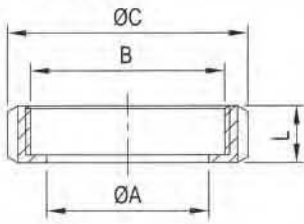
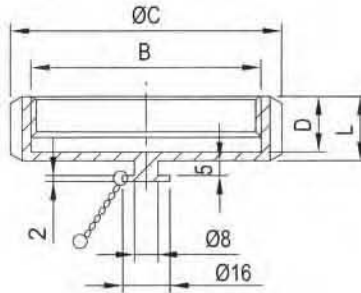


DIN 11851 Union (mm)

DIN-13R



DIN-13RBN



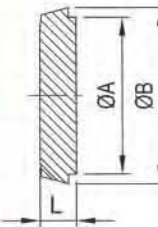
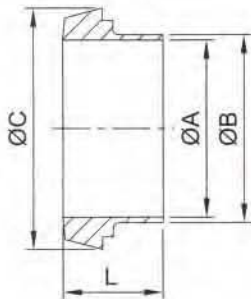
DIN-13 Round Nut

DIN	ØA	B	ØC	D	L	Slots
10	19	RD 28*1/8	38	15	18	4
15	25	RD 34*1/8	44	15	18	4
20	31	RD 44*1/6	54	17	20	4
25	36	RD 52*1/6	63	18	21	4
32	42	RD 58*1/6	70	18	21	4
40	49	RD 65*1/6	78	18	21	4
50	62	RD 78*1/6	92	19	22	4
65	80	RD 95*1/6	112	21	25	6
80	94	RD 110*1/4	127	25	29	6
90	104	RD 120*1/4	138	26	30	6
100	114	RD 130*1/4	148	26	31	6
125	137	RD 160*1/4	178	30	35	6
150	163	RD 190*1/4	210	34	40	6

DIN-14DA Welding Liner

DIN-14DB Welding Liner

DIN	ØA	ØB	ØC	L	DIN	ØA	ØB	ØC	L
10	10	13	22.2	17	10	9	12	22.2	17
15	16	19	28.2	17	15	15	18	28.2	17
20	20	23	36.3	18	20	19	22	36.3	18
25	26	29	44	22	25	25	28	44	22
32	32	35	50	25	32	31	34	50	25
40	38	41	56	26	40	37	40	56	26
50	50	53	68	28	50	49	52	68	28
60	57	61	76	30	60	57	61	76	30
65	66	70	86	32	65	66	70	86	32
80	81	85	100	37	80	81	85	100	37
100	100	104	121	44	100	100	104	121	44
125	125	129	150	34	125	125	129	150	34
150	150	154	176	37	150	150	154	176	37



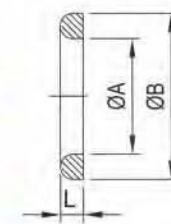
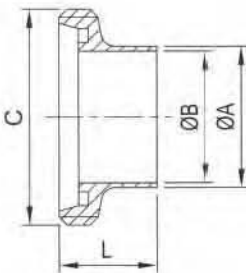
DIN-14B Blanks

SIZE	ØA	ØB	L
10	18	22.5	9
15	24	28.5	9
20	30	36.5	11
25	35	44	13
32	41	50	13
40	48	56	13
50	61	68.5	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

DIN-15DB Welding Male

SIZE	ØA	ØB	C	L	SIZE	ØA	ØB	C	L
10	10	13	RD 28x1/8	21	10	9	12	RD 28x1/8	21
15	16	19	RD 34x1/8	21	15	15	18	RD 34x1/8	21
20	20	23	RD 44x1/6	24	20	19	22	RD 44x1/6	24
25	26	29	RD 52x1/6	29	25	25	28	RD 52x1/6	29
32	32	35	RD 58x1/6	32	32	31	34	RD 58x1/6	32
40	38	41	RD 65x1/6	33	40	37	40	RD 65x1/6	33
50	50	53	RD 78x1/6	35	50	49	52	RD 78x1/6	35
60	57	61	RD 85x1/6	36	60	57	61	RD 85x1/6	36
65	66	70	RD 95x1/6	40	65	66	70	RD 95x1/6	40
80	81	85	RD 110x1/4	45	80	81	85	RD 110x1/4	45
90	89	93	RD 120x1/4	54	90	89	93	RD 120x1/4	54
100	100	104	RD 130x1/4	54	100	100	104	RD 130x1/4	54
125	125	129	RD 160x1/4	46	125	125	129	RD 160x1/4	46
150	150	154	RD 190x1/4	50	150	150	154	RD 190x1/4	50

