

M.B.M MODEL ENGINEERING SUPPLIES

IMPORTERS & SUPPLIERS OF MODEL ENGINEERING EQUIPMENT

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**MBM is please to announce we now have facility to take payments by EFT-POS,
Visa, Mastercard or Maestro.**

FITTINGS AVAILABLE:

INJECTORS :	12 oz Horizontal 5/32 pipe	\$	120.00
	25 oz Horizontal 3/16 pipe		156.50
	40 oz Horizontal 1/4 pipe		187.25
	60 oz Horizontal 1/4 pipe		189.00
	80 oz Horizontal 1/4 pipe		185.00
	100 oz Horizontal 5/16 pipe		170.00
	160 oz Horizontal 5/16 pipe		220.00
	12 oz Vertical 5/32 pipe		148.00
	25 oz Vertical 3/16 pipe		148.00
	40 oz Vertical 1/4 pipe		194.00
	60 oz Vertical 1/4 pipe		150.00

Note: 20 oz/min = 1 pint/min

EJECTORS : 3/16 steam in, 3/16 vacuum, 1/4 exhaust pipe, check valve \$ 75.00 medium

PRESSURE GAUGES : 1 inch 3/4 inch 0-120 P.S.I., 1 inch and 3/4 inch 0-150 P.S.I.,
1 inch 0-200 P.S.I., 3/4 inch 0-30 P.S.I. \$ 102.20
3/4 & 1 inch 0-150 P.S.I. Flanged back 120.00
1 5/8 inch 0-160 & 0-300 P.S.I. Flanged back 140.45
2 inch 0-160 & 0.300 P.S.I. Flanged back 150.00
Available on request : 1/2" gauge

VACUUM GAUGES: 3/4 inch dia 0-30 Hg \$ 116.25
1 inch dia 0-30 Hg 117.00
1 inch flanged back 0-30 Hg 120.00
1 5/8 inch flanged back 0-30 Hg 150.00

30" Hg = 14.7 p.s.i.

Available in flanged back : 3/4 and 1", 1 5/8 standard

ANGLE FEED CHECK VALVES : 90°

Or non-return valves are fitted to boilers so that they may be filled with water whilst in service.

1/8 pipe, 1/4 x 40T	\$	42.00
3/16 pipe, 5/16 x 32T		48.00
5/32 pipe, 1/4 x 40T		40.50
1/4 pipe, 7/16 x 26		66.75
1/4 pipe 3/8 x 32		66.75

Available in 5/16 pipe 3/8 x 26, 3/8 pipe 1/4 BSP, 3/8 pipe 1/2 x 26

CHECK VALVE : ¼ X 40 taper thread Just tap copper pipe with taper ME die \$ 49.65

OIL IN LINE CHECK VALVE WITH SPRING:

1/8" Pipe to pipe \$ 42.00

IN LINE CHECK VALVE: 1/8" Pipe to pipe \$ 42.00
 3/16 Pipe to pipe 46.00
 ¼ Pipe to pipe 50.50

Available in 5/32 pipe, 5/16 pipe

STEAM BRAKE VALVE : Large 7/16 x 26 thread ¼ pipe \$ 138.66

STEAM VALVES : Suitable for back head fittings, okay for water

¼ x 40 1/8 pipe 90° \$ 51.20
 ¼ x 40 5/32 pipe 90° 50.00
 5/16 x 32 3/16 pipe 90° 58.50
 7/16 x 26 ¼ pipe 90° 60.00
 3/32 pipe to pipe 180° 42.00
 1/8 pipe to pipe 180° 48.76
 5/32 pipe to pipe 180° 55.00
 3/16 pipe to pipe 180° 58.50
 ¼ pipe to ¼ pipe 180° 60.00

STEAM PUMPS: For pumping water into boilers – see illustrations page 11

Suitable for 5"	Large 5" or small	Large Short Pump	Large 7 ¼" gauge
Gauge loco.	7 ¼" gauge loco	7 1/4" gauge	loco
Bore 1"	Bore 1"	Bore 1.375	Bore 1.375
Stroke .875	Stroke 1.25	Stroke 1.375	Stroke 1.688
Water .625	Water .625	Water .875	Water .875
5" high x 1 1/2" dia	5 1/2" high x 1 1/2" dia	6 1/2" high x 2" dia	7 1/2" high x 2" dia
1.5 ltr/min	2.0 ltr/min	2.5 ltr/min	3.0 ltr/min
\$700.00	\$755.00	\$1,100.00	\$1100.00

