

Construction

The **CleanStar®** C67 HPW manually operated ultra pure 2/2-way diaphragm valve has a complete PFA-HP body. All medium wetted parts are made of PFA-HP or PTFE (diaphragm).

The exterior bonnet parts are made of PVDF. Standard features are (1) Seal adjuster for minimum flow regulation. (2) Integral solid mounting lugs. (3) Leakage sensor connection. (4) Union nuts in PVDF-HP, PFA-HP and C-PFA-HP. (5) Optical position indicator.

Features

- Specifically designed for high purity media
- Metal free
- High flow capability
- Union nuts / flare connections compatible with all current designs
- Manufactured under cleanroom conditions

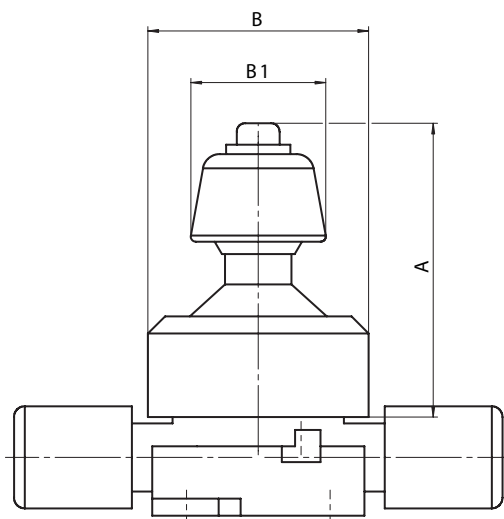
Advantages

- Minimal contamination
- High C_v / K_v -value
- Minimal deadleg
- Optional flow direction
- Also available as T valve, i.e. saves using a T piece and requires less space

Thus you achieve:

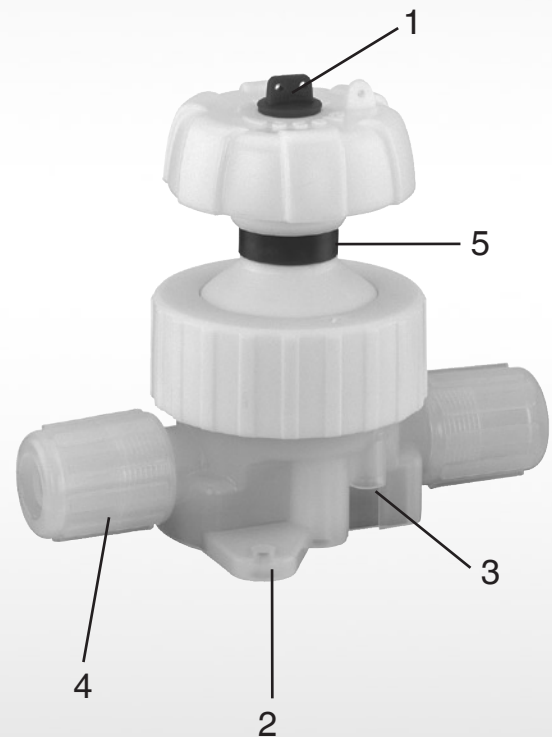
- Brief equipment rinsing times
- High "MTBF"
- Reduced costs

Bonnet dimensions GEMÜ C67 HPW [mm/inch]



Bonnet size	A	B	B1
1	68.5/2.69"	51.5/2.02"	32.0/1.25"
2	75.5/2.97"	64.0/2.51"	60.0/2.36"
3	106.5/4.19"	76.5/3.01"	90.0/3.54"

Connection dimensions from page 7



RANGE OVERVIEW *CleanStar*® C67 2/2-WAY VALVES

Type of connection / availability						Size			Dimensions see page
Flare connection	Butt weld spigots		Space saver			Connection		Bonnet	
	on both sides	on one side Pos. Z	on one side		on both sides Pos. X + Z	Code inter- national	DN		
			Pos. X	Pos. Z					
1/4" - 1/4"	1/4" - 1/4"			1/4" - 1/4"		4	4	1	6
3/8" - 3/8"				3/8" - 3/8"		6	6		6
1/2" - 1/2"				1/2" - 1/2"	1/2" - 1/2"	88	10	2	7
	1/2" - 1/2"	1/2" - 1/2"				12	15		7
3/4" - 3/4"				3/4" - 3/4"	3/4" - 3/4"	12	15		7
		3/4" - 3/4"	on request			12	15/20		7
	3/4" - 3/4"					12	20		7
3/4" - 3/4"						12	15	3	8
		3/4" - 3/4"				12	15/20		8
	3/4" - 3/4"					12	20		8
1" - 1"				1" - 1"	1" - 1"	16	20		8
1" - 1" (High Flow)**						16	20		8
	1" - 1"					16	25		8
		1" - 1"				16	20/25		8
1 1/4" - 1 1/4"						20	25		8

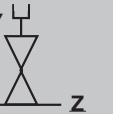
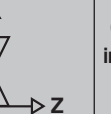
* Also available: unions with IR inserts DN 15 (body material PVDF-HP)

** Version with increased Kv value

RANGE OVERVIEW *CleanStar*® C67 T VALVES

Type of connection / availability					Size				Bonnet	Dimensions see page
Flare connection	Space saver				Connection					
	Main pipe				Main pipe		Branch			
	Pos. X	Pos. Z	Pos. X + Z	Pos. Y	X + Z		Y			
					Code inter- national	DN	Code inter- national	DN		
3/8" 1/4" 3/8"					6	6	4	4	1	9
3/8" 3/8" 3/8"					6	6	6	6		9
1/2" 3/8" 1/2"		1/2" 3/8" 1/2"			8	10	6	6		9
3/4" 3/8" 3/4"	3/4" 3/8" 3/4"	3/4" 3/8" 3/4"			12	15	6	6		11
1/2" 1/2" 1/2"		1/2" 1/2" 1/2"		1/2" 1/2" 1/2"	8	10	8	10	2	10
					8	15	8	15		10
					8	15	8	10		10
3/4" 1/2" 3/4"	3/4" 1/2" 3/4"	3/4" 1/2" 3/4"	3/4" 1/2" 3/4"	3/4" 1/2" 3/4"	12	15	8	10		10
					12	20	4	8		10
3/4" 3/4" 3/4"	3/4" 3/4" 3/4"	3/4" 3/4" 3/4"		3/4" 3/4" 3/4"	12	15	12	15		10
1" 1/2" 1"	1" 1/2" 1"	1" 1/2" 1"	1" 1/2" 1"		16	20	8	10	10	
1" 3/4" 1"	1" 3/4" 1"	1" 3/4" 1"		1" 3/4" 1"	16	20	12	15	10	
					16	25	8	15	3	12
					16	25	12	20		12
					16	25	16	25		12
1" 1" 1"	1" 1" 1"	1" 1" 1"			16	20	16	20		12
1 1/4" 1/2" 1 1/4"		1 1/4" 1/2" 1 1/4"			20	25	8	10		12
1 1/4" 3/4" 1 1/4"		1 1/4" 3/4" 1 1/4"			20	25	12	15		12
1 1/4" 1" 1 1/4"		1 1/4" 1" 1 1/4"			20	25	16	20		12
1 1/4" 1 1/4" 1 1/4"		1 1/4" 1 1/4" 1 1/4"			20	25	20	25		12

RANGE OVERVIEW *CleanStar*® C67 T VALVES

Type of connection / availability				Size				Bonnet	Dimensions see page
Butt weld spigots	Butt weld spigot/ Flare connection	Butt weld spigot/ Space saver	Butt weld spigot/ Flare connection	Connection					
				Main pipe X + Z		Branch Y			
				Code international	DN	Code international	DN		
1/4" 1/4" 1/4"				4	8	4	8	1	9
1/2" 1/4" 1/2"				8	15	4	8		9
1/2" 1/2" 1/2"				8	15	8	15	2	10/11
		1/2" 1/2" 1/2"	1/2" 1/2" 1/2"	8	15	8	10		10/11
	3/4" 1/2" 3/4"			12	20	8	10		10/11
	3/4" 3/4" 3/4"			12	20	12	15		
3/4" 1/4" 3/4"				12	20	4	8		
3/4" 1/2" 3/4"				12	20	8	15		
1" 1/2" 1"								3	
1" 3/4" 1"									
1" 1" 1"									
	1" 1/2" 1"	1" 1/2" 1"		16	25	8	10		12
	1" 1" 1"	1" 1" 1"		16	25	10	20		12

Technical data

Flow medium

Suitable for any inert or corrosive gases or liquids,
- particularly high purity media - which do not corrode the
body and diaphragm materials.

