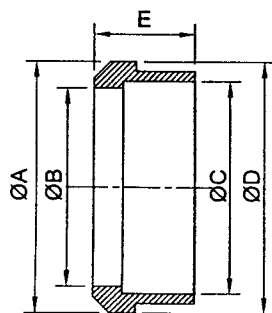
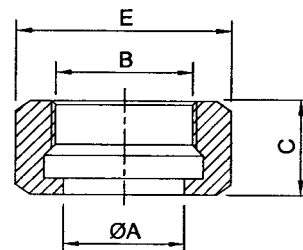


Unit: mm



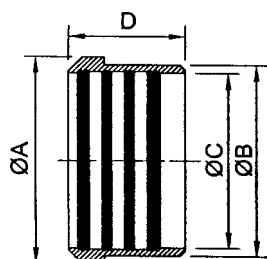
3A Recessless Liner

SIZE	ΦA	ΦD	ΦC	ΦB	E
1.0"	33.3	29.5	25.5	22.2	19.1
1.5"	46.8	42.6	38.2	34.9	22.2
2.0"	60.3	55.7	50.9	47.6	24.6
2.5"	73.8	68.8	63.6	60.3	27
3.0"	87.3	81.9	76.3	73	28.6
4.0"	114.3	108.1	101.7	97.6	31.8



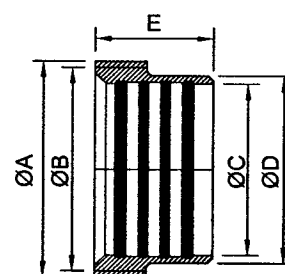
3A Hexagonal Nut 3A-13H

SIZE	ΦA	B	C	E
1.0"	30.3	38.02 ACME 8TPI	23	46
1.5"	43.4	51.54 ACME 8TPI	24.6	61.1
2.0"	56.5	65.05 ACME 8TPI	27	76.2
2.5"	69.6	78.56 ACME 8TPI	29.6	91.3
3.0"	82.7	92.08 ACME 8TPI	32.5	106.4
4.0"	108.9	120.14 ACME 6TPI	38.1	137.6



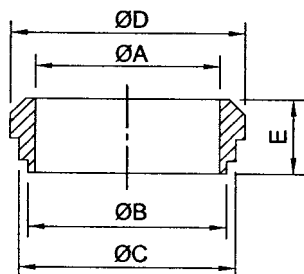
3A Recessless Liner

SIZE	ΦA	ΦD	ΦC	D
1.0"	33.3	29.5	25.5	19.1
1.5"	46.8	42.6	38.2	28.6
2.0"	60.3	55.7	50.9	33.3
2.5"	73.8	68.8	63.6	34.9
3.0"	87.3	81.9	76.3	36.5
4.0"	114.3	108.1	101.7	38.1



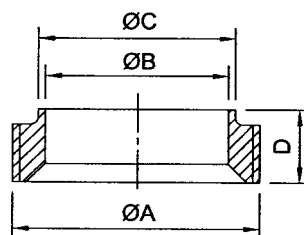
3A Recessless Male

SIZE	ΦA	ΦB	ΦD	ΦC	E
1.0"	37.13 ACME 8TPI	33.45	29.5	25.5	20.6
1.5"	50.65 ACME 8TPI	46.96	42.6	38.2	28.6
2.0"	64.17 ACME 8TPI	60.48	55.7	50.9	34.9
2.5"	77.67 ACME 8TPI	73.99	68.8	63.6	38.1
3.0"	91.19 ACME 8TPI	87.5	81.9	76.3	41.3
4.0"	119.25 ACME 6TPI	114.53	108.1	101.7	41.3



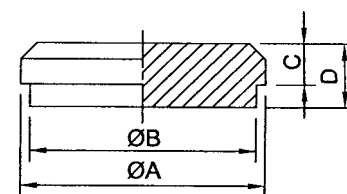
3A Short Bevel Seat Weld Liner 3A-14PRF

SIZE	A	B	C	D	E
1.0"	22.1	25.4	29.5	33.3	18.3
1.5"	34.8	38.1	42.6	46.8	18.3
2.0"	47.5	50.8	55.7	60.3	19.1
2.5"	60.2	63.5	68.8	73.8	22.3
3.0"	72.9	76.2	81.9	87.3	23.1
4.0"	97.6	101.6	108.1	114.3	26.2



