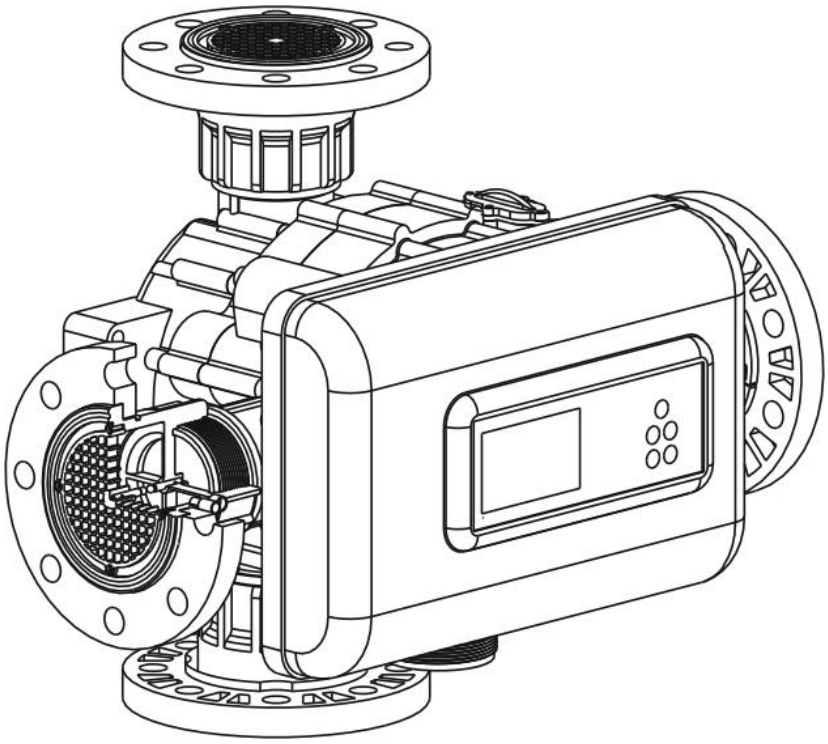
GL2050

FILTER CONTROL VALVE

INSTALL、USE、MAINTENANCE MANUAL

GL15、GL20、GL40、GL50、GL15T、GL20T、GL40T

Scan Qr code for the latest



Ⅰ、the control principle

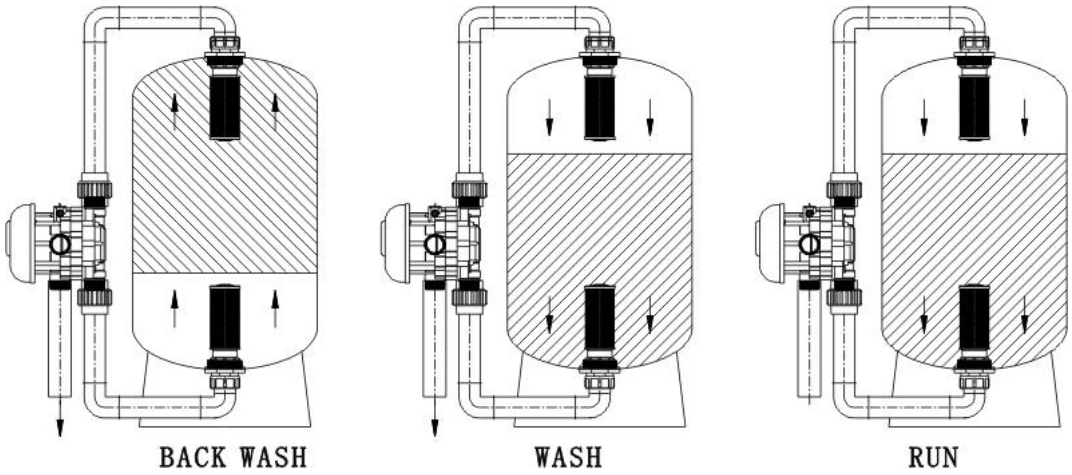


Figure 1：Control principle

Ⅱ、 The controller instructions

The operation button.:

Manual switch; **Parameter setting**; **Mode switch**; ▶ : **Move to next** ▲: **Plus 1**

A、**Unlock**：Push tow button meantime"▶ "&"▲"，Displaying "■"

B、**Lock**：Equipment without any operation after 3 minutes, automatic to lock

C、**Mode switch**：Unlock state, the operation button in time mode "and flow Mode display to switch between.

D、**Manual switch**：Unlock state, when pushing the button the valve switch to next station 。

E、**Parameter setting**：Unlock state, press the button and the screen will show the interface of setting parameters.

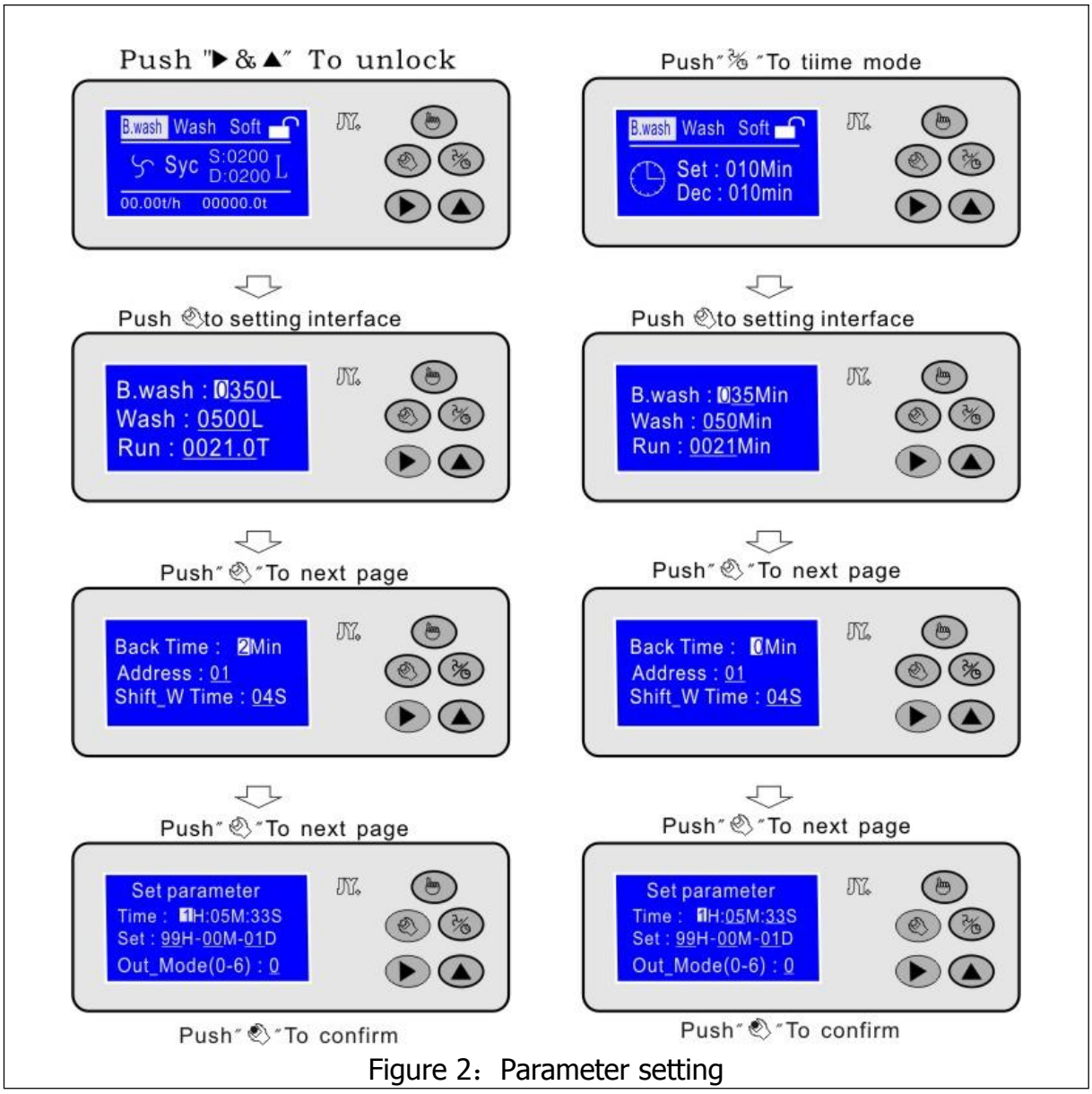


Figure 2：Parameter setting

Back Time: It is time of LCD Screen back light on

Address: Set the device definition to be used and used only when extending 485 communication modules.

Shift_W Time: Set only when installing inlet solenoid or electric valve, solenoid for 7 seconds, electric valve for 28 seconds.

Set parameter(Delay back wash): Delay back wash function, According to the system for 24 hours, the default 99 is to cancel the delay, set the range of 0-23 hour representing an hour 1 day, **00M** is minutes, **01D** means once of 1 day. Detailed explanatory bellow***(Delay back wash)*.**

Output mode(0-6): Represent the extension control output functions, external booster pump from spreading. Detailed explanatory to see *"Electric valve"*、*"Booster pump" relay output interface: mode setting* .