Operating temperature

See temperature/pressure diagram on page 5

Flow direction

Optional

Ambient temperature

Max. 60°C (130°F)

Operating pressure

Max. 6 bar when applied upstream only

Vacuum 400 mbar/abs*

* The life expectancy of the valve may be affected if exposed to a
greater vacuum.

Materials

Medium wetted parts (body)	PFA-HP
Diaphragm	PTFE
Exterior bonnet parts	PVDF

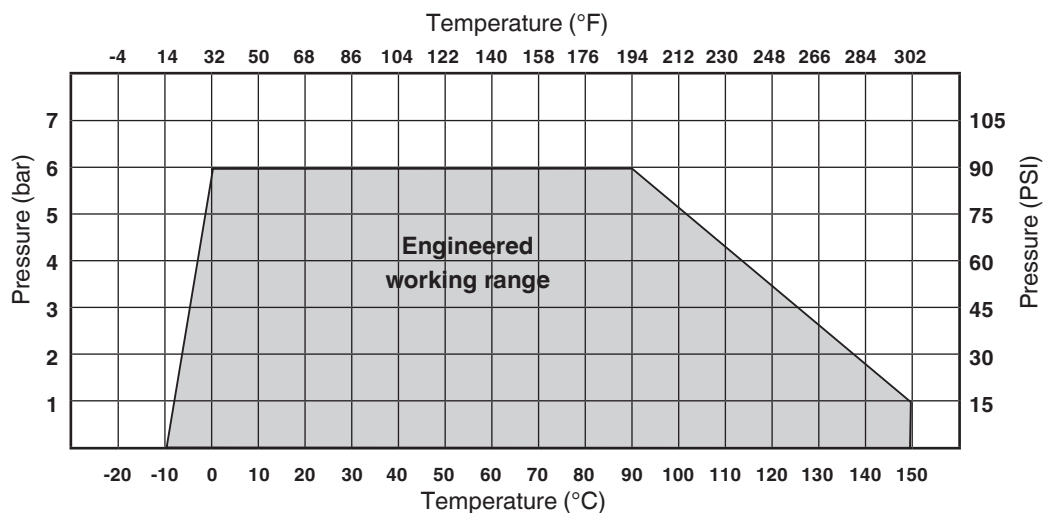
Kv / Cv-values - 2/2-way valves								
Connection				Size			Kv-value	Cv-value
Size		Connection	Code	Code international	DN	Actuator	l/min	US gal/min
1/4"	tube	Flare connection	73, 75, 77	4	4	1	10	0.7
	tube	Flare / Space Saver	73, 75, 77	4	4	1	10	0.7
	pipe	Imp. butt weld spigots	30	4	10	1	15	1.05
3/8"	tube	Flare connection	73, 75, 77	6	6	1	15	1.05
	tube	Flare / Space Saver	73, 75, 77	6	6	1	15	1.05
1/2"	tube	Flare connection	73, 75, 77	8	10	2	35	2.45
	tube	Flare / Space Saver	73, 75, 77	8	10	2	35	2.45
	tube	Space Saver / Space Saver	73, 75, 77	8	10	2	35	2.45
	tube/pipe	Flare / Imp. butt weld spigots	30, 73, 75, 77	8	10/15	2	35	2.45
	pipe	Imp. butt weld spigots	30	8	15	2	68	4.76
3/4"	tube	Flare connection	73, 75, 77	12	15	2	68	4.76
	tube	Flare / Space Saver	73, 75, 77	12	15	2	68	4.76
	tube	Space Saver / Space Saver	73, 75, 77	12	15	2	68	4.76
	tube/pipe	Flare / Imp. butt weld spigots	30, 73, 75, 77	12	15/20	2	68	4.76
	pipe	Imp butt-weld spigots	30	12	20	2	68	4.76
	tube	Flare connection	73, 75, 77	12	15	3	68	4.76
	tube/pipe	Flare / Imp. butt weld spigots	30, 73, 75, 77	12	15/20	3	68	4.76
	pipe	Imp. butt weld spigots	30	12	20	3	126	8.82
1"	tube	Flare connection	73, 75, 77	16	20	3	158	11.06
	tube	Flare connection (High Flow)	73, 75, 77	16	20	3	300	21.06
	tube	Flare / Space Saver	73, 75, 77	16	20	3	158	11.06
	tube	Space Saver / Space Saver	73, 75, 77	16	20	3	158	11.06
	tube/pipe	Flare / Imp. butt weld spigots	30,73, 75, 77	16	20/25	3	160	11.20
	pipe	Imp. butt weld spigots	30	16	25	3	175	12.25
1 1/4"	tube	Flare connection	73, 75, 77	20	25	3	170	11.9

Kv / Cv -values T valves													
Main pipe X and Z						Branch Y					Bonnet	Kv- value	Cv- value
Connection				Size		Connection			Size				
Size		Connection	Code	Code intern.	DN	Size	Connection	Code	Code intern.	DN		l/min	US gal/min
1/4"	pipe	Imp. butt weld spigots	30	4	10	1/4" pipe	Imp. butt weld spigots	30	4	10	1		
3/8"	tube	Flare connection	73, 75, 77	6	6	1/4" tube	Flare connection	73, 75, 77	4	4	1		
	tube	Flare connection	73, 75, 77	6	6	3/8" tube	Flare connection	73, 75, 77	6	6	1		
1/2"	tube	Flare connection	73, 75, 77	8	10	3/8" tube	Flare connection	73, 75, 77	6	6	1	17	1.19
	tube	Flare / Space Saver	73, 75, 77	8	10	3/8" tube	Flare connection	73, 75, 77	6	6	1	17	1.19
	tube	Flare connection	73, 75, 77	8	10	1/2" tube	Flare connection	73, 75, 77	8	10	2	28	1.96
	tube	Flare / Space Saver	73, 75, 77	8	10	1/2" tube	Flare connection	73, 75, 77	8	10	2	28	1.96
	tube	Space Saver / Flare	73, 75, 77	8	10	1/2" tube	Flare connection	73, 75, 77	8	10	2	28	1.96
	pipe	Imp. butt weld spigots	30	8	15	1/4" pipe	Imp. butt weld spigots	30	4	10	1		
	pipe	Imp. butt weld spigots	30	8	15	1/2" pipe	Imp. butt weld spigots	30	8	15	2		
	pipe	Imp. butt weld spigots	30	8	15	1/2" tube	Space Saver	73, 75, 77	8	10	2	36	2.52
3/4"	tube	Flare connection	73, 75, 77	12	15	3/8" tube	Flare connection	73, 75, 77	6	6	1	18	1.26
	tube	Space Saver / Flare	73, 75, 77	12	15	3/8" tube	Flare connection	73, 75, 77	6	6	1	18	1.26
	tube	Flare / Space Saver	73, 75, 77	12	15	3/8" tube	Flare connection	73, 75, 77	6	6	1	18	1.26
	tube	Flare connection	73, 75, 77	12	15	1/2" tube	Flare connection	73, 75, 77	8	10	2	35	2.45
	tube	Flare / Space Saver	73, 75, 77	12	15	1/2" tube	Flare connection	73, 75, 77	8	10	2	35	2.45
	tube	Space Saver / Flare	73, 75, 77	12	15	1/2" tube	Flare connection	73, 75, 77	8	10	2	35	2.45
	tube	Space Saver	73, 75, 77	12	15	1/2" tube	Flare connection	73, 75, 77	8	10	2	35	2.45
	tube	Flare connection	73, 75, 77	12	15	1/2" tube	Space Saver	73, 75, 77	8	10	2	35	2.45