3A Short Bevel Seat Weld Male 3A-15TRF

SIZE	A	B	C	D
1.0"	37.13 ACME 8TPI	22.1	25.4	18.3
1.5"	50.65 ACME 8TPI	34.8	38.1	18.3
2.0"	64.17 ACME 8TPI	47.5	50.8	19.1
2.5"	77.61 ACME 8TPI	60.2	63.5	22.2
3.0"	91.19 ACME 8TPI	72.9	76.2	23.1
4.0"	119.25 ACME 6TPI	97.6	101.6	26.2



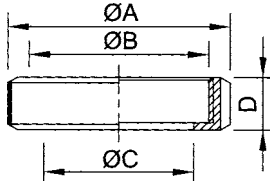
3A-16A

SIZE	A	B	C	D
1.0"	33.3	29.5	7.9	11.9
1.5"	46.8	42.6	8.7	14.3
2.0"	60.3	55.7	10.3	15.9
2.5"	73.8	68.8	11.1	16.7
3.0"	87.3	81.9	11.9	18.3
4.0"	114.3	108.1	14.3	20.6

Unit: mm

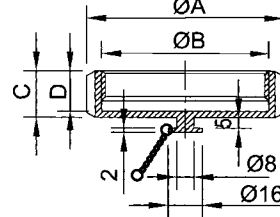
DIN Round Nut DIN-13R

DIN	A	B	C	B	E
10	38	RD 28X1/8	19	18	4
15	44	RD 34X1/8	25	18	4
20	54	RD 44X1/6	31	21	4
25	63	RD 52X1/6	36	21	4
32	70	RD 58X1/6	42	21	4
40	78	RD 65X1/6	49	21	4
50	92	RD 78X1/6	62	22	4
65	112	RD 95X1/6	80	25	6
80	127	RD 110X1/4	94	30	6
90	138	RD 120X1/4	104	30	6
100	148	RD 130X1/4	115	31	6
125	178	RD 160X1/4	138	35	6
150	210	RD 190X1/4	164	40	6



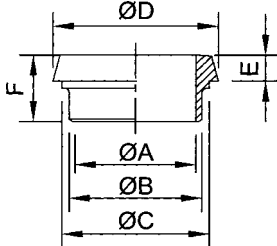
DIN Blank Nut DIN-13RBN

DIN	A	B	C	D
10	38	RD 28X1/8	18	15
15	44	RD 34X1/8	18	15
20	54	RD 44X1/6	21	18
25	63	RD 52X1/6	21	18
32	70	RD 58X1/6	21	18
40	78	RD 65X1/6	21	18
50	92	RD 78X1/6	22	19
65	112	RD 95X1/6	25	21
80	127	RD 110X1/4	30	26
90	138	RD 120X1/4	30	2
100	148	RD 130X1/4	31	26
125	178	RD 160X1/4	35	30
150	210	RD 190X1/4	40	34



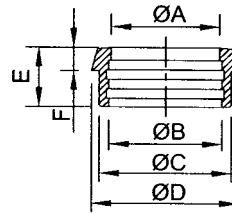
DIN Welding Liner DIN-14

DIN	A	B	C	D	E	F
10	10	13	18	22	6	17
15	16	19	24	28	6	17
20	20	23	30	36	8	18
25	26	29	35	44	10	22
32	32	35	41	50	10	25
40	38	41	48	56	10	26
50	50	53	61	68	11	28
65	66	70	79	86	12	32
80	81	85	93	100	12	37
90	89	93	103	111	15	35
100	100	104	114	121	15	44
125	125	129	137	150	17	34
150	150	154	163	176	18	37



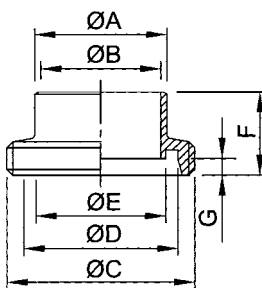
DIN Expanding Liner DIN-14R

DIN	A	B	C	D	E	F
10	10	12.2	18	22	17	6
15	16	18.2	24	28	17	6
20	20	22.2	30	36	18	8
25	26	28.2	35	44	22	10
32	32	34.2	41	50	25	10
40	38	40.2	48	56	26	10
50	50	52.2	61	68	28	11
65	66	70.3	79	86	32	12
80	81	85.3	93	100	37	12
100	100	104.3	114	120	44	15
125	125	129.3	137	149	34	17
150	150	154.3	163	175	37	18



