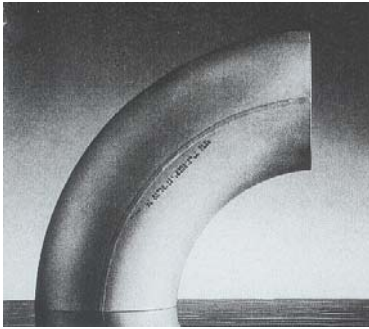




NATAL STAINLESS STEEL

PRESSED ELBOWS I.D. DIM.



PART.NO. ABE-111

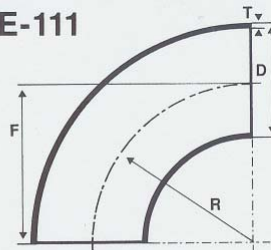
TYPE 3S

R=1.5 x I.D.

SA Reference

No. 1385

Standard grades: AISI 304, 304L, 316, 316L
(SS 2333, 2352, 2343, 2353)



D	T	F/R	Weight Kg	1) Max all. pressure	
				Z=0.7	Z=0.9
20	2	23	0.04	147	189
25	2	33	0.06	121	155
30	2	38	0.1	96	123
38	1.5 2	50	0.1 0.2	56 78	72 100
44.5	2	60	0.2	65	84
54	2	73	0.3	53	68
57	3	78	0.5	85	109
69	2	95	0.5	54	69
79	2	113	0.7	48	61
84 86	2 3	123	0.9 1.4	45 67	58 86
104 106	2 3	150	1.2 1.8	36 53	46 68
129 131	2 3	188	2.0 3.0	29 43	37 55
154 156	2 3	225	2.6 3.9	24 36	31 46
204 205 206	2 2.5 3 max.9	300	4.8 6.0 7.3	18 23 27	24 29 35
254 255 256	2 2.5 3 max.6	375	7.4 9.2 11.0	15 18 22	19 24 28
304 306 308	2 3 4 max 7	450	10.7 16.5 22.0	12 18 24	16 24 31
356 358 360	3 4 5 max 9	525	22.5 30.0 37.0	16 21 26	20 27 33



NATAL STAINLESS STEEL

D	T	F/R	Weight Kg	1) Max all. pressure	
				Z=0.7	Z=0.9
406 408 410	3 4 5 max 11	600	29 38 48	14 18 23	18 24 29
456 458 460	3 4 5 max 13	675	37 49 61	12 16 20	16 21 26
506 508 510	3 4 5 max 25	750	45 60 75	11 15 18	14 19 24
606 608 610	3 4 5 max 25	900	66 88 110	9 12 15	12 16 20
708 710 712	4 5 6 max 13	1050	117 147 177	11 13 16	13 17 20
808 810 812	4 5 6 max 11	1200	152 190 228	9 12 14	12 15 18
908 910 912	4 5 6 max 22	1350	190 238 286	8 10 12	11 13 16
1008 1010 1012	4 5 6 max 22	1500	238 298 357	7 9 11	10 12 14
1110 1112 1116	8 6 8 max 25	1650	360 432 577	8 10 13	11 13 17

- 1) Design pressure in Bar at temperature +20°C using material AISI 316, at other temp. and grades.
 2) z = 0.7 no radiography, z = 0.9 100% radiography



NATAL STAINLESS STEEL

PRESSED ELBOWS ISO DIM.



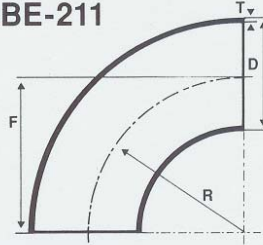
PART.NO. ABE-211

NORM 3D

SA Reference

No. 1840

Standard grades: AISI 304L, 316L
(SS 2352, 2348, 2353)



D	T	F/R	Weight Kg	1) Max all. pressure	
				Z=0.7	Z=0.9
21.3	2	27.5	0.04	144	185
26.9	2	28.5	0.06	100	128
33.7	2 3.25	38	0.1 0.2	81 176	104 226
42.4	2 3.25	47.5	0.2 0.3	62 137	80 176
48.3	2 3.25	57	0.2 0.3	57 120	73 154
60.3	2 3.65	76	0.4 0.6	46 109	59 139
76.1	2 3 3.65	95	0.6 0.8 1.0	47 71 85	60 91 109
88.9	2 3	114	0.8 1.2	40 61	52 79
101.6	2	152	1.2	35	45
114.3	2	152	1.3 2.0	32 48	41 62
139.7	2 3	190	2.1 3.0	26 39	33 51
168.3	2 3 max 14	229	3.0 4.3	22 32	28 40
219.1	2 3 4 max 17	305	5.2 7.8 10.4	17 25 34	21 32 43
273.0	2 3 4 max 25	381	8.0 12.0 16.1	13 20 27	17 26 35
323.9	2 3 4 max 23	457	11.6 17.4 22.8	11 17 23	15 22 29
355.6	3 4 5 max 10	533	22.0 29.4 36.9	16 21 26	20 27 33



NATAL STAINLESS STEEL

D	T	F/R	Weight Kg	1) Max all. pressure	
				Z=0.7	Z=0.9
406.4	3 4 5 max 20	610	29 38 48	14 19 23	18 24 30
457.2	3 4 5 max 13	686	37 49 61	12 16 21	16 21 26
508.0	3 4 5 max 25	762	45 60 75	11 15 19	14 19 24
609.6	3 4 5 max 25	914	65 86 106	9 12 15	12 16 20
711.2	4 5 6 max 13	1067	119 149 178	11 13 16	13 17 20
812.8	4 5 6 max 20	1219	156 195 232	9 12 14	12 15 18
914.4	4 5 6 max 22	1372	206 246 294	8 10 12	11 13 16
1016.0	4 5 6 max 22	1524	243 304 365	7 9 11	9 12 14
1117.6	5 6 max 25	1676	368 441	8 10	10 13

1) **Design pressure in Bar at temperature +20°C using material AISI 316, at other temp. and grades.**
z = 0.7 no radiography, z = 0.9 100% radiography



NATAL STAINLESS STEEL

PRESSED ELBOWS ISO DIM.