Kv / Cv -values T valves (continued)													
Main pipe X and Z						Branch Y					Bonnet	Kv- value	Cv- value
Connection				Size		Connection			Size				
Size		Connection	Code	Code intern.	DN	Size	Connection	Code	Code intern.	DN		l/min	US gal/min
3/4"	tube	Flare connection	73, 75, 77	12	15	3/4" tube	Flare connection	73, 75, 77	12	15	2	62	4.34
	tube	Space Saver / Flare	73, 75, 77	12	15	3/4" tube	Flare connection	73, 75, 77	12	15	2	62	4.34
	tube	Flare / Space Saver	73, 75, 77	12	15	3/4" tube	Flare connection	73, 75, 77	12	15	2	62	4.34
	tube	Flare connection	73, 75, 77	12	15	3/4" tube	Space Saver	73, 75, 77	12	15	2	62	4.34
	pipe	Imp. butt weld spigots	30	12	20	1/4" pipe	Imp. butt weld spigots	30	4	10	2		
	pipe	Imp. butt weld spigots	30	12	20	1/2" pipe	Imp. butt weld spigots	30	8	15	2	38	2.66
	pipe	Imp. butt weld spigots	30	12	20	1/2" tube	Flare connection	73, 75, 77	8	10	2	38	2.66
	pipe	Imp. butt weld spigots	30	12	20	3/4" tube	Flare connection	73, 75, 77	12	15	2	71	4.97
1"	tube	Flare connection	73, 75, 77	16	20	1/2" tube	Flare connection	73, 75, 77	8	10	2	38	2.66
	tube	Space Saver / Flare	73, 75, 77	16	20	1/2" tube	Flare connection	73, 75, 77	8	10	2	38	2.66
	tube	Flare / Space Saver	73, 75, 77	16	20	1/2" tube	Flare connection	73, 75, 77	8	10	2	38	2.66
	tube	Space Saver	73, 75, 77	16	20	1/2" tube	Flare connection	73, 75, 77	8	10	2	38	2.66
	tube	Flare connection	73, 75, 77	16	20	3/4" tube	Flare connection	73, 75, 77	12	15	2	71	4.97
	tube	Space Saver / Flare	73, 75, 77	16	20	3/4" tube	Flare connection	73, 75, 77	12	15	2	71	4.97
	tube	Flare / Space Saver	73, 75, 77	16	20	3/4" tube	Flare connection	73, 75, 77	12	15	2	71	4.97
	tube	Flare connection	73, 75, 77	16	20	3/4" tube	Space Saver	73, 75, 77	12	15	2	71	4.97
	tube	Flare connection	73, 75, 77	16	20	1" tube	Flare connection	73, 75, 77	16	20	3	137	9.59
	tube	Space Saver / Flare	73, 75, 77	16	20	1" tube	Flare connection	73, 75, 77	16	20	3	137	9.59
	tube	Flare / Space Saver	73, 75, 77	16	20	1" tube	Flare connection	73, 75, 77	16	20	3	137	9.59
	pipe	Imp. butt weld spigots	30	16	25	1/2" pipe	Imp. butt weld spigots	30	8	15	3		
	pipe	Imp. butt weld spigots	30	16	25	1/2" pipe	Flare connection	73, 75, 77	8	10	3		
	pipe	Imp. butt weld spigots	30	16	25	3/4" pipe	Imp. butt weld spigots	30	12	20	3		
	pipe	Imp. butt weld spigots	30	16	25	1" pipe	Imp. butt weld spigots	30	16	25	3	135	9.45
	pipe	Imp. butt weld spigots	30	16	25	1" tube	Flare connection	73, 75, 77	16	20	3		
1 1/4"	tube	Flare connection	73, 75, 77	20	25	1/2" tube	Flare connection	73, 75, 77	8	10	3	53	3.71
	tube	Flare connection	73, 75, 77	20	25	3/4" tube	Flare connection	73, 75, 77	12	15	3	117	8.19
	tube	Flare connection	73, 75, 77	20	25	1" tube	Flare connection	73, 75, 77	16	20	3	150	10.5
	tube	Flare connection	73, 75, 77	20	25	1 1/4" tube	Flare connection	73, 75, 77	20	25	3	170	11.9

Kv/Cv value Flare connection $\triangle$ Kv/Cv value Space saver

Temperature / pressure - diagram



Information on the use of the temperature / pressure diagram

The temperature / pressure diagram is only an orientation aid. The data refer to water as a working medium. A change of operating conditions or other media may result in deviations. In case of doubt it is advisable to test the behavior of the material under the definitive operating conditions by means of a test installation.

Order data

Position space saver (for 2/2-way body)		Code
Space saver in z-position		Z
Space saver in x+z-position		S

Position butt weld spigot (for 2/2-way body)		Code
Flare in x butt weld spigot in z		K

Position space saver (for T body)		Code
Space saver in y-position		Y

Nominal size*		Code
1/4" tube	DN 4	4
3/8" tube	DN 6	6
1/2" tube	DN 10	8
1/2" pipe	DN 15	8
3/4" tube	DN 15	12
3/4" pipe	DN 20	12
1" tube	DN 20	16
1" pipe	DN 25	16
1 1/4" tube	DN 25	20
* 2/2-way body and branch T body (y position)		

Valve body configuration		Code
2/2-way body		D
T body		T

Valve body connection		Code
Imperial butt weld spigots		30
Flare connection with C-PFA-HP union nut		73
Flare connection with PVDF-HP union nut (also for space saver)		75
Flare connection with PFA-HP union nut (also for space saver)		77

Valve body material		Code
PFA, perfluoralkoxy		30

Diaphragm material		Code
PTFE/EPDM		5A

Control function		Code
Manually operated		0

Bonnet size		Code
Bonnet 1		1
Bonnet 2		2
Bonnet 3		3
Bonnet 3 (High Flow)		3F
For defining the bonnet size, please refer to the tables on pp. 2 to 5.		

Additional order data for T valves

Position of Space saver (for T bodies)		Code
Space saver in x-position		X
Space saver in z-position		Z
Space saver in x+z-position		S

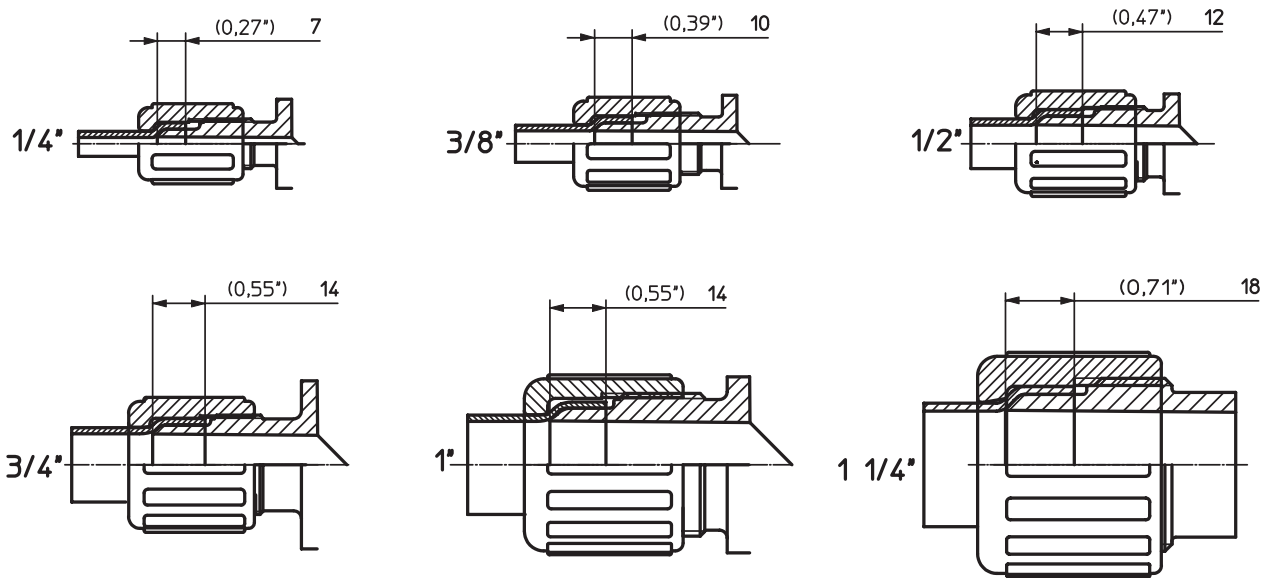
Nominal size of main pipe (only T valves)			Code
1/2" tube	DN 10		8
3/4" tube	DN 15		12
1" tube	DN 20		16
1" pipe	DN 25		16
1 1/4" tube	DN 25		20

Connection of main pipe (only T valves)		Code
Imperial butt weld spigots		30
Flare connection with C-PFA-HP union nut		73
Flare connection with PVDF-HP union nut (also for space saver)		75
Flare connection with PFA-HP union nut (also for space saver)		77

Order example	C67	Z	8	D	75	30	5A	0	2	Z	8	75	HPW
Type	C67												
Position Space saver (optional)		Z											
Nominal size (code)			8										
Valve body configuration (code)				D									
Valve body connection (code)					75								
Valve body material (code)						30							
Diaphragm material (code)							5A						
Control function (code)								0					
Bonnet size (code)									2				
T body: Position of Space saver (optional)										Z			
T body: Nominal size of main pipe (code)											8		
T body: Connection of main pipe (code)												75	
High Purity, white													HPW

Dimensions / Tolerances

Overlap dimensions and thread sizes of flare connections



In Flare connections tolerances of ± 2.5 mm are possible.

