

Radial Seated Diaphragm Valve



Sanitary
Process
Components

Tank Bottom Valves

The series VFA was designed for easy mounting to tank bottoms used for hygienic processes. The VFA Tank Bottom Valve is ideal for the pharmaceutical, biotech, cosmetic, food and dairy applications.

The valve assembly consists of three components:

Actuator – available in manual or pneumatic

Radial Diaphragm – Silicone or TFM 1600 PTFE

Valve Body – machined from AISI 316L SS

The VFA design and materials of construction complies with ASME BPE, cGMP, US Pharmacopeia, and FDA. The VFA Tank Bottom Valve assures complete drainability and zero dead leg. The two models available are:

- **VFA-10°S**
10° angled flush weld to tank bottom
- **VFA-10°TK**
10° flanged with removable valve body

Both models are designed to prevent deformity caused by welding.

Both models are available with manual or pneumatic actuation.

Both actuation types are available in autoclavable plastic or stainless steel

Finished grade for wetted parts
Ra<0.4 Micron (220 Grit)

The 45° angled outlet port is available in weld end or sanitary clamp. Optional CIP/SIP connection port or valve is available upon request.

TFM™ 1600 PTFE Diaphragms

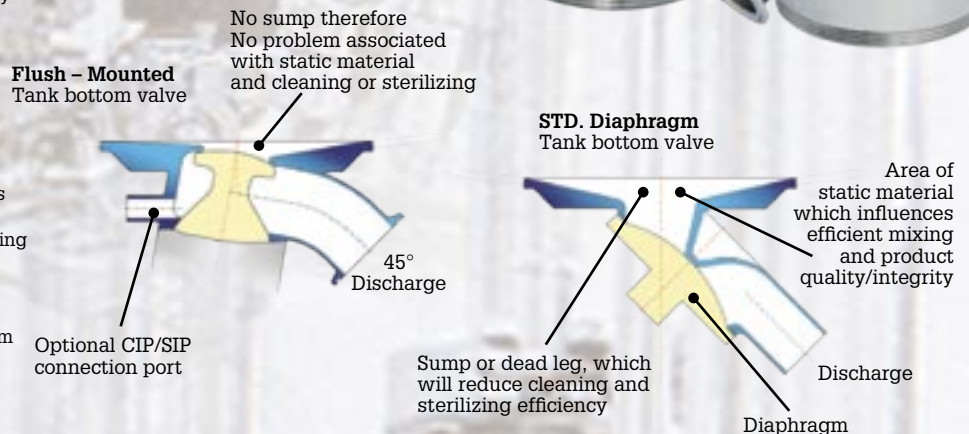
PTFE is one of the purest fluoropolymers available today with virtually zero extractables or leachables. TFM 1600 PTFE is a modified polytetrafluoroethylene (PTFE) that maintains the exceptional chemical and heat resistance properties of conventional PTFE, but has a significantly lower viscosity giving better fusion during sintering resultant smoother surfaces.

Benefits

- Improved resistance to creep and lower deformation under load reduced cold flow
- Reduced permeability
- Denser polymer structure with fewer voids and trapped air reduces the risk of trapped contaminants
- Smooth, pore free surface allows for easier cleaning
- Lower melt viscosity and better fusion during sintering
- Higher tensile strength
- Increased working life of the diaphragm in process involving frequent steam sterilization

The result of this innovative formulation is a diaphragm that can stay in service up to four times longer than conventional diaphragms. Ultimately, less time will be spent routinely replacing diaphragm. Consequently, there will be less equipment down time.

10° angled butt-weld



VA Valves

SIZE:

3/4" – 4"

DIAPHRAGM:

Silicone
TFM 1600 PTFE

Meets FDA and
US Pharmacopia norms.

FINISH:

wetted parts Ra<0.4 Micron

Design Pressure min/max:

-1/+6 bar (g)

Design Temperature range:

-10°/+150°C

CE  II 2 GD T3

The series VA design and materials of construction comply with ASME BPE, cGMP, US Pharmacopeia, and FDA. The VFA Tank Bottom Valve assures complete drain-ability and zero dead leg.

