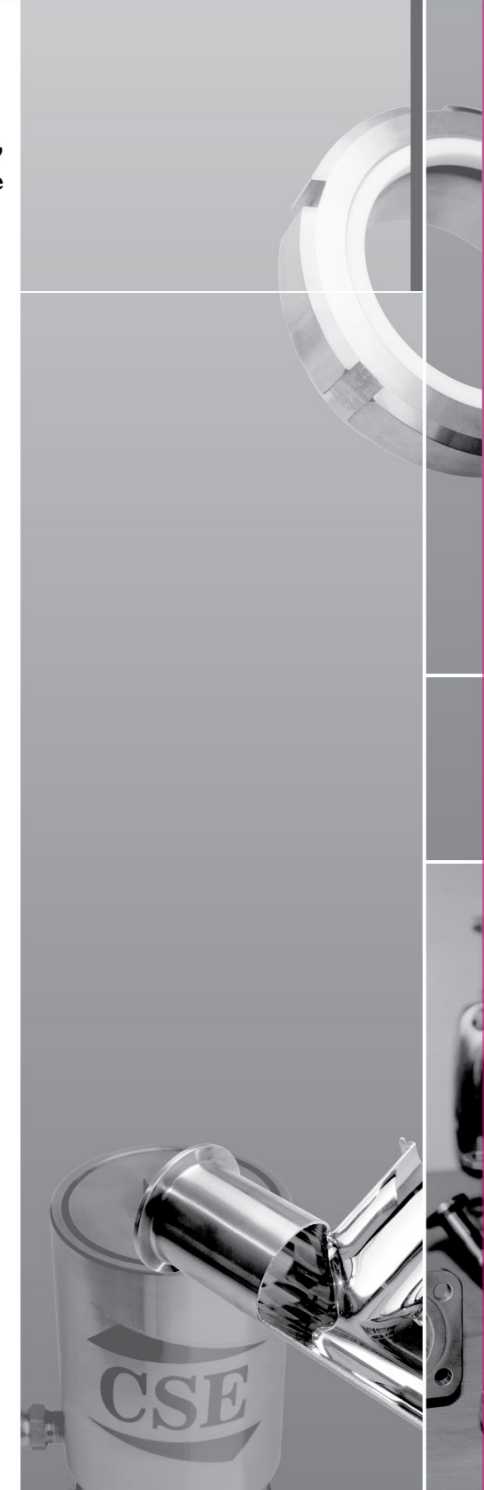


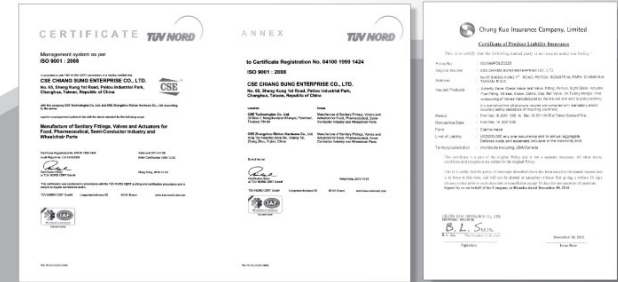
**CSE Producing Technology, Purity, Services,
and Fresh under control and stable**

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Sanitary Components, Fitting..	32-36
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BPE, Pharmaceutical Fitting Semi-Conductor Fitting	40-46

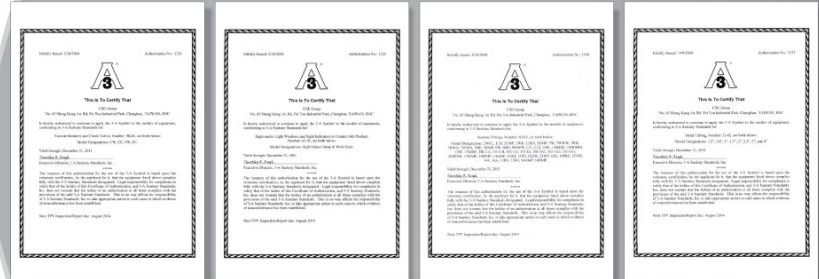


CSE of consistent management, rigorous quality guarantee, and intact responsibility



ISO CERTIFICATE

Product Liability Insurance

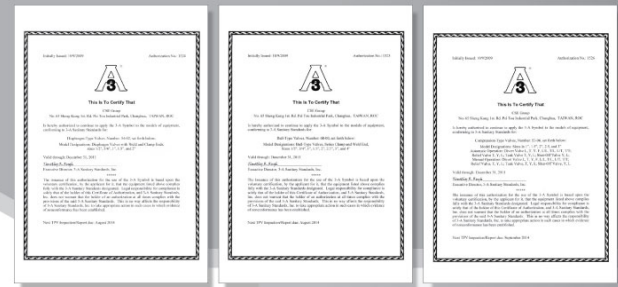


3A NO.1324 Check Valves

3A NO.1325 Sight Glass

3A NO.1340 Sanitary Fittings

3A NO.1523 Metal Tubing



3A NO.1524 Diaphragm Valves

3A NO.1525 Ball Valves

3A NO.1526 Compression Valves

C.S.E. certified by 3A and TÜV ISO 9001 with EN10204 3.1 material cert. will be your assurance of outstanding quality & service.



QA-0410091424



QA-0410091424



Project examples

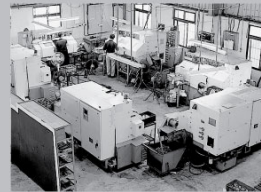
CIP Cleaning System CIP / SIP Sterilizing System SIP / UHT Sterilizing System UHT / Water Flow-Process / Mixing Tank / Filter / Auto Sterilizing & Cooling Machine / Centrifuge / Chlorine Water System / High Speed Mixer / Homogenizer / Hot Water System



Business Services & Production Control



CNC Milling Center for Valve



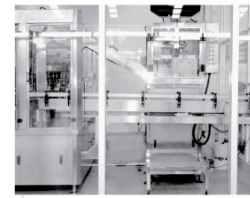
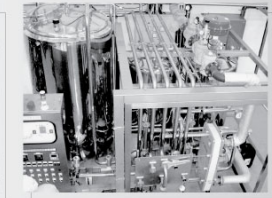
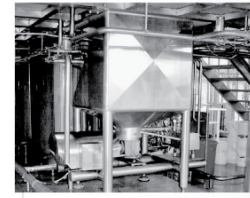
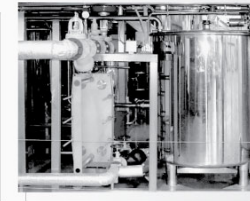
CNC Machine Section

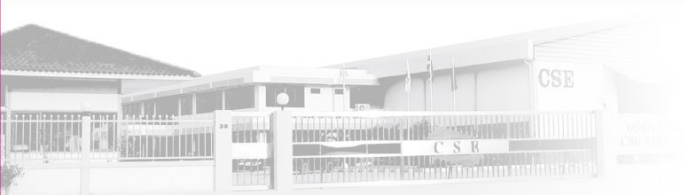


Packing Lines

MAJOR EQUIPMENT

- Ultrasonic Cleaning System
- Precision CNC Lathes
- CNC Milling Centers
- Hydraulic & Air Test Equipment & Leaking Test Machines
- Weld-Equipment





BPE EP Processing & Inspection



Range of Pipe Fittings



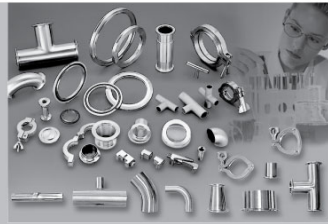
Lost Wax Casting Casting



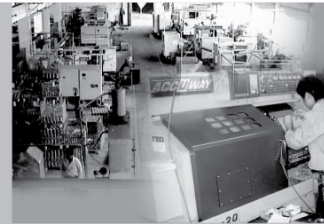
Fitting Section of Stock



Sanitary Tube Stock



Pharmaceutical , Biotechnology, Semiconductor Fitting



CNC Machining for Valve



BS, AS NZS Standard RJT & CIP & IDF Fitting



Quality Guarantee



OD/ID Polishing Lines



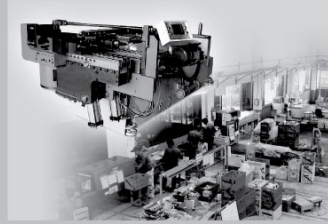
Roughness Test



Clamp & Ferrule



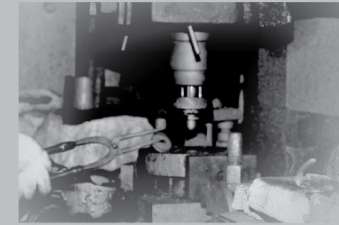
Annealing



Long Bend Equipment / Packing Lines



SMS & DIN Fitting



Forged

Products



Auto Control Divert Valve (Without control Box)



Manual Divert Valve



Pneumatic / Manual Diaphragm Valve / Tank Valve



Actuator for Butterfly Valve



Control Box



CSE Manual for Butterfly Valve



OEM Pneumatic / Manual Valve



Pneumatic / Manual Ball Valve

Position Control



Products



QA-0410091424

○ Sight Glass



○ CSE Tank Valve Pneumatic / Manual



○ Check Valve



○ Plug Cock Valve



○ Sample Valve



○ Filter



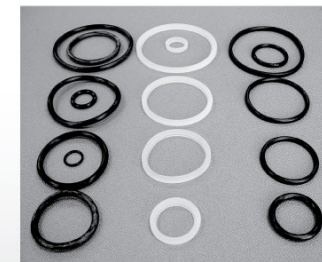
○ Spray Ball



○ Unions
DIN, SMS



○ Clamp Unions / Seal / Tubing Hanger





QA-0410091424



Auto Control Valve & Manual Control Valve



CSE Innovation Control Valve Range

CSE Width Range Products:

- Auto Control Divert Valve
- Actuator for Butterfly Valve
- Wide Range Butterfly Valve
- Sight Glass & Non-return Valve
- 3A,BS,AS,NZS,DIN,SMS,RJT,CIP,IDF...etc.
Standard Union & Ferrule & Fitting
- 3A,DIN,SMS...etc. ASTM-A270 Sanitary Tube
- OEM Valve and Sanitary Ball Valve
- OEM/ODM Services



CSE Technical Service for Manual & Control Valve Unit



For Joint any
Tube fitting-3A, SMS, DIN, BS,
Elbow, Tee, Reducer
Clamp-Union-Weld/Expanding
Ferrule, Clamp, Valve-Butterfly,
Check, Sight Glass, Ball Valve
with our Orbitol weld Equipment

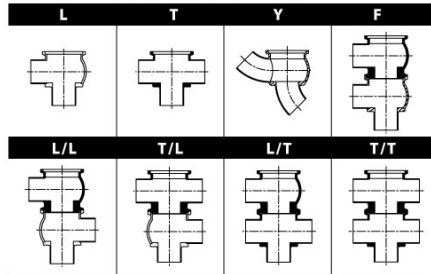




CSE Auto Control Divert Valve

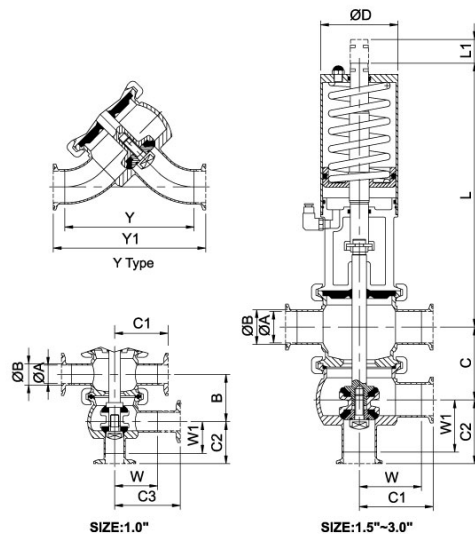
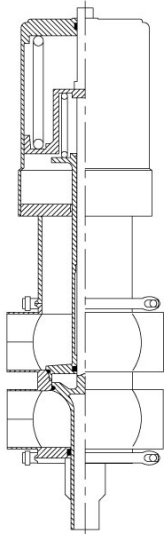


Type: L, T and L/L, T/L, L/T, T/T



SIZE	1.0"	1.5"	2.0"	2.5"	3.0"
ØA	22.1	34.7	47.5	60.2	72.9
ØB	25.4	38.1	50.8	63.5	76.2
C	56.7	80	92.4	120	128
C1	58.5	81.2	85.7	103.1	116.4
C2	50.6	61	65.4	72.1	79.7
C3	81.4	—	—	—	—
W	59.9	68.5	73	90.4	103.7
W1	52	57.4	66.8	79.5	96.1
ØD	60	85	85	133	133
L	153.6	290	296.3	365.8	368.9
L1	17	25	25	32	36
Y	96.1	142.3	168.6	211.6	244.7
Y1	121.5	167.7	194	237	270.1
(W/W1)+SMS male	19	23	23	27	27
(W/W1)+IDF male	21.5	21.5	21.5	21.5	21.5
(W/W1)+RJT male	27	27	27	27	27

Caution, opening/closing time:
 Opening/Closing time will be effected by the following
 The air supply(air pressure).
 The length and dimensions of the air hose.
 Number of valves connected to the same air hose.
 Use of single solenoid valve for serial connected
 air actuator functions.
 Product pressure.
 Air connections
 Compressed air:
 R1/8"(BSP), Internal Thread.
 Technical data
 Air pressure:-----5to7 bar.

