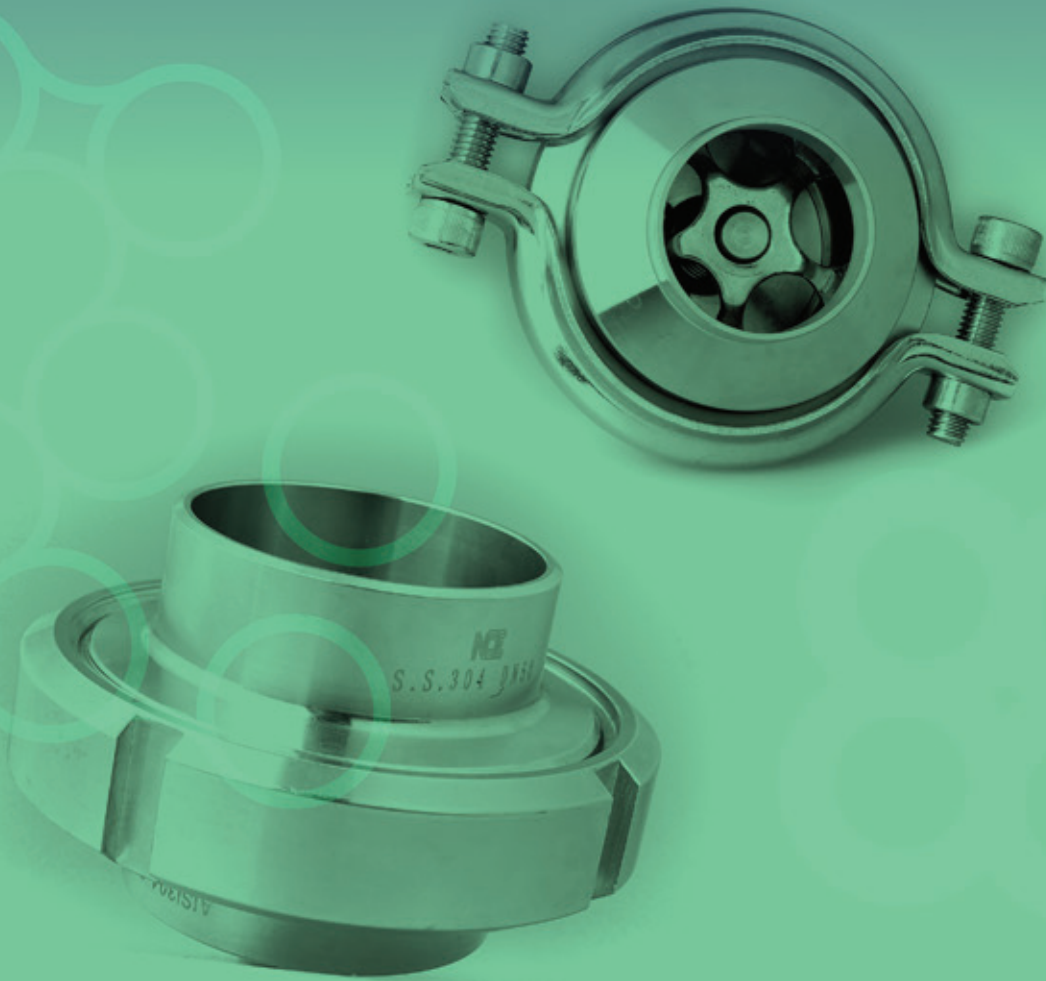




CORROSION RESISTANT MATERIALS AND SOLUTIONS



QUALITY • INTEGRITY • FAIR PRICING • SERVICE • ACCESSIBILITY • EXPERTISE

HYGIENIC TUBING AND FITTINGS



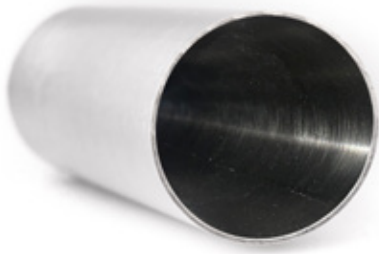
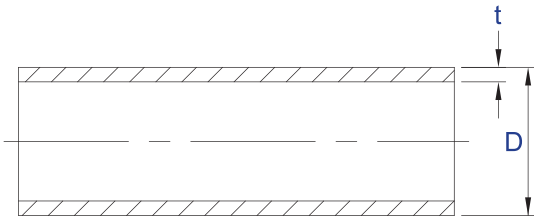
TUBES