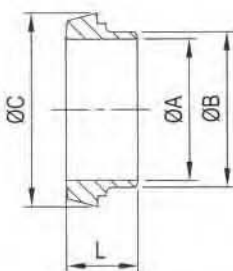


DIN Seal Ring (EPDM, Silicon, Viton)

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	6
125	130	142	7
150	155	167	7

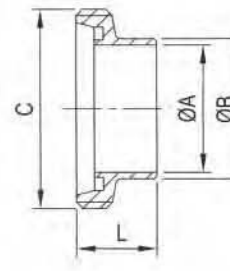
DIN-14S Welding Liner

SIZE	ØA	ØB	ØC	L
10	10	15	22	17
15	16	21	28	17
20	20	25	36	18
25	26	31	44	22
32	32	37	50	25
40	38	43	56	26
50	50	55	68	28
60	57	63	76	30
65	66	72	86	32
80	81	87	100	37
101.6	99	104	121	44
104	100	106	121	44
125	125	132	150	34
150	150	157	176	37



DIN-15S Welding Male

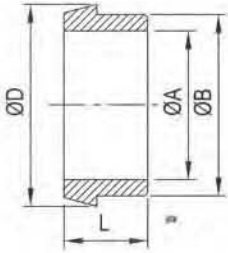
SIZE	ØA	ØB	C	L
10	10	15	RD 28x1/8	21
15	16	21	RD 34x1/8	21
20	20	25	RD 44x1/6	24
25	26	31	RD 52x1/6	29
32	32	37	RD 58x1/6	32
40	38	43	RD 65x1/6	33
50	50	55	RD 78x1/6	35
60	57	63	RD 85x1/6	36
65	66	72	RD 95x1/6	40
80	81	87	RD 110x1/4	45
101.6	99	104	RD 120x1/4	54
104	100	106	RD 130x1/4	54
125	125	132	RD 160x1/4	46
150	150	157	RD 190x1/4	50



DIN 11851 Union (mm) (Expanding / Imperial)

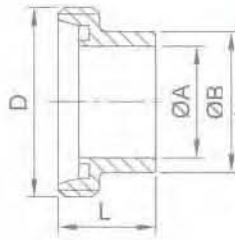
DIN Welding Liner DIN 14-T

SIZE	ØA	ØB	ØD	L
DN10	10	18	22	17
DN15	16	24	28	17
DN20	20	30	36	18
DN25	26	35	44	22
DN32	32	41	50	25
DN40	38	48	56	26
DN50	50	61	68	28
DN65	66	79	86	32
DN80	81	93	100	37
101.6	99	112	121	44
DN104	100	114	121	44



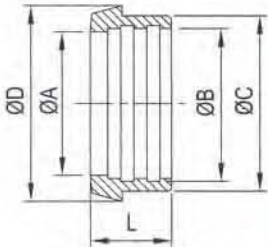
DIN Welding Liner DIN 15-T

SIZE	ØA	ØB	D	L
DN10	10	18	RD 28x1/8	21
DN15	16	24	RD 34x1/8	21
DN20	20	30	RD 44x1/6	24
DN25	26	35	RD 52x1/6	29
DN32	32	41	RD 58x1/6	32
DN40	38	48	RD 65x1/6	33
DN50	50	61	RD 78x1/6	35
DN65	66	79	RD 95x1/6	40
DN80	81	93	RD 110x1/4	45
101.6	99	112	RD 130x1/4	54
DN104	100	114	RD 130x1/4	54