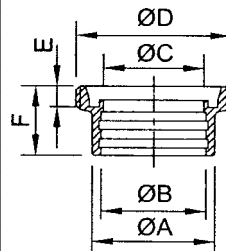
DIN Welding Male DIN-15

DIN	A	B	C	D	E	F	G
10	13	10	RD 28X1/8	20	12	21	4
15	19	16	RD 34X1/8	26	18	21	4
20	23	20	RD 44X1/6	33	23	24	6
25	29	26	RD 52X1/6	40	30	29	7
32	35	32	RD 58X1/6	46	36	32	7
40	41	38	RD 65X1/6	52	42	33	7
50	53	50	RD 78X1/6	64	54	35	7
65	70	66	RD 95X1/6	81	71	40	8
80	85	81	RD 110X1/4	95	85	45	8
90	93	89	RD 120X1/4	114	104	45	10
100	104	100	RD 130X1/4	114	104	54	10
125	129	125	RD 160X1/4	142	130	46	12
150	154	150	RD 190X1/4	167	155	50	13



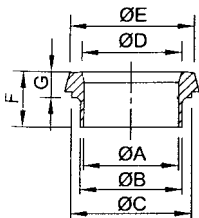
DIN Expanding Male DIN-15R

DIN	A	B	C	D	E	F
10	18	12.2	10	RD 28X1/8	4	21
15	24	18.2	16	RD 34X1/8	4	21
20	30	22.2	20	RD 44X1/6	6	24
25	35	28.2	26	RD 52X1/6	7	29
32	41	34.2	32	RD 58X1/6	7	32
40	48	40.2	38	RD 65X1/6	7	33
50	61	52.2	50	RD 78X1/6	7	35
65	79	70.3	66	RD 95X1/6	8	40
80	93	85.3	81	RD 110X1/4	8	45
100	114	104.3	100	RD 130X1/4	10	54
125	137	129.3	125	RD 160X1/4	12	46
150	163	154.3	150	RD 190X1/4	13	50



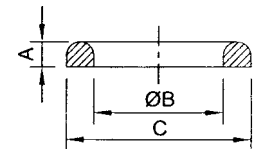
DIN Imperial Welding Liner

SIZE	A	B	C	D	E	F	G
1.0"	22.1	25.4	35.0	26.0	44	22	13
1.5"	34.8	38.1	48.0	38.0	56	26	13
2.0"	47.5	50.8	61.0	50.0	68	28	14
2.5"	60.2	63.5	79.0	66.0	86	32	16
3.0"	72.9	76.2	93.0	81.0	100	37	19
4.0"	97.6	101.6	114.0	100.0	121	44	19



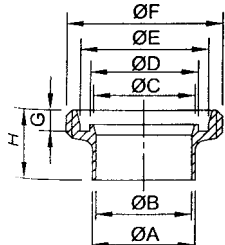
DIN 14B Blanks

DIN	A	B	C	D
10	18	22.5	9	6
15	24	28.5	9	6
20	30	36.5	11	8
25	35	44	13	10
32	41	50	13	10
40	48	56	13	10
50	61	68.5	14	11
65	79	86	16	12
80	93	100	16	12
100	114	121	20	15
125	137	150	22	17
150	163	176	24	18



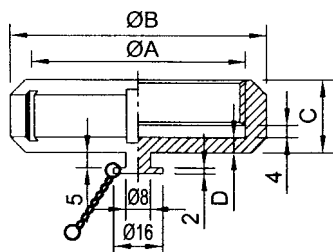
DIN Imperial Welding Male

SIZE	A	B	C	D	E	F	G	H
1.0"	25.4	22.1	26.0	30	40	RD 52X1/6	7	29
1.5"	38.1	34.8	38.0	42	52	RD 65X1/6	7	33
2.0"	50.8	47.5	50.0	54	61	RD 78X1/6	7	35
2.5"	63.5	60.2	66.0	71	81	RD 95X1/6	8	40
3.0"	76.2	72.9	81.0	86	96	RD 110X1/4	8	45
4.0"	101.6	97.6	100.0	105	115	RD 130X1/4	10	54



