

RUDGWICK METALS

**RUDGWICK METALS LTD
CHURCH STREET
RUDGWICK
WEST SUSSEX RH12 3ED**

Tel: 01403 822471

Fax: 01403 822311

E-mail: rudgwick@aol.com

Web: www.rudgwickmetals.co.uk

...BRASS.....COPPER.....ALUMINIUM.....BRONZE.....

.....STAINLESS STEEL.....BRIGHT MILD STEEL.....

FOREWORD

We have pleasure in presenting our handbook which we trust you will find useful when ordering your metal requirements.

You will appreciate, regardless of claims made by others, that it is not possible to hold stocks of every size and type of metal manufactured. We believe that by holding the more popular sizes in BRASS, COPPER, ALUMINIUM, PHOSPHOR BRONZE, STAINLESS STEEL and BRIGHT MILD STEEL both in sheet and section we can offer an excellent all-round metal service to industry.

All sizes in this catalogue that are indicated by a weight chart are generally available from stock. We do, however, welcome your enquiries regardless of quantity for any metals or sizes not listed, as your enquiries form the basis of all additions to our stock range. Through the connections we have built up in the trade over many years we can usually obtain your exact requirement with the best possible delivery.

We regret that due to constant fluctuation in basic prices it is not possible to issue a price list but our sales staff are always available to give prices and deliveries over the telephone against your specific requirements. We also run our own transport service and deliveries of stock materials are normally affected within 48 hours.

Your enquiries, regardless of being standards or specials, quantities large or small will give us the opportunity to prove the rest of our claims.

INDEX

ALUMINIUM - Alloy Flat	Page 15
ALUMINIUM - Angle, Channel & Tee Section	Page 15
ALUMINIUM - Round & Square	Page 14
ALUMINIUM - Sheet & Plate	Page 13
ALUMINIUM - Tube	Page 15
ALUMINIUM - Technical Data	Page 20
BRASS - Angle	Page 3
BRASS - Round	Page 4
BRASS - Hexagon	Page 2
BRASS - Round & Square - Imperial Sizes	Page 1
BRASS - Round - Metric Sizes	Page 3
BRASS - Sheet	Page 5
BRASS - Tube	Page 4
CONVERSION TABLES & FACTORS	Page 23
COPPER - Flat Bar	Page 8
COPPER - Round	Page 8
COPPER - Sheet	Page 6
COPPER - Tube, Half Hard & Soft	Page 7
COPPER - Wire	Page 7
COPPER BASED ALLOYS - Technical Data	Page 19
HAMMERED COPPER - Sheets	Page 6
MANGANESE BRONZE - Round	Page 9
MILD STEEL (BRIGHT) - Flat Bar	Page 17
MILD STEEL (BRIGHT) - Hexagon	Page 18
MILD STEEL (BRIGHT) - Square	Page 17
MILD STEEL (BRIGHT) - Round - Imperial and Metric	Page 16
MILD STEEL SHEET - C.R.G.P.	Page 18
PHOSPHOR BRONZE - DRAWN - Round	Page 9
PHOSPHOR BRONZE - Continuous & Chill Cast	Page 10
STAINLESS STEEL - Hexagon	Page 12
STAINLESS STEEL - Round - Imperial and Metric	Page 11
STAINLESS STEEL - Sheet	Page 13
STAINLESS STEEL - Square	Page 12
STAINLESS STEEL - Flat Bar	Page 12
STAINLESS STEEL - Technical Data	Page 21
STAINLESS STEEL - Technical Data	Page 22
SPECIFICATION INFORMATION	Page 24
SPECIFICATION INFORMATION	Page 25
SPECIFICATION INFORMATION	Page 26
SPECIFICATION INFORMATION	Page 27

BRASS – ROUND & SQUARE BSS 2874 CZ121 (BSS 249)

IMPERIAL SIZES

Kilos per foot

ROUND

SIZE	WEIGHT	SIZE	WEIGHT
1/8	.020	1.3/16	1.86
5/32	.032	1.1/4	2.06
3/16	.046	1.5/16	2.28
7/32	.063	1.3/8	2.50
1/4	.082	1.1/2	2.98
9/32	.103	1.5/8	3.48
5/16	.128	1.3/4	4.05
11/32	.154	1.7/8	4.65
3/8	.184	2.	5.28
13/32	.216	2.1/8	5.96
7/16	.250	2.1/4	6.68
1/2	.330	2.3/8	7.44
9/16	.418	2.1/2	8.25
5/8	.517	2.3/4	9.93
11/16	.630	3.	11.84
3/4	.750	3.1/4	13.97
13/16	.871	3.1/2	16.15
7/8	1.02	3.3/4	18.46
15/16	1.16	4.	21.10
1.	1.32	4.1/2	26.67
1.1/16	1.50	5.	32.93
1.1/8	1.67	6.	47.17

SQUARE

SIZE	WEIGHT	SIZE	WEIGHT
1/4	.104	7/8	1.29
5/16	.163	1.	1.68
3/8	.234	1.1/4	2.63
1/2	.420	1.1/2	3.79
5/8	.658	1.3/4	5.14
3/4	.943	2.	6.73

BRASS – HEXAGON BSS2874 CZ121 (BSS 249)

Kilos per foot

A/F SIZES

SIZE	WEIGHT	SIZE	WEIGHT
1/4	.090	3/4	.825
5/16	.141	13/16	.961
3/8	.203	7/8	1.12
7/16	.276	15/16	1.28
1/2	.364	1.	1.46
9/16	.463	1.1/16	1.63
5/8	.567	1.1/8	1.85
11/16	.694	1.1/4	2.28

