

Thank you

for sending for our catalogue. We have now added new sizes and materials. Any items not listed may be available, please ask. We operate, as a metal Stockholding Co. so we are able to offer a very wide range of metals and technical advice is available if required.

PRICES

All prices are in Pounds Sterling and include V.A.T. currently 20%. Occasionally prices may vary from those published. Items ordered that are not in the catalogue cannot be refunded.

PAYMENT

MasterCard, Visa, Delta, Maestro, Solo, Cheques, Postal Orders and cash are all welcome.

DELIVERY U.K.

Carrier delivers all orders. They can send lengths over 6ft. and heavier items. All goods are insured; contact us 3 weeks after placing your order if you have not received your goods. Taps, dies, drills, bolts, nuts and screws are sent by ordinary post and are not insured, delivery however is reduced by 50%.

ORDER VALUE	DELIVERY CHARGE	SCOTTISH ISLANDS AND HIGHLANDS
Up to £3.99	£4.00	£5.00
£4.00 - £7.99	£6.00	£7.00
£8.00 - £15.99	£8.00	£15.00
over £16.00	£10.00	£20.00

DELIVERY- Channel Islands, European and International orders

Zone 1 France, Germany, Benelux and Greenland

Zone 2 Spain, Italy, Scandinavia, E. Europe and Russia

Zone 3 U.S.A. and Canada

Zone 4 Far East and Australia

Zone 5 Rest of World

	Value of order up to £3.50	10	20	30	40	60
EIRE	4.95	16.87	23.62	24.75	27.75	34.75
CHANNEL ISLES	5.00	10.00	15.00	20.00	20.00	20.00
ZONE 1	4.50	30.15	30.80	34.30	37.30	43.30
ZONE 2	4.50	29.70	32.80	40.80	47.30	60.30
ZONE 3	4.50	33.60	35.80	55.90	67.90	91.90
ZONE 4	5.95	48.00	51.00	65.00	77.00	105.00
ZONE 5	5.95	36.60	43.40	55.90	67.90	91.90

(Over 30kg. Special shipping rates apply)

ROUNDS £/0.3m (ft)

Dia	Bright Steel	Brass	Stainless	Aluminium	Bronze	Copper
1/32	0.17	0.68	0.54	0.44	1.76	0.76
1/16	0.18	0.80	0.62	0.48	2.40	0.87
3/32	0.29	0.84	0.72	0.50	2.88	1.00
1/8	0.30	1.52	0.83	0.51	3.00	2.08
5/32	0.35	1.60	0.95	0.54		2.15
3/16	0.44	1.80	1.43	0.62	8.96	2.28
7/32	0.44	3.60				
1/4	0.50	2.80	2.07	0.83	11.56	2.80
9/32	0.75	4.72				
5/16	0.63	6.00	2.73	1.17	11.72	6.00
3/8	0.78	6.48	3.00	1.68	21.48	6.48
7/16	1.05	11.36	3.99	1.89		
1/2	1.25	9.56	5.16	2.72	23.76	9.56
9/16	1.77	14.56	6.16	2.97		
5/8	2.12	14.32	7.88	3.09	28.60	14.32
11/16	2.60	19.72	9.26	3.99		
3/4	3.11	17.20	10.34	4.44	64.48	17.20
13/16	3.56	19.72				
7/8	3.89	31.40	12.35	5.91	53.72	31.40
15/16	6.20		13.86			
1	4.51	37.72	17.43	7.80		37.72
1.1/8	6.26	50.36	22.16	11.82	68.20	
1.1/4	6.36	59.08	37.26	13.30	76.36	59.08
1.3/8	10.20	68.04	58.57	14.79	104.96	
1.1/2	9.44	96.60	39.90	15.51		96.60
1.5/8	11.80	100.28		20.69	187.64	
1.3/4	13.07	114.60	55.36	23.64		114.60
1.7/8	14.90	127.08		22.64	236	127.08
2	17.25	184.88	93.34	25.41		184.88
2.1/4	40.92	190.68	117.87	38.13	287.44	190.68
2.1/2	49.71	254.24	96.94	52.42	341.16	254.24
2.3/4	46.88	447.76	117.16	48.09	401.16	447.76
3	92.35	401.72	159.34	66.72	429.44	401.72
4	141.33	737.40	295.53	142.99	511.04	737.40
5	179.41	1067.52	387.38	184.69	969.60	1067.52
6	182.65	1457.36	537.24	320.14	1249.6	
7	322.43	1983.64	759.27	435.75		
8	389.45	2590.84	991.71	569.15		

9	412.50	3279.04	720.31
10	659.64	4050.40	889.30
11	674.48		1076.01
12	743.77		1249.08

Lengths shorter than 1 ft length available for Dia over 1" Price pro rata. Dia over 12" available Material below available in increments of 1/8" only: -

Nylon	Same as Brass price	Prec Ground EN!A	3.5 xSteel price
PTFE	4 x Brass price	EN8DM	1.5x Steel Price
EN16T	3.5x Steel price	Heat treat to 45/55 tsi	"
EN24T	4x Steel price	heat treated to 55/65 TSI	"
EN36B	4.5X Steel Price		

HEXAGONS price per 0.3m (ft)

Size A/F in	Steel	Brass	Stainless	Bronze	Aluminium
0.152	0.47	3.04	3.80		
0.187	0.51	3.60	2.48	5.54	
0.248	0.52	6.00	2.51	7.54	1.94
0.312	0.78	6.04	3.63	9.60	4.92
0.375	1.19	8.24	4.88	16.30	4.12
0.437	1.25	10.44	7.77	21.96	
0.500	2.01	11.92	7.39	25.78	4.43
0.562	1.82	25.18	7.98		4.95
0.625	2.16	25.18	9.71	29.54	8.09
0.687	3.42	27.08			
0.710	3.81	43.32			
0.750	3.99	26.96	21.67	52.30	31.30
0.812	3.75	35.12			
0.875	4.17	39.40	26.88	79.14	20.63
1.000	5.55	59.60	55.41	86.08	21.45
1.125	7.08	80.04			22.28
1.250	8.63	92.44			

Any other sizes see Miscellaneous section or inquire

SQUARES

Size / in	Steel	Brass	Stainless	Bronze	Aluminium	Copper
1/16		2.20				
3/32						
1/8	0.35	1.48	6.93	5.64		4.72
5/32		2.48				
3/16	0.80	2.76	9.05	15.00	3.27	6.12
1/4	0.84	4.20	2.64	43.76		8.36
5/16	0.95	8.36		44.00	1.41	11.88
3/8	1.31	11.92	7.98	52.24	4.07	18.48
7/16	1.53	10.76				
1/2	1.55	13.72	13.29	75.92	2.91	29.82

5/8	2.84	22.92	13.62			33.00
3/4	3.95	35.84	14.12	93.28	5.41	
7/8	7.35	36.32			8.58	
1	8.51	51.32	22.44		17.80	
1.1/4	13.05	95.72	38.50			218.54
1.1/2	14.52	155.44	63.88		17.61	
1.3/4	18.15	156.64			30.82	
2	39.60	198.44	227.70		52.13	323.08
2.1/2	47.46				73.88	
3	58.62	542.80				
4	115.56					
5					347.97	

Other sizes see miscellaneous section. Over 1" can be cut under 1ft long

Price per 0.3m or foot to you or I FLATS Method of manufacture may vary

Size	Steel	Brass	Bronze	Stainless	Aluminium
1/32X1/8	0.33	2.00	4.28	1.04	0.63
1/32x3/16	0.26	2.28	5.00	2.58	0.64
1/32x1/4	0.37	2.84	7.00	4.47	0.67
1/32x3/8	0.42	3.20	8.44	4.73	0.69
1/32x1/2	0.54	3.56	8.40	1.38	0.72
1/32x5/8	0.45	3.88	10.84	1.41	0.75
1/32x3/4	0.68	3.58	12.68	1.43	0.77
1/32x 1	1.10	5.16	18.40	1.86	0.79
1/32x1.1/4	1.37	7.24	19.80	2.99	0.90
1/32x1.1/2	1.64	10.24	27.96	4.19	1.43
1/32x1.3/4	1.92	10.44	28.36	4.29	1.54
1/32x2	2.18	11.32	30.84	4.65	1.65
1/16x 1/8	0.36	2.52	3.24	1.14	0.64
1/16x3/16	0.47	3.08	3.96	1.19	0.65
1/16x1/4	0.63	3.80	5.28	1.34	0.68
1/16x3/8	0.96	4.24	6.92	1.62	0.74
1/16x1/2	1.26	3.76	10.64	1.68	0.76
1/16x5/8	1.58	4.17	13.24	1.77	0.83
1/16x3/4	0.33	6.08	15.96	2.36	0.87
1/16x1	0.26	7.44	18.00	2.63	0.91
1/16x1.1/4	0.27	8.76	26.52	3.18	1.08
1/16x1.1/2	0.42	10.28	31.88	3.50	1.14
1/16x1.3/4	0.54	11.48	37.16	4.41	1.28
1/16x 2	0.68	12.68	42.48	5.12	1.35
1/16x2.1/2	1.10	16.96	53.12	6.96	1.61
1/16x 3	1.10	21.00	63.72	7.97	1.91
1/8x3/16	1.37	2.64			0.00
1/8x1/4	1.64	3.52	8.24	1.50	1.50
1/8x3/8	1.92	5.28	12.48	1.65	4.10

1/8x1/2	2.18	7.08	13.16	2.96	0.99
1/8x5/8	0.35	8.36	16.00	3.50	1.05
1/8 x3/4	0.47	8.96	19.24	2.83	1.23
1/8x 1	0.63	10.12	27.52	4.64	1.38
1/8x1.1/4	0.96	13.08	47.52	6.59	1.46
1/8x1.1/2	1.26	19.80	48.00	6.96	1.56
1/8x1.3/4	1.58	21.80	59.40	12.49	2.00
1/8x2	0.33	22.28	60.64	12.50	2.26
1/8X2.1/2	0.26	35.84	71.28	12.49	2.40
1/8X2.3/4	0.27	29.84	81.36	12.30	2.74
1/8x3	0.42	31.92	84.40	13.16	3.00
1/8x4	0.54	46.20	114.48	15.96	3.55
1/8x5	0.68	62.20	143.12	18.42	6.36
1/8x6	0.83	69.32	171.72	31.13	6.92

FLATS £/0.3m(ft)

Size	Steel	Brass	Bronze	Stainless	Aluminium
3/16x1/4	0.30	2.42	17.76		
3/16x3/8	0.44	3.30	8.10		1.23
3/16x1/2	0.70	4.62	10.80		1.43
3/16x5/8	0.72	5.32	14.52		1.65
3/16x3/4	0.75	6.40	14.94	3.39	1.76
3/16x1	1.07	8.96	19.20	4.62	1.87
3/16x1.1/4	1.74	9.68	26.40	5.31	1.99
3/16x1.1/2	2.07	12.10	30.00	6.64	2.22
3/16x1.3/4	2.18	13.44	39.74	7.45	2.50
3/16x2	2.60	15.74	42.90	8.97	2.89
3/16x2.1/2	3.05	17.42	47.52	9.57	6.25
3/16x3	3.20	28.34	68.42	17.22	7.76
3/16x4	4.46	32.52	70.94	17.89	8.06
3/16x5	6.66	40.68	88.70	19.93	9.80
3/16x6	6.96	54.70	119.32	30.07	15.03
1/4x3/8	0.50	4.40		7.93	0.80
1/4x1/2	0.83	5.28	19.24	6.46	0.87
1/4x5/8	0.87	8.14	24.04	4.47	1.50
1/4x3/4	0.98	8.80	29.46	5.06	1.56
1/4x1	1.50	11.00	37.00	6.04	1.64
1/4x1.1/4	1.82	13.78	48.08	7.61	2.24
1/4x1.1/2	2.12	16.06	57.72	8.95	2.42
1/4x1.3/4	2.49	20.32	67.34	11.23	3.20
1/4x2	2.73	20.68	76.98	11.39	3.49
1/4x2.1/2	3.51	26.08	96.20	14.32	4.72
1/4x2.3/4		9.14			

	0.00				
1/4x3	4.07	33.22	115.46	18.26	6.08
1/4x3.1/2	4.84	39.16	134.70	21.26	6.66
1/4x4	5.45	44.70	153.96	24.57	8.20
1/4x6	7.50	61.52	230.94	33.84	11.26
5/16x1/2	1.47	23.80			
5/16x5/8	1.80	29.72			
5/16x3/4	1.87	12.18	35.68	2.37	2.59
5/16x1	1.98	15.58	47.58	8.56	2.78
5/16x1.1/4	2.13	25.26	59.46	13.88	4.63
5/16x1.1/2	2.66	29.78	71.36	16.37	5.46
5/16x1.3/4	2.93	34.84	83.24	19.15	6.38
5/16x2	2.97	40.66	95.16	22.35	7.46
5/16x2.1/2	3.67	49.12	118.94	27.01	9.00
5/16x3	3.99	57.40	142.74	31.55	10.53
3/8x1/2	1.25	6.84	20.92	3.75	1.61
3/8x5/8	1.65	11.04	36.30	6.06	2.07
3/8x3/4	2.08	12.78	31.92	7.02	2.37
3/8x1	2.12	15.36	36.70	8.45	2.83