Input/output control instructions

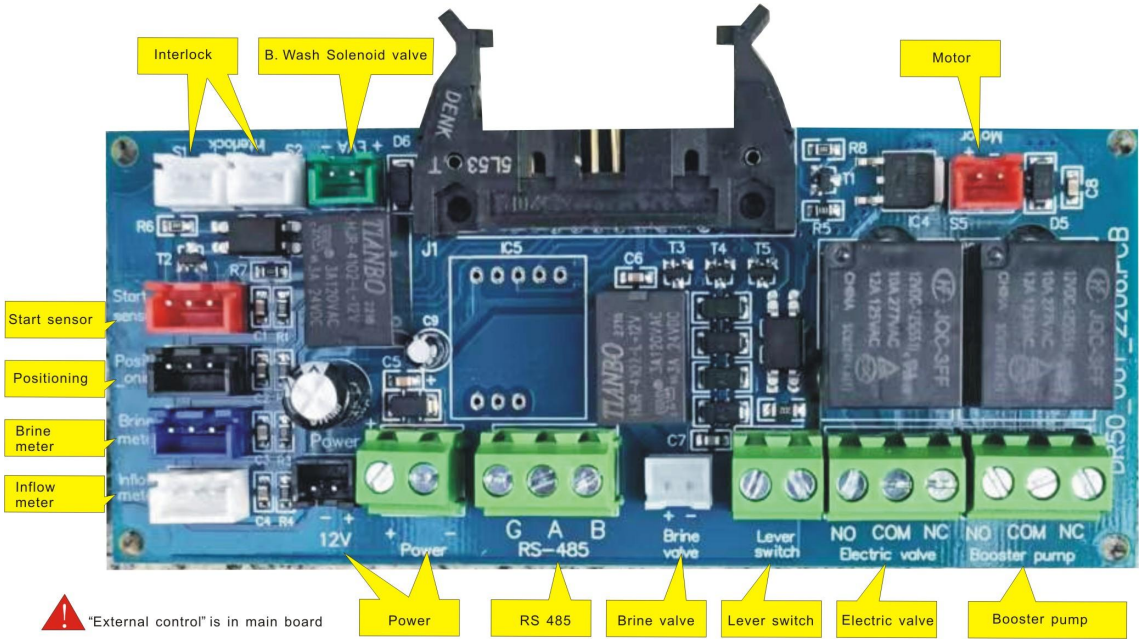


Figure 3：Output board

1、S1\S2: Interlock line connection as below

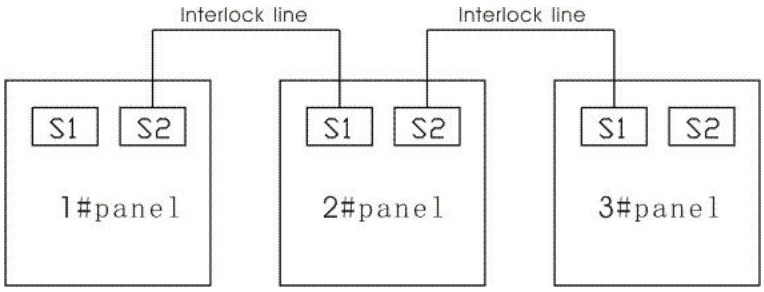


Figure 4：Parameter setting

2、RS-485: The communication port

This function according to user requirements to add 485 communication protocol

3、 "Electric valve" relay output**:** Inflow water electric valve or Solenoid valve (figure 5)

It can be Mode set,refer to the follow table

4、 "booster pump" relay output**:**back wash booster pump or high pressure pump

5、 "Lever Switch" ：Water level switch(figure 5):

If it receive one close signal, Controller display " **Water box is full**", the inflow electric valve or solenoid shut down.

Attention! Water level switch is receive close signal , active signal can not access!

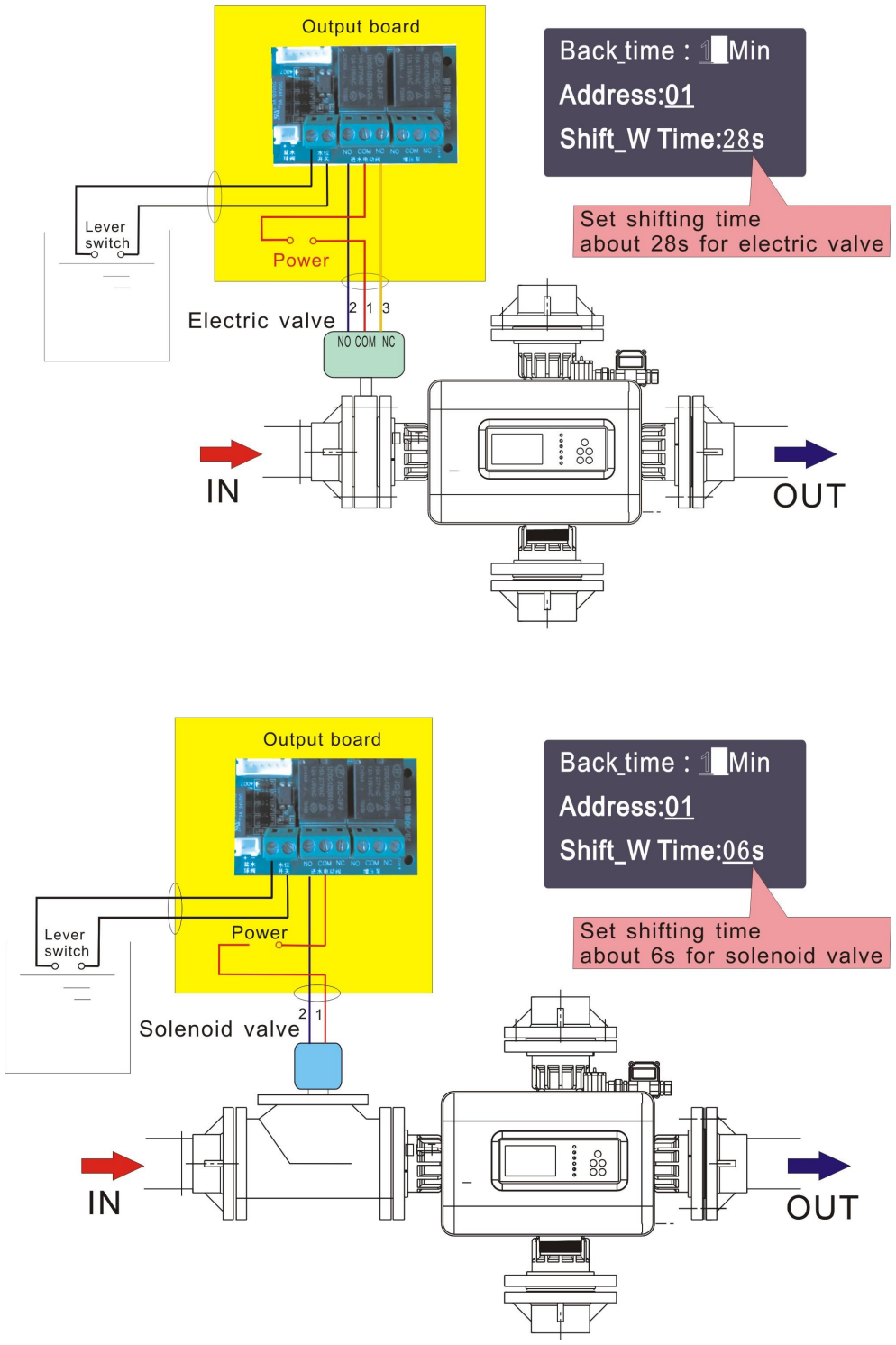


Figure 5：Output board, Electric valve and solenoid valve internal wiring diagram

6、"Electric valve"、"Booster pump" relay output: mode setting

A、the capacity for contacts. Relay 5 A / 250 V.

B. Relay output port, NO(Normally open) , COM (common port),NC(Normally closed)

C. In connection AC220V power output relays, input to meet leakage circuit breakers.

Different mode, the relay output NO and COM, below:
(Connected to "C", disconnect for "x")

Mode	Relay	B.Wash	Wash	RUN	Shift	Applications
0	Electric valve	**C**	**C**	**C**	×	**Inlet electric valve mode:** relay break when shifting station.
1	Booster pump	**C**	**C**	×	×	**Booster pump mode:** Backwash booster pump start-up.
2		×	×	**C**	×	**Pump starting mode:** for the subsequent reverse osmosis high pressure pump starting.(default mode)
3	Electric valve	**C**	**C**	×	×	**Tow valve one RUN & one standby mode:** .this mode is for soften valve.
4		**C**	**C**	×	×	**Backwash respectively mode**: as shown in figure 6.
5	Booster pump	×	×	C×	×	**CX(Mode2 additional conditions) :** When the inlet flow meter check the water flow signal in **RUN** station.the Relay is Connected.
6		C	×	×	×	**Backwash booster and compressed air mode**