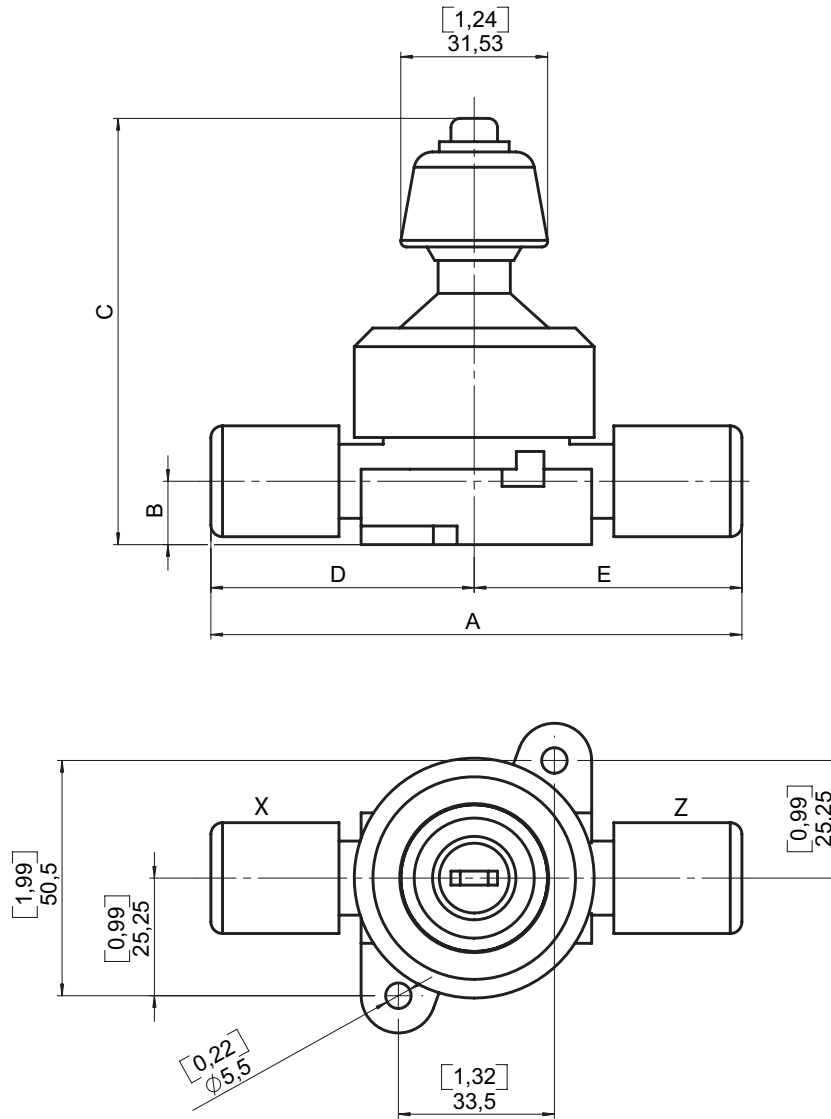
Thread sizes of Flare connections

Tube size	Thread designation	Standard
1/4"	1/2"-20-UNF	ANSI B 1.1
3/8"	5/8"-20-UN	ANSI B 1.1
1/2"	3/4"-20-UNEF	ANSI B 1.1
3/4"	1"-20-UNEF	ANSI B 1.1
1"	1-7/16"-12-UN	ANSI B 1.1
1 1/4"	1-3/4"-8-UN	ANSI B 1.1

Tolerances

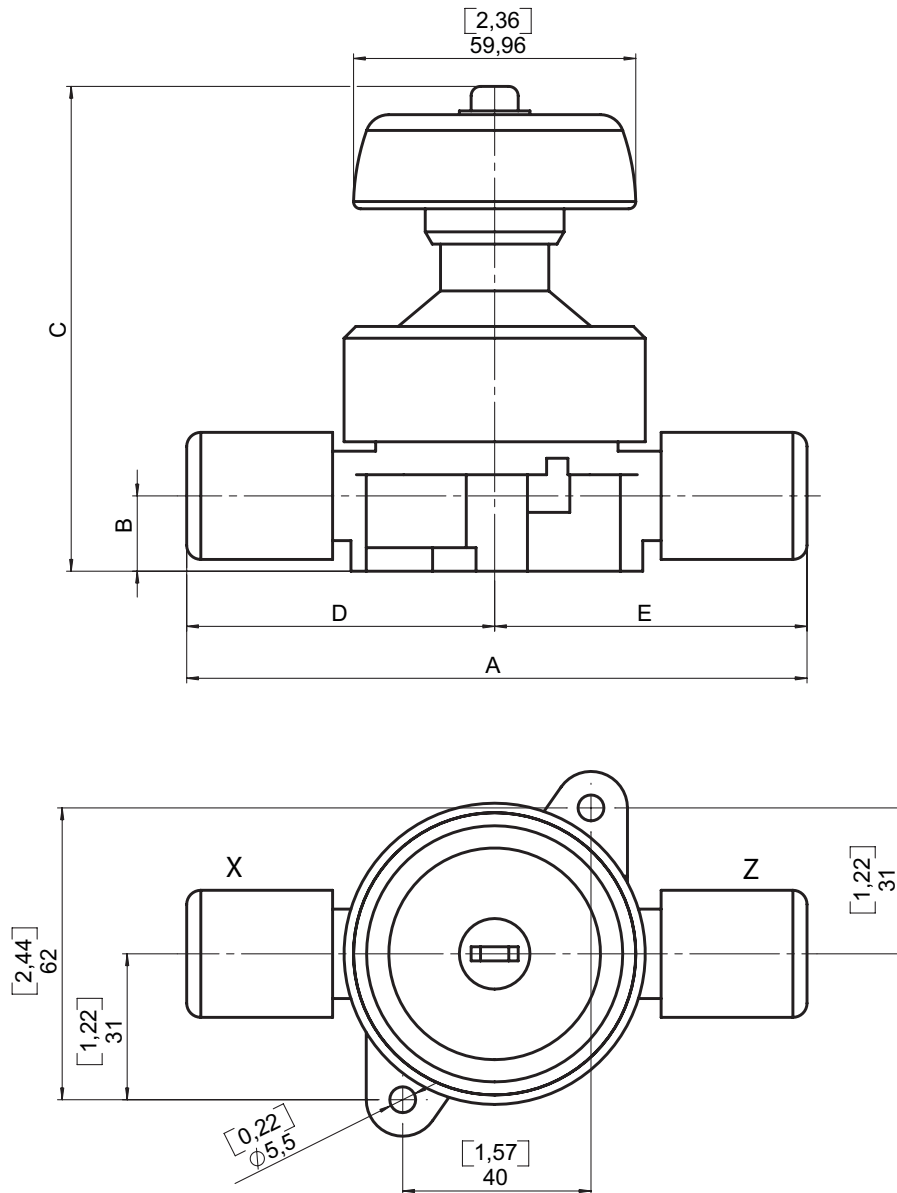
- The **CleanStar®** plastic parts are manufactured to DIN 16901-140.
- In Space Saver - Flare connections tolerances of ± 2.5 mm are possible.
- Tolerance data for butt weld connections will vary depending on the design of the welding machine used.