AIR COMPRESSORS : Steam operated \$1350.00 each

Large Air Compressor : Engine 1 3/8" bore
 Stroke 1 7/8"
 Air End 1 ¼" bore
 Physical External Dimensions : 7 ½" high x 2" diameter

Short Air Compressor : Engine 1 3/8" bore
 Stroke 1 ½"
 Air End 1 ¼" bore
 Physical External Dimensions : 6 ½" high x 2" diameter

AIR COMPRESSOR REGULATORS: Adjustable from 40 psi to 100 psi \$ 300.00 each

LUBRICATORS : For connecting to a reciprocating part of an engine motion to pump oil into the steam supply pipe.

Ratchet type : Includes pump, ratchet and check valve, without tank \$ 102.00
 Ratchet type – complete with tank 1.25 sq inch tank or 1" sq tank \$ 170.00

LUBRICATOR – DISPLACEMENT TYPE : With filler cap, drain plug and control valve, are fitted between boiler and engine. ¼ x 32T Stuart type \$ 170.00 each

Large lubricators fitted with olives for pipes \$ 195.00 each
 Lubricators – small displacement, ¼ x 32T \$ 85.00 each

HYDRO-STATICS LUBRICATOR :

Single glass and check valve \$ 250.00
 Twin glass and check valve 340.00
 Triple glass and check valve 400.00

PLUG TYPE DRAIN COCK :	5/32 x 40	\$	25.75 each
	3/16 x 40		26.65 each
	1/4 x 40		26.65 each

Also available 5/16 x 40

STEAM OPERATED DRAIN COCKS :	1/4 x 40	\$	25.00 each
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BLOWDOWN VALVES :	1/4 x 40	\$	32.00
	5/16 x 32	\$	43.00
	1/2 x 26		55.00
	3/8 x 32		40.45

Also available 1/4 x 40, 5/16 x 40, 3/8 x 40, 3/8 x 26,

INJECTOR WATER COCKS :	Air tight 'O' ring fitted complete with handle		
	3/16 pipe 90 deg on/off	\$	75.00
	1/4 pipe 90 deg on/off		87.50

WATER GAUGES :	4 mm glass 3/16 x 40T	\$	83.50
	5 mm glass 1/4 x 40T		95.75
	6 mm glass 5/16 x 32T		112.00
	7 mm glass 3/8 x 32T		122.50

WATER GAUGE GLASS :

<u>Plain Glass</u>		<u>Red Line</u>	
		150 mm length	
4mm)		5 mm)	
5 mm)	150 mm	6 mm)	\$ 16.00
6 mm)	lengths	7 mm)	
8 mm)	\$ 3.00	8 mm)	
		9 mm)	
		10 mm)	
		12mm x 300mm	\$ 21.50
		14mm x 300mm	\$ 40.00 each

OIL SIGHT GLASS :	3/4 O.D. x 1 inch	\$	6.00 each
	16mm x 20mm		6.00 each

OIL CUPS :	Open topped cups for lubrication of bearings, slides etc.		
	8 Ba x 3/16 dia	\$	9.46 each
	5 Ba x 3/8 dia		9.46 each
	3 Ba x 7/16 dia		9.46 each
	2 Ba x 3/16 dia hex body		9.46 each

DRIP FEED OILERS :	5 Ba thread 7mm diameter 29mm high	\$	39.50 each
	5 Ba thread 10mm diameter 40mm high		53.75 each
	2 Ba thread 13mm diameter 50mm high		67.50 each
	2 Ba thread 15mm diameter 45mm high		76.00 each

HAND RAIL STANCHIONS :	6 Ba Thread 7/16 long 1/8 Rail	\$	3.70 each
	4 Ba Thread 3/4 long 3/16 Rail		4.50 each
	4 Ba Thread 7/16 long 3/16 rail		4.50 each

HANDWHEELS :	Small	9 mm dia	\$	1.50 each
	Cast handwheels	18mm dia		6.80 each
	Cast handwheels	11mm dia		6.40 each
	Cast handwheels	12mm dia		7.50 each