SIZE	STEEL	BRASS	BRONZE	STAINLESS	ALUMINIUM
3/8x 1.1/4	3.81	21.78	45.86	11.97	3.95
3/8X1.1/2	4.26	75.06	150.12	12.91	4.32
3/8X1.3/4	5.21	87.56	175.12	22.35	7.47
3/8X2	6.29	100.08	200.16	25.86	8.62
3/8X2.1/4	9.80	112.56	225.12	28.79	9.59
3/8X2.1/2	11.16	91.74	235.00	32.44	10.81
3/8X3	12.05	69.10	250.12	37.99	12.13
3/8X4	12.99	71.26	300.80	39.19	16.98
3/8X5	14.55	78.64	350.20	43.24	19.70
3/8X6	17.16				
1/2X5/8	2.16	17.72	41.26	9.41	
1/2X3/4	2.82	18.12	47.32	9.96	2.90
1/2X1	3.99	18.92	55.02	10.40	2.98
1/2X1.1/4	4.82	22.36	71.08	12.29	4.77
1/2x1.1/2	5.45	26.42	115.44	15.88	4.86
1/2x1.3/4	6.36	55.18	135.68	30.33	4.90
1/2x2	7.44	62.04	154.20	34.00	6.81
1/2x2.1/2	9.39	77.54	192.98	42.63	7.41
1/2x3	14.06	93.06	231.78	51.16	9.86
1/2x4	15.52	124.08	309.30	68.23	12.31
1/2x5	17.72	155.10	386.60	85.29	15.64
1/2x6	18.08	186.12	463.06	102.36	17.04

1/2x0	18.78	188.12	403.70	102.30	17.04
5/8x3/4	4.79	29.62	86.82	16.28	5.43
5/8x1	5.40	35.64	96.02	19.59	6.39
5/8x1.1/4	8.13	50.52	121.18	27.78	9.27
5/8x1.1/2	9.36	59.54	145.38	32.74	10.92
5/8x1.3/4	10.34	69.70	169.66	38.32	12.78
5/8x2	10.58	81.32	193.00	44.72	14.91
5/8x3	14.55	86.20	86.18	15.81	15.81
5/8x4	16.94	178.88	178.86	29.81	29.81
3/4x1	5.43	27.02	115.44	14.85	7.59
3/4x 1.1/4	6.72	35.78	139.38	19.67	8.77
3/4x1.1/2	8.18	48.08	174.48	26.43	13.10
3/4x1.3/4	9.44	56.08	56.06		15.46
3/4x2	10.71	64.08	64.06	60.37	17.45
3/4x3	15.52	96.12	96.12		26.17
1x1.1/4	10.35	80.20	80.18	87.47	14.69
1x1.1/2	10.89	96.26	96.24		17.63
1x1.3/4	13.25	112.28	112.26		20.57
1x2	13.43	128.12	128.10		23.51
1x2.1/2	14.88	160.16	160.14		29.39
1.1/2x2	17.61				

Larger sizes and blanks are available

Kasenit case hardening compound £13.00/500g

SILVER STEEL 13" Lengths

Square ground flat stock

Imperial 13"

Metric 330mm

SQ/ 18"

Round/in	£	Round/mm	£	Round/mm	£	In	£
1/16	1.41	2.0	0.81	23.0	30.24	1/8	17.99
3/32	1.19	2.5	1.16	24.0	31.55	3/16	19.32
1/8	1.52	3.0	1.38	25.0	33.36	1/4	22.65
3/16	2.40	3.5	1.65	26.0	41.19	3/8	35.91
7/32	3.89	4.0	1.80	27.0	44.42	1/2	48.48
1/4	3.63	4.5	2.60	28.0	47.70	5/8	50.12
9/32	5.46	5.0	2.37	29.0	51.35	3/4	62.68
5/16	5.50	5.5	3.32	30.0	44.72	1	96.80
11/32	7.85	6.0	3.36	31.0	60.50	1.1/4	133.87
3/8	7.14	6.5	3.99	32.0	62.52	1.1/2	163.30
13/32	8.78	7.0	4.02	33.0	66.44	2	252.81
7/16	8.61	7.5	5.30	34.0	70.58	Metric	
15/32	11.67	8.0	4.47	35.0	74.48	4.0	29.90

1/2	9.87	8.5	5.96	36.0	79.06	5.0	29.20
17/32	13.73	9.0	5.79	37.0	82.76	6.0	25.23
9/16	12.50	9.5	7.58	38.0	89.63	8.0	30.06
19/32	17.14	10.0	7.11	39.0	92.42	10.0	37.17
5/8	14.00	10.5	9.69	40.0	97.71	12.0	49.20
21/32	19.04	11.0	8.87	45.0	122.76	20.0	66.80
11/16	17.37	11.5	11.57	50.0	152.29	25.0	89.87
23/32	22.76	12.0	10.25			30.0	115.94
3/4	20.16	12.5	13.73	CAST IRON		50.0	246.70
13/16	26.66	13.0	10.83	GRADE 17		FLATS	£/ 6"
7/8	26.16	14.0	12.59	DIA/MM	£	2X1/16	9.44
15/16	32.22	15.0	14.42	25.0	11.75	2X3/32	11.00
1	31.67	16.0	14.33	35.0	19.85	2X1/8	16.44
1.1/8	41.18	17.0	16.62	45.0	29.01	2X5/32	18.60
1.1/4	50.79	18.0	18.63	55.0	35.53	2X3/16	20.80
1.3/8	61.47	19.0	20.75	65.0	44.19	2X1/4	18.48
1.1/2	73.02	20.0	21.63	75.0	74.25	2X5/16	20.88
1.3/4	99.60	21.0	25.28			2X3/8	23.88
2	129.98	22.00	26.58				

Ground flat stock available in 18" (usual) and some in 36" lengths

Harden at 790c for 30 minutes /in section, quench in oil for HRC 63/64 and temper for 1

hour at

150c 65HRC

200c 61HRC

250c

59HRC

300c

56HRC

HARD CHROMED BAR Round

10mm £7.32 12mm £9.46 16mm £14.08

BRIGHT STEEL ANGLE	£	BRASS ANGLE	£
16mm x 16mm x 3mm	2.04	1/4 x 1/4 x 1/16	2.44
20mm x 20mm x 3mm	2.09	3/8 x 3/8 x 1/16	2.92
25mm x 25mm x 3mm	2.54	1/2 x 1/2 x 1/16	4.86
25mm x 25mm x 5mm	4.36	1/2 x 1/2 x 1/8	6.16
32mm x 32mm x 4mm	3.94	3/4 x 3/4 x 1/16	5.60
32mm x 32mm x 5mm	3.99	3/4 x 3/4 x 1/8	11.64
40mm x 40mm x 6mm	5.32	1" x 1" x 1/16	5.86
50mm x 50mm x 6mm	6.78	1" x 1" x 1/8	11.90

ALUMINIUM ANGLE		BRASS CHANNEL	
3/8 x 3/8 x 1/16	1.57	1/2 x 1/2 x 1/16	8.70
1/2 x 1/2 x 1/16	1.76	3/4 x 3/4 x 1/8	17.92
5/8 x 5/8 x 1/16	1.82	1" x 1" x 1/8	22.04
3/4 x 3/4 x 1/16	1.93		
3/4 x 3/4 x 1/8	1.98	ALUMINIUM CHANNEL	
1" x 1" x 1/16	2.04	Base and Side	
1" x 1" x 1/8	2.37	1/4 x 3/8 x 1/16	2.45
1" x 1" x 3/16	3.63	3/8 x 1/4 x 1/16	2.20
1.1/4 x 1.1/4 x 1/8	2.89	3/8 x 3/8 x 1/16	2.21
1.1/2 x 1.1/2 x 1/8	3.50	1/2 x 1/2 x 1/16	2.31
1.3/4 x 1.3/4 x 1/8	4.11	5/8 x 5/8 x 1/16	2.42
2" x 2" x 1/8	4.68		
2" x 2" x 3/16	6.79	h section	2.37
2" x 2" x 1/4	8.25	673 Section	2.75

STEEL CHAIN

Thickness links /in	£	Length of link	Thickness	£	
0.092"	3T	3.55	5/16"	17g	2.64
0.022"	15	1.58	3/8"	16g	3.55
0.028"	12	1.69			
0.032"	9	1.60			
0.032"	8	1.90			

STAINLESS STEEL SPONGE

Very hard wearing all purpose cleaning pad with many uses around the home and workshop £1.50 each.

TUBES Price per ft

SIZE	STEEL	BRASS	COPPER	STAINLESS	ALUMINIUM
3/32 x 28g			1.00		
1/8 x 20g		3.08	3.68	8.20	
3/16 x 20g	1.91	2.44	2.18	7.76	2.38
1/4 x 20g	1.65	2.32	3.04	6.11	1.85
5/16 x 20g	1.34	2.94	3.10	6.96	1.64
3/8 x 16g	1.64	4.40	4.86	6.30	1.16
1/2 x 16g	2.00	7.36	6.42	5.52	1.99
5/8 x 16g	2.32	7.92	7.38	7.38	2.00
3/4 x 10σ	6.49	22.10	22.00	16.28	2.56

3/4 x 16g	2.18	16.16	16.50	6.66	2.34
7/8 x 16g	2.06	12.94	16.00	8.02	4.04
1 x 10g	4.91	23.28	29.28	16.87	8.66
1" x 16g	2.88	12.38	12.32	8.25	2.92
1.1/4 x 16g	4.63	24.20	23.10	23.66	6.50
1.1/2 x 16g	8.80	26.40	25.30	20.93	7.89
2" x 16g	18.39	28.34	27.50	18.15	12.87
3" x 20g	21.18	22.00	20.80	16.93	0.00
3" x 16g	27.08	51.98	42.90	27.23	16.13
3" x 10g	41.57	107.46	74.80	47.03	31.56

SHEET 300mm x 300mm (larger sizes available)

SIZE	mm	in	STEEL	BRASS	Engraving brass	COPPER	STAINLESS	ALUMINIUM
3/16	4.76			92.86	128.50			
10g	3.18	0.128"	6.77	62.04	84.44	58.76	45.23	8.87
12g	2.50	0.104"	6.05	50.50				
14g	2.00	0.080"	5.40	40.42		42.68	30.06	5.92
16g	1.60	0.063"	3.98	36.30		38.12	23.46	5.10
18g	1.20	0.048"	3.42	23.50		29.36	17.60	3.23
20g	0.90	0.036"	3.10	19.32		22.98	11.00	2.93
22g	0.80	0.028"	2.93	14.70		14.36	9.90	2.59
24g	0.60	0.022"	2.87	12.72		12.68	8.91	2.22
26g	0.55	0.018"		10.00		13.22		
28g	0.40	0.015"		20.00		13.68		
30g	0.30	0.012"		8.36		13.20		