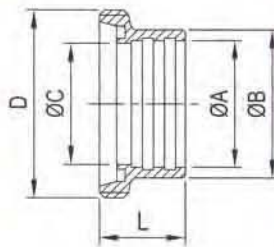
DIN Expanding Liner DIN 14R

SIZE	ØA	ØB	ØC	ØD	L
DN10	10	12.2	18	22	17
DN15	16	18.2	24	28	17
DN20	20	22.2	30	36	18
DN25	26	28.2	35	44	22
DN32	32	34.2	41	50	25
DN40	38	40.2	48	56	26
DN50	50	52.2	61	68	28
DN65	66	70.3	79	86	32
DN80	81	85.3	93	100	37
DN100	100	104.3	114	121	44
DN125	125	129.3	137	150	34
DN150	150	154.3	163	176	37



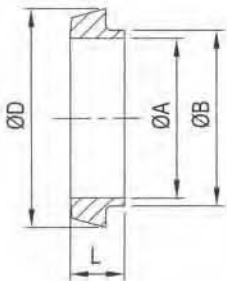
DIN Expanding Male DIN-15R

SIZE	ØA	ØB	ØC	D	L
DN10	12.2	18	10	RD 28x1/8	21
DN15	18.2	24	16	RD 34x1/8	21
DN20	22.2	30	20	RD 44x1/6	24
DN25	28.2	35	26	RD 52x1/6	29
DN32	34.2	41	32	RD 58x1/6	32
DN40	40.2	48	38	RD 65x1/6	33
DN50	52.2	61	50	RD 78x1/6	35
DN65	70.3	79	66	RD 95x1/6	40
DN80	85.3	93	81	RD 110x1/4	45
DN100	104.3	114	100	RD 130x1/4	54
DN125	129.3	137	125	RD 160x1/4	46
DN150	154.3	163	150	RD 190x1/4	50



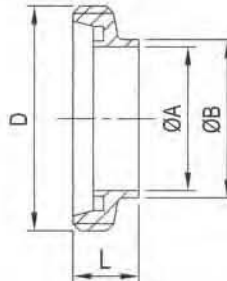
DIN Short Welding Liner DIN-14E

SIZE	ØA	ØB	ØD	L
DN10	9	12	22	13
DN15	15	18	28	13
DN20	19	22	36	13
DN25	25	28	44	15
DN32	31	34	50	15
DN40	37	40	56	15
DN50	49	52	68	16
DN65	66	70	86	17
DN80	81	85	100	17
DN100	100	104	121	20
DN125	125	129	150	23.5
DN150	150	154	176	27



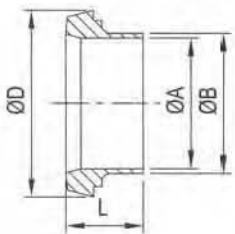
DIN Short Welding Male DIN-15E

SIZE	ØA	ØB	D	L
DN10	9	12	RD 28x1/8	17
DN15	15	18	RD 34x1/8	17
DN20	19	22	RD 44x1/6	19
DN25	25	28	RD 52x1/6	22
DN32	31	34	RD 58x1/6	22
DN40	37	40	RD 65x1/6	22
DN50	49	52	RD 78x1/6	23
DN65	66	70	RD 95x1/6	25
DN80	81	85	RD 110x1/4	25
DN100	100	104	RD 130x1/4	30
DN125	125	129	RD 160x1/4	35.5
DN150	150	154	RD 190x1/4	40



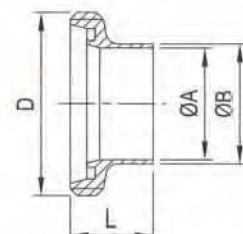
DIN Imperial Welding Liner DIN-14I

SIZE	ØA	ØB	ØD	L
1.0"	22.1	25.4	44	22
1.5"	34.8	38.1	56	26
2.0"	47.5	50.8	68	28
2.5"	60.2	63.5	86	32
3.0"	72.9	76.2	100	37
4.0"	97.6	101.6	121	44