WHISTLES : Traction engine type with lever valve.			
With lever valve 4" scale, 1/8 BSP	Stands 4 1/4" high	\$	187.00
With lever valve 3" scale, 5/16 x 32	Stands 3 1/8" high		187.00
With lever valve 2" scale, 1/4 x 40	Stands 2 3/4" high		155.00
1/2" O.D. whistle x 1/8 pipe			46.60
Whistle valve, vertical 1/4 x 40, 1/8 pipe			95.00
3 Chime whistle 5/16 x 32			190.00
ELBOWS :	90°	3/16 pipe, olives and nuts included	\$ 30.50
		5/32 pipe, olives and nuts included	21.50
		1/4 pipe, olives and nuts included	36.65
Also available : 3/32 pipe, 1/8 pipe, 1/4 pipe			
ELBOWS - 90° BEND :	Cast bronze model pipe fitting – tapered thread		
		1/4 x 40, taper thread	\$ 13.75 each
45° BEND :		1/4 x 40, taper thread	18.75 each
90° MALE/FEMALE :		1/4 x 40, taper thread	18.75 each
STUART DRAIN COCKS :	5/32 x 40T		\$ 23.00 each
STUART UNION COCKS :	1/8 pipe	\$	57.50 each
	5/32 pipe		68.75 each
	3/16 pipe		68.75 each
BLOWER STEAM VALVE :	1/4 X 40T	\$	49.00 each
HAND PUMP :	Tank mounted	5/8 Ram	\$ 155.00 each
WATER BY-PASS VALVE :	Floor mounted 5/32 pipe		\$ 40.00 each
SAFETY VALVES :			
For big (7 1/4" G) boilers. Stainless steel ball, spring and stem. Brass housing and other parts.			
Connection : 3/8" BSPF (Other threads optional). Length above boiler bush approx 55mm.			
Pressure set at 7 bar (100 psi). Pressure drop : max 0.5 bar (7 psi)		\$	75.00 each
For medium (5" G) boilers. Stainless steel ball, spring and stem. Brass housing and other parts.			
Connection : 1/4" BSPF (other threads optional). Length above boiler bush about 40mm.			
Pressure set at 7 bar (100 psi). Pressure drop : max 0.5 bar (7 psi).		\$	67.50 each
Safety valve 1/2 x 26 pop valve 100 psi			89.50 each
SCALE BUCKETS :	4" and 3" scale		\$ 20.00 each
LOST WAX PLATES :	4" scale clean out boiler every 14 days	\$	35.25 each
	3" scale clean out boiler every 14 days		35.25 each
STEEL BOILER TREATMENT :			
Terlyn LSB 8000 Designed for miniature steel boilers		\$	60.00 per bottle
BOILER KIT (COPPER) :	Centre flue, Marine boiler, suitable for single cylinder engine up to 25 x 25mm or twin cylinder engine up to 20 x 20mm		\$ 450.00
CAST PROPELLORS : Lost wax, 3 bladed, 4mm thread. 4mm or 5mm thread on larger sizes.			
30mm left hand	\$ 20.00	30mm right hand	\$ 20.00
35mm left hand	22.50	35mm right hand	22.50
40mm left hand	24.75	40mm right hand	24.75
45mm left hand	28.00	45mm right hand	28.00
50mm left hand	31.20	50mm right hand	31.20
55mm left hand	35.00	55mm right hand	35.00
60mm left hand	38.60	60mm right hand	38.60
65mm left hand	41.10	65mm right hand	41.10
70mm left hand	43.45	70mm right hand	43.45
75mm left hand	61.00	75mm right hand	61.00

AUSTRALIAN MODEL ENGINEER MAGAZINE :

Bi-monthly

\$ 57.00 for six issues

MEANZ BOILER RULES :

Copper or Steel

\$ 38.00 each

BROTHERHOOD OF LIVE STEAMERS patches

\$ 5.00 each

MACHINES AND HAND TOOLS AVAILABLE:

The quality of our Taps & Dies are
 HQSS. Its' steel composition makes them
 Tougher & provides a better alternative to HSS.
 Our HQSS quality cuts excellent threads –
 Even into stainless.