Dimensions 2/2-way valves - Bonnet size 1



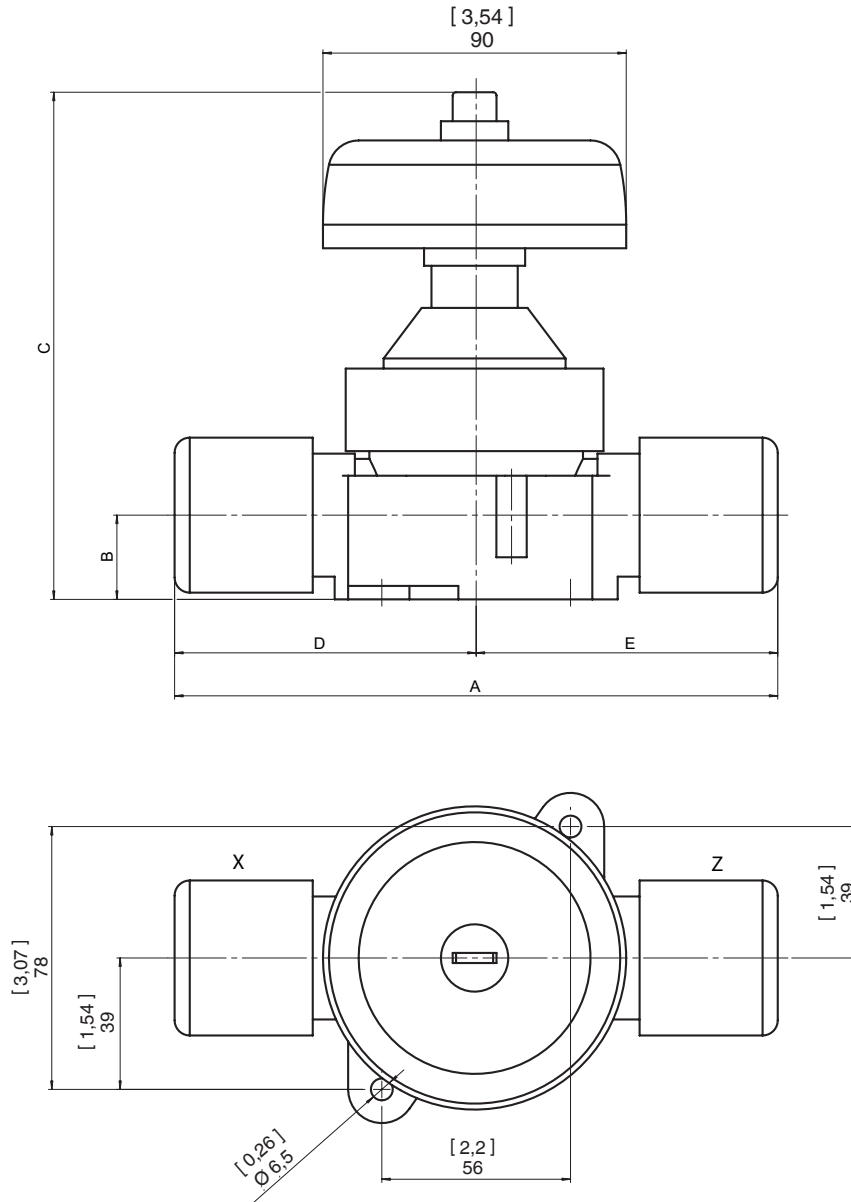
Connection		Dimensions [mm/inch]				
X	Z	A	B	C	D	E
1/4" Butt weld spigot	1/4" Butt weld spigot	102.0/4.02"	13.6/0.54"	91.5/3.6"	51.0/2.01"	51.0/2.01"
1/4" Flare	1/4" Flare	112.8/4.44"	13.6/0.54"	91.5/3.6"	51.0/2.01"	51.0/2.01"
1/4" Flare	1/4" Space Saver	120.1/4.73"	13.6/0.54"	91.5/3.6"	56.4/2.22"	63.7/2.50"
3/8" Flare	3/8" Flare	114.0/4.49"	13.6/0.54"	91.5/3.6"	57.0/2.24"	57.0/2.24"
3/8" Flare	3/8" Space Saver	119.4/4.70"	13.6/0.54"	91.5/3.6"	57.0/2.24"	62.4/2.45"

Dimensions 2/2-way valves - Bonnet size 2



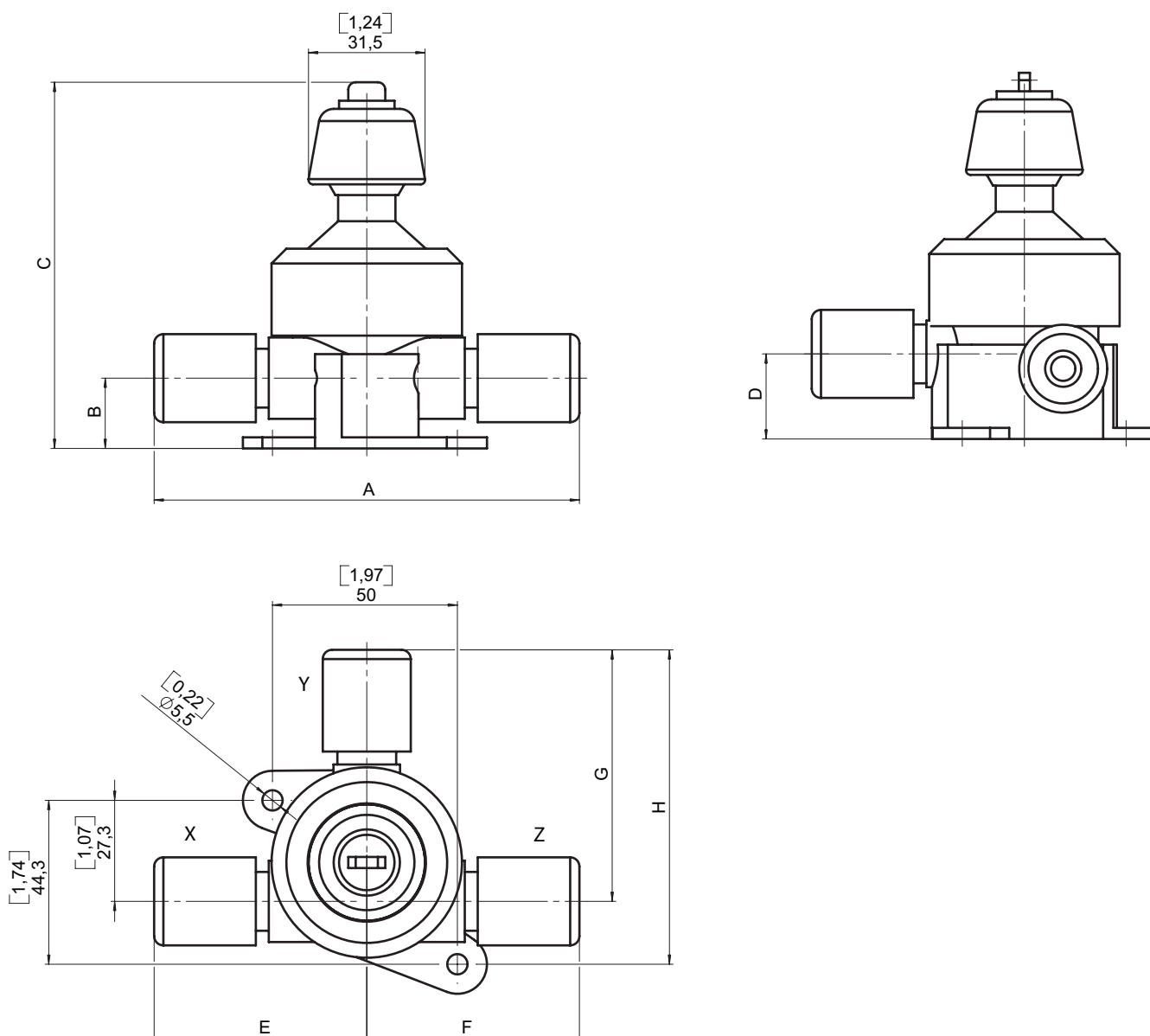
Connection		Dimensions [mm/inch]				
X	Z	A	B	C	D	E
1/2" Butt weld spigot	1/2" Butt weld spigot	135.0/5.31"	19/0.75"	109/4.29"	67.5/2.65"	67.5/2.65"
1/2" Flare	1/2" Butt weld spigot	133.4/5.25"	19/0.75"	109/4.29"	65.9/2.59"	67.5/2.65"
1/2" Flare	1/4" Flare	131.8/5.19"	16/0.63"	103/4.06"	65.9/2.59"	65.9/2.59"
1/2" Flare	1/2" Space Saver	136.9/5.39"	16/0.63"	103/4.06"	65.9/2.59"	71.0/2.79"
1/2" Space Saver	1/2" Space Saver	142.0/5.59"	16/0.63"	103/4.06"	71.0/2.79"	71.0/2.79"
3/4" Butt weld spigot	3/4" Butt weld spigot	135.0/5.31"	19/0.75"	109/4.29"	67.5/2.65"	67.5/2.65"
3/4" Flare	3/4" Butt weld spigot	134.4/5.29"	19/0.75"	109/4.29"	66.9/2.63"	67.5/2.65"
3/4" Flare	3/4" Flare	133.8/5.26"	19/0.75"	109/4.29"	66.9/2.63"	66.9/2.63"
3/4" Flare	3/4" Space Saver	145.3/5.72"	19/0.75"	109/4.29"	66.9/2.63"	78.4/3.08"
3/4" Space Saver	3/4" Space Saver	156.8/6.17"	19/0.75"	109/4.29"	78.4/3.08"	78.4/3.08"