WHITWORTH SIZES

SIZE A/F	WHIT.	WEIGHT	SIZE A/F	WHIT.	WEIGHT
.338	1/8	.166	1.101	5/8	1.75
.445	3/16	.283	1.201	11/16	2.04
.525	1/4	.398	1.301	3/4	2.44
.601	5/16	.519	1.390	13/16	2.79
.709	3/8	.727	1.479	7/8	3.16
.820	7/16	.970	1.670	1.	4.02
.919	1/2	1.22	1.860	1.1/8	4.99
1.010	9/16	1.47	2.048	1.1/4	6.06

B.A. SIZES

SIZE A/F	B.A. No.	WEIGHT
.193	6	.054
.248	4	.089
.324	2	.152
.413	0	.246

METRIC SIZES

SIZE MM	WEIGHT	SIZE MM	WEIGHT
4	.036	12	.322
5	.056	13	.378
5.5	.068	14	.438
6	.081	17	.647
7	.110	18	.723
8	.143	19	.811
9	.181	22	.992
10	.224	24	1.23
11	.271	28	1.75

BRASS – ROUND BSS 2874 CZ121 (BSS 249)

METRIC SIZES

Kilos per foot

SIZE M.M.	WEIGHT
3	.018
4	.032
5	.051
6	.073
7	.099
8	.130
9	.164
10	.203
12	.292
14	.397
16	.519
18	.657
19	.735
20	.811
22	.981
25	1.267
27	1.492
28	1.590
30	1.825
32	2.076
35	2.484
38	2.935
40	3.245
45	4.106
50	5.070

BRASS ANGLE BSS 2874 CZ121 (BSS 249)

SIZE	WEIGHT	SIZE	WEIGHT
1/2 x 1/2 x 1/16	0.100	1.1/4 x 1.1/4 x 1/8	0.499
3/4 x 3/4 x 1/16	0.154	1.1/2 x 1.1/2 x 1/8	0.603
3/4 x 3/4 x 1/8	0.290	1.1/2 x 1.1/2 x 1/4	1.157
1 x 1 x 1/16	0.204	2 x 2 x 1/8	0.816
1 x 1 x 1/8	0.395	2 x 2 x 1/4	1.588

Brass Angles also available in unequal sizes.

BRASS FLAT BSS 2874 CZ121 (BSS 249)

Kilos per foot

THICKNESS

WIDTH	1/16	1/8	3/16	1/4	3/8	1/2	5/8	3/4	1
1/4		.052							
3/8	.039	.078							
1/2	.052	.104	.156	.208	.312				
5/8	.064	.130	.195	.260	.390	.517			
3/4	.078	.156	.234	.312	.467	.621			
1.	.104	.208	.312	.416	.621	.830	1.03	1.24	
1.1/4		.260	.390	.522	.780	1.04	1.30	1.56	2.08
1.1/2		.312	.467	.621	.934	1.25	1.56	1.87	2.49
1.3/4				.724	1.09	1.45		2.18	2.90
2.		.416	.621	.830	1.25	1.66	2.08	2.49	3.33
2.1/2				1.04	1.56	2.08	2.59	3.12	4.16
3.				1.25	1.87	2.49	3.12	3.75	4.99
4.				1.66	2.49	3.33	4.16	4.99	6.66

BRASS TUBE BSS 2871 CZ126 (BSS885)

Kilos per foot

WALL THICKNESS

OUTSIDE DIA.	10 SWG	16 SWG	18 SWG	20 SWG
1/4		.063	.051	.040
5/16		.083	.067	.052
3/8		.105	.083	.064
7/16		.127	.098	.076
1/2		.145	.114	.088
9/16		.167	.131	.100
5/8		.190	.147	.113
3/4	.421	.231	.176	.136
7/8		.272	.208	.158
1.	.589	.317	.240	.181
1.1/8		.358		
1.1/4	.757	.399		
1.3/8		.444		
1.1/2	.925	.485		
1.3/4	1.09	.571		
2.	1.26	.653		

BRASS SHEETS BSS 2870 CZ108 (BSS 265)

Weight: Kilos

THICKNESS

MM	Nearest SWG	Inches	Per Sq. Ft.	1200mm x 600mm	1800mm x 900mm
		1/4	5.05	39.14	
		3/16	3.78	29.30	
3.0	10		2.40	18.58	41.80
2.5	12		2.00	15.48	34.83
2.0	14		1.60	12.38	27.86
1.6	16		1.28	9.91	22.29
1.2	18		.959	7.43	16.72
0.9	20		.719	5.57	12.54
0.7	22		.559	4.33	9.75
0.55	24		.440	3.41	7.66

70/30 BRASS SHEETS BSS 2870 CZ106 (BSS 267)

Weight: Kilos

THICKNESS

MM	Nearest SWG	Per Sq. Ft.	1200mm x 600mm
1.6	16	1.28	9.91
1.2	18	.959	7.43
0.9	20	.719	5.57
0.7	22	.559	4.33

CZ108 – is normally stocked in Half Hard condition.

CZ106 – is a deep drawing and spinning quality stocked in SOFT condition.

COPPER SHEETS BSS 2870 C101 (BSS 899)

Weight: Kilos

THICKNESS

MM	Nearest SWG	Inches	Per Sq. Ft.	1200mm x 600mm	1800mm x 900mm
		1/4	5.39	41.77	
		3/16	4.04	31.31	
3.0	10		2.49	19.29	43.40
2.5	12		2.07	16.07	36.17
2.0	14		1.66	12.86	28.93
1.6	16		1.33	10.29	23.15
1.2	18		.996	7.72	17.36
0.9	20		.747	5.79	13.02
0.7	22		.582	4.51	10.13
0.55	24		.457	3.54	7.96

HAMMERED COPPER SHEETS BSS 2870 C101 (BSS 899)

Weight: Kilos

THICKNESS

MM	Nearest SWG	Inches	Per Sq. Ft.	1200mm x 600mm	1800mm x 900mm
0.9	20		.747	5.79	13.02
0.7	22		.582	4.51	10.13
0.55	24		.457	3.54	7.96