DIN Metric

Material: 304/316L
 6M Lengths
 Long Weld Bead Rolled
 Polished

Imperial

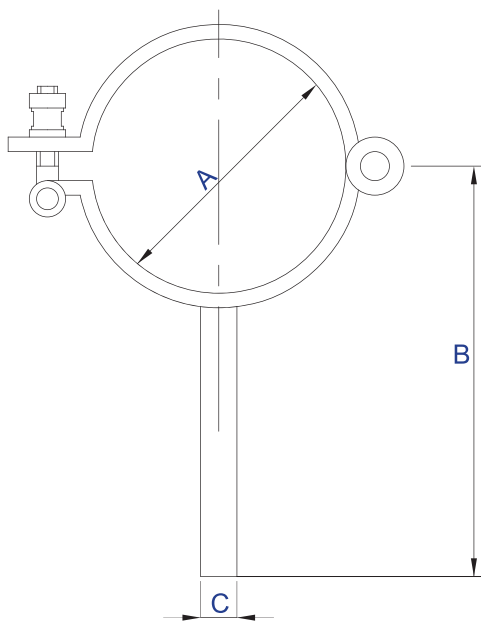
Material: 304/316L
 6M Lengths
 Long Weld Bead Rolled
 Polished



DN	Kg/m	D	t
		mm	
10	0.43	12	1.5
15	0.66	18	1.5
20	0.81	22	1.5
25	1.03	28	1.5
32	1.26	34	1.5
40	1.50	40	1.5
50	1.90	52	1.5
65	3.43	70	2.0
80	4.16	85	2.0
100	5.03	104	2.0
125	6.36	129	2.0
150	7.49	154	2.0
200	10.12	204	2.0

Inch	Kg/m	D	t
		mm	
1	0.898	25.4	1.5
1½	1.375	38.1	1.5
2	1.852	50.8	1.5
2½	2.329	63.5	1.5
3	2.985	76.1	1.5
4	4.016	101.6	1.5

PIPE CLAMP WITH STUB

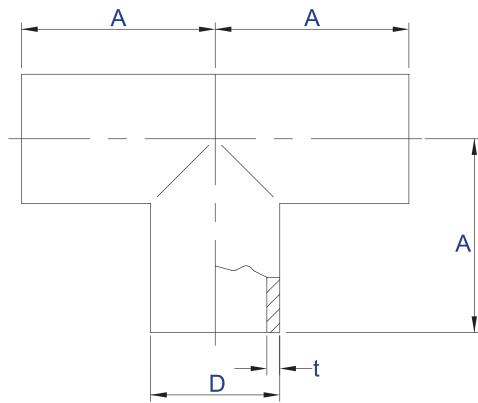


DN	A	B	C
	mm		
10	12	66	8
15	18	69	8
20	22	71	8
25	28	74	8
32	34	77	8
40	40	80	8
50	52	86	10
65	70	95	10
80	85	103	10
100	104	112	10
125	129	125	12
150	154	137	12



All hygienic materials are weld on.

TEES



DIN Metric Long

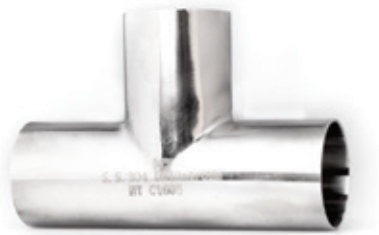
Material: 304/316L

DN	A	D	t
	mm		
10	35.0	12	1.5
15	35.0	18	1.5
20	40.0	22	1.5
25	50.0	28	1.5
32	55.0	34	1.5
40	60.0	40	1.5
50	70.0	52	1.5
65	80.0	70	2.0
80	90.0	85	2.0
100	100.0	104	2.0
125	187.5	129	2.0
150	225.0	154	2.0
200	300.0	204	2.0

Imperial Long

Material: 304/316L

Inch	A	D	t
	mm		
1	50	25.4	1.5
1½	60	38.1	1.5
2	70	50.8	1.5
2½	80	63.5	1.5
3	90	76.2	1.5
4	100	101.6	1.5



DIN Metric Short

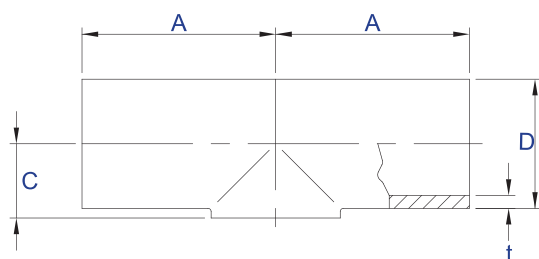
Material: 304/316L

DN	A	D	C	t
	mm			
10	35.0	12	-	1.5
15	35.0	18	11.0	1.5
20	40.0	22	13.0	1.5
25	50.0	28	16.0	1.5
32	55.0	34	19.5	1.5
40	60.0	40	23.0	1.5
50	70.0	52	30.0	1.5
65	80.0	70	40.0	2.0
80	90.0	85	47.5	2.0
100	100.0	104	58.0	2.0
125	187.5	129	74.0	2.0
150	225.0	154	90.0	2.0
200	300.0	204	115.0	2.0