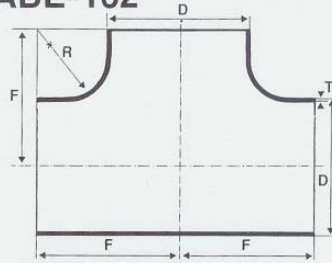
PART.NO. ABE-162

TYPE P

SA Reference

No. 1382

Standard grades: AISI 304, 304L, 316, 316L
(SS 2333, 2352, 2343, 2353)



D	T	F	R	Weight Kg	1) Max all. Pressure Z=0.7
20	2	23	10.5	0.1	155
25	2	33	15.5	0.1	116
30	2	38	18	0.1	90
38	2.5	50	24	0.3	94
44.5	2	60	28	0.4	52
54	2	73	30	0.5	41
57	3	78	23	0.9	85
69	2	80	27.5	0.7	28
79	2	80	32	0.8	17
84	2	80	30	0.8	22
104	2	90	25	1.3	29
105	2.5			1.8	42
129	2	115	40	2.1	19
130	2.5			2.8	26
154	2	135	40	3.1	15
155	2.5			4.0	22
205	2.5	175	57	6.1	14
206	3			8.2	19



NATAL STAINLESS STEEL

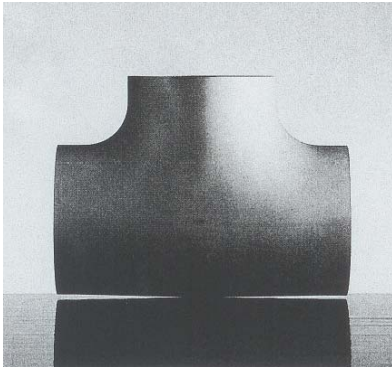
D	T	F	R	Weight Kg	1) Max all. Pressure Z=0.7
256 258	3 4 max 8	216	75	10 13	6.6 9.6
306 308	3 4 max 13	254	80	13 19	5.4 7.7
356 358	3 4 max 20	279	72	18 23	4.7 6.6
406 408 410	3 4 5 max 19	305	90	28 28 36	4.1 5.6 7.3
456 458 460	3 4 5 max 19	343	100	36 36 45	3.6 4.9 6.4
506 508 510	3 4 5 max 19	381	105	44 44 55	3.4 4.4 5.6
606 608 610	3 4 5 max19	432	110	58 58 72	3.0 3.7 4.7

1) *Design pressure in Bar at temperature +20°C using material AISI 316, at other temp. and grades.
z = 0.7 no radiography, z = 0.9 100% radiography*



NATAL STAINLESS STEEL

PRESSED TEES ISO DIM.

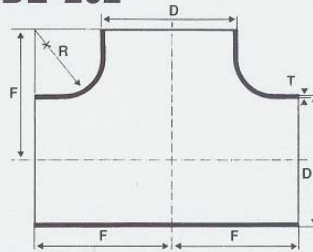


PART.NO. ABE-262

TYPE P

SA Reference

No. 1843



Standard grades: AISI 304L, 316L
(SS 2352, 2348, 2353)

D	T	F	R	Weight Kg	1) Max all. Pressure Z=0.7
21.3	2	27.5	14.5	0.1	143
26.9	2	28.5	12.5	0.1	105
33.7	2	38	16	0.2	78
42.4	2	47.5	21.5	0.2	57
48.3	2	57	26	0.3	47
60.3	2	64	27	0.5	35
76.1	2	76	27	0.7	25
88.9	2	86	30	0.9	20
114.3	2 2.6 max 5	105	35 30	1.4 1.7	11 17
139.7	2 2.6 max 5	124	40	2.3 3.0	17 25
168.3	2 2.6 max 13	143	32	3.2 4.1	14 20
219.1	2.6 3 max 13	178	50	6.6 7.6	13 16



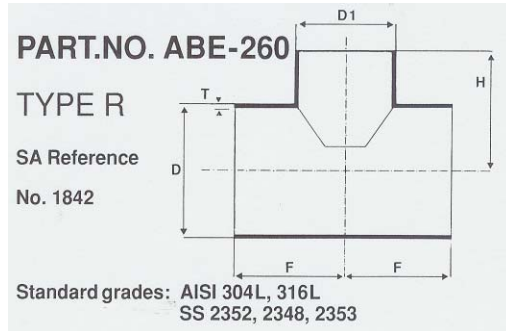
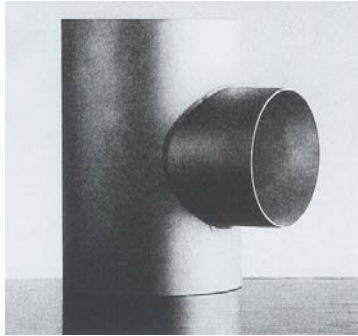
NATAL STAINLESS STEEL

D	T	F	R	Weight Kg	1) Max all. Pressure Z=0.7
273.0	3 4 max 13	216	60	10 14	6.4 9.3
323.9	3 4 max 13	254	70	15 19	5.2 7.5
355.6	3 4 max13	279	72	18 23	4.8 6.7
406.4	3 4 max 19	305	90	28 28	4.1 5.6
457.2	4 5 max 19	343	100	36 45	4.9 6.4
508.0	4 5 max19	381	105	44 55	4.4 5.7
609.6	4 5 max 19	432	110	58 72	3.7 4.7

1) **Design pressure in Bar at temperature +20°C using material AISI 316, at other temp. and grades.
z = 0.7 no radiography, z = 0.9 100% radiography**



REDUCING TEES ISO DIM.