NO LONGER AVAILABLE

HALF HARD COPPER TUBE BSS 2871 C106 (BSS 2017)

Kilos per foot

WALL THICKNESS

OUTSIDE DIA.	16 SWG	18 SWG	20 SWG
1/4	.066	.054	.043
5/16	.088	.071	.056
3/8	.110	.087	.068
1/2	.152	.121	.092
5/8	.200	.152	.119
3/4	.247	.185	.143
7/8	.286	.219	.167
1.	.333	.252	.190

SOFT COPPER TUBE IN 10 METRE COILS

WEIGHT PER COIL IN KILOS

SIZE	WEIGHT	SIZE	WEIGHT
1/8 x 20 SWG	.565	5/16 x 20 SWG	1.83
3/16 x 20 SWG	.982	3/8 x 20 SWG	2.23
1/4 x 20 SWG	1.40	1/2 x 20 SWG	3.02

SOFT COPPER WIRE IN 1 KILO COILS

18 SWG
20 SWG
22 SWG
24 SWG

HD. HC. COPPER ROUND BSS 2874 C101 and C102 (BSS 1432 and BSS 1433)

Kilos per foot

SIZE	ROUND	SIZE	ROUND
1/8	.023	7/8	1.06
3/16	.051	1.	1.39
1/4	.087	1.1/8	1.76
5/16	.135	1.1/4	2.18
3/8	.194	1.3/8	2.64
1/2	.348	1.1/2	3.13
5/8	.544	1.3/4	4.27
3/4	.780	2.	5.58

HD. HC. COPPER BAR BSS 2874 C101 and C102 (BSS 1432 and BSS 1433)

Kilos per foot

THICKNESS

WIDTH	1/16	1/8	3/16	1/4	3/8	1/2
1/2	.055	.109	.163	.218	.327	
3/4	.082	.164	.247	.329	.494	
1.	.109	.218	.327	.436	.658	.872
1.1/4	.137	.274	.413	.549	.826	1.10
1.1/2	.165	.329	.494	.658	.989	1.32
2.	.220	.440	.658	.880	1.32	1.76
2.1/2			.826	1.10	1.65	2.20
3.				1.32	1.98	2.64
4.				1.76	2.64	3.52
6.				2.64	3.96	5.27

DRAWN PHOSPHOR BRONZE BSS 2874 PB102 (BSS 369)

Kilos per foot

SIZE	ROUND	SIZE	ROUND
1/8	.022	1.	1.375
3/16	.051	1.1/8	1.742
1/4	.086	1.1/4	2.154
5/16	.134	1.3/8	2.606
3/8	.194	1.1/2	3.099
1/2	.344	1.5/8	3.638
5/8	.538	1.3/4	4.217
3/4	.774	1.7/8	4.842
7/8	1.054	2.	5.511

MANGANESE BRONZE ROUND (H.T. BRASS) BSS 2874 CZ114 (BSS 250/A)

Kilos per foot

SIZE	WEIGHT	SIZE	WEIGHT
1/4	0.082	1	1.32
5/16	0.128	1.1/8	1.67
3/8	0.184	1.1/4	2.06
1/2	0.330	1.3/8	2.50
5/8	0.517	1.1/2	2.98
3/4	0.750	1.3/4	4.05
7/8	1.02	2	5.28

PHOSPHOR BRONZE -- CONTINUOUS & CHILL CAST

Kilos per foot

CORE SIZE

DIA	SOLID	1/2	3/4	1	1.1/4	1.1/2	1.3/4	2	2.1/4	2.1/2	2.3/4	3	3.1/4	3.1/2	3.3/4	4
3/4	.814															
1.	1.49	1.13	.678													
1.1/4	2.26	1.92	1.45	.769												
1.1/2	3.28	2.94	2.46	1.79												
1.3/4	4.43	4.13	3.64	2.96	2.21											
2.	5.86	5.52	5.04	4.37	3.60	2.58										
2.1/4	7.46		6.65	5.97	5.20	4.18	3.00									
2.1/2	9.18		8.37	7.69	6.92	5.90	4.73	3.32								
2.3/4	11.1		10.3	9.63	8.86	7.85	6.67	5.27	3.66							
3.	13.2			11.7	10.9	9.95	8.75	7.37	5.77	4.05						
3.1/4	15.4			13.9	13.1	12.1	10.9	9.52	7.92	6.20	4.25					
3.1/2	17.9			16.3	15.6	14.6	13.4	12.0	10.4	8.66	6.73					
3.3/4	20.5			18.9	18.2	17.2	16.0	14.6	12.8	11.3	9.33	7.24				
4.	23.3			21.7	21.0	20.0	18.8	17.4	15.6	14.1	12.2	10.5				
4.1/4	26.2			24.0	22.9	21.7	20.4	18.5	16.9	15.1	13.5	11.8	10.8			
4.1/2	29.6			27.4	26.3	25.1	23.7	21.9	20.4	18.5	16.8	14.2	12.5	11.7		
4.3/4	33.0			30.7	29.7	28.5	27.1	25.3	23.7	21.9	20.2	17.6	15.1	12.5		
5.	36.6				33.4	32.1	30.8	28.9	27.4	25.5	23.9	21.3	18.8	16.2	13.3	
5.1/4	40.5				35.3	34.2	32.8	31.2	29.6	27.6	25.6	23.3	20.8	18.3	15.4	
5.1/2	44.3					39.8	38.4	37.3	35.3	33.2	31.0	28.9	26.5	24.0	21.0	
5.3/4	50.0						45.5	44.1	43.0	40.9	38.9	36.6	34.6	32.1	29.6	26.7
6.	52.7							46.8	45.7	43.7	41.6	39.4	37.3	34.8	32.3	29.4