Imperial Short

Material: 304/316L

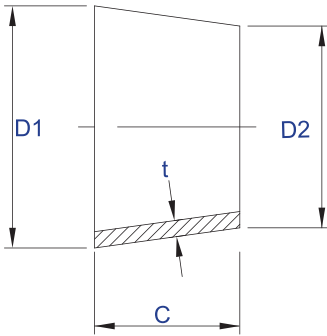
Inch	A	D	C	t
	mm			
1	44	25.4	14	1.5
1½	64	38.1	22	1.5
2	89	50.8	29	1.5
2½	114	63.5	35	1.5
3	134	76.2	41	1.5
4	174	101.6	55	1.5



All hygienic materials are weld on.



REDUCERS



DIN Metric Concentric

Material: 304/316L

DN	D ₁	D ₂	C	t
	mm			
15/10	18	12	11.2	1.5
20/10	22	12	18.7	1.5
20/15	22	18	7.5	1.5
25/15	28	18	18.7	1.5
25/20	28	22	11.2	1.5
40/20	40	22	33.5	1.5
40/25	40	28	22.5	1.5
40/32	40	34	11.2	1.5
50/25	52	28	44.8	1.5
50/40	52	40	22.5	1.5
65/25	70	28	75.0	2.0
65/40	70	40	52.5	2.0
65/50	70	52	30.0	2.0
80/50	85	52	58.0	2.0
80/65	85	70	28.0	2.0
100/50	104	52	93.0	2.0
100/65	104	70	63.5	2.0
100/80	104	85	35.5	2.0
125/80	129	85	82.0	2.0
125/100	129	104	46.7	2.0
150/100	154	104	92.0	2.0
150/125	154	129	45.5	2.0

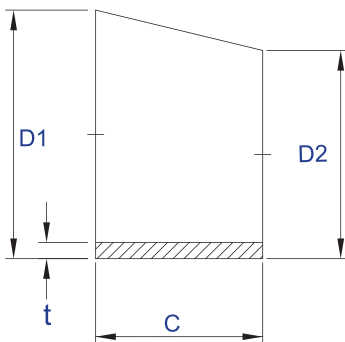
Imperial Concentric

Material: 304/316L

Inch	D ₁	D ₂	C	t
	mm			
1½/1	38.1	25.4	22.8	1.5
2/1	50.8	25.4	46.5	1.5
2/1½	50.8	38.1	23.7	1.5
2½/1½	63.5	38.1	47.4	1.5
2½/2	63.5	50.8	23.7	1.5
3/2	76.1	50.8	47.2	1.5
3/2½	76.1	63.5	23.5	1.5
4/2	101.6	50.8	92.9	1.5
4/2½	101.6	63.5	69.2	1.5
4/3	101.6	76.1	45.7	1.5

DIN Metric Eccentric

Material: 304/316L



DN	D ₁	D ₂	C	t
	mm			
15/10	18	12	16.5	1.5
20/15	22	18	11.0	1.5
25/15	28	18	27.5	1.5
25/20	28	22	16.5	1.5
40/25	40	28	33.0	1.5
50/25	52	28	68.0	1.5
50/40	52	40	33.0	1.5
65/40	70	40	44.0	2.0
65/50	70	52	85.2	2.0
80/50	85	52	41.2	2.0
80/65	85	70	137.4	2.0
100/65	104	70	93.0	2.0
100/80	104	85	53.0	2.0
125/80	129	85	120.0	2.0
125/100	129	104	69.0	2.0
150/100	154	104	138.0	2.0
150/125	154	129	69.0	2.0

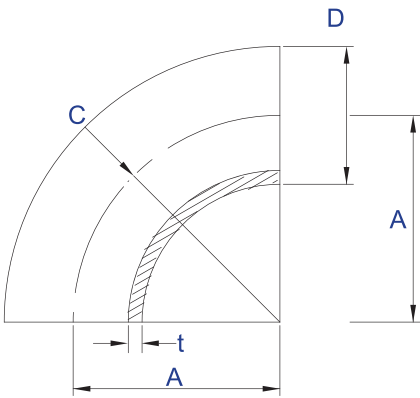
Imperial Eccentric

Material: 304/316L

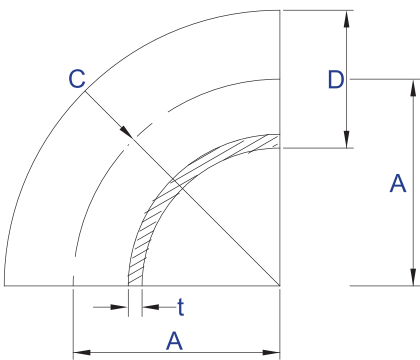
Inch	D ₁	D ₂	C	t
	mm			
1½/1	38.1	25.4	37	1.5
2/1	50.8	25.4	73	1.5
2/1½	50.8	38.1	37	1.5
2½/1½	63.5	38.1	73	1.5
2½/2	63.5	50.8	37	1.5
3/2	76.1	50.8	73	1.5
3/2½	76.1	63.5	37	1.5
4/2½	101.6	63.5	110	1.5
4/3	101.6	76.1	74	1.5