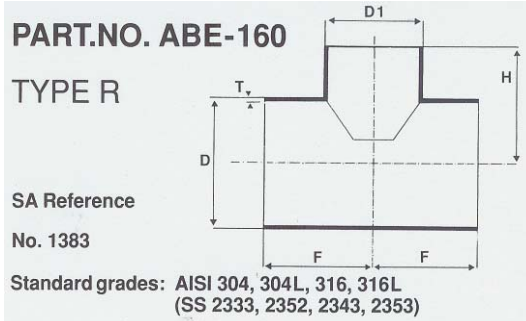
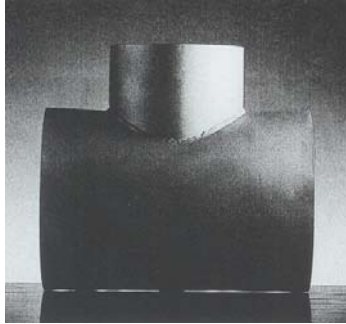
D x D1	F	H	2) Weight Kg	1) Max all pressure			
				Wall thickness			
				2/2	3/3	4/4	5/5
114.3 x 88.9 x 76.1	105	98 95	2.0 1.9	17.3 19.3	33.6 37.2		
139.7 x 114.3 x 88.9	124	117 111	2.9 2.8	12.7 15.1	24.6 29.2		
168.3 x 139.7 x 114.3	143	137 130	4.0 3.9	9.8 11.2	18.9 21.7		
219.1 x 168.3 x 139.7	178	168 162	6.4 6.2	7.3 8.2	13.9 15.9		
273.0 x 219.1 x 168.3	216	203 194	9.7 9.3		10.1 12.0	15.0 18.0	
323.9 x 273.0 x 219.1	254	241 229	13.6 13.1		7.8 9.0	11.5 13.4	
355.6 x 323.9 x 273.0	279	270 257	16.8 16.1		6.8 7.3	9.8 10.8	
406.4 x 355.6 x 323.9	305	305 295	20.8 20.3		5.9 6.1	8.4 8.9	
457.2 x 406.4 x 355.6	343	330 330	26.0 25.6		5.1 5.3	7.2 7.7	9.5 10.3
508.0 x 457.2 x 406.4	381	368 356	32.3 31.4		4.6 4.7	6.3 6.6	8.3 8.8
609.6 x 508.0 x 457.2	432	432 419	43.3 42.4		3.8 3.8	5.2 5.5	6.9 7.2

- 1) Design pressure in Bar at temperature +20°C using material AISI 316, at other temp. and grades.
z = 0.7 no radiography, z = 0.9 100% radiography
- 2) The weight is based on wall thickness 3mm



NATAL STAINLESS STEEL

REDUCING TEES I.D. DIM.



D	D1	T	F	H	Weight Kg	1) Max all. Pressure Z=0.7
104	84 54	2 2	80 50	90 75	1.0 0.6	19.2 25.8
129	104 84	2 2	100 80	112 102	1.5 1.2	14.3 16.6
154	104 84	2 2	100 80	125 115	1.8 1.4	12.7 14.8
204	154 129 104	2 2 2	150 125 100	175 162 150	3.6 2.9 2.3	8.1 9.1 10.6
206	156 131 106	3 3 3	150 125 100	175 162 150	5.4 4.4 3.4	15.3 17.3 19.9
254	204 154 104	2 2 2	200 150 100	225 200 175	6.1 4.4 2.8	5.9 7.0 9.1
256	206 156 106	3 3 3	200 150 100	225 200 175	9.1 6.6 4.2	11.0 13.3 17.2
304	254 204 154	2 2 2	250 200 150	275 250 225	9.1 7.1 5.1	4.8 5.2 6.2
306	256 206 156	3 3 3	250 200 150	275 250 225	13.7 10.6 7.7	8.5 9.7 11.8



NATAL STAINLESS STEEL

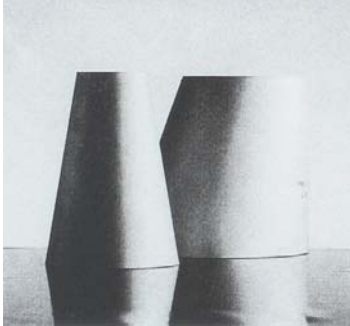
D	D1	T	F	H	Weight Kg	1) Max all. Pressure Z=0.7
356	306	3	300	325	19.3	6.9
	256	3	250	300	15.6	7.6
	206	3	200	275	12.1	8.8
358	308	4	300	325	25.8	10.0
	258	4	250	300	20.9	11.2
	208	4	200	275	16.2	13.0
406	356	3	350	375	25.8	5.9
	306	3	300	350	21.6	6.2
	256	3	250	325	17.5	6.9
408	358	4	350	375	34.5	8.4
	308	4	300	350	28.8	9.1
	258	4	250	325	23.4	10.3
506	406	3	400	450	47.7	4.7
	356	3	350	425	30.6	4.9
	306	3	300	400	24.7	5.3
508	408	4	400	450	48.5	6.6
	358	4	350	425	41.5	7.1
	308	4	300	400	34.8	7.9
606	506	3	500	550	53.8	3.8
608	508	4	500	550	73.2	5.3
610	510	5	500	550	91.5	6.8

1) *Design pressure in Bar at temperature +20°C using material AISI 316, at other temp. and grades.
z = 0.7 no radiography, z = 0.9 100% radiography*



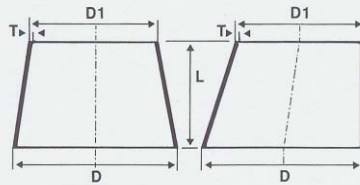
NATAL STAINLESS STEEL

REDUCERS TYPE CC, EC, ISO DIM.