TAPS & DIES – STRAIGHT FROM ENGLISH MANUFACTURER:

Ba TAPS:	Ba 1, 3, 2, 4, 5 & 6 in Taper, Second or Bottom	\$	15.50 each
	Ba 7, 8 & 9 in Taper, Second or Bottom		18.00 each
	Ba 10 “ “ “		29.30 each
	Ba 12 “ “ “		33.00 each

Ba DIES:	Ba 0	\$	17.60 each
	Ba 1		17.60 each
	Ba 2		14.82 each
	Ba 3		17.60 each
	Ba 4, 5 & 6		14.82 each
	Ba 7 & 8		22.00 each
	Ba 9		35.10 each
	Ba 10		29.85 each
	Ba 12		37.04 each

M.E. TAPS :	5/32 x 32T Taper, Second or Bottom	\$	9.15 each
	5/32 x 40T “ “ “		16.50 each
	3/16 x 32T “ “ “		9.60 each
	3/16 x 40T “ “ “		8.25 each
	7/32 x 32T “ “ “		9.15 each
	7/32 x 40T “ “ “		9.60 each
	¼ x 32T “ “ “		15.75 each
	¼ x 40T “ “ “		15.75 each
	9/32 x 32T “ “ “		14.95 each
	9/32 x 40T “ “ “		14.95 each
	5/16 x 32T “ “ “		30.00 each
	5/16 x 40T “ “ “		30.00 each
	3/8 x 32T “ “ “		37.00 each
	3/8 x 40T “ “ “		38.25 each
	7/16 x 32T “ “ “		18.66 each
	7/16 x 40T “ “ “		18.66 each
	½ x 32T “ “ “		38.50 each
	½ x 40T “ “ “		38.50 each

M.E. DIES :	5/32 x 32T	\$	18.60 each
	5/32 x 40T		18.60 each
	3/16 x 32T		18.60 each
	3/16 x 40T		16.50 each
	7/32 x 32T		18.60 each
	7/32 x 40T		18.60 each
	¼ x 32T		18.60 each
	¼ x 40T		18.60 each
	9/32 x 32T		26.12 each
	9/32 x 40T		26.12 each

5/16 x 32T	26.12 each
5/16 x 40T	26.12 each
3/8 x 32T	26.12 each
3/8 x 40T	25.20 each
7/16 x 32T	29.85 each
7/16 x 40T	29.85 each
1/2 x 32T	29.85 each
1/2 x 40T	29.85 each

BRASS TAPS :	5/16 x 26 Taper Sec Btm	\$	20.00 each
	3/8 x 26 " " "		38.25 each
	7/16 x 26 " " "		22.33 each
	1/2 x 26 " " "		15.47 each
	9/16 x 26 " " "		15.47 each
	5/8 x 26 " " "		24.50 each
	3/4 x 26 " " "		27.60 each

BRASS DIES :	5/16 x 26	\$	35.00 each
	3/8 x 26		36.50 each
	7/16 x 26		38.40 each
	1/2 x 26		30.75 each
	9/16 x 26		38.92 each
	5/8 x 26		37.50 each

BA BOXED SET – 23 piece : 1 Taper + 1 Bottom + 1 Die + Tapwrench + Die Stock
2 + 4 + 5 + 6 + 7 + 8 + 10 \$ 388.00

Taps and Dies not on list – please ask and we will order them for you. Other taps and dies also available are : BSB & BS cycle, BSP, metric, BSW, BSF, UNC and UNF.

TUBING CUTTER : 1/16 – 5/8” O.D. Tube, cuts copper, brass, thin wall tube \$ 16.70 each

TUBING BENDER : 1/16 – 3/16” Copper/Brass tubing. Bending tube made easy \$ 10.40 set

SPANNERS – BA : Open ended spanners – 0 to 11 BA, in wallet \$ 60.00 set
Box spanners – 2 to 10 BA and 12 BA \$ 10.40 each

123 BLOCKS : Some holes threaded 3/8” stud set \$ 60.00 set

PARALLEL SET : 1/8 wide 10 pairs from 1/2 to 1 5/8” \$ 128.00 set

VICE : N.Z. made Stanier swivel base – 145mm long 60mm high 130mm wide \$ 350.00 each

MATERIALS AVAILABLE :

SILVER SOLDER : Wire 34% 5 metres .8 mm dia \$ 25.00/roll
Shim 1m x 10mm c .006 thick 27.00/roll
Paste 5 ml 45% (Ideal for fittings) 37.50

Bridget Solder : 10% silver & tin. No Lead \$ 3.50/metre (Working temp 250°C to 305°C)
Bridget Flux : 113 gms 25.00
Silver Solder Flux Paste : 150 gms 18.50

