

## Dynamic Flow Balancing Valve ( DN15–DN40 )

### Application:

The series SFV Dynamic Flow Balancing valve is solved by the out of balance in hydronic systems about pipe network for fluid supply. When the system pressure is within the scope of work pressure difference fluctuation, it can balance the change dynamically and maintain constant flow in pipe.

### Features:

- Dynamic Balancing: constant flow is achieved through the valve cartridge's auto-adjustment of the opening rate when  $\Delta P$  of the system fluctuates
- Precision calibrated valve plug keeps the flow deviation no greater than  $\pm 5\%$
- The flow rate is factory preset multiple  $\Delta P$  ranges available for each size
- No on-site commissioning is needed, saving time and labor costs
- No need of re-balancing after system changes



### Operating Principles:

• Acting as a simple orifice plate, the valve plug will fully open when  $\Delta P$  across the valve is below its control range. This allows the flow rate increases with the growth of  $\Delta P$  (Figure 1).

• If  $\Delta P$  is in the control range, the valve plug will adjust its opening in terms of the system's  $\Delta P$  change. This ensures a constant flow rate with a deviation no greater than  $\pm 5\%$  (Figure 2).

• If  $\Delta P$  exceeds the control range, the valve plug will work as an orifice plate again to achieve the smallest opening rate. And the flow rate increases with the growth of  $\Delta P$  (Figure 3).

•  $\Delta P$ -Flow Curve shows that in the in the working  $\Delta P$  range, the flow rate stay the same (Figure 4).

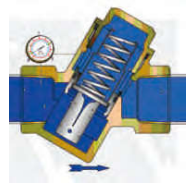


Figure 1

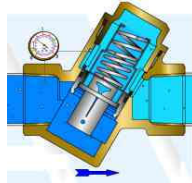


Figure 2

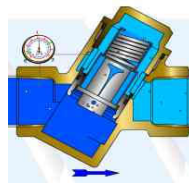


Figure 3

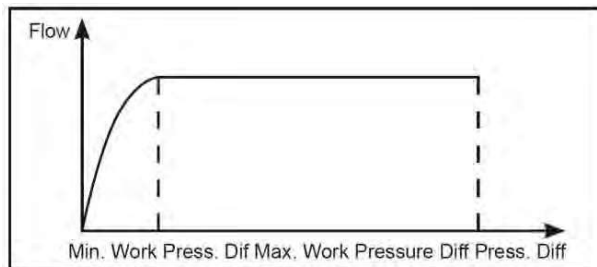


Figure 4

### Technical Specification:

Dimension: DN15–DN40

Working Temperature:  $0 \sim 110^{\circ}\text{C}$

Working Pressure: Pn25

Fluid Medium: Water / Ethylene Glycol

Connection: Threaded Connection

Connection Standard: GB/T 7306.1–2000

Material: ① Body: Brass

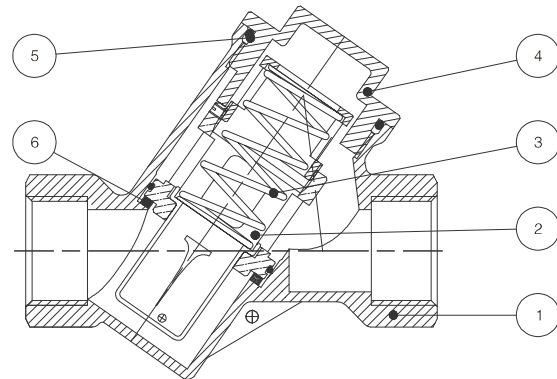
② Core: Brass/Stainless steel

③ Spring: Stainless Steel 304

④ Bonnet: Brass

⑤ O-ring: EPDM

⑥ Rubber Gasket: EPDM



## Dynamic Flow Balancing Valve ( DN15–DN40 )

### Technical Parameter:

Product Type:

Type	DN	Δ P Code	Δ P Range (Kpa)	Flow Range (m <sup>3</sup> /h)
SFV015–0SP02_ SFV020–0SP02_ SFV025–0SP02_	DN15	A	15–150	0.432–1.51
	DN20 DN25	B	20–200	0.54–1.98
		C	30–300	0.68–2.77
		D	80–800	1.00–4.18
		E	10–100	0.216–0.54
SFV032–0SP02_ SFV040–0SP02_	DN32	A	15–150	0.54–3.13
	DN40	B	20–200	0.68–3.67
		C	30–300	0.79–4.82
		D	80–800	1.44–7.52

\*According to design requirements, select a valve with suitable ΔP range. Design flow should be in the valve's flow range. More flow range and ΔP range, please contact us.

Coding Rules:

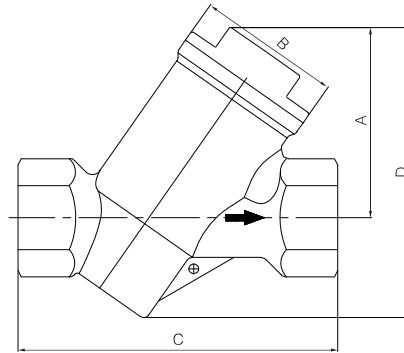
S	SUNFLU	S	FV	015–	0S	P02	A
FV	Dynamic Flow Balancing Valve						
DN							
015–DN15	020–DN20						
025–DN25	032–DN32						
040–DN40							
0S	Two-way Threaded						
PN							
P02	PN25						
Range(Kpa)							
A=15–150	B=20–200						
C=30–300	D=80–800						
E=10–100							

### Installation:

Attention:

- according to valve type, Select suitable valve and prevent error flow or different pressure.
- Attention to system pipe exhaust, system storage, it caused the media to jam, adjust the function failure, or too much noise.
- The valve can be installed horizontally or vertically. The direction of the arrow head on the valve body must accord with the direction of the flow. Wrong installation will lead to clog in the system.

### Dimension:



DN	Threaded	A(mm)	B(mm)	C(mm)	D(mm)
DN15	Rp1/2	60	Φ45	100	90
DN20	Rp3/4	60	Φ45	100	90
DN25	Rp1	65	Φ45	110	95
DN32	Rp1 1/4	80	Φ55	140	110
DN40	Rp1 1/2	84	Φ55	145	115