

FITTINGS FOR THE FOOD INDUSTRY

THREADED FITTINGS

WELDED FITTINGS

INDUSTRIAL VALVES

TUBES, BARS AND SHEETS

PRODUCT CATALOGUE



1

FITTINGS
FOR THE FOOD INDUSTRY

Our stainless fittings delivery plan include:

	DIN	SMS	RJT / IDF / Zoll
Steel type: AISI 304/304L/316L	●/●/●	●/●/●	●/○/●
Sealing: NBR/HNBR/MVQ/EPDM/Viton	●/●/●/●/●	●/○/●/●/○	●/○/●/●/○
Surface: Matt/grinded/polished	●/●/●	●/●/●	●/●/●

For inner surface roughness < 0,8 µm and Ra < 1,6 µm on the weld.

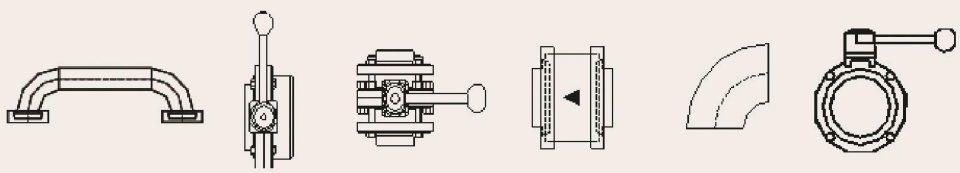
In butterfly valves, due to advanced, computer-aided measuring devices and numerous simulations, gasket nest, and gasket itself were optimized in the similar way as O-ring type sealing. In butterfly valves, influence of temperature and media changes on gasket strength and durability were minimalized. Therefore, the valves can be used in significantly higher working pressure, as well as for media with higher flow speed, and under vacuum. The butterfly valves have EHEDG certificate.

Physical and mechanical features for unions and butterfly valves sealing:

Pressure loss on butterfly valves depending on the flow speed [mbar]

DIN	25	32	40	50	65	80	100	125	150
KVS value	18	40	77	183	388	602	998	1800	2795
2 m/s	48	21	11	6	4	4	3	2	2
2,5 m/s	75	33	18	9	6	6	5	4	3
3 m/s	107	48	25	13	9	9	7	5	5
3,5 m/s	146	65	35	18	12	12	10	7	8

We support our customers from technological installation design stage by facilitate required installation items' drawings in DWG format:



For the food industry fittings we hold following attestation and certificates:

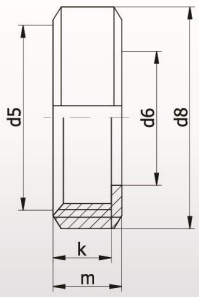
- certificate of National Institute of Hygiene
- ATEX certificate for zone I and II
- Sealing in accordance with FDA
- Certificate PED 97/23/EG
- Certificate AD 2000-Merkblatt HP0



		MVQ (Silikone)	EPDM	HNBR	FPM (Viton)
Physical characteristics	general	very good, versatile features	exceptional, versatile features	amazingly durable material for universal use, including for totally desalinated water (in low switch frequency) and fatty products	especially suitable for hydrocarbon, and aromatic compounds, and fatty products
	colour	red or transparent	black	black	brown
Resistance	hot water	110 °C	160 °C	130 °C	80 °C
	edible oil	200 °C	not recommended	140 °C	200 °C
	caustic soda solution	2%, 90 °C (no connection at > 60 °C)	3%, 95 °C	5%, 100 °C	2,5%, 85 °C
	nitric acid	1,5%, 40 °C	2%, 80 °C	not recommended	3%, 60 °C
	phosphoric acid	1,5%, 40 °C	4%, 70 °C	2%, 60 °C	2%, 60 °C
	hydrogen peroxide/ peracetic acid	0,7%, 40 °C	0,7%, 40 °C	0,7%, 40 °C	0,7%, 40 °C
	can be steam sterilized	121 °C (60 min.)	160 °C	130 °C	121 °C (60 min.)
Mechanical characteristics	density	1,37 g/cm3	1,12 g/cm3	1,20 g/cm3	2,16 g/cm3
	toughness	75 Shore A	75 Shore A	75 Shore A	75 Shore A
	stretching resistance	5,5 N/mm2	12 N/mm2	19 N/mm2	10 N/mm2
	elongation at break	220%	268%	202%	232%
	deforming under residual pressure	14%	19%	22%	14%

11001 Nut DIN

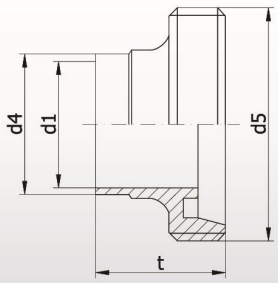
DN	d5	d6	d8	k	m	Weight [kg]
10	28X1/8"	19	38	18	15	0,07
15	34x1/8"	25	44	18	15	0,08
20	44x1/6"	31	54	20	17	0,13
25	52x1/6"	36	63	21	18	0,18
32	58x1/6"	42	70	21	18	0,22
40	65x1/6"	49	78	21	18	0,25
50	78x1/6"	62	92	22	19	0,34
65	95x1/6"	80	112	25	21	0,55
75/3"	104x1/6"	88	119	25	21	0,65
80	110x1/6"	94	127	29	25	0,8
100	130x1/4"	115	148	31	26	1,08
125	160x1/4"	138	178	35	30	1,45
150	190x1/4"	164	210	40	34	1,88





11003 Male part DIN

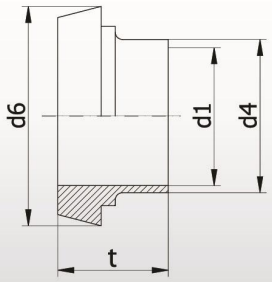
DN	t	d1	d4	d5	Weight [kg]
10	21	10	13	28x1/8"	0,04
15	21	16	19	32x1/8"	0,05
20	24	20	23	44x1/6"	0,09
25	29	26	29	52x1/6"	0,12
32	32	32	35	58x1/6"	0,14
40	33	38	41	65x1/6	0,16
50	35	50	53	78x1/6"	0,22
65	40	66	70	95x1/6"	0,38
80	45	81	85	110x1/4"	0,52
100	54	100	104	130x1/4"	0,62
125	46	125	129	160x1/4"	0,92
150	50	150	154	190x1/4"	1,55





11005 Liner part DIN

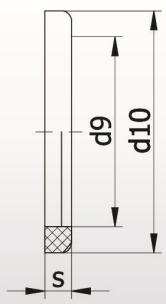
DN	d1	d4	d6	t	Weight [kg]
10	10	13	22,5	17	0,01
15	16	19	28,5	17	0,02
20	20	23	36,5	18	0,04
25	26	29	44	22	0,08
32	32	35	50	25	0,09
40	38	41	56	26	0,12
50	50	53	68,5	28	0,17
65	66	70	86	32	0,28
80	81	85	100	37	0,34
100	100	104	121	44	0,54
125	125	129	150	34	0,7
150	150	154	176	37	0,92





11007 Gasket DIN: EPDM, MVQ, NBR, PTFE, FPM

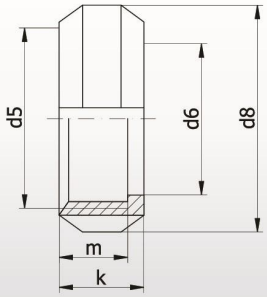
DN	d9	d10	s	Weight [kg]
10	12	20	4,5	0,01
15	18	26	4,5	0,02
20	23	33	4,5	0,03
25	30	40	5/8	0,03
32	36	46	5/8	0,04
40	42	52	5/8	0,05
50	54	64	5/8	0,06
65	71	81	5/8	0,07
75/3"	78	88	5/8	0,09
80	85	95	5/8	0,09
100	104	114	6/8	0,013
125	130	142	7/8	0,022
150	155	162	7/8	0,027





Nut SMS — 11009

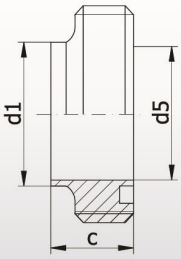




DN	d5	d6	d8	k	m	Weight [kg]
25	40x1/6"	32	51	20	16	0,11
38	60x1/6"	48	74	25	21	0,26
51	44x1/6"	60,5	84	26	21	0,31
63,5	70x1/6"	74	100	30	25	0,41
76	85x1/6"	87	114	32	26	0,57
101,6	98x1/6"	117	154	32	26	1,20

Male part SMS — 11011

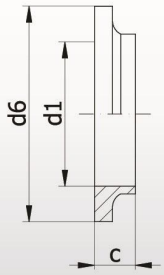




DN	c	d1	d5	Weight [kg]
25	15	22,5	40x1/6"	0,05
38	20	35,5	60x1/6"	0,17
51	20	48,5	70x1/6"	0,18
63,5	24	60,5	85x1/6"	0,35
76	24	73,1	98x1/6"	0,44
101,6	30	97,6	132x1/6"	1,31

Liner part SMS — 11013

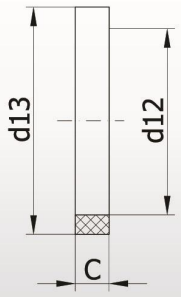




DN	c	d1	d6	Weight [kg]
25	8	22,5	35,5	0,02
38	9	35,5	55	0,04
51	9	48,5	65	0,06
63,5	9	60,5	80	0,07
76	10	73,1	93	0,12
101,6	12	97,6	127	0,284

Gasket SMS: EPDM, MVQ, NBR — 11015



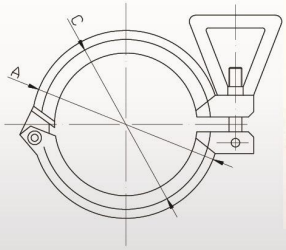


DN	c	d12	d13	Weight [kg]
25	5,5	25	32	0,002
38	5,5	38	48	0,003
51	5,5	51	61	0,006
63,5	5,5	63,5	73,5	0,007
76	5,5	76	86	0,01
101,6	5,5	101,6	113,5	0,02

Steel: AISI 304 / 304L / 316L

11019 Heavy duty clamp TC

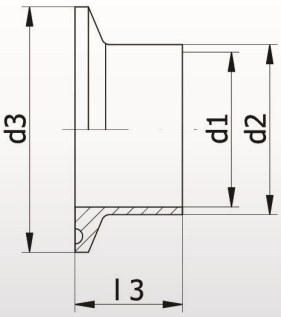
DN	A	C
½" – ¾"	28,0	21,0
10-20	36,5	28,0
1" – 1 ½"	53,5	44,5
25-40	53,5	44,5
2"/50	66,5	57,5
2 ½"	81,0	72,0
3"/65	91,0	85,0
80	112,0	103,0
4"/100	122,0	113,0
125	160,0	144,0
150	190,0	174,0





11021 TC ferrule (clip splice)

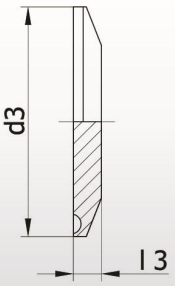
DN	d1	d2	d3	l3	Weight [kg]
10	10	13	34	18	0,03
15	16	19	34	18	0,03
20	20	23	34	18	0,03
25	26	29	50,5	21,5	0,07
32	32	35	50,5	21,5	0,06
40	38	41	50,5	21,5	0,05
50	50	53	64	21,5	0,07
65	66	70	91	28	0,19
80	81	85	106	28	0,20
100	100	104	119	28	0,22
125	125	129	155	28	0,54
150	150	154	183	28	0,65
200	200	204	233,5	28	1,00





11023 Clip plug for clamp

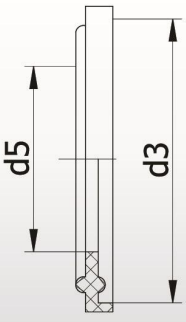
DN	d3	l3	Weight [kg]
10 / 20	34	56	0,03
3/8" / 3/4"	25,4	6,5	0,08
1" / 40	50,5	6	0,08
2" / 50	64	6	0,13
2 1/2"	77,5	6	0,20
3" / 65	91	7	0,31
80	106	8	0,47
4" / 100	119	8	0,61
125	155	12	1,48
150	183	12	2,11
200	233,5	15	4,50





11025 TC gasket: EPDM, MVQ, NBR

DN	d3	d5	Weight [kg]
10	34	10,2	0,002
15	34	16,2	0,003
20	34	20,2	0,004
25	50,5	26,2	0,005
32	50,5	32,2	0,005
40	50,5	38,2	0,006
50	64	50,2	0,007
65	91	66,2	0,013
80	106	81,2	0,014
100	119	100,2	0,015
125	155	125,2	0,024
150	183	150,2	0,031
200	233,5	200,2	0,059

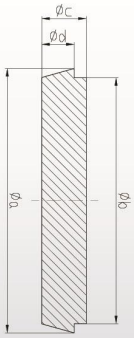




Steel: AISI 304 / 304L / 316L

Blind nut 11027

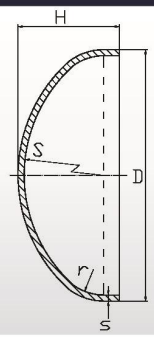




DN	a	b	c	d	Weight [kg]
10	22,5	18	9	6	0,02
15	28,5	24	9	6	0,04
20	36,5	30	11	8	0,07
25	44	36	13	10	0,12
32	50	41	13	10	0,16
40	56	48	13	10	0,22
50	68,5	61	14	11	0,36
65	86	79	16	13	0,66
80	100	93	16	13	0,91
100	121	114	20	15	1,66

End cap 12001

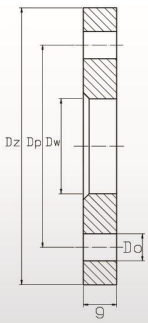




DN	D	H	s	r=D/10	s=D	Weight [kg]
25	28	10	1,5	2,80	28	0,01
32	34	11,5	1,5	3,40	34	0,02
40	40	12,5	1,5	4,00	40	0,02
50	52	15,5	1,5	5,20	52	0,03
65	70	19,5	2	7,00	70	0,08
80	85	22,5	2	8,50	85	0,12
100	104	26,5	2	10,40	104	0,20
125	129	31	2	12,90	129	0,28
150	154	36	2	15,40	154	0,65
200	204	46	2	20,40	204	1,16
250	254	59,5	2	25,40	254	1,60

