



FlowCon SH

Dynamic circuit balancing

FlowCon SH

Adjustable Dynamic Self Balancing Valve

The FlowCon SH series of valves are dynamic flow controls which automatically limit the rate of flow to a pre-set, adjustable maximum limit.

Used as automatic/dynamic hydraulic balancing valves in multicircuit HVAC systems their most common applications include, multiple fan coils, radiators and heat pumps. They can also be used in limiting the flow to individual heat exchangers or domestic water tanks.

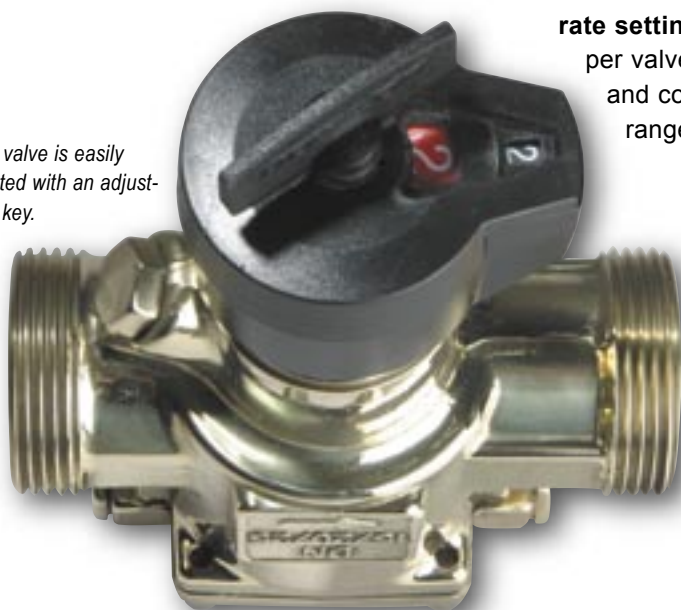
Due to the fact that the FlowCon SH valves are externally adjustable, the desired maximum flow rate can be easily changed while the system is operating.

Features and Benefits

- **Automatic flow control**, balance is achieved automatically eliminating the need for manual balancing devices.
- **Easy flow rate setting selection**, determined by one graph without the need of external measurements.
- **Easy adjustment** without disturbing the balance in the rest of the system.

- **51 distinct flow rate settings**
per valve size and control range.

Each valve is easily adjusted with an adjustment key.



- **Accuracy** of +/- 5%.
- **Tamper-proof**, adjustment unit is being operated by means of special FlowCon key.
- **Pressure / temperature measurement plugs** for verifying operating pressure differential range.
- **Double union end connection** for ease of installation and wide selection of end fittings.

Adjustment

The internal mechanism is adjusted by an operation key which also turns the display mechanism. The numeric display shows two scales; one black reflecting full turns numbered 1 through 6, and one red reflecting tenths of full turns numbered 0 through 9. The number of turns reflects the flow rate selected (pls. see specific technote for exact flow rates and settings).

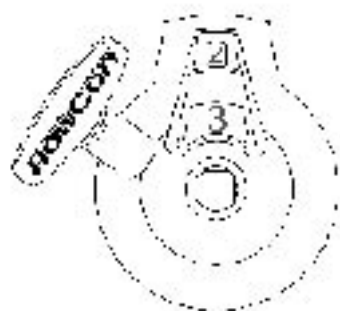
After the flow rate is set, the valve automatically registers the system pressure conditions and adjusts its orifice area to limit the flow rate to the selected maximum. As system pressure conditions change, the valve will automatically adjust to maintain the selected flow rate. This eliminates the need to exactly know the distribution of pressure within a system.

Because of this dynamic reacting feature, one or more of the valves in the system can be re-adjusted without upsetting the other circuits.

The flow rate through the valve can be verified by reading the pressure differential across a pre-set valve opening. The pressure test ports can be supplied with optional pressure/temperature test plugs for connecting conventional mechanical gauges or electronic sensors.

	SH1 DN15/20/25	SH2 DN25/32/40	SH3 DN50/65/80		SH4 DN80/100		SH5 DN125/150	
Pressure Differential (kPa)	33-300	33-300	35-400	80-400	35-400	60-400	35-400	60-400
	(psi)	4.8-44	5.1-58	11.6-58	5.1-58	8.7-58	5.1-58	8.7-58
Flow Rate (l/sec)	0.075-0.70	0.11-1.95	2.46-7.06	3.5-9.82	3.45-9.27	4.63-14.0	6.52-23.4	7.46-29.6
	(GPM)	1.20-11.1	39.0-111.9	55.5-155.6	54.7-146.9	73.4-221.9	103.0-371.0	118.0-468.0
Static Pressure (kPa)	2500		4000					
	(psi)		580					
Temperature Rating (°C)	-20 to +120 / -10 to 54							
	(°F)							

Flow Rate Setting - Extract



Micrometer Setting

For adjusting the flow rate of the FlowCon SH valves use the special designed key (FlowCon part no. ACC0001).

A micrometer setting at 2.3 corresponds to a flow rate of 0.28 l/sec for the valve in size 15/20/25 and a flow rate at 0.94 l/sec for the larger valve in size 25/32/40. For further information pls. see FlowCon technotes.

Flow Rate						Micrometer Setting
DN15/20/25			DN25/32/40			
1/2" - 1"			1" - 1 1/2"			
33 - 300kPaD			33 - 300kPa			
4.8 - 44psid			4.8 - 44psid			Rotations
l/s	l/hr	GPM	l/s	l/hr	GPM	
-	-	-	0.11	396	1.7	0.5
-	-	-	0.15	526	2.3	0.6
-	-	-	0.18	655	2.9	0.7
-	-	-	0.22	785	3.5	0.8
-	-	-	0.25	914	4.0	0.9
0.075	270	1.2	0.29	1044	4.6	1.0
0.090	324	1.4	0.34	1224	5.4	1.1
0.105	378	1.7	0.39	1404	6.2	1.2
0.120	432	1.9	0.44	1584	7.0	1.3
0.135	486	2.1	0.49	1764	7.8	1.4
0.15	540	2.4	0.54	1944	8.6	1.5
0.17	598	2.6	0.59	2124	9.4	1.6
0.18	655	2.9	0.64	2304	10.1	1.7
0.20	713	3.1	0.69	2484	10.9	1.8
0.21	770	3.4	0.74	2664	11.7	1.9
0.23	828	3.6	0.79	2844	12.5	2.0
0.25	886	3.9	0.84	3024	13.3	2.1
0.26	943	4.2	0.89	3204	14.1	2.2
0.28	1001	4.4	0.94	3384	14.9	2.3
0.29	1058	4.7	0.99	3564	15.7	2.4
0.31	1116	4.9	1.04	3744	16.5	2.5
0.32	1166	5.1	1.07	3852	17.0	2.6
0.34	1217	5.4	1.10	3960	17.4	2.7
0.35	1267	5.6	1.13	4068	17.9	2.8
0.37	1318	5.8	1.16	4176	18.4	2.9
0.38	1368	6.0	1.19	4284	18.9	3.0
0.39	1418	6.2	1.22	4392	19.3	3.1
0.41	1469	6.4	-	4500	20.8	-



Kongstedvej 2
DK-4200 Slagelse
DENMARK
Phone: +45 5850 5230
Fax: +45 5850 5730
Mail: flowcon@flowcon.dk

FlowCon
international

No. 37, Geylang Lorong 23, #04-04
Yu Li Industrial Building
SINGAPORE 388371
Phone: +65 6841 8849
Fax: +65 6841 8843
Mail: flowcon1@singnet.com.sg