



Sanitary
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equipment

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ISO 9001



VFA10° VALVE BODY Information- flow rate.doc
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VFA10° VALVE BODY Tank Bottom Valve - INFORMATION

Design temperature, valve body : -80°C to 200°C (-112°F to 392°F)

Design pressure, valve body : -1 bar to 10 bar (-14,5 psi to 101,5 psi)

Warning : The applied diaphragm and actuator may have a different design temperature and/or pressure.
The weakest part in the assembled product set the final, permitted design temperature and pressure limits.

Flow rate

In order to design valves for a process system correctly, the valve size is determined by the required flow rate.
The **Kv-value** serves as a calculation basis for the different process conditions.
This value is stated in the following table with regard to nominal diameter and standards.

Kv-value (m3/h)

The Kv-value is a parameter defining the flow rate of valves.
It describes the amount of water from 5° to 25°C which flows through the valve at a pressure loss of 1 bar when the valve is 100% open

Conversion

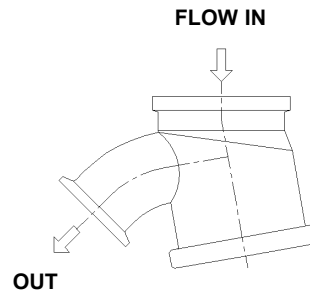
For the correct Kv to Cv conversion calculation, use only the stated units formulas above.

The Kv-value must be converted from (cubic meter/hour) by utilizing the following conversion factor.

In the US the flow rate of water is measured with the Cv-value in US-gallons per minute (gpm) with a pressure drop of 1 PSI.

conversion of Kv to Cv **Cv = 1,17 x Kv**

conversion of Cv to Kv **Kv = 0,86 x Cv**



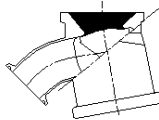
Flow characteristics with TFM 1600 PTFE diaphragm installed (Flow In to Out)

Valve Code/Size	INCH	DN	Kv-value (m3/h)	Cv-value (gpm)
VFA10°-S/TC1"	1"	25	10,5	12,2
VFA10°-S/TC1"1/2	1" 1/2	40	15,0	17,5
VFA10°-S/TC2"	2"	50	32,0	37,4
VFA10°-S/TC3"	3"	80	78,0	91,2
VFA10°-S/TC4"	4"	100	Not standard product, available on specific request only	

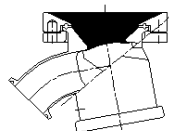
Net volume of valve body cavity with PTFE diaphragm installed

Tank bottom valve body available in the following type :

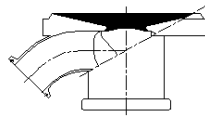
VFA10°-S/TC
10° Angled butt weld



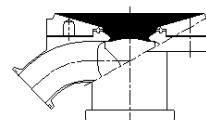
VFA10°-TK/TC
Angled TK removable body



VFA- S/TC
Flanged butt weld



VFA- FL/TC
Flanged removable body



Volume in ml

Valve Code/Size	INCH	DN	VFA10°-S/TC	VFA10°-TK/TC	VFA- S/TC	VFA- FL/TC
VFA10°-S/TC1"	1"	25	14	50	25	30
VFA10°-S/TC1"1/2	1" 1/2	40	27	72	75	105
VFA10°-S/TC2"	2"	50	92	235	85	150
VFA10°-S/TC3"	3"	80	170	310	320	Not available
VFA10°-S/TC4"	4"	100	Not standard product, available on specific request only			

Get the information you need and more at : info@erreinox.it

In the interests of development and improvement of the product, we reserve the right to change the specifications without prior notice.