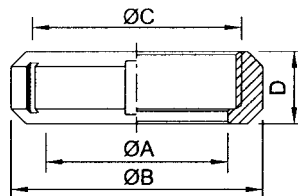
DIN Seal Ring
(EPDM, Silicon, Viton)

DIN	A	B	C
20	4.5	23	33
25	5	30	40
32	5	36	46
40	5	42	52
50	5	54	64
65	5	71	81
80	5	85	95
100	5	104	114



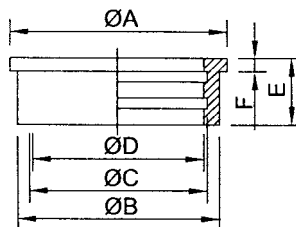
SWS Blank Nut 13RBN

DIN	A	B	C	D
25	RD 40X1/6	51	19	4
32	RD 48X1/6	60	22	4
38	RD 60X1/6	74	23	4
51	RD 70X1/6	84	24	5
63	RD 85X1/6	100	28	5
76	RD 98X1/6	114	30	6
104	RD 125X1/4	138	31	5



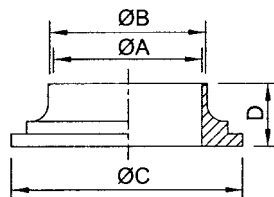
SMS Nut 6 Slots SMS-13R

SIZE	A	B	C	D
25	32.3	51	RD 40X1/6	19
32	40.3	60	RD 48X1/6	22
38	48.5	74	RD 60X1/6	23
51	61.0	84	RD 70X1/6	24
63.5	74.0	100	RD 85X1/6	28
76	87.0	114	RD 98X1/6	30
101.6	113.0	138	RD 125X1/4	31
104	113.0	138	RD 125X1/4	31
104-B	117.0	150	RD 132X1/6	31



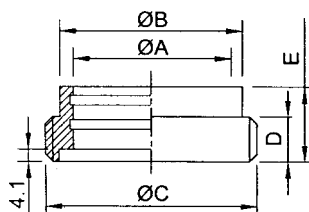
SMS Expanding Liner 14R

SIZE	A	B	C	D	E	F
25	35.5	32.0	25.8	25.2	17	3.5
32	43.5	40.0	33.0	32.2	17	3.5
38	55.0	47.9	38.8	38.2	20	4.0
40	55.0	48.0	41.2	40.2	20	4.0
51	65.0	60.4	51.8	51.2	20	4.0
63	80.0	73.5	64.3	63.7	25	4.0
76	93.0	86.5	77.0	76.2	30	5.0
101.6	118.0	112.5	102.6	101.8	27	6.0
104	118.0	112.5	105.0	104.2	27	6.0



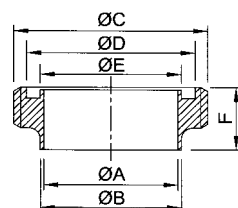
Long Welding Liner SMS-14

DIN	A	B	C	D
25	22.5	25	35.5	15.5
38	35.5	38	55	16.0
51	48.5	51	65	17.0
63	60.5	63.5	80	17.0
76	72.9	76.1	93	19.0
101.6	97.6	101.6	118	19.0
104	100	104	118	19.0
104-B	98.5	102.5	127	19.0



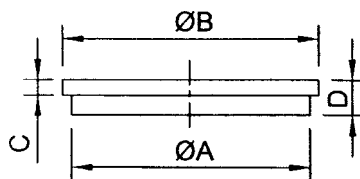
SMS Expanding Male 15R

DIN	A	B	C	D	E
25	25.2	32.0	RD 40X1/6	11	20
32	32.2	40.0	RD 48X1/6	13	20
38	38.2	47.9	RD 60X1/6	15	23
40	40.2	48.0	RD 60X1/6	15	23
51	51.2	60.4	RD 70X1/6	15	25
63	63.7	73.5	RD 85X1/6	19	30
76	76.2	86.5	RD 98X1/6	19	35
101.6	101.8	112.5	RD 125X1/4	20	30
104	104.2	112.5	RD 125X1/4	20	30