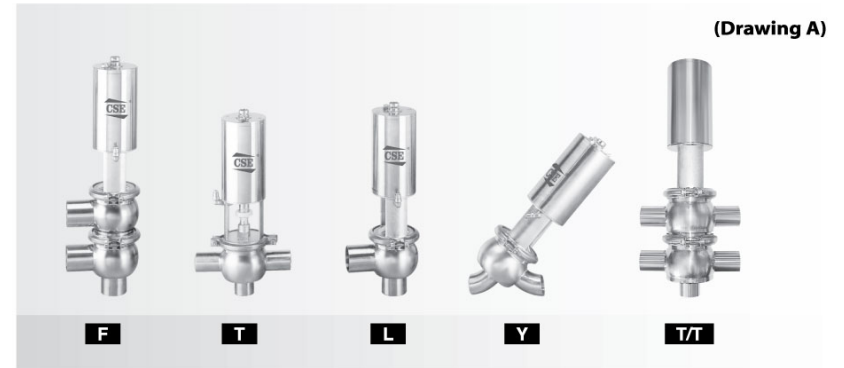


SIZE:1.0"

SIZE:1.5"-3.0"



CSE Auto Control Divert Valve

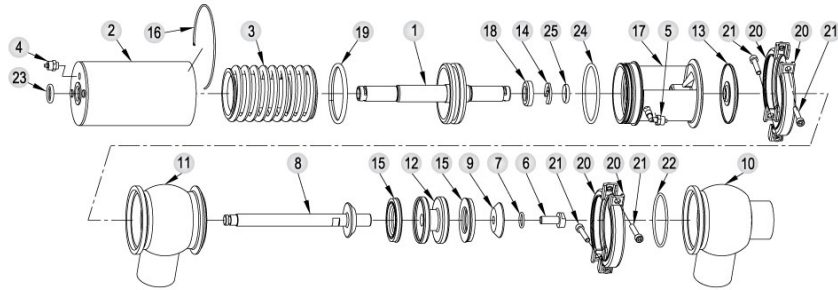


Operation Instruction

- CSE pneumatic valve can equipped different type of flow design,(as drawing A) to get various flow control.
- Available for SMS, DIN, IDF, RJT, 3A, Ferrule....., Welding; Clamp; Unions.....connect end.
- Material:
 - All parts connect with fluid are made of stainless steel AISI 316/316L(1.4401/1.4404).
 - The other parts in AISI 304 (1.4301).
 - The valve stem is sealed by a special EPDM/Silicon/Viton seal and according to international standard for use on food or pharmaceutical.
- Operating air pressure: 5bar-8bar compressed air.
- Control ways:
 - Designed different type for controlling control various flow, as type L; T; F...etc.
 - Choose appropriate dimensions and type, as 2".....clamp or welding.
 - Choose appropriate control ways (manual or pneumatic):
 - Manual control valve to be equipped with a rapid pitch screw with protection against unscrewing.
 - Or choose air/spring(simple effect); or air/air (double effect) for pneumatic control.
 - Can use CSE automatic control box to get signal transfer and complete individual valve control.
 - Signal transfer:
 - with 10-30VDC proximity switch connection:1 or 2pcs (PNP OR NPN)
 - Or 3A 125VAC,30VDC micro switch connection: 2pcs
 - Complete individual valve control:
 Choose (a) or (b) +DC24 3.0W electric valve:1pc & air manifold (for complete control box).

F type construction assembly drawing & items list

Parts List											
Item	Part name	Q'TY	Material	Item	Part name	Q'TY	Material	Item	Part name	Q'TY	Material
1	Piston	1	St.St 304	10	Valve body-lower	1	St.St 316	19	X-ring	1	NBR
2	Cylinder	1	St.St 304	11	Valve body-upper	1	St.St 316	20	Clamp	4	St.St 304
3	Spring assembly	1	St.St 304	12	Middle piece	1	St.St 316	21	M6 screws	4	St.St 304
4	Air connect	1	Copper	13	Lip seal-EPDM	1	304/EPDM	22	Valve body -seal ring	1	EPDM
5	Air connect	1	Copper	14	Clip complete	1	St.St 304	23	O-ring	1	NBR
6	Screws	1	St.St 316	15	Seal ring lower	2	EPDM	24	O-ring	1	NBR
7	O-ring	1	Rubber,NBR	16	Lock wire clip	1	St.St 304	25	O-ring	1	NBR
8	Stem	1	St.St 316	17	Bracket	1	St.St 304				
9	Washer	1	St.St 316	18	Stop ring	1	Teflon				



Max. flow tube pressure without leakage of valve seat.

If pressure over table Max. suggest to add proof Max. valve

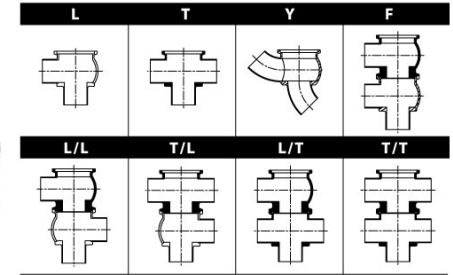
10. SA. Pneumatic downward movement, spring return (NO-lower seat)

Actuator type / function: 20. AS. Pneumatic upward movement, spring return (NC-lower seat)

30. AA. Pneumatic upward and downward movement (A/A)

Actuator/Valve body combination and direction of pressure		Air		Air		Air		Air		Air	
NO : Normal open NC : Normal close A/A : Air/Air double action		Spring close		Air close		Air close		Spring close		Air close	
Stop and change-over valves- Max. pressure without leakage at the valve seat		Air		Air		Air		Air		Air	
○ = Max. air input pressure as 8 bar ➔ = Tube-Line flow pressure		Air		Air		Air		Air		Air	
Air pressure (bar)		5		8		5		8		5	
Actuator Type/Function		10 (NO)	10 (NO)	20 (NC)	20 (NC)	30	30	30	30	30	30
Valve size (Max. Pressure)	DN25 (1.0")	9.5	10	10	9.5	10	10	10	10	10	10
	DN38 (1.5")	4.5	7.0	10	4.5	7.0	9.0	10	10	10	10
	DN51 (2.0")	4.5	4.0	5.0	4.5	4.0	9.0	10	10	9.0	10
	DN63.5 (2.5")	3.0	3.0	4.0	3.0	2.5	8.0	9.0	6.0	7.0	
	DN76 (3.0")	5.0	4.0	6.0	4.5	5.0	10	10	10	10	10

Type:L,T,Y and L/L,T/L,L/T,T/T



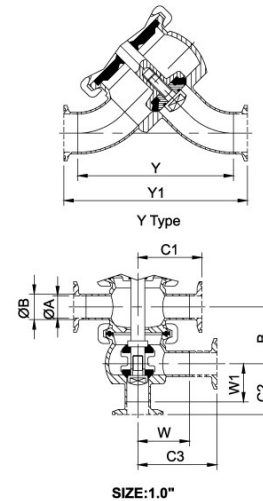
SIZE	1.0"	1.5"	2.0"	2.5"	3.0"
ØA	22.1	34.8	47.5	60.2	72.9
ØB	25.4	38.1	50.8	63.5	76.2
C	56.7	80	92.4	120	128
C1	58.5	81.2	85.7	103.1	116.4
C2	50.6	61	65.4	72.1	79.7
C3	81.4	—	—	—	—
W	59.9	68.5	73	90.4	103.7
W1	52	57.4	66.8	79.5	96.1
ØD	60	85	85	133	133
L	101	126	135	167	170
L1	17	25	25	32	36
Y	96.1	142.3	168.6	211.6	244.7
Y1	121.5	167.7	194	237	270.1
(W/W1)+SMS male	19	23	23	27	27
(W/W1)+HDF male	21.5	21.5	21.5	21.5	21.5
(W/W1)+RT male	27	27	27	27	27

Materials:

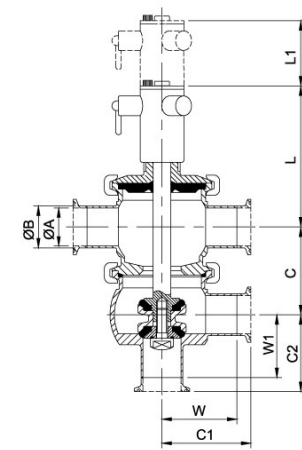
- Flow area: AISI 316L
- Other steel parts: AISI 304
- Plug stem: AISI 316L with Chromium Plated Surface
- Gasket for Flow Area: EPDM/SILICON/VITON
- Other seals: NBR and EPDM
- Surface: Mirror / Satin / Sand Blasted

Technical data:

- Max production pressure :1000kpa(10bar).
- Temperature range:
Full vacuum.
-10°Cto+140°C(EPDM).



SIZE:1.0"



SIZE:1.5"-3.0"



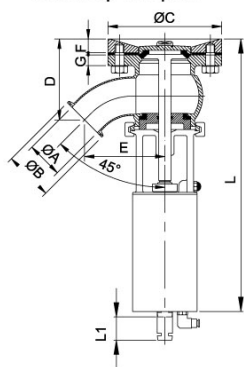
Materials:

- Flow area: AISI 316L
- Other steel parts: AISI 304
- Plug stem: AISI 316L with chromium plated surface
- Gasket for flow area: EPDM/SILICON/VITON
- Other seals: NBR and EPDM
- Surface: Mirror/ satin /sand Blaste

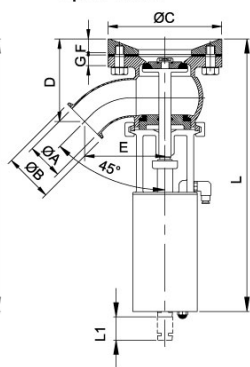
Technical data:

- Max production pressure :1000kpa(10bar).
- Temperature range:
Full vacuum.
-10°C to +140°C(EPDM).

Auto: Up to open

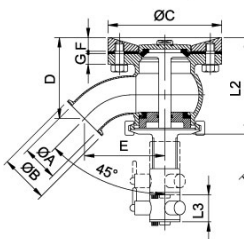


Up to close

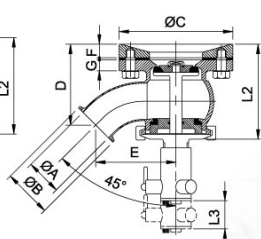


SIZE	1.0"	1.5"	2.0"	2.5"	3.0"
ØA	22.1	34.8	47.5	60.2	72.9
ØB	50.5	50.5	64	77.5	91
ØC	110	140	150	180	200
D	56.8	95.1	106.5	124.7	137.5
E	65.8	93	106	125.5	149.5
F	14	20	20	20	20
G	10	14	14	14	14
L	190	354	360	446	450
L1	22	31	31	39	39
L2	94	122	127	158	164
L3	30	35	35	45	45

Manual: Up to open



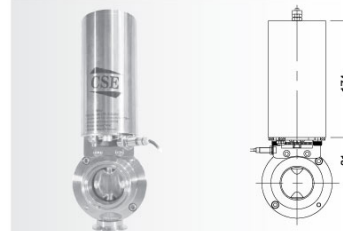
Up to close



C2, C3 actuator instruction

1. C2, C3: Shut-Off time: 1.5 second ; Weight: 3.85KGS.
C101: Shut-Off time: 1.7 second ; Weight: 4.7KGS
2. Operating air pressure: 6 kg/cm₂ ; Min. 5bar ; Max. 9bar compress air
3. C2, C3 Air consumption: 0.266 Liter at 5 bar ; C101 Air consumption: 0.550 Liter at 5 bar.
4. Material: stainless steel AISI 304
5. Can be equipped with normal close or open.