STUDDING

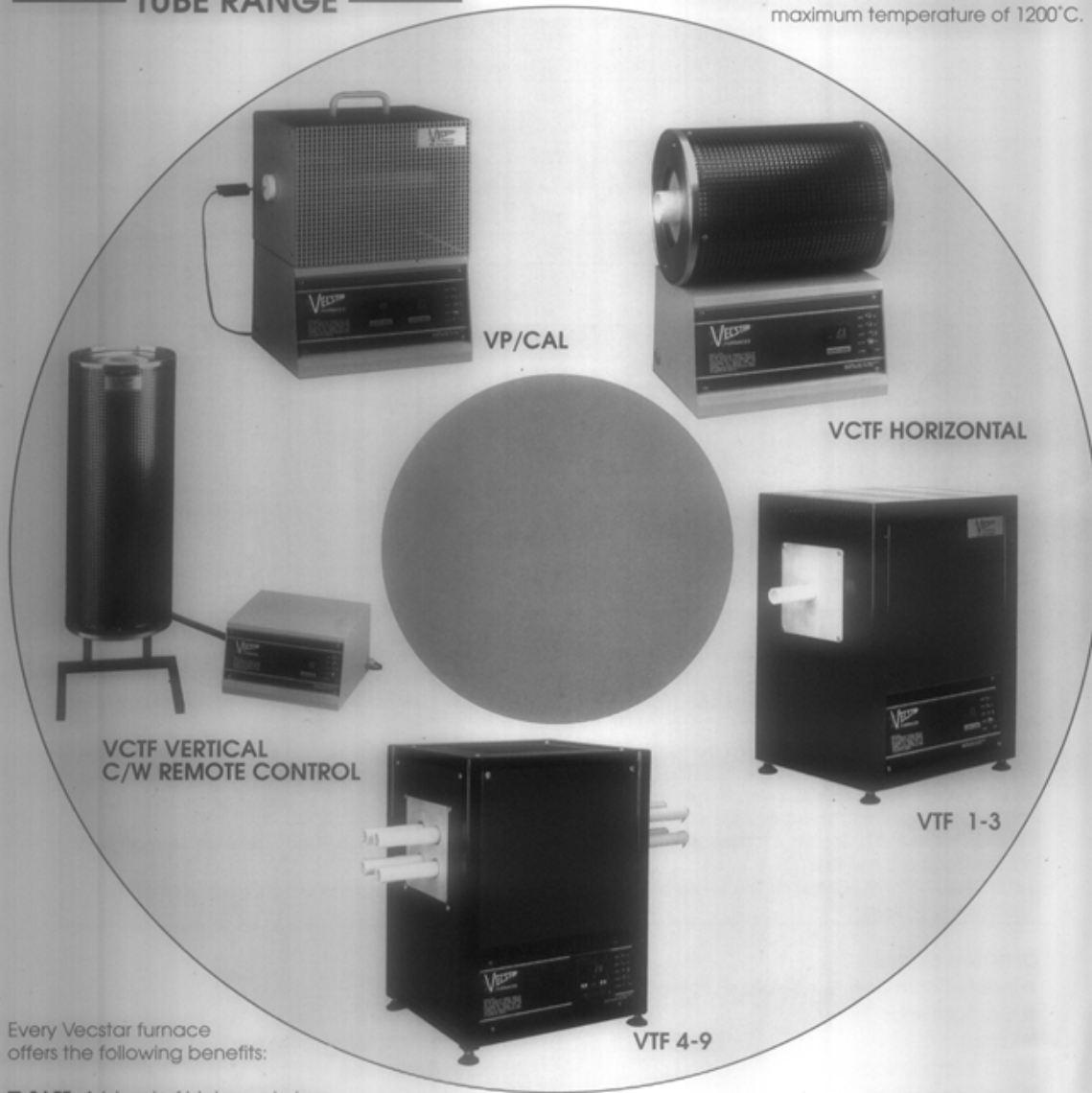
BA	STEEL	BRASS	STAINLESS	BSW/BSF	STEEL	BRASS	STAINLESS
10BA	25.77	32.94		3/16	1.57	6.60	13.60
8BA	13.66	14.22		1/4	1.96	6.68	8.18
6BA	5.62	12.40		5/16	2.40	8.46	12.22
4BA	1.57	6.40	8.62	3/8	2.90	11.44	19.04
2BA	1.74	5.76	7.14	7/16	3.69	18.10	
0BA	2.18	7.70		1/2	5.45	20.80	27.14



A complete range of high quality tube furnaces including the VTF 1-9 type offering 1, 2 or 4 tube options and maximum temperatures up to 1800°C.

VECTAR FURNACES TUBE RANGE

The VCTF 1-7 are single tube cylindrical furnaces available in either horizontal or vertical with remote control up to 1600°C maximum temperature and 7 bore sizes ranging from 15mm to 100mm. The VP/CAL is a single tube fully portable calibration furnace with a standard bore size of 20mm and a maximum temperature of 1200°C.



Every Vecstar furnace offers the following benefits:

- **SAFE:** A blend of high grade low thermal mass insulation and a generous double skin case design combine to produce a safe cool outer case.
- **EFFICIENT:** Heating is via wire wound, silicon carbide, or molybdenum disilicide elements arranged around the tube. This arrangement provides excellent temperature uniformity throughout the heated length of the work tube.
- **ATTRACTIVE:** The outer case is fabricated to a modern design using high quality sheet steel and finished in an attractive two tone epoxy powder coating.

HEXAGON STEEL B.A. BOLTS £/10

SIZE	LENGTH OF BOLT					SPRING WASHERS
	1/4	3/8	1/2	3/4	1	
12BA	1.00	1.17				0.60
10BA	1.20	1.55	1.64		2.11	0.60

8BA	1.17	1.38	1.64	2.11	0.60	
7BA	1.36	1.54	2.54		0.60	
6BA	1.17	1.35	1.64	3.54	4.50	0.60
5BA	1.75	1.99			0.60	
4BA	1.65	2.10	2.50		0.65	
2BA	1.88	4.65			0.70	
0BA	2.22	4.75			0.80	

**BRASS AND STEEL MACHINE SCREWS COUNTERSUNK, CHEESEHEAD, ROUNDHEAD,
NUTS AND WASHERS**

SIZE	LENGTH OF SCREW					NUTS		WASHERS
	1/4	3/8	1/2	3/4	1	STEEL	BRASS	
14BA	6.50 BRASS						2.40	1.20
12BA	1.17	1.45	1.67			0.70	1.20	0.70
10BA	1.17	1.44	1.67	1.99	2.11	0.60	1.00	0.60
8BA	1.17	1.35	1.67	2.11		0.60	1.00	0.60
7BA			3.20			0.60	1.00	0.60
6BA	0.40	0.45	0.50	1.01	1.16	0.60	1.00	0.60
5BA		2.00	2.25	2.50		0.65	1.00	0.65
4BA	0.62	0.75	0.80	1.22	1.27	0.70	1.00	0.70
2BA	1.29	1.35	0.74	0.86	0.99	0.80	1.10	0.80
0BA			2.55	3.65		1.40	1.60	1.40

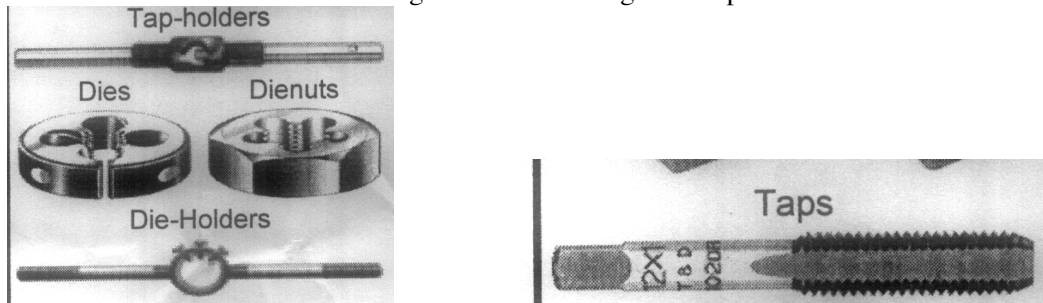
Taps and Dies (Right Hand Cutting)

BA	Tap	Die	METRIC	Tap	Die	ME	Tap	Die
0	3.29	6.58	0.8-1.9	Poa	Poa	1/8x40	3.29	6.58

1	3.29	6.58	2.0x0.4	4.94	8.22	5/32x32	3.29	6.58
2	3.29	6.58	2.5x0.45	4.94	8.22	5/32x40	3.29	6.58
3	3.29	6.58	3.0x0.5	3.29	6.58	3/16x32	3.29	6.58
4	3.29	6.58	3.5x0.6	3.29	6.58	3/16x40	3.29	6.58
5	3.29	6.58	4.0x0.7	3.29	6.58	7/32x32	3.29	6.58
6	3.29	6.58	5.0x0.8	3.29	6.58	7/32x40	3.29	6.58
7	4.95	9.51	6.0x1.0	3.29	6.58	1/4x32	3.29	6.58
8	4.95	9.51	7.0x1.0	4.94	8.23	1/4x40	3.29	6.58
9	6.58	13.16	8.0x1.25	4.94	8.23	9/32x32	8.23	11.51
10	6.58	13.16	9.0x1.25	4.94	8.23	9/32x40	8.23	11.51
11-16	Poa	Poa	10.0x1.0	9.05	16.45	5/16x32	6.58	11.51
12	11.51	16.45	10.0x1.25	9.05	16.45	5/16x40	6.58	11.51
BSB/BSCY			10.0x1.5	4.94	8.22	3/8x32	6.58	11.51
1/4x26	4.94	6.58	11.0x1.5	8.22	11.51	3/8x40	8.23	11.51
5/16x26	6.58	11.52	12.0x1.0	8.22	16.45	7/16x32	8.23	13.16
3/8x26	8.23	11.52	12.0x1.25	8.22	16.45	7/16x40	8.23	13.16
7/16x26	8.23	14.15	12.0x1.5	8.22	16.45	1/2x32	8.23	13.16
1/2x26	8.23	14.15	12.0x1.75	5.76	9.87	1/2x40	8.23	13.16
9/16x26	9.87	18.09	14.0x1.0	11.52	21.38	BSP		
5/8x26	11.52	18.09	14.0x1.25	11.52	21.38	1/8x28	4.94	9.21
3/4x26	15.79	21.38	14.0x1.5	11.52	16.45	1/4x19	6.58	13.16
BSW/BSF			14.0X2.0	8.22	16.45	3/8X19	8.22	16.45
1/16X60	9.87	14.80	16.0X1.5	13.16	21.38	1/2X14	9.54	22.37
3/32X48	9.87	11.51	16.0X2.0	9.05	16.45	5/8X14	12.83	22.37
1/8X40	3.29	6.58	18.0X1.5	16.45	24.67	3/4X14	16.45	27.96
5/32X32	3.29	6.58	18.0X2.5	9.87	18.09	UNC/UNF		
3/16x24/32	3.29	6.58	20.0x1.5	18.09	26.32	No0-3	Poa	Poa
1/4x20/26	4.94	6.58	20.0x2.5	13.16	19.74	No4x40/48	3.29	6.58
5/16x18/22	4.94	8.23	22.0x2.5	13.16	23.03	No6x32/40	3.29	6.58
3/8x16/20	4.94	8.23	24.0x3.0	16.45	23.03	No8x32/36	3.29	6.58
7/16x14/18	6.58	9.87	25.0x1.50	25.00	32.57	No10x24/32	3.29	6.58
1/2x12/16	6.58	9.87	Dienuts	BSW/	BSF	No12x24/28	4.93	6.59
9/16x12/16	9.87	16.45	1/8x40	14.00		1/4x20 /28	4.93	6.58
5/8x11/16	9.87	16.45	3/16x24/32	14.00		5/16x18/24	4.93	8.22
3/4x10/12	11.51	16.45	1/4x20/26	9.35		3/8x16/24	4.93	8.22
Dienuts	Metric		5/16x18/22	11.07		7/16x14/20	6.58	9.87
3.0x0.5	13.32		3/8x16/20	12.71		1/2x13/20	6.58	9.87
4.0x0.7	13.32		7/16x14/18	17.48		9/16x12/18	9.87	16.45
5.0x0.8	11.85		1/2x12/16	15.39		5/8x11/18	9.87	16.45
6.0x1.0	8.13		9/16x12/16	18.96		3/4x10/16	11.51	16.45
8.0x1.25	11.06		5/8x11/14	18.96		7/8x9/11	13.16	23.03
10.0x1.5	11.06		3/4x10/12	23.29		1x9/12	14.80	23.03
12.0x1.75	13.37		Tapwrenches			Diestocks		
14.0x2.0	16.50		1/16-1/4	0-10Ba	9.87	13/16	2-6mm	9.87
16.0x2.0	16.50		1/16-1/2		13.16	1"	7-12mm	11.51
18.0x2.5	20.25		¼-3/4		26.32	1.5/16	12-16mm	14.80

20.0x2.5	20.25	1/16-1/4 "T"	22.00	1.1/2	14-20	16.45
				2	22-25	26.32

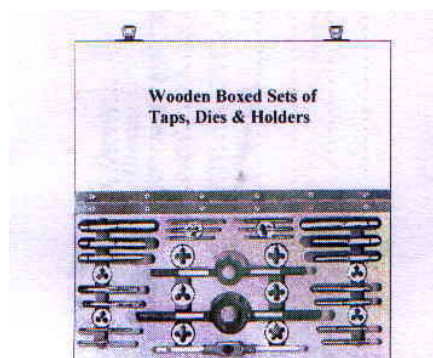
Left hand cutting and HSS 2 x right hand price



