



CORROSION RESISTANT MATERIALS AND SOLUTIONS

PRODUCT GUIDE

www.nde.co.za

THE NDE SOLUTION – QUALITY • INTEGRITY • FAIR PRICING • SERVICE • ACCESSIBILITY • EXPERTISE

Most of the products listed here are carried in stock in branches depending on local needs, or are available on fast turnaround.

Specialist products not listed here are sourced for customers from NDE's many suppliers worldwide.

BILLING MASS: STAINLESS STEEL PLATE / SHEET

Mass of plate/sheet (kg) for size (mm x mm) - use tables as a guideline only

Metric Size - 304/316/3CR12 Hot Rolled Plate

Gauge	Plate Size				Mass/m ²
	2 500 x 1 250	3 000 x 1 500	6 000 x 1 500	6 000 x 2 000*	
3.00**	76.88	110.70	221.40		24.60
4.50	115.31	166.05	332.10	442.80	36.90
6.00	153.75	221.40	442.80	590.40	49.20
8.00	205.00	295.20	590.40	787.20	65.60
10.00	256.25	369.00	738.00	984.00	82.00
12.00	307.50	442.80	885.60	1180.80	98.40
16.00	410.00	590.40	1180.80	1574.40	131.20
20.00	512.50	738.00	1476.00	1968.00	164.00
25.00		922.50	1845.00	2460.00	205.00
30.00		1107.00	2214.00	2952.00	246.00
40.00		1476.00	2952.00		328.00
50.00		1845.00	3690.00		410.00

*6 000 x 2 000 Plate is not available in 3CR12 **Available in 3CR12 only

Metric Size - 304/316 Cold Rolled Sheet

Gauge	Sheet Size			Mass/m ²
	2 500 x 1 250	3 000 x 1 500	6 000 x 2 000	
0.50	12.61			4.03
0.70	17.65			5.65
0.90	22.70			7.26
1.20	30.26	43.58		9.68
1.50	37.83	54.47		12.11
2.00	50.44	72.63		16.14
2.50	63.05	90.79		20.18
3.00	75.66	108.95	290.70	24.21

Metric Size - 430/3CR12 Cold Rolled Sheet

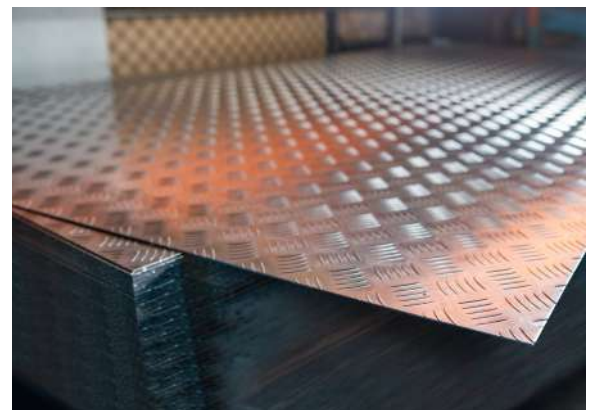
Gauge	Sheet Size			Mass/m ²
	2 500 x 1 250	3 000 x 1 500	6 000 x 2 000	
0.50	12.50			4.00
0.70	17.50			5.60
0.90	22.50			7.20
1.00	25.00			8.00
1.20	30.00			9.60
1.50	37.50	54.00*		12.00
2.00	50.00	72.00*		16.00
2.50*	62.50	90.00		20.00

*Available in 3CR12 only

ALUMINIUM SHEET

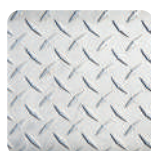
Grade 1050 H14

Thickness	2 500 x 1 250 kg/sheet	3 000 x 1 500 kg/sheet
0.9	7.62	10.98
1.2	10.16	14.63
1.5	12.70	18.29
1.6	13.55	19.51
2.0	16.94	24.39
2.5	21.17	30.49
3.0	25.41	36.59
4.5	38.11	54.88
6.0	50.81	73.17



ALUMINIUM TREADBRIGHT

Thickness	2 438 X 1 219 kg/sheet
1.47	12.58
2.03	17.12
3.17	26.45



Treadbright



Tread Plate

ALUMINIUM TREAD PLATE

Thickness	2 500 x 1 250 kg/sheet	3 000 x 1 500 kg/sheet
1.5	15.20	21.89
2.0	19.44	27.99
3.0	27.91	40.19
4.5	40.61	58.48
6.0	53.31	76.77

STAINLESS STEEL SECTIONS

As stainless steel is a manufacturing process, there will be variations in the kg/m. The tables below are supplied as a guide to assist with estimating the quantity of stainless steel required.

