions weight

Type	Power (kW)	Q (m³/h)	Lift range (m)								B1 (mm)	B2 (mm)	B1+B2 (mm)	D1 (mm)	D2 (mm)	WT (kg)
			25	30	35	40	45	50	55	60						
BL(T)45-2-2	5.5	40	38	36	33	30	27	23	23-40	716	395	1111	258	163	102/114	
BL(T)45-2	7.5	48	46	44	42	39	35	31	31-48	716	395	1111	258	163	106/118	
BL(T)45-3-2	11	63	61	58	54	50	44	38	38-63	826	498	1324	315	251	184/194	
BL(T)45-3	11	71	69	66	63	58	53	47	47-71	826	498	1324	315	251	184/194	
BL(T)45-4-2	15	87	84	80	75	69	62	54	54-87	906	498	1404	315	251	197/208	
BL(T)45-4	15	95	92	88	84	78	71	62	62-95	906	498	1404	315	251	197/208	
BL(T)45-5-2	18.5	111	107	102	96	88	80	69	69-111	986	542	1528	315	251	218/229	
BL(T)45-5	18.5	119	115	110	105	97	88	78	78-119	986	542	1528	315	251	218/229	
BL(T)45-6-2	22	135	130	124	117	108	97	85	85-135	1066	578	1644	355	267	263/274	
BL(T)45-6	22	143	138	132	125	116	106	93	93-143	1066	578	1644	355	267	263/274	
BL(T)45-7-2	30	158	152	146	138	127	115	100	100-158	1146	669	1815	397	299	342/353	
BL(T)45-7	30	166	161	154	146	135	124	109	109-166	1146	669	1815	397	299	342/353	
BL(T)45-8-2	30	182	175	168	159	146	133	116	116-182	1226	669	1895	397	299	347/356	
BL(T)45-8	30	190	184	176	167	154	141	124	124-190	1226	669	1895	397	299	347/356	
BL(T)45-9-2	30	205	198	190	180	166	150	132	132-205	1306	669	1975	397	299	349/360	
BL(T)45-9	37	214	207	198	188	174	159	140	140-214	1386	669	2055	397	299	371/382	
BL(T)45-10-2	37	230	221	212	200	185	168	147	147-230	1386	669	2055	397	299	375/386	
BL(T)45-10	37	238	230	220	209	193	177	155	155-238	1466	669	2135	397	299	375/386	
BL(T)45-11-2	45	255	246	236	223	206	188	165	165-255	1466	709	2175	446	322	439/450	
BL(T)45-11	45	263	255	244	232	214	196	173	173-263	1546	709	2255	446	322	439/450	
BL(T)45-12-2	45	280	270	259	245	226	206	181	181-280	1546	709	2255	446	322	442/454	
BL(T)45-12	45	289	280	268	255	236	216	190	190-289	1626	709	2335	446	322	442/454	
BL(T)45-13-2	45	305	294	282	267	247	225	198	198-305	1626	709	2335	446	322	446/458	

■ Performance curves



■ Installation dimensions



■ Performance parameters and dimensions weight

Type	Power (kW)	Q (m³/h)	Lift range (m)								B1 (mm)	B2 (mm)	B1+B2 (mm)	D1 (mm)	D2 (mm)	WT (kg)
			30	40	50	60	64	70	80	80						
BL(T)64-2-2	7.5	39	36	33	29	26	23	17	17-39	685	390	1075	258	163	126/129	
BL(T)64-2-1	11	46	44	40	36	33	30	24	24-46	715	498	1213	315	251	189/192	
BL(T)64-2	11	53	51	47	43	40	37	31	31-53	715	498	1213	315	251	189/192	
BL(T)64-3-2	15	66	62	56	50	46	41	32	32-66	825	498	1323	315	251	202/205	
BL(T)64-3-1	15	73	69	63	57	53	48	39	39-73	825	498	1323	315	251	202/205	
BL(T)64-3	18.5	80	76	71	65	60	56	46	46-80	825	542	1367	315	251	219/222	
BL(T)64-4-2	18.5	92	87	80	71	66	60	47	47-92	905	542	1447	315	251	223/227	
BL(T)64-4-1	22	100	94	87	78	73	67	54	54-100	905	578	1483	355	267	265/268	
BL(T)64-4	22	107	101	94	85	80	74	61	61-107	905	578	1483	355	267	265/268	
BL(T)64-5-2	30	121	114	105	95	88	80	64	64-121	985	669	1653	397	299	345/348	
BL(T)64-5-1	30	128	121	112	102	95	87	71	71-128	985	669	1653	397	299	345/348	
BL(T)64-5	30	136	129	119	109	102	94	78	78-136	985	669	1653	397	299	345/348	
BL(T)64-6-2	30	150	142	131	118	110	101	81	81-150	1065	669	1734	397	299	348/352	
BL(T)64-6-1	37	157	149	138	125	117	108	88	88-157	1065	669	1734	397	299	370/374	
BL(T)64-6	37	164	156	145	132	124	115	95	95-164	1065	669	1734	397	299	370/374	
BL(T)64-7-2	37	179	169	156	141	132	121	99	99-179	1145	669	1814	397	299	376/379	
BL(T)64-7-1	37	186	176	163	148	139	128	106	106-186	1145	669	1814	397	299	376/379	
BL(T)64-7	45	193	183	170	155	146	135	112	112-193	1145	709	1854	446	322	435/438	
BL(T)64-8-2	45	207	196	182	164	154	142	116	116-207	1225	709	1934	446	322	439/442	
BL(T)64-8-1	45	214	203	189	171	161	149	123	123-214	1225	709	1934	446	322	439/442	
BL(T)64-8	45	221	210	196	178	168	156	130	130-221	1225	709	1934	446	322	439/442	

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## 技术要求

- 1.说明书尺寸:折叠装订后210×142mm,误差2mm;
- 2.材质为:封面157克铜版纸,内页70克双胶纸;
- 3.周边不应有明显飞边;
- 4.文字大小和粗细应整齐醒目,排列匀称,不应断缺和模糊不清;
- 5.封面、封底彩色印刷,绿色为新界绿pantone 3272C;  
橙色为C0 M60 Y100 K0;内页黑白印刷。