Aluminium loose flange DIN 2642-PN10 11029

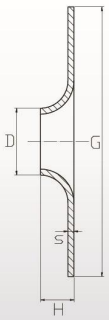




DN	g	Dz	Dw	Dp	Do	Weight [kg]
20	16	105	28	75	14	0,90
25	16	115	36	85	14	1,07
32	18	140	42	100	18	1,27
40	18	150	54	110	18	1,71
50	19	165	65	125	18	2,35
65	20	185	81	145	18	2,85
80	20	200	94	160	18	3,40
100	22	220	113	180	18	4,03
125	22	250	138	210	18	6,35
150	24	285	164	240	22	7,95
200	24	340	225	295	22	10,35

Welding collar DIN 2642-PN10 11031



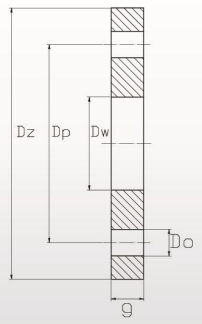


DN	D	G	H	s	Weight [kg]
20	22	58	12	2,0	0,04
25	28	68	15	2,0	0,06
32	34	78	15	2,0	0,07
40	40	88	17	2,0	0,09
50	52	102	20	2,0	0,12
65	70	122	23	2,0	0,21
80	85	138	23	2,0	0,27
100	104	160	28	2,0	0,33
125	129	188	30	2,0	0,45
150	154	212	30	2,0	0,54
200	204	270	30	2,0	0,65
250	254	320	30	2,0	0,80

Steel: AISI 304 / 304L / 316L

11033 Flat flange PN10, DIN2576

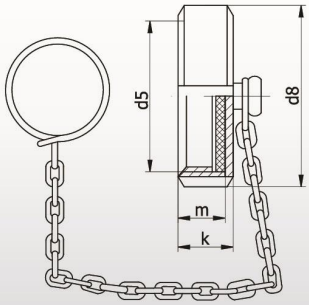
DN	g	Dz	Dw	Dp	Do	Weight [kg]
10	11	90	10	60	14	0,50
15	11	95	16	65	14	0,60
20	13	105	20	75	18	0,85
25	13	115	26	85	18	1,11
32	13	140	32	100	18	1,60
40	13	150	38	110	18	1,80
50	15	165	50	125	18	2,30
65	15	185	66	145	18	2,88
80	15	200	81	160	18	3,20
100	15	220	100	180	18	4,00
125	17	250	125	210	18	5,00
150	17	285	150	240	22	6,70
200	21	340	200	295	22	9,00
250	23	395	250	350	22	11,90





11035 Blind nut with chain DIN

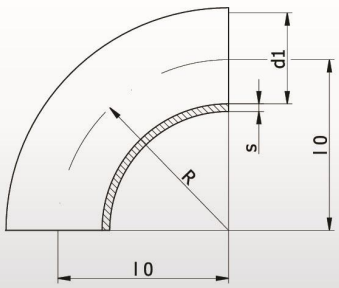
DN	d5	d8	k	m	Weight [kg]
10	28x1/8"	38	18	15	0,12
15	34x1/8"	44	18	15	0,15
20	44x1/6"	54	20	17	0,19
25	52x1/6"	63	21	18	0,25
32	58x1/6"	70	21	18	0,29
40	65x1/6"	78	21	18	0,33
50	78x1/6"	92	22	19	0,46
65	95x1/6"	112	25	21	0,85
75/3"	104x1/6"	119	25	21	0,90
80	110x1/4"	127	30	26	1,11
100	130x1/4"	148	31	26	1,53
125	160x1/4"	178	34	29	2,12
150	190x1/4"	210	39	33	3,05





12003 Bend DIN

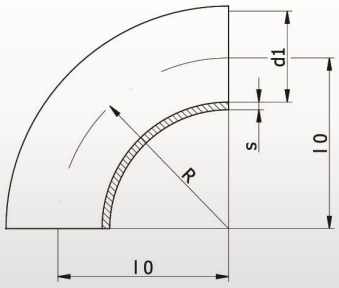
DN	d1	l0	R	s	Weight [kg]
10	9	26	26	1,5	0,01
15	15	35	35	1,5	0,02
20	19	40	40	1,5	0,04
25	25	50	50	1,5	0,05
32	31	55	55	1,5	0,08
40	37	60	60	1,5	0,10
50	49	70	70	1,5	0,17
65	66	80	80	2	0,4
80	81	90	90	2	0,57
100	100	100	100	2	0,76
125	125	187,5	187,5	2	1,78
150	150	225	225	2	2,75





12005 Bend SMS

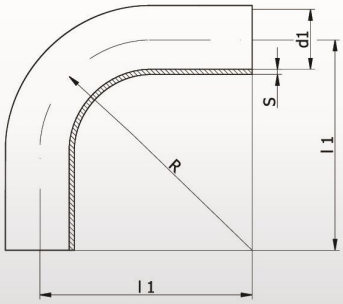
DN	d1	l0	R	s	Weight [kg]
25	22,6	44	37,5	1,2	0,054
38	35,6	64	57	1,2	0,106
51	48,6	89	76,5	1,2	0,205
63,5	60,3	114	95,3	1,6	0,44
76	72,9	134	114,2	1,6	0,62
101,6	97,6	174	152,5	2	1,32





Extended bend DIN 12007

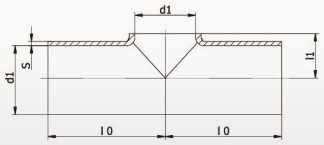




DN	d1	l1	R	s	Weight [kg]
10	9	38	26	1,5	0,025
15	15	47	35	1,5	0,05
20	19	52	40	1,5	0,07
25	25	70	50	1,5	0,11
32	31	78	55	1,5	0,155
40	37	85	60	1,5	0,20
50	49	97	70	1,5	0,33
65	66	110	80	2	0,56
80	81	118	90	2	0,79
100	100	140	100	2	1,2

Welding tee short DIN 12009

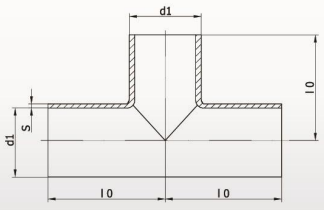




DN	d1	l0	l1	s	Weight [kg]
10	9	35	6,5	1,5	0,02
15	15	35	9,5	1,5	0,04
20	19	40	12	1,5	0,07
25	25	50	15,5	1,5	0,09
32	31	55	19	1,5	0,12
40	37	60	23,5	1,5	0,15
50	49	70	30	1,5	0,24
65	66	80	41,0	2,0	0,46
80	81	90	48,5	2,0	0,68
100	100	100	58,0	2,0	0,92
125	125	187	74,0	2,0	1,97
150	150	225	90,0	2,0	2,98

Welding tee long DIN 12011

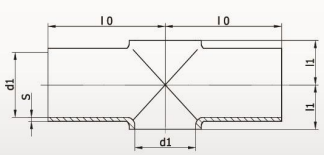




DN	d1	l0	s	Weight [kg]
10	9	35	1,5	0,03
15	15	35	1,5	0,05
20	19	40	1,5	0,08
25	25	50	1,5	0,10
32	31	55	1,5	0,13
40	37	60	1,5	0,21
50	49	70	1,5	0,29
65	66	80	2,0	0,62
80	81	90	2,0	0,85
100	100	100	2,0	1,62
125	125	187	2,0	2,71
150	150	225	2,0	3,88

Welding cross short DIN 12013



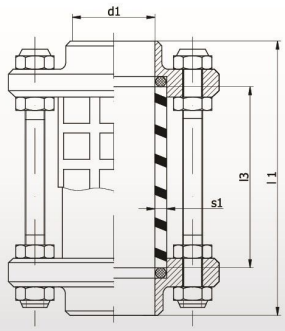


DN	d1	l0	l1	s	Weight [kg]
15	15	35	9,5	1,5	0,04
20	19	40	12	1,5	0,07
25	25	50	15,5	1,5	0,09
32	31	55	19	1,5	0,12
40	37	60	23,5	1,5	0,15
50	49	70	30	1,5	0,24
65	66	80	41	2,0	0,46
80	81	90	48,5	2,0	0,68
100	100	100	58	2,0	0,92
125	125	187	74	2,0	1,97
150	150	225	90	2,0	2,98

Steel: AISI 304 / 304L / 316L

15001 Sight glass WW (weld/weld)

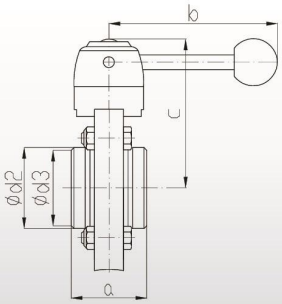
DN	d1	l1	l3	s1	Weight [kg]
10	10	88	60	2,5	0,25
15	16	88	60	2,5	0,30
20	20	88	60	3	0,73
25	26	98	70	3	0,75
32	32	104	70	3	0,76
40	38	112	70	5	1,08
50	50	112	70	5	1,34
65	66	127	85	5	1,90
80	81	135	85	5	2,35
100	100	169	115	5	2,80
125	125	202	160	7	6,35
150	150	216	170	9	7,11





13001 Butterfly valve DIN BC-WW (weld/weld)

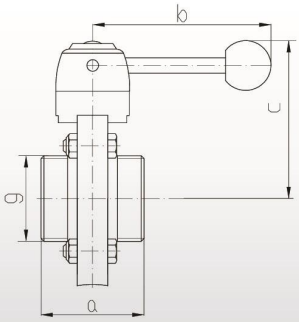
DN	a	b	c	d2	d3	Weight [kg]
25	40	122	89	31	28	1,2
32	42	122	91	37	34	1,4
40	50	122	94	43	40	1,4
50	50	122	100	55	52	1,6
65	50	150	109	72	70	2,0
80	60	150	116	87	85	2,8
100	64	150	127	106	104	3,6





13003 Butterfly valve DIN SV04-WW (weld/weld)

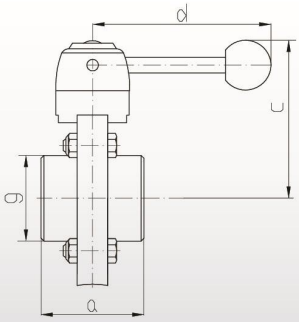
DN	a	b	c	g	Weight [kg]
15	40	122	89	20	1,35
20	40	122	89	24	1,35
25	40	122	89	30	1,31
32	42	122	91	36	1,42
40	50	122	94	42	1,52
50	50	122	100	54	1,80
65	50	150	109	70	2,18
80	60	150	116	85	3,95
100	64	150	127	104	4,80
125	86	216	155	129	8,10
150	90	216	170	154	10,30





13005 Butterfly valve DIN BC-MM (male/male)

DN	a	b	c	g	Weight [kg]
25	64	122	89	Rd52x1/6	1,6
32	64	122	91	Rd58x1/6	1,6
40	72	122	94	Rd65x1/6	2,0
50	72	122	100	Rd78x1/6	2,1
65	76	150	109	Rd95x1/6	3,0
80	88	150	116	Rd110x1/4	3,8
100	92	150	127	Rd130x1/4	4,8

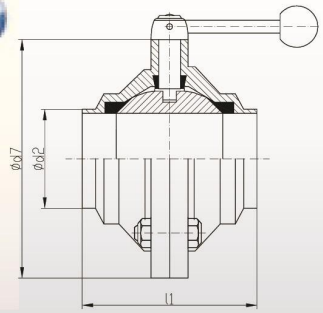




Steel: AISI 304 / 304L / 316L

Ball valve WW DIN (weld/weld) 13007

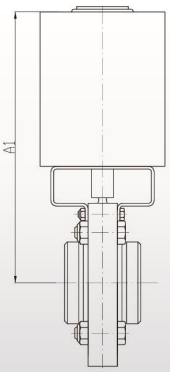




DN	ød2	ød7	L1	Weight [kg]
25	29	94	72	1,2
40	41	114	84	2
50	53	131	98	3,1
65	70	158	120	5
80	85	181	140	8,5
100	104	209	164	13

Butterfly valve with actuator 13009

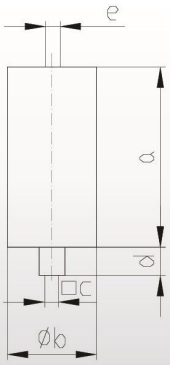




DN	A1	Weight [kg]
15	220	5,1
20	220	5,1
25	220	5,1
32	223	5,2
40	225	5,3
50	232	5,6
65	245	5,7
80	271	7,4
100	281	8,2
125	372	15,6
150	386	17,8

Pneumatic actuator 13011

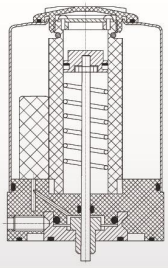




DN	a	b	c	d	e	Weight [kg]
15-100/1"-4"	149	85	9,5	24	G1/8"	2,7
125-200	204	114	14	31	G1/8"	6,4
15-50/1"-2"	149	70	9,5	24	G1/8"	1,9

Control unit TOP09 13013





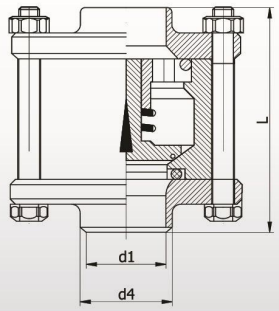
Advantages of TOP09:

- Suitable for all standard actuators as well as for retrofitting existing one
- Other manufacturers' adaptors available on request
- Faster change of control device, down times are reduced considerably
- Simple assembly
- User-friendly montage technology
- No need for proximity sensor adjustment
- Clearly visible valve flap due to visual, mechanical position indicator

Steel: AISI 304 / 304L / 316L

14001 Non return valve WW DIN (weld/weld)

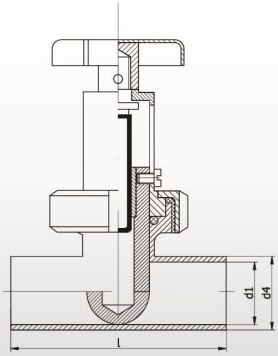
DN	d1	d4	l	Weight [kg]
25	26	31	90	1,65
32	32	37	90	2,02
40	38	43	100	1,99
50	50	55	110	2,53
65	66	72	120	3,27
80	81	87	145	5,90
100	100	106	150	9,80