Dimensions 2/2-way valves - Bonnet size 3



Connection		Dimensions [mm/inch]				
X	Z	A	B	C	D	E
3/4" Butt weld spigot	3/4" Butt weld spigot	166.0/6.54"	25/0.98"	150.5/5.92"	83.0/3.26"	83.0/3.26"
3/4" Flare	3/4" Butt weld spigot	165.9/6.53"	25/0.98"	150.5/5.92"	82.9/3.26"	83.0/3.26"
3/4" Flare	3/4" Flare	165.8/6.53"	25/0.98"	150.5/5.92"	82.9/3.26"	82.9/3.26"
1" Butt weld spigot	1" Butt weld spigot	166.0/6.54"	25/0.98"	150.5/5.92"	83.0/3.26"	83.0/3.26"
1" Flare	1" Butt weld spigot	172.5/6.79"	25/0.98"	150.5/5.92"	89.5/3.52"	83.0/3.26"
1" Flare	1" Flare	179.0/7.05"	25/0.98"	150.5/5.92"	89.5/3.52"	89.5/3.52"
1" Flare	1" Space Saver	188.9/7.44"	25/0.98"	150.5/5.92"	89.5/3.52"	99.4/3.91"
1" Space Saver	1" Space Saver	198.8/7.83"	25/0.98"	150.5/5.92"	99.4/3.91"	99.4/3.91"
1 1/4" Flare	1 1/4" Flare	238.4/9.39"	25/0.98"	150.5/5.92"	119.2/4.69"	119.2/4.69"

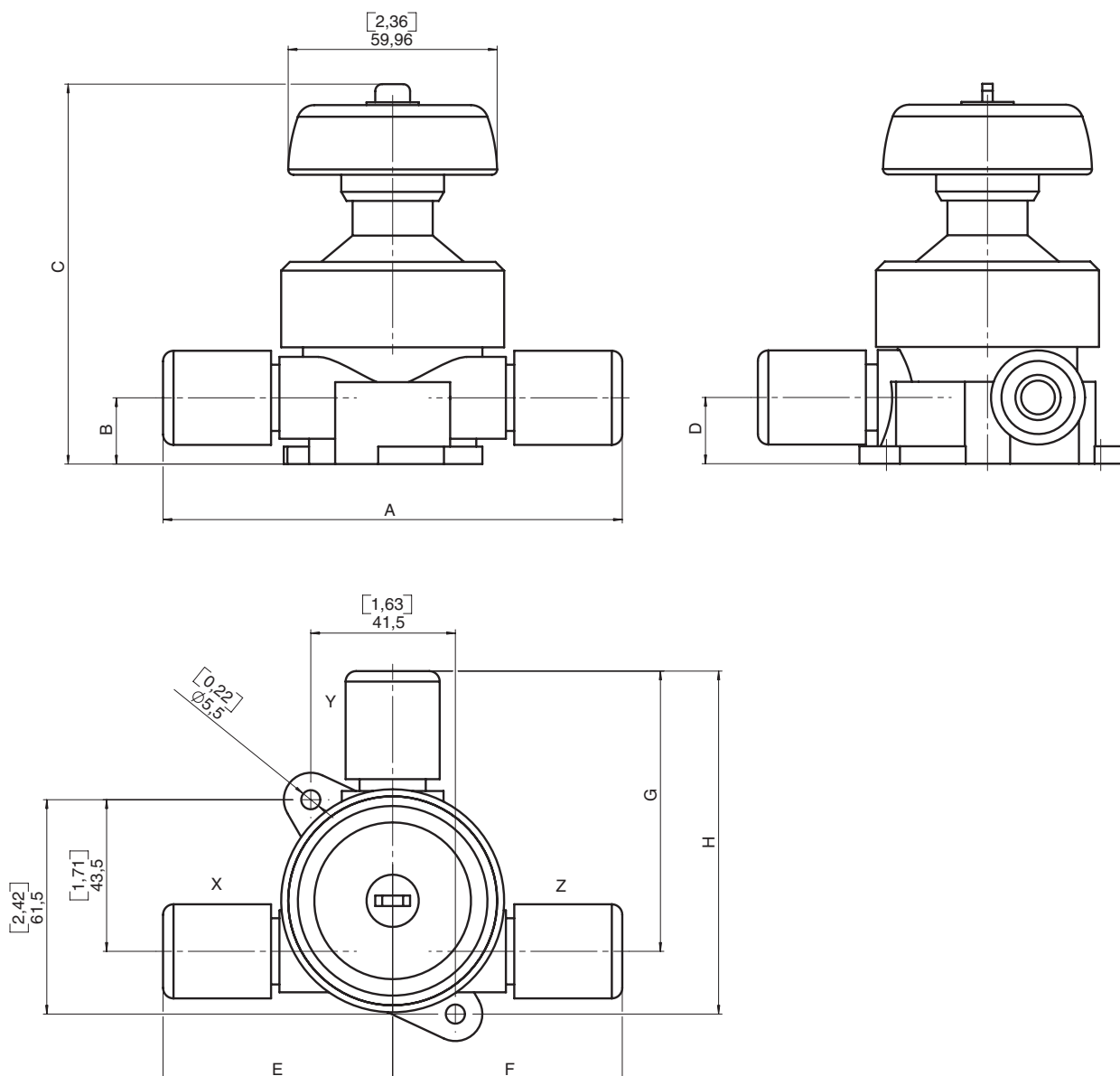
Dimensions T-valves - Bonnet size 1



Connection			Dimensions [mm/inch]							
X	Y	Z	A	B	C	D	E	F	G	H
1/4" Butt weld	1/4" Butt weld	1/4" Butt weld	106.0/4.17"	19/0.75"	99/3.90"	23/0.91"	53.0/2.08"	53.0/2.08"	63.5/2.50"	80.5/3.16"
1/2" Butt weld	1/4" Butt weld	1/2" Butt weld	106.0/4.17"	19/0.75"	99/3.90"	23/0.91"	53.0/2.08"	53.0/2.08"	63.5/2.50"	80.5/3.16"
3/8" Flare	1/4" Flare	3/8" Flare	115.0/4.53"	19/0.75"	99/3.90"	23/0.91"	57.5/2.26"	57.5/2.26"	67.4/2.65"	84.4/3.32"
3/8" Flare	3/8" Flare	3/8" Flare	115.0/4.53"	19/0.75"	99/3.90"	23/0.91"	57.5/2.26"	57.5/2.26"	68.0/2.68"	85.0/3.34"
1/2" Flare	3/8" Flare	1/2" Flare	120.8/4.76"	19/0.75"	99/3.90"	23/0.91"	60.4/2.37"	60.4/2.37"	68.0/2.68"	85.0/3.34"
1/2" Flare	3/8" Flare	1/2" SS*	131.9/5.19"	19/0.75"	99/3.90"	23/0.91"	60.4/2.37"	71.5/2.81"	68.0/2.68"	85.0/3.34"
3/4" Flare	3/8" Flare	3/4" Flare	125.8/4.95"	19/0.75"	99/3.90"	23/0.91"	62.9/2.47"	62.9/2.47"	68.0/2.68"	85.0/3.34"
3/4" SS*	3/8" Flare	3/4" Flare	135.3/5.33"	19/0.75"	99/3.90"	23/0.91"	72.4/2.85"	62.9/2.47"	68.0/2.68"	85.0/3.34"
3/4" Flare	3/8" Flare	3/4" SS*	135.3/5.33"	19/0.75"	99/3.90"	23/0.91"	62.9/2.47"	72.4/2.85"	68.0/2.68"	85.0/3.34"