All hygienic materials are weld on.

BENDS



DIN Metric



Imperial

DIN Metric 90° Bends

Material: 304/316L

DN	A	C	D	t
	mm			
10	26.0	26.0	12	1.5
15	35.0	35.0	18	1.5
20	40.0	40.0	22	1.5
25	50.0	50.0	28	1.5
32	55.0	55.0	34	1.5
40	60.0	60.0	40	1.5
50	70.0	70.0	52	1.5
65	80.0	80.0	70	2.0
80	90.0	90.0	85	2.0
100	100.0	100.0	104	2.0
125	187.5	187.5	129	2.0
150	225.0	225.0	154	2.0
200	300.0	300.0	204	2.0

Imperial 90° Bends

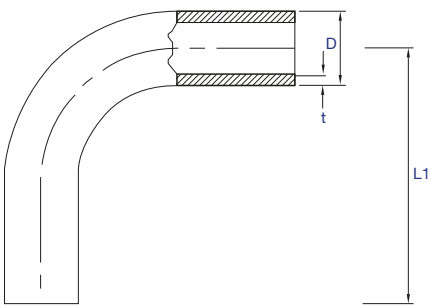
Material: 304/316L

Inch	A	C	D	t
	mm			
1	38.1	38.1	25.4	1.5
1½	57.2	57.2	38.1	1.5
2	76.2	76.2	50.8	1.5
2½	95.3	95.3	63.5	1.5
3	114.3	114.3	76.2	1.5
4	152.4	152.4	101.6	1.5



Imperial 90° Long Bends

Material: 304/316L



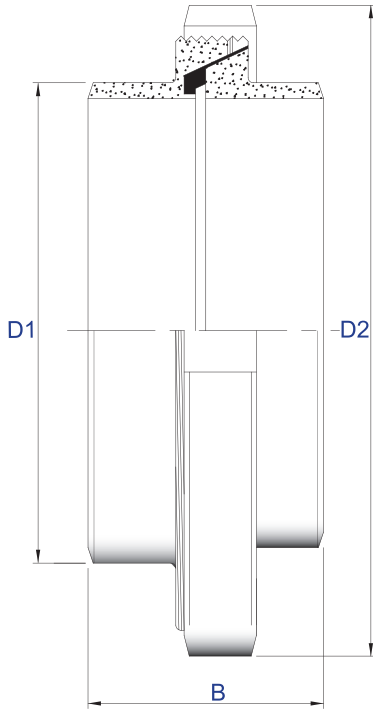
Imperial

Inch	D	L1	t
	mm		
1	25.4	65	1.65
1½	38.1	85	1.65
2	50.8	110	1.65
2½	63.5	135	1.65
3	76.2	155	1.65
4	101.6	195	2.1

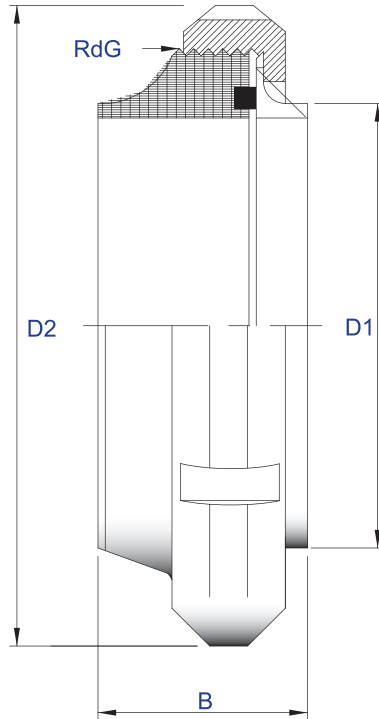
All hygienic materials are weld on.