14003 Throttle valve DIN

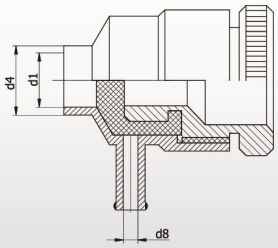
DN	d1	d4	l	Weight [kg]
25	26	29	100	0,81
32	32	35	110	1,13
40	38	41	120	1,75
50	50	53	140	2,73
65	66	70	161	3,96
80	81	85	180	4,27
100	100	104	210	6,35





14005 Sampling device DIN

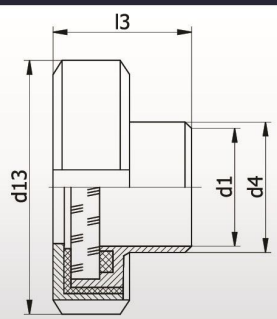
DN	d1	d4	d8	Weight [kg]
15	16	20	6	0,40
40	37	40	6	0,40





15003 Welded end sight glass DIN

DN	d1	d4	d13	l3	Weight [kg]
25	26	31	63	37	0,31
32	32	37	70	40	0,40
40	38	43	78	41	0,48
50	50	55	92	43	0,69
65	66	72	112	48	1,10
80	81	87	127	58	1,61
100	100	106	148	63	2,27
125	125	132	178	58	3,08
150	150	157	210	63	5,28





Steel: AISI 304 / 304L / 316L

Glass for sight glass (spare glass) 15005



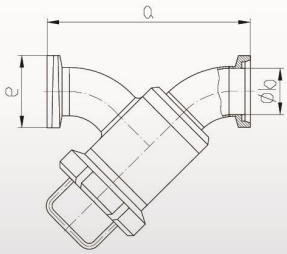


DN	d8	s2	Weight [kg]
25 / 1"	45	8	0,03
32	50	8	0,04
40 / 1½"	55	10	0,06
50 / 2"	65	10	0,08
65 / 2½"	85	10	0,14
3"	90	10	0,29
80	100	15	0,29
100 / 4"	118	12	0,33
125	150	15	0,66
150	175	20	1,18

Borosilicate and toughened versions

Dirt collecting filter DIN (male/male) 15007

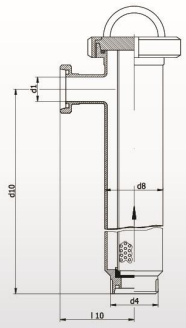




DN	a	b	e	Weight [kg]
25	163	26	Rd52x1/6	1,176
32	180	32	Rd58x1/6	1,35
40	210	38	Rd65x1/6	2,06
50	220	50	Rd78x1/6	3,09
65	280	66	Rd95x1/6	3,10
80	320	81	Rd110x1/4	4,711
100	370	100	Rd130x1/4	6,68

Angular filter DIN (male/male) 15009



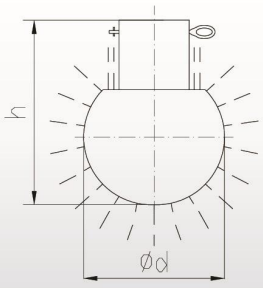


DN	d1	d4	d8	d10	l10	Weight [kg]
25	26	52x1/6"	70	327	90	3,30
32	32	58x1/6"	70	327	90	3,40
40	38	65x1/6"	104	340	115	6,19
50	50	78x1/6"	104	340	115	6,20
65	66	95x1/6"	104	325	115	6,50
80	81	110x1/4"	129	560	160	11,80
100	100	130x1/4"	154	560	160	16,28
125	125	160x1/4"	180	560	200	21,45
150	150	190x1/4"	206	620	240	-

Mesh diameter on request

Cleaning ball DIN, quick 15011



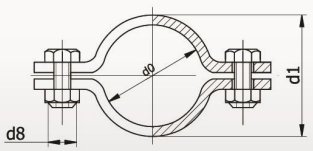


DN	Type	Range (m)	Flow m³/h		Ball diameter	High
			1 bar	2,5 bar	d	h
10	XI-I	0,5-1	2,1	-	25	37,5
15	YI-I	1-1,5	4,2	-	30	42
20	A2-I	2-2,5	7,7	12,2	40	53
25	B3-I	2-3	11	17,3	64	90
25	B5-I	3-4	17,5	28,1	64	90
32	F4-I	2,5-3,5	13,5	22	64	90
40	C4-I	2,5-3,5	11,8	19,2	64	90
50	D4-I	4-5	28,6	47,1	90	120

Steel: AISI 304 / 304L / 316L

15013 Pipe clamp DIN

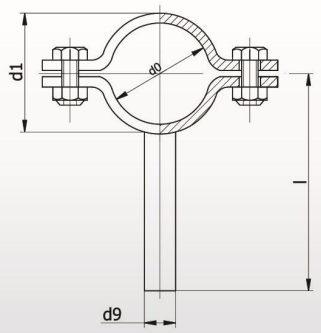
DN	d0	d1	d8	Weight [kg]
10	12	18	M6x20	0,02
15	18	24	M6x20	0,04
20	22	28	M6x20	0,05
25	28	34	M6x20	0,05
32	34	40	M6x20	0,07
40	40	46	M6x20	0,07
50	52	58	M6x20	0,08
65	70	76	M6x20	0,09
80	85	91	M6x20	0,15
100	104	110	M6x20	0,23
125	129	137	M8x30	0,41
150	154	164	M8x30	0,96
200	204	214	M10x30	1,60
250	254	266	M16x30	3,00





15015 Pipe clamp with support DIN

DN	d0	d1	d9	l	Weight [kg]
10	12	18	8	64	0,04
15	18	24	8	67	0,07
20	22	28	8	69	0,08
25	28	34	10	72	0,10
32	34	40	10	75	0,11
40	40	46	10	78	0,12
50	52	58	12	84	0,13
65	70	76	12	93	0,16
80	85	91	12	100,5	0,27
100	104	110	12	110	0,32
125	129	137	16	140	0,48
150	154	164	16	180	1,04
200	204	214	20	240	2,00
250	254	266	22	280	3,40





15017 C- spanner

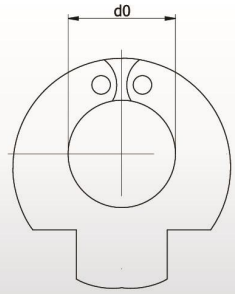
DN	Weight [kg]
10-20	0,09
25-40	0,29
50-80	0,44
100-150	1,15





15019 Pipe cutting guide DIN / SMS / Cal

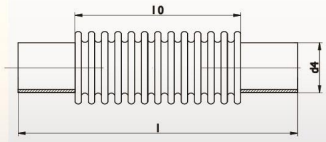
DN	d0 DIN	d0 DIN R2	d0 Cal	d0 ISO	Weight [kg]
10	12	13		17,3	0,60
15	18	19		21,3	0,60
20	22	23		26,9	0,60
25 / 1"	28	29	1"	33,7	0,70
32 / 1¼"	34	35	1¼"	42,4	0,70
40 / 1½"	40	41	1½"	48,3	0,90
50 / 2"	52	53	2"	60,3	1,00
65 / 2½"		70	2½"	76	1,90
80 / 3"		85	3"	88,9	2,10
100 / 4"		104	4"		2,60





Compensator DIN 15021

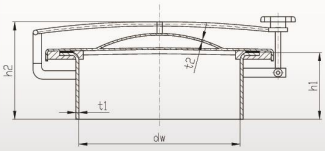




DN	d4	l	L0	Weight [kg]
25	28x1,5	200	±10	0,16
32	34x1,5	200	±15	0,18
40	40x1,5	200	±15	0,26
50	52x1,5	200	±15	0,32
65	70x2	200	±18	0,56
80	85x2	200	±20	0,78
100	104x2	200	±35	0,95

Manhole cover 15023

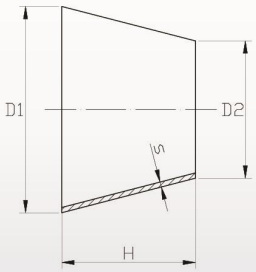




DN	dw	t1	t2	dw	h1	h2	Weight [kg]
DN200	200	3	2	280	80	200	3,20
DN300	300	3	2	340	80	200	4,80
DN430	425	3	2	470	80	200	6,60
DN450	450	3	2	490	80	200	7,40

Concentric reducer 12015

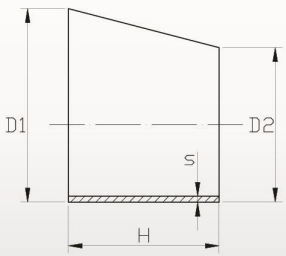




DN	D1	D2	H	s	Weight [kg]
15/10	19	13	11	1,5	0,08
20/15	23	19	12	1,5	0,04
25/15	29	19	22	1,5	0,03
25/20	29	23	12	1,5	0,07
32/20	35	23	22	1,5	0,08
32/25	35	23	12	1,5	0,08
40/25	41	29	22	1,5	0,08
50/25	53	29	45	1,5	0,13
50/32	53	35	33	1,5	0,15
50/40	53	41	22	1,5	1,18
65/32	70	35	59	2,0	0,18
65/40	70	41	52	2,0	0,19
65/50	70	53	29	2,0	0,19
80/50	85	53	56	2,0	0,21
80/65	85	70	27	2,0	0,22
100/50	104	53	88	2,0	0,22
100/65	104	70	61	2,0	0,23
100/80	104	85	34	2,0	0,24

Eccentric reducer 12017





DN	D1	D2	H	s	Weight [kg]
15/10	19	13	22	1,5	0,08
20/15	23	19		1,5	0,04
25/15	29	19	20	1,5	0,03
25/20	29	23	17	1,5	0,07
32/20	35	23	34	1,5	0,08
32/25	35	23	17	1,5	0,08
40/25	41	29	33	1,5	0,08
50/25	53	29	67	1,5	0,13
50/32	53	35		1,5	0,15
50/40	53	41	33	1,5	1,18
65/32	70	35		2,0	0,18
65/40	70	41	53	2,0	0,19
65/50	70	53	45	2,0	0,19
80/50	85	53	86	2,0	0,21
80/65	85	70	42	2,0	0,22
100/50	104	53		2,0	0,22
100/65	104	70	93	2,0	0,23
100/80	104	85		2,0	0,24

Steel: AISI 304 / 304L / 316L

HyCom fittings are design for pharmaceutical, food and biotechnology industry and they must meet high quality standards and comply with technical requirements.
Apart from material high quality, fittings shall be produced without dead spaces, and their inner surface must have access for proper cleaning. This type fittings requires relevant sealing elements that need, among others, sterilization process with saturated steam under increased pressure.

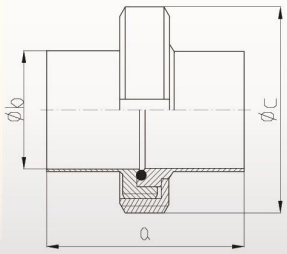
Our company offers HyCom products range in the following connections variants:

- Clamp connections in accordance with DIN 32676
- Aseptic connections in accordance with DIN 11864-1
- Aseptic flange connections in accordance with DIN 11864-2
- Aseptic clamp connections in accordance with DIN 11864-3
- Aseptic unions for orbital welding in accordance with DIN 11865
- Aseptic pipes for orbital welding in accordance with DIN 11866

HyCom specification	
Starting material	welded or seamless pipe, forged steel bar δ ferrite content in material (including weld) <3%
Material	1.4404/316L (1.4301/1.4307 - 304/304L)
Dimensions	according to DIN 11866 – range A: 13,5x1,5mm to 154x2mm analogously to DIN 11850 – range 2 according to DIN 11866 – range B: 133,5x1,6mm to 114,3x2,3mm analogously to DIN EN ISO 1127 according to DIN 11866 – range C: 12,7x1,65mm to 101,6x2,11mm analogously to ASME-BPE 2009 according to DIN 11850 – range 2: 13x1,5mm to 154x2mm other sizes available on request
Technical terms of delivery	fittings made from pipes: according to DIN 11850/11852; EN 10216-5; EN 10217-7 forged fittings or/and steel bars according to EN10088
Tolerance	according to DIN 11850, DIN 11852, DIN 11853, DIN 11864, DIN 11865, DIN 11866, ISO 2768
Pipes finishing	orbital weld according to DIN 11864 or weld according to DIN 11853
Unions finishing	according to DIN 11864 – range A; DIN 11853; DIN 32676
Inner surface	elements made from pipe: Ra ≤ 1,6 µm / deformation range Ra≤3,2µm (=H1) unions: HyCom1: Ra ≤ 0,8 µm (=H3o) HyCom1: Ra ≤ 1,6 µm (=H4o) optional: Ra on customer request
Outer surface	elements made from pipe: Ra unspecified (=H1) unions: HyCom1: Ra ≤ 1,6 µm (=H3o) HyCom2: Ra ≤ 0,8 µm (=H4o) optional: Ra on customer request
Inner surface processing	cutting optional electrochemical polishing
Sealing material	according to DIN 11864: EPDM, HNBR, FKM, FFKM in accordance with FDA §177.2600
Examination methods	checking of starting material attestation dimensions checking visual examination material analysis using XRF spectrometer roughness inspection
Marking	every element is marked as outline below: supplier's logo – steel type Dimensions – melt number
Documentation	optinal: Certificate 3.1 according to EN 10204 – for starting material Certificate 3.1/AD2000-W2 according to E 10204 and AD-Merkblatt W2 or/and AD 2000-Merkblatt W2 for starting material manufacturer certificate in accordance with EN 10204 manufacturer certificate confirming roughness
Packing and dispatch	unions connections are protected by plastic caps every element is shrink-wrapped individually in foil

Pipe union DIN 11864-V — 16001

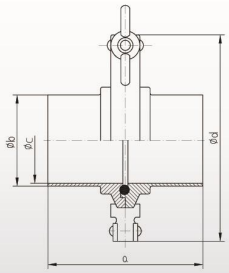




DN	a	b	c	Weight [kg]
10	76	13	38	0,10
15	76	19	44	0,16
20	76	23	54	0,25
25	77	29	63	0,40
32	88	35	70	0,49
40	88	41	78	0,60
50	89	53	92	0,78
65	113	70	112	1,39
80	117	85	127	1,84
100	120	104	148	2,47

