

STATIC BALANCING VALVE “LS JT”



Specification

- Size: DN15~DN50
- Pressure: PN16
- Working temperature: -10~120°C
- Connection: thread
- Hydroport(testing point): G 1/4" F
- Medium: water, ethylene glycol mixed liquid (max.50%)

Material:

- Body: CW617N
- Insert: CW617N
- Stem: CW617N
- Sealing: EPDM
- Hand wheel: ABS
- Hydroport(testing point): CW617N

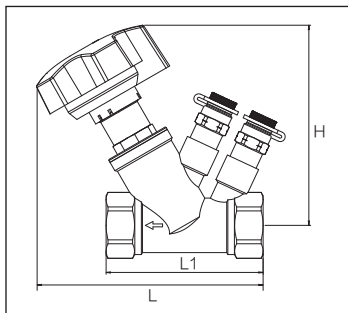
Characteristic:

- Precise flow control
- Compact structure and small installation space
- Digital hand wheel opening indicator, accurate adjustment
- Opening locking function
- Shutoff function, turn off by hand wheel with self-sealing pressure testing port

Static balancing valve is used in heating and air-conditioning systems. It can balance the flow in each branch or each end in order to meet the hydraulic balancing of each branch.

The comfortable and energy-saving purpose can be realized. LS JT static balancing valve can control the opening and flow presetting exactly by adjusting the hand wheel.

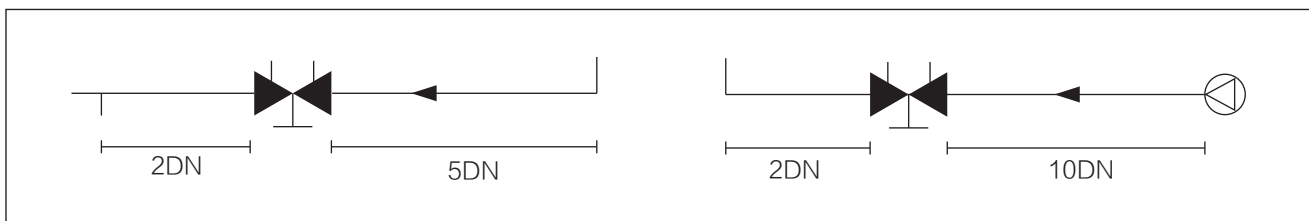
SIZE



Item	VALVE BODY SIZE	L1(mm)	L(mm)	H(mm)
LS JT15	DN15	77	113	94
LS JT20	DN20	82	118	105
LS JT25	DN25	92	128	114
LS JT32	DN32	105	142	131
LS JT40	DN40	115	151	140
LS JT50	DN50	131	161	151

INSTALLATION

Before installing the valve, the pipe should be rinsed totally. The static balancing valve should be installed in the water flow direction indicated by the arrow of the valve body. It can be installed on the water supply pipe or the return pipe. Static balancing valve can be installed horizontally or vertically. Generally it is installed on the return pipe of the system. When it works with the dynamic differential pressure balancing valve, it is installed on the supply pipe. The installation position should be easy for manual adjustment. In order to balance the flow more accurately, a straight pipe should be installed at both the upstream and downstream ends of the static balancing valve(see the figure below).



SELECTION

According to the differential pressure Δp front and back of the valve and the designed flow q , Kv value can be calculated according to the flowing formula.

$$Kv = 0,01 \frac{q}{\sqrt{\Delta p}} \quad q \text{ l/h, } \Delta p \text{ kPa}$$

Δp — Differential pressure front and back of the valve.

It can be measured by the pressure testing port

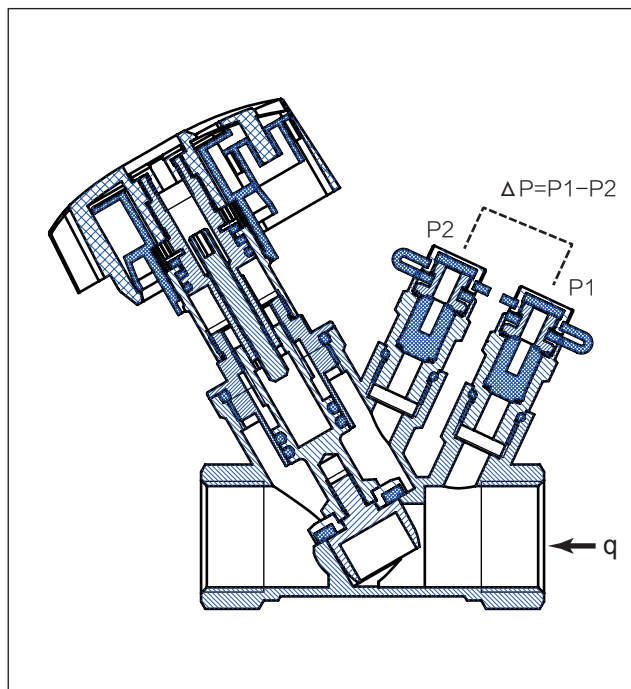
q — flow of the branch where the valve is installed

According to the calculated Kv value, combined with the KV data table of the static balancing valve (below), it is appropriate to choose a valve with an opening degree of more than 75%.