CORE SIZE

DIA	3	3.1/4	3.1/2	3.3/4	4	4.1/4	4.1/2	4.3/4	5	5.1/2	6	6.1/2	7	7.1/2	8
6.1/4	57.2	43.9	39.4	36.9	31.0	27.6	24.2								
6.1/2	62.0	48.6	44.1	41.6	38.7	35.7	32.3	28.9							
6.3/4	66.7	53.4	48.9	46.4	43.4	40.5	37.1	33.7	30.0						
7.	71.9	58.6	54.0	51.6	48.6	45.7	42.3	38.9	35.3						
7.1/2	82.6	69.4	64.9	62.2	59.3	56.1	52.9	49.5	45.9	38.2					
8.	93.9	80.8	76.0	73.5	70.6	67.4	64.2	60.8	56.1	49.5	41.2				
8.1/2	106	93.0	88.2	85.7	82.8	79.8	76.5	73.0	69.4	61.8	53.4	44.1			
9.	119	106	101	98.6	96.1	93.2	90.3	86.6	82.3	74.6	66.3	57.0	47.0		
9.1/2	125	111	108	104	100	97.3	94.6	91.2	87.6	81.2	71.9	62.0	51.8		
10	147	125	121	116	113	109	102	93.9	84.6	74.6	64.5	52.7			
11	177	147	144	147	144	140	133	124	115	105	95.0	83.0			
12	211	174	174	174	174	167	158	149	139	128	117				

NOTE: Continuous cast up to 6" O/D supplied with machining allowance on O/D and I/D. Chill cast supplied in max 24" lengths up to 20" O/D.

STAINLESS STEEL ROUND

IMPERIAL

Kilos per foot

SIZE	WEIGHT	SIZE	WEIGHT
1/8	.019	1.1/4	1.89
5/32	.029	1.3/8	2.29
3/16	.043	1.1/2	2.73
7/32	.058	1.5/8	3.20
1/4	.076	1.3/4	3.71
5/16	.118	1.7/8	4.26
3/8	.171	2.	4.84
7/16	.232	2.1/4	6.13
1/2	.303	2.1/2	7.57
9/16	.383	2.3/4	9.15
5/8	.473	3.	10.90
11/16	.573	3.1/4	12.80
3/4	.680	3.1/2	14.84
13/16	.800	3.3/4	17.05
7/8	.925	4.	19.40
15/16	1.07	4.1/2	24.53
1.	1.21	5.	30.30
1.1/8	1.53	5.1/2	36.65
		6.	43.61

STAINLESS STEEL ROUND

METRIC

Kilos per foot

SIZE	WEIGHT	SIZE	WEIGHT
3	.017	12	.271
4	.030	14	.369
5	.047	16	.481
6	.068	18	.610
7	.091	19	.679
8	.122	20	.753
9	.152	22	.908
10	.189	25	1.18
		30	1.69

Sizes are stocked in the following specifications:

EN58AM	Type 303	EN58B	Type 321	EN58J	Type 316
EN56AM	Type 416			EN57	Type 431

STAINLESS STEEL FLAT

Kilos per foot

WIDTH	1/8	3/16	1/4	3/8	1/2	3/4	1
1/2	.096	.144	.192				
3/4	.145	.217	.290	.435			
1.	.193	.289	.386	.580	.771		
1.1/4	.240	.358	.480	.724	.961		
1.1/2	.290	.435	.580	.866	1.15	1.73	2.30
2.	.385	.580	.771	1.15	1.54	2.30	3.08
2.1/2			.966	1.45	1.93	2.90	3.86
3			1.16	1.73	2.30	3.46	4.62

STAINLESS STEEL SQUARE

Kilos per foot

SIZE	WEIGHT	SIZE	WEIGHT
1/4	.096	3/4	.869
5/16	.151	7/8	1.18
3/8	.217	1.	1.48
1/2	.386	1.1/4	2.40
5/8	.602	1.1/2	3.34

STAINLESS STEEL HEXAGON

Kilos per foot

SIZE	WEIGHT	SIZE	WEIGHT
.193	.051	.709	.670
.248	.083	.750	.762
.312	.132	.820	.880
.375	.195	.875	1.02
.437	.259	.920	1.12
.445	.265	1.00	1.29
.500	.340	1.010	1.33
.525	.368	1.101	1.59
.562	.423	1.125	1.69
.601	.468	1.201	1.89
.625	.522	1.250	2.09

STAINLESS STEEL SHEETS

IMPERIAL SIZES

Weight: Kilos

THICKNESS SWG	WEIGHT PER SQ. FT.	6' x 3'	8' x 4'
10	2.49	44.91	79.83
12	2.05	36.92	65.77
14	1.57	28.26	50.35
16	1.25	22.54	40.05
18	.958	17.24	30.36
20	.720	12.97	23.09
22	.572	10.30	18.28
24	.440	7.92	

EN58E TYPE 304 held in stock in bright annealed (BA) and dull polished (DPI)
Plastic coated one side

Also available are EN58J TYPE 316 and EN58B TYPE 321
with various finishes

ALUMINIUM SHEET & PLATE

WEIGHT: KILOS

THICKNESS	WEIGHT PER SQ. FT.	6' x 3'	8' x 4'
2"	12.84		
1.1/2"	9.63		
1.1/4"	8.03		
1"	6.37	114.76	
7/8"	5.62	101.15	
3/4"	4.82	86.73	
5/8"	3.99	71.78	
1/2"	3.21	57.83	
3/8"	2.41	43.36	
5/16"	1.99	35.89	
1/4"	1.60	28.87	51.32
3/16"	1.20	21.68	38.54
10 swg	.819	14.74	26.22
12 swg	.665	11.97	21.32
14 swg	.512	9.21	16.37
16 swg	.411	7.39	13.15
18 swg	.307	5.53	9.84
20 swg	.231	4.15	7.39
22 swg	.179	3.23	5.72

All sheets and plates can be cut to customers requirements.