Pipe TC union DIN 11864-K — 16003

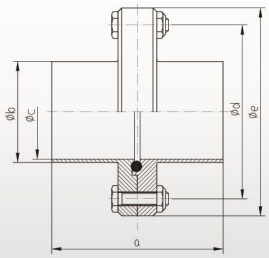




DN	a	b	c	d	Weight [kg]
10	76	13	10	43	0,29
15	76	19	16	43	0,29
20	76	23	20	57	0,47
25	77	29	26	57	0,46
32	88	35	32	57	0,46
40	88	41	38	73	0,62
50	89	53	50	89	0,78
65	113	70	66	99	1,08
80	117	85	81	118	1,41
100	120	104	100	145	2,04

Flange union DIN 11864-F — 16005

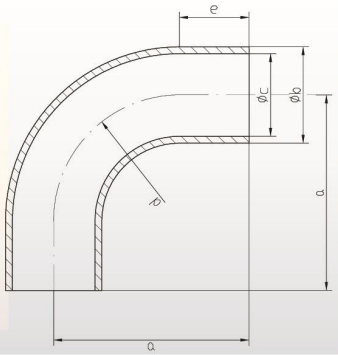




DN	a	b	c	d	e	Weight [kg]
10	80	13	10	37	54	0,40
15	80	19	16	42	59	0,48
20	80	23	20	47	64	0,56
25	80	29	26	53	70	0,62
32	90	35	32	59	76	0,74
40	90	41	38	65	82	0,80
50	90	53	50	77	94	0,96
65	108	70	66	95	113	1,44
80	116	85	81	112	133	2,22
100	116	104	100	137	159	3,30
125	120	129	125	161	183	4,50
150	120	154	150	188	213	7,35

Bend 90° DIN 11865 — 16007



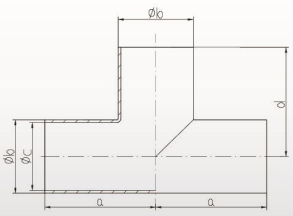


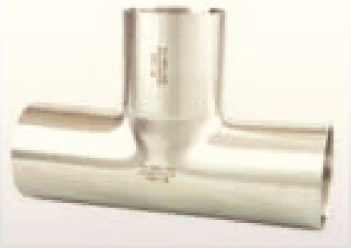
DN	a	b	c	d	e	Weight [kg]
10	51	13	10	26	25	0,04
15	60	19	16	35	25	0,06
20	65	23	20	40	25	0,08
25	90	29	26	50	40	0,16
32	95	35	32	55	40	0,20
40	100	41	38	60	40	0,26
50	110	53	50	70	40	0,40
65	120	70	66	80	40	0,76
80	145	85	81	90	55	1,08
100	155	104	100	100	55	1,56

Steel: AISI 304 / 304L / 316L

16009 Tee long DIN 11865

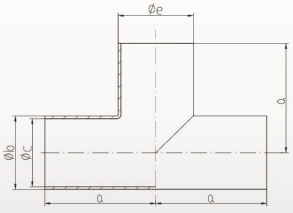
DN	a=d	b	c	Weight [kg]
10	35	13	10	0,04
15	35	19	16	0,06
20	40	23	20	0,10
25	50	29	26	0,14
32	55	35	32	0,18
40	60	41	38	0,24
50	80	53	50	0,38
65	105	70	66	0,80
80	130	85	81	1,02
100	155	104	100	1,35

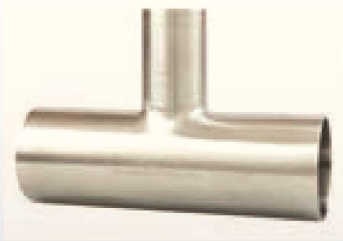




16011 Reduction tee DIN 11865

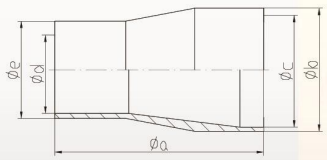
DN	a=d	b	c	e	Weight [kg]
15-10	35	19	16	13	0,06
20-15	40	23	20	19	0,10
25-10	50	29	26	13	0,12
32-20	55	35	32	23	0,18
32-25	55	35	32	29	0,18
40-25	60	41	38	29	0,22
40-32	60	41	38	35	0,24
50-20	80	53	50	23	0,38
50-25	80	53	50	29	0,40
50-40	80	53	50	41	0,42
65-40	105	70	66	41	0,82
65-50	105	701	66	53	0,84
80-50	130	85	81	53	0,90
80-65	130	85	81	70	1,38
100-65	155	104	100	70	2,00





16013 Concentric reducer DIN 11863

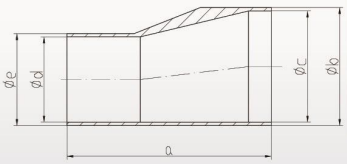
DN	a	b	c	d	e	Weight [kg]
15-10	60	19	16	10	13	0,06
20-15	60	23	20	16	19	0,06
25-20	70	29	26	20	23	0,10
32-20	80	35	32	20	23	0,14
32-25	80	35	32	26	29	0,14
40-25	90	41	38	26	29	0,20
40-32	90	41	38	32	35	0,16
50-20	90	53	50	20	23	0,50
50-25	90	53	50	26	29	0,36
50-40	90	53	50	38	41	0,28
65-40	110	70	66	38	41	0,58
65-50	110	70	66	50	53	0,50
80-50	110	85	81	50	53	0,84
80-65	110	85	81	66	70	0,78
100-65	135	104	100	66	70	1,28



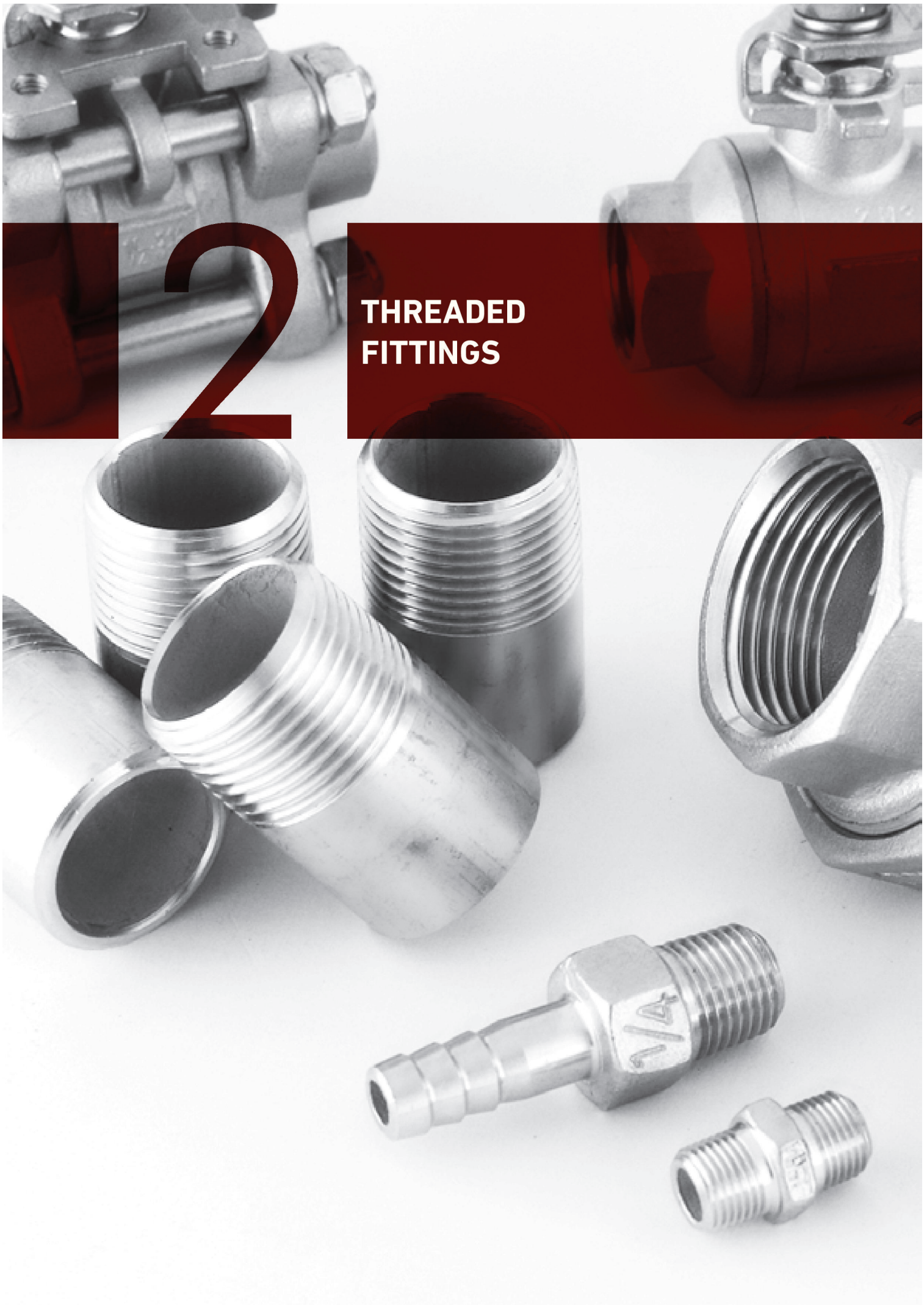


16015 Eccentric reducer DIN 11865

DN	a	b	c	d	e	Weight [kg]
15-10	60	19	16	10	13	0,06
20-15	60	23	20	16	19	0,06
25-20	70	29	26	20	23	0,12
32-20	80	35	32	20	23	0,18
32-25	80	35	32	26	29	0,14
40-25	90	41	38	26	29	0,26
40-32	90	41	38	32	35	0,20
50-20	90	53	50	20	23	0,48
50-25	90	53	50	26	29	0,44
50-40	90	53	50	38	41	0,38
65-40	110	70	66	38	41	0,78
65-50	110	70	66	50	53	0,70
80-50	110	85	81	50	53	1,18
80-65	110	85	81	66	70	0,82
100-65	135	104	100	66	70	1,52







2 THREADED FITTINGS

We are pleased to offer valves and threaded fittings, including:

- Ball valves: threaded, welded, flanged
- Globe valves
- Non return valves
- Pipe unions with flat and conical sealing
- Connection elements: nipples, couplings, hose nipples, plugs, caps and others.
- Bends, tees, threaded reducers

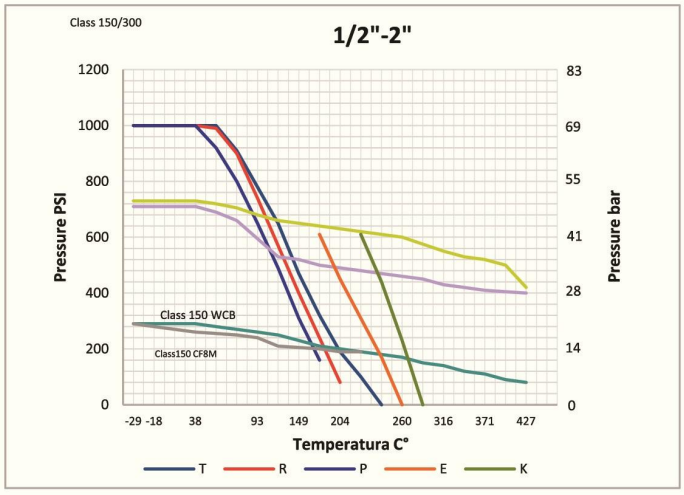
Offered products are typical applications for industries:

- Chemical Industry
- Petrochemical Industry
- Pulp and Paper Industry
- Heating Industry
- Electric Power Industry
- Industrial Water Treatments (Sewage Farms)

Product type	Pressure		Thread type	Material	
Threaded Fittings	150 PSI (PN10)		BSP	AISI316	AISI304
Threaded Ball Valves	1000 PSI (PN64)		BSP	AISI316	
Welded Ball Valves	1000 PSI (PN64)		ISO	AISI316	
Flanged Ball Valves	PN16	PN40	DIN Standard	AISI316	
Dirt collecting/Angular Filters	300 PSI		BSP	AISI316	
Non-Return Valves	800 PSI (PN40)		BSP	AISI316	
Globe Valves	200 PSI		BSP	AISI316	

Our company cooperates with reputed suppliers from Far East and European Union, who hold ISO9001 and PED 97/23/EG certificates. Threaded and welded fittings that we offer are high quality approved by material certificate EN 10204/3.1.

SELECTION REFERENCE FOR VALVE



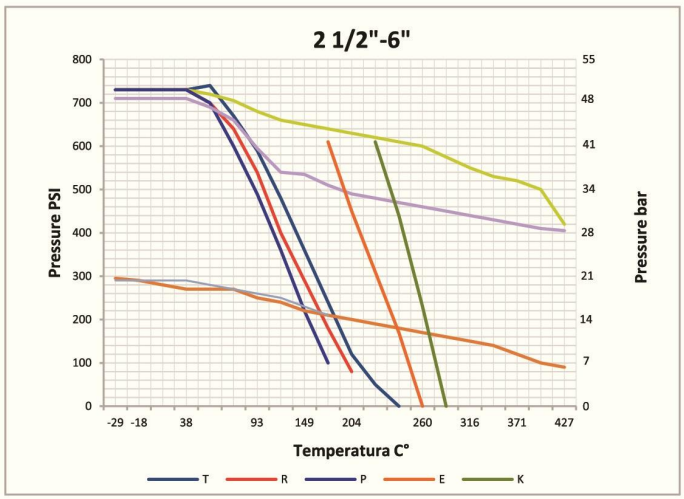
Seat material:

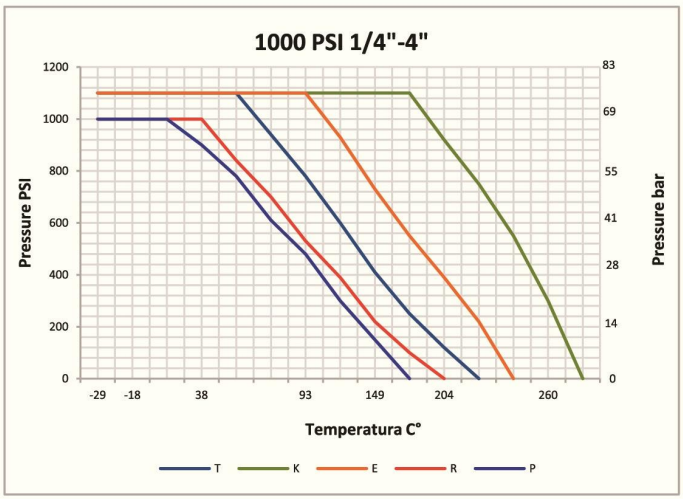
P = PTFE
R = RTFE
T = TFM1600
E = EK+PTFE
K = PEEK

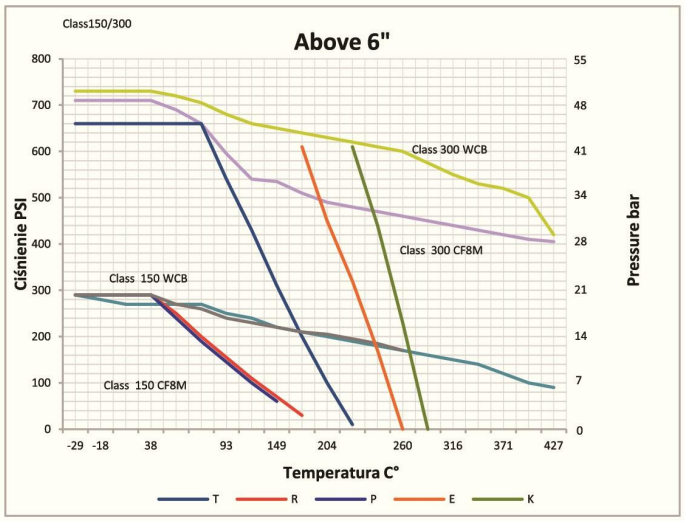
Seat temperature: the temperature if the PTFE oraz RTFE, refers to API608.