CAPALLOY SOLDER :
40% tin, 60% lead in paste form, ideal for soldering tanks and accessories. \$ 10.50/100 gms

COPPER ROD : 5/16 dia \$ 8.50 per 300mm – minimum length

COPPER PIPE : Hard drawn, thin wall 15 thou wall, 12 inch lengths

1/16	\$	1.75 each
3/32		2.10
1/8		2.90
5/32		2.90

COPPER PIPE : Hard drawn thin wall 15 thou, 36" long	5/32	\$	6.30 each
	3/16		7.60
	7/32		8.80
	1/4		10.00

BRASS BAR FLAT:	1 x 1/4 - 12" (300mm) minimum length	\$	27.00
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BRASS PIPE :	Thin wall, 12 inch lengths	\$	3.10
	3/16		2.70
	1/4"		

BRASS ANGLE :	12 inch lengths, 15 thou thick	1/8 x 1/8	\$	1.60
		5/32 x 5/32		1.85
		3/16 x 3/16		1.95

BRASS ANGLE :	36 inch lengths, 15 thou thick	3/16 x 3/16	\$	7.65
		5/32 x 5/32		9.20
		1/4 x 1/4		8.55

BRASS SOLID ROUND : 12' lengths	3/64	\$	1.15 each
	1/16		1.15 each
	3./32		1.60 each
	1./8		2.15 each
	5/32		3.00 each
	3/16		3.25 each
	1/4		7.20 each
	5/16		7.50 each

BRASS HEX : 12" lengths (300mm)					
3/16	\$	6.50	1/2	\$	15.00
1/4		5.10	9/16		21.50
5/16		6.20	5/8		21.70
3/8		6.75	3/4		30.15
7/16		12.85	11/16		26.00

BRASS SQUARE : 12" lengths or 300mm	1" square	\$	20.66 per 30cm length
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BRONZE ROUND : 1/2" diameter	12" lengths or 300mm	\$	26.00
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BRASS TUBE : Thin wall	36" 3/16	\$	7.50 each
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RIVETS – IRON : Snap Head	1/16 x 1/4	\$	1.00 per 10
	1/16 x 3/8		0.90 per 10
	1/16 x 1/2		0.87 per 10
	5/64 x 3/8		1.12 per 10
	5/64 x 1/2		1.25 per 10
	3/32 x 1/4		0.90 per 10
	3/32 x 3/8		1.00 per 10
	3/32 x 1/2		1.00 per 10
	3/32 x 3/4		1.00 per 10
	7/64 x 1/2		0.95 per 10
	1/8 x 1/2		1.30 per 10
	1/8 x 3/4		1.55 per 10
	1/8 x 1"		1.85 per 10
	5/32 x 3/4		2.70 per 10
	3/16 x 1/2		2.50 per 10

3/16 x 3/4	3.60 per 10
3/16 x 1	5.55 per 10
1/4 x 3/4	0.80 per 10

RIVETS – IRON – COUNTERSUNK : 1/8 x 3/8 \$ 1.00 PER 10

RIVETS – COPPER :	1/16 x 3/8	\$	0.70 per 10
	1/16 x 1/4		0.80 per 10
	3/32 x 1/4		1.20 per 10
	3/32 x 3/8		1.80 per 10
	3/32 x 1/2		1.25 per 10
	3/32 x 3/4		1.75 per 10
	3/32 x 1		1.80 per 10
	1/8 x 1/4		2.00 per 10
	1/8 x 3/8		2.10 per 10
	1/8 x 1/2		1.85 per 10
	1/8 x 3/4		2.60 per 10
	1/8 x 1		3.43 per 10
	5/32 x 3/4		4.40 per 10
	5/32 x 1		3.50 per 10
	3/16 x 1		5.80 per 10

RIVETS – COPPER – COUNTERSUNK :
1/8 x 1 1/4 \$ 3.00 per 10

BRASS RIVETS :	1/32 x 1/4	\$	0.90 per 10
	3/64 x 1/4		0.85 per 10
	3/64 x 3/8		0.65 per 10
	1/16 x 1/4		0.90 per 10
	1/16 x 1/2		0.95 per 10
	1/16 x 3/4		1.20 per 10
	3/16 x 1/2		1.75 per 10