For example: the designed flow $q=950\text{l/h}$ of a branch in an air-conditioning system, $\Delta P=10\text{kPa}$, to select a static balancing valve.

From the above data, $Kv=0.01 \times 1000 / \sqrt{10} \approx 3.00$

By checking the flow curve of DN20 static balancing valve (see the following figure), the opening is set to 4.0

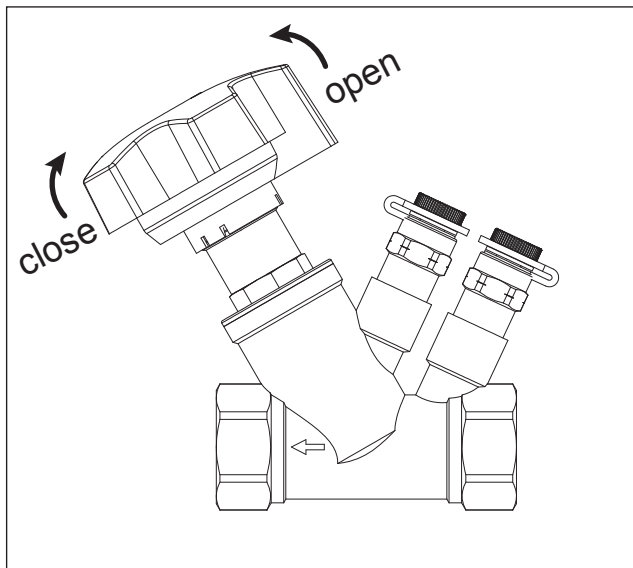


KV DATA

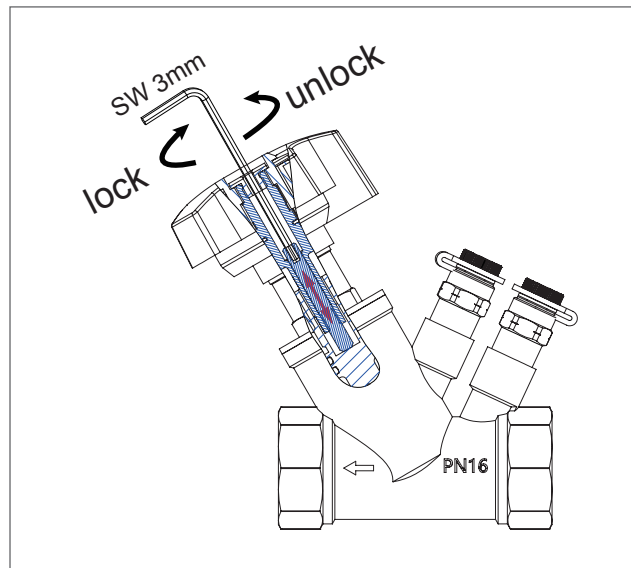
SIZE SETTNG	DN15	DN20	DN25	DN32	DN40	DN50
0.5	0.19	0.30	0.39	1.18	1.19	3.16
1.0	0.24	0.44	0.58	1.80	1.82	5.04
1.5	0.32	0.58	0.79	2.49	2.60	7.27
2.0	0.46	0.73	1.05	3.35	3.53	9.31
2.5	0.62	0.89	1.36	4.27	4.60	11.81
3.0	0.82	1.22	1.70	5.45	5.84	14.50
3.5	1.05	1.97	2.08	6.79	7.13	17.72
4.0	1.38	2.98	2.56	8.46	8.41	20.86
4.5	1.87	4.32	3.85	10.32	9.50	24.52
5.0	2.36	5.62	5.92	12.86	11.26	28.28
5.5			7.48	14.60	13.35	32.59
6.0			8.81	17.00	15.86	37.43

PRESETTING AND LOCKING

Turning the hand wheel can set the opening of the static balancing valve. The hand wheel adopts ergonomic design to ensure the comfort of the operator and the accuracy of flow regulation. The scale on the hand wheel clearly indicates the opening of the valve insert. The required presetting value can be found by referring to the flow curve of the relevant valve specification. Any intermediate set point can also be reached by fine tuning. Reduce valve opening clockwise and increase valve opening counterclockwise. A locking hole is arranged in the middle of the hand wheel. The insert can be locked by using the SW3mm wrench. Turn clockwise to lock the current valve opening, turn counterclockwise to unlock.