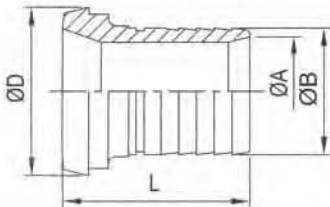
DIN Imperial Welding Male DIN15I

SIZE	ØA	ØB	D	L
1.0"	22.1	25.4	RD 52x1/6	29
1.5"	34.8	38.1	RD 65x1/6	33
2.0"	47.5	50.8	RD 78x1/6	35
2.5"	60.2	63.5	RD 95x1/6	40
3.0"	72.9	76.2	RD 110x1/6	45
4.0"	97.6	101.6	RD 130x1/6	54



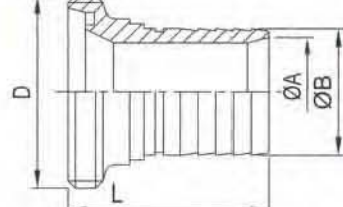
DIN-14AHR Hose Adapter

SIZE	ØA	ØB	ØD	L
DN25	22.2	25	44	67
DN32	28.7	32.2	50	71
DN40	34	38	56	78
DN50	47	50.5	68	89
DN65	59	63.2	86	100
DN80	71.5	75.5	100	108
DN100	95	100.8	121	120

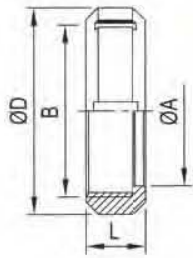


DIN-15AHR Hose Adapter

SIZE	ØA	ØB	D	L
DN25	22.1	25	RD 52x1/6	69
DN32	28.7	32.2	RD 58x1/6	73
DN40	34	38	RD 65x1/6	80
DN50	47	50.5	RD 78x1/6	90
DN65	59	63.2	RD 95x1/6	108
DN80	71.5	75.5	RD 110x1/4	116
DN100	95	100.8	RD 130x1/4	128

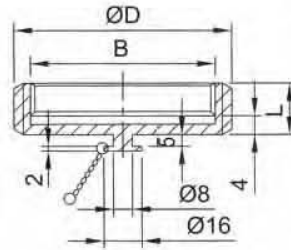


SMS Union



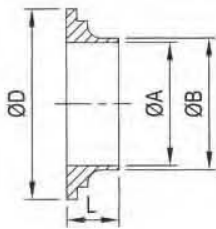
SMS Nut 6 Slots SMS-13R

SIZE	ØA	B	ØD	L
DN25	32	RD40*1/6	51	20
DN32	40	RD48*1/6	60	22
DN38	48	RD60*1/6	74	25
DN51	60.5	RD70*1/6	84	26
DN63.5	74	RD85*1/6	100	30
DN76	87	RD98*1/6	114	32
DN101.6	113	RD125*1/4	138	31
DN104	113	RD125*1/4	138	31
DN104-B	117	RD132*1/6	150	31



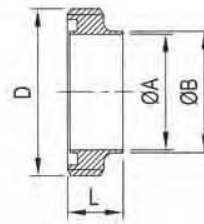
SMS Blank Nut 13RBN

SIZE	B	ØD	L
DN25	RD40*1/6	51	20
DN32	RD48*1/6	60	22
DN38	RD60*1/6	74	25
DN51	RD70*1/6	84	26
DN63.5	RD85*1/6	100	30
DN76	RD98*1/6	114	32
DN104	RD125*1/4	138	31



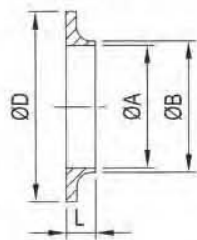
Long Welding Liner SMS-14GL

SIZE	ØA	ØB	ØD	L
DN25	22.5	25	35.5	15
DN38	35.5	38	55	20
DN51	48.5	51	65	20
DN63.5	60.5	63.5	80	24
DN76	72.9	76.1	93	24
DN101.6	97.6	101.6	118	30
DN104	100	104	118	30
DN104-B	98.5	102.5	127	19