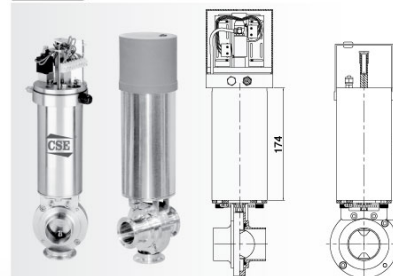
C3



Operation instruction

1. C3 Actuator apply to butterfly valve in size 1"-3" of the disc head DIA. 12mm X 8mm. (other size can be required)
2. Signal transfer: can be connect with M12 screw proximity switch.
3. Air/Air (double effect) actuator or air/spring (simple effect) actuator are available.
4. Accessories: adapter: 1pc ; M6 X 35 screw: 2pcs ; washer: 4pcs ; M6 nut: 2pcs ; 1/8PT quick coupler: 1pc

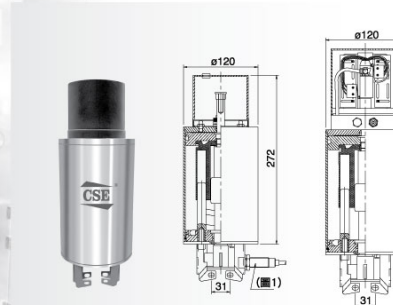
C2



Operation instruction

1. C2 Actuator apply to butterfly valve in size 1"-3" of the disc head DIA. 12mm X 8mm.(other size can be required)
2. Control ways:
2-1. Signal transfer:
a. With 10-30VDC proximity switch contact: 1 or 2pcs.
b. Or 3A 125VAC. 30VDC microswitch: 2pcs
2-2 Individual control: Choice (a) or (b) + DC24 3.0W electric valve: 1pc & Air manifold (for complete control box).
3. Air/Air (double effect) actuator or air/spring (simple effect) actuator are available.
4. Accessories: adapter: 1pcs ; M6 X 35 screw: 2pcs ; washer: 4pcs ; M6 nut: 2pcs ; 1/8PT quick coupler: 1pcs

C101



Operation instruction

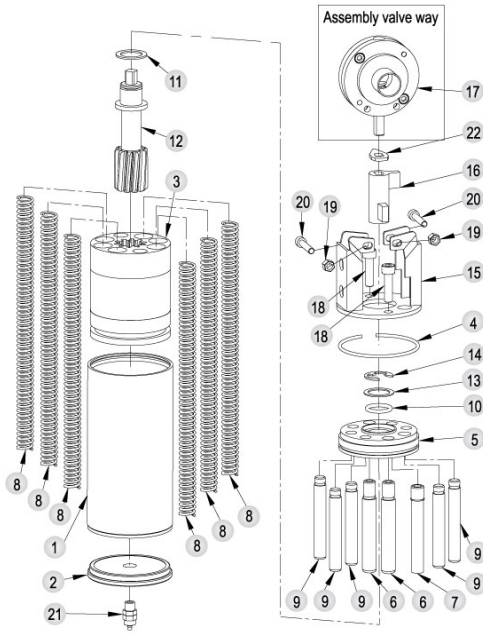
1. C101 Actuator apply to butterfly valve in size 4"-6" of the disc head DIA. 12mm X 12mm.
2. Control ways:
2-1. Signal transfer:
a. Can be connect with M18 or M12 screw proximity switch (PNP or NPN) as (1)
b. With 10-30 VDC proximity switch contact: 1 or 2pcs (PNP OR NPN)
c. Or 3A 125VAC. 30VDC microswitch: 2pcs
2-2 Individual control:
Choice (a) or (b) or (c) + DC24 3.0W electric valve: 1pc & air manifold (for complete control box).
3. Air/Air (double effect) actuator or air/spring (simple effect) actuator are available.
4. Accessories: adapter: 1pcs ; M6 X 40 screw: 2pcs ; washer: 4pcs ; M6 nut: 2pcs ; 1/8PT quick coupler: 1pcs

CSE® CSE Auto Control Actuator for Butterfly Valve (Warn Gear Design)

C2 Type construction assembly drawing & items list

C2, C3 & C101 : Max. output torque 20N/M on C2 & C3
Max. output torque 30N/M on C101

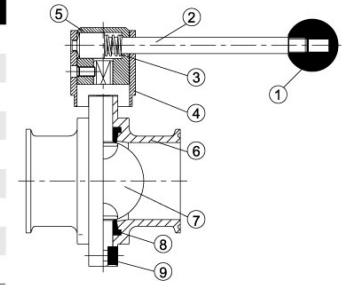
Parts List			
Item	Parts name	QTY	Material
1	St.St cylinder	1	St.St 304
2	St.St cylinder cap	1	St.St 304
3	Piston	1	Tenac 4010/SH410
4	Lock wire clip	1	St.St 304
5	Lower cylinder end	1	St.St 304
6	Piston guide part	2	St.St 304
7	Piston guide part	1	St.St 304
8	Compress spring	6	St.St 304
9	Piston guide part	5	St.St 304
10	Piston axle O-ring	1	Teflon
11	Teflon gasket	1	Teflon
12	Coupling axle piece	1	St.St 304
13	Conact seal	1	St.St 304
14	Circlip	1	St.St 304
15	Mounting bracket	1	St.St 304
16	Connection piece	1	St.St 304
17	Assembly valve way	1	St.St 304/316(L)
18	M8x12 ST.ST screw	2	St.St 304
19	M6 Nut	2	St.St 304
20	M6x35 ST.ST screw	2	St.St 304
21	Air connection	1	Copper
22	Positioning index	1	St.St 304



CSE® CSE Range of Butterfly Valve



NO.	NAME
1	KNOB
2	STEEL-BAR
3	SPRING ST.ST
4	ST.ST
5	HOLDER
6	BODY
7	DISC
8	EPDM RUBBER SEAT
9	SCREW BOLT



Torque for Full Open/Close

1.0"	<1 kgf-m
1.5"	<1 kgf-m
2.0"	1.3 kgf-m
2.5"	1.5 kgf-m
3.0"	2.0 kgf-m
4.0"	3.1 kgf-m

*1kgf-m = 9.8 N.m = 86.8 lbf-in = 7.23 lbf-ft

3A Clamp End With St.St Pull Handle, 4 Position

Width Range of CSE Butterfly Valve-C&G Type

Body: SS304.316.316L material out from precision CNC milling machined.

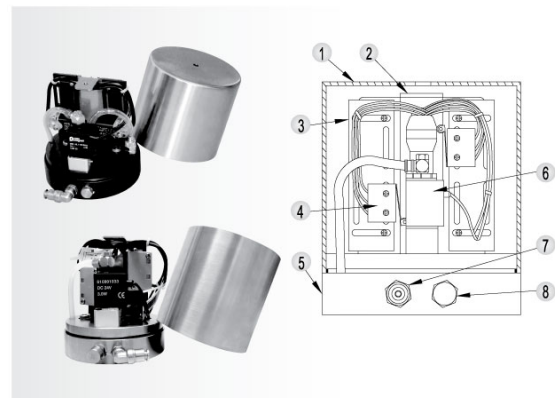
Body can be changeable and low torque. BS. SMS. DIN 3A Weld End and Male/Male End and Clamp End.

Disk: Out from full machined, high polished. Ra less than 0.6 μm. 9.5mm and 8 x 12mm, 12 x 12mm head for USA and Europe required. Electropolished and PTFE coating can be Required.

Handle: Different nylon re-force and stainless steel handle gripper, pull, Press type.

From 2 Position-12 Position, design for your wide range and beautiful choice.

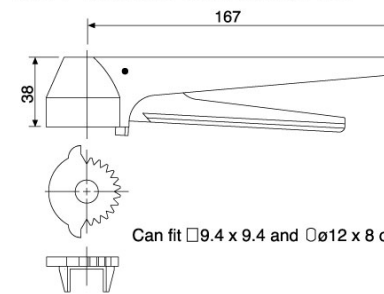
CSE Control Box for Auto Actuator and Divert Valve



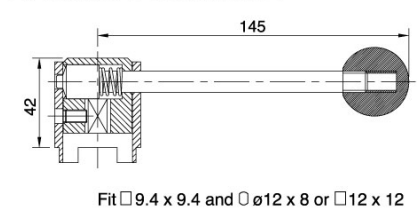
Control box construction assembly drawing & items list

Parts List			
Item	Parts name	QTY	Material
1	Cover	1	PC or St.St 304
2	Switch plate	1	St.St 304
3	Plastic hanger	2	St.St 304
4	Micro switch	2	3A 125VAC, 30VDC
5	Air manifold	1	P.O.M (Plastic) or St.St 304
6	Electrovalve	1	DC24 3.0W
7	Air connection	1	Cu
8	E/N connect piece	1	St.St 304

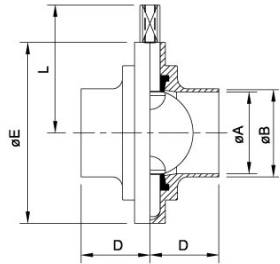
GRIPPER HANDLE 12 POSITION-G12



PULL HANDLE 4 POSITION-P4

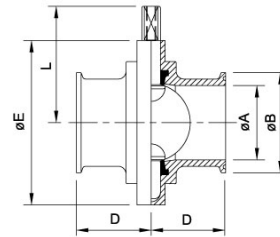


CSE C Type



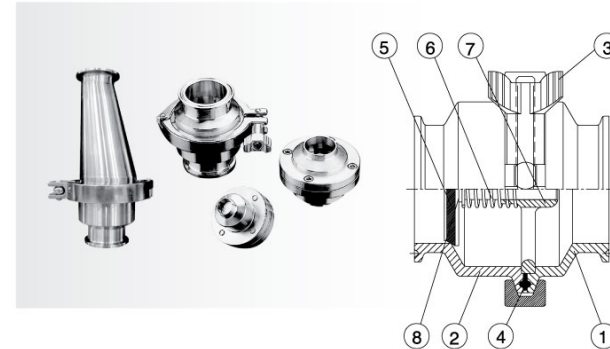
3A/BS/Weld Butterfly Valves

SIZE	ØA	ØB	SIZE	ØA	ØB	D	ØE	L
1/2"	9.5	12.7	—	—	—	34	79	61
3/4"	15.8	19.05	—	—	—	34	79	61
1.0"	22.1	25.4	DN25	22.5	25	34	79	61
1.5"	34.8	38.1	DN38	35.4	38	38	85	64.3
2.0"	47.5	50.8	DN51	48.0	51	40	105	74.3
2.5"	60.2	63.5	DN63	60.2	63.5	40	112	77.6
3.0"	72.2	76.2	DN76	72.1	76.1	41	125	84.8
4.0"	97.6	101.6	DN104	100	104	44	157	101.7
6.0"	146.8	152.4	—	—	—	57	214	138.9



3A Clamp/Clamp Butterfly Valves

SIZE	ØA	ØB	D	ØE	L
1/2"	9.5	25.2	34	79	61
3/4"	15.8	25.2	34	79	61
1.0"	22.1	50.5	33	79	61
1.5"	34.8	50.5	33	85	64.3
2.0"	47.5	64.0	35	105	74.3
2.5"	60.2	77.5	35	112	77.6
3.0"	72.2	91.0	38	125	84.8
4.0"	97.6	119.0	38	157	101.7
6.0"	146.8	166.8	57	213	138.9



NO.	NAME
1	Short Body
2	Long Body
3	Clamp
4	13 PG
5	Seal-Ring
6	ST.ST Spring
7	Flow Support Plate
8	Disc

CSE Range of Check Valve:

Materials

Steel parts: Stainless steel SS316(L)

Seal rings: EPDM Rubber or SILICONE / VITON

Finish: OD≤0.8, ID≤0.8 or 0.4µm

Connections

The valve is available with welding ends for tubes according to 3A, SMS, BS, DIN 11851.

Technical data

Required different pressure for opening the valve fitted in a vertical pipe, as shown in fig. 3, the open pressure Max. product pressure: 1000kpa(10bar)

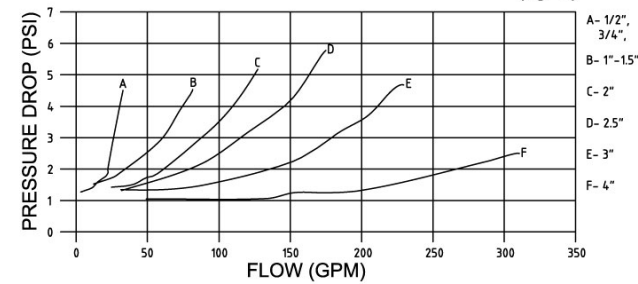
Material grades

Gasket - Body - EPDM / SILICONE / VITON / NBR / PTFE

Flow Area - EPDM / SILICONE / VITON

Spring Check Valve Pressure Drop

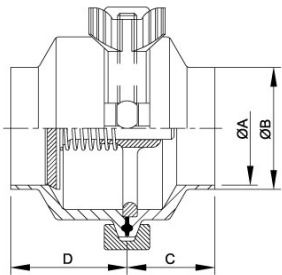
(fig. 3)



Note:
For the diagram the following applies:
Medium: Water(20°C)

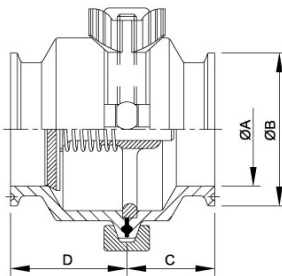
1/2"	3/4"	1.0"	1.5"	2.0"	2.5"	3.0"	4.0"
0.5	0.5	3.0	1.6	0.6	1.3	0.8	0.9

Open Pressure (fig.1)



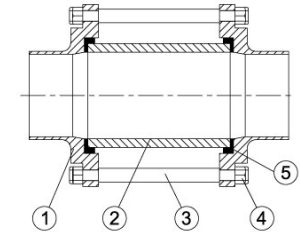
Check Valve Middle Clamp/Weld END

3A/BS	ØA	ØB	DIN	ØA	ØB	SMS	ØA	ØB	C	D
1/2"	9.5	12.7							24	34
3/4"	15.8	19.05							24	34
1.0"	22.1	25.4	DN25	25	28	DN25	22.5	25	34	48
1.5"	34.8	38.1	DN32	31	34	DN38	35.5	38	36	48
2.0"	47.5	50.8	DN40	37	40	DN51	48.5	51	36	48
2.5"	60.2	63.5	DN50	49	52	DN63	60.3	63.5	36	48
3.0"	72.9	76.2	DN65	66	70	DN76	72.1	76.1	36	48
4.0"	97.6	119	DN100	100	104	DN104	100	104	47	54



Check Valve Middle Clamp/Clamp END

3A/BS	ØA	ØB	DIN	ØA	ØB	SMS	ØA	ØB	C	D
1/2"	9.5	25.2							28.5	39.5
3/4"	15.8	25.2							28.5	39.5
1.0"	22.1	50.5	DN25	25	50.5	DN25	22.5	50.5	34	48
1.5"	34.8	50.5	DN32	31	50.5	DN38	35.5	50.5	36	48
2.0"	47.5	64	DN40	37	64	DN51	48.5	64	36	48
2.5"	60.2	77.5	DN50	49	77.5	DN63	60.3	77.5	36	48
3.0"	72.9	91	DN65	66	91	DN76	72.1	91	36	48
4.0"	97.6	119	DN100	100	119	DN104	100	119	47	54



NO.	NAME
1	Body
2	High Pressure Clean Glass
3	Screw Blot
4	Nylon Lock Nut
5	Seal

CSE Range Of Hygienic Sight Glass:

Glass:Clean,High Pressure Glass.Max Work 10 bar.Can be changeable.