The valve assembly consists of three components:

ACTUATOR – available in manual or pneumatic

RADIAL DIAPHRAGM – Silicone or TFM 1600 PTFE

VALVE BODY – machined from AISI 316L SS

The four models available are:

- **VA-90°** A 90° radial seat diaphragm valve
- **VA-180°** A 180° flow through radial seat diaphragm valve
- **VA-DV** A divert valve with a radial seat diaphragm
- **VA-J** A jacketed version of VA-90° or VA-180° radial seat diaphragm valve

All models are available with manual or pneumatic actuation.

Both actuation types are available in autoclavable plastic or stainless steel.

Finished grade for wetted parts Ra<0.4 Micron (220 Grit)

Connection ports available in weld end or sanitary clamp.



**MECHANICAL/INDUCTIVE
CONTROL BOX**



**ADJUSTABLE
FLOW REGULATOR**



**POSITION INDICATION
OPEN/CLOSED**

Available Configurations

Pneumatic Actuator

STANDARD DESIGN

The valves consist of three components:

- **Actuator** – manual or pneumatic
- **Diaphragms** – Silicone or TFM 1600 PTFE
- **Valve Body** – in line, or tank bottom

The modular features offer great design flexibility of the final valve assembly.

AT
ADJUSTABLE
TRAVEL SCREW

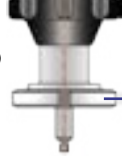
SW
MECHANICAL/INDUCTIVE
POSITION INDICATOR
OPEN-CLOSED

Manual Actuator

MS
STAINLESS
STEEL
HANDLE



MP
STANDARD
PLASTIC
HANDLE

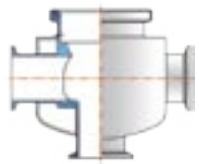


LOCKING RING

PS
STAINLESS
STEEL
PNEUMATIC
ACTUATOR



PP
PLASTIC
PNEUMATIC
ACTUATOR



VA 90° or 180° / JACKET
VALVE BODY

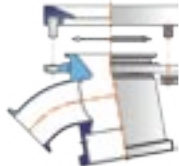
Diaphragms

MVA-X Silicone
MVA-G TFM 1600 PTFE

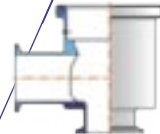
Tank Bottom



VFA 10° S/TC
WELDED BODY
10° ANGLED

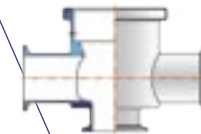


VFA 10° TK/TC
REMOVABLE BODY
10° ANGLED

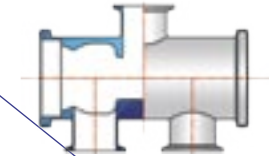


VA 90°
VALVE BODY

In Line Valve Body



VA 180° FLOW
THROUGH VALVE BODY



VA DV DIVERT VALVE
VALVE BODY

How to order

1

2

3

4

5

Example:

VFA M - G / 10°S / TC1"

Valve Type

VA
In Line
VFA
Tank Bottom

Actuator

MP Manual Plastic
MS Manual SS
PS Pneumatic SS
PP Pneumatic Plastic
SW Pneumatic + Switches
AT Pneumatic + Travel Screw

Diaphragm

S Silicone
G TFM 1600 PTFE

Valve Body

L90° L body
T180° T body
DV Divert Valve
J Heat/cool jacket
10°S 10° angled butt weld
10°TK 10° angled removable

Port(s)

S Butt weld BS-OD
TC Sanitary Clamp
Sizes available from 3/4" - 4"

For further customization, please contact us!

Sanitary
Process
Components

3711 Vineland Road ■ Orlando, Florida 32811
Phone: 877-288-8644 ■ Fax: 407-650-8944
e-mail: sales@spc-fl.com ■ www.spc-fl.com