

Butterfly valves



Butterfly valve VF...

The rugged, compact, and efficient stainless steel butterfly valve is designed to meet sanitary processing system requirements. Interior design for easy fluid flowthrough, minimized contamination and turbulence. The seat is held firmly and compressed by the valve body halves, and securely assembled with cap screws in stainless steel. Fluid flow in either direction.

Valve body and disc precision machined from stainless steel forgings

Standard version presents gasket in white silicone, on request gasket is supplied in different elastomer.

Typical Applications

Butterfly valve is suitable in every process for food industry: mineral water, milk, wine, beer, juice.

Technical Data

Size	from 3/4" @ 10"
Gasket	Silicone, EPDM, Viton
Connection	Clamp, butt weld BS/OD
Handle	90° on/off
Option	Pneumatic actuator

Max working pressure 10 bar(g)

Working temperature from 0°C @ 150°C

Material

1 Body valve	AISI 316L stainless steel
2 Plug	AISI 316L stainless steel
3 Gasket	Silicone FDA compliance
4 Screw	AISI 304 stainless steel
5 Cap	Silicone
6 Handle	AISI 304 stainless steel

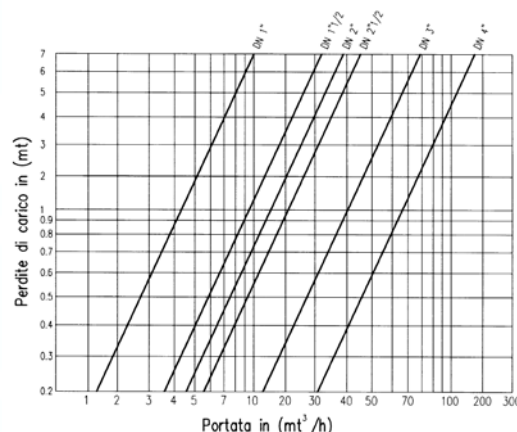
Surface Finishing standard

Superfici in product contact	0,8 @ 1 µm Ra
On request	0,4 @ 0,6 µm Ra
External surface	mirror polishing

Special Execution

On request (drawing) Aerrelnox can realize special end-connection like: butt weld DIN, flanged, threaded MG or FF DIN11851, tank bottom.

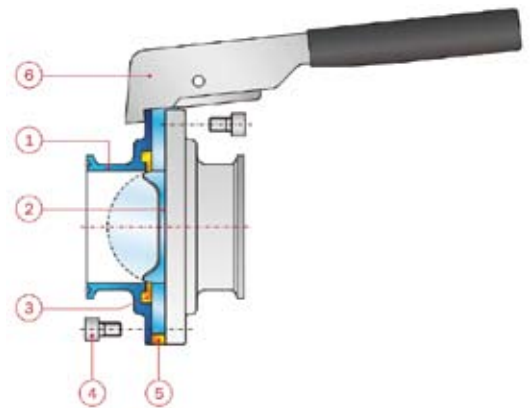
Pressure drop/capacity diagram for INCH tube.



plug fully opened 90°
medium: water at temperature ambiente 20°C



Subject to change without prior notice.



Equipment in compliance with

European Directive
97/23/CE "PED"

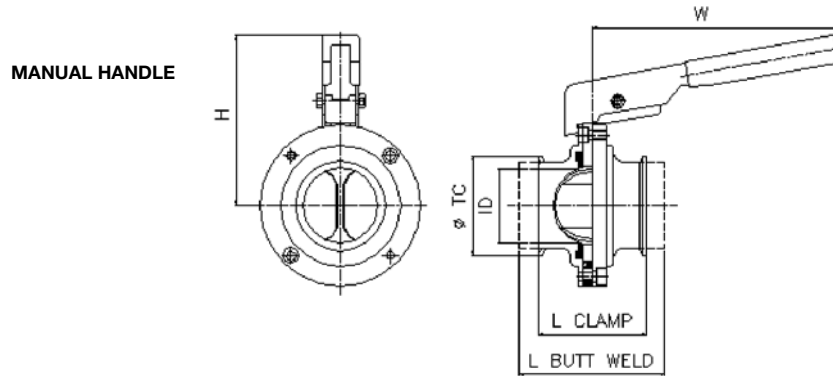


European Directive
94/9/CE ATEX

Ex 112G-D T4



OVERALL DIMENSIONS and torque values



Dimensions table

CODE	INCH	DN	-TC	ID	LBW	LTC	W	H
VF 3/4"-121TC-6	3/4"	20	25	15,7	65	65	160	90
VF 1"-121TC-6	1"	25	50,4	22,1	65	65	160	90
VF 1" 1/2-121TC-6	1" 1/2	40	50,4	34,8	65	70	160	93
VF 2"-121TC-6	2"	50	64	47,5	70	70	160	100
VF 2" 1/2-121TC-6	2" 1/2	65	77,5	60,2	70	70	160	110
VF 3"-121TC-6	3"	80	91	72,9	75	70	190	115
VF 4"-121TC-6	4"	100	119	97,6	85	80	190	130
VF 6"-121TC-6	6"	150	167	146,8	74	122	370	202
VF 8"-121TC-6	8"	200	217,5	197,8	70	125	370	225
VF 10"-121TC-6	10"	250	268,5	248,6	94	94	370	250