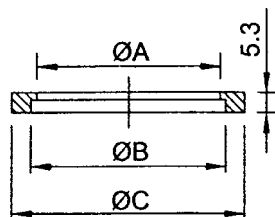
Long Welding Male SMS-15

SIZE	A	B	C	D	E	F
DN25	22.5	25.0	RD 40X1/6	32	24.9	19
DN38	35.5	38.0	RD 60X1/6	84	37.9	23
DN51	48.5	51.0	RD 70X1/6	61	50.9	23
DN63.5	60.5	63.5	RD 85X1/6	73.5	63.4	27
DN76	72.9	76.1	RD 98X1/6	86	75.9	27
DN101.6	97.6	101.6	RD 125X1/4	116	103.9	30
DN104	100.0	104.0	RD 125X1/4	116	103.9	30



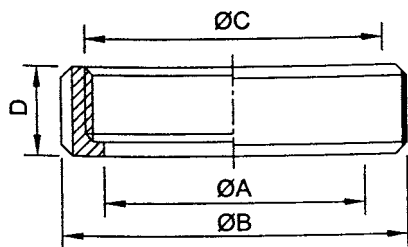
SMS Blanks

SIZE	A	B	C	D
25	32.0	35.5	3.5	7.5
38	48.0	55.0	5.0	9.0
51	60.0	65.0	5.0	10.0
63	73.5	80.0	5.0	10.0
76	86.0	93.0	5.0	11.0
101.6	112.0	118.0	6.0	11.0
104	112.0	118.0	6.0	11.0



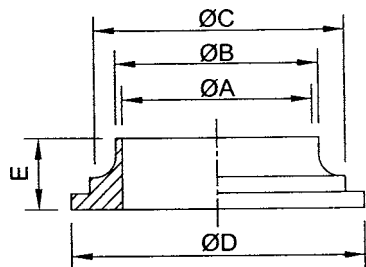
Seal Ring L Type (EPDM, Silicon, Viton)

SIZE	A	B	C
25	22.8	25.1	31.8
38	35.8	38.1	47.8
51	48.8	51.1	60.8
63.5	61.0	63.6	73.3
76	73.4	76.1	85.8
104	100.5	104.0	115.7



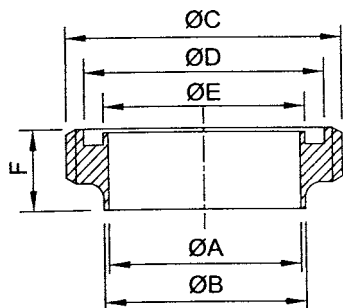
SMS-13BE Nut 4 Slots SMS-13R

SIZE	A	B	C	D
25	32.3	49	RD 40X1/6	17.2
38	48.5	70	RD 60X1/6	22
51	61.0	80	RD 70X1/6	23
63	74.0	96	RD 85X1/6	27
76	87.0	110	RD 98X1/6	28.5
104	113.0	136	RD 125X1/4	31



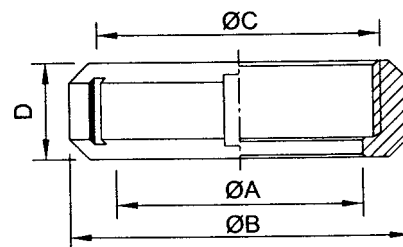
SMS-14BE Welding Liner SMS-14S

SIZE	A	B	C	D	E
25	22.5	25	32	35.5	10
38	35.5	38	47.9	55	11
51	48.5	51	60.4	65	13
63	60.5	63.5	73.5	80	13
76	72.9	76.1	86.5	93	14
104	100	104	112.5	118	16



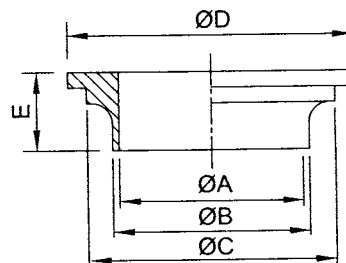
SMS-15BE Welding Male SMS-15S

SIZE	A	B	C	D	E	F
25	22.5	25.0	RD 40X1/6	32	25	15
38	35.5	38.0	RD 60X1/6	48	38	20
51	48.5	51.0	RD 70X1/6	61	51	20
63	60.5	63.5	RD 85X1/6	73.5	63.5	24
76	72.9	76.1	RD 98X1/6	86	76.1	24
104	100	104.0	RD 125X1/4	116	104	27