Body:SUS304,316,316L Precision Machined Body.

With Width Connection End.3A,DIN,SMS,RJT,IDF Male/Male.Weld and Female End.

Screw Blot:Full Stainless Steel.

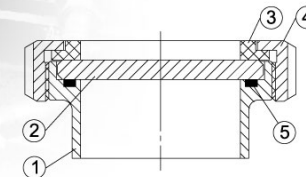
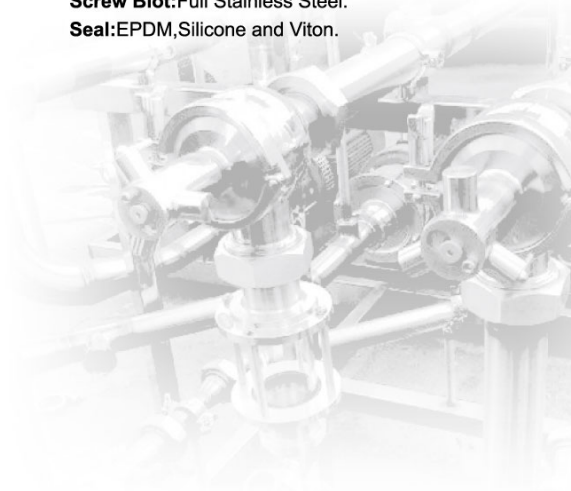
Seal:EPDM,Silicone and Viton.

PYREX Borosilicate Glass Composition

Contact	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	B ₂ O ₃	Na ₂ O	K ₂ O
%	80.9	2.3	0.03	12.7	4.0	0.04

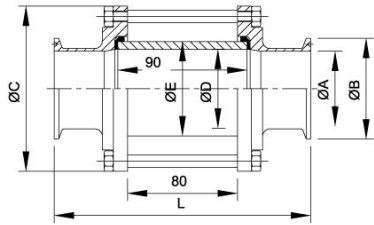
Physical Properties

Young's module	6.4x10 ⁵ kg/cm ³
Poisson's ratio	0.20
Shear modules	2.7x10 ⁵ kg/cm ²
Knoop Hardness (100g)	418KHN
Bending strength	4~7x10 ⁴ kg/cm ²
Design stress (Safety factor)	67 kg/cm ²



NO.	NAME
1	Body
2	High Pressure Clean Glass
3	Teflon Gasket
4	NUT
5	Seal

With Weld End Only!



3A/Clamp End Sight-glass

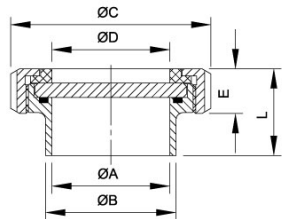
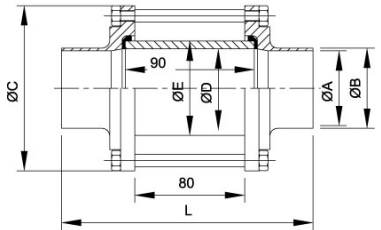
SIZE	ØA	ØB	ØC	ØD	ØE	L
1.0"	22.1	50.5	79	26	32	143
1.5"	34.8	50.5	85	34	40	146
2.0"	47.5	64	105	50	60	150
2.5"	60.2	77.5	112	65	75	150
3.0"	72.9	91	125	75.4	85	156
4.0"	97.6	119	157	100	110	156

3A/Weld End Sight-glass

SIZE	ØA	ØB	ØC	ØD	ØE	L
1/2"	9.4	12.7	47	10.2	15	106
3/4"	15.75	19.05	47	17	22	106
1.0"	22.1	25.4	79	26	32	148
1.5"	34.8	38.1	85	34	40	156
2.0"	47.5	50.8	105	50	60	160
2.5"	60.2	63.5	112	65	75	160
3.0"	72.9	76.2	125	75.4	85	162
4.0"	97.6	101.6	157	100	110	167

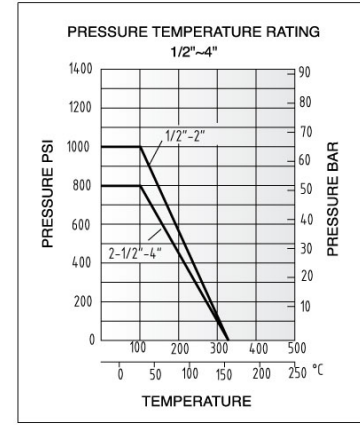
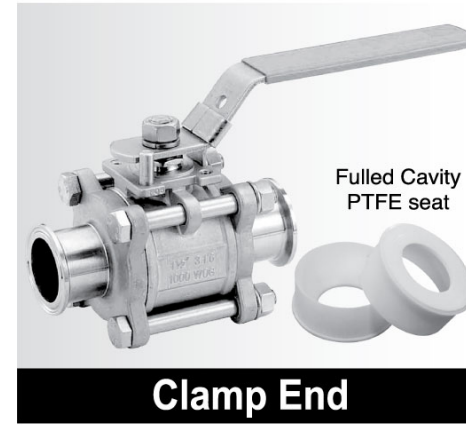
SMS Weld End Sight-glass

SIZE	ØA	ØB	ØC	ØD	ØE	L
DN25	22.5	25	79	26	32	148
DN38	35.4	38	85	34	40	156
DN51	48	51	105	50	60	160
DN63.5	60.2	63.5	112	65	75	160
DN76	72	76	125	75.4	85	162
DN104	100	104	157	100	110	168



Weld End Sight-glass

SIZE	ØA	ØB	ØC	ØD	ØE	L
DN65	66	73	112	66	25	48.5
DN80	80	93	127	82	29	52.5
DN100	98	113	148	100	31	60.5

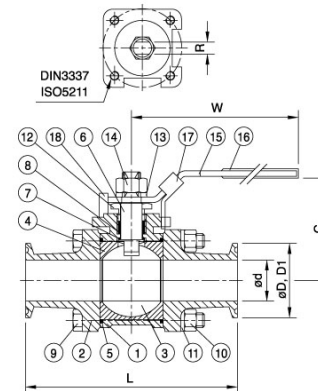


- Locking device can be required.
 - 100% air tested under water at 100psi, open and closed positions.
 - Hydrostatic test pressure 1/4"~2" 1,500psi, 2 1/2"~4" 1,200psi.
- Standard End: Weld & Clamp-End
Other SMS. DIN. RJT, IDF
Male/Male can be required.

Specifications for Clamp & Weld End

SIZE	DN	ISO 5211	C	L	W	ød	øD	øD1	R	L1
1/2"	15	F03	55	89	132	9.5	25.4	12.7	5	32.75
3/4"	20	F03	60	101	131.5	15.9	25.4	19.05	5	36.5
1"	25	F04	69	114	165	22.2	50.4	25.4	6.5	40
1-1/2"	40	F05	84	140	194.3	35	50.4	38.1	8.5	43.5
2"	50	F05	92	156	194.3	47.6	63.9	50.8	8.5	45.75
2-1/2"	65	F07	126.8	197	252	60.3	77.5	63.5	12	56
3"	80	F07	136	229	252	73	90.9	76.2	12	64.5
4"	100	F10	158.8	242.7	333	97.4	118.9	101.6	16	60.6

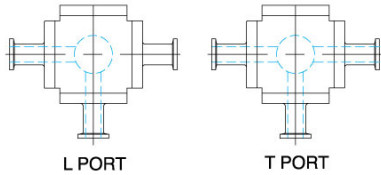
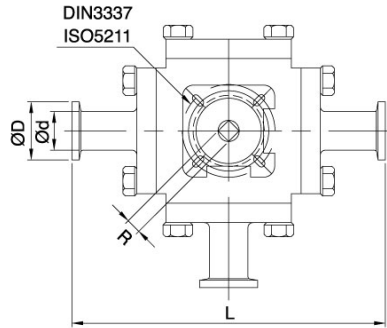
*øD=Clamp End øD1=Weld End



NO.	PART NAME	MATERIAL
1	BODY	ASTM-A351-CF8M
2	CAP	ASTM-A351-CF8M
3	BALL	A351-CF8M
4	SEAT	PTFE
5	GASKET	PTFE
6	STEM	316
7	THRUST WASHER	PTFE
8	STEM PACKING	PTFE
9	BOLT	304
10	HEX NUT	304
11	BOLT WASHER	304
12	GLAND	304
13	WASHER	304
14	NUT	304
15	HANDLE	304
16	PLASTIC COVER	PLASTIC
17	LOCK DEVICE	304
18	STOP PIN	304



Sanitary-Ball Valve For Food And Chemical Use With Iso Mount Plate Weld/ Male End



SIZE	DN	ISO-5211	L	ϕd	ϕD	R
1/2"	15	F03	118	9.5	25.4	9
3/4"	20	F03	127	15.8	25.4	9
1"	25	F04	152.6	22.2	50.4	11
1-1/2"	40	F05	175	35	50.4	14
2"	50	F05	201.4	47.6	63.9	14
2-1/2"	65	F07	227.7	60.3	77.5	17
3"	80	F10	260.6	73	90.9	22
4"	100	F10	290.5	97.4	118.9	22



2WAY & 3WAY Plug Valves

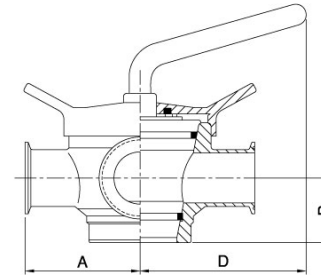


Plug Cock Valve are excellent hygienic design. Base on Tape and not any gasket in flow port. So, big popular use on the Milk industry. CSE Plug Cock are joint Europe and USA design use the purity material and excellent machined technical

Material Plug- SS304 or SS316L with hard / thick chrome coating for long use circle and easy clean maintenance

Connect - Weld, Clamp and Male End.

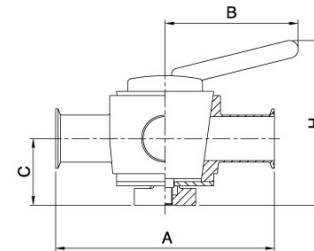
Max Work pressure - 3 Bars~10 Bars.



EUROPE TYPE

2WAY & 3WAY-PLUG VALVE for Weld/Male/Female/Clamp

SIZE (Tube O.D)	Weld A	Male A	Clamp A	B	D
DN25 - 1"	66.3	95.3	94.9	26	139.19
DN40 - 1.5"	85.1	118.1	113.7	35	139.19
DN50 - 2"	114.2	149.2	142.8	45	143.01
DN65 - 2.5"	132.0	172.0	160.6	55	143.69
DN80 - 3"	168.6	213.6	197.2	70	143.81
DN100 - 4"	206.3	260.3	234.9	75	174.21

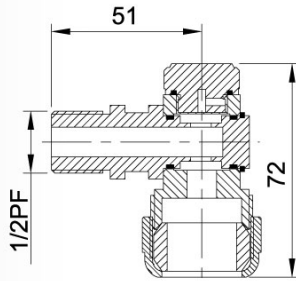
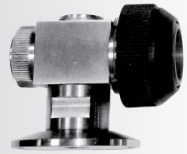


AMERICA TYPE

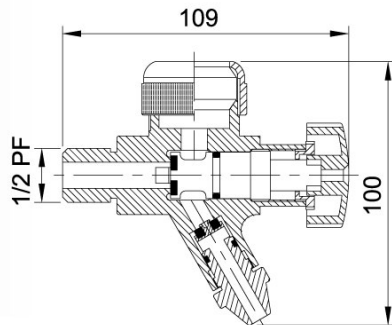
2WAY & 3WAY-PLUG VALVE for Weld/Male/Female/Clamp

SIZE (Tube O.D)	Weld A	Clamp A	B	C	H
1"	184.2	115.9	117.0	58.3	128.4
1.5"	198.4	147.6	142.7	61.0	164.4
2"	223.8	173.0	144.2	72.4	178.0
2.5"	260.4	209.6	150.6	86.2	223.4
3"	290.5	239.7	180.7	90.6	241.4

Upper Valves



Level Valves

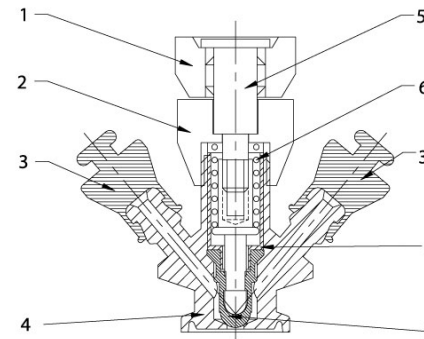


Materials:

- Flow area: AISI 316L
- Other steel parts: AISI 316
- Plug stem: AISI 316L
- Gasket for flow area: EPDM/SILICON/VITON
- Other seals: NBR and EPDM
- Surface: Mirror/ satin /sand Blaste

Technical data:

- Temperature range: Full vacuum. -10°C to +140°C (EPDM).