Taps and Dies in Boxed Sets

(Contents 1 taper+1Bottom +1Die+tapwrench and Diestock

Set	Pieces	Contents	£
BSW1	24	1/8,3/16,1/4,5/16,3/8,7/16,1/2	105.84
BSW2	30	1/16,3/32,1/8,3/16,1/4,5/16,3/8,7/16,1/2	138.06
BSF1	21	3/16,1/4,5/16,3/8,7/16,1/2	105.84
UNC1	17	1/4,5/16,3/8,7/16,1/2	105.84
UNC2	33	No4,6,8,10,12,1/4,5/16,3/8,7/16,1/2	138.06
UNF1	17	1/4,5/16,3/8,7/16,1/2	105.84
UNF2	33	No4,6,8,10,12,1/4,5/16,3/8,7/16,1/2	138.06
BSCycle1	17	1/4,5/16,3/8,7/16,1/2	105.84
BSCycle2	23	1/4,5/16,3/8,7/16,1/2,6/16,5/8	147.26
BA1	23	2,4,5,6,7,8,10	73.63
BA2	30	2,4,5,6,7,8,10 (inc second taps)	87.43
BA3	35	0.1.2.3,4,5,6,7,8,,9,10	105.84
BA4	38	0,1,2,3,4,5,6,7,8,9,10,12	126.56
MMC1	23	2,2.5,3,3.5,4,5,6	85.14
MMC2	24	3,4,5,6,8,10,12	108.15
MMC3	33	2,2.5,3,3.5,4,,5,6,8,10,12	128.86
MMC4	36	2,3,4,5,6,7,8,9,10,11,12	135.76
MMF1	33	2.5x0.45,3.5x0.6,3.5x0.75, 5x0.5,6x0.75,7.0x1.0,8.0x1.010.0x1.0,11.0x1.5,12.0x1.25	167.97
ME1	21	1/8x40,5/32x40,3/16x40,7/32x40,1/4x40,5/16x32,3/8x32	87.44
ME2	21	1/8x40,5/32x32,3/16x32,7/32x32,1/4x32,5/16x32,3/8x40	87.44
ME3	30	1/8x40,5/32x40,3/16x40,7/32x40,1/4x40,9/32x32,5/16x32, 3/8x32,7/16x32,1/2x32	128.86
ME4	27	5/32x32,3/16x32,7/32x32,1/4x32,9/32x32,5/16x32,3/8x32,7/16x32,1/2x32	128.86
ME5	30	1/8x40,5/32x40,3/16x40,7/32x40,1/4x40,9/32x40,5/16x40, 3/8x40,7/16x40,1/2x40	128.86





TWIST DRILL SETS HSS

D1	No.1 - No.60	60pc	£44.06
D2	No.61 - No.80	20pc	12.33
D3	1/16 - 1/4 by 1/64 's	13pc	18.5
D4	1/16 - 1/2 by 1/32's	15pc	27.31
D5	1/16 - 1/2 by 1/64 ' s	29pc	42.30
D6	1.0mm - 10.0mm by 0.5mm	19pc	24.67
D7	1.0mm - 5.9mm by 0.1mm	50pc	33.48
D8	6.0mm - 10.0mm by 0.1mm	41pc	66.09

H S S GROUND TOOLBITS
Square and round

Size	Length / in				
	2	2.1/2	3	4	6
3/16	£2.12	2.65	3.84		
1/4	2.90	3.69	4.35	5.76	
5/16		4.89	5.76	7.80	
3/8			6.35	7.93	12.56

CENTRE DRILLS

Size	Shank Dia Each		Shank Dia Point Dia Each		
	/ in		/ mm		
BS1	(1/8)	£2.81	3.15	1.0	£3.18
BS2	(3/16)	3.18	4.00	1.6	3.18

BS3	(1/4)	4.13	5.00	2.0	3.31
BS4	(5/16)	5.28	6.30	2.50	3.58
BS5	(7/16)	7.43	8.00	3.15	5.11
BS6	(5/8)	20.13	10.00	4.00	6.89
BS7	(3/4)	29.15	12.50	5.00	10.73

Dia/in	Stub Drills	Reamers	End Mills	Slot Drills	Morse Taper drills	
1/16	1.18	24.12	9.41	9.41	1MT	
5/64	1.00	20.4		9.41	(1/8)	£9.45
3/32	1.00	16.22	9.41	10.07	(3/16)	9.60
7/64	1.00	16.96		10.6	(1/4)	9.50
1/8	1.05	12.46	7.28	8.61	(3/8)	12.40
9/64	1.16	12.18		7.55	(1/2)	17.75
5/32	1.26	12.98	7.28	7.42	2MT	
11/64	1.44	13.25		7.42	(5/8)	24.00
3/16	1.64	13.51	7.28	7.81	(3/4)	31.50
13/64	1.83	13.78		8.08	(7/8)	42.25
7/32	2.03	14.31	7.28	8.08	3MT	
1/4	2.49	15.1	7.28	9.13	1	55.5
17/64	2.84	15.38		11.8	1.1/8	70.75
9/32	3.02	15.63	9.01	11.8	1.1/ 4	88.75
5/16	3.63	16.7	9.54	11.92	4MT	
21.64	3.85	17.22		12.32	1.3/8	110.25
11/32	4.25	19.88	9.68	12.46	1.1/2	130.00
23/64	4.47	20.67		12.85	1.5/8	188.25
3/8	4.83	20.67	9.68	12.07	1.3/4	192.50
13/32	6.04	21.72	10.88	13.11	1.7/8	220.50
27/64	6.55	25.17		15.37	2	300.00
7/16	7.34	23.32	11.53	13.51	5MT	
29/64	8.13	25.43		15.37	2.1/8	320.00
15/32	8.80	23.58	12.06	13.25	2.1/4	375.00
1/2	10.6	23.32	12.32	13.11	2.3/8	415.00
Metric					2.1/2	460.00
1.5	1.18	24.11		9.47	2.5/8	545.00
2.0	0.98	20.40		9.47	2.3/4	612.00
2.5	0.99	18.28	9.81	9.47	2.7/8	685.00
3.0	1.01	16.16	7.28	8.48		
3.5	1.14	12.43	7.15	7.55		
4.0	1.28	12.99	7.15	7.28		
4.5	1.51	13.25	7.15	7.55		
5.0	1.78	13.51	7.28	7.55		
5.5	2.01	14.31	7.28	7.81		

6.0	2.28	14.83	7.15	9.01
6.5	2.63	15.1	9.14	11.92
7.0	2.89	15.38	9.41	11.92
7.5	3.39	15.64	9.68	12.06
8.0	3.64	16.7	9.81	12.06
8.5	4.00	17.23	9.81	12.46
9.0	4.38	19.88	9.81	12.58
9.5	4.83	20.68	10.07	12.58
10.0	5.40	20.68	9.81	12.32
10.5	6.31	21.68	11.00	13.11
11.0	7.00	22.00	11.26	13.25
11.5	7.76	23.32	11.8	13.11
12.0	8.85	23.58	12.46	12.46
13.0	11.31	24.11	12.85	13.78

Other sizes please ask

CUTTERS.

HSS STRAIGHT SHANK JOBBER DRILLS

BLACKSMITHS

IMPERIAL SIZES		WIRE GAUGE SIZE				1/2" SHANK	
Dia	Each	Dia	Each	Dia	Each	Dia	Each
(1/64)	1.96	1	2.03	41	1.26	17/32	19.00
(1/32)	1.40	2	2.42	42	1.26	(9/16)	20.62
(3/64)	1.06	3	2.30	43	1.26	19/32	22.25
(1/16)	0.90	4	2.22	44	1.26	(5/8)	24.12
(5/64)	0.83	5	2.16	45	1.26	21/32	26.00
(3/32)	0.80	6	2.16	46	1.26	(11/16)	28.12
(7/64)	0.83	7	2.11	47	1.28	23/32	29.37
(1/8)	0.84	8	2.09	48	1.28	(3/4)	31.88
(9/64)	0.85	9	2.04	49	1.29	25/32	34.24
(5/32)	0.99	10	2.00	50	1.31	13/16	35.00
(11/64)	1.11	11	1.98	51	1.35	27/32	35.84
(3/16)	1.24	12	1.95	52	1.38	(7/8)	36.25
13/64	1.39	13	1.90	53	1.43	29/32	36.87
(7/32)	1.51	14	1.85	54	1.50	15/16	37.5
15/64	1.69	15	1.83	55	1.55	31/32	38.75

(1/4)	1.89	16	1.80	56	1.68	1	40.00
17/64	2.09	17	1.74	57	1.76		
(9/32)	2.33	18	1.71	58	1.80		
19/64	2.59	19	1.63	59	1.83		
(5/16)	2.85	20	1.63	60	1.86		
21/64	3.13	21	1.61	61	1.90	DRILL BLANKS	
(11/32)	3.43	22	1.58	62	1.93		
23/64	3.79	23	1.55	63	1.96	Dia	Each
(3/8)	4.16	24	1.54	64	2		
25/64	4.53	25	1.53	65	2.04	(1/16)	1.19
13/32	4.96	26	1.5	66	2.12	(3/32)	1.11
27/64	5.42	27	1.46	67	2.16	(1/8)	1.19
(7/16)	5.86	28	1.45	68	2.21	(5/32)	1.37
29/64	6.54	29	1.43	69	2.3	(3/16)	1.67
15/32	6.92	30	1.36	70	2.35	(7/32)	2.08
31/64	7.66	31	1.31	71	2.43	(1/4)	2.61
(1/2)	8.11	32	1.3	72	2.49		
		33	1.28	73	2.54		
		34	1.28	74	2.63		
		35	1.28	75	2.69		
		36	1.26	76	2.74		
		37	1.26	77	2.86		
		38	1.24	78	3.01		
		39	1.24	79	3.13		
		40	1.24	80	3.28		

Other sizes are available. Please ask

Hss straight shank jobber Drills metric

Size	£/each	Size	£/each	Size	£/each	Size	£/each	Size	£/each
0.30	2.35	1.80	0.85	4.00	1.03	7.90	2.80	11.75	12.55
0.32	3.37	1.85	1.28	4.10	1.05	8.00	2.89	11.80	10.36
0.35	2.10	1.90	0.80	4.20	1.08	8.10	3.03	11.90	12.88
0.38	3.02	1.95	1.25	4.25	1.66	8.20	3.01	12.00	7.05
0.40	1.96	2.00	0.83	4.30	1.11	8.30	3.18	12.10	11.04
0.42	2.89	2.05	1.22	4.40	1.14	8.40	3.23	12.20	11.30
0.45	1.88	2.10	0.81	4.50	1.16	8.50	3.23	12.25	11.37
0.48	2.75	2.15	1.22	4.60	1.20	8.60	3.41	12.30	11.46
0.50	1.76	2.20	0.81	4.70	1.24	8.70	3.40	12.40	11.71

0.50 1.70	2.20 0.81	4.70 1.24	8.70 3.49	12.40 11.71
0.52 2.68	2.25 0.81	4.75 1.86	8.75 5.31	12.50 7.76
0.55 1.73	2.30 0.81	4.80 1.28	3.58	12.60 12.22
0.58 2.55	2.35 0.89	4.90 1.30	8.80 3.66	12.70 12.39
0.60 1.68	2.40 0.81	5.00 1.32	9.00 3.69	12.75 12.55
0.62 2.46	2.45 1.22	5.10 1.88	9.10 3.84	12.80 12.74
0.65 1.61	2.50 0.81	5.20 1.41	9.20 3.93	12.90 12.88
0.68 2.35	2.55 1.22	5.30 1.46	9.30 4.01	13.00 8.59
0.70 1.54	2.60 0.81	5.40 1.49	9.40 4.11	13.10 13.32
0.72 2.29	2.65 1.24	5.50 1.53	9.50 4.12	13.20 13.66
0.75 1.49	2.70 0.76	5.60 1.58	9.60 4.30	13.25 13.83
0.78 2.17	2.75 1.24	5.70 1.61	9.70 4.41	13.30 13.99
0.80 1.43	2.80 0.81	5.75 2.46	9.75 6.70	13.40 14.61
0.82 2.11	2.85 0.81	5.80 1.66	9.80 4.51	13.50 14.49
0.85 1.36	2.90 0.84	5.90 1.71	9.90 4.61	13.60 14.68
0.88 2.01	2.95 1.28	6.00 1.69	10.00 4.61	13.70 14.99
0.90 1.32	3.00 0.84	6.10 1.86	10.10 6.93	13.80 15.36
0.92 1.94	3.05 1.28	6.20 1.84	10.20 7.41	13.90 15.51
0.95 1.28	3.10 0.87	6.30 1.90	10.25 7.49	14.00 15.86
0.98 1.86	3.15 1.30	6.40 1.94	10.30 7.40	14.25 16.70
1.00 1.20	3.20 0.89	6.50 1.95	10.40 7.76	14.50 17.36
1.05 1.80	3.25 1.34	6.60 2.86	10.50 5.29	14.75 18.21
1.10 1.14	3.30 0.89	6.70 2.11	10.60 8.10	15.00 19.06
1.15 1.69	3.35 1.61	6.75 3.21	10.70 8.28	15.50 20.73
1.20 1.06	3.40 0.89	6.80 2.11	10.75 8.36	15.75 21.68
1.25 1.55	3.45 1.34	6.90 2.24	10.80 8.43	16.00 22.61
1.30 1.01	3.50 0.89	7.00 2.25	10.90 8.59	16.50 26.82
1.35 1.51	3.55 1.34	7.10 2.35	11.00 6.99	17.00 26.92
1.40 0.99	3.60 0.84	7.20 2.40	11.10 9.06	17.50 29.36
1.45 1.44	3.65 1.34	7.25 3.66	11.20 9.10	18.00 31.72
1.50 0.94	3.70 0.96	7.30 2.40	11.25 9.20	18.50 34.56
1.55 1.39	3.75 1.48	7.40 2.49	11.30 9.35	19.00 36.56
1.60 0.90	3.80 0.99	7.50 2.56	11.40 9.61	19.50 40.81
1.65 1.34	3.85 1.48	7.60 2.68	11.50 6.38	20.00 44.00
1.70 0.89	3.90 2.26	7.70 2.73	11.60 9.98	
1.75 1.30	3.95 1.48	7.75 4.15	11.70 10.20	