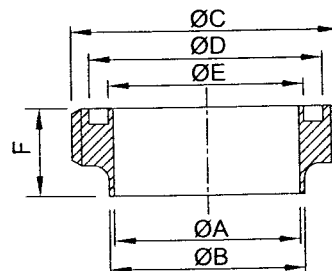
SMS Nut 6 Slots SMS-13R

SIZE	A	B	C	D
25	32.3	51	RD 40X1/6	19
32	40.3	60	RD 48X1/6	22
38	48.5	74	RD 60X1/6	23
51	60.5	84	RD 70X1/6	24
63.5	74.0	100	RD 85X1/6	28
76	87.0	114	RD 98X1/6	30
101.6	113.0	138	RD 125X1/4	31
104	113.0	138	RD 125X1/4	31



CL-Style Welding Liner SWS-14G

SIZE	A	B	C	D	E
25	22.5	25	31.7	35.5	15
38	35.5	38	47.7	55	20
51	48.5	51	59.65	65	20
63.5	60.5	63.5	73.1	80	24
76	72.9	76.1	85.6	93	24
101.6	97.6	101.6	111.6	118	30
104	100	104	111.6	118	30

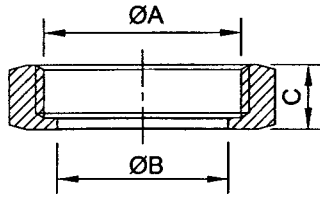


CL-Style Welding Male SMS-15G

SIZE	A	B	C	D	E	F
25	22.5	25.0	RD 40X1/6	32	24.9	19
38	35.5	38.0	RD 60X1/6	48	37.9	23
51	48.5	51.0	RD 70X1/6	61	50.9	32
63.5	60.5	63.5	RD 85X1/6	73.5	63.4	27
76	72.9	76.1	RD 98X1/6	86	75.9	27
101.6	97.6	101.6	RD 125X1/4	116	103.9	30
104	100	104.0	RD 125X1/4	116	103.9	30

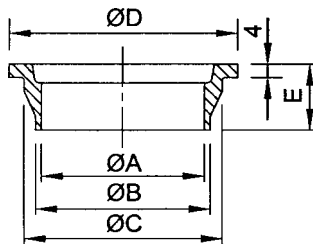
RJT (BS) UNION

Unit: mm



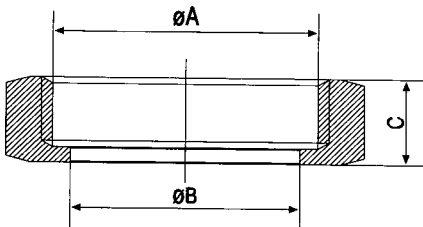
RJT Hexagonal Nut RJT-13H

SIZE	A	B	C
1.0"	42.266X8 TPI WHIT	33.45	22.2
1.5"	54.966X8 TPI WHIT	46.0	22.2
2.0"	67.920X6 TPI WHIT	58.67	22.2
2.5"	80.620X6 TPI WHIT	71.4	22.2
3.0"	93.320X6 TPI WHIT	84.1	22.2
4.0"	118.720X6 TPI WHIT	109.7	22.2
6.0"	169.520X6 TPI WHIT	163.0	24.0



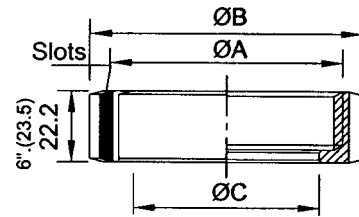
RJT Welding Liner RJT-14

SIZE	A	B	C	D	E
1.0"	22.1	25.4	32.5	41.3	19.5
1.5"	34.8	38.1	45.2	54.0	19.5
2.0"	47.5	50.8	57.9	66.7	19.5
2.5"	60.2	63.5	70.6	79.4	19.5
3.0"	72.9	76.2	83.3	92.1	19.5
4.0"	97.6	101.6	108.7	117.5	19.5
6.0"	148.0	152.4	161.8	169.1	23.5