L overall length = standard LTC clamped

Special end connections available on request as following:

VF-122TC clamp/butt weld

VF-123TC clamp/flanged PN6

VF-125BS BS-OD butt weld/butt weld

VFD-121 DIN 11851 female/female

VFD-122 DIN11851 male+liner/fem

VFD-126 DIN11851 male+liner/male+liner

VFD-123 DIN 11851 fem/ flanged PN6

VFD-130 flanged PN6/ flanged PN6

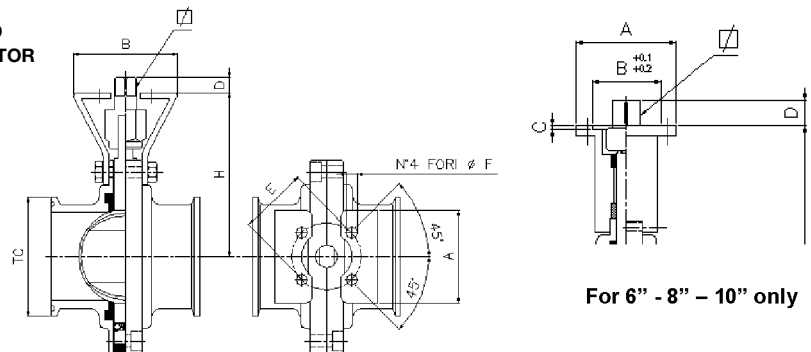
VFG-130 BSP female/BSP female

VFG-130A BSP female/BSP male

VFG-130B BSP male/BSP male

VFD-125 DIN11850 butt weld/butt weld

ISO 5211 MOUNTING PAD
FOR PNEUMATIC ACTUATOR



Dimensions table

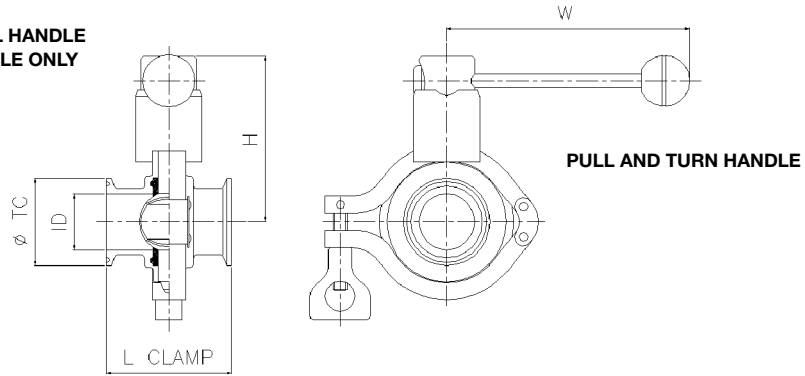
CODE	A	B	C	D	E	F	ISO	∇	Nm	H
Actuator type	SR-DA	SR-DA	SR-DA	SR-DA	SR-DA	SR-DA	SR-DA	SR-DA	@	mm
VF 3/4"-121TC-6	50	55	-	7	36	6	F03	9	15	75
VF 1"-121TC-6	50	55	-	7	36	6	F03	9	15	75
VF 1" 1/2-121TC-6	50	60	-	8	36	6	F03	9	15	78,5
VF 2"-121TC-6	60-50	72-60	-	11,5-8,5	42-36	6	F04-F03	11-9	30	99,5-88
VF 2" 1/2-121TC-6	70-60	77-72	-	13-10	50	7	F05	14-11	60	103
VF 3"-121TC-6	70-60	77-72	-	13-10	50	7	F05	14-11	60	110
VF 4"-121TC-6	90-70	110-77	-	13	70-50	9-7	F07-F05	17-14	120	127-126
VF 6"-121TC-6	80	55	3	20-17	70	9	F07	22-17	240	183
VF 8"-121TC-6	80	55	3	21-18	70	9	F07	22-17	240	206
VF 10"-121TC-6	95	70	3	23	102	11	F10	22	480	230

Pneumatic actuator type: SR = Simple Effect, spring return DA= Double Effect, air to close

@ Maximum break-out torque in Nm.