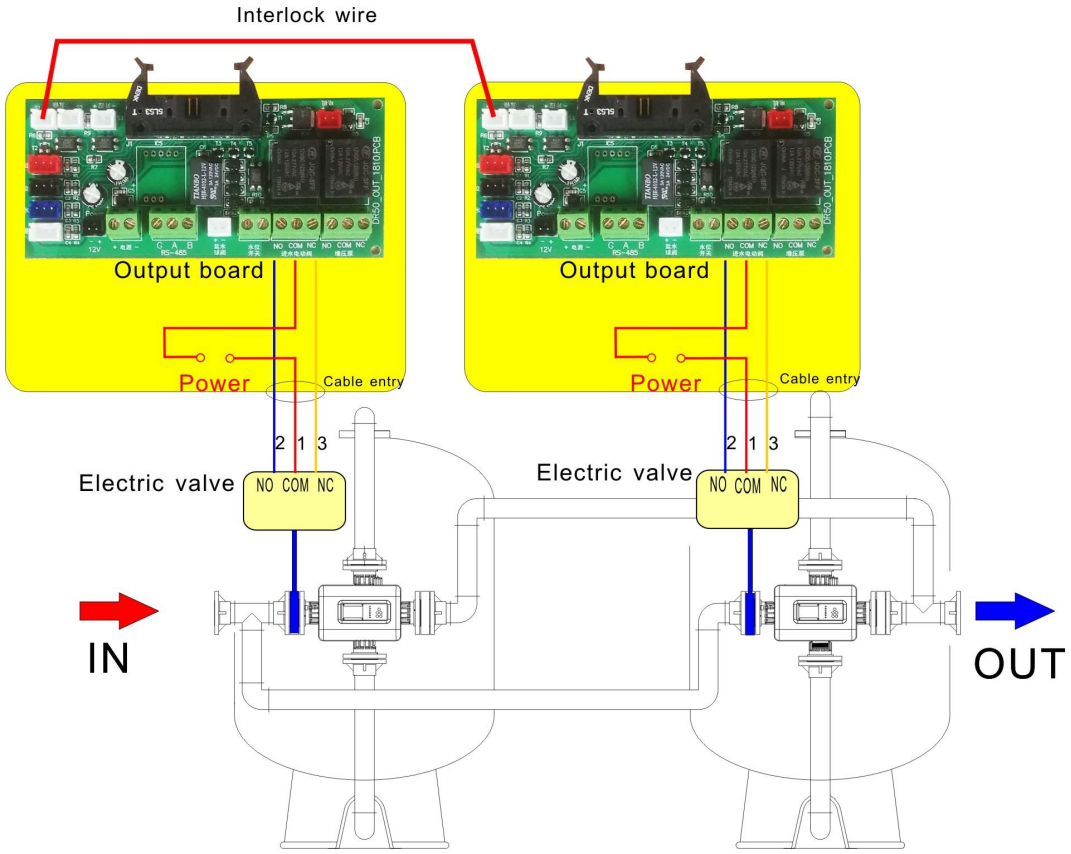


Figure 6：Mode (4) two valve At the same time RUN and backwash Respectively

(When one of the valves determines that the other valve enters the **B.Wash** *and* **Wash***, close its own water inlet electric (magnetic) valve to realize the backwash of the other valve with large amount of water)*

7. "-E_in+" The external switch priority control interface

When the valve is in a station of "**Run**", the valve can through external control system control the valve into the **B.Wash** and **Wash.**

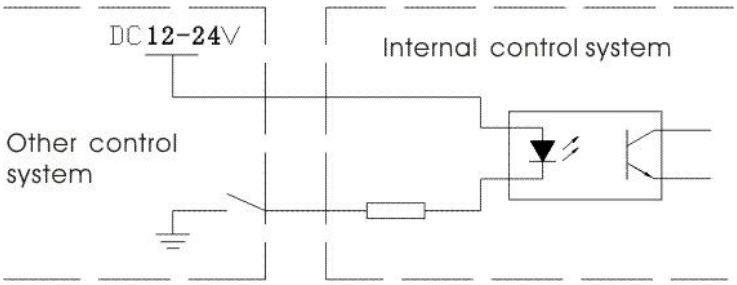


Figure 7：External switch priority control instruction

8. Delay back wash(Set parameter)

As the function is enable, When the set digital of **Run** station decrease to "0", the valve does not shift to the next and stays at the "**Run**" until the preset 0-23 clock begins to back wash. If the user back wash according to the set day as the unit of time, change the value -01D, at the same time, the setting time of **Run** station shall not be more than 1 day (1440 minutes)in time mode or the water amount set in the flow mode, shall be guaranteed to run within one day. To cancel functions, simply set to "99".

III .Conditions of use

1, The equipment must be installed the water filter in the feed water pipe to prevent clogging;

2, When the water source is well water or low water tank provided by the inlet pressure for the feed pump, A check valve shall be installed in the feed water line to prevent the feed water in the equipment from back flow when the pump stops. The outlet pressure of the equipment outlet pipe should be kept constant.

3, Equipment installed in the indoor, the working environment should be 1 ℃ temperature 45 ℃, humidity is not too high, there should be no corrosive chemical gases, control valve note waterproof. Strong electromagnetic interference may have influence on the normal work of the device. Environment should be tolerated to some extent the leaking equipment accident.

4, The water pressure 0.10MPa ~0.6 MPa, less than 0.10 MPa should add booster pump, above 0.6 MPa should add pressure reducing valve.