Parts List			
Item	Parts name	Q'TY	Material
1	Rotating Nut	1	SUS304/316(L)
2	Lucknut	1	SUS304/316(L)
3	Seal	1	EPDM
4	Body	1	SUS304/316(L)
5	Flow Supports	1	SUS304/316(L)
6	Spring	1	SUS304/316(L)
7	Bushing	1	SUS304/316(L)
8	Seal	1	EPDM

Weld

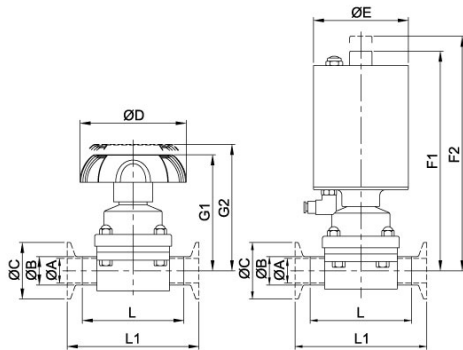
SIZE	ØA	ØB	L
1/2"	9.4	12.7	71.5
3/4"	15.75	19.05	71.5
1.0"	22.1	25.4	71.5



Pneumatic/Manual Diaphragm Valve 2WAY/Tank Bottom Valve

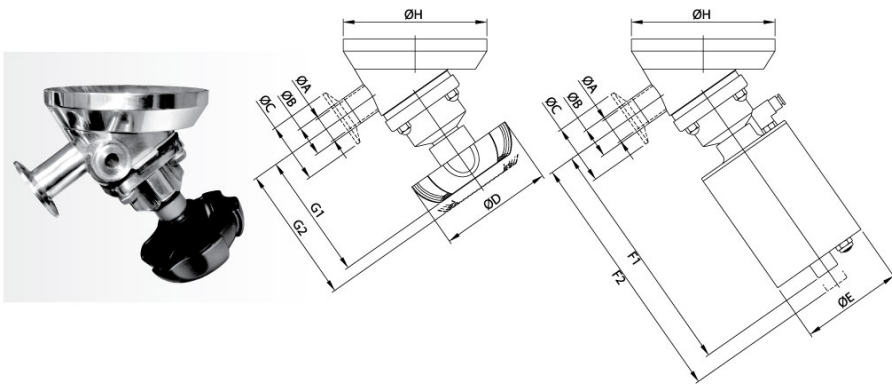


CSE Pneumatic diaphragm valve Aspect design can be widely applied to the fields, such as pharmacy, beer, food, beverage, fluid equipment, cosmetic and so on.
 Control mode: Manual Type & Pneumatic Type
 Connection type: Clamp or Weld or other ...
 Operation: Normal Open & Normal Close design
 Body Material: 316L, Forged Or Casting .
 Connection: INCH: 1/2"-2", DIN / ISO: DN10-DN50 other size can be requirement
 Working temp: Assembling Diaphragm: EPDM(-40°C ~110°C, PTFE / EPDM(-10°C~150°C)
 Working pressure: Max 10 Bar
 Surface: Standard: OD / ID mirror polished. ID Ra< 0.5µm.
 OD- Sand Blasted or E/P or others, ID - Polishing to Ra<0.5µm(SF1) or E/P Finished Ra,0.38µm(SF4) can be required.



3A	ØA	ØB	ØC	BPE	ØA	ØB	ØC	ØD	ØE	F1	F2	G1	G2	L	L1
1/2"	9.4	12.7	25.2	1/2"	9.4	12.7	25	60	60	122	131	74	83	124	88.9
3/4"	15.75	19.05	25.2	3/4"	15.75	19.05	25	60	60	122	131	74	83	135	101.6
1.0"	22.1	25.4	50.5	1.0"	22.1	25.4	25/50.4	95	85	212	225	100	113	141.2	114.3
1.5"	34.8	38.1	50.5	1.5"	34.8	38.1	50.4	95	85	217	232	119	134	168.4	139.7
2.0"	47.5	50.8	64	2.0"	47.5	50.8	63.9	118	133	315	333	135	153	190.5	158.8

DIN	ØA	ØB	ØC	ØD	ØE	F1	F2	G1	G2	L
DN10	10	13	34		60	122	131	74	83	124
DN20	20	23	34	60	85	212	225	100	113	135
DN25	26	29	50.5	60	85	212	225	100	113	141.2
DN32	32	35	50.5	95	85	217	232	119	134	168.4
DN40	38	41	50.5	95	85	217	232	119	134	168.4
DN50	50	53	64	118	133	315	333	135	153	190.5



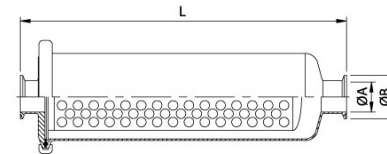
SIZE	ØA	ØB	ØC	ØD	ØE	F1	F2	G1	G2	ØH
1/2"	9.4	12.7	25.2	60	60	122	131	74	83	100
3/4"	15.75	19.05	25.2	60	60	122	131	74	83	100
1.0"	22.1	25.4	50.5	95	85	212	225	100	113	120
1.5"	34.8	38.1	50.5	95	85	217	232	119	134	160
2.0"	47.5	50.8	64	118	133	315	333	135	153	160



CSE Filter

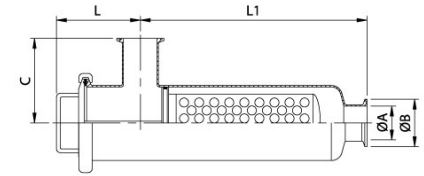


- Material: SUS304/SUS316L
- Mesh: 20~400
- Aperture Size: 1~10(mm)
- P.D.Press(MPa): 0.05~0.2
- Types: Weld end/Clamp end/Male end/Female end



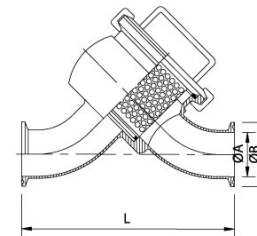
Filter I Type

SIZE	ØA	ØB	ØC	ØD	L
1.0"	22.1	50.5	101.6	119	410
1.5"	34.8	50.5	101.6	119	410
2.0"	47.5	64	101.6	119	410
2.5"	63.5	77.5	101.6	119	450
3.0"	72.9	91	101.6	119	550



Filter L Type

SIZE	ØA	ØB	C	L	L1
1.0"	22.1	50.5	104.8	110	310
1.5"	34.8	50.5	104.8	110	310
2.0"	47.5	64	114.3	110	310
2.5"	60.2	77.5	108	110	410
3.0"	72.9	91	108	110	490



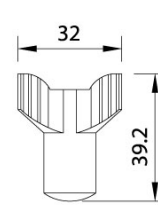
Filter Y Type

SIZE	ØA	ØB	L
1.0"	22.1	50.5	121.5
1.5"	34.8	50.5	188.3
2.0"	47.5	64	214.6
2.5"	60.2	77.5	265.6
3.0"	72.9	91	270

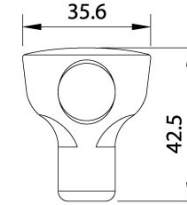


Heavy Duty Clamp-ring(mm)

WING-NUT FOR CLAMP

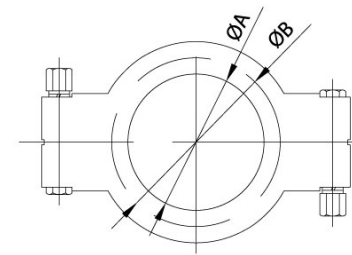


13MHH-11



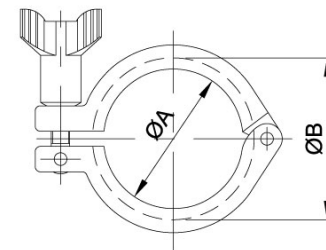
13MHH-14

Sanitary Components, Fitting..



13MHP HIGH PRESSURE CLAMP WITH SCREW BOLT BRASS NUT

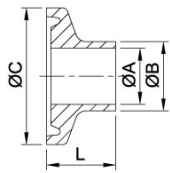
SIZE	ØA	ØB
3/4"	20	28
1.5"	43.32	52
2.0"	56.44	65.5
2.5"	69.54	79
3.0"	77.56	92.5
4.0"	108.86	120.5
6.0"	158	170
6.5"	173	186.2
10"	258	272.8
12"	309	327.6



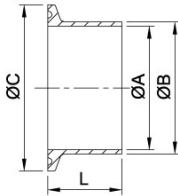
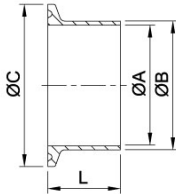
13MHH Heavy Duty Single Pin Clamp

SIZE	ØA	ØB
1/2"-3/4"	20	28
A37	27.8	37
1.5"	44.4	53.6
2.0"	57.8	67
2.5"	71.4	80.6
3.0"	84	94.2
3.5"	99	109.2
4.0"	110	122.2
4.5"	123	133.2
6.0"	155.4	170.4
8.0"	205	220

1/2"~3/4"



1.0"~12"

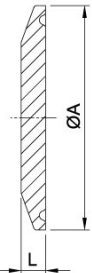


DIN Ferrule

SIZE	DA	DB	DB	ØC	L	L	
ØA	ØB	ØA	ØB				
DN10	10	13	9	12	34	21.5	28.6
DN15	16	19	15	18	34	21.5	28.6
DN20	20	23	19	22	34	21.5	28.6
DN28	26	29	25	28	50.5	21.5	28.6
DN34	32	35	31	34	50.5	21.5	28.6
DN40	38	41	37	40	50.5	21.5	28.6
DN52	50	53	49	52	64	21.5	28.6
DN70	66	70	66	70	91	21.5	28.6
DN85	81	85	81	85	106	21.5	28.6
DN101.6	97.6	101.6	97.6	101.6	119	21.5	28.6
DN104	100	104	100	104	119	21.5	28.6
DN125	125	129	125	129	155	21.5	28.6
DN150	150	154	150	154	183	21.5	28.6
DN200	200	204	200	204	233.5	—	28.6
DN250	250	254	250	254	268.47	—	28.6
DN300	300	304	300	304	319.27	—	28.6

BLANK 16AMP

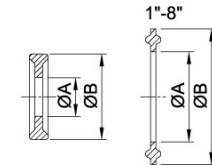
3A	ØA	L
1/2"~3/4"	25	6
1.0"	50.5	6.3
1.5"	50.5	6.3
2.0"	64	6.3
2.5"	77.5	6.3
3.0"	91	6.3
4.0"	119	7.9
6.0"	166.8	11.1
8.0"	217.7	11.1
10"	268.5	11.1
12"	319.3	11.1



Welding Ferrule

SIZE	ØA	ØB	ØC	L	L	L
1/2"	9.4	12.7	25	12.7	21.5	28.6
3/4"	15.75	19.05	25	12.7	21.5	28.6
1"	22.1	25.4	50.5	12.7	21.5	28.6
1.5"	34.8	38.1	50.5	12.7	21.5	28.6
2.0"	47.5	50.8	64	12.7	21.5	28.6
2.5"	60.2	63.5	77.5	12.7	21.5	28.6
3.0"	72.9	76.2	91	12.7	21.5	28.6
4.0"	97.4	101.6	119	15.8	21.5	28.6
6.0"	146.86	152.5	166.87	—	21.5	28.6 or 38.1
8.0"	197.66	203.3	217.67	—	21.5	28.6 or 38.1
10"	247.2	254	268.47	—	21.5	28.6 or 38.1
12"	298	304.8	319.27	—	21.5	28.6 or 38.1

1/2"~3/4"

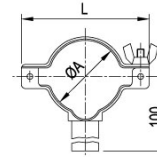


13PG

Ferrule Gasket (EPDM, SILICON, VITON, PTFE) PLAIN TYPE 13PG

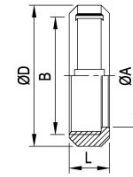
SIZE	ØA	ØB
1/2"	9.9	21.8
3/4"	16.3	21.8
A37	15.5	33
1.0"	22.7	50
1.2"	29.5	50.5
1.5"	35.9	50
2.0"	48.6	63.5
2.5"	61.3	76.2
3.0"	74	88.9
4.0"	98.6	118
6.0"	147.8	165
8.0"	196.6	216