VF-CC-TC Standard Dimensions

MANUAL HANDLE
AVAILABLE ONLY



Dimensions table

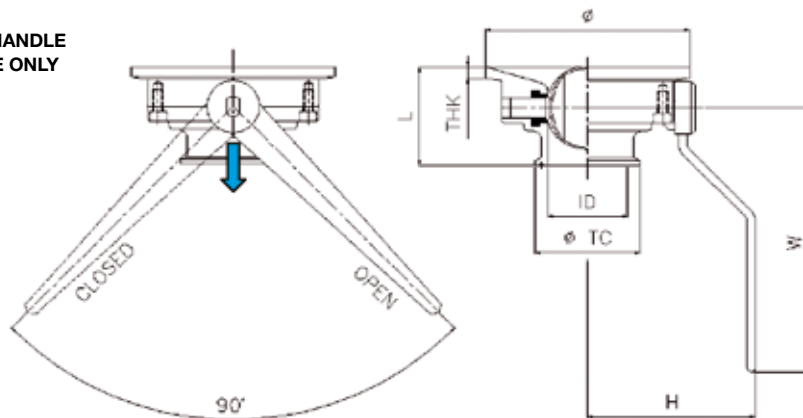
CODE	INCH	DN	-TC	ID	L	W	H
VF 1"-CC-121TC	1"	25	50,4	22,1	65	140	95
VF 1" 1/2-CC-121TC	1" 1/2	40	50,4	34,8	70	140	95
VF 2"-CC-121TC	2"	50	64	47,5	70	140	103
VF 2" 1/2-CC-121TC	2" 1/2	65	77,5	60,2	Not available		
VF 3"-CC-121TC	3"	80	91	72,9	Not available		
VF 4"-CC-121TC	4"	100	119	97,6	Not available		

L overall length = LTC clamped standard execution

LBW butt weld available on request special extended tube for orbital welding available on request also

VFF-TC TANK BOTTOM Standard Dimensions

MANUAL HANDLE
AVAILABLE ONLY



Dimensions table

CODE	INCH	DN	-TC	ID	~	L	Thk	H	W
VFF 1"-CC-121TC	1"	25	50,4	22,1	100	57,5	7	90	160
VFF 1" 1/2-CC-121TC	1" 1/2	40	50,4	34,8	106	60	7	92	160
VFF 2"-CC-121TC	2"	50	64	47,5	124	60	7	102	160
VFF 2" 1/2-CC-121TC	2" 1/2	65	77,5	60,2	132	60	7	107	160
VFF 3"-CC-121TC	3"	80	91	72,9	Available on request only				
VFF 4"-CC-121TC	4"	100	119	97,6	Available on request only				

Special executions available on request:

Welding plate with radius or bigger different thickness, extended tube for orbital welding.

For special applications, we manufactures special adaptor plates, when replacing a conventional flush tank valve, with a flush tank ball valve and also to ship the plate independently from the valve, in order to accommodate customer requests.

Use/Maintenance

DO NOT USE THE VALVE PARTIALLY OPEN/CLOSED AS PROLONGED USE IN THESE CONDITIONS WILL INEVITABLY CAUSE PERMANENT DEFORMATION OF THE SEALS.



The valve works only in a "OPEN" or "CLOSE" position. On/off procedure must be done by lever or pneumatic/electric actuator applied by AR. Any other type of actuator not performed and not installed by AR personnel shall result in invalidation of warranty and our liability..

Gasket replacement

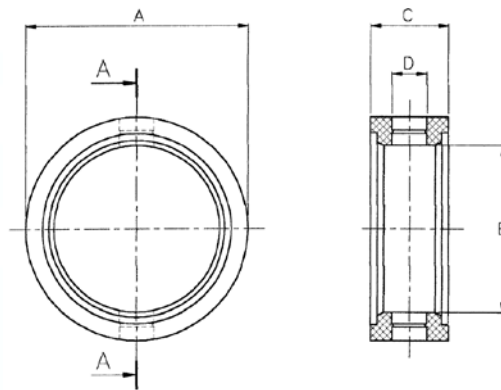
It is necessary to disassemble the valve to check parts subject to wear (seals, o-ring) or when the valve presents a leak.

Follow these steps to disassemble:

- 1 First remove the service fluid.
- 2 Remove the lever (or pneumatic actuator from body valve).
- 3 Remove the header from body valve, both sides.
- 4 Pull out two seal seats from body, then turn 90° ball with stem (the valve is in close position) now slip off the ball from valve.
- 5 Pull lightly stem inward body valve and remove.
- 6 Replace two o-rings on stem.
- 7 Restore stem on its seat in body valve, insert ball and turn it 90° with stem (the valve is in open position).
- 8 Put in body valve two new seal seats and assemble the header both sides, you must obtain a perfect package body valve - headers.
- 9 Pay particular attention to handle o-ring and gasket during reassembly phase. Ensure that every item is dust-free to avoid damage.
- 10 Join handle or pneumatic actuator on body valve.
- 11 Restore service fluid, check the valve to ensure leakage absence, the valve correctly works again.

Elastomer available:

code: **X** **Silicone** WHITE color code



SIZE DN	25	32	40	50	60	65	70	80	100	125	150
A	45	52	55	67	78	85	90	105	125	151	179
B	25	32	38	50	60	65	70	80	98	126	150
C	22	22	22	23,5	23,5	23,5	23,5	24	24	32	32
D	10,5	10,5	10,5	10,5	10,5	10,5	10,5	12,5	12,5	13,5	13,5

Elastomer features and technical data

Material	Silicone "X"
Temperature	-62° @ 232°C
Acid	Scarce/good
Alkali	Scarce/mediocre
Abrasion resistance	Scarce