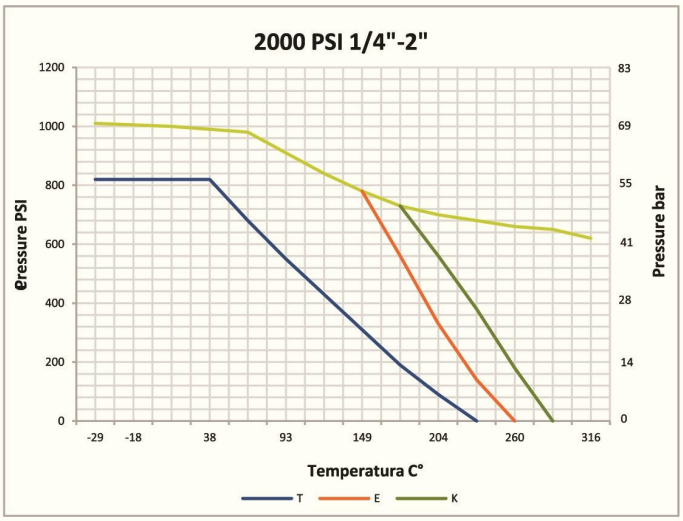
Body temperature: body materials ASTM A351-CF8M, A351-CF8 refers to ASME B 16.3

PSI	150	200	600	800	1000
BAR	10	16	25	40	64









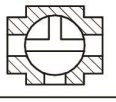
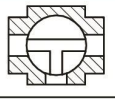
The choice of sealing must take account of following criteria:

1. Chemical resistance
2. Temperature resistance
3. Mechanical resistance, including:
   - breakaway strength
   - elongation at break
   - hardness
   - permanent deformation under compression
   - wear resistance
   - multiple bend resistant

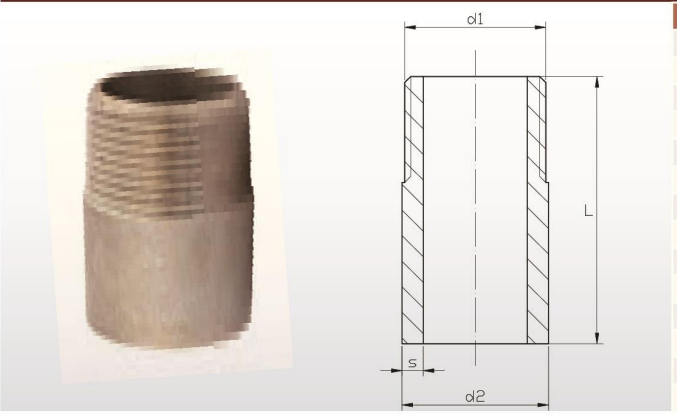
Sealing				
No.	Material	Chemical composition	Temperature range	Application
1	NBR	acrylic-butadiene-caoutchouc	-25°C... +100°C	oils, gases, air, water, hydrocarbons
2	EPDM	ethane-propylene-diene- caoutchouc	-35°C... +130°C	water, seawater, steam, diluted acid
3	EPDM HT	ethane-propylene-diene- caoutchouc	-30°C... +135°C	water, seawater, steam, diluted acid
4	FKM	fluorine-caoutchouc	-20°C... +200°C	oils, acids, hydrocarbons
5	PTFE	polytetrafluoroethylene	-60°C... +190°C	acids, food, solvent
6	CR	chloroprene-caoutchouc	-20°C... +100°C	water, alkalis, alkaline chemical compounds
7	NR	natural rubber	-40°C... +80°C	glycol, abrasive media
8	MVQ	silicone rubber	-60°C... +190°C	water, food, beverages
Warning: The above values do not apply to all valves and applications. Restrictions are possible.				

Three way ball valves intended for piping branch with media are used in industry and construction.

Three way valves classification can be made together with drive components according to their functions, like switching or regulation. When three way valve is equipped with manual, pneumatic or electric drive type open/close, than is for switch, but if it has manual or continuous electric drive, than it is for regulation. Three way valves may differ due to the closing component construction. With regards to closing component construction type vents – drilled hole (type T or type L) the drive makes rotary movement.

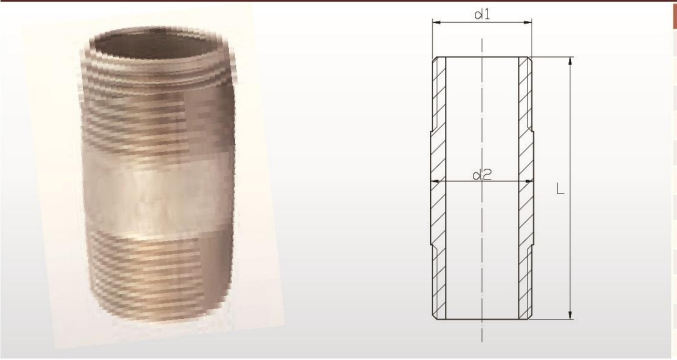
	Ball type T				Ball type L		
Valve handle or actuator position	1	2	3	4	5	6	7
Position 0°							
Position 90°							

Welding nipple 21001



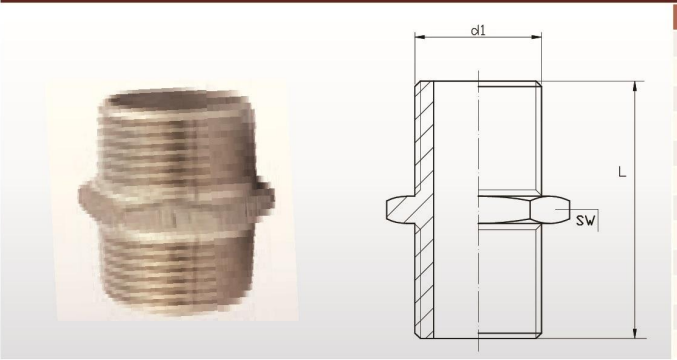
NW	d1	s	d2	L
6	1/8"	2,0	10,2 mm	20 mm
8	1/4"	2,3	13,5 mm	30 mm
10	3/8"	2,3	17,2 mm	30 mm
15	1/2"	2,6	21,3 mm	35 mm
20	3/4"	2,6	26,9 mm	40 mm
25	1"	3,2	33,7 mm	40 mm
32	1 1/4"	3,2	42,4 mm	50 mm
40	1 1/2"	3,2	48,3 mm	50 mm
50	2"	3,6	60,3 mm	50 mm
65	2 1/2"	3,6	76,1 mm	60 mm
80	3"	4,0	88,9 mm	70 mm
100	4"	4,5	114,3 mm	80 mm

Barrel nipple 21003



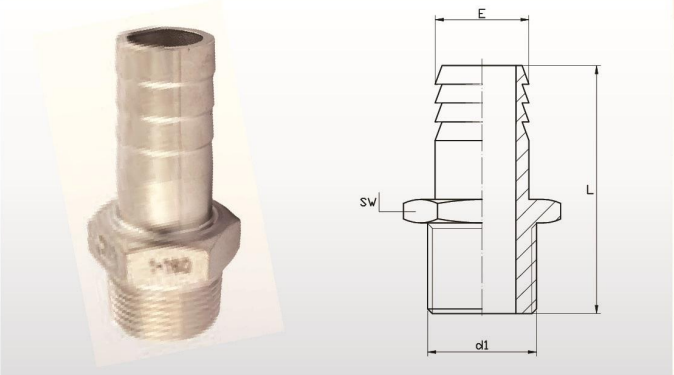
NW	d1	d2	L
6	1/8"	10,2 mm	20 mm
8	1/4"	13,5 mm	30 mm
10	3/8"	17,2 mm	40 mm
15	1/2"	21,3 mm	60 mm
20	3/4"	26,9 mm	60 mm
25	1"	33,7 mm	60 mm
32	1 1/4"	42,4 mm	80 mm
40	1 1/2"	48,3 mm	80 mm
50	2"	60,3 mm	100 mm
65	2 1/2"	76,1 mm	100 mm
80	3"	88,9 mm	120 mm
100	4"	114,3 mm	120 mm

Hexagonal nipple 21005



NW	d1	L	SW
6	1/8"	21 mm	12 mm
8	1/4"	33 mm	15 mm
10	3/8"	35 mm	20 mm
15	1/2"	42 mm	26 mm
20	3/4"	49 mm	31 mm
25	1"	50 mm	36 mm
32	1 1/4"	57 mm	45 mm
40	1 1/2"	58 mm	51 mm
50	2"	64 mm	63 mm
65	2 1/2"	75 mm	81 mm
80	3"	81 mm	95 mm
100	4"	92 mm	120 mm

Hexagonal hose nipple 21007

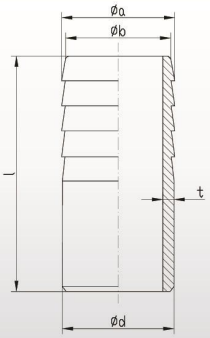


NW	d1	E	L	SW
8	1/4"	9 mm	48 mm	15 mm
10	3/8"	11 mm	53 mm	19 mm
15	1/2"	14 mm	65 mm	23 mm
20	3/4"	20 mm	70 mm	29 mm
25	1"	26 mm	75 mm	38 mm
32	1 1/4"	33 mm	80 mm	46 mm
40	1 1/2"	39 mm	95 mm	50 mm
50	2"	51 mm	105 mm	60 mm
65	2 1/2"	63 mm	110 mm	80 mm
80	3"	76 mm	120 mm	95 mm

Steel: AISI 316

21009 Hose nipple WLD

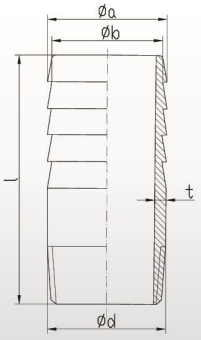
NW	ød	øa	øb	l	t
6	13,7	12,8	11,3	48	2,24±0,3
8	17,1	16,3	14,8	53	2,31±0,3
15	21,3	21	19,5	65	2,77±0,3
20	26,7	26,1	21,1	70	2,87±0,3
25	33,4	33	31	75	3,38±0,3
32	42,2	41,6	39,1	80	3,56±0,3
40	48,3	47,5	45	95	3,68±0,3
50	60,3	59,5	57	105	3,91±0,3
65	76,1	74	71,5	110	5,16±0,5
80	88,9	88	85	120	5,49±0,5





21011 Barrel hose nipple THD

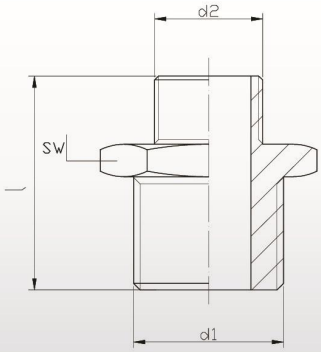
NW	ød	øa	øb	l	t
6	13,7	12,8	11,3	70	2,24±0,3
8	17,1	16,3	14,8	70	2,31±0,3
15	21,3	21	19,5	70	2,77±0,3
20	26,7	26,1	21,1	70	2,87±0,3
25	33,4	33	31	70	3,38±0,3
32	42,2	41,6	39,1	70	3,56±0,3
40	48,3	47,5	45	100	3,68±0,3
50	60,3	59,5	57	100	3,91±0,3
65	76,1	74	71,5	120	5,16±0,5
80	88,9	88	85	120	5,49±0,5





21013 Reducing hexagonal nipple

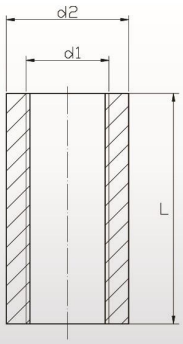
b1-d2	L	d1-d2	L
1/4" -1/8"	30 mm	1 1/4" -1"	53 mm
3/8" -1/8"	30 mm	1 1/2" -3/4"	55 mm
3/8 -1/4"	30 mm	1 1/2"-1"	55 mm
1/2" -1/8"	34 mm	1 1/2"-1 1/4"	55 mm
1/2"-1/4"	34 mm	2"-1"	65 mm
1/2"-3/8"	34 mm	2"-1 1/4"	65 mm
3/4" -1/4"	40 mm	2"-1 1/2"	65 mm
3/4"-3/8"	40 mm	2 1/2" -1 1/4"	70 mm
3/4"-1/2"	40 mm	2 1/2"-1 1/2"	70 mm
1" -3/8"	43 mm	2 1/2"-2"	70 mm
1"-1/2"	43 mm	3" -1 1/2"	85 mm
1"-3/4"	43 mm	3" -2"	85 mm
1 1/4" -1/2"	53 mm	3" -2 1/2"	85 mm
1 1/4"-3/4"	53 mm		