TH-1



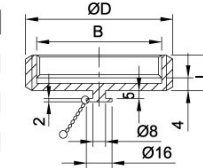
TH-1

SIZE	ØA	L
1.0"	25.4	66
1.5"	38.1	76
2.0"	50.8	90
2.5"	63.5	105
3.0"	76.2	120
4.0"	101.6	146



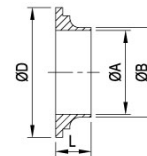
SMS Nut 6 Slots SMS-13R

SIZE	ØA	B	ØD	L
DN25	32	RD40x1/6	51	19
DN38	48	RD60x1/6	74	23
DN51	60.5	RD70x1/6	84	24
DN63.5	74	RD85x1/6	100	28
DN76	87	RD98x1/6	114	30
DN104-B	117	RD132x1/6	150	31
DN101.6	113	RD125x1/4	138	31
DN104	113	RD125x1/4	138	31



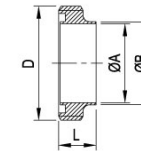
SMS Blank Nut 13RBN

SIZE	B	ØD	L
DN25	RD40x1/6	51	19
DN38	RD60x1/6	74	23
DN51	RD70x1/6	84	24
DN63.5	RD85x1/6	100	28
DN76	RD98x1/6	114	30
DN104	RD125x1/4	138	31



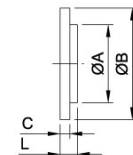
Long Welding Liner SMS-14GL

SIZE	ØA	ØB	ØD	L
DN25	22.5	25	35.5	15.5
DN38	35.5	38	55	16
DN51	48.5	51	65	17
DN63.5	60.5	63.5	80	17
DN76	72.9	76.1	93	19
DN104-B	98.5	102.5	127	19
DN101.6	97.6	101.6	118	19
DN104	100	104	118	19



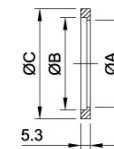
Long Welding Male SMS-15GL

SIZE	ØA	ØB	D	L
DN25	22.5	25	RD40x1/6	19
DN38	35.5	38	RD60x1/6	23
DN51	48.5	51	RD70x1/6	23
DN63.5	60.5	63.5	RD85x1/6	27
DN76	72.9	76.1	RD98x1/6	27
DN104-B	98.5	102.5	RD132x1/6	35
DN101.6	97.6	101.6	RD125x1/4	30
DN104	100	104	RD125x1/4	30



SMS-14B Blanks

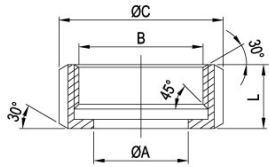
SIZE	ØA	ØB	C	L
DN25	32	35.5	3.5	7.5
DN38	48	55	5	9
DN51	60	65	5	10
DN63.5	73.5	80	5	10
DN76	86	93	5	11
DN104B	116	128	6	11
DN104	112	118	6	11



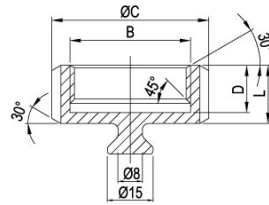
Seal Ring L Type (EPDM, SILICON, VITON)

SIZE	ØA	ØB	ØC
DN25	22.8	25.1	38.1
DN38	35.8	38.1	47.8
DN51	48.8	51.1	60.8
DN63.5	61	63.6	73.3
DN76	73.4	76.1	85.8
DN104	100.5	104	115.7

DIN-13R



DIN-13RBN

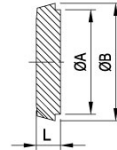
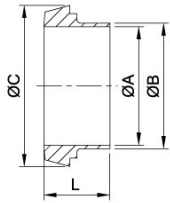


DIN-13 Round Nut

DIN	ØA	B	ØC	D	L	Slots
10	19	RD 28x1/8	38	15	18	4
15	25	RD 34x1/8	44	15	18	4
20	31	RD 44x1/6	54	17	21	4
25	36	RD 52x1/6	63	18	21	4
32	42	RD 58x1/6	70	18	21	4
40	49	RD 65x1/6	78	18	21	4
50	62	RD 78x1/6	92	19	22	4
65	80	RD 95x1/6	112	21	25	6
80	94	RD110x1/4	127	25	30	6
90	104	RD120x1/4	138	26	30	6
100	115	RD130x1/4	148	26	31	6
125	138	RD160x1/4	178	30	35	6
150	164	RD190x1/4	210	34	40	6

DIN-14DA Welding Liner

DIN	ØA	ØB	ØC	L
10	10	13	22.5	17
15	16	19	28.5	17
20	20	23	36.5	18
25	26	29	44	22
32	32	35	50	25
40	38	41	56	26
50	50	53	68.5	28
60	57	61	76	30
65	66	70	86	32
80	81	85	100	37
100	100	104	121	44
125	125	129	150	34
150	150	154	176	37

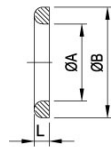
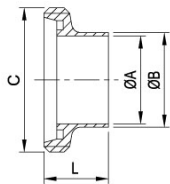


DIN-14B Blanks

SIZE	ØA	ØB	L
10	18	22	9
15	24	28	9
20	30	36	11
25	35	44	13
32	41	50	13
40	48	56	13
50	61	68	14
65	79	86	16
80	93	100	16
100	114	121	20
125	137	150	22
150	163	176	24

DIN-15DA Welding Male

SIZE	ØA	ØB	C	L
10	10	13	RD 28X1/8	21
15	16	19	RD 34X1/8	21
20	20	23	RD 44X1/6	24
25	26	29	RD 52X1/6	29
32	32	35	RD 58X1/6	32
40	38	41	RD 65X1/6	33
50	50	53	RD 78X1/6	35
60	57	61	RD 85X1/6	36
65	66	70	RD 95X1/6	40
80	81	85	RD 110X1/4	45
90	89	93	RD 120X1/4	54
100	100	104	RD 130X1/4	54
125	125	129	RD 160X1/4	46
150	150	154	RD 190X1/4	50



DIN Seal Ring (EPDM, Silicon, Viton)

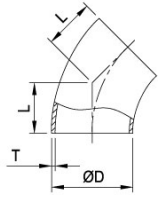
SIZE	ØA	ØB	L
10	12	20	4.5
15	18	26	4.5
20	23	33	4.5
25	30	40	5
32	36	46	5
40	42	52	5
50	54	64	5
65	71	81	5
80	85	95	5
100	104	114	5
125	130	142	7
150	155	167	7

3A. SMS. DIN

Tube Line, Elbow / Tee / Reducer



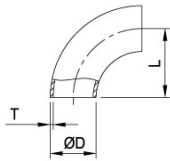
45° Short Elbow



45° Elbow

SIZE	ØD	L	T
1/2"	12.7	13.16	1.65
3/4"	19.05	23.8	1.65
1.0"	25.4	15.8	1.65
1.5"	38.1	23.8	1.65
2.0"	50.8	31.75	1.65
2.5"	63.5	39.6	1.65
3.0"	76.2	47.6	1.65
4.0"	101.6	63.5	2.10
6.0"	152.4	95.25	2.77

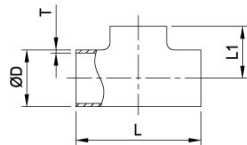
90° Short Bend



90° Bend

SIZE	ØD	L	T
1/2"	12.7	19.05	1.65
3/4"	19.05	28.58	1.65
1.0"	25.4	38.1	1.65
1.5"	38.1	57.2	1.65
2.0"	50.8	76.2	1.65
2.5"	63.5	95.25	1.65
3.0"	76.2	114.3	1.65
4.0"	101.6	152.4	2.10
6.0"	152.4	228.6	2.77

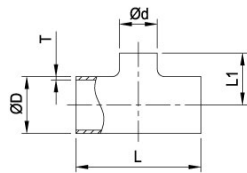
Short Equal Tee



Short Equal Tee

SIZE	ØD	L	L1	T
1/2"	12.7	38.1	19.05	1.65
3/4"	19.05	57.2	28.6	1.65
1.0"	25.4	57.2	28.6	1.65
1.5"	38.1	84.2	42.1	1.65
2.0"	50.8	104.8	52.4	1.65
2.5"	63.5	119.0	59.5	1.65
3.0"	76.2	131.8	65.9	1.65
4.0"	101.6	174.6	87.3	2.10

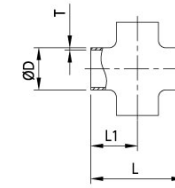
Reducing Tee



Reducing Tee

SIZE	ØD	Ød	L	L1	T
1.5"x1.0"	38.1	25.4	114.3	54	1.65
2.0"x1.0"	50.8	25.4	152.4	60.30	1.65
2.0"x1.5"	50.8	38.1	152.4	63.50	1.65
2.5"x1.5"	63.5	38.1	152.4	69.85	1.65
2.5"x2.0"	63.5	50.8	152.4	82.55	1.65
3.0"x1.5"	76.2	38.1	165.1	76.20	1.65
3.0"x2.0"	76.2	50.8	165.1	88.9	1.65
3.0"x2.5"	76.2	63.5	165.1	82.55	1.65
4.0"x2.0"	101.6	50.8	196.8	101.6	2.10
4.0"x2.5"	101.6	63.5	196.8	95.25	2.10
4.0"x3.0"	101.6	76.2	196.8	95.25	2.10

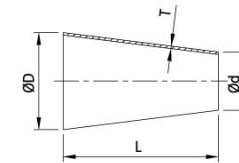
Cross



Short Cross

SIZE	ØD	L	L1	T
1.0"	25.4	57.2	28.6	1.65
1.5"	38.1	84.2	42.1	1.65
2.0"	50.8	104.8	52.4	1.65
2.5"	63.5	119.0	59.5	1.65
3.0"	76.2	131.8	65.9	1.65
4.0"	101.6	174.6	87.3	2.10

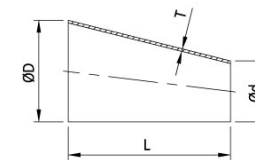
Concentric Reducer



C.31-Concentric Reducer

SIZE	ØD	Ød	L	T
1.5"x1.0"	38.1	25.4	50.8	1.65
2.0"x1.0"	50.8	25.4	101.6	1.65
2.0"x1.5"	50.8	38.1	50.8	1.65
2.5"x1.5"	63.5	38.1	101.6	1.65
2.5"x2.0"	63.5	50.8	50.8	1.65
3.0"x2.0"	76.2	50.8	101.6	1.65
3.0"x2.5"	76.2	63.5	50.8	1.65
4.0"x2.0"	101.6	50.8	203.2	2.10
4.0"x2.5"	101.6	63.5	152.4	2.10
4.0"x3.0"	101.6	76.2	101.6	2.10

Eccentric Reducer



Eccentric Reducer

SIZE	ØD	Ød	L	T
1.5"x1.0"	38.1	25.4	50.8	1.65
2.0"x1.0"	50.8	25.4	101.6	1.65
2.0"x1.5"	50.8	38.1	50.8	1.65
2.5"x1.5"	63.5	38.1	101.6	1.65
2.5"x2.0"	63.5	50.8	50.8	1.65
3.0"x2.0"	76.2	50.8	101.6	1.65
3.0"x2.5"	76.2	63.5	50.8	1.65
4.0"x2.0"	101.6	50.8	203.2	2.10
4.0"x2.5"	101.6	63.5	152.4	2.10
4.0"x3.0"	101.6	76.2	101.6	2.10



QA-0410091424



CSE HIGH PURITY TUBE & FITTING VALVE (ASTM BPE STANDARD)

Pharmaceutical/Biotechnology fitting. CSE have over 15 years hygienic fitting experiences for developing out the ASME bioprocessing equipment (BPE) standard tube, fitting, valve components for high purity application such as water for injection, pharmaceutical, Cosmetics use. Material: low sulphur ASTM SS316L, S: ≤ 0.005%~0.017%,

MTR certificate will be offered.
Surface options:

Ra Reading for Tubing

As drawing and / or mechanically polished			Mechanically Polished and Electropolished or Electropolished		
Surface Designation	Ra Average		Surface Designation	Ra Average	
	μ-in	μ-m		μ-in	μ-m
SF1	20	0.5	SF4	15	0.38
SF2	25	0.63	SF5	20	0.5
SF3	30	0.76	SF6	25	0.63

Ra Reading for Fitting

Mechanically polished			Mechanically Polished and Electropolished		
Surface Designation	Ra Average		Surface Designation	Ra Average	
	μ-in	μ-m		μ-in	μ-m
SF1	20	0.5	SF4	15	0.38
SF2	25	0.63	SF5	20	0.5
SF3	30	0.76	SF6	25	0.63

Outer surface: Tubes and fittings Ra≤ 32μin (0.8μm)



CSE SEMI-CONDUCTOR/MICRO-ELECTRONICS

CSE developed our semiconductor, vacuum pipe fitting and components step by step by means of good produce techniques experience of sanitary pipe fitting and valve.



Our Vacuum and semiconductor fitting include: Clamp-Aluminum and Stainless steel and claw clamp are available. Flange-KF, ISO specification. Reducer-Blank flange and all of Elbow, Tee, Reducer. Ra≤0.4μm by machine and polished can be provided on request.

We also can offer Electro-polished and blasted surfaces.

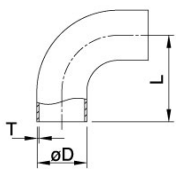
So far our products have been successfully promoted to Germany, U.K, Japan and local building projects based on our flexible production ability and strict quality control.