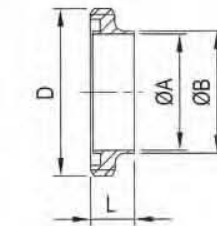
Short Welding Liner SMS-14S

SIZE	ØA	ØB	ØD	L
DN25	22.5	25	35.5	8
DN38	35.5	38	55	9
DN51	48.5	51	65	9
DN63.5	60.5	63.5	80	9
DN76	72	76	93	10
DN101.6	97.6	101.6	118	12
DN104	100	104	118	12
DN104-B	98.5	102.5	127	12



SMS Expanding Male 14R

SIZE	ØA	ØB	ØD	L
DN25	25	32	35.5	17
DN32	32	40	43.5	17
DN38	38	48	55	20
DN40	40	48	55	20
DN51	51	60	65	20
DN63.5	63.5	73.5	80	25
DN76	76	86	93	30
DN101.6	101.8	112.5	118	27
DN104	104.2	112.5	118	27

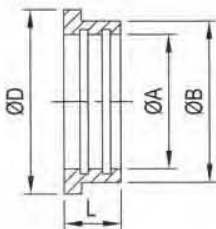


Long Welding Male SMS-15GL

SIZE	ØA	ØB	D	L
DN25	22.5	25	RD40*1/6	19
DN38	35.5	38	RD60*1/6	23
DN51	48.5	51	RD70*1/6	23
DN63.5	60.5	63.5	RD85*1/6	27
DN76	72.9	76.1	RD98*1/6	27
DN101.6	97.6	101.6	RD125*1/4	30
DN104	100	104	RD125*1/4	30
DN104-B	98.5	102.5	RD132*1/6	35

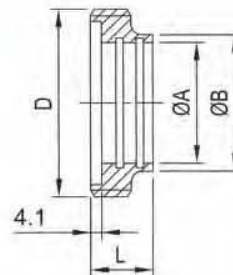
Short Welding Male SMS-15S

SIZE	ØA	ØB	D	L
DN25	22.5	25	RD40*1/6	15
DN38	35.5	38	RD60*1/6	20
DN51	48.5	51	RD70*1/6	20
DN63.5	60.5	63.5	RD85*1/6	24
DN76	72	76	RD98*1/6	24
DN101.6	97.6	101.6	RD125*1/4	26
DN104	100	104	RD125*1/4	26
DN104-B	98.5	102.5	RD132*1/6	26



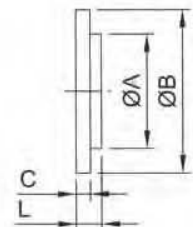
SMS-14B Blanks

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
DN101.6B	116	128	6	11
DN104	112	118	6	11



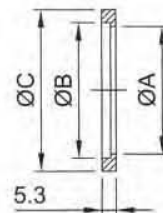
SMS Expanding Male 15R

SIZE	ØA	ØB	D	L
DN25	25.2	32	RD40*1/6	20
DN32	32.2	40	RD48*1/6	20
DN38	38.2	47.9	RD60*1/6	23
DN40	40.2	48	RD60*1/6	23
DN51	51.2	60.4	RD70*1/6	25
DN63.5	63.7	73.5	RD85*1/6	30
DN76	76.2	86.5	RD98*1/6	35
DN101.6	101.8	112.5	RD125*1/4	30
DN104	104.2	112.5	RD125*1/4	30



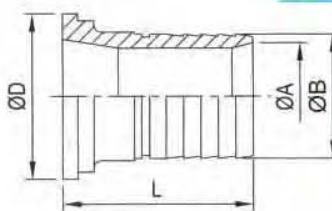
SMS-14AHR Hose Adapter

SIZE	ØA	ØB	ØD	L
DN25	22.2	2.5	35.5	60.5
DN38	34	38	55	72
DN51	47	50.5	65	82
DN63.5	59	63.2	80	95
DN76	71.5	75.5	93	97
DN104	95	100.8	118	109



Seal Ring LType (EPDM, SILICON, VITON)