Round Bar

Formula used to calculate kg/m is $D \times D \times 0,00631$

Grades 303, 304, 316, 431/EN57**

mm	kg/m
3	0.06
4	0.10
5	0.16
5.2	0.17 *
6	0.23
8	0.40
8.9	0.50 *
10	0.63
12	0.91
12.7	1.02 *
14	1.24*
16	1.62
20	2.52
22	3.05 *
25	3.94
30	5.68
32	6.46 *
35	7.73
36	8.18 *
38	9.11 *
40	10.10
45	12.78
50	15.78
50.8	16.28 *
55	19.09
60	22.72
65	26.66
70	30.92
75	35.49
80	40.38
85	45.59
90	51.11
95	56.95
100	63.10
105	69.57
110	76.35
115	83.45 *
120	90.86
130	106.64 *

Larger sizes are available on request

KEY:

*only stocked in selected branches
 **not all branches stock the same grade
 All products listed can be sourced from another branch. Please enquire at your local branch

Other finishes available on request

Angle Bar

Formula used to calculate kg/m is $S + S \times t \times 0,00804$

Grades 304, 316**

Dimension (mm)	kg/m
25 x 25 x 3	1.21
25 x 25 x 5	2.01 *
30 x 30 x 3	1.45
30 x 30 x 5	2.41
40 x 40 x 3	1.93 *
40 x 40 x 5	3.22
50 x 50 x 3	2.41
50 x 50 x 5	4.02
25 x 25 x 6	2.41 *
30 x 30 x 6	2.89 *
40 x 40 x 6	3.86
50 x 50 x 6	4.82
65 x 65 x 6	6.27 *
75 x 75 x 6	7.24

Square Bar

Formula used to calculate kg/m is $S \times S \times 0,00804$

Grades 304, 316**

mm across the flat	kg/m
6	0.29
8	0.51 *
10	0.80 *
12	1.16 *
16	2.06 *
20	3.22 *
25	5.03 *
30	7.24 *
38	11.61 *
40	12.86 *
50	20.10 *

Flat Bar

Formula used to calculate kg/m is $W \times t \times 0,00804$

Grades 304, 316**

Dimension (mm)	kg/m
20 x 3	0.48 *
25 x 3	0.60
25 x 5	1.01
25 x 6	1.21
25 x 10	2.01 *
30 x 3	0.72
30 x 5	1.21
30 x 6	1.45
40 x 3	0.96
40 x 5	1.61
40 x 6	1.93
40 x 8	2.57
40 x 10	3.22
50 x 3	1.21
50 x 5	2.01
50 x 6	2.41
50 x 8	3.22
50 x 10	4.02
60 x 6	2.89 *
75 x 6	3.62
100 x 6	4.82
100 x 10	8.04 *






Hex Bar

Formula used to calculate kg/m is $H \times H \times 0,006963$

Grades 303, 316**

mm across the flat	kg/m
8	0.45 *
13	1.18 *
17	2.01 *
19	2.51 *
22	3.37 *
24	4.01 *
27	5.08 *
32	7.13 *
36	9.02 *
46	14.73 *

Formulae for Theoretical Mass Calculation

Section	Formula x Spec	Stainless Steel
 Round	$D \times D \times x$	0.00631
 Angle	$S + S \times t \times x$	0.00804
 Flat	$W \times t \times x$	0.00804
 Square	$S \times S \times x$	0.00804
 Hexagon	$H \times H \times x$	0.006963



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STAINLESS STEEL PIPE - WELDED AND SEAMLESS DIMENSIONS AND WEIGHTS

ASTM A312 (Austenitic) /ASTM 790 (Duplex)