PART.NO. ABE-273, -274

SA Reference
No. 1844



Standard grades: AISI 304L, 316L
(SS 2352, 2348, 2353)

D	D1	T	L	Weight Kg	1) Max all. Pressure	
					Z = 0.7	Z = 0.9
26.9	21.3	2	38	0.1	145	186
33.7	26.9	2	51	0.1	115	148
	21.3	2		0.1	111	143
42.4	33.7	2	51	0.1	89	115
48.3	42.4	2	64	0.1	80	109
	33.7	2		0.1	77	99
60.3	48.3	2	76	0.2	62	80
	33.7	2		0.2	58	75
76.1	60.3	2	90	0.3	49	63
	48.3	2		0.3	47	60
88.9	76.1	2	90	0.3	42	54
	60.3	2		0.3	39	51
114.3	88.9	2	102	0.5	35	45
	76.1	2		0.5	33	43
139.7	114.3	2	127	1.1	29	37
	88.9	2		1.1	27	35
168.3	139.7	2	140	1.1	24	31
	114.3	2		1.0	22	29
	88.9	2		1.0	21	26
219.1	168.3	2	152	1.5	17	22
	168.3	3		2.2	26	34
	139.7	2		1.3	16	21
	139.7	3		2.0	24	31



NATAL STAINLESS STEEL

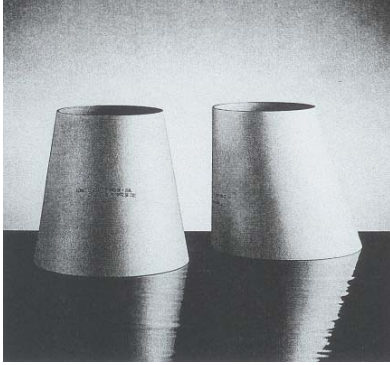
D	D1	T	L	Weight Kg	1) Max all. Pressure	
					Z = 0.7	Z = 0.9
273.0	219.1	2	178	2.2	14	18
	219.1	3		3.3	21	27
	168.3	2		2.0	12	16
	168.3	3		3.0	19	24
323.9	273.0	3	203	4.6	18	24
	219.1	3		4.2	16	21
	168.3	3		3.7	14	19
355.6	323.9	3	330	8.4	17	22
	273.0	3		7.7	17	22
	219.1	3		7.0	16	20
406.4	355.6	3	356	10.2	15	19
	323.9	3		9.7	15	19
	273.0	3		9.0	14	18
457.2	406.4	3	381	12.4	13	17
	355.6	3		11.5	13	17
	323.9	3		11.2	13	17
508.0	457.2	3	508	18.3	12	15
	406.4	3		17.4	12	15
	355.6	3		16.4	12	15
609.6	508.0	4	508	28.3	13	17
	457.2	4		27.0	13	17
	406.4	4		25.7	13	17

1) **Design pressure in Bar at temperature +20°C using material AISI 316, at other temp. and grades.
z = 0.7 no radiography, z = 0.9 100% radiography**

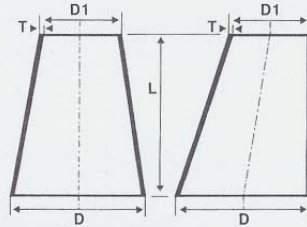


NATAL STAINLESS STEEL

REDUCERS TYPE CC, EC I.D. DIM.



PART.NO. ABE-173, ABE-174



SA Reference

No. 1381

Standard grades: AISI 304, 304L, 316, 316L
(SS 2333, 2352, 2343, 2353)

D	D1	T	L	Weight Kg	1) Max all. Pressure	
					Z = 0.7	Z = 0.9
30	25	1.5	15	0.02	115	148
	20	1.5	30	0.03	115	148
33	28	1.5	15	0.02	104	134
	23	1.5	30	0.03	104	134
43	28	1.5	45	0.1	79	101
44	30	2	42	0.1	115	147
54	44	2	30	0.1	92	119
	30	2	72	0.2	92	119
69	54	2	45	0.1	71	92
	44	2	75	0.2	71	92
79	54	2	75	0.3	62	80
84	54	2	90	0.4	58	74
	44	2	120	0.5	58	74
104	84	2	60	0.3	38	49
	69	2	105	0.5	38	49
	54	2	150	0.6	38	49
129	104	2	75	0.5	31	39
	84	2	135	0.9	31	39
	54	2	225	1.1	31	39
154	129	2	75	0.6	26	33
	104	2	150	1.0	26	33
	84	2	210	1.3	26	33
204	154	2	150	1.4	19	25
	129	2	225	2.0	19	25
	104	2	300	2.4	19	25
205	155	2.5	150	1.8	24	31
	130	2.5	225	2.5	24	31
	105	2.5	300	3.0	24	31
254	204	2	150	1.8	15	20
	154	2	300	3.2	15	20
	129	2	375	3.6	15	20

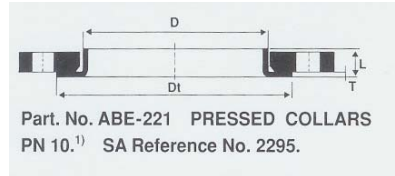
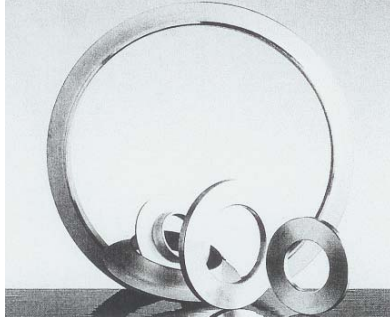