RIVET SNAPS :	1/32	\$	20.00 each
	3/64		17.50 each
	1/16		24.32 each
	5/64		20.00 each
	3/32		20.00 each
	1/8		21.00 each
	5/32		21.00 each
	3/16		26.00 each
	1/4		23.50 each

BRASS NUTS :	1/8 or 5/32 pipe 1/4 x 40 thread	\$	14.00 per 10
	3/16 pipe 5/16 x 32 thread		14.00 per 10
	3/16 pipe 5/16 x 40 thread		14.00 per 10
	1/4 pipe 3/8 x 32 thread		18.00 per 10
	3/8 pipe 9/16 x 26 thread		18.00 per 10

BRASS CONES :	1/8 pipe	\$	20.80 per 10
	5/32 pipe		24.89 per 10
	3/16 pipe		12.32 per 10
	1/4 pipe		22.00 per 10
	3/8 pipe		25.86 per 10

STAINLESS STEEL BALLS : Each			
3/32 dia	\$	0.10	1/8 dia \$ 0.30
3/16 dia 316 grade		0.80	7/32 dia 316 grade 0.54
1/4 dia 316 grade		1.30	5/16 dia 316 grade 4.23
5/32 dia 316 grade		0.50	3/8 dia 420 grade 3.05
			7/16 dia 420 grade 8.10

TORLON BALLS : Newly developed plastic ball which is designed for use in aggressive environments. Among its uses is as a check valve. These are made from a poly amide-imide material.

5/32" dia	\$	1.80 each	3/16" dia	1.55 each
1/4" dia		1.60 each	3/8" dia	4.10 each

BRONZE BALLS :

1/32 dia	\$	0.90 each	1/8 dia	\$	0.78 each
5/32		0.85 each	3/16		1.10 each
7/32		0.95	5/16		3.35 each
1/4		1.55 each			
3/8		12.75 each			

STAINLESS STEEL ROD : 12 inch lengths

3/32 dia	\$	5.40 each	5/16 dia	\$	14.80 each
1/8 dia		5.00 each	3/8 dia		18.80 each
3/16 dia		6.80 each	7/16 dia		18.00 each
1/4 dia		10.80 each	1/2 dia		21.00 each

Ba SCREWS : Packets of 10 Steel hex

2Ba	x 1/2	\$	5.00	7Ba	x 3/8	3.20
2Ba	x 1		6.60	7Ba	x 1/2	4.20
2Ba	x 1 1/2		5.00	7Ba	x 3/4	4.40
3Ba	x 3/4		3.00	7Ba	x 1	5.50
4Ba	x 1/2		4.10	8Ba	x 1/2	3.25
4Ba	x 5/8		3.20	8Ba	x 3/8	4.16
4Ba	x 3/4		5.00	8Ba	x 3/4	4.30
4Ba	x 1		3.57	8Ba	x 5/16	4.70
5Ba	x 1/4		3.00	8Ba	x 1	4.80
5Ba	x 1/2		3.05	9Ba	x 1/2	6.40
5Ba	x 1		4.65	10Ba	x 1/4	4.00
6Ba	x 3/16		4.00	10Ba	x 3/8	3.80
6Ba	x 1/4		4.45	10Ba	x 1/2	4.98
6Ba	x 5/16		4.30	10Ba	x 3/4	5.00
6Ba	x 3/8		4.40	12Ba	x 1/4	5.00
6Ba	x 1/2		4.20	12Ba	x 3/8	3.28
6Ba	x 5/8		4.40			
6Ba	x 3/4		3.05			
6Ba	x 1		3.60			

Steel Roundhead :

6Ba	x 1/4	\$	1.60
6Ba	x 1/2		1.80

Brass Roundhead :

2Ba	x 1	\$	5.84
4Ba	x 3/4		2.50
5Ba	x 1/4		2.00
6Ba	x 1/2		4.40
7Ba	x 1/4		2.55
7Ba	x 3/4		4.00
8Ba	x 1/8		2.00
8Ba	x 1/4		2.80
8Ba	x 1/2		3.70
10Ba	x 1/4		3.60
10Ba	x 1 1/4		3.80
12Ba	x 1/4		4.00

Steel Countersunk :