Nominal Pipe Size		Outside Diameter (mm)	Wall Thickness (WT)					
NB	Inches		SCH 10S		SCH 40S		SCH 80S	
			WT (mm)	Weight (kg/m)	WT (mm)	Weight (kg/m)	WT (mm)	Weight (kg/m)
8	¼	13.7	1.65	0.50	2.24	0.65	3.02	0.81
10	¾	17.1	1.65	0.64	2.31	0.86	3.20	1.12
15	½	21.3	2.11	1.02	2.77	1.29	3.73	1.65
20	¾	26.7	2.11	1.30	2.87	1.71	3.91	2.23
25	1	33.4	2.77	2.13	3.38	2.55	4.55	3.29
32	1¼	42.2	2.77	2.74	3.56	3.45	4.85	4.54
40	1½	48.3	2.77	3.16	3.68	4.12	5.08	5.51
50	2	60.3	2.77	4.00	3.91	5.54	5.54	7.62
65	2½	73.0	3.05	5.36	5.16	8.79	7.01	11.62
80	3	88.9	3.05	6.57	5.49	11.49	7.62	15.55
100	4	114.3	3.05	8.52	6.02	16.36	8.56	22.72
125	5	141.3	3.40	11.77	6.55	22.15	9.53	31.52
150	6	168.3	3.40	14.07	7.11	28.76	10.97	43.31
200	8	219.1	3.76	20.32	8.18	43.30	12.70	65.79
250	10	273.1	4.19	28.28	9.27	61.38	12.70	82.99
300	12	323.9	4.57	36.62	9.53	75.19	12.70	99.19
350	14	355.6	4.78	42.09	9.53	82.78	12.70	109.31
400	16	406.4	4.78	48.19	9.53	94.93	12.70	125.50
450	18	457	4.78	54.28	9.53	107.08	12.70	141.69
500	20	508	5.54	69.84	9.53	119.24	12.70	157.89
600	24	609.6	6.35	96.15	9.53	143.54	12.70	190.27

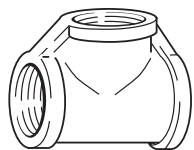
STAINLESS STEEL BSP SCREWED FITTINGS

Grade 316

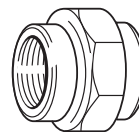
150 lb rating



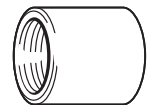
90° Elbow



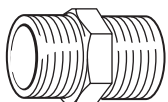
Equal Tee



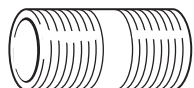
Union



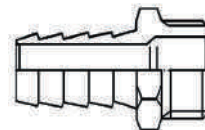
Socket



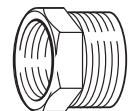
Hexagon Nipple



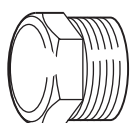
Barrel Nipple



Swage/Hose Nipple



Reducing Bush



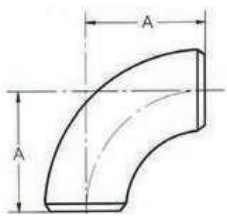
Hexagon Head Plug



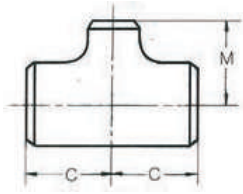
Square Head Plug

For the supply of 3 000 lb screwed and socket fittings, please consult our sales team at the NDE branch nearest to you.