NATAL STAINLESS STEEL

D	D1	T	L	Weight Kg	1) Max all. Pressure	
					Z = 0.7	Z = 0.9
255	205	2.5	150	2.3	19	25
	155	2.5	300	4.0	19	25
	130	2.5	375	4.5	19	25
304	254	2	150	2.1	13	16
	204	2	300	3.9	13	16
	154	2	450	5.2	13	16
306	256	3	150	3.3	19	25
	206	3	300	6.0	19	25
	156	3	450	8.1	19	25
356	306	3	150	3.7	16	21
	256	3	300	6.8	16	21
	206	3	450	9.5	16	21
406	356	3	150	4.3	14	19
	306	3	300	8.0	14	19
	256	3	450	11.3	14	19
456	406	3	156	4.9	13	16
	356	3	300	9.2	13	16
	306	3	450	12.9	13	16
506	456	3	150	5.4	12	15
	406	3	300	10.2	12	15
	356	3	450	14.4	12	15
608	508	4	300	16.8	13	16
	458	4	450	24.0	13	16
	408	4	600	30.6	13	16
708	608	4	300	19.8	11	14
	508	4	600	36.6	11	14
	458	4	750	44.0	11	14
808	708	4	300	23.0	10	12
	608	4	600	43.0	10	12
	508	4	900	59.9	10	12

1) *Design pressure in Bar at temperature +20°C using material AISI 316, at other temp. and grades.
z = 0.7 no radiography, z = 0.9 100% radiography*

WELDRINGS, COLLARS ISO DIM.



DN	D	Dr +/- 1.0	L +/- 1.6	T	Weight Kg
15	21.3 +/- 0.5	45	7	2.5 +/- 0.12	0.04
20	26.9 +/- 0.5	58	8	3 +/- 0.12	0.06
25	33.7 +/- 0.5	68	10	3 +/- 0.12	0.08
32	42.4 +/- 0.5	78	12	3 +/- 0.12	0.11
40	48.3 +/- 0.5	88	15	3 +/- 0.12	0.15
50	60.3 +/- 0.6	102	20	3 +/- 0.12	0.19
65	76.1 +/- 0.7	122	20	3 +/- 0.12	0.26
80	88.9 +/- 0.9	139	25	3 +/- 0.12	0.34
100	114.3 +/- 1.1	158	25	3 +/- 0.12	0.40
100	114.3 +/- 1.1	158	25	4 +/- 0.20	0.53
125	139.7 +/- 1.4	188	25	3 +/- 0.12	0.51
125	139.7 +/- 1.4	188	25	4 +/- 0.20	0.68
150	168.3 +/- 1.7	213	25	3 +/- 0.12	0.58
150	168.3 +/- 1.7	213	25	4 +/- 0.20	0.80

Flat gasket surface without grooves. The external diameter O_t of the gasket surface matches loose flanges DIN 2642.
Limits of pressure and temperature according to SS-1233.

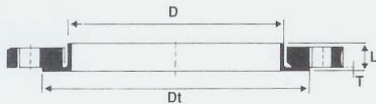
Pipe		Weldring For loose flange PN10				Flange SS-2049	
DN	D	Di	Dt	T	Weight - kg	I.D. Ø	Bevel
15	21.3	21.8	45	6	0.08	20	3
20	26.9	27.4	58	6	0.10	30	3
25	33.7	34.2	68	6	0.14	36	4
32	42.4	43.0	78	6	0.17	46	4
40	48.3	48.8	88	6	0.21	54	4
50	60.3	60.8	102	8	0.37	65	5
65	76.1	76.6	122	8	0.55	81	5
80	88.9	89.4	138	10	0.68	94	8
100	114.3	115.5	158	10	0.73	119	5
125	139.7	140.7	188	10	0.95	145	5
150	168.3	169.3	212	10	1.25	173	5
200	219.1	220.1	268	10	1.50	225	5
250	273.0	275.0	320	12	2.12	279	5
300	323.9	326.0	370	12	2.36	329	5
350	355.6	357.6	430	12	4.25	362	5



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400	406.4	408.4	482	12	5.00	413	5
450	457.2	459.2	532	12	5.45	465	5
500	508.0	510.0	585	15	7.80	517	6
600	609.6	612.0	685	15	8.90	618	7

Part. No. ABE-231 ANGLE COLLARS
SA Reference No. 2293



Machine gasket surface with external diameter Dt matching loose flanges DIN 2642

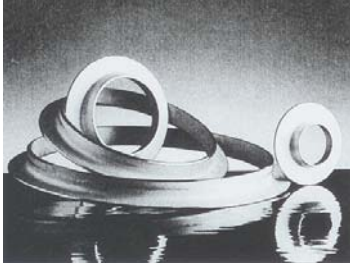
DN	D	Dt	L	T	Weight kg
200	219.1 +/- 2	271 +/- 2	28 +/- 2	4 +/- 0.3	1.3
250	273.0 +/- 3	325 +/- 3	28 +/- 2	4 +/- 0.3	1.6
300	323.9 +/- 3	376 +/- 3	28 +/- 2	4 +/- 0.3	1.9
350	355.6 +/- 3.5	410 +/- 3.5	28 +/- 2	4 +/- 0.3	2.1
400	406.4 +/- 4	480 +/- 4	38 +/- 2	4 +/- 0.4	3.1
450	457.2 +/- 4.5	530 +/- 4	38 +/- 2	4 +/- 0.4	3.5
500	508.0 +/- 5	590 +/- 4	48 +/- 2	5 +/- 0.4	6.0
600	609.6 +/- 6	690 +/- 5	48 +/- 2	5 +/- 0.4	7.2

1) Approved for PN 10/PN 16 used with corresponding flange. Approval for DN 100-150 valid only when T=4 mm.