High Quality White metal for casting figures etc

Pewter 92(lead free)

A very high grade alloy ,lead free and rich in tin. Manufactured to BS5140 . Suitable for all highly detailed castings where good flow properties and a polished finish is required Melting point 245 c, Operating temp 285 c, Density 7.27

KAX Alloy

Tin rich alloy widely used in the jewellery trade for fine, delicate castings where good flow properties and detail are required. Has a good shiny surface finish and is very malleable. Also particularly suitable for hand cast model figures. Melting point 185 c, Operating temperature 245 c, Density 8.99

37/3/60 Alloy

Prepared especially for figure casters. Its flow characteristics are superior to Grade 34% but the alloy is harder. Particularly suitable for small very detailed figures. Melting point 225 c, Operating temperature 290 c, Density 9.70

Grade 34%

A very popular alloy for the manufacture of model kits (Cars, Locos and Trams) .has a good surface finish on flat surfaces and excellent reproduction of detail . Good flow properties but not very malleable. Melting point 225 c, Operating temperature 295 c, Density 9.55

Grade D

Suitable for figures and jewellery components which gives clear reproduction of detail and maximum malleability . This alloy is popular with manufacturers of wargame pieces and is more economical than Grade L Melting Point 248 c, Operating temperature 313 c, Density 10.06

ALLOY	250g	1Kg	5Kg	25Kg	50Kg
PEWTER 92	7.29	14.57	65.56	291.40	509.95
KAX	5.52	11.03	49.64	220.60	386.05
37/3/60	5.22	10.43	46.94	208.60	365.05
GRADE 34%	4.98	9.40	42.30	188.00	329.00
GRADE D	4.46	6.93	31.18	138.60	242.55

LOW MELTING POINT SOLDER 73 C M.P. £3.67 / 100g
(Woods Metal or Cerro bend)

LR9 FLUX £3.00/ 125ml Bottle

A low residue soldering flux for use with Lead / Tin Solders LR9 is acidic but on heating and residues are non-corrosive, eliminating any washing operation. Apply by emersion or brush. Dilute 1:1 to 1:10. LR9 is corrosive and care should be taken on handling. Use rubber gloves and goggles should be worn. A ventilated area of operation is recommended.

SILICONE RUBBER

RTV101 £53.60 /Kg

SOLDERS

Timmans Soft Solder 60/40 Melting Range 185- 240 c Use LR9 Flux £3.98 / 250g

Easyflo 2 Cadmium bearing Silver Solder which offers best combination of melting point, Flow characteristics and mechanical properties. Use Easyflo Flux. Melting range 608 - 617 c 45%AgCuZnCd 1.5mm X 600mm long £4.29 /Stick

Silverflo 24 Cadmium free Silver Solder with similar properties to Easyflo. Melting range 740 - 800 c 24%AgCuZn 1.5mm x 600mm long £2.25 / Stick

Silverflo 16 Cadmium free Silver Solder useful in step brazing with Silver flo 24. Melting range 790 - 830 c 16%AgCuZn 1.5mm x 600mm long £2.12 / Stick

Plumbsol - Alloy of Silver/Tin used where protection from attack by soft water . Excellent fluidity and behaves like Lead Tin solders .Use LR9 flux Melting Range 221 - 225 c 3mm DIA x 600mm long £4.42 / Stick

Easyflo Flux.A general purpose flux for brazing Silver bearing alloys. Working range 550 - 800 c 250g Pot £17.63

OTHER SIZES AND QUALITIES AVAILABLE

Melting Pots

PRICES	POT	Spare element	Capacity kg	Internal Dia mm	Size Depth	Nom.Rating Watts	Net Weight Kg
TPB1	£304	45.98	0.5	37.5	50	200	2.75
TPB6	£319	65.38	2.25	95	37.5	300	2.75
TPB62	£490	72.26	8.0	150	50	600	7.25
TPB93	£730	105.75	22.5	215	75	1200	14.0
EMP50	£555	71.38	22.5	133	133	2000	14.0
EMP100	£708	128.66	34.0	185	160	3000	21.5
ST9	£393.03	81.95	4.5	177X76	38	500	6.5

CASTING MACHINES

CM 018	18" Capacity X 4" Thick	£7363.72
CM 015	15" Capacity X 4" Thick	£6138.78
CM 012	12" Capacity X 4" Thick	£5883.22
CM 012/2	12" Capacity X 2" Thick	£4742.88
CM 009	9" Capacity X 2" Thick	£4318.12
CM 006	6" Capacity X 1" Thick	£1850.00

VULCANISERS

VP 10018g	100 Tonne X 18" capacity with gauge	£9129.75
VP 10015g	30 Tonne X 15" Capacity with gauge	£6838.50
VP 10012g	20 Tonne X 12" Capacity with gauge	£3187.06
LDVP 509	15 Tonne X 9" Capacity	£2755.66
LDVP 508	5 Tonne X 6" Capacity	£ 1254.90

Vulcanisers are complete with mould frame and sprue former

ACCESSORIES

6MF	6" Mould frame complete with sprue former	£237.49
7MF	7" " " " " " "	£290.37
9MF	9" " " " " " "	£483.80
12MF	12" " " " " " "	£563.23
18MF	18" " " " " " "	£931.48

Prices quoted are for frames to produce 1" Thick moulds - Thicker moulds POA

Ingot mould	makes 4 x 1/2kg	£27.61
Ingot mould	(Makes 4 x 2Kg ingots)	£ 71.40
3CU Ft	Compressor	£ 443.16
Large Gate	former	£ 15.00
Small Gate	former	£ 10.00

KM350 Digital Thermometer	£90.63
T1000c Dial pocket dial Thermometer 100-500c	£18.94

SAFETY EQUIPMENT

Dust Mask	£6.60
Panoramette Chemical Goggles	£15.00
Spectorama Overspec Eyeshields	£ 7.50

Chrome leather Heat resistant Gloves £20.00

Camocord Foam ear plugs £ 1.60

Standard PVC gloves Knitted wrists £3.00

ELECTRIC SOLDER & METAL POTS

All units are built to 'B-W' high quality standards to ensure sustained efficiency over a long period. Crucibles and baths are high grade castings or of heavy fabricated steel and the conservatively rated metal sheathed elements are enclosed in strong lagged steel casings. The thermostat controls are normally set to average working temperature but can be adjusted to special settings if required. Optional features include a Potentiometric Electronic Controller.

EMP 50 and EMP 100 WHITE METAL POTS are all-purpose units with heavier ratings for fast heating and can be adjusted to operate up to 500°C. Typical applications include hot tinning and soldering, small castings, babbitt metalling, cable jointing, annealing in moulton lead.

For pouring operations, a tilting stand can be supplied as inset illustration to figure 4. Add T to catalogue number when this is required (e.g. EMP 50T or EMP 100T).

ST 20, and ST 40 MODELS are special shallow models for printed circuit soldering and similar applications. Temperature range to 300°C.

TB 200 TINNING BATH. This rectangular bath is sometimes more convenient than the circular crucibles and can be used as a feeder for special soldering machines.



4: Type EMP 100 Pot. Also available with a strong tilting stand (see inset).

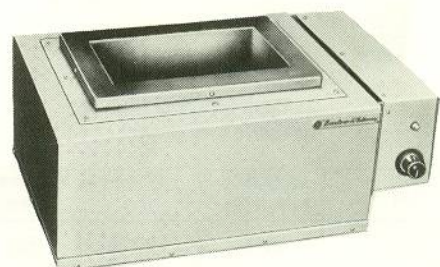
CAT. NO.	CAPACITY Solder. Kg.	INTERNAL SIZE (mm)	NOM. RATING Watts	NET. WEIGHT Kg
EMP 50	22.5	133 diam × 133 deep	2000	14
EMP 100	34	185 diam × 160 deep	3000	21.5
ST 9	4.5	177 × 76 × 38 deep	500	6.5
ST 20	11	305 × 125 × 38 deep	1000	14.5
ST 40	36	330 × 205 × 75 deep	2000	20.75
TB 200	100	380 × 205 × 160 deep	3500	87.0

Barlow-Whitney have designed their ST solder baths to meet printed circuit production requirements and offer several useful sizes.

LARGER pots and baths are also available — see separate leaflet.



5: 'B-W' Type TB100 Tinning Bath



As efforts are constantly being made to improve design



6: Type ST9 Solder Tank

As errors are constantly being made to improve design and methods of manufacture, apparatus supplied may differ in detail from the illustrations and descriptions given. Capacities, dimensions and weights are approximate and are not binding.

'B-W' ELECTRIC SOLDER & METAL POTS

Features:

- ★ AUTOMATIC CONTROL
- ★ LONG-LIFE ELEMENTS
- ★ HEAVY CAST CRUCIBLES
- ★ ROBUST CONSTRUCTION
- ★ CLEAN AND EFFICIENT
- ★ RELIABLE AND ECONOMICAL



2: Type MP/HT1 high temperature model



1: Types TPB1 and TPB6 Solder Pots

'B-W' thermostatically controlled Solder Pots are widely used in industry for many hot dip tinning and soldering operations up to 300°C. Type MP/HT1 (figure 2) is a specially designed high temperature model for stripping and tinning enamelled wire ends in silver solder. Its low voltage element is fed from a variable transformer in lieu of a thermostat which permits temperature adjustment between 500°C and 750°C.

CAT. No.	CAPACITY Solder, Kg.	INTERNAL SIZE (mm)		NOM. RATING Watts	NET WEIGHT Kg
		Dia.	Depth		
TPB1	0.5	37.5	50	200	2.75
TPB6	2.25	95	37.5	300	2.75
TPB62	8.0	150	50	600	7.25
TPB93	22.5	215	75	1200	14
MP/HT1	0.25	25	75	400	16

*Weight of MP/HT1 includes transformer

Standard voltage 220-250 volts single phase A.C.
Also supplied for 100-110 volts to special order.



3: Type TPB62 and TPB93 Solder Pots

Fine Materials

Aluminium Tubes	Aluminium Tubes	Brass tubes	Brass tubes
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telescopic			Gauged			Telescopic			Gauged		
OD	Wall	£/ft	Bore	Wall	£/ft	OD	Wall	£/ft	Bore	Wall	£/ft
.062	.013	1.08	6g	.016	1.52	.062	.013	1.28	6g	.016	1.52
.094	.013	1.78	8g	.016	1.46	.094	.013	1.38	8g	.016	1.46
.125	.013	1.28	10g	.013	1.34	.125	.013	1.48	10g	.013	1.36
.156	.013	1.38	12g	.013	1.30	.156	.013	1.78	12g	.013	1.30
.187	.013	1.48	14g	.013	1.30	.187	.013	1.98	14g	.013	1.30
.219	.013	1.58	16g	.013	1.30	.219	.013	2.18	16g	.013	1.30
.250	.013	1.78	18g	.013	1.30	.250	.013	2.38	18g	.013	1.30
.281	.013	1.88	20g	.013	1.30	.281	.013	2.58	20g	.013	1.30
			22g	.013	1.30	.312	.013	2.78	22g	.013	1.30
Copper Tube						.344	.013	2.78			
.062	.013	1.08	Square brass tube			.375	.013	3.68	Sheet metal		
.094	.013	1.18	.062	.013	2.72	.416	.013	3.88	10" x 4"		
.125	.013	1.30	.094	.013	3.06	.438	.013	4.18	.005 brass		3.78
.156	.013	1.38	.125	.013	3.38	.469	.013	4.58	.010 "		4.40
			.156	.013	3.58	.500	.013	7.40	.015		5.98
Rect Brass Tube						.531	.013	5.92	.025		7.78
3/32x3/16		5.50	Brass Angle			.563	.013	6.36	.032		7.68
1/8x1/4		5.70	1/8x	1/8	2.18	.594	.013	4.64	.012 Tonpla		3.20
5/32x5/16		6.20	5/32	5/32	2.38	.625	.013	4.86	.018 Ali		3.28
3/16x3/8		6.60	3/16	3/16	2.58	.656	.013	5.10	.028		3.78
			7/32	7/32	2.88				.064		4.38
Spring wire			1/4	1/4	3.08				.025 Cu		4.38
.032	0.38							Piano wire 3ft	Brass rod £/ ft		
.048	0.38	Brass Channel				24g	0.84		0.42		
.056	0.44	1/8x1/8x1/8x.012			2.58	22g	0.76		0.52		
.064	0.52	5/32x1/8x1/8			2.78	20g	0.76		0.58		
		3/16x1/8x1/8			3.08	18g	0.96		0.64		
		7/32x1/8x1/8			3.38	16g	1.40		0.92		
		1/4x1/8x1/8			3.48	14g	1.72		1.76		
Brass Strip						13g			1.82		
Thick			Width			12g	1.72		2.04		
.	¼	½	¾	1	2	11g			1.76		
.016	1.12	1.44	1.92	2.40	4.32	10g	2.00		1.90		
.025	1.28	1.90	2.54	3.20	6.22	8g	2.44		2.54		
						6g	2.64		3.34		