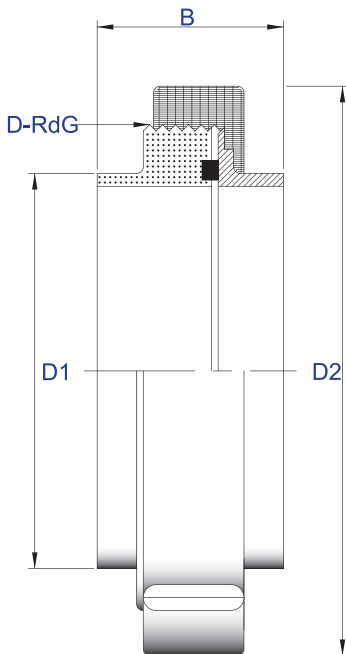
UNIONS - WELD ON



DIN Metric



SMS



Imperial



DIN Metric

NOM DIA	D1	D2	B
	mm		
10	12	38	34
15	18	44	34
20	22	54	36
25	28	63	45
32	34	70	51
40	40	78	53
50	52	92	57
65	70	112	65
80	85	127	75
100	104	148	89
125	129	178	70
150	154	210	76

SMS

NOM DIA	D1	D2	B
	mm		
25	25.4	51	23.5
38	38.1	74	30
51	50.8	84	30
63.5	63.5	100	34
76	76.2	114	35
101.6	101.6	154	48

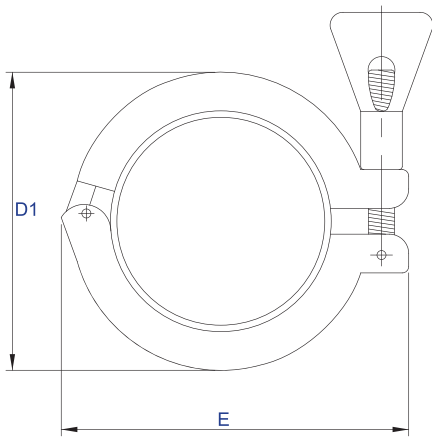
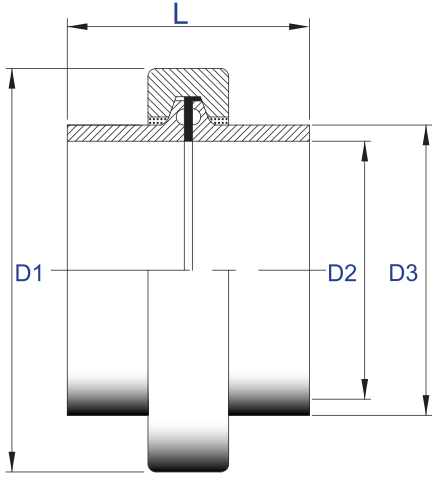
Imperial

NOM DIA Inch	D1	D2	B
	mm		
1	25.4	57	36
1½	38.1	71	38
2	50.8	86	40
2½	63.5	103	46
3	76.2	115	48
4	101.6	147	48

These unions are manufactured from stainless steel (AISI 304/316L) and consist of a liner, male part, nut and gasket. The liner and male parts are suitable for welding to thin-walled stainless steel pipes. The gasket which is located in a groove in the male part, is made from acid and grease resistant synthetic Nitrile rubber. Complete unions are supplied with rubber gaskets. Max. temp. 130 °C.

All hygienic materials are weld on.

CLAMP UNIONS



DIN Metric

DN	D1	D2	D3	L	E
	mm				
10	44	10	12	38	45
15	44	16	18	38	45
20	44	20	22	38	45
25	63	26	28	45	60
32	63	32	34	45	60
40	63	38	40	45	60
50	77	50	52	45	75
65	104	66	70	58	90
80	119	81	85	58	110
100	132	100	104	58	125

Imperial

Inch	D1	D2	D3	L	E
	mm				
1	78	22.9	25.4	45	45
1½	78	35.1	38.1	45	60
2	91	47.8	50.8	45	75
2½	112.5	60.3	63.5	58	90
3	126	72.9	76.2	58	95
4	154	97.6	101.6	58	125



C-Spanner

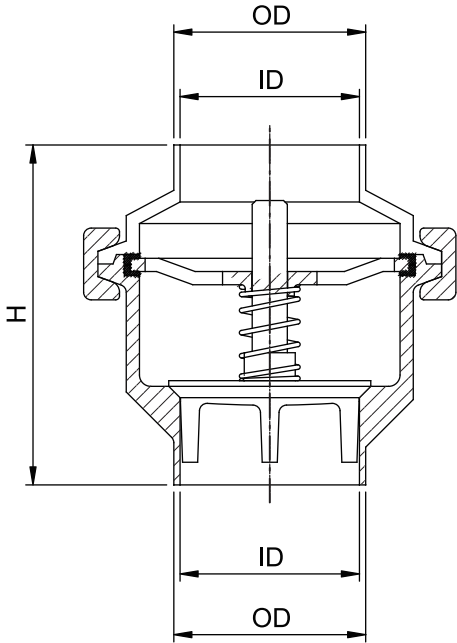
Sizes
10-20
25-40
50-100



All hygienic materials are weld on.