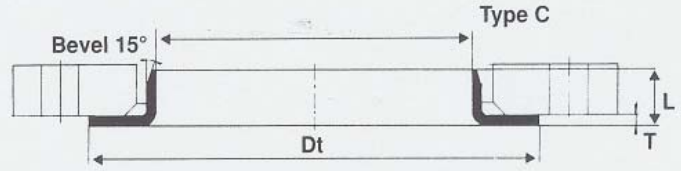
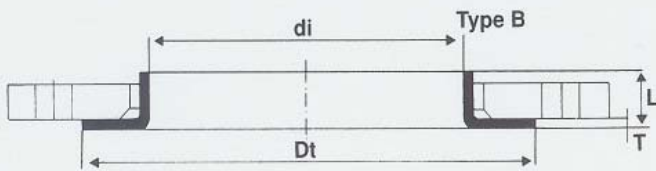
NATAL STAINLESS STEEL

COLLARS I.D. DIM.



PART.NO. ABE-121
 PART.NO. ABE-122
 PART.NO. ABE-132

Standard grades: AISI 304, 304L, 316, 316L (SS 2333, 2343, 2352, 2353)



DN 15–80 are Type B and DN 100–150 Type C with bevelled collar according to above sketch.

Part. No.ABE-121. PRESSED COLLARS Typ B.

1) PN 10. SA Reference No. 2285.

Approval for DN 80-150 is only valid when T=4 mm.

DN	di	Dt +/- 1.0	L +/- 1.6	T	Weight kg
15	16 +/- 0.5	45	9	2 +/- 0.12	0.03
20	21 +/- 0.5	58	10	3 +/- 0.12	0.06
25	26 +/- 0.5	68	12	3 +/- 0.12	0.09
32	32 +/- 0.5	80	14	3 +/- 0.12	0.12
35	35 +/- 0.5	80	14	3 +/- 0.12	0.12
40	40.5 +/- 0.5	88	17	3 +/- 0.12	0.16
50	50 +/- 0.5	103	18	3 +/- 0.12	0.19
65	65 +/- 0.7	122	20	3 +/- 0.12	0.28
75	75 +/- 0.8	139	23	3 +/- 0.12	0.35
80	80 +/- 0.8	139	24	3 +/- 0.12	0.34
80	80 +/- 0.8	139	24	4 +/- 0.20	0.45
100	100 +/- 1.0	159	27	3 +/- 0.12	0.41
100	100 +/- 1.0	159	27	4 +/- 0.20	0.55
125	125 +/- 1.3	189	27	3 +/- 0.12	0.55
125	125 +/- 1.3	189	27	4 +/- 0.20	0.73
150	150 +/- 1.5	214	27	3 +/- 0.12	0.66
150	150 +/- 1.5	214	27	4 +/- 0.20	0.88

Flat gasket surface without grooves. The external diameter Dt of the gasket surface matches loose flanges DIN 2642.



NATAL STAINLESS STEEL

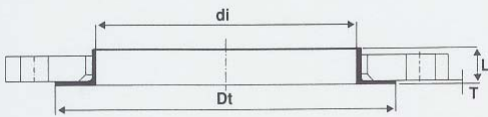
Part. No. ABE-122. PRESSED COLLARS Typ B, C.

1) PN 10. SA Reference No. 2285.
Approval for DN 80-150 is only valid when T=4 mm.

DN	di	Dt +/- 1.0	L +/- 1.6	T	Weight kg
15	16 +/- 0.5	45	9	2 +/- 0.12	0.03
20	21 +/- 0.5	58	10	3 +/- 0.12	0.06
25	26 +/- 0.5	68	12	3 +/- 0.12	0.09
32	32 +/- 0.5	80	14	3 +/- 0.12	0.12
35	35 +/- 0.5	80	14	3 +/- 0.12	0.12
40	40.5 +/- 0.5	88	17	3 +/- 0.12	0.16
50	50 +/- 0.5	103	18	3 +/- 0.12	0.19
65	65 +/- 0.7	122	20	4 +/- 0.12	0.37
75	75 +/- 0.8	139	23	4 +/- 0.20	0.45
80	80 +/- 0.8	139	24	4 +/- 0.20	0.45
100	100 +/- 1.0	159	27	5 +/- 0.50	0.75
125	125 +/- 1.3	189	27	5 +/- 0.50	1.00
150	150 +/- 1.5	212	27	5 +/- 0.50	1.10

Flat gasket surface without grooves. The external diameter Dt of the gasket surface matches loose flanges DIN 2656.

Part. No. ABE-132. ANGLE COLLARS.
SA Reference No. 2293.



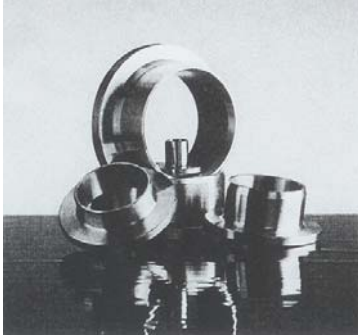
Machined gasket surface with external diameter Dt matching loose flanges DIN 2642.

DN	di	Dt	L	T	Weight kg
200	200 +/- 2	200 +/- 2	28 +/- 2	4 +/- 0.3	1.2
250	250 +/- 2.5	310 +/- 2.5	28 +/- 2	4 +/- 0.3	1.5
300	300 +/- 3	360 +/- 3	28 +/- 2	4 +/- 0.3	1.8
350	350 +/- 3.5	410 +/- 3.5	28 +/- 2	4 +/- 0.3	2.0
400	400 +/- 4	480 +/- 4	38 +/- 2	4 +/- 0.4	3.1
450	450 +/- 0.5	530 +/- 4	38 +/- 2	4 +/- 0.4	3.5
500	500 +/- 5	590 +/- 4	48 +/- 2	5 +/- 0.4	5.9
600	600 +/- 6	690 +/- 5	48 +/- 2	5 +/- 0.4	7.1

1) Approved for PN 10/PN 16 used with corresponding flange.
Limits of pressure and temperature according to SS-1233.