ALUMINIUM ALLOY ROUND AND SQUARE BSS 1474 HE30TF

Kilos per foot

SIZE	ROUND	SQUARE	SIZE	ROUND	SQUARE
1/4	.026	.034	2.1/4	2.13	
5/16	.041	.054	2.3/8	2.36	
3/8	.059	.077	2.1/2	2.62	3.34
7/16	.080		2.5/8	2.89	
1/2	.105	.137	2.3/4	3.19	
9/16	.132		2.7/8	3.47	
5/8	.164	.215	3.	3.78	4.94
3/4	.236	.310	3.1/4	4.44	
7/8	.321	.422	3.1/2	5.14	
1.	.420	.550	3.3/4	5.90	
1.1/8	.531		4.	6.71	
1.1/4	.656	.859	4.1/2	8.49	
1.3/8	.796		5.	10.48	
1.1/2	.945	1.24	5.1/2	12.70	
1.5/8	1.11		6.	15.11	
1.3/4	1.29	1.68	6.1/2	17.69	
1.7/8	1.48		7.	20.55	
2.	1.68	2.20	8.	26.80	
2.1/8	1.89		9.	33.94	

FREE MACHINING ALUMINIUM FC1 ROUND (Chipping Quality)

Kilos per foot

SIZE	WEIGHT	SIZE	WEIGHT
1/8	.007	7/8	.321
3/16	.015	1.	.420
1/4	0.26	1.1/16	.467
5/16	.041	1.1/8	.531
3/8	.059	1.3/16	.590
7/16	.083	1.1/4	.656
1/2	.105	1.5/16	.721
9/16	.133	1.3/8	.796
5/8	.164	1.1/2	.945
11/16	.198	1.5/8	1.11
3/4	.236	1.3/4	1.29
13/16	.277	2.	1.68

ALUMINIUM ALLOY FLAT BSS1474 HE30TF

Kilos per foot

THICKNESS

WIDTH	1/8	3/16	1/4	5/16	3/8	1/2	5/8	3/4	1
1/2	.034	.050	.067		.101				
5/8	.043	.064	.085		.128				
3/4	.050	.075	.100		.150	.200			
1.	.067	.100	.133	.171	.200	.267	.334	.400	
1.1/4	.084	.126	.169	.214	.252	.336	.421	.504	
1.1/2	.100	.150	.200	.257	.301	.401	.499	.599	.803
2.	.133	.200	.267	.343	.400	.531	.667	.798	1.06
2.1/2			.336		.499	.671	.853	1.02	1.34
3.			.400		.599	.798	1.02	1.20	1.60
4.			.531		.803	1.06	1.33	1.60	2.12
6.			.798		1.20	1.60	2.04	2.39	3.20

ALUMINIUM ALLOY ANGLE

Kilos per foot

SIZE	WEIGHT	SIZE	WEIGHT
1/2 x 1/2 x 1/16	.032	1.1/4 x 1.1/4 x 1/8	.158
x 1/8	.059	1.1/4 x 1.1/4 x 3/16	.232
5/8 x 5/8 x 1/16	.041	1.1/2 x 1.1/2 x 1/8	.192
x 1/8	.078	x 3/16	.282
3/4 x 3/4 x 1/16	.049	x 1/4	.368
x 1/8	.092	2 x 2 x 1/8	.259
1 x 1 x 1/16	.065	x 3/16	.383
x 1/8	.125	x 1/4	.504
x 3/16	.182	3 x 3 x 1/4	.771

ALUMINIUM ALLOY TUBE

Kilos per foot

WALL THICKNESS				WALL THICKNESS		
Outside Dia.	16 SWG	18 SWG	20 SWG	Outside Dia.	10 SWG	16 SWG
1/4	.020	.016	.012	1.	.186	.100
5/16	.026	.021	.016	1.1/4	.240	.127
3/8	.033	.026	.020	1.1/2	.294	.154
1/2	.047	.036	.028	1.3/4	.348	.180
5/8	.060	.046		2.	.401	.207
3/4	.070	.056		2.1/2	.508	
7/8	.087			3.	.616	

Various sizes of Tee Section, Unequal Angle and Channel
(both Equal and Unequal) are held in stock.

BRIGHT MILD STEEL – ROUND IMPERIAL SIZES

Kilos per foot

SIZE	WEIGHT	SIZE	WEIGHT
1/8	.019	1.3/4	3.71
3/16	.043	1.7/8	4.26
7/32	.058	2.	4.84
1/4	.076	2.1/8	5.47
9/32	.095	2.1/4	6.13
5/16	.118	2.3/8	6.84
3/8	.171	2.1/2	7.57
7/16	.232	2.5/8	8.35
1/2	.303	2.3/4	9.16
9/16	.383	2.7/8	10.01
5/8	.473	3.	10.90
11/16	.572	3.1/4	12.80
3/4	.680	3.1/2	14.84
13/16	.798	3.3/4	17.05
7/8	.925	4.	19.40
15/16	1.06	4.1/2	24.57
1.	1.21	5.	30.31
1.1/16	1.53	5.1/2	36.67
1.1/8	1.89	6.	43.65
1.3/16	2.29	6.1/2	51.21
1.1/4	2.73	7.	59.43
1.5/16	3.20	7.1/2	68.19
1.3/8	2.29	8.	77.59
1.1/2	2.73	9.	98.20
1.5/8	3.20		

BRIGHT MILD STEEL – ROUND METRIC SIZES

Kilos per foot

SIZE	WEIGHT	SIZE	WEIGHT
3	.017	18	.608
4	.030	19	.679
5	.047	20	.751
6	.068	22	.909
7	.092	25	1.17
8	.120	28	1.46
9	.152	30	1.69
10	.188	32	1.92
12	.270	40	3.01
14	.368	45	3.80
16	.481	50	4.70