NON-RETURN VALVES



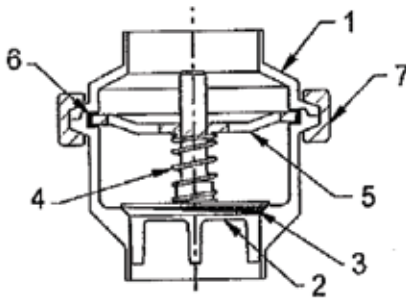
3A Weld Non-return valve

Inch	ID	OD	H
1	22.1	25.4	68.5
1½	34.8	38.1	80.5
2	47.5	50.8	90
2½	60.2	63.5	95
3	72.2	76.2	115
4	97.6	101.6	155

DIN Weld Non-return valve

DN	ID	OD	H
28	25	28	68.5
34	31	34	80.5
40	37	40	80.5
52	49	52	90
70	66	70	115
85	81	85	120
104	100	104	155

NON-RETURN VALVE PARTS



Material

- Steel parts:**..... Stainless steel AISI 304 or acid-resistant steel AISI 316L
- Seal Ring:**..... EPDM Rubber
- Finish:**..... Semi bright

Connections

The valve is available with welding ends for tubes according to 3A, SMS, BS, DIN1 1850.

Technical Data

Required differential pressure for opening the valve when fitted in a vertical pipe is approximately 6kpa (0.06bar).

- Maximum product pressure:**..... 1 000 kpa (10 bar)
- Maximum temperature:**..... 140 °C (EPDM)
- Minimum temperature:**..... -10 °C

Material grades

Product wetted seal rings of Nitrile (NBR) or Fluorinated rubber (FPM)

Ordering

Please state the following when ordering:

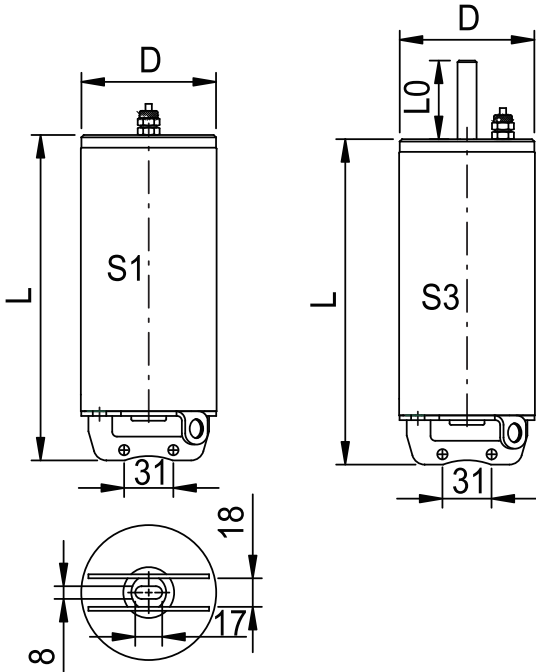
- Size
- Steel Grade, AISI 304 or AISI 316L
- Rubber Grade if not EPDM

NO	Name
1	Body
2	Disc
3	Seal Ring
4	Spring
5	Plate
6	Ring
7	Clamp

All hygienic materials are weld on.

ACTUATOR

S1 & S3/S104



Size	For butterfly valve	D	L	L0
S1	1" - 3" Dn25-76	85	205	
S3	1" - 3" Dn25-76	84	205	50.5
S104	4" Dn104	120	250	

Actuator Data

S1/S3: Shut-off time: 1.5 second/ Weight: 3.85 kgs

S104: Shut-off time: 1.7 second/ Weight: 4.7 kgs

Technical Data

Maximum air pressure: 7 bar (700 kPa)

Minimum air pressure, NC and NO: 5 bar (500 kPa)

Temperature range: -25 °C to +90 °C

Air consumption (litres free air) S1/S3 0.24*P (bar)

Air consumption (litres free air) S104 0.55*P (bar)

Signal transfer: S1/S104 can be connected with an M12 screw proximity switch (PNP or NPN)