IV、Install

1 The Valve body geometry size

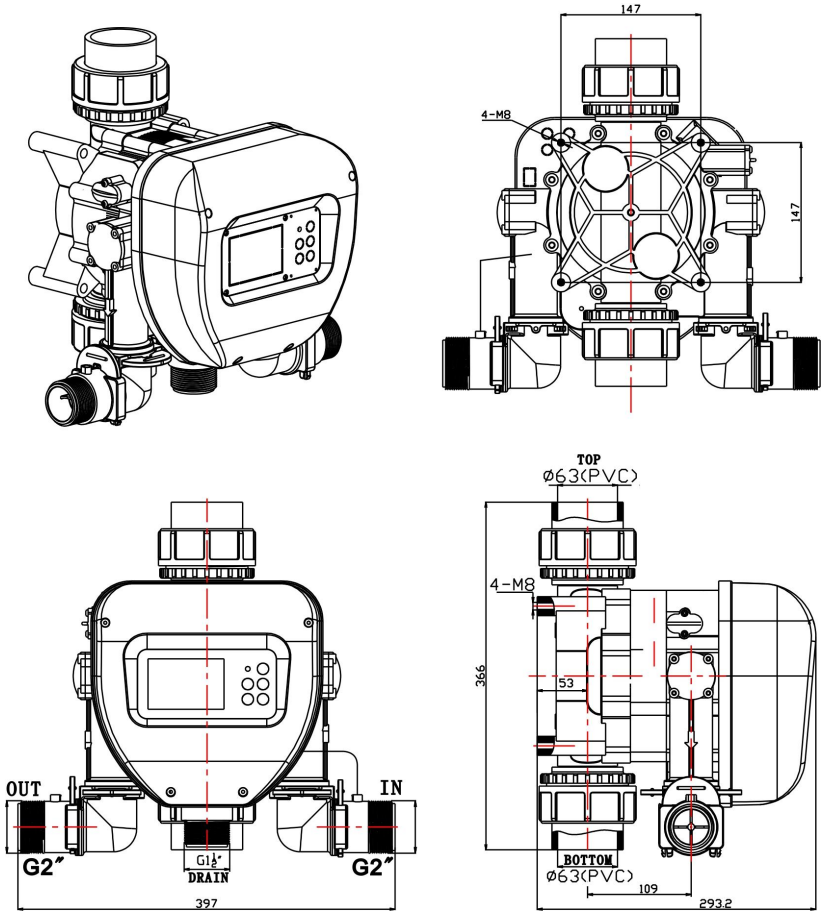


Figure 8：GL15 valve body geometry size

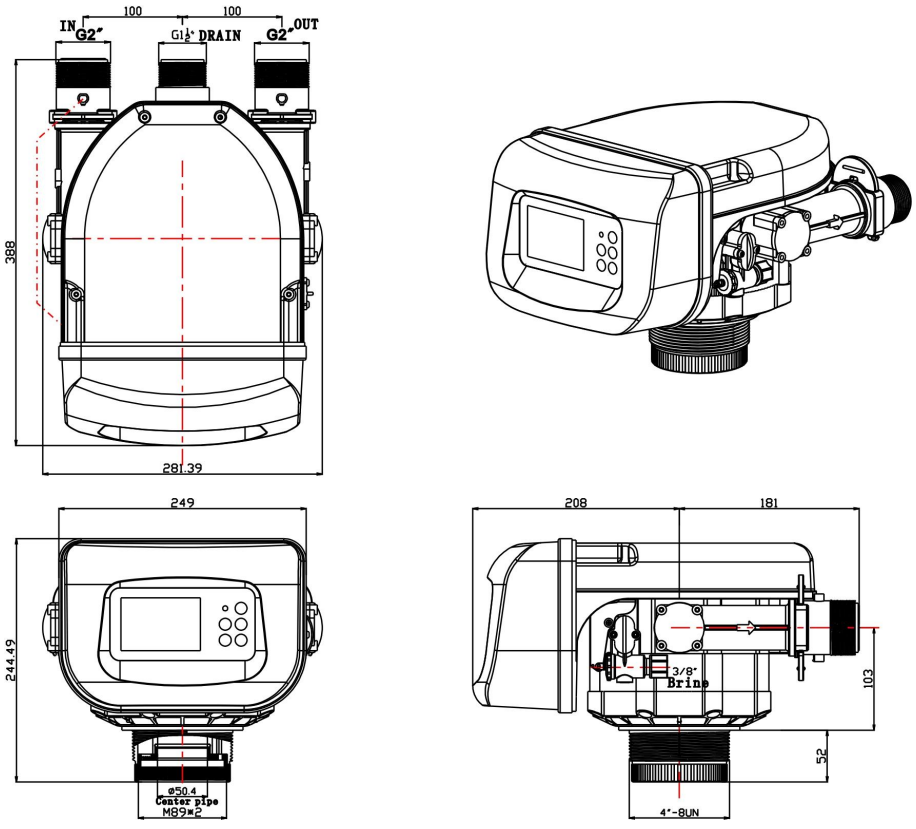


Figure 9：GL15T valve body geometry size

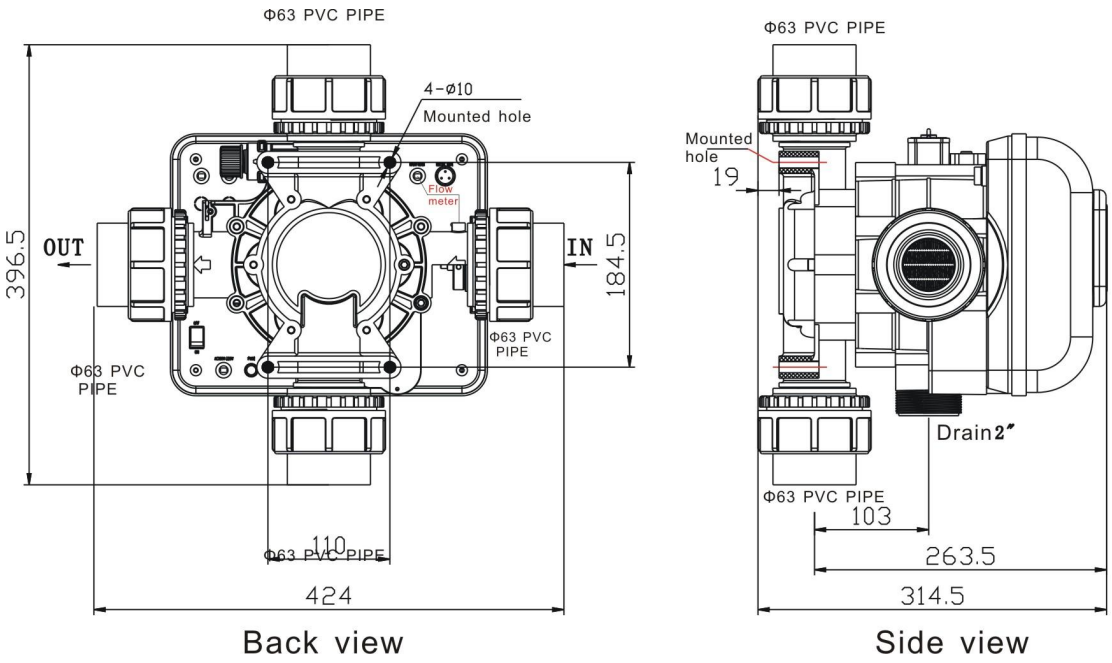


Figure 10：GL20 valve body geometry size

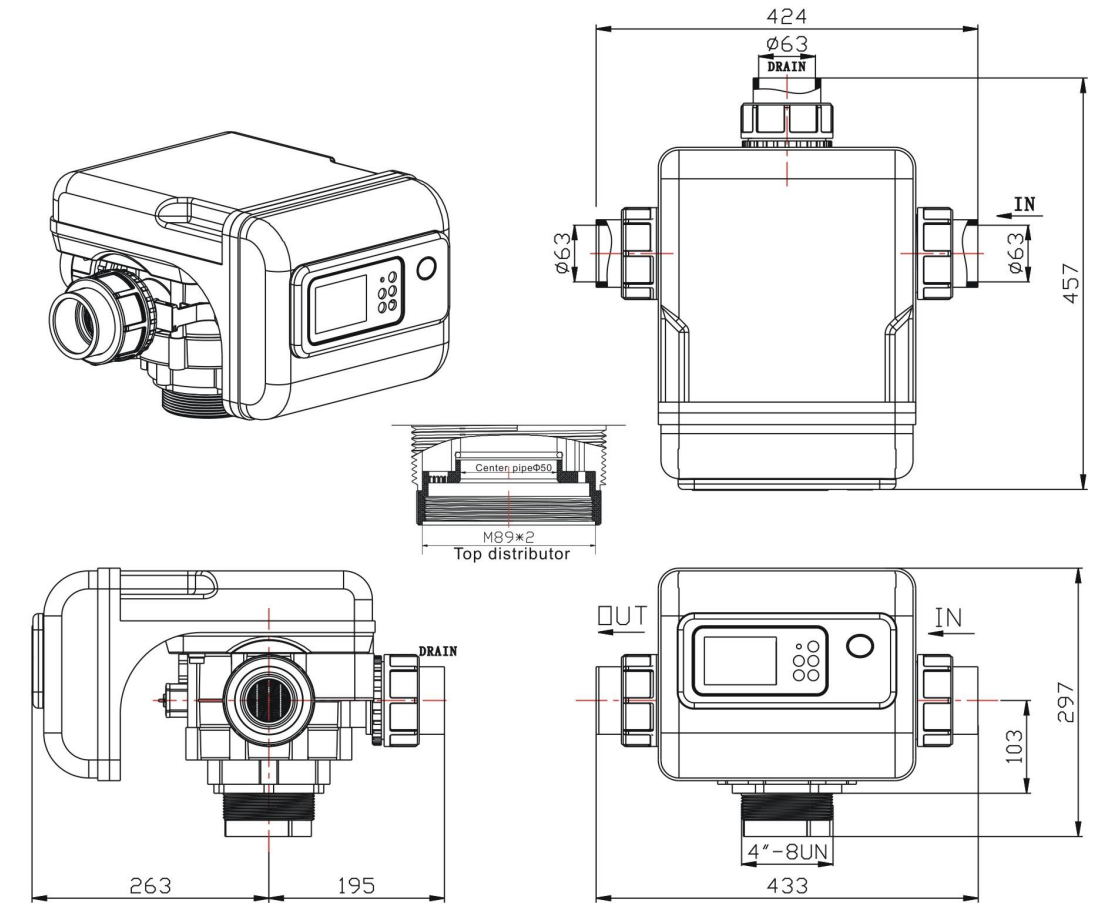


Figure 11：GL20T valve body geometry size

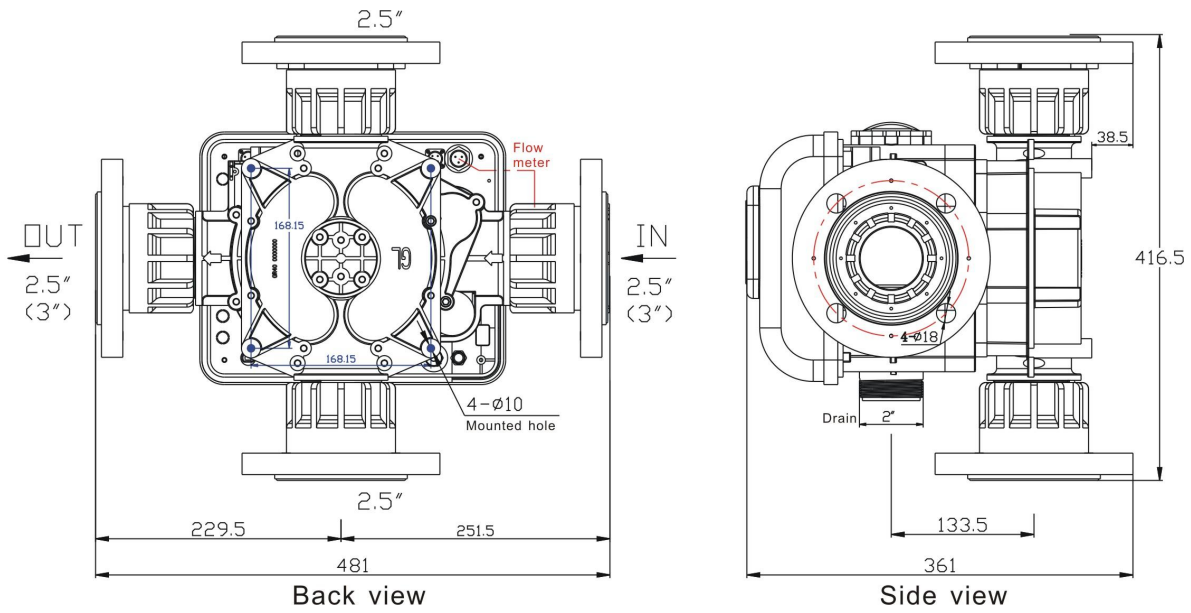