MISCELLANEOUS ITEMS

Price / ft (subject unsold)

ALUMINIUM ANGLE

4 X 4 X ¼ £22.35 | 1/2 x 1 x 1/8 £1.21 | 1/2 x 1/2 x 1/8 £0.44

5/8 x 5/8 x 1	£0.93	3/4 x 3/8 x 1/16	£0.97	3 x 1 x 1/8	£4.43
1.1/4 x 3/4 x 1/8	£1.86	1.1/2 x 1/2 x 3/16	£1.98	2.1/2 x 2.1/2 x 1/8	£4.03
2.1/2 x 2.1/2 x 1/4	£8.96	3 x 3 x 1/4	£6.46		

BLACK STEEL ANGLE

30X30X3	£0.29	50X50X3	£1.59	100X100X8	£6.80
20X20X3	£0.31	25X25X3	£0.40	25X25X6	£0.61
40X40X3	£0.63	40X40X6	£1.29	75X75X6	£2.93
80X80X10	£4.78	80X80X6	£1.87	40X40X4	£0.32

BRIGHT STEEL ANGLE

32X32X6	£8.41	40X40X3	£3.20	40X40X5	£3.50
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BRASS ANGLE

3/4X1.1/4 X1/8	£4.35	1 X 2 X 1/8	£11.74	1.1/2X1.1/2X 1/4	£34.00
2 X 2 X1/8	£9.60	5/16X5/16X1/16	£1.07		

STAINLESS ANGLE

1 X 1 X 1/4	£7.75	1.1/4 X 1.1/4 X 1/8	£5.26
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ALUMINIUM CHANNEL

1X1/2 X1/8	£0.91	5/8X5/8X1/8	£1.35	3/4X3/4X1/16	£0.59
1X1X1/8	£2.12	1X1X3/16	£3.09	1.1/4X1.1/4X1/8	£3.76
2X2X1/4	£9.73	3/8X1/2X1/16	£0.90	3/8X5/8X1/16	£0.74

BLACK STEEL CHANNEL

178X88	£11.87	20X40	£1.13	25X51	£2.19
76X38	£3.41				

FREECUTTING EN1APB BRIGHT ROUNDS METRIC

14MM	£0.85	8MM	£0.27	10MM	£0.80	12MM	£1.20	15MM	£1.26
2MM	£0.36	20MM	£1.81	32MM	£3.72	4MM	£0.25		

ALLOY STEEL ROUNDS

63MM EN16T	£9.83	30MM EN16	£10.98	82MM EN31	£870.56
1" DIA EN351	£14.76	55MM SAE8620	£16.76		

EN8DM FREECUTTING ROUND

10MM	£0.53	9/16"	£1.28	13/16"	£2.21	30MM	£3.30
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BRASS ROUNDS

10MM	£4.34	4.1/4"	£244.09	12MM	£2.00
2MM	£0.24	5MM	£0.39	6MM	£0.64
8MM	£2.95				

MISC ROUNDS

75MM CAST IRON	£34.76	16G NICHROME WIRE	£0.41
12G NICHROME WIRE	£0.61	1.3/4 " DIA D3	£23.02
32MM BERYLIUM COPPER	£191.64	8MM NYLATRON	£0.89
30MM DIA PREC GROUND EN1A	£10.63	1.1/2" CARP TUFNOL	£50.00

NICKEL SILVER ROUNDS

1/32"	£0.12	1/16	£0.38	5/8	£11.07	5/16"	£11.47
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SPRING STEEL ROUNDS

3MM	£0.054	1/2"	£1.56	4.06MM	£0.72	4.88M	£1.30	5/16"	£1.50
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STAINLESS ROUNDS

10mm	£2.00	12mm	£2.51	16mm	£6.00	20mm	£5.42	24mm	£9.65
				416					
1" 416	£12.04	3mm	£0.45	5mm	£0.78	2.1/8" 316l	£41.94	2.1/4	£43.44
								316L	
2.1/4" 416	12.04	6mm	£1.45	5/16 416	£3.00	9mm	£5.40		

BRIGHT STEEL FLATS

10X 125	£8.12	10X40	£2.48	12X50	£4.13	5/8X5	£12.82	5/8X6	£13.50
5/8X 8	£19.80	5/8X10	£23.97	5/8X 2.1/2	£5.64	16X90	£8.98	1X9	£50.69
1X3	£9.96	1X 3.1/2	£12.95	30X45	£10.15	1.1/4X1.1/ 2	£6.04	1.1/4X3	£17.09
1.1/2X4	£21.99	1.1/2X1.3/ 4	£9.07	40X45	£18.45	40X80	£20.57	2X 2.1/2	£16.05
2X3	£26.21	5X30	£1.45	5X50	£1.78	1/4X 5/16	£0.40	1/4X 3.1/2	£4.04
2.1/2X4	£31.89	2.1/2X5	£54.55	6X30	£1.51	6X50	£2.11	6X70	£3.41
6X80	£4.01	6X90	£4.52	5/16X6	£6.63	5/16X8	£8.88	5/16X 3.1/2	£13.87
8X35	£5.45	3/8X6	£9.20						

BLACK FLATS

5X100	£1.69	5X150	£2.49	6X25	£0.47	6X50	£10.76	10X50	£1.11
12X100	£4.24	20X100	£4.45	3X20	£0.15	3X25	£0.22	3X30	£0.30
3X50	£0.53	5X20	£0.60	5X25	£0.45	8X50	£1.22		

BRASS FLAT

5/32X7/16 £5.24

COPPER FLATS

1/8X3/4	£1.22	1/8X1	£2.26	1/8X1/4	£0.57	1/4X1	£4.54	3/8X1	£6.77
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GAUGE PLATE 01 TOOL STEEL

1X25	£4.79	1/8X4	£8.15	5/32X4	£8.79	1/4X4	£31.91	3/8X5/8	£19.21
1/16X3/4	£2.19								

MISC FLATS

1/32X1 IRON £1.00

SPRING STEEL H AND T

0.006X60MM	£2.94	0.015"X1/4	£3.40	28GX3/8	£2.32	26GX3/16	£0.98
26GX3/8	£2.45	0.022"X1/2	£2.50	23GX1/4	£2.69	23GX3/8	£7.46
24GX5/8	£4.07	22GX3/4	£4.62	20GX1.1/4	£1.82	20GX5/16	£4.11
20GX3/8	£2.06	18GX5/16	£4.11	18GX9/16	£7.22	1/16X1/2	£3.60
1/16X6	£23.19	1/16X1	£7.21	10X50	£5.37	1/8X1	£4.57

EN1APB BRIGHT STEEL HEXAGONS

10mm	£0.51	0.445"	£0.79	12mm	£0.71	13mm	£1.01	0.600"	£1.20
0.820"	£2.20	22mm	£2.20	1.062"	£3.51	1.100"	£3.81	30mm	£4.32
1.200"	£4.61	32mm	£4.78	1.300"	£6.67	36mm	£7.93	1.480"	£8.26
1.750	£14.67	1.860"	£15.00	2.050"	£16.54	6mm	£0.33	7mm	£0.37
		8mm	£0.43	0.324"	£0.33	3.150"	£38.98	9mm	£0.75

ALUMINIUM HEXAGONS

1.100" £13.57

HALF ROUND ALUMINIUM

3/4" £1.12

BRASS HEXAGONS

0.445"	£4.35	0.525"	£5.80	0.820"	£14.55	0.920"	£7.13	0.338"	£9.00
4mm	£0.88	5mm	£1.12	8mm	£2.06	10mm	£2.49		

HALF ROUND BRASS BEADING

1/16	£3.06	3/32	£2.3	1/8	£4.48	3/16	£2.87	1/4	£2.38	3/8	£2.31	1/2	£2.44	3/4	£2.37
		8													

STAINLESS HEXAGONS

STAINLESS HEXAGONS

0.525" £4.68 | 0.600" £5.22 | 16MM £6.03 | 1.300" £20.09 | 5MM £0.90

BRASS MESH 300MM SQ

BRASS 30MESH X 32G £16.54 | 40MESH X 34G £17.27
80MESH X 39G £15.01

STAINLESS ANGLE

25X25X3 £9.91

STEEL NUTS / 10

M 4 £0.71 | M 6 £0.85 | M 10 £0.56 | 1/2" BSF £5.58
M 2 £0.60 | M 8 £0.60 | 1/2" BSW £2.35 | 1/4BSF £0.36
4BA NYLOC £1.00 | 1.1/4BSW £11.75 | 3/16BSW £0.24 | 1/4" BSW £0.60

PLATE 300MM SQ

ALUMINIUM 1"	£51.81	1/4"	£18.56	8MM	£25.51
1/2"	£30.50	25MM BACK	£41.86		
2MM THICK X 4MM STAINLESS PERFERATED SHEET					£26.84

RIVETS/10

ALUMINIUM	1/8 X 1/2	£0.35	3/32 X 1/4 CUP	£1.47	3/32 X 3/8 CSK	£1.47
BRASS	3/32 X 3/8 RD	£0.53	1/16 X 1/8	£0.56		
COPPER	1/16 X 1/2	£0.18	1/16 X 1/4	£0.49		
STEEL	1/8 X 1/2 CSK	£0.74	1/8 X 3/8	£0.60		
STAINLESS	1/8 X 1	£1.42				

SHEET

5 THOU BRASS	£2.35	2MM POLISHED BRASS	£30.00			
1.2MM GALVANISED	£2.50	NICKEL SILVER	24G	£10	20G	£25
10 THOU STEEL SHIM	£11.04					

SCREWS/10

M5X20 STAINLESS CSK ALLEN	£1.50	1/4 BSF CAP HD STEEL	£1.29
2BAX 1/2 CAP	£2.23	2BAX 1/2 SOCKET	£1.74
M2X 4 CSK ST LESS	£1.92	M4 X 30 CSK ST ' LESS	£1.96
STEEL NO.8 X 1.1/4 CSK	£2.94	8BA X3/16 SOC GRUB	£8.00
M10 X 25 HEX STEEL	£1.26	M10X 75 HT BOLTS	£2.60
M4 X25 HEX	£1.76	M6X20	£2.50
M8X75 HT BOLTS	£1.54	M6X30 STAINLESS BOLTS	£2.94
1/2 X 2" BSW HT BOLTS	£3.88	M4 X30 RD HD	£1.96
M8X 50 SOC CAP	£2.24	M8X25 SOC CAP	£1.08
3/16X 1/2 SOC CAP	£1.03	M4 X 16 SOC CAP	£1.76
3/8 X 2 "T" BOLTS	£13.80		

BRIGHT STEEL SQUARES

10MM	£0.95	12MM	£1.25	30MM	£4.64	35MM	£6.03	40MM	£8.04
6MM	£0.24	8MM	£0.80						
1/2" D2 TOOL STEEL				£20.66	3/8" HSS TOOL STEEL			£7.83	

BRASS STUDDING

M12 £11.56 | M6 £3.50 | M8 £6.28 | No.10 X32 UNF £3.47

STEEL STUDDING

M10 £2.41 | 7/16UNF £2.67 | M12 £4.52 | M8 £2.60

STAINLESS STUDDING

2BA £5.67 | 4BA £5.57 | M6 £3.00

ALUMINIUM TUBES

1.1/2 OD X10G	£5.70	1.5/8X16G	£7.53	2"X10G	£20.70
5/16X16G	£1.35	3/4X1.1/2 X 16G RHS			£2.34

BRASS TUBES

7/16X22G £1.59	1/2X20G £2.68	9/16X22G £3.41	3/4X20G £2.56
1"X20G £5.66	5/32X20G £2.00	1.3/8X20G £7.85	1.3/8X16G £8.28
1.5/8X16G £5.99	1.3/4X16G £8.43	5/16X22G £1.23	3.1/2X16G £13.69
3/8X18G £1.81			

CORED BRONZE

4"X2.1/2" £198.00	1.3/4X1" £25.12	2.3/4X1.3/4 £72.29
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COLD DRAWN SEAMLESS STEEL

10X1MM £2.76	4.3/4X 2.1/2 £196.87	9/16X16G £1.81	14X2 £1.94
5/8X18G £1.65	7"X 1/4WALL £60.46	7/8X3/16W £4.52	1.1/8ODX6G £2.09
30X1.5 £2.67	30X5 £5.91	1.1/4ODX10G £8.21	2"ODX10G £10.29
50ODX5 £4.43	1/4ODX 18G £0.96	2.1/2ODX10G £13.49	3.1/2ODX 1/4 £212.40