UBPE, Pharmaceutical Fitting Semi-Conductor Fitting



BPE-2S 90° Elbow

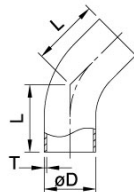
DT-7



SIZE	ØD	L	T
1/2"	12.7	76.2	1.65
3/4"	19.05	76.2	1.65
1.0"	25.4	76.2	1.65
1.5"	38.1	95.25	1.65
2.0"	50.8	120.65	1.65
2.5"	63.5	139.7	1.65
3.0"	76.2	158.75	1.65
4.0"	101.6	203.2	2.1

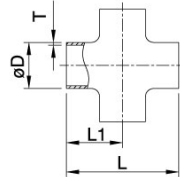
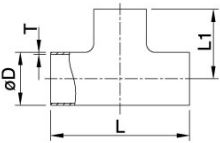
BPE-2KS 45° Elbow

DT-8



SIZE	ØD	L	T
1/2"	12.7	57.15	1.65
3/4"	19.05	57.15	1.65
1.0"	25.4	57.15	1.65
1.5"	38.1	63.5	1.65
2.0"	50.8	76.2	1.65
2.5"	63.5	85.6	1.65
3.0"	76.2	91.95	1.65
4.0"	101.6	114.3	2.1

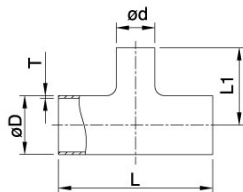
BPE-7W Tee & 9W Cross



DT-9

SIZE	ØD	L	L1	T
1/2"	12.7	95.2	47.5	1.65
3/4"	19.05	101.6	50.8	1.65
1.0"	25.4	108	53.85	1.65
1.5"	38.1	120.6	60.2	1.65
2.0"	50.8	146	73	1.65
2.5"	63.5	158.8	79.25	1.65
3.0"	76.2	171.4	85.6	1.65
4.0"	101.6	209.6	104.65	2.1

BPE-7RW Reducing Tee

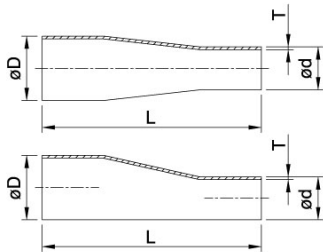


DT-10

SIZE	ØD	Ød	L	L1	T
3/4"x1/2"	19.05	12.7	101.6	50.8	1.65
1.0"x1/2"	25.4	12.7	108	53.85	1.65
1.0"x3/4"	25.4	19.05	108	53.85	1.65
1.5"x1/2"	38.1	12.7	120.6	60.2	1.65
1.5"x3/4"	38.1	19.05	120.6	60.2	1.65
1.5"x1.0"	38.1	25.4	120.6	60.2	1.65
2.0"x1/2"	50.8	12.7	145.8	66.55	1.65
2.0"x3/4"	50.8	19.05	145.8	66.55	1.65
2.0"x1.0"	50.8	25.4	145.8	66.55	1.65
2.0"x1.5"	50.8	38.1	145.8	66.55	1.65
2.5"x1/2"	63.5	12.7	158.5	72.9	1.65
2.5"x3/4"	63.5	19.05	158.5	72.9	1.65
2.5"x1.0"	63.5	25.4	158.5	72.9	1.65

SIZE	ØD	Ød	L	L1	T
2.5"x1.5"	63.5	38.1	158.8	73	1.65
2.5"x2.0"	63.5	50.8	158.8	73	1.65
3.0"x1/2"	76.2	12.7	171.2	79.25	1.65
3.0"x3/4"	76.2	19.05	171.2	79.25	1.65
3.0"x1.0"	76.2	25.4	171.2	79.25	1.65
3.0"x1.5"	76.2	38.1	171.2	79.25	1.65
3.0"x2.0"	76.2	50.8	171.2	79.25	1.65
3.0"x2.5"	76.2	63.5	171.2	79.25	1.65
4.0"x1.0"	101.6	25.4	209.3	91.95	2.1
4.0"x1.5"	101.6	38.1	209.3	91.95	2.1
4.0"x2.0"	101.6	50.8	209.3	98.3	2.1
4.0"x2.5"	101.6	63.5	209.3	98.3	2.1
4.0"x3.0"	101.6	76.2	209.3	98.3	2.1

BPE-31 Concentric & BPE-32 Eccentric Reducer



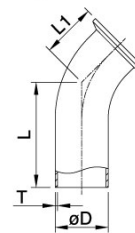
DT-11

SIZE	ØD	Ød	L	T
3/4"x1/2"	19.05	12.7	101.6	1.65
1.0"x1/2"	25.4	12.7	114.3	1.65
1.0"x3/4"	25.4	19.05	101.6	1.65
1.5"x1/2"	38.1	12.7	139.7	1.65
1.5"x3/4"	38.1	19.05	127	1.65
1.5"x1.0"	38.1	25.4	127	1.65
2.0"x1/2"	50.8	12.7	196.85	1.65
2.0"x3/4"	50.8	19.05	184.25	1.65
2.0"x1.0"	50.8	25.4	184.25	1.65
2.0"x1.5"	50.8	38.1	133.35	1.65

DT-11

SIZE	ØD	Ød	L	T
2.5"x1.5"	63.5	38.1	184.25	1.65
2.5"x2.0"	63.5	50.8	139.7	1.65
3.0"x1.5"	76.2	38.1	235	1.65
3.0"x2.0"	76.2	50.8	190.5	1.65
3.0"x2.5"	76.2	63.5	139.7	1.65
4.0"x1.5"	101.6	38.1	342.9	2.1
4.0"x2.0"	101.6	50.8	299.7	2.1
4.0"x2.5"	101.6	63.5	247.7	2.1
4.0"x3.0"	101.6	76.2	196.85	2.1

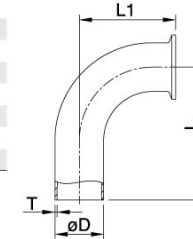
BPE-45° Weld / Clamp Elbow



DT-13

SIZE	ØD	L	L1	T
1/2"	12.7	57.15	25.4	1.65
3/4"	19.05	57.15	25.4	1.65
1.0"	25.4	57.15	28.45	1.65
1.5"	38.1	63.5	36.8	1.65
2.0"	50.8	76.2	44.45	1.65
2.5"	63.5	85.6	52.32	1.65
3.0"	76.2	91.95	60.45	1.65
4.0"	101.6	114.3	79.25	2.1

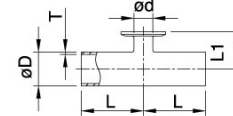
BPE-90° Weld / Clamp Elbow



DT-12

SIZE	ØD	L	L1	T
1/2"	12.7	76.2	41.15	1.65
3/4"	19.05	76.2	41.15	1.65
1.0"	25.4	76.2	50.8	1.65
1.5"	38.1	95.25	69.85	1.65
2.0"	50.8	120.65	88.9	1.65
2.5"	63.5	139.7	107.95	1.65
3.0"	76.2	158.75	127	1.65
4.0"	101.6	203.2	168.15	2.1

BPE-Short Outlet Weld / Clamp Reducing Tee

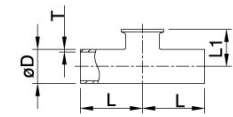


DT-14

SIZE	ØD	Ød	L	L1	T
3/4"x1/2"	19.05	12.7	50.8	25.4	1.65
1.0"x1/2"	25.4	12.7	53.84	28.6	1.65
1.0"x3/4"	25.4	19.05	53.84	28.6	1.65
1.5"x1/2"	38.1	12.7	60.2	34.9	1.65
1.5"x3/4"	38.1	19.05	60.2	34.9	1.65
1.5"x1.0"	38.1	25.4	60.2	34.9	1.65
2.0"x1/2"	50.8	12.7	72.9	41.3	1.65
2.0"x3/4"	50.8	19.05	72.9	41.3	1.65
2.0"x1.0"	50.8	25.4	72.9	41.3	1.65
2.0"x1.5"	50.8	38.1	72.9	41.3	1.65
2.5"x1/2"	63.5	12.7	79.25	47.6	1.65
2.5"x3/4"	63.5	19.05	79.25	47.6	1.65
2.5"x1.0"	63.5	25.4	79.25	47.6	1.65

SIZE	ØD	Ød	L	L1	T
2.5"x1.5"	63.5	38.1	79.25	47.6	1.65
2.5"x2.0"	63.5	50.8	79.25	47.6	1.65
3.0"x1/2"	76.2	12.7	85.6	53.65	1.65
3.0"x3/4"	76.2	19.05	85.6	53.65	1.65
3.0"x1.0"	76.2	25.4	85.6	53.65	1.65
3.0"x1.5"	76.2	38.1	85.6	53.65	1.65
3.0"x2.0"	76.2	50.8	85.6	53.65	1.65
3.0"x2.5"	76.2	63.5	85.6	53.65	1.65
4.0"x1.0"	101.6	25.4	104.65	66.55	2.1
4.0"x1.5"	101.6	38.1	104.65	66.55	2.1
4.0"x2.0"	101.6	50.8	104.65	66.55	2.1
4.0"x2.5"	101.6	63.5	104.65	66.55	2.1
4.0"x3.0"	101.6	76.2	104.65	66.55	2.1

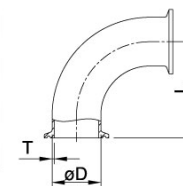
BPE-Equal Outlet Weld / Clamp Tee



DT-15

SIZE	ØD	L	L1	T
1/2"	12.7	47.6	25.4	1.65
3/4"	19.05	50.8	28.44	1.65
1.0"	25.4	54	28.44	1.65
1.5"	38.1	60.2	34.8	1.65
2.0"	50.8	72.9	41.15	1.65
2.5"	63.5	79.25	47.5	1.65
3.0"	76.2	85.7	53.85	1.65
4.0"	101.6	104.8	69.85	2.1

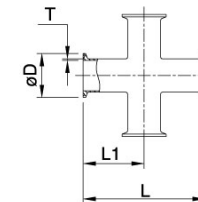
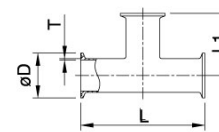
BPE-2CMP 90° Clamp Elbow



DT-16

SIZE	ØD	L	T
1/2"	12.7	41.15	1.65
3/4"	19.05	41.15	1.65
1.0"	25.4	50.8	1.65
1.5"	38.1	69.85	1.65
2.0"	50.8	88.9	1.65
2.5"	63.5	107.95	1.65
3.0"	76.2	127	1.65
4.0"	101.6	168.15	2.1

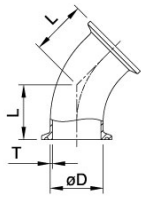
BPE-7MP Clamp Tee & BPE-9MP Cross



DT-18

SIZE	ØD	L	L1	T
1/2"	12.7	114.4	57.2	1.65
3/4"	19.05	120.6	60.2	1.65
1.0"	25.4	133.4	66.55	1.65
1.5"	38.1	146	72.9	1.65
2.0"	50.8	171.4	85.6	1.65
2.5"	63.5	182.2	91.95	1.65
3.0"	76.2	196.8	98.3	1.65
4.0"	101.6	241.4	120.65	2.1

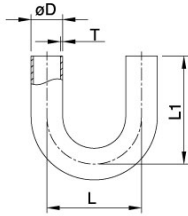
BPE-2KMP 45° Clamp Elbow



DT-17

SIZE	ØD	L	T
1/2"	12.7	25.4	1.65
3/4"	19.05	25.4	1.65
1.0"	25.4	28.4	1.65
1.5"	38.1	36.58	1.65
2.0"	50.8	44.45	1.65
2.5"	63.5	52.32	1.65
3.0"	76.2	60.45	1.65
4.0"	101.6	79.25	2.1

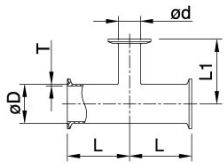
BPE-180° U-Joint Weld



DT-23

SIZE	ØD	L	L1	T
1/2"	12.7	114.3	76.2	1.65
3/4"	19.05	114.3	76.2	1.65
1.0"	25.4	114.3	76.2	1.65
1.5"	38.1	152.4	114.3	1.65
2.0"	50.8	152.4	127	1.65
2.5"	63.5	190.5	146.1	1.65
3.0"	76.2	228.6	165.1	1.65
4.0"	101.6	304.8	215.9	2.1

BPE-Reducing Tee Clamp End

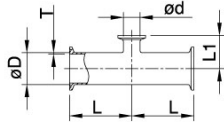


DT-19

SIZE	ØD	Ød	L	L1	T
3/4"x1/2"	19.05	12.7	63.5	63.5	1.65
1.0"x1/2"	25.4	12.7	66.7	66.7	1.65
1.0"x3/4"	25.4	19.05	66.7	66.7	1.65
1.5"x1/2"	38.1	12.7	73	73	1.65
1.5"x3/4"	38.1	19.05	73	73	1.65
1.5"x1.0"	38.1	25.4	73	73	1.65
2.0"x1.0"	50.8	25.4	85.7	79.4	1.65
2.0"x1.5"	50.8	38.1	85.7	79.4	1.65
2.5"x1.0"	63.5	25.4	92.1	85.7	1.65
2.5"x1.5"	63.5	38.1	92.1	85.7	1.65