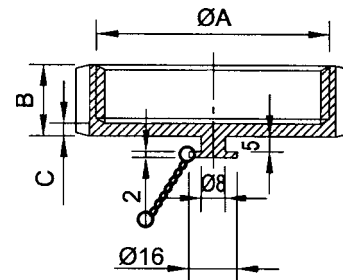
RJT Hexagonal Nut RJT-13H

SIZE	A	B	C
1.0"	42.266X8TPI WHIT	33.45	22.2
1.5"	54.966X8TPI WHIT	46.0	22.2
2.0"	67.920X6TPI WHIT	58.67	22.2
2.5"	80.620X6TPI WHIT	71.4	22.2
3.0"	93.320X6TPI WHIT	84.1	22.2
4.0"	118.720X6TPI WHIT	109.7	22.2
6.0"	169.520X6TPI WHIT	163.0	24.0



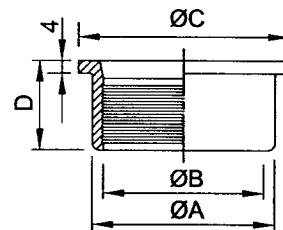
RJT Round Nut RJT-13R

SIZE	A	B	C	Slots
1.0"	42.266X8 TPI WHIT	58.5	33.45	4
1.5"	54.966X8 TPI WHIT	74.0	46.0	4
2.0"	67.920X6 TPI WHIT	85.5	58.67	6
2.5"	80.620X6 TPI WHIT	98.5	71.4	6
3.0"	93.320X6 TPI WHIT	111.6	84.1	8
4.0"	119.0X6 TPI WHIT	138.0	109.7	8
6.0"	169.520X6 TPI WHIT	197.0	163.0	10



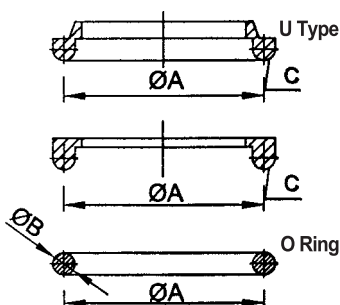
RJT Hexagonal Blank Nut RJT-13HBN

SIZE	A	B	Slots
1.0"	42.266X8 TPI WHIT	22.2	4
1.5"	54.966X8 TPI WHIT	22.2	4
2.0"	67.920X6 TPI WHIT	22.2	4
2.5"	80.620X6 TPI WHIT	22.2	4
3.0"	93.320X6 TPI WHIT	22.2	4
4.0"	118.720X6 TPI WHIT	22.2	4



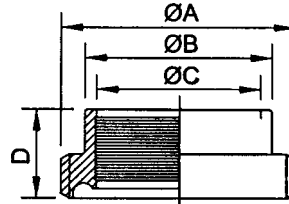
RJT Expanding Liner RJT-14R

SIZE	A	B	C	D
1.0"	32.5	25.5	41.3	20
1.5"	45.2	38.2	54.0	24
2.0"	57.9	50.9	66.7	28
2.5"	70.6	63.6	79.4	32
3.0"	83.3	76.3	92.1	32
4.0"	108.7	101.7	117.5	32



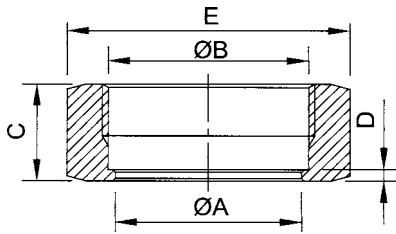
RJT Seal Ring (EPDM, Silicon, Viton)

SIZE	A	B	C
1.0"	33.3	6.6	3.2
1.5"	46.0	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



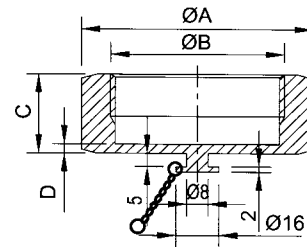
RJT Expanding Male RJT-15R

SIZE	A	B	C	D
1.0"	45.72X8T WHIT	32.5	25.5	20
1.5"	58.42X8T WHIT	45.2	38.2	24
2.0"	72.72X6T WHIT	57.9	50.9	28
2.5"	85.42X6T WHIT	70.6	63.6	32
3.0"	98.12X6T WHIT	83.3	76.3	32
4.0"	123.82X6T WHIT	108.7	101.7	32