BRIGHT MILD STEEL FLATS

Kilos per foot

THICKNESS

WIDTH	1/16	1/8	3/16	1/4	5/16	3/8	1/2	5/8	3/4	1	1.1/2	2
1/4		.048										
3/8	.036	.072	.108	.144								
1/2	.048	.096	.145	.193	.240	.434						
5/8	.060	.120	.181	.241	.301	.361	.485					
3/4	.073	.145	.217	.289	.362	.434	.578	.725				
1.	.096	.193	.289	.386	.480	.578	.771	.964	1.16			
1.1/4		.241	.361	.482	6.03	.723	.964	1.20	1.45	1.93		
1.1/2		.289	.434	.578	.725	.867	1.16	1.45	1.73	2.31		
1.3/4		.337	.508	.675	.843	1.01	1.35	1.68	2.02	2.02		
2.		.386	.578	.771	.966	1.16	1.54	1.93	2.31	3.08	4.62	
2.1/2		.482	.072	.964	1.20	1.45	1.93	2.41	2.89	3.86	5.79	7.72
3.		.580	.087	1.16	1.44	1.74	2.31	2.89	3.47	4.63	6.94	9.26
3.1/2				1.35		2.03	2.70	3.37	4.05	5.40		
4.				1.54		2.31	3.08	3.86	4.63	6.17	9.25	12.34
5.				1.93		2.90	3.86		5.78	7.72		
6.				2.31		3.47	4.63		6.94	9.25		
8.				3.08		4.62	6.16		9.26	12.34		

BRIGHT MILD STEEL SQUARES

Kilos per foot

SIZE	WEIGHT		SIZE	WEIGHT
1/4	.096		7/8	1.18
5/16	.151		1.	1.54
3/8	.217		1.1/4	2.41
1/2	.385		1.1/2	3.45
5/8	.603		1.3/4	4.72
3/4	.866		2.	6.17

BRIGHT MILD STEEL HEXAGON

Kilos per foot

SIZE	WEIGHT	SIZE	WEIGHT
.248	.083	.750	.762
.312	.132	.812	.871
.375	.195	.820	.880
.413	.220	.875	1.02
.437	.259	.920	1.12
.445	.265	1.00	1.29
.500	.340	1.010	1.33
.525	.368	1.010	1.59
.562	.423	1.125	1.59
.601	.468	1.201	1.67
.625	.522	1.25	2.09
.687	.631	1.301	2.20
.709	.670		

MILD STEEL SHEETS

Weight: Kilos

THICKNESS MM.	2MTR x 1MTR	2.5MTR x 1.25MTR
3.0	49.90	77.97
2.5	41.89	65.47
2.0	33.69	52.66
1.5	25.19	39.38
1.2	20.21	31.59
1.0	16.80	26.25
0.8	13.48	21.06

COPPER BASED ALLOYS

DETAILS OF SOME SPECIFICATIONS & TYPES AVAILABLE

FORMER BSS	NEW SCHEDULE – SPEC	DESCRIPTION
BS.1432	BS.2874 – C101	High Conductivity Copper – Drawn or Rolled
BS. 1433	BS.2874 – C102	High Conductivity Copper – Extruded
BS.251	BS.2874 – CZ112	Extruded Naval Brass
BS. 250	BS.2874 – CZ114	Extruded High Tensile Brass
BS. 249	BS. 2874 – CZ121	Extruded Free Machining Brass
BS.1949	BS.2874 – CZ123	60/40 Brass (Muntz Metal) Lead Free
BS. 2032	BS.2874 – CA103	9% Aluminium Bronze
BS.2033	BS.2874 – CA104	10% Aluminium Bronze
BS.369	BS.2874 – PB102	5% Phosphor Bronze
BS.899	BS.2870 – C101	Rolled Copper Sheet & Strip
BS.713	BS.2870 – CZ101	Rolled 90/10 Gilding Metal
BS.267	BS.2870 – CZ106	Rolled 70/30 Brass (Spinning Quality)
BS.265	BS.2870 – CZ108	Rolled 63/37 Brass, Sheet & Strip
BS.409	BS.2870 – CZ112	Rolled Naval Brass Sheet
BS.2785	BS.2870 – CZ119	Rolled 2% Leaded Brass
–	BS.2870 – CZ123	Rolled 60/40 Brass
BS.407	BS.2870 – PB102	Rolled Phosphor Bronze Sheet & Strip
BS.885	BS.2871 – CZ126	Drawn 70/30 Brass Tube
BS.2017	BS.2871 – C106	Phosphorous Deoxidised Non-Arsenical Copper Tube
–	BS.1400 – PB1-C	Cast Phosphor Bronze
–	BS.1400 – LB4-C	Cast Leaded Bronze
–	BS.1400 – LPB1-C	Cast Phosphor Bronze
–	BS.1400 – G1-C	Cast Admiralty Gunmetal
–	BS.1400 – LG2-C	Cast Leaded Gunmetal

ALUMINIUM

We have produced a brief summary of the two most commonly used schedules covering extruded and rolled material as drawn up by the British Standard Institute.

We have endeavoured to show details of some general characteristics and mechanical properties which we consider to be of most use.

BSS. 1470 SHEET STRIP 4 PLATE

MATERIAL DESIGNATION	CONDITION	TEMPER	COLD FORMING	CORROSION RESISTANCE	WELDABILITY	TENSILE TONS/SQR. IN.	HARDNESS VPN	GENERAL DESCRIPTION
IC	H4	Half Hard	V	V	V	7.8	36	99% Commercial Grade
N3	H4	Half Hard	V	V	V	10.0	47	Slightly stronger than IC
N4	H3	Qtr. Hard	G	V	V	15.0	66	} Medium strength alloy with good corrosion resistance in marine atmospheres.
N4	H6	Half Hard	G	V	V	16.0	75	
N8	M	As MFG	G	V	V	20.5	83	Higher strength alloy with good marine applications.
H15	TB		F	P	P	30.0	124	High strength alloy with poor corrosion resistance.
H30	TF		F	G	V	22.0	108	Strong general purpose alloy with good corrosion resistance.