21015 Coupling

NW	d1	d2	L
6	1/8"	14,0 mm	17 mm
8	1/4"	17,0 mm	25 mm
10	3/8"	21,3 mm	26 mm
15	1/2"	26,4 mm	34 mm
20	3/4"	31,8 mm	36 mm
25	1"	39,5 mm	43 mm
32	1 1/4"	48,3 mm	48 mm
40	1 1/2"	54,5 mm	48 mm
50	2"	66,3 mm	56 mm
65	2 1/2"	82,0 mm	66 mm
80	3"	95,0 mm	71 mm
100	4"	122,0 mm	83 mm

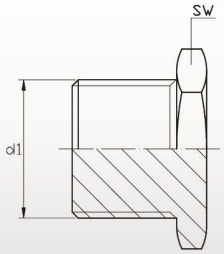




Steel: AISI 316

Hexagonal head plug 21017

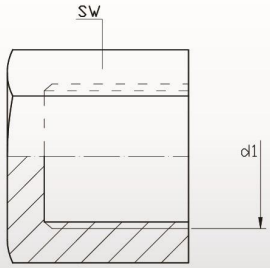




NW	d1	SW
6	1/8"	12 mm
8	1/4"	17 mm
10	3/8"	19 mm
15	1/2"	23 mm
20	3/4"	29 mm
25	1"	36 mm
32	1 1/4"	49 mm
40	1 1/2"	51 mm
50	2"	63 mm
65	2 1/2"	83 mm
80	3"	95 mm
100	4"	120 mm

Hexagonal cap 21019

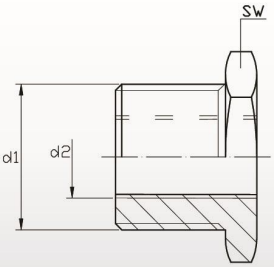




NW	d1	SW
6	1/8"	14 mm
8	1/4"	18 mm
10	3/8"	21 mm
15	1/2"	27 mm
20	3/4"	32 mm
25	1"	39 mm
32	1 1/4"	49 mm
40	1 1/2"	55 mm
50	2"	68 mm
65	2 1/2"	84 mm
80	3"	98 mm
100	4"	125 mm

Hexagonal bushing (female/male) 22001

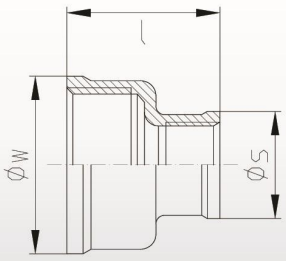




d1-d2	SW	d1-d2	SW
1/4" -1/8	21 mm	1 1/4" -1"	47 mm
3/8" -1/8"	24 mm	1 1/2" -3/4"	54 mm
3/8"-1/4"	24 mm	1 1/2"-1"	54 mm
1/2" -1/4"	26 mm	1 1/2"-1 1/4	54 mm
1/2"-3/8"	26 mm	2" -1"	63 mm
3/4" -1/4"	32 mm	2"-1 1/4"	63 mm
3/4"-3/8"	32 mm	2"-1 1/2"	63 mm
3/4"-1/2"	37 mm	2 1/2" -1 1/4"	87 mm
1" -3/8"	37 mm	2 1/2"-1 1/2"	87 mm
1"-1/2"	37 mm	2 1/2"-2"	87 mm
1"-3/4"	37 mm	3" -1 1/2"	95 mm
1 1/4" -1/2"	47 mm	3"-2"	95 mm
1 1/4"-3/4"	47 mm	2 -1/2"	95 mm

Reducing coupling 22003

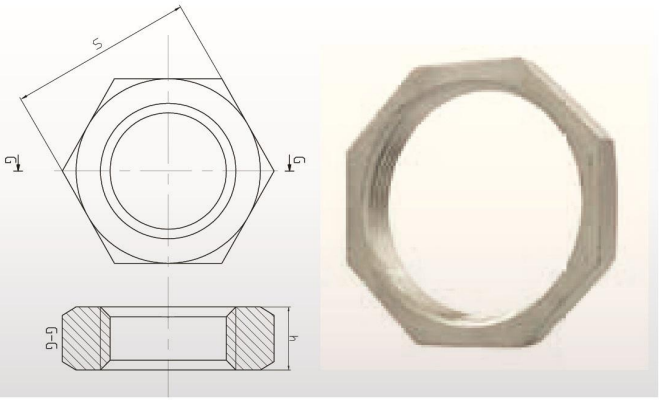




NW	l	w	s
3/8x1/4	30	20	16,5
32,51/2x1/4	32,5	27	17
1/2x3/8	33,5	27	20,5
3/4x1/4	34	32,5	17
3/4x3/8	35,5	32,5	20,5
3/4x1/2	37	32,5	27
1x1/4	37	40,5	17
1x1/2	41	40	26,5
1x3/4	42	40	32,5
11/4x1/2	43	50	27
11/4x3/4	44	49	32,5
11/4x1	45,5	50	40,5

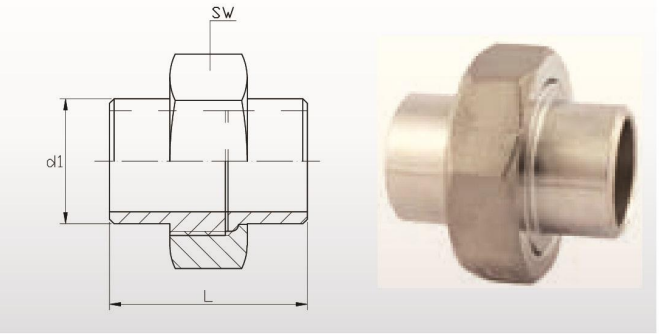
21021 Hexagonal nut DIN 431

NW	h	s
1/4	6	18
3/8	6	24
1/2	7	30
3/4	7	34
1	9	42,5
1-1/4	11	52
1-1/2	11	58
2	13	72



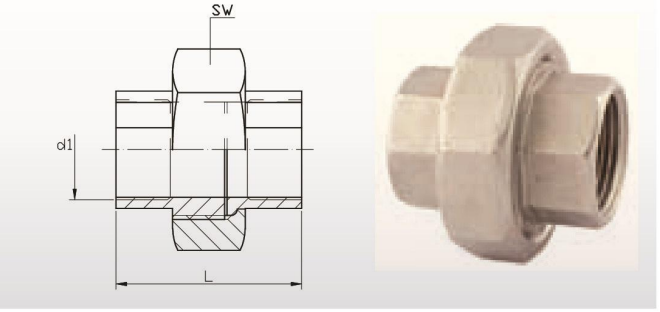
21023 Flat union (weld/weld)

NW	d1	L	SW
6	10,2 mm	39 mm	35 mm
8	13,5 mm	39 mm	35 mm
10	17,2 mm	40 mm	38 mm
15	21,3 mm	41 mm	38 mm
20	26,9 mm	46 mm	49 mm
25	33,7 mm	49 mm	49 mm
32	42,4 mm	53 mm	60 mm
40	48,3 mm	71 mm	70 mm
50	60,3 mm	74 mm	75 mm
65	76,1 mm	85 mm	109 mm
80	88,9 mm	96 mm	125 mm



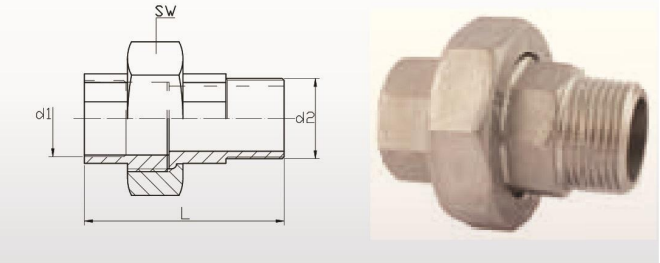
21025 Flat union (female/female)

NW	d1	L	SW
6	1/8"	33 mm	31 mm
8	1/4"	45 mm	35 mm
10	3/8"	45 mm	38 mm
15	1/2"	43 mm	42 mm
20	3/4"	46 mm	49 mm
25	1"	51 mm	60 mm
32	1 1/4"	56 mm	70 mm
40	1 1/2"	59 mm	77 mm
50	2"	67 mm	91 mm
65	2 1/2"	83 mm	110 mm
80	3"	97 mm	126 mm



21027 Flat union (female/male)

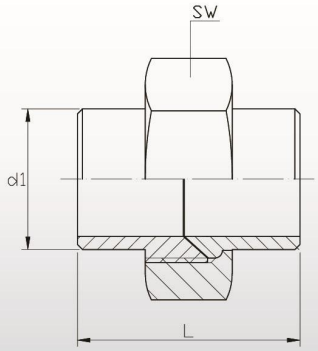
NW	d1/d2	L	SW
8	1/4"	54 mm	35 mm
10	3/8"	57 mm	40 mm
15	1/2"	55 mm	42 mm
20	3/4"	62 mm	49 mm
25	1"	69 mm	60 mm
32	1 1/4"	78 mm	70 mm
40	1 1/2"	84 mm	76 mm
50	2"	89 mm	91 mm
65	2 1/2"	110 mm	110 mm
80	3"	125 mm	125 mm



Steel: AISI 316

Conical union (weld/weld) 21029

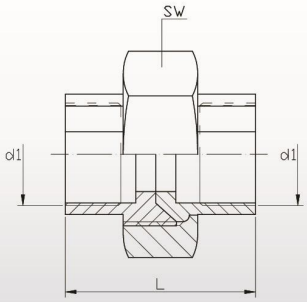




NW	d1	L	SW
6	10,2 mm	39 mm	35 mm
8	13,5 mm	39 mm	35 mm
10	17,2 mm	40 mm	38 mm
15	21,3 mm	41 mm	38 mm
20	26,9 mm	46 mm	49 mm
25	33,7 mm	49 mm	49 mm
32	42,4 mm	53 mm	60 mm
40	48,3 mm	71 mm	70 mm
50	60,3 mm	74 mm	75 mm
65	76,1 mm	85 mm	109 mm
80	88,9 mm	96 mm	125 mm

Conical union (female/female) 21031

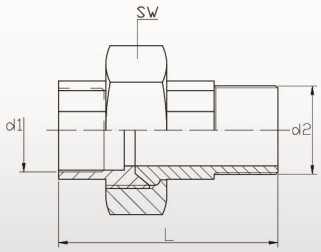




NW	d1	L	SW
6	1/8"	33 mm	31 mm
8	1/4"	45 mm	35 mm
10	3/8"	45 mm	38 mm
15	1/2"	43 mm	42 mm
20	3/4"	46 mm	49 mm
25	1"	51 mm	60 mm
32	1 1/4"	56 mm	70 mm
40	1 1/2"	59 mm	77 mm
50	2"	67 mm	91 mm
65	2 1/2"	83 mm	110 mm
80	3"	97 mm	126 mm

Conical union (female/male) 21033

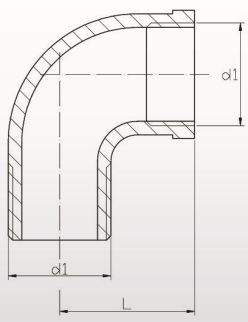




NW	d1/d2	L	SW
8	1/4"	54 mm	35 mm
10	3/8"	57 mm	40 mm
15	1/2"	55 mm	42 mm
20	3/4"	62 mm	49 mm
25	1"	69 mm	60 mm
32	1 1/4"	78 mm	70 mm
40	1 1/2"	84 mm	76 mm
50	2"	89 mm	91 mm
65	2 1/2"	110 mm	110 mm
80	3"	125 mm	125 mm

Street elbow (female/male) 22005

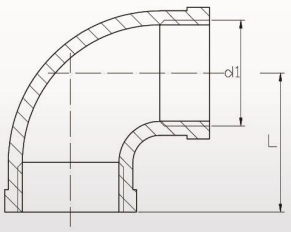




NW	d1	L
6	1/8"	18 mm
8	1/4"	21 mm
10	3/8"	24 mm
15	1/2"	28 mm
20	3/4"	33 mm
25	1"	38 mm
32	1 1/4"	45 mm
40	1 1/2"	49 mm
50	2"	57 mm
65	2 1/2"	68 mm
80	3"	80 mm
100	4"	130 mm

22007 Elbow (female/female)

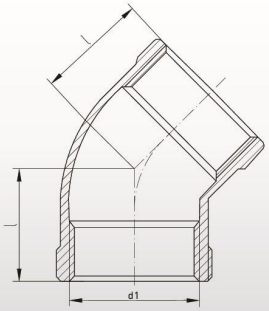
NW	d1	L
6	1/8"	18 mm
8	1/4"	21 mm
10	3/8"	25 mm
15	1/2"	28 mm
20	3/4"	33 mm
25	1"	38 mm
32	1 1/4"	45 mm
40	1 1/2"	50 mm
50	2"	58 mm
65	2 1/2"	70 mm
80	3"	80 mm
100	4"	105 mm





22009 Elbow 45° (female/female)

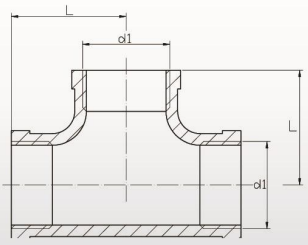
NW	d1	L
6	1/8"	18 mm
8	1/4"	21 mm
10	3/8"	25 mm
15	1/2"	28 mm
20	3/4"	33 mm
25	1"	38 mm
32	1 1/4"	45 mm
40	1 1/2"	50 mm
50	2"	58 mm
65	2 1/2"	70 mm
80	3"	78 mm
100	4"	96 mm





22011 Equal tee

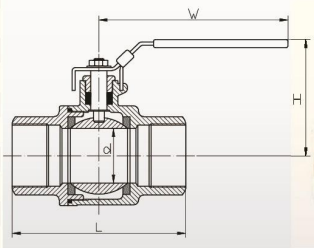
NW	d1	L
6	1/8"	18 mm
8	1/4"	21 mm
10	3/8"	25 mm
15	1/2"	28 mm
20	3/4"	33 mm
25	1"	38 mm
32	1 1/4"	45 mm
40	1 1/2"	50 mm
50	2"	58 mm
65	2 1/2"	70 mm
80	3"	78 mm
100	4"	96 mm