Figure 12：GL40 valve body geometry size

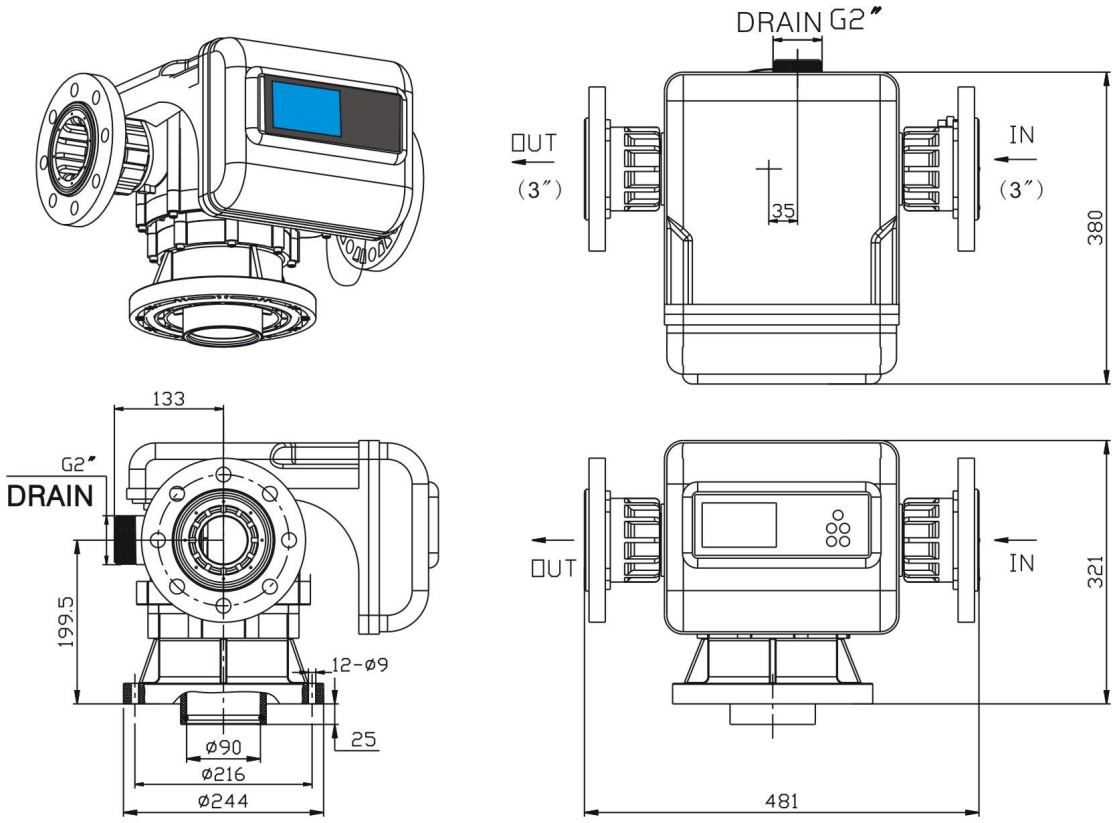


Figure 13：GL40T valve body geometry size

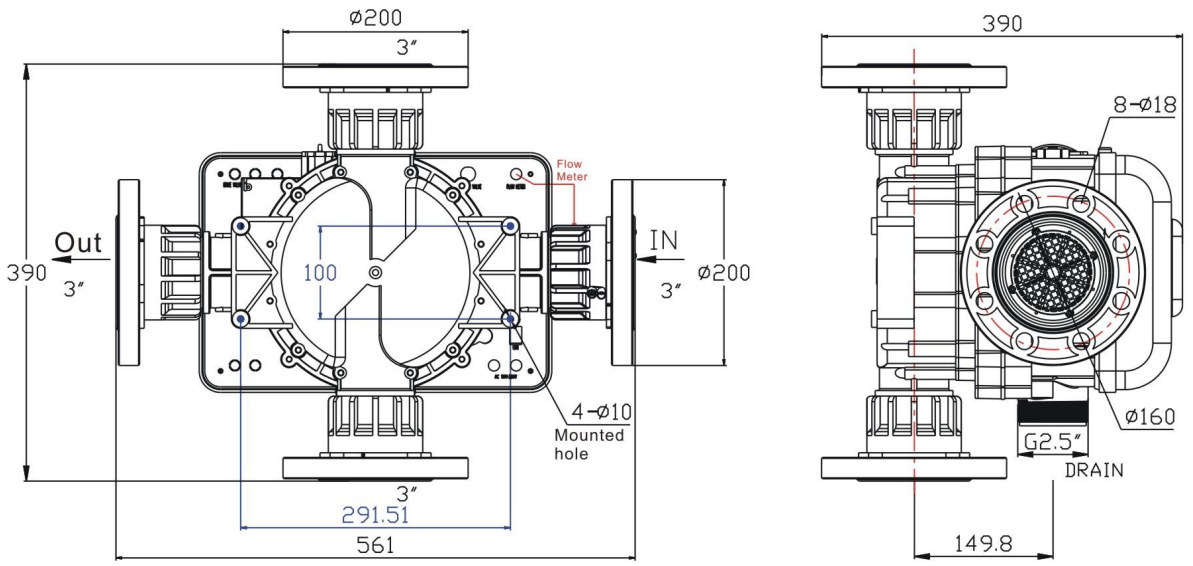


Figure 14：GL50 valve body geometry size

2 Independent seat installed

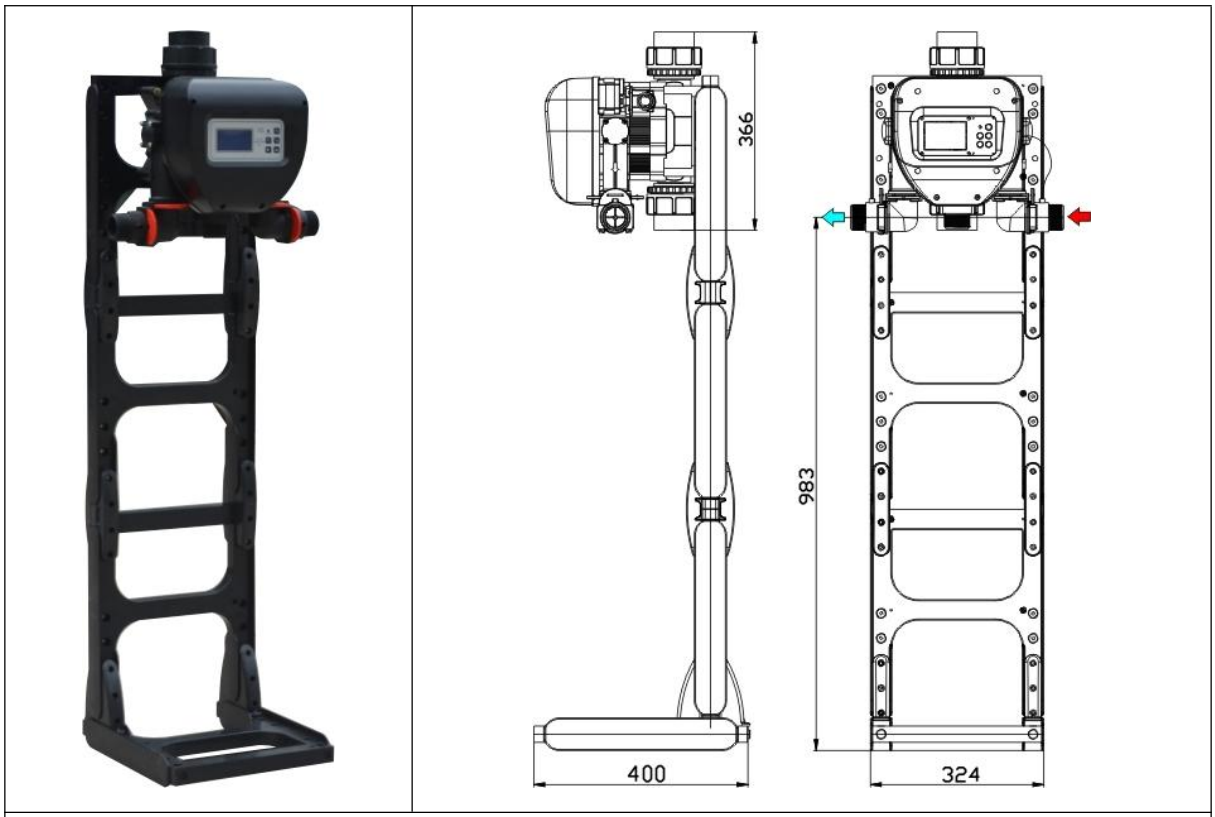


Figure 15：GL15 valve seat

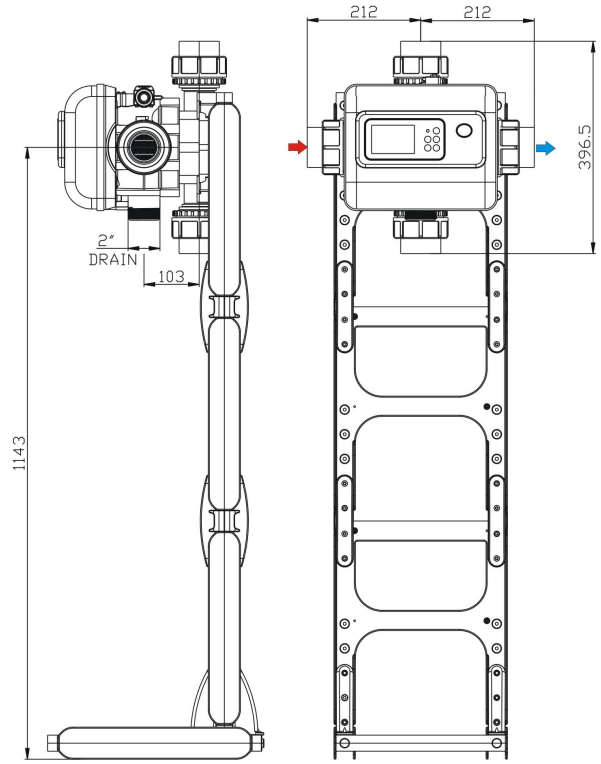


Figure 16：GL20 valve seat

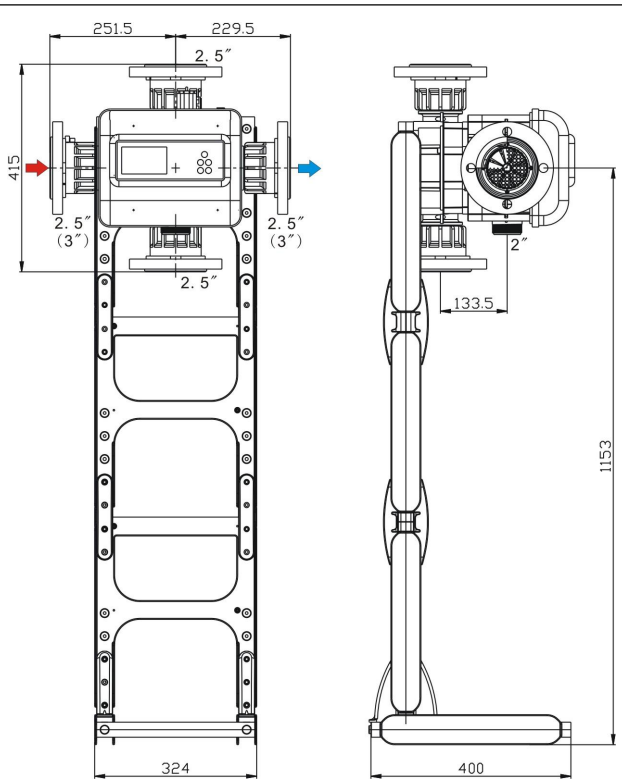