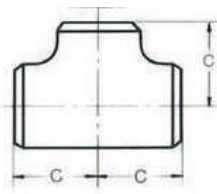
DIMENSIONS OF STAINLESS STEEL BUTTWELD FITTINGS



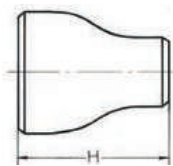
**90° Elbows
Long Radius (LR)**



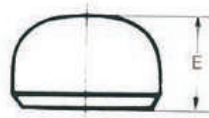
Reducing Tees



Equal Tees



Eccentric and Concentric Reducers



Caps

Nominal Pipe Size		Outside Diameter (OD)	90° Elbows Long Radius	Equal Tees	Caps	Reducers Eccentric/ Concentric
mm	inches		Centre to face (A)	Centre to end (C)	Length (E)	Length (H)
15	½	21.34	38.1	25.4	25.4	50.8
20	¾	26.67	28.6	28.6	25.4	50.8
25	1	33.40	38.1	38.1	38.1	50.8
32	1¼	42.16	47.6	47.6	38.1	50.8
40	1½	48.26	57.2	57.2	38.1	63.5
50	2	60.32	76.2	63.5	38.1	76.2
65	2½	73.02	95.2	76.2	38.1	88.9
80	3	88.90	114.0	85.7	50.8	88.9
100	4	114.30	152.0	104.8	63.5	101.6
125	5	141.30	191.0	123.8	76.2	127.0
150	6	168.27	228.6	142.8	88.9	140.0
200	8	219.07	304.8	177.8	101.6	152.0
250	10	273.05	381.0	215.9	127.0	178.0
300	12	323.85	457.2	254.0	152.4	203.0
350	14	355.60	533.4	280.0	165.1	330.0
400	16	406.40	609.6	304.8	177.8	356.0
450	18	457.20	685.8	343.0	203.2	381.0

See pipe schedule for wall thickness

For Reducing Tee sizes, please enquire at your branch

Use this table as a guideline only

STAINLESS STEEL BALL VALVES

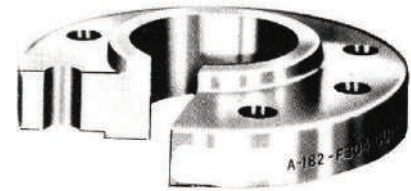


One Piece

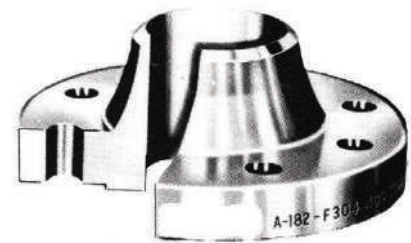


Three Piece

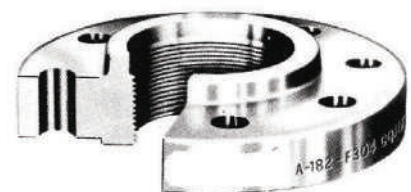
STAINLESS STEEL FLANGES



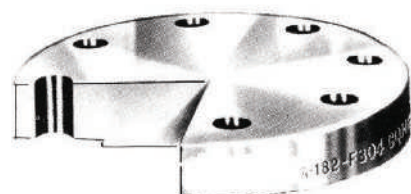
Slip-on



Welding Neck



Threaded



Blind

For the supply of various other types and grades of flanges, please consult our sales team at the NDE branch nearest to you.

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STAINLESS STEEL ORNAMENTAL TUBING

Grades 304, 316**

Round Tubing

Size (mm)	kg/m
12.7 x 1.2	0.35 *
12.7 x 1.5	0.42
15.9 x 1.2	0.44 *
15.9 x 1.5	0.54
19.05 x 1.2	0.54 *
19.05 x 1.5	0.66
22.2 x 1.2	0.63 *
22.2 x 1.5	0.78 *
25.4 x 1.2	0.73 *
25.4 x 1.5	0.90
25.4 x 2.0	1.17 *
31.8 x 1.2	0.92 *
31.8 x 1.5	1.14
31.8 x 2.0	1.50 *
38.1 x 1.2	1.11 *
38.1 x 1.5	1.38 *
38.1 x 2.0	1.81 *
41.2 x 1.2	1.20 *
41.2 x 1.5	1.49 *
44.5 x 1.5	1.62 *
50.8 x 1.2	1.49 *
50.8 x 1.5	1.86
50.8 x 2.0	2.45 *
60.3 x 1.5	1.49 *
63.5 x 1.2	1.88 *
63.5 x 1.5	2.33
63.5 x 2.0	3.09 *
76.2 x 1.2	2.26 *
76.2 x 1.5	2.81
76.2 x 2.0	3.72 *
88.9 x 1.5	3.29 *
101.6 x 1.5	3.77
101.6 x 2.0	5.00 *
Selected finishes available	