COPPER TUBE

7/16X20G £2.21	9/16X20G £2.94	9/16X16G £8.89	5/8X20G £3.01
3/4X20G £6.03	1.3/8X16G £11.05	7/32X20G £1.21	5/16X22G £1.20

TEE ALUMINIUM

1.1/2X1.1/2X 18MM £6.12	3/4X3/4X1/8 £1.07	1X1X1/8 £1.50
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TEE STEEL

25X25X3 £0.55

TEE BRASS

1/2 X 1/2 X 1/16 £5.63

WELDED STEEL TUBE

1/2X18G £0.51	1/2X16G £0.56	5/8X16G £0.76	3/4X16G £0.61
1"X18G £0.81	1.1/8X16G £1.35	1.3/8X18G £1.62	1.1/2X16G £0.51
1.3/4X18G £1.56	60X1.5 £1.67		

RECTANGULAR WELDED TUBE

1/2X1X16G £0.72	15X35 £1.01	3/4X1.1/2X16G £1.03	20X25X1.5 £0.70
20X30X1.5 £0.79	1 X 1.1/2X16G £1.24	1X2X16G £1.40	25X50X2 £1.92

TINPLATE 300MMX 300MM

30G £2.91	28G £3.31	26G £3.88	18G £10.86	24G £5.16
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NOMINAL BORE STEEL PIPE

25MM £2.25	25mm GALV £2.50	1.1/4 £2.65	1.3/4 GALV £3.57
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ROLLED HOLLOW SECTION STEEL

100X100X4 £4.41	100X50X3.2 £3.91	100X100X6 £11.25	160X80X5 £11.72
20X20X2.5 £1.08	25X25X3 £1.30	50X25X3 £1.45	20X20X2 £0.81
30X 30 X2.5 £3.07	40X30X2 £3.85	50x30x 3 £3.24	32X32X2 £0.98
40X 40 X 2 £1.35	40X40X3 £2.52	40X80X3 £2.13	50X50X3 £1.65
60X60X5 £13.59	70X70X5 £4.95	40X80X6 £12.43	

SQUARE WELDED STEEL (ERW)

1"X16G £1.00	1/2" X 16G £0.59	5/8" X 18G £0.50	5/8" X 14G £1.75
3/4"X18G £0.94	3/4" X 16G £1.25	20X2 £0.90	7/8" X 16G £1.74
1"X18G £0.67	1"X16G £1.00	1.1/4X16G £1.26	1.1/2X16G £1.29
2"X16G £1.60			

ALUMINIUM SQUARE TUBE

1/2X16G £0.54 | 3/4X16G £1.00 | 2.1/2X10G £9.90

BRASS TUBE

3/4X16G £5.40 | 1"X16G £23.60

STAINLESS ROUND TUBE

4" X 16G £36.72 | 7/16X16G £3.21 | 7/8X16G £6.66 | 5X1 316 £7.18
3/16X0.010" £4.86 | 1/4X0.010 £6.17 | 6X1 £2.36 | 3/8X22G £4.28
3/4X18G £3.93

UNIVERSAL BEAMS

203X102X23 £8.28 | 254X146X31 £13.95

COILWASHERS STEEL

8BA £0.60 | 10BA £0.60 | 2BA £0.72 | 6BA £0.60

WASHERS STEEL

M10 £0.60 | M6 £0.60 | 1/4 "REPAIR(2.1/2 OD)

STAINLESS WASHERS

M4 £0.60 | M5 £0.60 | M6 £0.60

ALUMINIUM Z

1/2X 3/4X 1/16 £1.33

LUBRICANTS

DROMUS SOLUBLE CUTTING OIL	£20.00/5L	£6.50/L
LOCTITE 601	£10.00	
TELUS32 LUBRICATING OIL	£6.00/L	
TONNA 68 HYDRAULIC OIL	£6.20/L	
ROCOL MOLYTONE GREASE	£6.00/TUBE	
LITHIUM GREASE	£5.00/TUBE	

MISCELLANEOUS

ZEUS CHART	£5.00	SOLDER PAINT	£17.50 / 500G
WHITE METAL FOR BEARINGS		£25.00/KG	

WE SUPPLY NEW MACHINES AND SPARE PARTS FOR MYFORD, EMCO, HOBBYMAT, RISTON, RECORD POWER AND SEALEY.

Lathe Dogs

Made of robust and rigid construction for maximum strength and durability

Size Bent Straight

1/2in £3.93 £4.45

3/4in £4.63 £5.25

1in £5.18 £5.93

Cut Off Tool Holder

These toolholders are machined to precise tolerances and are heat treated. They are designed to support the blade over a wide area to prevent breakage c/w blade.

Size Blade Size Prices




9/16x5/15x3 1/2 5/16x1/16 £27.92

5/16x3/4x4 1/2 1/2x3/32 £29.99

Knurling Tool Holder

These knurling tool holders come complete with two medium high speed steel knurls and have self adjusting pivot heads.

Size of Holder	Knurl Dimensions				Price
	Dia	Face	Hole	Price	
5/15x3/4x5	5/8in	3/16in	7/32in	£27.75	
3/8x7/8x5 1/2	5/8in	3/16in	7/32in	£27.75	
1/2x1 1/2x4/2in	3/4in	3/8in	1/4in	£18.06	

Multi Head Knurling Tool

These knurling multi head knurling tool has a revolving head and a locknut for adjustment size of holder 5/16x3/4x3in and knurl dimensions 5/8x3/16x7/32 , £42.00



Knurl

Made of high speed steel individually cut to obtain sharp perfectly formed teeth, tempered and tested. Finished in pairs to fit all standard makes of knurling tool. Available in 5/8 or 3/4 dia daimon or straight pattern with coarse, medium or fine pitch. Please specify, £5.95 per pair.



Double Ended Boring Set

Broached holes to accept standard HHS bits Black Oxide finish. Comes complete with 4 boring wallet. HHS bits not included, £20.75



Boring Bar with Holder

Double ended one piece boring bar 90° & 45° sq ends. Toolbit not included.

Dia/Bar	Holder	Bits	Price
9.5mm	14mm	1/8in	£3.25
11mm	16mm	3/16in	£9.75
14mm	19mm	1/4in	£12.75



Machine Die Holder

Ideal for short or medium run shaft threading. Can be used on lathes milling machines and tapping heads. Main body dia 1 1/2in + length 1in, Total Length 3in, Shank portion 1/2in dia + Length 2in. One piece construction.

MDH 411 13/16in £6.32



MDH 412 1in £6.60

MDH 413 1.1/2in £8.18

Spindle Tap Holder

This 1/4in capacity tap holder come complete with replaceable jaws and is suitable for mounting in the tailstock of your lathe etc, £41.74.

Spindle Type Die Holders

These die holders are available to suit either 13/16 or 1in dies and are ideal for mounting in the tailstock of your lathe etc, 13/16in £12.75, 1in £11.25.





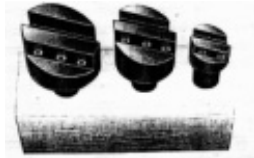
Slitting Saw Arbor

This is a versatile arbor offers flexibility in saving operations. The spring loaded head readily accepts saw blades with hole dia from 1/2-1in. The blades are firmly secured in position with a hex headed screw. Rust resistant black oxide finish. Shank 1/2 dia, £14.63.



Flycutter Toolholder

Counter balance to give a smoother finish. Made of hardened steel, Machines up to 6in wide, Shiny black finish. 1/2 in shank c/w flat for grubscrew. Set of three in wooden stand c/w HHS toolbits, Price £28.42.



Slotted Machine Angle Plates

These angle plates are made of high quality seasoned castings and are accurately machined

square.

Size	Cat No	Price
3.5x3x2.5	MAP 742	£29.95 (webbed)
6x5x4.5	MAP 744	£44.92 (webbed)
6x5x4.5	MAP 764	£43.42 (open)



Machinists Jacks

The machinists jack is a workshops tool that has many uses. It is made of heavy cast and has an adjustable screw with a tilting swivel head which has a one inch adjustment, Price £4.50



Wiggler & Centre Finder Set

This superb kit is for accurately locating working points on a drill press lathe, miling ect. It consists of snap holder needle point attachment, ball contact attachment disc contact attachment and an offset indicator holder, prize £14.92



Endmill holders

Ideal for efficient holding of endmills etc in lathes and miling machines. Available to take 1/4,3/8 & 5/8 tools. Shank tapers 1 or 2mt available please specify.

1 mt tapped 6mm,2mt tapped 3/8 whit.

1mtx1/4 £16.50	2mtx1/4 £18.00	3mtx1/4 £21.75
1mtx3/8 £16.50	2mtx3/8 £18.00	3mtx3/8 £21.75
1mtx1/2 £19.50		3mtx1/2 £28.42



1mtx5/8 £19.50 | 2mtx5/8 £22.50 | 3mtx5/8 £28.42

Blank End Arbors

These extremely useful arbors have ground taper shanks with soft ends which are easily machined for the user's own purpose. Ideal for mounting cutters, making fly cutters etc. Available with 1,2,3 mt.

1mt Tapped 6mm £6.45 | 1mt Untapped 6mm £4.05

2mt Tapped 3/8w £7.20 | 2mt Untapped 3/8w £5.55

3mt Tapped 3/8w £9.38 | 3mt Untapped 3/8w £7.43



Morse Taper Sleeves

Inside Taper	Outside Taper	Price
Mt1	Mt2	£7.42
Mt1	Mt3	£8.93
Mt2	Mt3	£8.93
Mt1	Mt4	£11.93



Lathe Centres

Included angle is 60° precision made hardened and ground to closet tolerances, available full or half centre 1mt, 2mt or 3mt.

Prices	Full	Half
1mt	£4.42	£6.15
2mt	£4.96	£7.13
3mt	£6.25	£10.12



Economy Machine Vices

High tensile casting accurately machine and assembled.

Jaw Width	Jaw Opening	Jaw Depth	Length	Price
1 1/2in	1 1/2in	7/8in	5in	£22.50



Toolmakers Clamps

2in £5.77 | 2 1/2in £6.60
3in £8.25 | 4in £9.25



Jewellers Anvil

Anvil 2x1 1/4 chrome finish, price £11.92.



Iron Doming Block

Heavy duty iron doming block with 6 sides providing 17 different size of dome, price

£29.62



Drilling and Tapping

Drill Gauge

Made of heavy ground carbon steel. Holes sizes and decimal equivalents permanently etched.
 1/16 1/2x1/64 £4.50 | No Drills 1 – 60 £4.50



Archimedian Drill Stock

Spiral type drill with brass handle and steel chuck(0-1mm) spring action for ease of use. Drill turns by pushing centre piece up and down. A superb precision tool, price £9.50.



Small Milling Table

Width 3” ength 4.3/4” £61.00

T Handle Tap Wrenches

Standard type with solid jaws. Used in hand tapping. Heavy knurled cap for better grip. Ideal tool for general tapping applications.

Code	Capacity	Price
Mt050	1/16-5/32	£3.90
Mt051	5/32-1/5	£4.28
Mt052	1/4-1/2	£4.65



Precision type replaceable jaws

Jaws are hardened and tempered. Jaws are replaceable. Shiny ground finish. Used in hand tapping. Can also be used with drills and reamers. Available in plain and ratchet type.

Code	Capacity	Price
Mt 065	1/16 – 5/32	£4.65
Mt 056	5/32 – 1/4	£5.93
Mt 057	1/4 – 1/2	£7.48
Mt 060	1/16 – 5/32 (rcht)	£7.45
Mt 061	5/32 – 1/4 (rcht)	£8.25
Mt 062	1/4 – 1/2 (rcht)	£10.43



Watchmakers Eyeglasses

All our eyeglasses have GLASS lenses and are available with a choice of the following magnifications:- 1.5x, 2x, 3x, 3.5x, 4x and 4.5x, Price £2.25.



New High Precision

Toolmaker Vice

Made of hardened, precision ground, V grooved jaws for round work, Width of jaw – 2 3/8, Height – 1 3/4”, Depth 15/16, Opening 2 3/16”, Price £74.46.

Pic here

New Pin Type Precision Vice

Made of hardened steel, Precision ground, 3" Jaw width, A superb tool, Price £97.50

Adjustable Scraper & deburring tool

This excellent tool has an adjustable blade for best suited working length. The bull nosed collect face serves as a non marking edge guide. Overall length 4 1/2, Price £7.49, blade £1.88.



Triangular Scraper

All purpose triangle scraper with wooden handle. Price £4.43.



Set of Four Pin Vices

Ideal for holding small tools, rods wires and tape etc. Collets grip firmly when screw chuck is tightened. Heavy knurling body, shiny finish, Complete Set In Plastic Wallet, Price £11.25.



Economy Pin Vice

Complete with two double ended collets covering sizes 0 – 3mm. Overall length is 4ins, chrome finish, Price £3.58.