*Space Saver

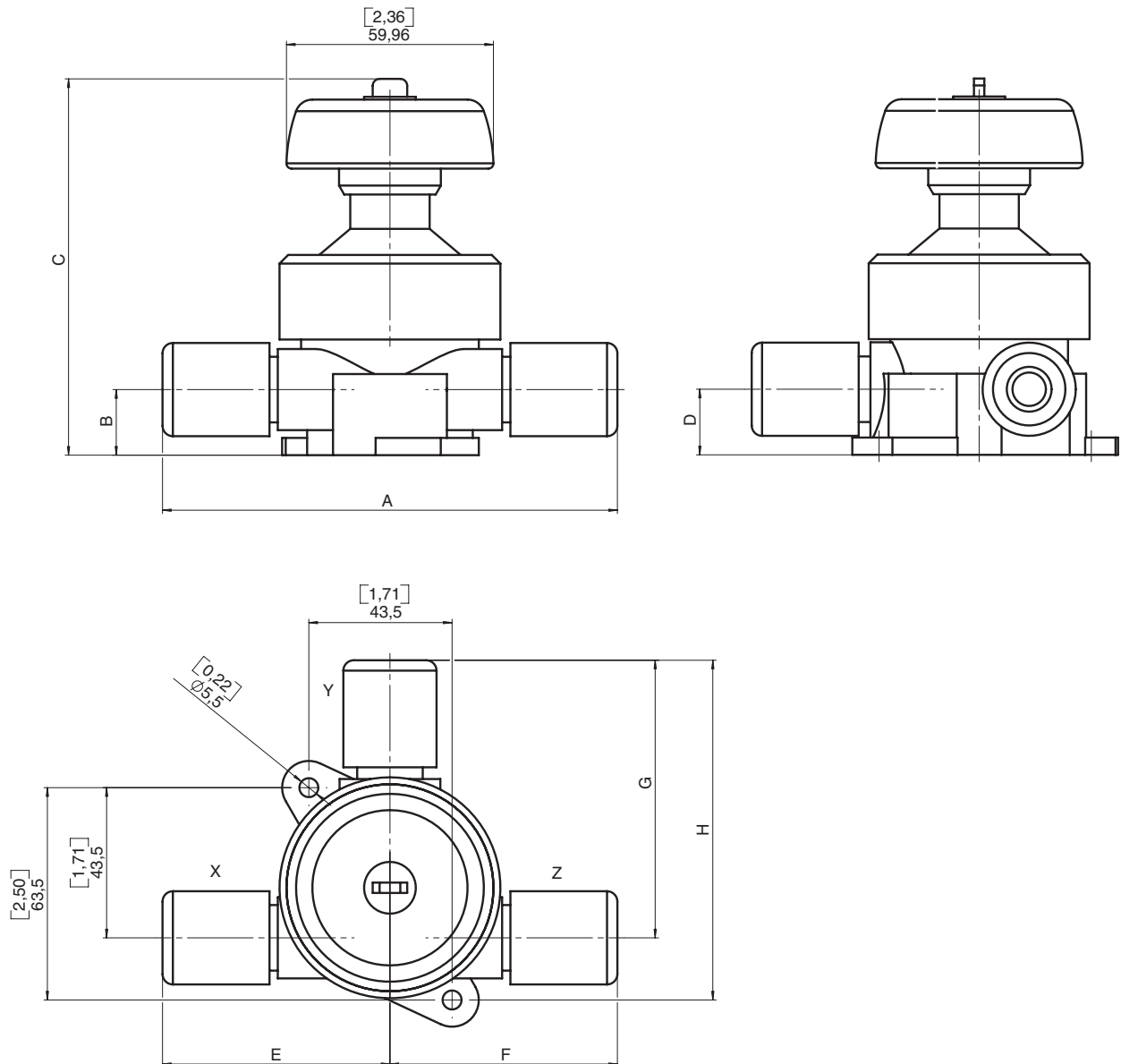
Dimensions T-valves - Bonnet size 2



Connection			Dimensions [mm/inch]							
X	Y	Z	A	B	C	D	E	F	G	H
1/2" Butt weld	1/2" Butt weld	1/2" Butt weld	122.0/4.80"	19.0/0.75"	109.0/4.29"	19.0/0.75"	61.0/2.40"	61.0/2.40"	75.5/2.97"	93.5/3.68"
1/2" Flare	1/2" Flare	1/2" Flare	131.8/5.19"	19.0/0.75"	109.0/4.29"	19.0/0.75"	65.9/2.59"	65.9/2.59"	80.4/3.17"	98.4/3.87"
1/2" Flare	1/2" Flare	1/2" SS*	136.0/5.39"	19.0/0.75"	109.0/4.29"	19.0/0.75"	65.9/2.59"	70.1/2.76"	80.4/3.17"	98.4/3.87"
1/2" Flare	1/2" SS*	1/2" Flare	131.8/5.19"	19.0/0.75"	109.0/4.29"	19.0/0.75"	65.9/2.59"	65.9/2.59"	85.5/3.37"	103.5/4.07"
3/4" Butt weld	1/4" Butt weld	3/4" Butt weld	140.0/5.51"	25.0/0.98"	118.4/4.66"	28.5/1.12"	70.0/2.75"	70.0/2.75"	76.5/3.01"	96.0/3.76"
3/4" Flare	1/2" Flare	3/4" Flare	133.8/5.27"	19.0/0.75"	109.0/4.29"	19.0/0.75"	66.9/2.63"	66.9/2.63"	80.4/3.17"	98.4/3.87"
3/4" SS*	1/2" Flare	3/4" Flare	145.3/5.72"	19.0/0.75"	109.0/4.29"	19.0/0.75"	78.4/3.08"	66.9/2.63"	80.4/3.17"	98.4/3.87"
3/4" Flare	1/2" Flare	3/4" SS*	145.3/5.72"	19.0/0.75"	109.0/4.29"	19.0/0.75"	66.9/2.63"	78.4/3.08"	80.4/3.17"	98.4/3.87"
3/4" SS*	1/2" Flare	3/4" SS*	156.8/6.17"	19.0/0.75"	109.0/4.29"	19.0/0.75"	78.4/3.08"	78.4/3.08"	80.4/3.17"	98.4/3.87"
3/4" Flare	1/2" SS*	3/4" Flare	133.8/5.27"	19.0/0.75"	109.0/4.29"	19.0/0.75"	66.9/2.63"	66.9/2.63"	85.5/3.37"	103.5/4.07"
3/4" Flare	3/4" Flare	3/4" Flare	133.8/5.27"	19.0/0.75"	109.0/4.29"	19.0/0.75"	66.9/2.63"	66.9/2.63"	81.4/3.20"	99.4/3.91"
3/4" SS*	3/4" Flare	3/4" Flare	145.3/5.72"	19.0/0.75"	109.0/4.29"	19.0/0.75"	78.4/3.08"	66.9/2.63"	81.4/3.20"	99.4/3.91"
3/4" Flare	3/4" Flare	3/4" SS*	145.3/5.72"	19.0/0.75"	109.0/4.29"	19.0/0.75"	66.9/2.63"	78.4/3.08"	81.4/3.20"	99.4/3.91"
3/4" Flare	3/4" SS*	3/4" Flare	133.8/5.27"	19.0/0.75"	109.0/4.29"	19.0/0.75"	66.9/2.63"	66.9/2.63"	92.4/3.63"	110.4/4.34"