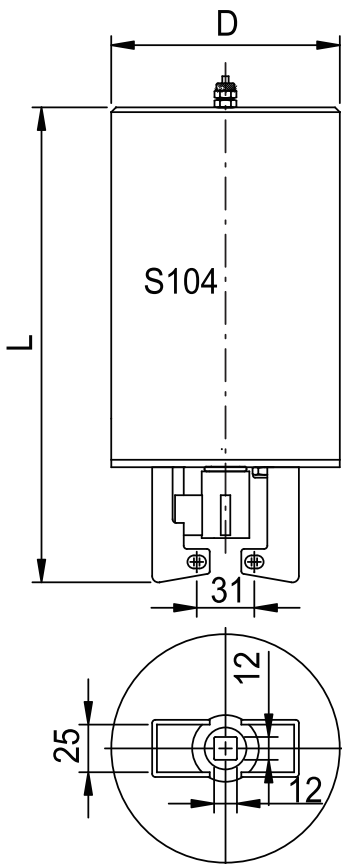
Signal transfer: S3 can be connected with an M12 screw proximity switch (PNP or NPN) or control box

Material

Actuator body: Stainless steel AISI 304/316

Piston: POM

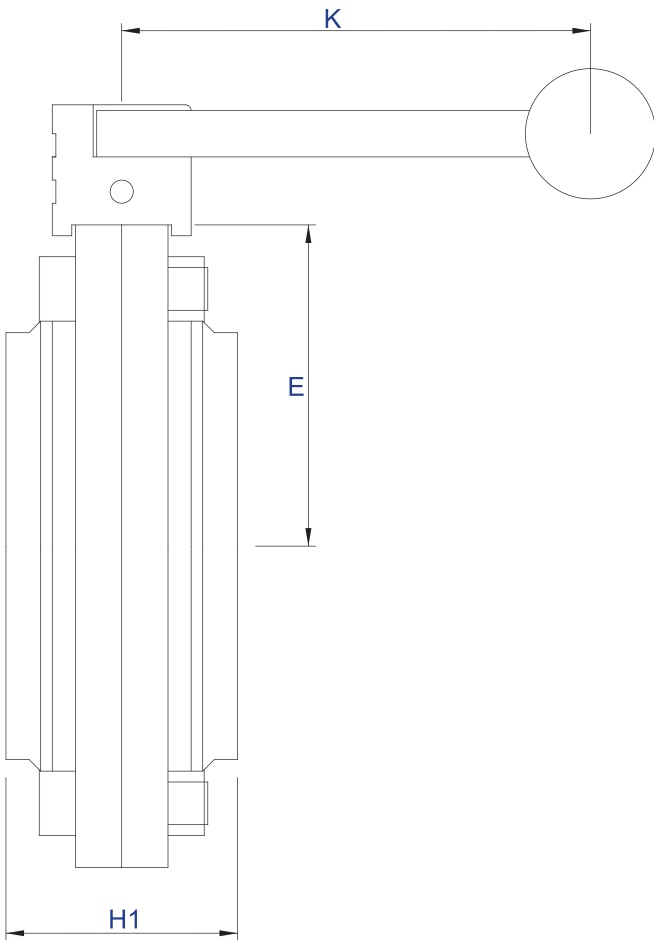
Seal: NBR



All hygienic materials are weld on.

BUTTERFLY VALVES - WELD ON

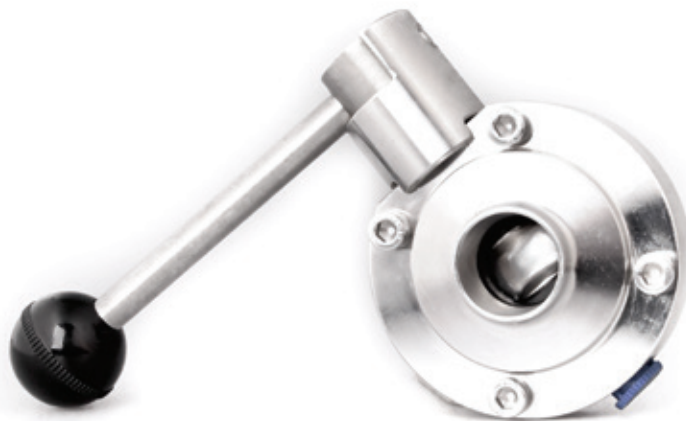
DIN Metric



DN	E	H ₁	K
	mm		
25	32.5	47.0	122
32	32.5	47.0	122
40	32.5	47.0	122
50	42.0	52.0	122
65	53.5	58.0	162
80	64.0	64.0	162
100	77.0	80.0	162
125	99.0	80.0	162
150	111.5	80.0	162

Imperial

Inch	E	H ₁	K
	mm		
1	39.5	46.0	122
1½	42.5	47.0	122
2	52.5	52.0	122
2½	56.0	54.0	162
3	62.5	62.0	162
4	79.0	76.0	162



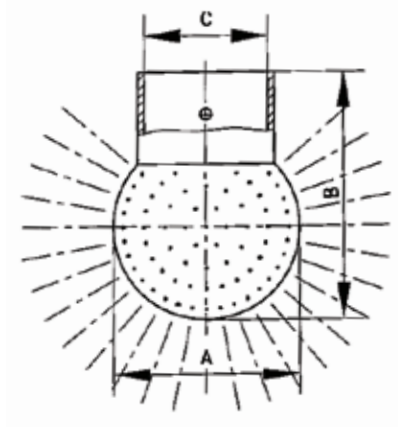
All hygienic materials are weld on.