23001 2pcs ball valve

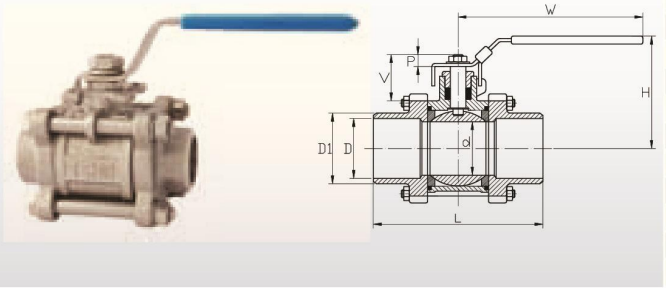
Diameter	d	L	H	W	Weight [kg]
1/4"	10	50,8	64	98	0,21
3/8"	12	50,8	64	98	0,21
1/2"	15	58	66	98	0,32
3/4"	20	65,6	66	125	0,51
1"	25	78,7	80	143	0,91
1 1/4"	32	90	86	143	1,33
1 1/2"	38	105	97	200	2,20
2"	50	124	105	200	3,50
2 1/2"	63	146,2	146	250	6,60
3"	76	163,7	155	250	11,8





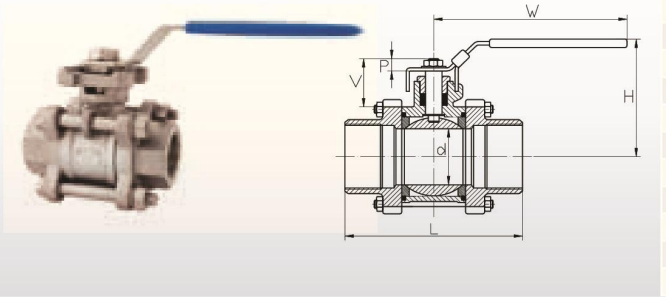
Steel: AISI 316

3pcs ball valve WLD — 23003



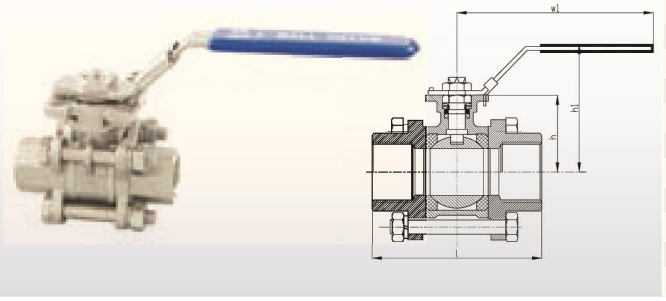
Diameter	d	D	D1	L	H	W	V	P	Weight [kg]
1/4"	11,6	8	12,5	64,5	54	102	29,7	10,5	0,41
3/8"	12,7	12,7	17,5	64,5	54	102	29,7	10,5	0,41
1/2"	15	15	22	66	57	102	30,1	10,5	0,52
3/4"	20	20	27	82,6	66	120,5	36,5	13,5	0,71
1"	25	25	34	95	76	158,5	40,6	15,5	1,08
1 1/4"	32	32	42,5	111,2	81	158,5	41,8	15,5	1,71
1 1/2"	38	38	48,5	130,6	98	188	48,5	17,5	2,35
2"	50	50	61	151	106	188	49,4	17,5	3,55
2 1/2"	65	65	73	185	138	245	72,1	33	8,9
3"	80	80	90	212	154	245	65,6	33	14,3
4"	100	100	115	235	178	320	76,2	42	23,4

3pcs ball valve THD — 23005



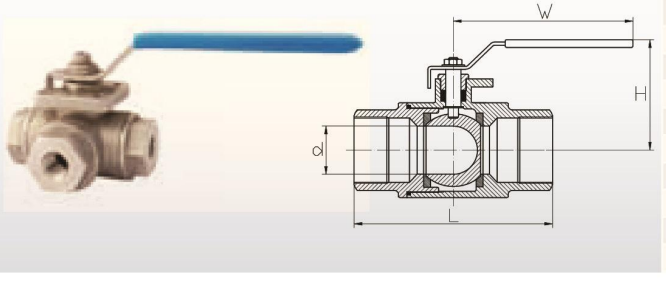
Diameter	d	L	H	W	V	P	Weight [kg]
1/4"	11,6	64,5	54	102	29,7	10,5	0,41
3/8"	12,7	64,5	54	102	29,7	10,5	0,41
1/2"	15	66	57	102	31	10,5	0,52
3/4"	20	83,5	66	120,5	36,5	13,5	0,71
1"	25	95	76	158,5	46	15,5	1,08
1 1/4"	32	111,2	81	158,5	41,8	15,5	1,71
1 1/2"	38	129,8	98	188	48,5	17,5	2,35
2"	50	151	106	188	49,4	17,5	3,55
2 1/2"	65	184	138	245	72,1	33	8,9
3"	80	209	154	245	65,6	33	14,3
4"	100	234,4	178	320	76,2	42	23,4

3pcs ball valve ISO 5211 — 23007



Diameter	l	h	W1	h1	Weight [kg]
1/4"	55	38	146	65	
3/8"	60	38	146	65	
1/2"	75	38	146	65	
3/4"	80	47	146	76	
1"	90	60	168	95	
1 1/4"	110	62,7	168	95	
1 1/2"	120	79	190	115	
2"	140	88	190	124	
2 1/2"	162	109,1	350	140	
3"	184	116,2	350	150	
4"	228	142	350	175	

3-way ball valve — 23009



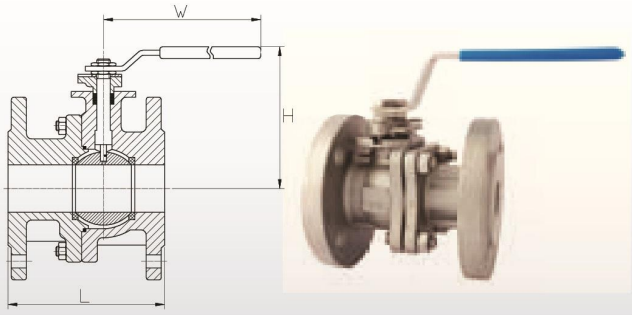
Diameter	d	L	H	W	Weight [kg]
3/8"	12,7	60	56	95	0,4
1/2"	12,7	60	56	95	0,4
3/4"	16	6	64	125	0,7
1"	20	82	66	125	0,9
1 1/4"	25	97	70	145	1,5
1 1/2"	32	114	83	145	2,2
2"	38,1	142	88	205	3,3

Ball type "T" or "L"

Steel: AISI 316

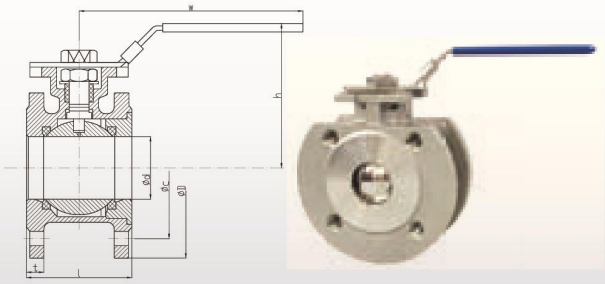
23011 — 2pcs flanged ball valve

Diameter	L	H	W	Weight [kg]
1/2"	125	74	170	2,70
3/4"	120	77	170	3,10
1"	125	83	170	4,30
1 1/4"	130	88	170	6,20
1 1/2"	140	123	250	8,10
2"	150	132	250	10
2 1/2"	170	154	320	14
3"	180	166	365	18,5
4"	190	182	365	26,6
5"	325	225	500	54
6"	350	240	600	71,3
8"	400	310	700	155
10"	450	325	800	233
12"	500	365	900	b.d.



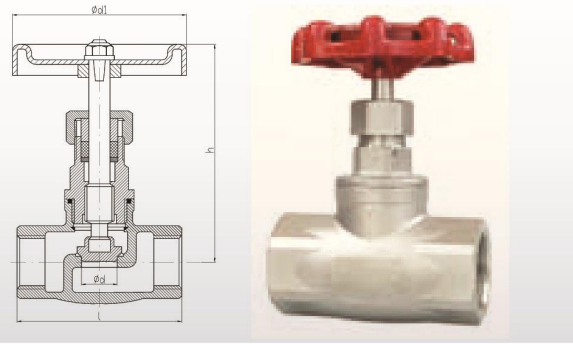
23013 — 1pc wafer flanged ball valve

DN	l	ød	øc	øD	t	h	w
15	42	15	65	95	9	81	140
20	44	20	75	105	9	86	140
25	50	25	85	115	9	99	160
32	60	32	100	140	12	109	160
40	65	38	110	150	13	116	185
50	80	50	125	165	20	124	185
65	110	65	145	185	18	148	230
80	120	76	160	200	20	157	230
100	150	94	180	220	20	190	310



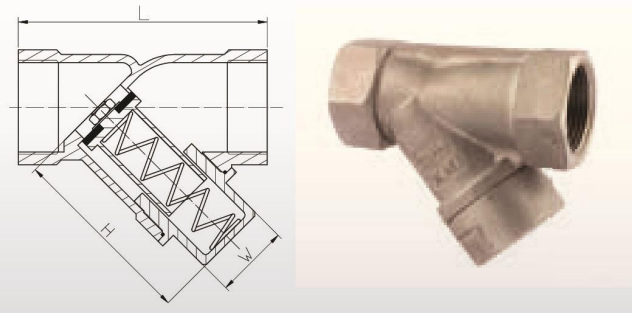
24001 — Globe valve

Diameter	d	l	h	d1
1/4"	15	67,5	95	70
3/4"	20	82,5	104	70
1"	25	90	119	80
1 1/4"	32	104	144	100
1 1/2"	38,5	120	152	100
2"	50	140	172	100

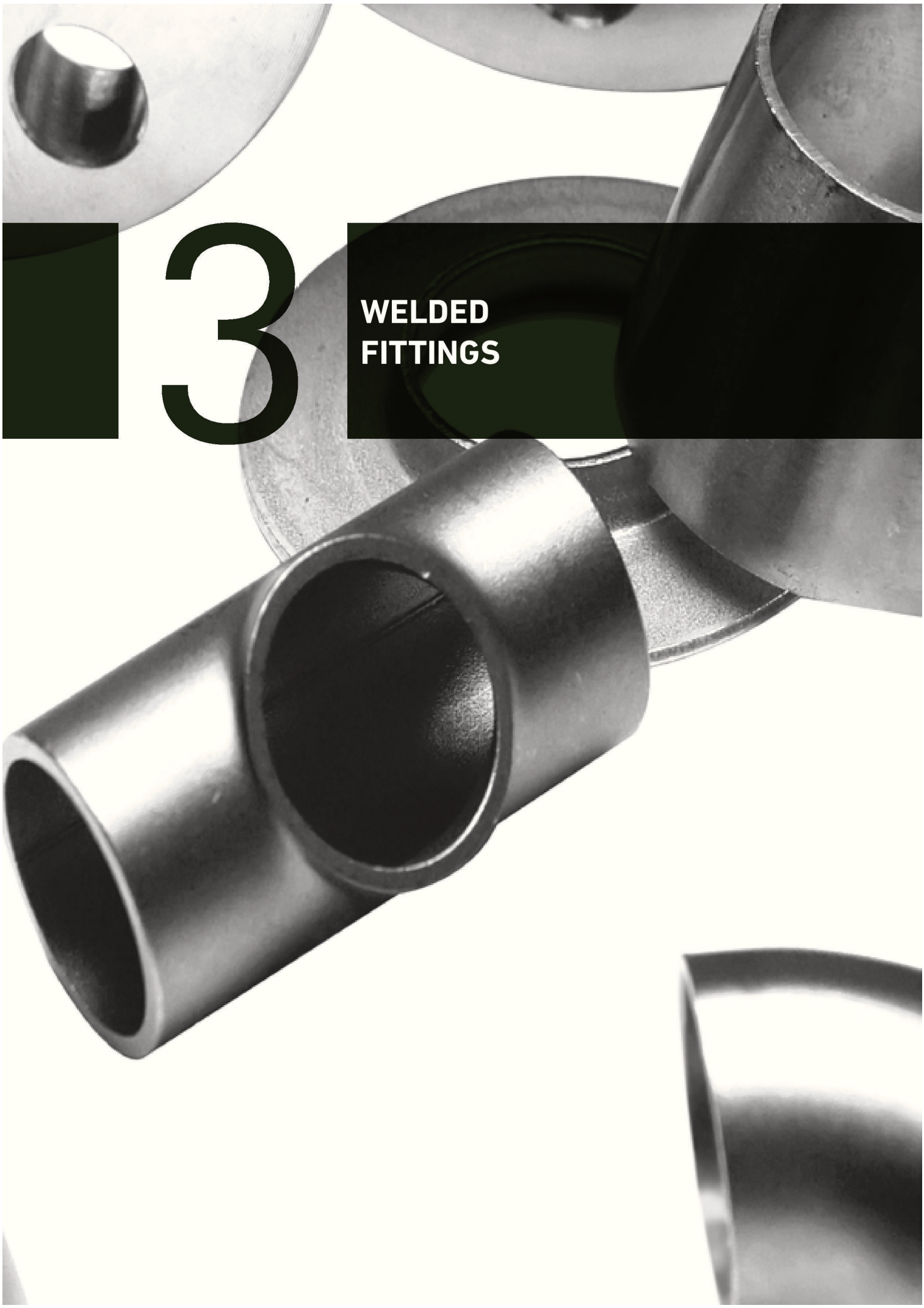


24003 — Check valve

Diameter	W	H	L	Weight [kg]
1/4"	24	40	65	0,23
3/8"	24	40	65	0,25
1/2"	24	40	65	0,28
3/4"	24	50	75	0,38
1"	34	62	90	0,75
1 1/4"	41	70	110	1,33
1 1/2"	57	85	120	1,75
2"	89	100	150	2,75