*Space Saver

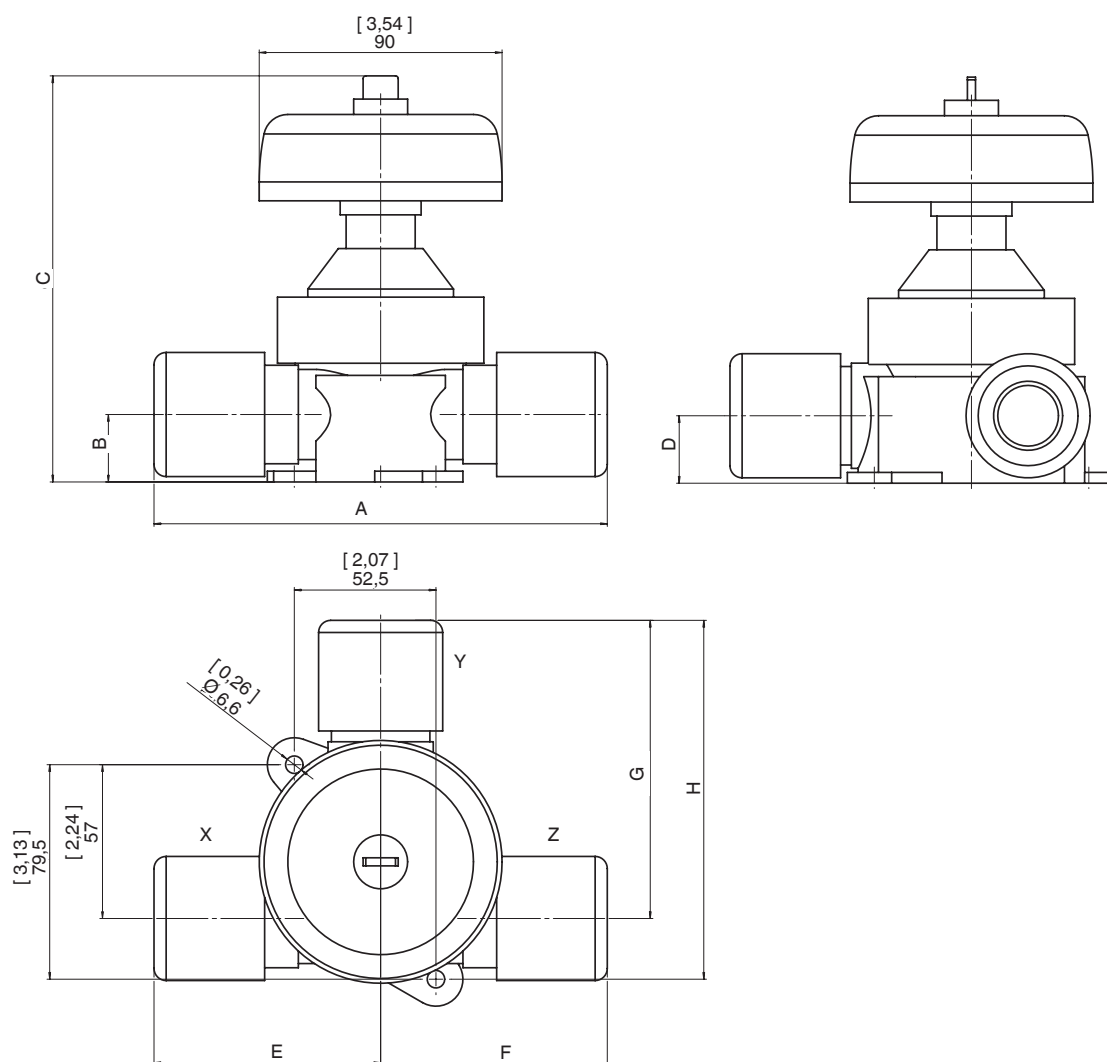
Dimensions T-valves - Bonnet size 2



Connection			Dimensions [mm/inch]							
X	Y	Z	A	B	C	D	E	F	G	H
1/2" Butt weld	1/2" SS*	1/2" Butt weld	122.0/4.80"	19.0/0.75"	109.0/4.29"	19.0/0.75"	61.0/2.40"	61.0/2.40"	85.5/3.37"	103.5/4.07"
3/4" Butt weld	1/2" Butt weld	3/4" Butt weld	140.0/5.51"	25.0/0.98"	118.4/4.66"	28.5/1.12"	70.0/2.75"	70.0/2.75"	83.5/3.28"	103.0/4.05"
3/4" Butt weld	1/2" Flare	3/4" Butt weld	140.0/5.51"	25.0/0.98"	118.4/4.66"	28.5/1.12"	70.0/2.75"	70.0/2.75"	81.4/3.20"	100.9/3.97"
3/4" Butt weld	3/4" Flare	3/4" Butt weld	140.0/5.51"	25.0/0.98"	118.4/4.66"	28.5/1.12"	70.0/2.75"	70.0/2.75"	82.4/3.24"	101.9/4.01"
1" Flare	1/2" Flare	1" Flare	154.0/6.06"	25.0/0.98"	118.4/4.66"	28.5/1.12"	77.0/3.03"	77.0/3.03"	81.4/3.20"	100.9/3.97"
1" SS*	1/2" Flare	1" Flare	158.9/6.26"	25.0/0.98"	118.4/4.66"	28.5/1.12"	81.9/3.22"	77.0/3.03"	81.4/3.20"	100.9/3.97"
1" Flare	1/2" Flare	1" SS*	158.9/6.26"	25.0/0.98"	118.4/4.66"	28.5/1.12"	77.0/3.03"	81.9/3.22"	81.4/3.20"	100.9/3.97"
1" SS*	1/2" Flare	1" SS*	163.8/6.45"	25.0/0.98"	118.4/4.66"	28.5/1.12"	81.9/3.22"	81.9/3.22"	81.4/3.20"	100.9/3.97"
1" Flare	3/4" Flare	1" Flare	154.0/6.06"	25.0/0.98"	118.4/4.66"	28.5/1.12"	77.0/3.03"	77.0/3.03"	82.4/3.24"	101.9/4.01"
1" SS*	3/4" Flare	1" Flare	158.9/6.26"	25.0/0.98"	118.4/4.66"	28.5/1.12"	81.9/3.22"	77.0/3.03"	82.4/3.24"	101.9/4.01"
1" Flare	3/4" Flare	1" SS*	158.9/6.26"	25.0/0.98"	118.4/4.66"	28.5/1.12"	77.0/3.03"	81.9/3.22"	82.4/3.24"	101.9/4.01"
1" Flare	3/4" SS*	1" Flare	154.0/6.06"	25.0/0.98"	118.4/4.66"	28.5/1.12"	77.0/3.03"	77.0/3.03"	92.9/3.65"	112.4/4.42"

*Space Saver

Dimensions T-valves - Bonnet size 3



Connection			Dimensions [mm/inch]							
X	Y	Z	A	B	C	D	E	F	G	H
1" Butt weld	1/2" Butt weld	1" Butt weld	163.0/6.42"	25/0.98"	150.5/5.92"	25/0.98"	81.5/3.20"	81.5/3.20"	102.0/4.02"	124.5/4.90"
1" Butt weld	1/2" Flare	1" Butt weld	163.0/6.42"	25/0.98"	150.5/5.92"	25/0.98"	81.5/3.20"	81.5/3.20"	99.9/3.93"	122.4/4.81"
1" Butt weld	3/4" Butt weld	1" Butt weld	163.0/6.42"	25/0.98"	150.5/5.92"	25/0.98"	81.5/3.20"	81.5/3.20"	102.0/4.02"	124.5/4.90"
1" Butt weld	1/2" Butt weld	1" Butt weld	163.0/6.42"	25/0.98"	150.5/5.92"	25/0.98"	81.5/3.20"	81.5/3.20"	103.5/4.07"	126.0/4.96"
1" Butt weld	1" Flare	1" Butt weld	163.0/6.42"	25/0.98"	150.5/5.92"	25/0.98"	81.5/3.20"	81.5/3.20"	110.5/4.35"	133.0/5.23"
1" Flare	1" Flare	1" Flare	168.0/6.61"	25/0.98"	150.5/5.92"	25/0.98"	84.0/3.30"	84.0/3.30"	110.5/4.35"	133.0/5.23"
1" SS*	1" Flare	3/4" Flare	177.9/7.00"	25/0.98"	150.5/5.92"	25/0.98"	93.9/3.69"	84.0/3.30"	110.5/4.35"	133.0/5.23"
1" Flare	1" Flare	1" SS*	177.9/7.00"	25/0.98"	150.5/5.92"	25/0.98"	84.0/3.30"	93.9/3.69"	110.5/4.35"	133.0/5.23"
1 1/4" Flare	1/2" Flare	1 1/4" Flare	238.4/9.39"	25/0.98"	150.5/5.92"	25/0.98"	119.2/4.69"	119.2/4.69"	99.9/3.93"	122.4/4.81"
1 1/4" Flare	1" Flare	1 1/4" Flare	238.4/9.39"	25/0.98"	150.5/5.92"	25/0.98"	119.2/4.69"	119.2/4.69"	110.5/4.35"	133.0/5.23"
1 1/4" Flare	1 1/4" Flare	1 1/4" Flare	238.4/9.39"	25/0.98"	150.5/5.92"	25/0.98"	119.2/4.69"	119.2/4.69"	143.2/5.63"	165.7/6.52"

*Space Saver



GEMÜ 1096
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GEMÜ 1096
Service tool for
flare union nuts



GEMÜ 1098
Flaring mandrel



GEMÜ C67 LOD
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