SPRAY BALLS

Spray Balls Fully Drilled 360°

Material: 304/316L

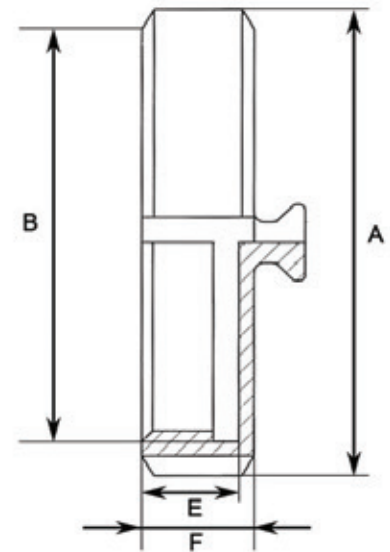
DN	A	B	C
	mm		
25	64	90	30
50	90	120	53



BLANK NUT WITH CHAIN

Material: 304

DN	A	B	E	F	SLOT	
	mm					
10	38	RD 28*1/8	15	18	4	
15	44	RD 34*1/8	15	18	4	
20	54	RD 44*1/6	18	21	4	
25	63	RD 52*1/6	18	21	4	
32	70	RD 58*1/6	18	21	4	
40	78	RD 65*1/6	18	21	4	
50	92	RD 78*1/6	19	22	4	
65	112	RD 95*1/6	21	25	4	6
80	127	RD 110*1/4	26	30	4	6
90	138	RD 120*1/4	26	30	4	6
100	148	RD 130*1/4	26	31	4	6

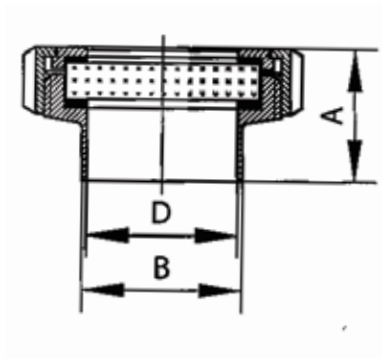


All hygienic materials are weld on.



BULLS EYE INSPECTION GLASS

DN	A	B	D
	mm		
25	39	29	26
32	42	35	32
40	43	41	38
50	45	53	50
65	51	70	66
80	54	85	81
100	67	104	100



DOMED END CAPS

DIN Metric

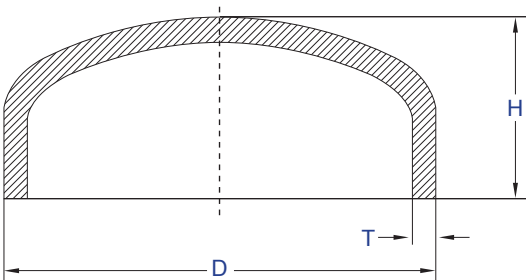
Material: 304/316L

DN	OD (D)	Wall (T)	Height (H)	Weight (kg)t
25	28	1.5	12	0.02
32	34	1.5	15	0.03
40	40	1.5	16	0.04
50	52	1.5	19	0.06
80	85	2.0	23	0.13
100	104	2.0	24	0.19
125	129	2.0	34	0.31
150	154	2.0	41	0.44
200	204	2.0	50	1.13

Imperial

Material: 304/316L

Inch	OD (D)	Wall (T)	Height (H)
1	25.4	1.5	12
1½	38.1	1.5	15
2	50.8	1.5	19
2½	63.5	1.5	19
3	76.1	1.5	27
4	101.6	1.5	24.5
6	154	2.0	31.8
8	204	2.0	50



DIN Metric / Imperial



The products and specifications in this brochure serve as a guide to the hygienic tubing and fittings available from NDE. Your nearest NDE branch will confirm the specifications and availability of all items required. All orders are promptly processed and deliveries are made daily within a wide radius of our branches.

All hygienic materials are weld on.

GAUTENG: Johannesburg - 011 472 1659 | **Germiston** - 010 005 0001 | **Pretoria** - 010 005 0012 | **HEAD OFFICE** - 011 791 0630
WESTERN CAPE: Cape Town - 021 550 6800
KWAZULU-NATAL: Durban - 031 700 5444
EASTERN CAPE: Port Elizabeth - 041 453 4548
MPUMALANGA: Nelspruit (Agency) - 087 654 1528

2021

ADDING VALUE

by supplying appropriate products to combat corrosion