Square Tubing

Size (mm)	kg/m
15 x 15 x 1.5	0.66 *
20 x 20 x 1.2	0.73 *
20 x 20 x 1.5	0.90
25 x 25 x 1.2	0.92 *
25 x 25 x 1.5	1.14
25 x 25 x 2.0	1.50
30 x 30 x 1.2	1.11 *
30 x 30 x 1.5	1.38
30 x 30 x 2.0	1.81 *
40 x 40 x 1.2	1.49 *
40 x 40 x 1.5	1.86
40 x 40 x 2.0	2.45
50 x 50 x 1.5	2.33
50 x 50 x 2.0	3.09
60 x 60 x 1.5	2.81 *
60 x 60 x 2.0	3.72 *
60 x 60 x 3.0	5.51 *
80 x 80 x 2.0	5.00
100 x 100 x 2.0	6.28
Std Finish 180 Grit	

Rectangular Tubing

Size (mm)	kg/m
40 x 20 x 1.2	1.11 *
40 x 20 x 1.5	1.38
50 x 25 x 1.5	1.74
50 x 30 x 1.5	1.86 *
60 x 40 x 1.5	2.33
60 x 40 x 2.0	3.09
80 x 40 x 2.0	3.72
100 x 50 x 2.0	4.69
Std Finish 180 Grit	



KEY: *only stocked in selected branches **not all branches stock the same grade
Please enquire at your local branch. All products listed can be sourced from another branch
Other finishes available on request



NDE'S FAST AND CONVENIENT BALUSTRADE SOLUTIONS

NDE branches countrywide have a large selection of stainless steel balustrade materials in stock. Our customers can expect a quick turnaround and a hassle-free experience.

- Quality materials for all indoor and outdoor balustrade applications
- Appropriate grades and finishes for balustrade projects of all sizes for installers, developers and architects
- Reliability of supply from comprehensive off-the-shelf stockholdings countrywide
- Technical advice on appropriate materials, site requirements and South African National Standards (SANS 10400) regulations

NDE'S BALUSTRADE SHOWROOM AND ONE-STOP SERVICE IN GAUTENG

NDE's specialised Balustrade Showroom in Pretoria serves all of Gauteng with a large choice of balustrade materials and components.

It's so easy! Customers simply supply the information – preferably a drawing of their proposed project – and specify materials or visit NDE's showroom to choose from the wide range on display. NDE does the rest: supplying all the materials, ready for installation.



COVER PLATES



POST TOPS

Rectangular Post Tops are available on request

Round Tubing

6m Lengths; Polished to 180 Grit

Diameter	Wall Thickness (mm)		
	1,2	1,5	2
15,9	✓	✓	
19,05	✓	✓	
25,4	✓	✓	✓
31,8	✓	✓	✓
38,1	✓	✓	✓
44,44		✓	✓
50,8	✓	✓	✓
63,5	✓	✓	✓
76,2	✓	✓	✓
101,6		✓	✓



BASE PLATES



ROUND PIN CONNECTORS

Square Tubing – detailed under Ornamental Tubing



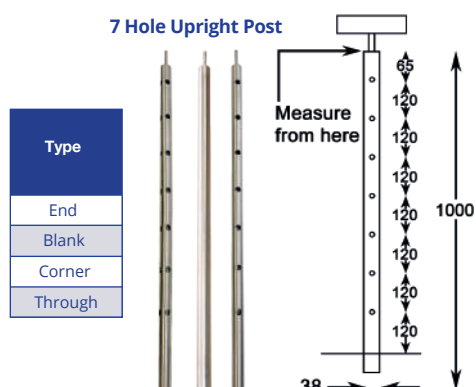
HANDRAIL BRACKETS



FRAMELESS GLASS FITTINGS

Upright Posts

All types available in various diameters



SPIGOTS



GLASS CLAMPS



90° WELD ON BENDS



END CAPS

Square and Rectangular Posts as well as Angle Posts are available on request

HYGIENIC TUBING AND FITTINGS

TUBES

DIN Metric

Grades 304L, 316L
6M Lengths
Long Weld Bead Rolled
Polished

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

Imperial

Grades 304L, 316L
6M Lengths
Long Weld Bead Rolled
Polished

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



FITTINGS



PIPE CLAMP WITH STUB



C-SPANNER



TEE



REDUCER



BEND



UNION - WELD ON



CLAMP UNION



NON-RETURN VALVE



ACTUATOR



BUTTERFLY VALVE - WELD ON



SPRAY BALL



BLANK NUT WITH CHAIN



BULLS EYE INSPECTION GLASS



DOMED END CAP