Figure 17：GL40 valve seat

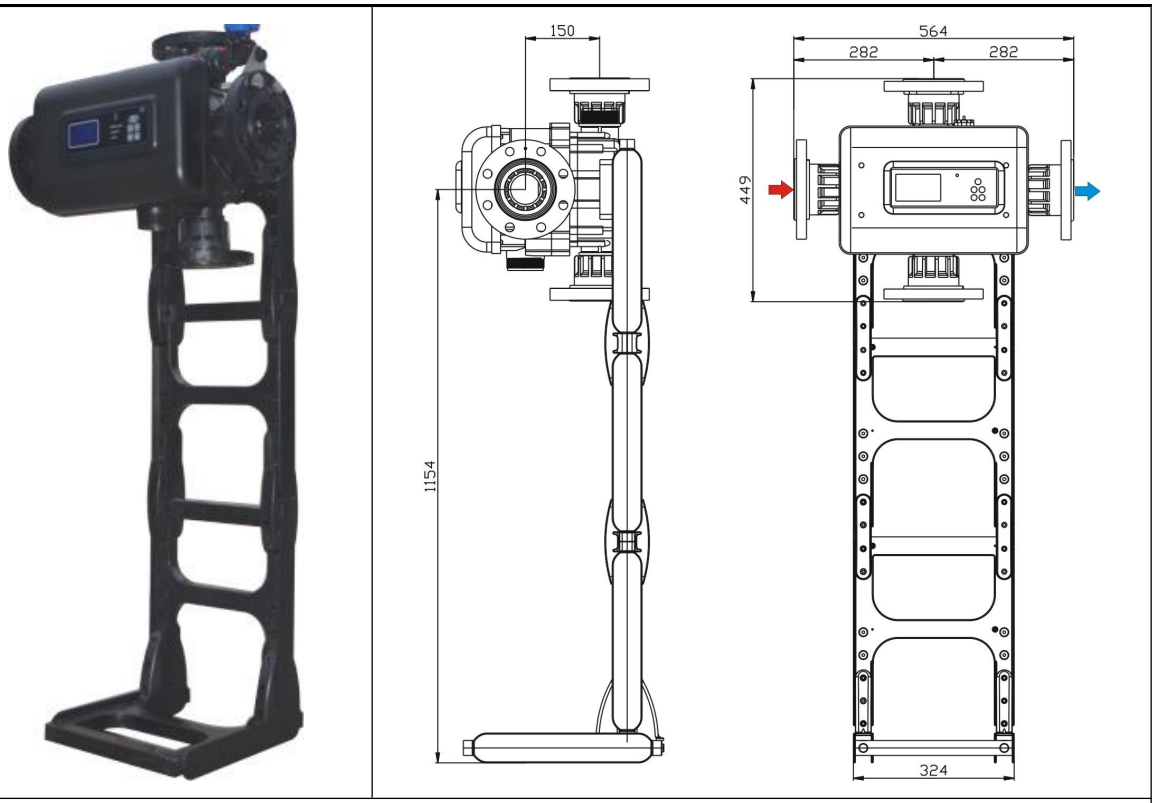


Figure 18：GL50 valve seat

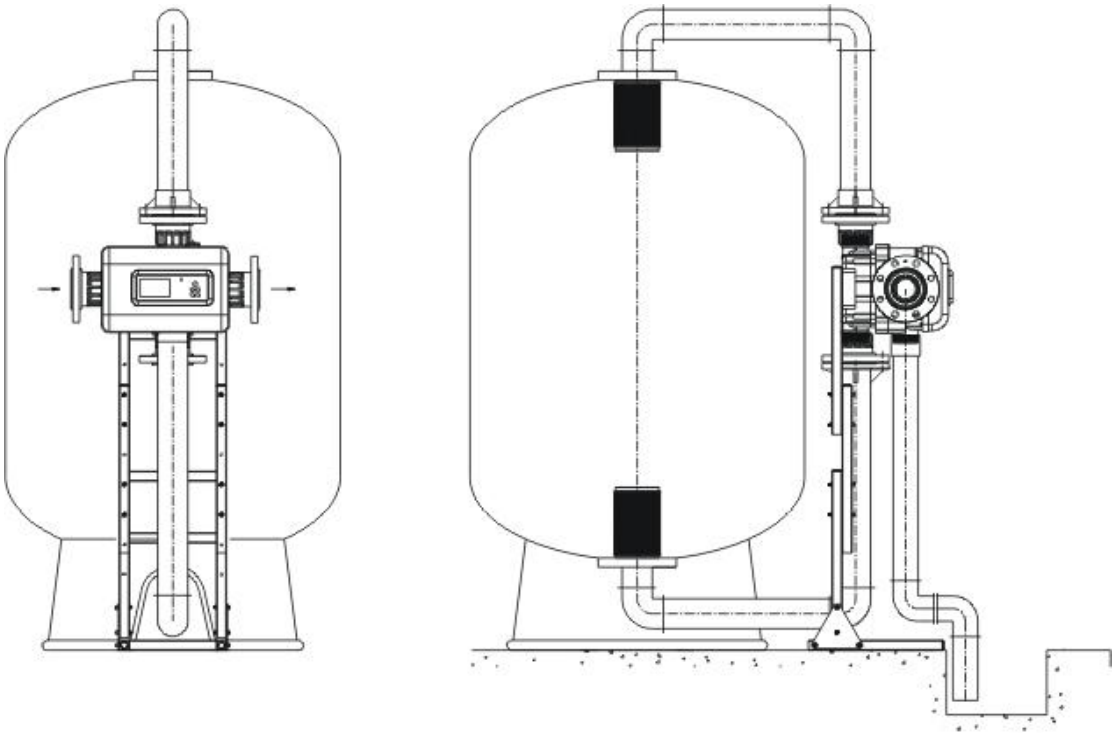


Figure 19：Control valve installation elevation

V、Decomposition, control valve body figure

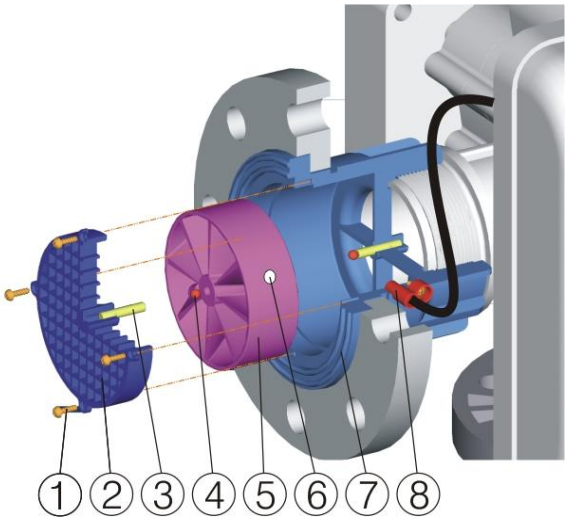


Figure 20：GL50\GL40 Inflow flow meter

1, Screw; 2, Grid mesh; 3, Ceramic shaft; 4, Ceramic beads; 5, Impeller; 6, Magnets; 7, Flange Sleeve; 8;Sensor