WELDRINGS WITH NECK ISO DIM.



PN 10 Part.No. ABE-251 PN 16 Part.No. ABE-252
 SA Reference No. 7569 SA Reference No. 9238
 PN 25 Part.No. ABE-253 PN 40 Part.No. ABE-254
 SA Reference No. 7571 SA Reference No. 9240

Standard grades: AISI 304, 304L, 316, 316L
 (SS 2333, 2352, 2343, 2353)

DN	D	1) ABE-251 PN 10 183°C						FLANGE		
		Dt	L	h	t	T1	Weight kg	I.D.	f	Type
15 to 250	USE TABLE PN 16									
300	323.9	370	68	12	3.6	7	6.0	329	6	D I N 2 6 4 2
350	355.6	430	68	12	3.6	9	6.8	362	6	
400	406.4	482	72	12	3.6	10	11.8	413	6	
450	457.2	532	72	12	4.0	9	13.1	485	6	
500	508.0	585	75	15	4.0	9	15.3	517	6	
600	609.6	685	80	15	5.0	10	23.3	618	7	
700	711.2	800	80	20	8.0	10	31.0	719	7	
800	812.8	905	90	20	8.0	12	41.5	824	7	
900	914.4	1005	95	20	8.0	15	53.5	925	7	
1000	1016.0	1110	95	22	8.0	15	62.7	1027	8	
1200	1219.2	1330	115	22	10.0	18	100.0	1232	8	

DN	D	1) ABE-252 PN 16 203°C						FLANGE		
		Dt	L	h	t	T1	Weight kg	I.D.	f	Type
15 to 32	USE TABLE PN 40									
40	48.3	88	42	6	2.0	3	0.3	54	3	S S G 1 8 2 OR S S 2 0 5 0
50	60.3	102	45	8	2.0	3	0.5	65	3	
65	76.1	122	45	10	2.6	3	0.8	81	4	
80	88.9	138	50	10	2.6	4	1.0	94	4	
100	114.3	158	52	10	3.2	4	1.3	119	4	
125	139.7	188	55	10	3.2	5	1.7	145	5	
150	168.3	212	55	10	4.0	6	2.3	173	5	
200	219.1	268	62	11	4.0	7	3.5	225	5	
250	273.0	320	70	12	5.0	8	5.1	279	5	
300	323.9	378	78	12	5.0	10	7.8	329	5	
350	355.6	438	82	15	5.0	10	12.0	362	6	
400	406.4	490	85	15	6.3	12	13.5	413	6	
450	457.2	550	85	15	6.3	12	17.0	465	6	
500	508.0	610	90	18	8.0	12	21.0	517	6	
600	609.6	725	95	18	8.0	14	29.0	618	7	
700	711.2	745	100	20	10.0	14	39.0	719	7	
800	812.8	900	105	22	12.0	16	49.0	824	7	



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DN	D	1) ABE-251 PN 10 183°C						FLANGE			
		Dt	L	h	t	T1	Weight kg	I.D.	f	Type	
15 to 100	USE TABLE PN 40										D I N 2 6 5 5
125	139.7	188	68	12	3.6	6	2.7	145	6		
150	168.3	212	75	12	4.0	7	3.5	173	6		
200	219.1	278	80	15	5.0	10	6.2	225	8		
250	273.0	335	88	17	6.3	10	8.8	279	8		
300	323.9	395	92	17	8.0	11	13.2	329	8		
350	355.6	450	100	18	8.0	13	19.5	362	8		
400	406.4	505	110	18	8.0	14	23.8	413	8		
450	457.2	555	120	20	8.0	15	31.0	465	8		
500	508.0	615	125	22	10.0	17	42.0	517	8		
600	609.6	720	125	24	12.0	18	55.0	618	8		
700	711.2	820	125	30	15.0	20	74.0	719	8		
800	812.8	930	155	34	15.0	22	102.0	824	8		

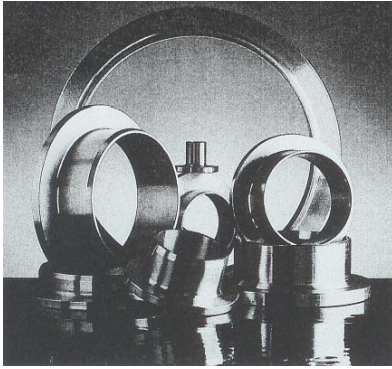
DN	D	1) ABE-251 PN 10 183°C						FLANGE		
		Dt	L	h	t	T1	Weight kg	I.D.	f	Type
15	21.3	45	38	6	2.6	3.2	0.1	24	5	D I N 2 6 5 6
20	26.9	58	40	6	2.6	3.2	0.2	30	5	
25	33.7	68	40	7	2.6	3.5	0.3	36	6	
32	42.4	78	42	8	2.6	3.6	0.4	46	6	
40	48.3	88	45	8	2.6	3.6	0.5	54	6	
50	60.3	102	48	10	3.2	4.0	0.7	65	6	
65	76.1	122	52	11	3.2	5.0	1.1	81	6	
80	88.9	138	58	12	4.0	6.0	1.6	94	6	
100	114.3	162	65	14	4.0	7.0	2.4	119	6	
125	139.7	188	68	16	4.0	7.0	3.2	145	6	
150	168.3	218	75	18	4.0	8.0	4.6	173	6	
200	219.1	285	88	20	5.0	11.0	8.7	225	8	
250	273.0	345	105	22	6.0	13.0	15.0	279	8	
300	323.9	410	115	24	8.0	16.0	24.0	329	8	
350	355.6	465	125	24	8.0	16.0	32.0	362	8	
400	406.4	535	135	24	10.0	18.0	42.0	413	8	

1) The calculation is based on material 304L (55 2352), margin against external forces is within ξ till = 1,1 x ξ calculation.