Sliding Pin Vice Price £2.25

Swivel Head Pin Vice

Also has two double ended collets covering 0 – 3.2 mm. Swivel head feature makes using more comfortable. Bright nickel plate finish, Price £4.43



Adjustable Pin Vice

Includes a 3 jaw steel screw chuck and an unbreakable plastic handle. Capacity is 0 – 1/4 in. Ideal for small drills, Price £21.15

Pin Tongs

Chromed steel body with wingnut adj. Ideal for holding long thin objects, Price £5.93.



Pocket Gem Holder

Ideal for picking up very small components. Superb spring action grip, Price £5.25.



Hand Vice

Malleable iron jaws have serrations wing nuts adjustment. Very useful for model marks etc, Price £5.93.



Hand Clamp

Spring tube. Body is made of high grade cast iron and can be firmly tightenend by hand with the fitted screw. Ideal for holding small jobs, 1/4 in jaw width, Price £5.40.



Repairman's taper reamer

Ideal for removing burrs from small holes and engaging countersink holes in soft metals. Suitable for holes 1/8in to 1/2in, Price £4.43.



Lathe Chucks?

Adjustment Piercing saw

This lightweight fret saw is often known as a jewellers saw and uses extremely fine blades – up to 80 TPI to cut almost all common thin sheet metals. It has the ability to accommodate broken blades making a longer blade life possible, Price £13.88, Blades £11.25.



Adjustable Coping Saw

The coping saw is designed to make curved cuts in wood and plastic. Coping saw blades are very narrow with pinned ends and fine teeth set at 14 tpi. The high quality steel blade is accurately heat treated to give the correct combination of hardness and toughness., Price £11.93, blades £5.25.



20c Hacksaw

The 20t hacksaw has a strong comfortable die-cast handle and rigid tubular bow of oval cross section which can be used to hold spare blades, Price £13.49.



Wheel Dresser

Price £7.00, Spare wheel £1.50



Single point diamond dresser 1/2 carat Price £11.93



Jewellers Screwdrivers Sets £4.00



Measuring & Marking – All products fully guaranteed

Dial Caliper

This beautifully engineered stainless steel caliper is provided with hardened jaws and can be used for internal, external, depth and step measurements. The adjustable dial is graduated in 0.001 divs reads 0-1 in per rev over the range 0-6in. A metric version is also available 0-150mm. The moving head is fitted with a lock enabling a fixed setting to be selected and held. These calipers are shockproof, Price £29.37 please state Met of Imp).



Electronic digital calipers

These latest digital verniers are the ultimate in easy to read precision measuring in the workshop. The 0-6in/150mm range is accurate to within .01mm/.0005in. These verniers now have the facility for ins/mm conversion. All electronics are totally protected from shavings, filings and dusts etc. These verniers now come with auto off feature, Price £102.00.





Dial Gauge With Mounting Lug These standard type dial gauge are ideal for both testroom and workshop. Clear graduations and shockproof mechanism. Range 0-10mm graduated 0.01mm. Imperial version also available. Please specify, Price £21.75.



Dial Test Indicator

These dial test indicators are ideal for measuring small lengths on awkward positions, for centering work piece according to dia or bore and checking axial or radial run out machine tools. Graduated 0.01mm c/w lined wooden storage case, Price £44.92.



STD Mag Base

C/w on/off switch and a powerful magnetic base – size 2 x 1 3/4 1 15/16. Ideal for DTI's etc, Price £29.25.

Minormag Base

Compact universal magnetic stand high power magnet affords maximum rigidity. Height of base 1in. Dia base 1in, Height of rod 3 1/2in, Dia of rod 1/4in. New model with fine adjustment, Price £19.42.



Toolmakers surface gauges

Base and scriber hardened. Bottom grooved for cylindrical work, c/w fine adjustment. Base has two retractable gauge pins to set against edge of surface plate.

Surface gauge with 4 & 7in spindles - £19.38.

Surface gauge with 9 & 12in spindles - £28.68.



Micrometer Stand

Essential for more precise and stable measurements allows for use of both hands. Quality manufacture, Price £23.68.

Engineers Squares

Made of finest steel. Hardened blade. Accuracy to workshop grade. These squares are accurate both inside and outside.

2in £ each 3in £ each



4in £ each 6in £ each

9in £ each

Precision V Blocks Precision ground matched and numbered in pairs matched accuracy 0.0002in. Complete with two clamps. Accurate enough for use in layouts or surface plate work. All sides are ground square and are parallel to each other. Sturdy enough to be used in machining operations.

CAT No Capacity Size Price



CHV 01 1in 1 3/8x1 5/8x1 3/4 £38.33

CHV 02 1 1/2in 1 5/8x1 3/4x2 3/4 £44.75

CHV 03 1 1/2in 1 3/4x2 1/2x2 3/4 £56.25

Pocket Rule

Length 6in stainless steel, clear reading metric and imperial c/w pocket clip, Price £1.88.



Protractors

Made of stainless steel complete with locknut measures angles from 0 – 180 deg,

MP965 – Round head type £4.43

MP966 – Rectangular head type £7.58



Depth Gauges

6in Stainless steel rule with hardened and ground steel base. Spring tension nut for easy depth measurement. Graduated in ins & mm, Price £7.43.



Combined depth gauge/Protractor

Stainless steel construction graduated metric and imperial. Complete with storage wallet, Price £15.38.

Calipers & Dividers

Hardened and tempered spring. Legs are machined to a right length balance. Adjusting washer and nut allow fast and positive adjustment. Polished finish.

Dividers	3in £2.63	4in £2.93	6in £3.30
Inside Calipers	3in £2.93	4in £2.93	6in £3.30
Outside Calipers	3in £2.93	4in £2.93	6in £3.30
Jenny Calipers	4in £2.93	6in £3.30	



Automatic Centre Punch

The automatic centre punch gives a clear indent without hammering. Just press down and a sharp blow results. The depth of impression is variable by turning the top cap, Price £ ?

5 Piece centre punch set size 1/16 – 5/32, Price £7.43



Pin Punch Sets

These punches are made from hardened and tempered tool steel and are centres ground. They are 4in long with a heavy knurling body with provides a better grip.

4 Pc set pp1

Set of four sizes in storage wallet 1/16, 3/32, 1/8, 5/16in, Price £6.93.

4 Pc set pp2

Set of four sizes in storage wallet 3/16, 7/32, 1/4, 5/16, Price £6.93.

8 Pc set pp3

Set of 8 pin punches in storage wallet sizes 1/16-5/16in, Prices £16.18



Long Drive Pin Punch Sets

Centreless ground hardened & tempered 4 1/2in long drive pin section – 3 1/2in 5pc set in plastic wallet,



Price £16.49

Letter & Number punch sets

These punches are hand cut and hardened with a black shiny finish and come complete with storage box.

Code	Size/Type	Price
MLS 200	1/16 number	£7.86
MLS 202	1/8 number	£9.18
MLS 204	1/4 number	£11.81
MLS 210	1/16 letter	£18.41
MLS 212	1/8 letter	£19.73
MLS 214	1/4 letter	£23.09



Scribers with knurling body

Double ended, Price £2.25 each Single ended, Price £1.50 each



New scrapper scriber with knurling body Price £2.62 each.



A BRIEF INTRODUCTION TO VULCANISED MOULD MAKING



2



1

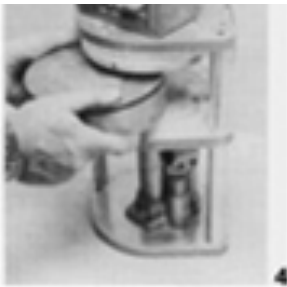


3



Making a vulcanised mould is a quick, clean and economical way of producing high definition rubber moulds at a fraction of the cost of RTV versions. Picture 1 shows all the equipment needed to produce the mould i.e. vulcaniser, mould box, silicone spray, talc, sprue former, blank rubber discs and locators. The process of making the mould is as follows:

After the vulcaniser and box have been heated to 150°C which takes about 15 minutes, the mould box is then removed and the blank rubber discs are placed into the vulcaniser to be pre-warmed to soften them making them easier to use. One of the rubber discs is then placed into the assembled mould box and after giving a light spray with silicone the masters to be moulded are simply laid around the mould and lightly pressed into the rubber. No cutting or bedding of the figures is required unless they are a really awkward shape. Next the mould locators are laid around the outside and the sprue former placed in the middle hole as in picture 2. Now place the other half of the rubber, after lightly spraying with silicone, on top and place the top plate of the mould box on top of that, picture 3. Now simply place the assembled box into the vulcaniser, picture 4, and bring the whole unit up to 150°C. At this point the rubber becomes very soft and takes on a liquorice like quality and flows into every small detail. The hydraulic jack is pumped up, picture 5, further pressurising the rubber into the master and the vulcanising process has begun to cure the rubber into



its hard working condition. After 40 minutes turn the unit off and allow to cool for approximately 1 hour. Although a mould can be removed straight away masters such as white metal, pewter, millput, some plaster and resin, can be somewhat brittle. After the mould has cooled the box is removed and the mould taken out. Gates are then cut in the normal way using a scalpel, picture 6. Then after dusting with talc, a test cast can be carried out, picture 7. Good results are quickly achieved. These moulds can be used on either our own centrifugal casting machine, Tirant versions or even for hand pouring. Vulcanised moulds have an extremely long life and will not split or rip from deep undercuts.

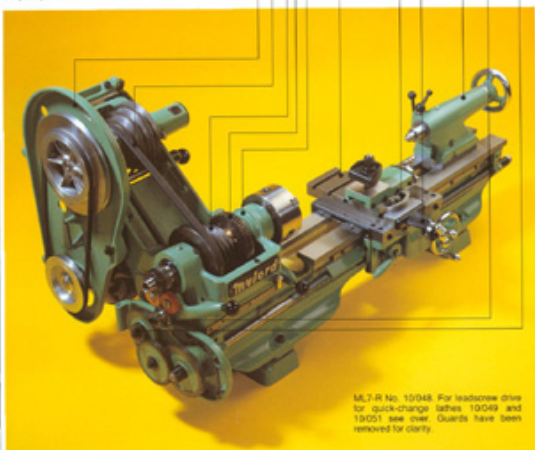
This leaflet is designed only to give a brief outline as to the vulcanising process. However, all our machines comes complete with a comprehensive instruction sheet.



Myford

ML7-R HIGH SPEED CENTRE LATHE

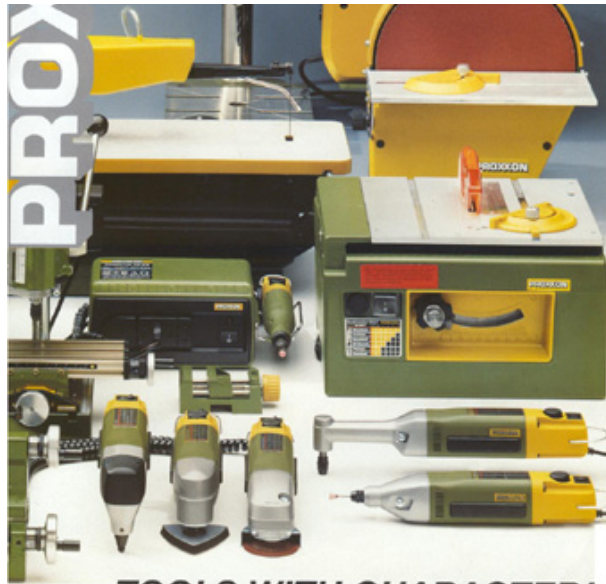
- BRONZE-BUSHES to change-wheels for long-life trouble-free working at high speeds.
- RAPID CHANGES made possible by change-wheel studs which have been designed for quick, easy setting.
- RUGGED TABLET with sensitive feed, extra-long barrel, and rapid barrel feed.
- EXTENDED END BRACKET allowing increased stroke for milling operations etc.
- SWIVELLING TOPSLIDE swivels 60° either way, and the base is graduated 40° either side.
- BORING TABLE TYPE CROSS-SLIDE with T-slots which allow the attachment of workpieces and accessories.
- WICK FEED OILING which adjusts automatically to selected spindle speed.
- REDUCTION GEARING gives the low speeds which are essential for heavy-duty work.
- FOURTEEN SPINDLE SPEEDS provided, from 27 to 2105 r.p.m. with no annoying wide gaps.
- BELT DRIVE ensuring quiet operation at high speeds.
- EASY ACCESS to gears and belts. Hinged guards with rubber pads provide total enclosure without rattles.



ML7-R No. 13048. For infeed drive for quick-change lathe 13009 and 13051 saw over. Guards have been removed for clarity.

£5314.00 plus vat





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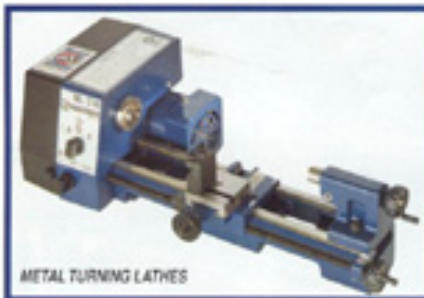
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WETSTONE GRINDERS

NOTES

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