

We are '*Professionals in Process/ Product Technologies*' with following expertise-

- **Conceptualization and Engineering of Projects**
- **Module and skid building**
- **Custom-built solutions**
- **Innovative hygiene Products for Pharma/ Dairy Industry**
- **Expertise in Pharma, Food, Natural resource based projects**
- **Business partners of world class products from Europe and USA**

Our Offerings-

- **Bio-Reactors And Fermenters**
- **Bio - Waste Decontamination Systems / Sterilization Systems / Inactivation Systems**
- **PWDS, WFIDS, CSDS Systems**
- **CIP Plants**
- **Pharmaceutical Machinery and Bio-pharma Custom Built Modules**
- **Mixing And Blending Vessels**
- **Dairy/Starch Projects**
- **Drying And Evaporation Projects**
- **Biorefineries**
- **Piping Engineering**
- **Plug-in Temperature / Brix / pH / Pressure/ Flow Control Modules**
- **Electrical And Automation Engineering**
- **Flow Control Equipment**
- **All Types Of Valves And Valve Automation**

Application

The valve is used to maintain constant pressure in the process line. The series is designed to maintain either constant inlet or constant outlet pressure by virtue of regulating air pressure.

It can be used in following type of equipment-

- Milk Pasteurization plants
- Back pressure control in separation of hygienic juices
- Filtration and heat exchangers
- Brewery plants
- Filling systems
- Purified water plants
- WFI water plants

Working principle

APM is pneumatically actuated diaphragm valve. This is designed in 3 sizes based on the flow requirement. The valve is completely aseptic and has internal/external Pharma finish. The required preset pressure is maintained by alteration of the position of the stem by virtue of air pressure to the diaphragm.



Technical Specifications

Contact Parts MOC	SS316L
Operating temperature	950°C
Operating Pressure	7 bar (g)
Finish Internal	Electropolished
External	Satin finish
Sizes	From 25mm to 76mm
Connections	SMS IDF, TC and flanged available counter ferrules and clamps are available as SMS ISO screwed connections are available

Pneumatically Operated, modulating type

Features

- Compact size
- Easy to clean
- Inlet tangential to the bottom of the valve body resulting in no dead lag
- Welded sheet resulting in only one seal ring and the diaphragm
- Special plug design allows very low capacities and high CIP flow
- Leak-proof design

Dimensions

Height - 235 mm

Maximum diameter - 200 mm

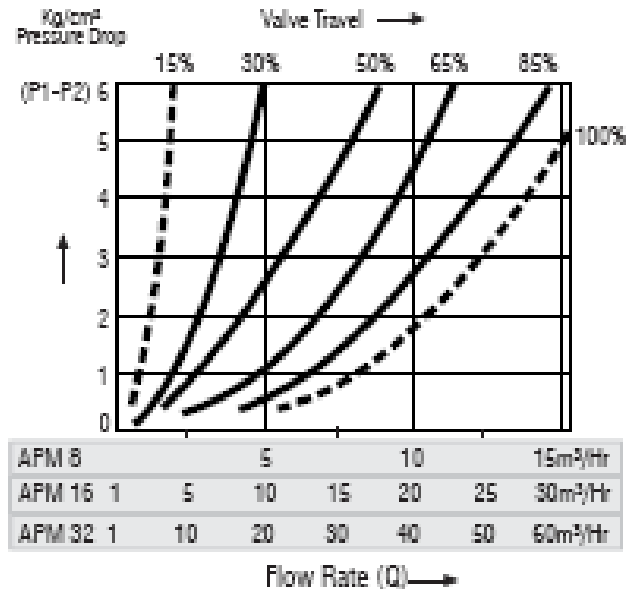
Weight

APM 8	7 Kg
APM 16	7.2 Kg
APM 32	7.3 Kg

<u>Models</u>	<u>Valve Size</u>	<u>Max. Flow</u>
APM 8	25 mm	3.3 m ³ /Hr
	38 mm	8.5 m ³ /Hr
	51 mm	15 m ³ /Hr
APM 16	51 mm	13 m ³ /Hr
	63.5 mm	20 m ³ /Hr
	76 mm	30 m ³ /Hr
APM 32	63.5 mm	23 m ³ /Hr
	76 mm	34 m ³ /Hr
	100 mm	60 m ³ /Hr

Actuator working air pressure –
0.2 Kg/cm² (g) to 4 Kg/cm² (g) depending
on pressure drop across the valve.

Flow Characteristics for APM 8, APM 16 and APM 32 Valves



Selection of Aseptic Modulating Valve

Calculate Pressure Drop

ΔP pressure drop = (P1 before valve) – (P2 after valve)

Select required flow rate – Q in m³/Hr through the valve

Select valve at approx. 50% of valve travel to get the required flow rate.

Example:

If ΔP is 2 Kg/cm² and required flow rate Q is 25 m³/Hr, APM – 8 will not work and APM – 16 will also not operate at full travel, since required ΔP is less. Hence select APM– 32 which will operate at 45% of valve travel to get 25 m³/Hr flow.

FOR MORE DETAILS CONTACT

Office & Works : -SM BIOSYSTEMS
S. No. 28 / 27, Dhayari, Narhe - Dhayari Road,
Behind Oneness Controls, Dhayari,
Pune - 411041.
Maharashtra INDIA

Tel.-020 64701545, 020 24690018
Fax-020 24690655
Email- mktg@smbiosystems.com
response@smbiosystems.com
Visit us at www.smbiosystems.com