BSS. 1474 EXTRUDED BAR TUBE AND SECTIONS

MATERIAL DESIGNATION	CONDITION	COLD FORMING	MACHINING	CORROSION RESISTANCE	WELDABILITY	TENSILE TONS/SQR IN.	HARDNESS VPN	GENERAL DESCRIPTION
EIE	M	V	P	V	V	5.0	24	High conductivity bus bar.
HE9	TE	G	F	G	V	14.5	70	Medium strength alloy suitable for bending.
HE15	TB	F	V	P	P	30.0	124	High strength alloy with poor corrosion resistance.
HE30	TF	F	G	G	V	22.0	108	Strong general purpose alloy with good corrosion resistance.

V – VERY GOOD

G – GOOD

F – FAIR

P – POOR

STAINLESS STEEL

GENERAL CHARACTERISTICS OF SOME SPECIFICATIONS STOCKED

AISI TYPE	FORMER BSS	MACHINING	WELD-ABILITY	COLD FORMING	MIN TENSILE TONS SQ. IN.	
303	EN58AM	Very good	Fair	Fair	33	Non Magnetic
304	EN58E	Fair	Good	Very good	30	Non Magnetic
316	EN58J	Fair	Good	Good	30	Non Magnetic
321	EN58B	Fair	Very good	Good	32	Non Magnetic
325	EN58BM	Very good	Fair	Fair	33	Non Magnetic
416	EN56AM	Very good	Poor	Poor	35	Magnetic
431	EN57	Good	Poor	Poor	55	Magnetic

Cold working can sometimes induce slight magnetism in Types 303 to 325

CHEMICAL COMPOSITION

AISI TYPE	FORMER BSS	CR%		Ni%		Mn%		C%		Si%		P%	S%		Mo%		Ti%	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Max	Min	Max	Min	Max	Max	
303	EN58AM	17.0	19.0	8.0	11.0	1.0	2.0			.12	.20	1.0	.045	.15	.30			
304	EN58E	17.5	19.0	9.0	11.0	.50	2.0			.06	.20	1.0	.045		.03			
316	EN58J	16.5	18.5	10.0	13.0	.50	2.0			.07	.20	1.0	.045		.03	2.25	3.0	
321	EN58B	17.0	19.0	9.0	12.0	.50	2.0			.08	.20	1.0	.045		.03			0.70
325	EN58BM	17.0	19.0	8.0	11.0	1.0	2.0			.12	.20	1.0	.045	.15	.30			0.90
416	EN56AM	11.5	13.5		1.0		1.5	.09	.15			1.0	.040	.15	.30		.60	
431	EN57	15.0	18.0	2.0	3.0		1.0	.12	.20			.80	.040		.03			

SYMBOLS FOR ALLOYING ELEMENTS

CR — Chromium

P — Phosphorus

C — Carbon

Si — Silicon

Mn — Manganese

Mo — Molybdenum

Ni — Nickel

S — Sulphur

Ti — Titanium

CONVERSION TABLES AND FACTORS

INCHES – DECIMAL – MILLIMETERS

INCHES	INCHES	MM	INCHES	INCHES	MM	INCHES	INCHES	MM
1/64	.0156	.3969	7/32	.2187	5.556	27/64	.4218	10.716
1/32	.0312	.794	15/64	.2343	5.953	7/16	.4375	11.113
3/64	.0468	1.191	1/4	.2500	6.350	29/64	.4531	11.509
1/16	.0625	1.588	17/64	.2656	6.747	15/32	.4687	11.906
5/64	.0781	1.984	9/32	.2812	7.144	31/64	.4843	12.303
3/32	.0937	2.381	19/64	.2968	7.541	1/2	.500	12.700
7/64	.1093	2.778	5/16	.3125	7.938	9/16	.5625	14.288
1/8	.1250	3.175	21/64	.3281	8.334	5/8	.6250	15.875
9/64	.1406	3.572	11/32	.3437	8.731	11/16	.6875	17.463
5/32	.1562	3.969	23/64	.3593	9.128	3/4	.7500	19.050
11/64	.1718	4.366	3/8	.3750	9.525	13/16	.8125	20.638
3/16	.1875	4.763	25/64	.3906	9.922	7/8	.8750	22.225
13/64	.2031	5.159	13/32	.4062	10.319	15/16	.9375	23.813

STANDARD WIRE GAUGE – INCHES – MILLIMETERS

SWG	INCHES	MM	SWG	INCHES	MM	SWG	INCHES	MM
1	.300	7.620	17	.056	1.422	33	.0100	.254
2	.276	7.010	18	.048	1.219	34	.0092	.233
3	.252	6.401	19	.040	1.016	35	.0084	.213
4	.232	5.893	20	.036	.914	36	.0076	.193
5	.212	5.385	21	.032	.812	37	.0068	.1727
6	.192	4.877	22	.028	.711	38	.0060	.1524
7	.176	4.470	23	.024	.609	39	.0052	.1321
8	.160	4.064	24	.022	.533	40	.0048	.1219
9	.144	3.658	25	.020	.503	41	.0044	.1118
10	.128	3.251	26	.018	.457	42	.0040	.1016
11	.116	2.946	27	.0164	.416	43	.0036	.0914
12	.104	2.641	28	.0148	.375	44	.0032	.0813
13	.092	2.336	29	.0136	.345	45	.0028	.0711
14	.080	2.032	30	.0124	.314	46	.0024	.0610
15	.072	1.828	31	.0116	.294	47	.0020	.0508
16	.064	1.625	32	.0108	.274	48	.0016	.0406