SIZE	ØA	ØB	L
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

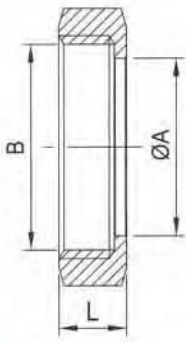


SMS-15AHR Hose Adapter

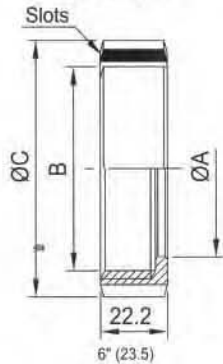
SIZE	ØA	ØB	D	L
DN25	22.2	25	RD40*1/6	64
DN38	34	38	RD60*1/6	79
DN51	47	50.5	RD70*1/6	89
DN63.5	59	63.2	RD85*1/6	102
DN76	71.5	75.5	RD98*1/6	105
DN104	95	100.8	RD125*1/4	120

BS/RJT Union (mm)

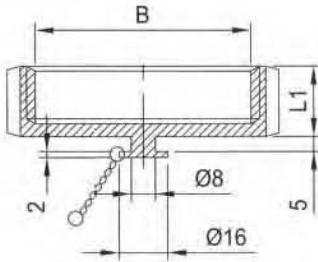
RJT-13H



RJT-13R



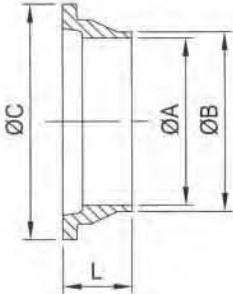
RJT-13HBN



IDF-13 NUT

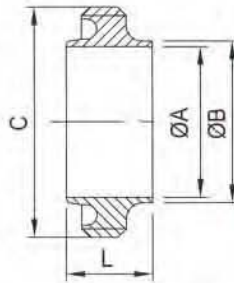
SIZE	ØA	B	ØC	L	L1	Slots
1/2"	14.5	19.6x10TPI WHIT		16		
3/4"	21	26.2x10TPI WHIT		16		
1.0"	33.3	42.266x8TPI WHIT	58.5	22.2	23.5	4
1.5"	46	54.966x10TPI WHIT	74	22.2	23.5	4
2.0"	58.7	67.92x6TPI WHIT	85.5	22.2	23.5	6
2.5"	71.4	80.62x6TPI WHIT	98.5	22.2	23.5	6
3.0"	84.1	93.32x6TPI WHIT	111.6	22.2	23.5	8
4.0"	109.5	118.72x6TPI WHIT	138	22.2	23.5	8
6.0"	163	169.52x6TPI WHIT	197	24		10

RJT Welding Liner RJT-14



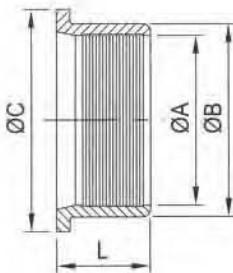
SIZE	ØA	ØB	ØC	L
1/2"	9.6	14	18	11.4
3/4"	16	20	23.1	11.4
1.0"	22.2	25.65	41.3	10/12.7
1.5"	34.9	38.35	54	10/12.7
2.0"	47.6	51.05	66.7	10/12.7
2.5"	60.3	63.75	79.4	10/12.7
3.0"	73	76.45	92.1	10/12.7
4.0"	97.6	101.85	117.5	12.7/25.4
6.0"	148	152.4	169.1	23.5

RJT Welding Male RJT-15



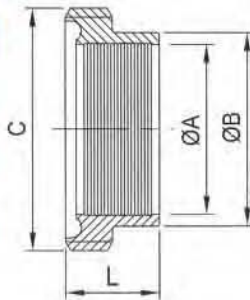
SIZE	ØA	ØB	C	L
1/2"	9.6	13.7	21.2x10T WHIT	16.5
3/4"	16	20	27.6x10T WHIT	16.5
1.0"	22.2	25.4	45.72x8T WHIT	21.5
1.5"	34.9	38.1	58.42x8T WHIT	21.5
2.0"	47.6	50.8	72.72x6T WHIT	21.5
2.5"	60.3	63.5	85.42x6T WHIT	21.5
3.0"	73	76.2	98.12x6T WHIT	21.5
4.0"	97.6	101.6	123.52x6T WHIT	21.5
104	100	104	123.52x6T WHIT	27
6.0"	148	152.4	174.32x6T WHIT	24