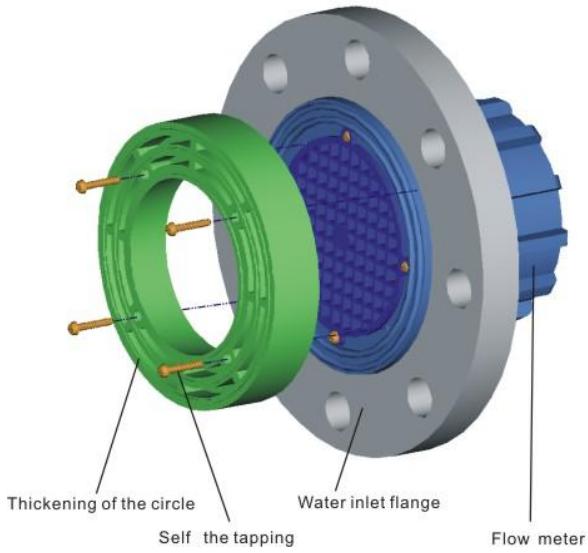


Figure 21：GL40\GL50 Thickening of the inlet butterfly valve

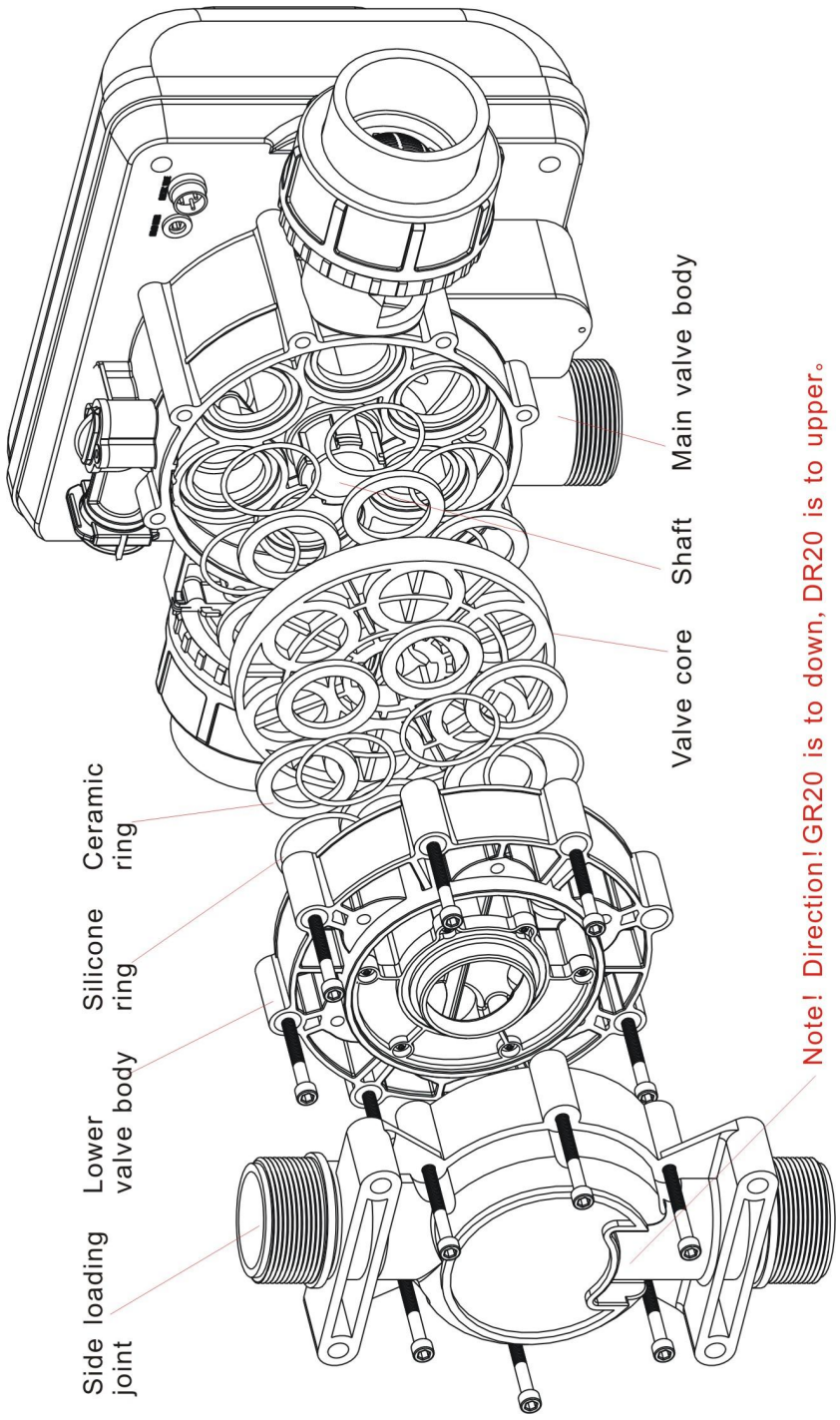


Figure 22: Valve core (GL20 example)

Note!

1, Valve body removed should be placed on the platform or on the ground, careful ceramic ring fall break.

2, On both sides of the valve core ,the ceramic ring smooth side for the valve core.

3, The position of the valve core, should according to remove the Angle, if you don't remember the removed state to ensure that the valve core hole first aim at any pair of valve port, manual shift circuit automatic alignment.