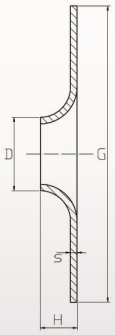
Steel: AISI 316



3 WELDED FITTINGS

Welding collar DIN 2642-PN10 — 31001

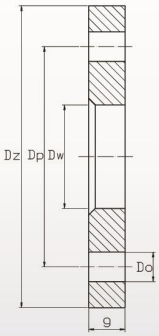




DN	D	G	H	s	Weight [kg]
10	17,2	42,0	6,0	2,0	0,01
15	21,3	47,0	6,0	2,0	0,01
20	26,9	58,0	7,0	2,0	0,04
25	33,7	68,0	9,0	2,0	0,05
32	42,4	78,0	15,0	2,0	0,12
40	48,3	88,0	10,0	2,0	0,08
50	60,3	102,0	12,0	2,0	0,11
65	76,1	122,0	12,0	2,0	0,15
80	88,9	133,0	13,0	2,0	0,19
100	114,3	158,0	13,0	2,0	0,21
125	139,7	184,0	14,0	2,0	0,26
150	168,3	212,0	18,0	2,0	0,34
200	219,1	268,0	22,0	2,0	0,53
250	273,0	320,0	23,0	3,0	0,55
300	323,9	370	24,0	3,0	1,06
350	355,6	430	25,0	3,0	1,55
400	406,4	482	24,0	3,0	1,74
450	457,2	532	32,0	3,0	2,25
500	508	582	45,0	3,0	2,90
600	609,4	685	45,0	3,0	3,50

Aluminium loose flange DIN 2642-PN10 — 31003

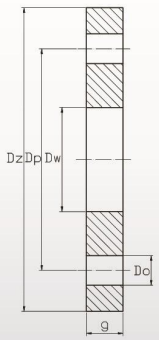




DN	pipe	g	Dz	Dw	Dp	Do	Weight [kg]
10	17,2	12,0	90,0	19,0	60,0	14	0,18
15	21,3	12,0	95,0	24,0	65,0	14	0,19
20	26,9	12,0	105,0	30,0	75,0	14	0,25
25	33,7	12,0	115,0	36,0	85,0	14	0,27
32	42,4	16,0	140,0	46,0	100,0	18	0,56
40	48,3	16,0	150,0	54,0	110,0	18	0,62
50	60,3	16,0	165,0	65,0	125,0	18	0,75
65	76,1	16,0	185,0	81,0	145,0	18	0,90
80	88,9	18,0	200,0	94,0	160,0	18	1,10
100	114,3	18,0	220,0	119,0	180,0	18	1,25
125	139,7	18,0	250,0	144,0	210,0	18	1,60
150	168,3	18,0	285,0	173,0	240,0	22	2,00
200	219,1	20,0	340,0	225,0	295,0	22	2,80
250	273,0	22,0	395,0	279,0	350,0	22	3,80
300	32,9	22,0	445	329	400	22	3,9
350	355,6	22,0	505	362	460	22	5,25
400	406,4	25,0	565	419	515	25	7,2
450	457,2	2530	615	465	565	25	7,81
500	508	28,0	670	517	620	28	9,6
600	609,6	30,0	780	618	725	30	12,9

Flat flange EN1092-1/01 — 31005





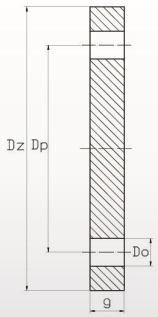
AISI316Ti available from the stock

DN	PN	pipe	g	Dz	Dw	Dp	Do	Weight [kg]
10	10-40	17,2	14,0	90,0	18	60,0	14	0,60
15		21,3	14,0	95,0	22	65,0	14	0,67
20		26,9	16,0	105,0	27,5	75,0	14	0,86
25		33,7	16,0	115,0	34,5	85,0	14	1,10
32		42,4	18 ,0	140,0	43,5	100,0	18	1,65
40		48,3	18,0	150,0	49,5	110,0	18	1,86
50	10-16	60,3	19,0	165,0	61,5	125,0	18	2,50
65		76,1	20,0	185,0	77,5	145,0	18	3,00
80		88,9	20,0	200,0	90,5	160,0	18	3,79
100		114,3	22,0	220,0	116,0	180,0	18	4,20
125		139,7	22,0	250,0	141,5	210,0	18	5,60
150		168,3	24,0	285,0	170,5	240,0	22	6,70
200	10	219,1	24,0	340,0	221,8	295,0	22	9,30
250		273,0	24,0	395,0	276,5	350,0	22	12,30
300		324,9	26,0	445	327,5	400	22	13,76
350		355,6	28,0	505	359,5	460	22	22,06

Steel: AISI 304 / 304L / 316L

31007 Blind flange EN 1092-1/05/1

DN	PN	g	Dz	Dp	Do	Weight [kg]
15	10-40	16,0	95	65	14	0,77
20		18,0	105	75	14	1,08
25		18,0	115	85	14	1,3
32		18,0	140	100	18	1,93
40		18,0	150	110	18	2,21
50	10-16	18,0	165	125	18	3,02
65		18,0	185	145	18	4,83
80		20,0	200	160	18	6,28
100		20,0	220	180	18	7,59
125		22,0	250	210	18	8,47
150		22,0	285	240	22	11,01
200	10	24,0	340	295	22	16,7
250		26,0	395	350	22	24,33
300		26,0	445	400	22	31,13
350		26,0	505	460	22	40,04





31009 Pressed flange DIN 2642 PN 10

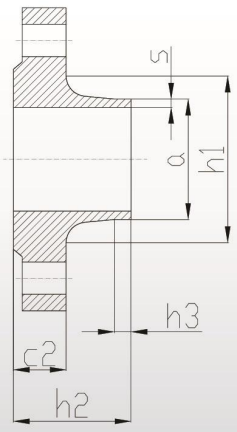
DN	øb	ød	øk	l	c	h	Weight [kg]
15	21,3	95	65	13,5	3	12	0,30
20	26,9	105	75	13,5	3	14	0,40
25	33,7	115	85	13,5	3	16	0,50
32	42,4	140	100	17,5	3	16	0,50
40	48,3	150	110	18	4	17,5	0,60
50	60,3	135	125	18	4	19,5	0,60
65	76,1	185	145	18	4	21	0,60
80	88,9	200	160	18	4	21	1,00
100	114,3	200	180	18	4	22	1,20
125	139,7	250	210	18	5	22	1,60
150	168,3	285	240	22	5	26	2,20
200	219,1	340	295	22	6	28	3,40
250	273,0	395	350	22	6	31	4,00
300	323,9	445	400	22	6	34	5,00
350	355,6	505	460	22	8	36	6,10
400	406,4	565	515	26	8	38	7,40
450	457,2	615	565	26	8	40	9,70
500	508,0	670	620	26	8	40	12,10





31011 Neck flange EN 1092-1/11/B1

DN	a	c2	h1	h2	h3	s	Weight [kg]
10	17,2	16	22	38	6	1,8	0,70
15	21,3	16	22	38	6	2	0,80
20	26,9	18	26	40	6	2,3	1,00
25	33,7	18	28	40	6	2,6	1,30
32	42,4	18	30	42	6	2,6	1,80
40	48,3	18	32	45	7	2,6	2,20
50	60,3	18	28	45	8	2,9	2,40
65	76,1	18	32	45	10	2,9	3,00
80	88,9	20	34	50	10	3,2	3,80
100	114,3	20	40	52	12	3,6	4,40
125	139,7	22	44	55	12	4,0	5,90
150	168,3	22	44	55	12	4,5	7,40
200	219,1	24	44	62	16	5,9	10,90
250	273	26	46	68	16	6,3	15,00
300	323,9	26	48	68	16	7,1	22,20

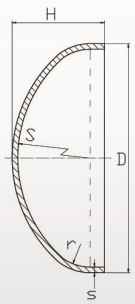




Steel: AISI 304 / 304L / 316L

End cap 32001

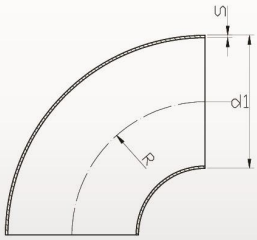




DN	D	H	S	Weight [kg]
15	21,3	14,5	2,0/3,0	0,02/0,02
20	26,9	10,5	2,0/3,0	0,02/0,02
25	33,7	12,5	2,0/3,0	0,03/0,03
32	42,4	17	2,0/3,0	0,04/0,06
40	48,3	17	2,0/3,0	0,05/0,08
50	60,3	20	2,0/3,0	0,07/0,11
65	76,1	27	2,0/3,0	0,13/0,19
80	88,9	29	2,0/3,0	0,16/0,24
90	101,6	26	2,0/3,0	0,18/0,28
100	114,3	32	2,0/3,0	0,24/0,36
125	139,7	35	2,0/3,0	0,37/0,53
150	168,3	40	2,0/3,0	0,51/0,77
250	219,1	50	2,0/3,0	0,84/1,27
300	323,9	99	2,0/3,0	1,8/2,70
350	355,6	106	3,0	3,80
400	406,4	120	3,0	5,00
450	457,2	125	3,0	6,10
500	508	130	3,0	7,60
600	609,6	140	3,0	10,60

Bend 32003

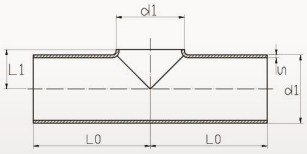




DN	d1	R	s	Weight [kg]
10	17,2	28,5	2,0	0,03
15	21,3	28	2,0/3,0	0,04/0,06
20	26,9	29	2,0/3,0	0,05/0,08
25	33,7	38	2,0/3,0	0,09/0,13
32	42,4	48	2,0/3,0	0,15/0,22
40	48,3	57	2,0/3,0	0,20/0,30
50	60,3	76	2,0/3,0	0,34/0,51
65	76,1	95	2,0/3,0	0,55/0,82
80	88,9	114	2,0/3,0	0,78/1,16
100	114,3	152	2,0/3,0	1,34/2,00
125	139,7	190	2,0/3,0	2,06/3,07
150	168,3	229	2,0/3,0	2,99/4,46
200	219,1	305	2,0/3,0	5,20/7,77
250	273,0	381	2,0/3,0	8,11/12,13
300	323,8	457	3,0	17,3
350	355,6	533	3,0	22,2
400	406,4	610	3,0	36,8

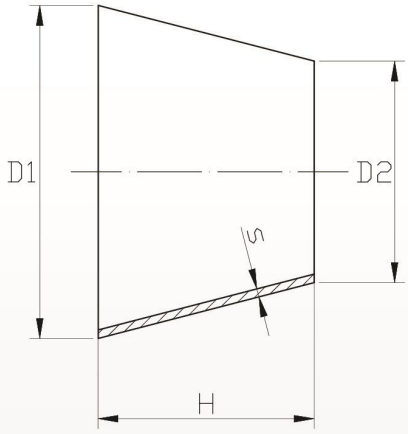
Welding tee short 32005



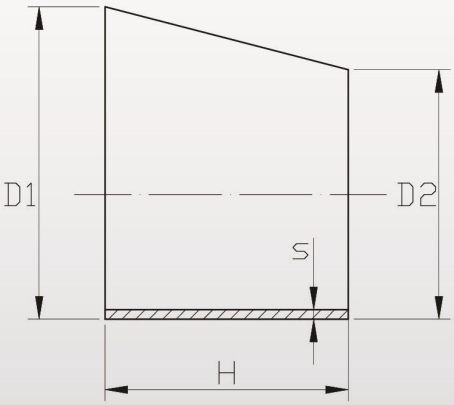


DN	dl	l1	l0	S	Weight [kg]
15	21,3	12	25,5	2,0	0,04
20	26,9	15	28,5	2,0	0,06
25	33,7	19	38	2,0/3,0	0,10/0,15
32	42,4	24	47,5	2,0/3,0	0,17/0,26
40	48,3	26	57	2,0/3,0	0,24/0,35
50	60,3	34	63,5	2,0/3,0	0,34/0,50
65	76,1	42	76	2,0/3,0	0,53/0,75
80	88,9	48,5	85,5	2,0/3,0	0,67/0,97
100	114,3	63	105	2,0/3,0	1,09/1,64
125	139,7	76	124	2,0/3,0	1,51/2,25
150	168,3	92	142	2,0/3,0	2,12/3,13
200	219,1	122	179	2,0/3,0	3,37/4,90
250	273,0	151	216,5	3,0	7,51
300	323,9	177	254	3,0	10,40
350	355,6	195	279	3,0	12,80
400	406,4	223	305	3,0	16,30

AISI321/AISI316Ti available from stock









DN	D1	D2	H	s	Weight [kg]
10/6	17,2	13,7	26	2,0	0,02
15/8	21,3	13,7	28	2,0	0,02
15/10	21,3	17,2	28	2,0	0,02
20/15	26,9	21,3	38	2,0	0,04
25/15	33,7	21,3	51	2,0/3,0	0,07/0,10
25/20	33,7	26,9	51	2,0/3,0	0,07/0,11
32/20	42,4	26,9	51	2,0/3,0	0,08/0,13
32/25	42,4	33,7	51	2,0/3,0	0,09/0,14
40/20	48,3	26,9	64	2,0/3,0	0,12/0,18
40/25	48,3	33,7	64	2,0/3,0	0,13/0,19
40/32	48,3	42,4	64	2,0/3,0	0,14/0,21
50/25	60,3	33,7	76	2,0/3,0	0,17/0,26
50/32	60,3	42,4	76	2,0/3,0	0,19/0,29
50/40	60,3	48,3	76	2,0/3,0	0,20/0,31
65/40	76,1	48,3	89	2,0/3,0	0,27/0,41
65/50	76,1	60,3	89	2,0/3,0	0,30/0,45
80/50	88,9	60,3	89	2,0/3,0	0,33/0,50
80/65	88,9	76,1	89	2,0/3,0	0,36/0,55
100/65	114,3	76,1	102	2,0/3,0	0,48/0,73
100/80	114,3	88,9	102	2,0/3,0	0,52/0,78
125/80	139,7	88,9	127	2,0/3,0	0,72/1,09
125/100	139,7	114,3	127	2,0/3,0	0,81/1,21
150/100	168,3	114,3	140	2,0/3,0	0,99/1,49
150/125	168,3	139,7	140	2,0/3,0	1,08/1,62
200/125	219,1	139,7	152	2,0/3,0	1,37/2,05
200/150	219,1	168,3	152	2,0/3,0	1,47/2,21
250/150	273,0	168,3	178	2,0/3,0	1,97/2,96
250/200	273,0	219,1	178	2,0/3,0	2,20/3,30
250/150	273,0	168,3	178	3,0	3,00
300/200	323,9	219,1	203	3,0	3,30
300/250	323,9	273,3	203	3,0	4,60
350/200	355,6	219,1	330	3,0	7,00
350/250	355,6	273,3	330	3,0	7,70