RJT Expanding Liner RJT-14R



SIZE	ØA	ØB	ØC	L
1.0"	25.4	32.5	41.3	20
1.5"	38.1	45.2	54	24
2.0"	50.8	57.9	66.7	28
2.5"	63.5	70.6	79.4	32
3.0"	76.2	83.3	92.1	32
4.0"	101.7	108.7	117.5	32

RJT Expanding Male RJT-15R

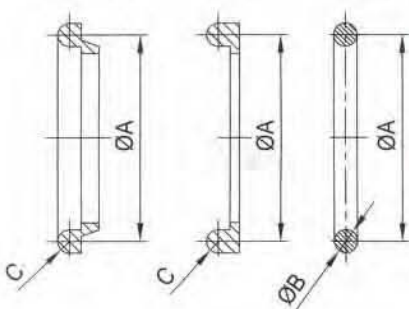


SIZE	ØA	ØB	C	L
1.0"	25.4	32.5	45.72x8T WHIT	20
1.5"	38.1	45.2	58.42x8T WHIT	24
2.0"	50.8	57.9	72.72x6T WHIT	28
2.5"	63.5	70.6	85.42x6T WHIT	32
3.0"	76.2	83.3	98.12x6T WHIT	32
4.0"	101.7	108.7	123.52x6T WHIT	32

U Type

L Type

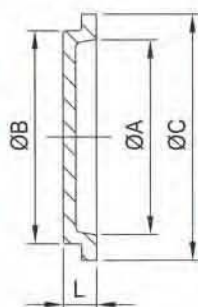
O-Ring



RJT Seal Ring (EPDM, Silicon, Viton)

SIZE	ØA	ØB	C
1.0"	33.3	6.6	3.2
1.5"	46	6.6	3.2
2.0"	58.7	6.6	3.2
2.5"	71.4	6.6	3.2
3.0"	84.1	6.6	3.2
4.0"	109.5	6.6	3.2
6.0"	162.6	6.6	3.2

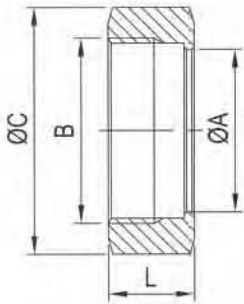
RJT-14B Blanks



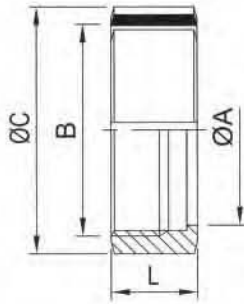
SIZE	ØA	ØB	ØC	L
1.0"	26.2	32.5	41.3	9
1.5"	38.9	45.2	54	9
2.0"	51.6	57.9	66.7	9
2.5"	64.3	70.6	79.4	9
3.0"	77	83.3	92.1	9
4.0"	102.4	108.7	117.5	9
104	102.8	108.7	117.5	9

IDF/ISO UNION (mm)

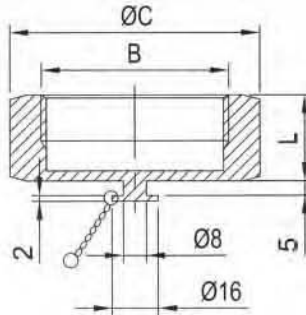
IDF-13H



IDF-13R



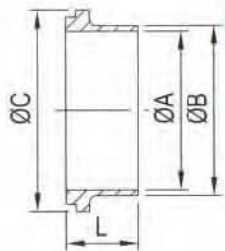
IDF-13HBN



IDF-13 NUT

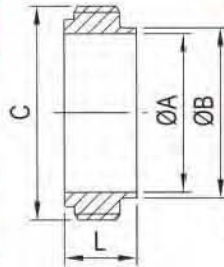
SIZE	ØA	B	ØC	L
1.0"	30.5	34.34x8T ACME	46	30
1.5"	43.5	47.86x8T ACME	60	30
2.0"	57	61.37x8T ACME	75	30
2.5"	70.7	74.88x8T ACME	90	30
R 3.0"	83.3	88.4x8T ACME	106	30
H 3.0"	83.3	88.4x8T ACME	105	30
R 4.0"	110	115.41x8T ACME	135	34.9
H 4.0"	110	122.05x6T ACME	133	34.9