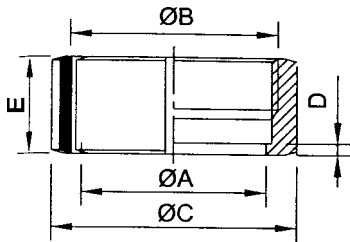
IDF Hexagonal Nut IDF-13H

SIZE	A	B	C	D	E
1.0"	30.5	34.34X8T ACME	30	3.5	46
1.5"	43.5	47.86X8T ACME	30	3.5	60
2.0"	57.0	61.37X8T ACME	30	3.5	75
2.5"	70.7	74.88X8T ACME	30	3.5	90
3.0"	83.3	88.40X8T ACME	30	3.5	105
4.0"	112.0	122.05X6T ACME	34.9	4.7	133



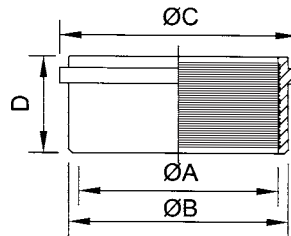
IDF-Blanks Nut IDF-13HBN

SIZE	A	B	C	D
1.0"	46	34.34X8T ACME	30	3.5
1.5"	60	47.86X8T ACME	30	3.5
2.0"	75	61.37X8T ACME	30	3.5
2.5"	90	74.88X8T ACME	30	3.5
3.0"	105	88.40X8T ACME	30	3.5
4.0"	133	122.05X6T ACME	34.9	4.7



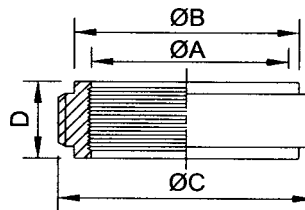
IDF Round Nut IDF-13R

SIZE	A	B	C	D	E
1.0"	30.5	34.34X8T ACME	48	3.5	30
1.5"	43.5	47.86X8T ACME	64	3.5	30
2.0"	57.0	61.37X8T ACME	77	3.5	30
2.5"	70.7	74.97X8T ACME	91	3.5	30
3.0"	83.3	88.40X8T ACME	104	3.5	30
4.0"	112.0	115.41X8T ACME	135	4.7	34.9



IDF-Expanding Liner IDF-14R

SIZE	A	B	C	D
1.0"	25.5	29.2	33.8	20
1.5"	38.2	42.7	47.0	20
2.0"	50.9	56.2	60.5	25
2.5"	63.6	69.9	74.0	30
3.0"	76.3	82.6	87.5	30
4.0"	101.7	111.1	120.6	30

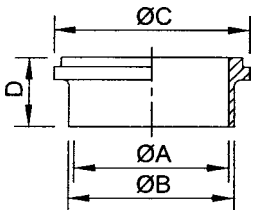


IDF-Welding Liner IDF-14

SIZE	A	B	C	D
1.0"	22.1	25.4	33.8	21.5
1.5"	34.8	38.1	47.0	21.5
2.0"	47.5	51.8	60.5	21.5
2.5"	60.2	63.5	74.0	21.5
3.0"	72.9	76.2	87.5	21.5
4.0"	97.6	101.6	120.6	30.0

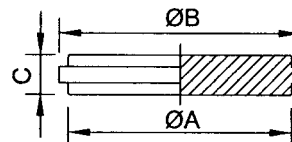
IDF Expanding Male IDF-15R

SIZE	A	B	C	D
1.0"	25.5	29.2	37.13X8T ACME	16.5
1.5"	38.2	42.7	50.65X8T ACME	19.5
2.0"	50.9	56.2	64.16X8T ACME	19.5
2.5"	63.6	69.9	77.67X8T ACME	25.0
3.0"	76.3	82.6	91.19X8T ACME	30.0
4.0"	101.7	111.1	125.9X6T ACME	35.0



IDF-Welding Male IDF-15

SIZE	A	B	C	D
1.0"	22.1	25.4	37.13X8T ACME	21.5
1.5"	34.8	38.1	50.65X8T ACME	21.5
2.0"	47.5	51.8	64.16X8T ACME	21.5
2.5"	60.2	63.5	77.67X8T ACME	21.5
3.0"	72.9	76.2	91.19X8T ACME	21.5
4.0"	97.6	101.6	125.9X6T ACME	30.0



IDF Blanks IDF-16 AMP

SIZE	A	B	C
1.0"	29.2	33.8	10.5
1.5"	42.7	47.0	10.5
2.0"	56.2	60.5	10.5
2.5"	69.9	74.0	10.5
3.0"	82.6	87.5	10.5
4.0"	111.1	114.1	12.6