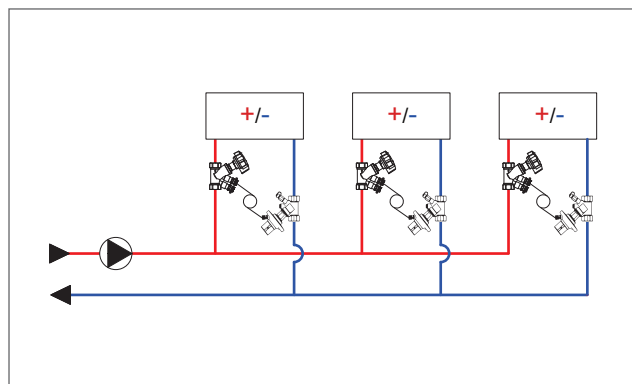
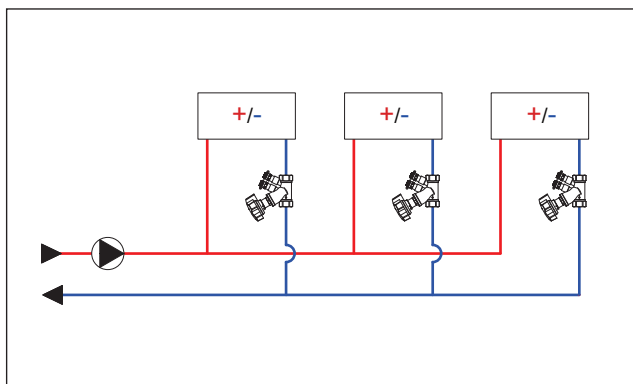
PRESETTING



LOCKING

APPLICATION METHOD

The static balancing valve can be used alone to control the flow of the system, or it can be used in conjunction with the differential pressure balancing valve. When the valve is installed, the water flow direction must be consistent with the direction of the arrow on the valve. In order to ensure the measurement accuracy, please ensure that there are straight pipe sections before and after the valve.



TRANSPORTATION

During transportation, the carton with valve should not be squeezed by heavy objects

When receiving the goods, please check whether the valve has been damaged on the way. If there is any damage to the goods, please give feedback immediately

STORAGE

Storage of static balancing valves must meet the following conditions:

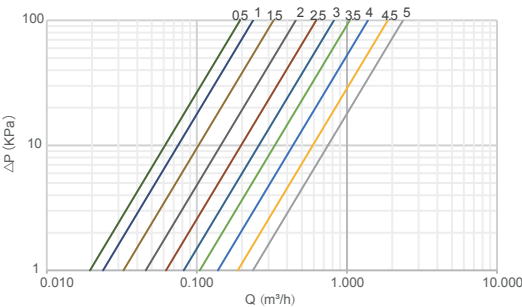
Do not store in the open air, should be stored in a dry, dust-free environment, should avoid direct sunlight

Do not store near the vicinity of corrosive fluids and high temperature heating elements

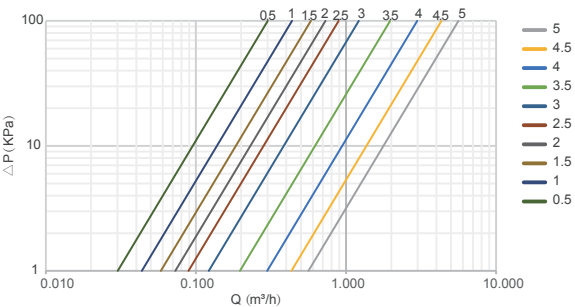
Ensure that the valve is not exposed to severe vibration

FLOW CURVE

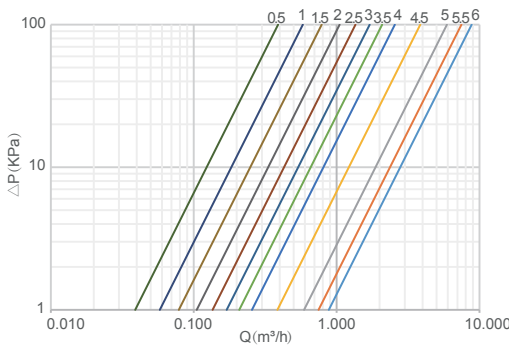
DN15



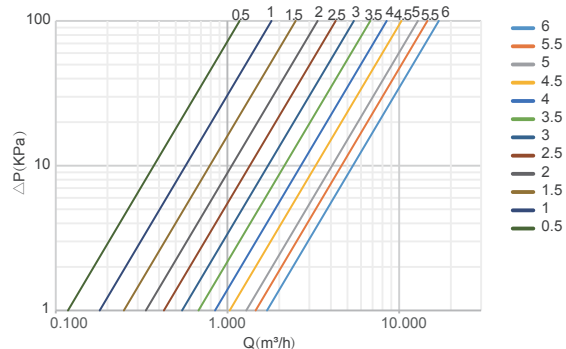
DN20



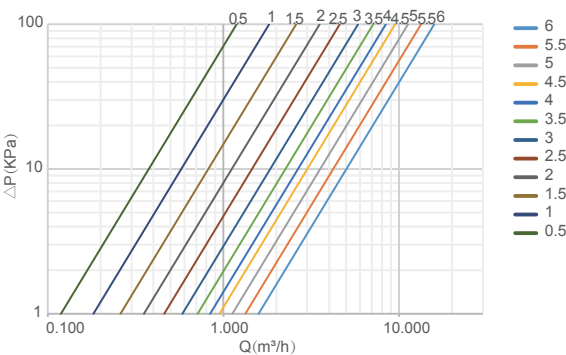
DN25



DN32



DN40



DN50