Welding Liner 14



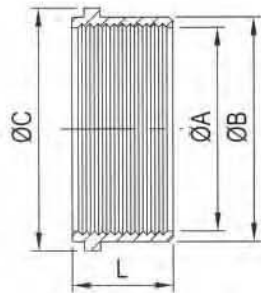
SIZE	IDF		JIS		ØC	L
	ØA	ØB	ØA	ØB		
1.0"	22.6	25.6	23	25.4	33.8	21.5
1.5"	35.6	38.6	35.7	38.1	47	21.5
2.0"	48.6	51.6	47.8	50.8	60.5	21.5
2.5"	60.3	64.1	59.5	63.5	74	21.5
3.0"	72.9	76.7	72.3	76.3	87.5	21.5
4.0"	97.6	102.5	97.6	101.6	114.1	21.5

Welding Male 15



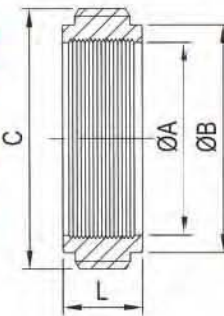
SIZE	IDF		JIS		C	L
	ØA	ØB	ØA	ØB		
1.0"	22.6	25.6	23	25.4	37.13x8T ACME	21.5
1.5"	35.6	38.6	35.7	38.1	50.65x8T ACME	21.5
2.0"	48.6	51.6	47.8	50.8	64.16x8T ACME	21.5
2.5"	60.3	64.1	59.5	63.5	77.13x8T ACME	21.5
3.0"	72.9	76.7	72.3	76.3	91.19x8T ACME	21.5
H 4.0"	97.6	102.5	97.6	101.6	125.9x6T ACME	21.5

IDF Expanding Liner IDF-14R



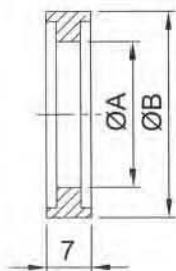
SIZE	ØA	ØB	ØC	L
1.0"	25	29	33.8	20
1.5"	38	42.5	47	20
2.0"	51	56	60.5	25
2.5"	63.5	69.7	74	30
3.0"	76.1	82.3	87.5	30
R 4.0"	101.6	108.4	114.1	30
H 4.0"	101.7	111.1	120.6	30

IDF Expanding Male IDF-15R



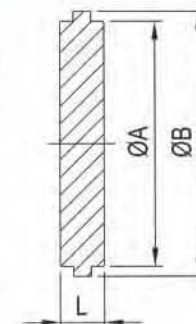
SIZE	ØA	ØB	B	L
1.0"	25	29	37.13x8T ACME	17
1.5"	38	42.5	50.65x8T ACME	20
2.0"	51	56	64.16x8T ACME	20
2.5"	63.5	69.7	77.76x8T ACME	25
3.0"	76.1	82.3	91.19x8T ACME	30
R 4.0"	101.6	108.4	118.2x8T ACME	35
H 4.0"	101.7	111.1	125.9x6T ACME	35

IDF Seal Ring



SIZE	ØA	ØB
1.0"	23	32.5
1.5"	36	46
2.0"	49	59.5
2.5"	60.7	73.2
3.0"	73.2	86.5
R 4.0"	98	113
H 4.0"	98	119.6

IDF-14B Blanks



SIZE	ØA	ØB	L
1.0"	29.2	33.8	10.5
1.5"	42.7	47	10.5
2.0"	56.2	60.5	10.5
2.5"	69.9	74	10.5
3.0"	82.6	87.5	10.5
R 4.0"	108.8	114.1	12.6
H 4.0"	111.1	120.6	12.6