FACTORS

INCHES	x	25.4	=	MILLIMETRES
MILLIMETERS	x	0.03937	=	INCHES
FEET	x	0.3048	=	METRES
METRES	x	39.37	=	INCHES
METRES	x	3.2808	=	FEET
SQUARE METRES	x	10.7639	=	SQUARE FEET
SQUARE FEET	x	0.0929	=	SQUARE METRES
KILOGRAMS	x	2.2046	=	POUNDS
POUNDS	x	0.45359	=	KILOGRAMS
KILOGRAMS PER SQUARE METRE	x	0.2048	=	POUNDS PER SQUARE FOOT
POUNDS PER SQUARE FOOT	x	4.882	=	KILOGRAMS PER SQUARE METRE

BRIGHT AND ALLOY STEEL

The following are the main stock range conforming to BS970: Part 3: 1991

EN1A (230M07)

Round, Square, Flat, Hexagon

EN3B (070M20)

Round, Square, Flat, Hexagon, Angle

EN32B (080A15)

Round, Square, Flat, Hexagon

EM32M (210M15)

Round

EN8M (080M40)

Round, Square, Hexagon, Plate

EN8DM (212A42)

Round, Hexagon

EN24A (817M40)

Round, Flat

EN24T (817M40)

Round

EN16T (605M36)

Round, Hexagon

EN36B (655M13)

Round

EN19T (709M40)

Round

EN2A (040A10)

Flat, Round

EN6A (080M30)

Flat, Square

EN9 (070M55)

Round, Plate

EN30B (835M30)

Round

EN40B (722M24)

Round

Round up to 12" (300mm) diameter

Square up to 6" (150mm)

Flats up to 12" wide and 4" thick

Hexagon up to 3" a/f

Angle up to 50x50x6mm

Plate cut to your requirements

Imperial and Metric sizes available

STAINLESS STEELS

The following are the main stock range conforming to BS970: Part 3: 1991

T303S31 (1.4305)

Round, Square, Hexagon, Ground h8

T316S11 (1.4404), T316S31 (1.4401)

Round, Square, Hexagon, Flat, Angle, Tube, Plate, Sheet

T304S11 (1.4306), T304S31 (1.4301)

Round, Square, Hexagon, Flat, Angle, Tube, Plate, Sheet

T321S31 (1.4541)

Round, Flat, Tube, Plate, Sheet

T416S21 (1.4005)

Round, Hexagon

T431S29 (1.4057)

Round, Hexagon

T302S31

Strip in coil or lengths

Round up to 16" (400mm) diameter

Square up to 4"

Flat up to 4" x 2"

Hexagon up to 2.5"

Sheets De-scaled, Dull polished and Bright-annealed finishes

Plate cut to your requirements

Tubes: Seamless and Welded

Ornamental quality

BRASS

The following are the main stock range

BS2874 CZ112 (CW712R)

Round, Hexagon, Plate

BS2874 CZ114 (CW721R)

Round, Square

BS2874 CZ121 (CW614N)

Round, Hexagon, Flat, Square, Angle Channel, Tube Plate

BS2874 CZ131 (CW606N)

Round

BS2874 CZ108 (CW508L)

Flat, Angle, Plate, Wire

BS2871 CZ126

Drawn Tube and Box

BS2870 CZ108

Sheet, Strip, Discs

BS2870 CZ120

Sheet

COPPER

BS2874 C101

Round, Flat, Square, Wire

BS2871 C106

Tube, (Straight Lens, Coil)

BS2870 C106

Sheet, Strip, Roofing Strip, Earthing Strip

BERYLLIUM COPPER

BS2870 ALLOY 25

Round, Strip in coil or lengths, Wire

BS2870 ALLOY 165

Round, Strip in coil or lengths, Wire

ALUMINIUM

The following are the main stock range conforming to BS1474

HE9TF (6063T6)

Round, Tube, Box, Angle, Flat, Channel

HE30TF (6082T6)

Round up to 16" dia, Flat, Hexagon, Square,
Angle, Tube, Box, Channel, Sheet, Plate

HE15TF (2014A)

Round, Flat, Sheet, Plate

FC1 (2011T3)

Round up to 8" dia

NP8 (5083)

Plate

NS3 (3103)

Sheet, Strip

NS4 (5251)

Sheet, Strip

S1B (1050A)

Sheet, Strip

BRONZE

The following are the main stock range

BS2874 CA104

Round, Hexagon, Plate

BS2874 PB102 (CW451K)

Round, Flat, Hexagon, Square, Sheet, Plate

BS1400 PB1

Round, Hollow Bar, Plate

BS1400 PB2

Round, Hollow Bar

BS1400 LG2

Round, Hollow Bar

SAE 660

Round, Hollow Bar

Rudgwick Metals

can also supply a full range of:

Industrial Plastics

Round, Sheet, Plate, Tube

Silver Steel

In 13" and 2 meter lengths

Gauge Plate

In 18" and 500mm lengths

Tool Steels

(BO1, BD2, H13, P20)

Nickel Silver

Round, Sheet, Strip

Black Steel

(BS4360 43A, 43C, 50D)

Steel Tubes

Cold Drawn and Hot Finished

E.R.W. Box and Tube

Titanium

Wire

Gilding Metal

Sheet

Steel Sheet

Cold and Hot Rolled Sheet
and Strip, Zintec, Galvanized

NOTES

RUDGWICK METALS

**RUDGWICK METALS LTD
CHURCH STREET
RUDGWICK
WEST SUSSEX RH12 3ED**

Tel: 01403 822471

Fax: 01403 822311

E-mail: rudgwick@aol.com

Web: www.rudgwickmetals.co.uk

...BRASS.....COPPER.....ALUMINIUM.....BRONZE.....

.....STAINLESS STEEL.....BRIGHT MILD STEEL.....