SIZE	ØD	Ød	L	L1	T
2.5"x2.0"	63.5	50.8	92.1	85.7	1.65
3.0"x1.0"	76.2	25.4	98.4	92.1	1.65
3.0"x1.5"	76.2	38.1	98.4	92.1	1.65
3.0"x2.0"	76.2	50.8	98.4	98.4	1.65
3.0"x2.5"	76.2	63.5	98.4	98.4	1.65
4.0"x1.0"	101.6	25.4	120.7	104.8	2.1
4.0"x1.5"	101.6	38.1	120.7	104.8	2.1
4.0"x2.0"	101.6	50.8	120.7	111.1	2.1
4.0"x2.5"	101.6	63.5	120.7	111.1	2.1
4.0"x3.0"	101.6	76.2	120.7	111.1	2.1

BPE-7RMP Clamp Reducing Tee

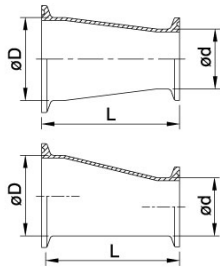


DT-20

SIZE	ØD	Ød	L	L1	T
3/4"x1/2"	19.05	12.7	63.5	25.4	1.65
1.0"x1/2"	25.4	12.7	66.7	28.6	1.65
1.0"x3/4"	25.4	19.05	66.7	28.6	1.65
1.5"x1/2"	38.1	12.7	73	34.9	1.65
1.5"x3/4"	38.1	19.05	73	34.9	1.65
1.5"x1.0"	38.1	25.4	73	34.9	1.65
2.0"x1.0"	50.8	25.4	85.7	47.6	1.65
2.0"x1.5"	50.8	38.1	92.1	47.6	1.65
2.5"x1.0"	63.5	25.4	92.1	47.6	1.65
2.5"x1.5"	63.5	38.1	92.1	47.6	1.65

SIZE	ØD	Ød	L	L1	T
2.5"x2.0"	63.5	50.8	92.1	47.6	1.65
3.0"x1.0"	76.2	25.4	98.4	54	1.65
3.0"x1.5"	76.2	38.1	98.4	54	1.65
3.0"x2.0"	76.2	50.8	98.4	54	1.65
3.0"x2.5"	76.2	63.5	98.4	54	1.65
4.0"x1.0"	101.6	25.4	120.7	66.7	2.1
4.0"x1.5"	101.6	38.1	120.7	66.7	2.1
4.0"x2.0"	101.6	50.8	120.7	66.7	2.1
4.0"x2.5"	101.6	63.5	120.7	66.7	2.1
4.0"x3.0"	101.6	76.2	120.7	66.7	2.1

BPE-31-14MP Concentric & BPE-32-14MP Eccentric Reducer

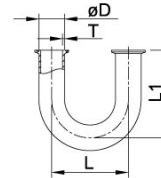


DT-21

SIZE	ØD	Ød	L	T
3/4"x1/2"	19.05	12.7	50.8	1.65
1.0"x1/2"	25.4	12.7	63.5	1.65
1.0"x3/4"	25.4	19.05	50.8	1.65
1.5"x1/2"	38.1	12.7	88.9	1.65
1.5"x3/4"	38.1	19.05	76.2	1.65
1.5"x1.0"	38.1	25.4	76.2	1.65
2.0"x1/2"	50.8	12.7	139.7	1.65
2.0"x3/4"	50.8	19.05	127.0	1.65
2.0"x1.0"	50.8	25.4	127.0	1.65
2.0"x1.5"	50.8	38.1	76.2	1.65

SIZE	ØD	Ød	L	T
2.5"x1.5"	63.5	38.1	127	1.65
2.5"x2.0"	63.5	50.8	76.2	1.65
3.0"x1.5"	76.2	38.1	177.8	1.65
3.0"x2.0"	76.2	50.8	127.0	1.65
3.0"x2.5"	76.2	63.5	76.2	1.65
4.0"x1.5"	101.6	38.1	282.6	2.1
4.0"x2.0"	101.6	50.8	231.8	2.1
4.0"x2.5"	101.6	63.5	181.0	2.1
4.0"x3.0"	101.6	76.2	130.2	2.1

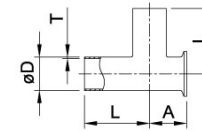
BPE-180° Clamp Joint



DT-24

SIZE	ØD	L	L1	T
1/2"	12.7	114.3	88.9	1.65
3/4"	19.05	114.3	88.9	1.65
1.0"	25.4	114.3	88.9	1.65
1.5"	38.1	114.3	127.0	1.65
2.0"	50.8	152.4	139.7	1.65
2.5"	63.5	190.5	158.8	1.65
3.0"	76.2	228.6	177.8	1.65
4.0"	101.6	304.8	231.8	2.1

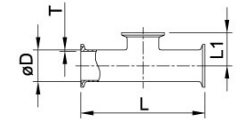
BPE-Short Outlet Run Tee



DT-25

SIZE	ØD	A	L	T
1/2"	12.7	22.2	47.6	1.65
3/4"	19.05	25.4	50.8	1.65
1.0"	25.4	28.6	54.0	1.65
1.5"	38.1	34.9	60.3	1.65
2.0"	50.8	41.3	73.0	1.65
2.5"	63.5	47.6	79.4	1.65
3.0"	76.2	54.0	85.7	1.65
4.0"	101.6	69.9	104.8	2.1

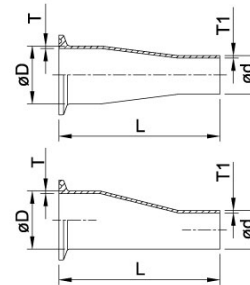
BPE-Short Outlet Tee Clamp End



DT-27

SIZE	ØD	L	L1	T
1/2"	12.7	114.4	25.4	1.65
3/4"	19.05	120.6	28.6	1.65
1.0"	25.4	133.4	28.6	1.65
1.5"	38.1	146.0	34.9	1.65
2.0"	50.8	171.4	41.3	1.65
2.5"	63.5	184.2	47.6	1.65
3.0"	76.2	196.8	54.0	1.65
4.0"	101.6	241.4	69.9	2.1

BPE-Concentric & Eccentric Reducer Clamp / Weld End

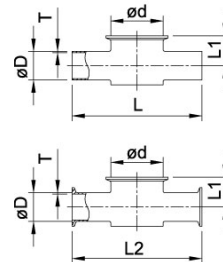


DT-26

SIZE	ØD	Ød	L	T	T1
3/4"x1/2"	19.05	12.7	76.2	1.65	1.65
1.0"x1/2"	25.4	12.7	88.9	1.65	1.65
1.0"x3/4"	25.4	19.05	76.2	1.65	1.65
1.5"x1/2"	38.1	12.7	114.3	1.65	1.65
1.5"x3/4"	38.1	19.05	101.6	1.65	1.65
1.5"x1.0"	38.1	25.4	101.6	1.65	1.65
2.0"x1/2"	50.8	12.7	165.1	1.65	1.65
2.0"x3/4"	50.8	19.05	152.4	1.65	1.65
2.0"x1.0"	50.8	25.4	152.4	1.65	1.65
2.0"x1.5"	50.8	38.1	101.6	1.65	1.65

SIZE	ØD	Ød	L	T	T1
2.5"x1.5"	63.5	38.1	152.4	1.65	1.65
2.5"x2.0"	63.5	50.8	107.9	1.65	1.65
3.0"x1.5"	76.2	38.1	203.2	1.65	1.65
3.0"x2.0"	76.2	50.8	158.8	1.65	1.65
3.0"x2.5"	76.2	63.5	108.0	1.65	1.65
4.0"x1.5"	101.6	38.1	308.0	2.1	1.65
4.0"x2.0"	101.6	50.8	263.5	2.1	1.65
4.0"x2.5"	101.6	63.5	212.7	2.1	1.65
4.0"x3.0"	101.6	76.2	161.9	2.1	1.65

BPE-Instrument Tee Weld / Clamp End



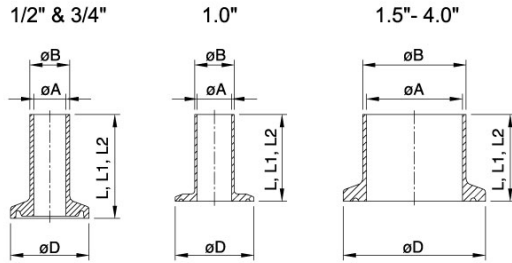
DT-28/DT-29

SIZE	ØD	Ød	L	L1	L2	T
1.0"x1/2"	12.7	25.4	127	22.2	154	1.65
1.0"x3/4"	19.05	25.4	127	25.4	154	1.65
1.5"x1/2"	12.7	38.1	127	22.2	152.4	1.65
1.5"x3/4"	19.05	38.1	127	25.4	152.4	1.65
1.5"x1.0"	25.4	38.1	127.0	28.6	152.4	1.65
2.0"x1/2"	12.7	50.8	139.8	25.4	165.2	1.65
2.0"x3/4"	19.05	50.8	139.8	28.6	165.2	1.65
2.0"x1.0"	25.4	50.8	139.8	31.8	165.2	1.65
2.0"x1.5"	38.1	50.8	139.8	38.1	165.2	1.65
2.5"x1/2"	12.7	63.5	170	35	194	1.65
2.5"x3/4"	19.05	63.5	170	38.1	194	1.65
2.5"x1.0"	25.4	63.5	170	41.3	194	1.65
2.5"x1.5"	38.1	63.5	170	44.5	194	1.65
2.5"x2.0"	50.8	63.5	170	48.0	194	1.65

DT-28/DT-29

SIZE	ØD	Ød	L	L1	L2	T
3.0"x1/2"	12.7	76.2	180	38.1	204	1.65
3.0"x3/4"	19.05	76.2	180	41.3	204	1.65
3.0"x1.0"	25.4	76.2	180	44.5	204	1.65
3.0"x1.5"	38.1	76.2	180	48	204	1.65
3.0"x2.0"	50.8	76.2	180	50.8	204	1.65
3.0"x2.5"	63.5	76.2	180	54	204	1.65
4.0"x1/2"	12.7	101.6	220	79.4	244	1.65
4.0"x3/4"	19.05	101.6	220	82.6	244	1.65
4.0"x1.0"	25.4	101.6	220	85.7	244	1.65
4.0"x1.5"	38.1	101.6	220	88.9	244	1.65
4.0"x2.0"	50.8	101.6	220	95.2	244	1.65
4.0"x2.5"	63.5	101.6	220	98.4	244	1.65
4.0"x3.0"	76.2	101.6	220	101.6	244	1.65

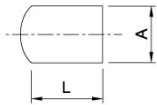
BPE-14AMP-AWF Weld Ferrule



DT-22

SIZE	ØA	ØB	ØD	L	L1	L2
1/2"	9.4	12.7	25	12.7	28.7	44.5
3/4"	15.7	19.1	25	12.7	28.7	44.5
1.0"	22.1	25.4	50.5	12.7	28.7	44.5
1.5"	34.8	38.1	50.5	12.7	28.7	44.5
2.0"	47.5	50.8	64	12.7	28.7	57.2
2.5"	60.2	63.5	77.5	12.7	28.7	57.2
3.0"	72.9	76.2	91	12.7	28.7	57.2
4.0"	97.4	101.6	119	15.9	28.7	57.2

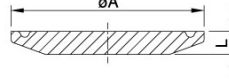
BPE-16W Weld Cap



DT-30

SIZE	A	L
1/2"	12.70	38.10
3/4"	19.05	38.10
1.0"	25.40	38.10
1 1/2"	38.10	38.10
2.0"	50.80	38.10
2 1/2"	63.50	38.10
3.0"	76.20	44.50
4.0"	101.60	50.80
6.0"	152.40	63.50

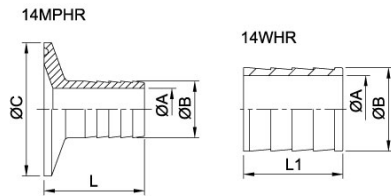
BPE-16AMP Solid End Cap



DT-31

SIZE	ØA	L
1/2"	25.4	4.75
3/4"	25.4	4.75
1.0"	50.5	6.35
1.5"	50.5	6.35
2.0"	64	6.35
2.5"	77.5	6.35
3.0"	91	6.35
4.0"	119.0	7.92

BPE-14MPHR . 14WHR Hose Adapter



SIZE	ØA	ØB	ØC	L	L1
1/2"x1/2"	9.5	13.7	25	38	25.3
3/4"x3/4"	15.8	21.4	25	38	25.3
1.0"x1/2"	9.5	13.7	50.5	38	25.3
1.0"x3/4"	15.8	21.4	50.5	38	25.3
1.0"x1.0"	20.6	25.4	50.5	43	30.3
1.5"x1/2"	9.5	13.7	50.5	38	25.3
1.5"x3/4"	15.8	21.4	50.5	38	25.3
1.5"x1.0"	20.6	25.4	50.5	43	25.3
1.5"x1.5"	33.2	38.1	50.5	43	30.3
2.0"x1.5"	33.2	38.1	64	43	30.3
2.0"x2.0"	46	50.8	64	58.7	46
2.5"x2.5"	58.7	63.5	77.5	59.5	46.8
3.0"x3.0"	72	76.2	91	78.6	65.9
4.0"x4.0"	97.6	101.6	119	85.5	72.8