NATAL STAINLESS STEEL

WELDRINGS WITH NECK I.D. DIM

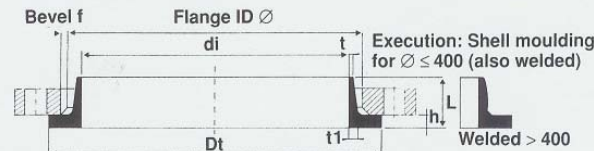


PN 10 Part.No. ABE-151
SA Reference No. 7562

PN 16 Part.No. ABE-152
SA Reference No. 7565

PN 25 Part.No. ABE-153
SA Reference No. 7568

PN 40 Part.No. ABE-154
SA Reference No. 9237



Standard grades: AISI 304, 304L, 316, 316L
(SS 2333, 2352, 2343, 2353)

DN	Int. Ø di	1) ABE-151 PN 10 183°C						FLANGE		
		Dt	L	h	t	t1	Weight kg	Di	f	Type
20 to 250	USE TABLE PN 16									
300	300	370	55	12	3	8	5.3	322	5	D I N 2 6 4 2
350	350	430	55	12	3	8.5	6.8	372	6	
400	400	482	65	12	3.5	9.5	8.8	425	6	
450	450	532	70	15	3.5	8	12.1	471	6	
500	500	585	75	15	3.5	9	14.9	525	6	
600	600	685	80	15	4	10	19.2	626	7	
700	700	800	90	15	4.5	12	28.6	730	7	
800	800	905	100	15	5	13	37.3	832	7	
900	900	1005	110	18	6	15	53.0	940	7	
1000	1000	1110	120	18	8	18	71.0	1046	7	
1200	1200	1330	130	22	10	18	104.0	1246	8	

DN	Di	1) ABE-152 PN 16 203°C						FLANGE		
		Dt	L	h	t	t1	Weight kg	Di	f	Type
20	20	58	35	6	2	2	0.2	30	5	S S G 1 3 8 3 or S S 2 0 5 0
25	25	68	35	6	2	2	0.2	36	6	
32	32	78	35	6	2	2	0.3	46	6	
40	40	88	35	6	2	2	0.3	48	6	
50	50	102	35	8	2	2	0.5	60	6	
65	65	122	35	8	2.5	2.5	0.6	81	5	
65	65	122	35	8	2.5	2.5	0.7	81	5	
80	80	133	35	10	3	3	0.9	90	6	
100	100	158	35	10	3	4	1.2	113	6	
125	125	184	35	10	3	5	1.7	140	6	
150	150	212	35	10	3	5	1.9	165	6	
200	200	268	65	10	3	7	3.6	219	8	
250	250	320	65	12	3.5	8	4.8	271	8	
300	300	370	65	12	4	10	6.5	324	8	
350	350	430	70	15	4.5	11	9.6	376	8	
400	400	482	80	15	5	12	12.3	428	8	
450	450	532	85	15	4.5	12	16.3	482	8	
500	500	585	95	18	5	12	21.2	530	8	



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600	600	685	100	18	6	14	29.6	638	8
700	700	795	110	20	10	14	40.0	738	8
800	800	900	110	22	12	16	50.5	840	10
900	900	1000	115	24	12	18	65.5	946	10
1000	1000	1115	130	32	15	18	93.0	1046	10
1200	1200	1330	130	32	15	22	130.5	1254	12

DN	di	1) ABE-153 PN 25 225°C						FLANGE		
		Dt	L	h	t	t1	Weight kg	Di	f	Type
20 to 150	USE TABLE PN 40									
200	200	278	65	12	5	9.5	5.5	222	8	D I N 2 6 5 5
250	250	335	75	15.5	6.5	12	8.6	279	8	
300	300	390	80	16	7.5	12.5	11.6	329	8	
350	350	450	85	18	8.5	14.5	17.2	380	8	
400	400	505	95	19	10	16	23.0	432	8	
450	450	555	105	20	8	15	27.3	485	8	
500	500	615	115	22	8	15	34.6	540	8	
600	600	720	115	24	12	18	51.0	645	10	
700	700	820	115	30	15	20	65.0	745	10	
800	800	930	115	34	15	22	85.0	852	10	
900	900	1030	130	40	18	24	114.0	958	10	

DN	Di	1) ABE-154 PN 40 252°C						FLANGE		
		Dt	L	h	t	t1	Weight kg	Di	f	Type
20	20	58	35	6	2.5	3.0	0.2	30	5	D I N 2 6 5 6
25	25	68	35	6	2.5	3.0	0.2	36	6	
32	32	78	40	6	2.5	3.5	0.3	46	6	
40	40	88	45	8	2.5	3.5	0.4	52	6	
50	50	102	45	8	2.5	4.0	0.6	64	6	
65	65	122	45	10	2.5	4.5	0.8	81	6	
65	70	122	45	10	2.5	4.5	1.0	81	6	
80	80	133	55	10	2.5	4.5	1.2	94	6	
100	100	158	55	10	3.0	5.0	1.6	116	6	
125	125	184	55	12	3.5	6.0	2.4	140	6	
150	150	212	65	12	4.0	7.0	3.3	168	6	

The calculation is based on material 304L (55 2352), margin against external forces is within § till = 1,1 x § calculation.