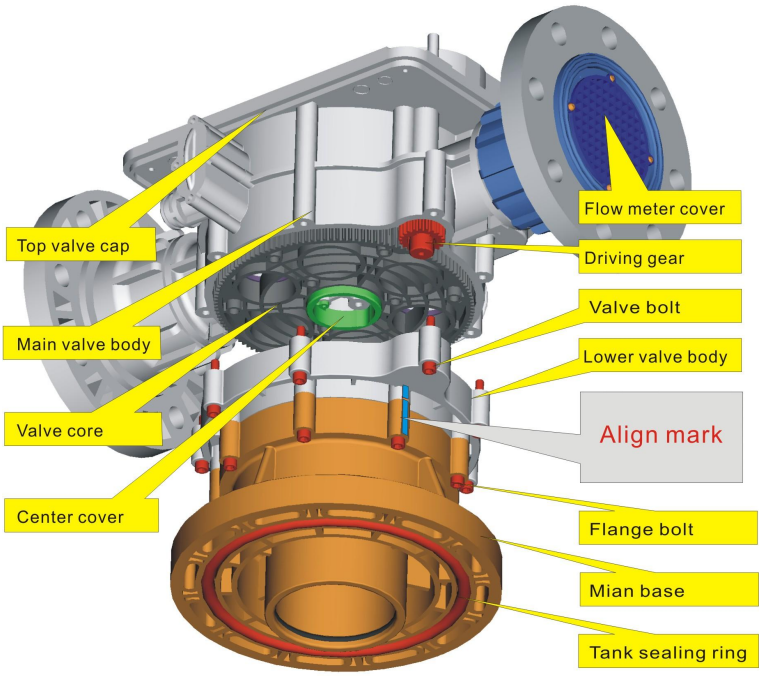


Figure 23：GL40T　lower valve body disassembly

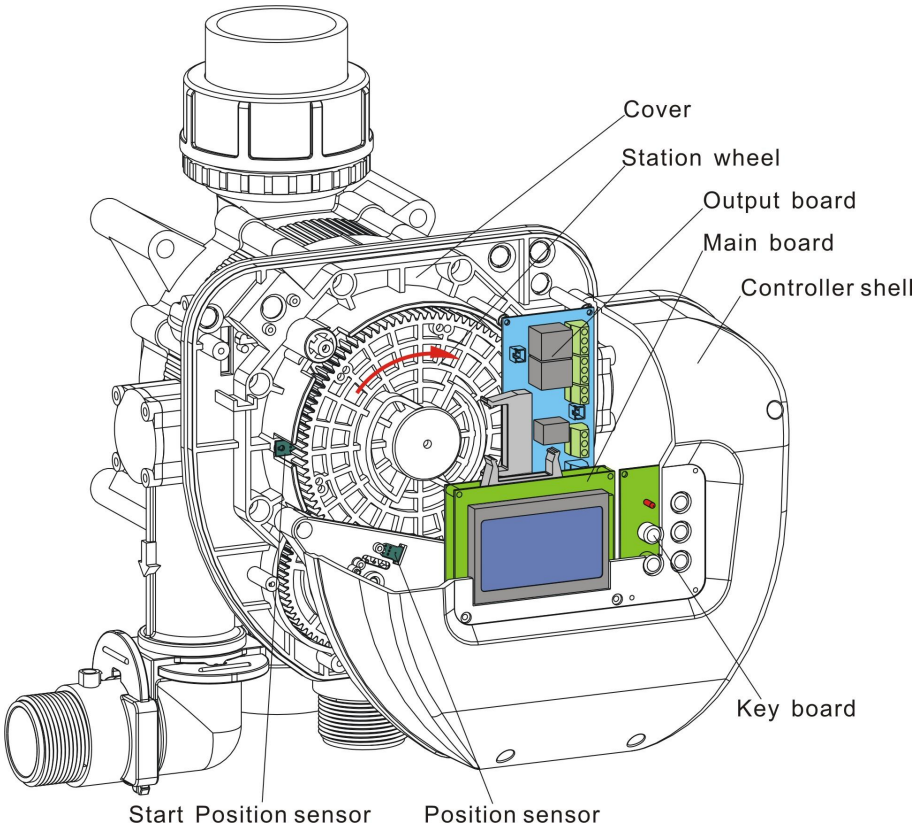


Figure 24：GL15 Controller disassembly

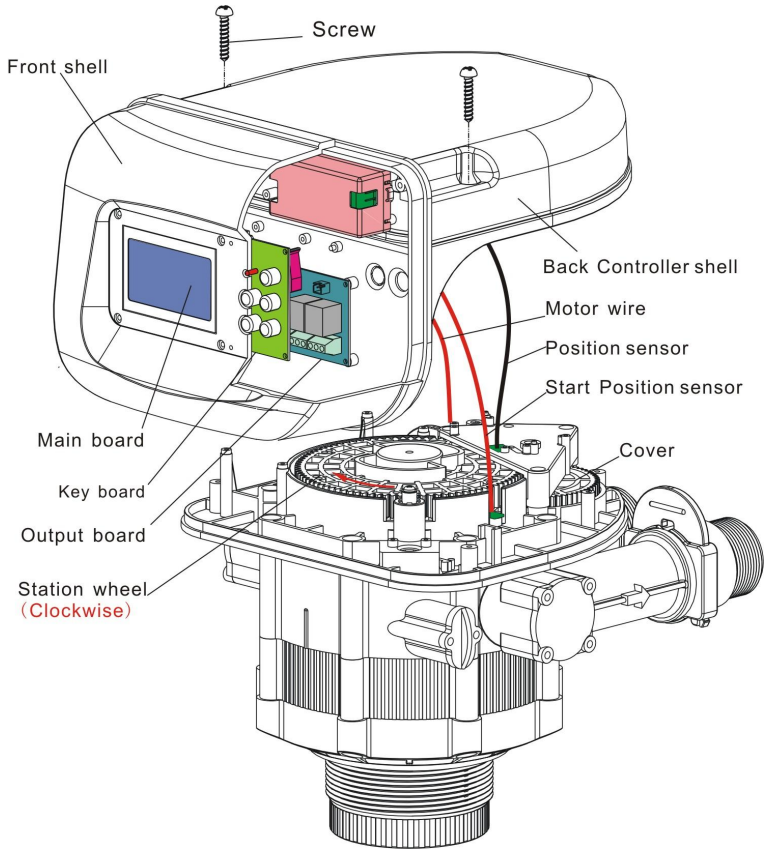


Figure 25：GL15T Controller disassembly

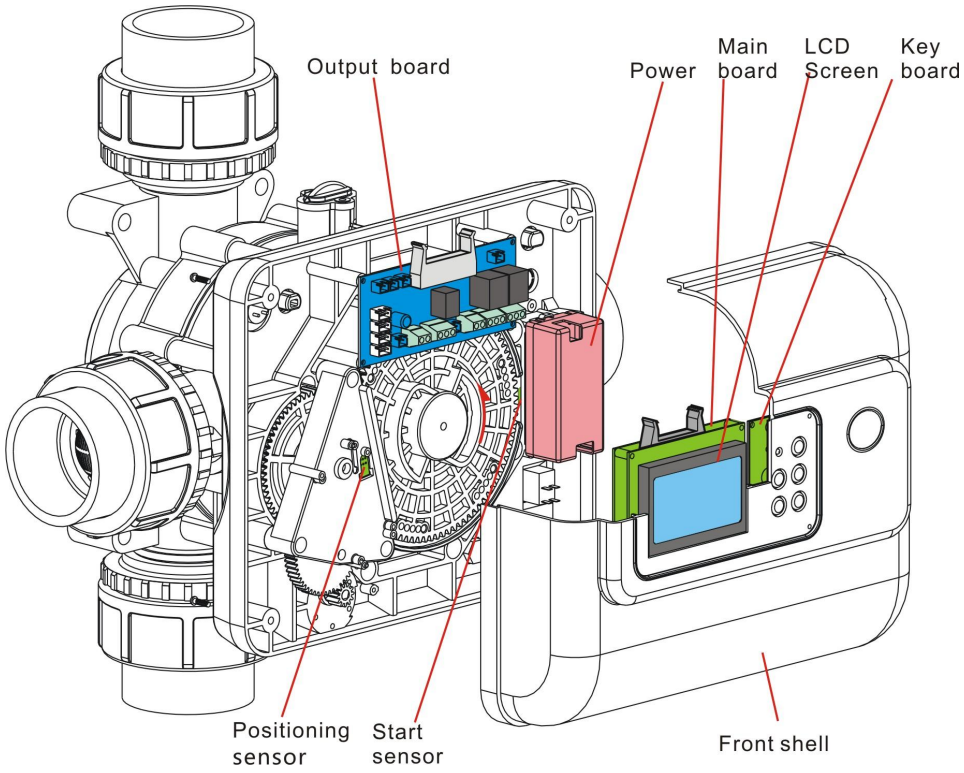


Figure 26：Side loading Controller disassembly (GL20 example)

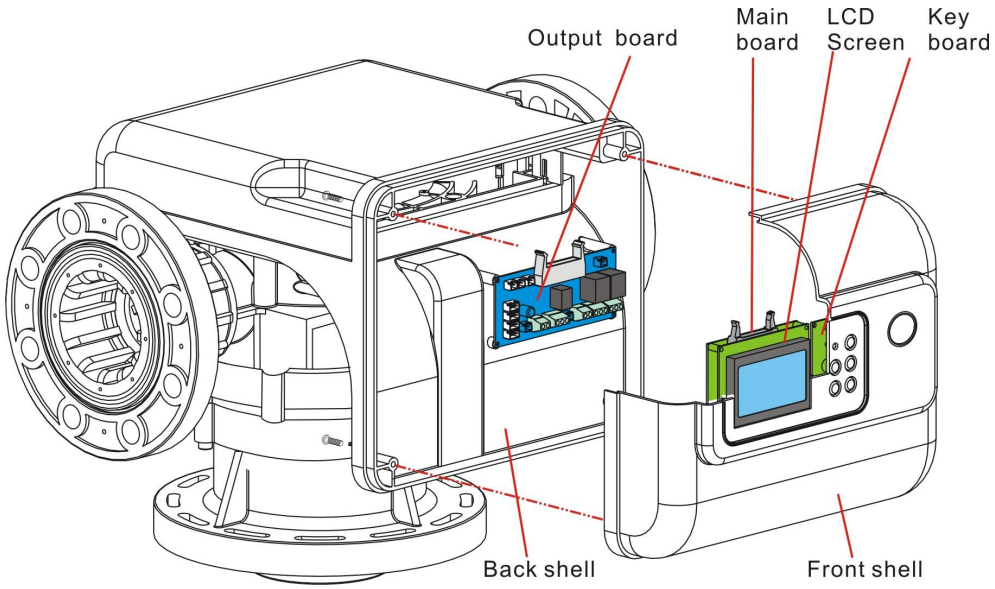


Figure 27：Top loading Controller disassembly (GL40T example)

VI、The flow Rate of pressure curve

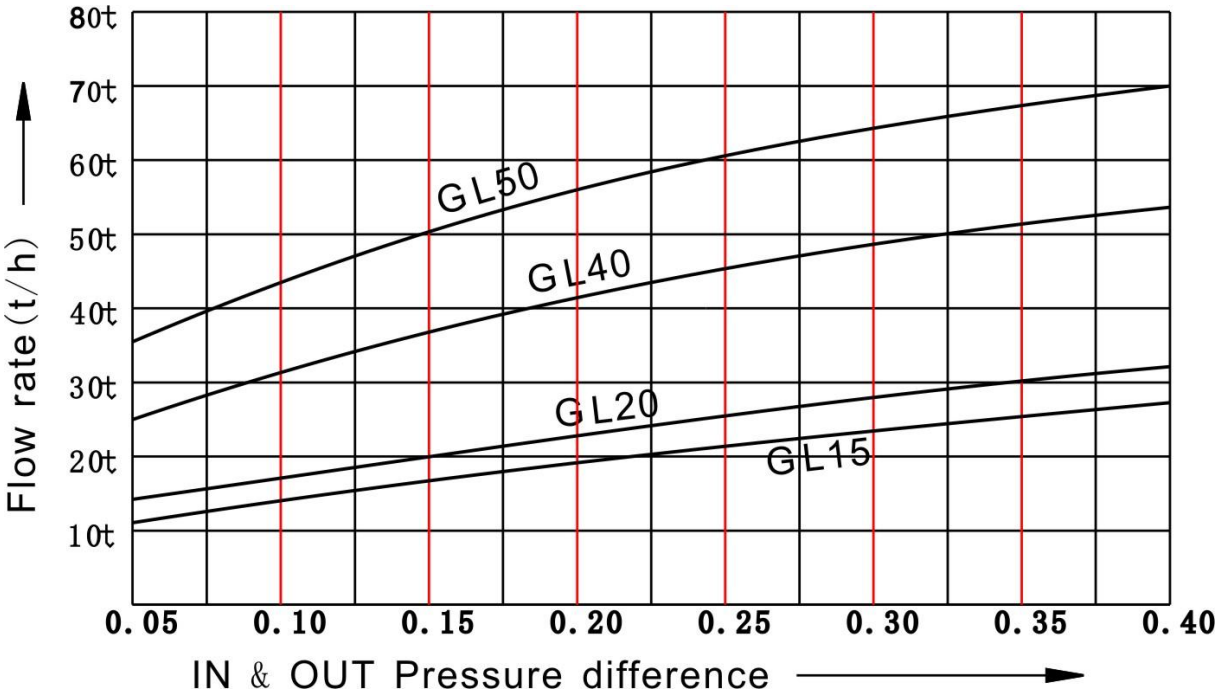


Figure 28：Flow Pressure curve for the Valve