Constant flow valves,
Maric System

Maric System constant flow valves are reliable, self-regulating and self-cleaning valves that provide constant flow regardless of pressure. Use Maric System constant flow valves to rationalise and improve your product or process and reduce your flow-related costs. The valves are suitable for use in a large number of industrial sectors, such as waterworks, manufacturing and food industries, process and chemical industries. Applications include dosage and mixing systems, cooling systems, pumps, mechanical seals, sprinkler and watering systems, humidification equipment, etc.

Simple mechanical solution

The active part of the valve is made up of a ring made from flexible material inside a conical body. As the pressure increases, the ring is pressed against the conical body, thus reducing the flow area. When the pressure falls, the ring springs back, thus restoring the flow area. This ensures a constant flow as seen in the chart below.

Constant Flow

LOW PRESSURE
The ring has a larger opening at low pressure.

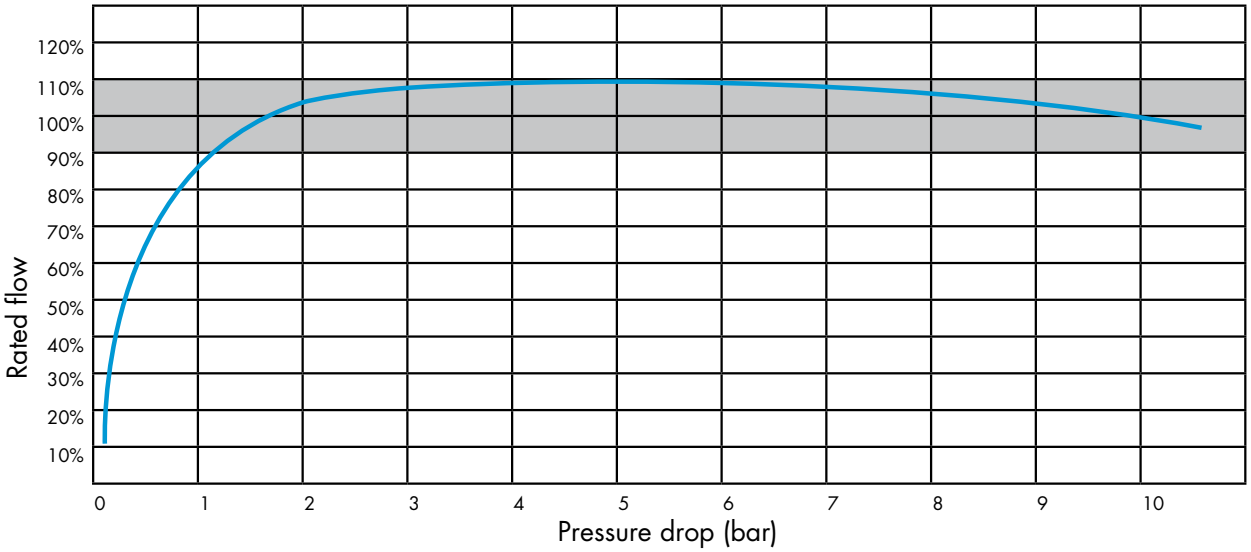
HIGH PRESSURE
At high pressure, the ring is pressed against the conical body. The ring's opening reduces and the flow remains constant.

Different designs

Valve bodies, inserts and wafers are normally made from nickel plated brass, stainless steel, PVC or other plastic material. The flexible gasket is normally made from nitrile rubber, but EPDM and Viton are also used.

The valves are supplied with female and male threads, normally pipe threads. Customised solutions are available and are designed in collaboration with the customer.
Wafers are normally used for large flows, in which several gaskets are mounted.
The valves are manufactured in Sweden.

Performance graph for standard valves, Precision



Choosing a product

Pressure and temperature areas for standard applications

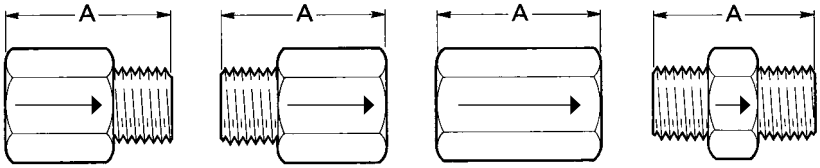
Rubber Type	Rubber material	Pressure Differential Range	Flow Accuracy	Max Temp
Precision (standard)	Nitrile	1.4 – 10 bar	+/-10%	60°C
EPDM	EPDM	1.4 – 15 bar	+/-20%	100°C
Viton	Viton	1.4 – 10 bar	+/-20%	200°C

With screwed bodies (std. R thread)

Conn.	Flow litre/min						
1/2" (1/4")	0.4	0.45	0.5	0.55	0.63	0.7	0.8
	0.9	1	1.1	1.2	1.3	1.5	1.6
	1.8	2	2.3	2.5	2.8	3.2	3.5
	4	4.5	5	5.5	6.3	7	8
	9	10	11	12	13	15	16
	18	20	23				
3/4"	25	28	32	36	41	45	49
	54						
1"	59	66	73	82	91	102	114
2"	125	138	150	162	180	199	216
	233						

The specified connection dimensions are minimum dimensions. Lower flows can always be used in larger valves. Therefore, a 1/2" connection is often used for 1/4", see above. The above specified flows are a selection of a much larger number between 0.4 l/min and 8854 l/m.

Dimensions – Screwed valve body



F/M **M/F** **F/F** **M/M**

Connection	A mm	Spanner width
1/2"	40	26
3/4"	50	32
1"	60	38

F (female) internal thread **M** (male) = external thread

Wafers

Wafers are designed to be mounted between pipe flanges. They are manufactured in required material, normally PVC, brass or acid-resistant. All wafers come complete with o-rings

Connection (DN)	25	32	40	50	65	80	100	150	200	250	300
Max. flow litre/min	233	233	233	342	456	699	1279	2320	4427	6058	8854

Insert

Inserts are customised to the customer's designs. They can be threaded or without threads and pushed into place with o-rings or other special solutions. In addition, there are inserts that can be squeezed between flanges or are made with flanges.

Outer diameter – Standard

Flow litre/min	Diameter
0.4 – 9.0	12.5
10.0 – 23.0	20.0
25.0 – 54.0	27.0
54.0 – 114.0	38.0

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