1Ba	x 7/8	\$	2.65
2Ba	x 1/2		2.52
3Ba	x 5/8		3.50
4Ba	x 1/2		2.50
5Ba	x 1/2		3.50
5Ba	x 1		5.25
8Ba	x 1/2		2.00
10Ba	x 1/2		3.30
12Ba	x 1/4		4.60

Brass Countersunk :

4Ba	x 1	\$	2.54
5Ba	x 5/8		3.15
5Ba	x 3/4		3.48
6Ba	x 1/2		2.60
7Ba	x 1/2		4.20
8Ba	x 1/4		3.00
10Ba	x 3/8		3.30
12Ba	x 1/2		5.25

Steel Cheesehead :

3Ba	x 3/4	\$	3.36
5Ba	x 1		2.00
6Ba	x 1/2		3.80
7Ba	x 3/8		2.65
7Ba	x 5/8		3.00
8Ba	x 1		4.00
10Ba	x 3/8		4.40
10Ba	x 3/4		4.75
10 Ba	x 1		9.65

Brass Cheesehead :

6Ba	x 3/8	\$	2.70
6Ba	x 1/2		2.00
7Ba	x 3/8		2.65
8Ba	x 3/8		3.00
10Ba	x 3/8		3.20
14Ba	x 1/2		11.09
16Ba	x 1/2		14.25

Steel Socket Cap Screws :

2Ba	x 1	\$	11.30
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Steel Grub Screws :

4Ba	x 1/4	\$	6.60
4Ba	x 3/8		10.50
6Ba	x 1/2		10.00
8Ba	x 1/8		10.52

Stainless Steel Countersunk – EACH :

2Ba	x 1/2	\$	1.80
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Stainless Steel Caphead – EACH :

2Ba	x 1 1/4	\$	2.15
4Ba	x 5/8		2.40

Stainless Steel Roundhead – EACH :

8Ba	x 1	\$	3.00
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HEX HEAD NUTS – STEEL : Per 10

0 Ba	\$	2.85	1 Ba	\$	2.65
2 Ba		1.85	7 Ba		2.00
3 Ba		1.65	8 Ba		1.80
4 Ba		1.56	10 Ba		2.47
5 Ba		1.56	12 Ba		3.15
6 Ba		1.40			

HEX HEAD NUTS – BRASS : Per 10

4 Ba	\$	1.78	5 Ba	\$	1.80
6 Ba		1.50	7 Ba		3.57
8 Ba		1.50	10 Ba		2.50
12Ba		2.25			

HEX HEAD SCREWS – BRASS : Per 10

4Ba x 1/2	\$	3.80
4Ba x 5/8		4.60
4Ba x 3/4		8.00
6Ba x 3/8		6.80
6Ba x 1/2		6.35
8Ba x 1/2		4.60
8Ba x 5/8		8.00
10Ba x 1/2		6.80
10Ba x 3/4		9.20

BRASS ROUND HEADS – NO SLOT :

6Ba x 1/2	\$	4.40 per 10
8Ba x 1/2		4.40 per 10

HEX HEAD NUTS – A2 STAINLESS : Each

2 Ba	\$	0.40	6 Ba	\$	0.57
4 Ba		0.50	8 Ba		1.40

HEX HEAD SCREWS – A2 STAINLESS : Each

2 Ba x 3/4 hex	1.75	6 Ba x 3/4 hex	2.00
4 Ba x 1/2 hex	1.60	6 Ba x 1/2 hex	2.00
4 Ba x 1" hex	1.70	6 Ba x 3/8 hex	1.82
5 Ba x 1/2 hex	\$ 2.00	8 Ba x 1/2 hex	1.00

STAINLESS STEEL WASHERS : Per 10

2 Ba	\$	0.70	5 Ba	\$	0.85
3 Ba		0.80	6 Ba		0.85
4 Ba		0.87	8 Ba		0.90
			10 Ba		2.00

STEEL WASHERS : Per 10

0Ba	\$	0.66	6Ba	\$	0.45
1Ba		0.66	7Ba		0.48
2Ba		0.50	8Ba		0.70
3Ba		0.50	9Ba		0.50
4Ba		0.55	10Ba		0.65
5Ba		0.45	12Ba		0.85

COPPER WASHERS :

1/8	\$	3.00 per 10	1/4	\$	3.90 per 10
5/32		3.80 per 10	7/16		5.80 per 10

STEEL SINGLE COIL WASHERS : Per 10

4Ba	\$2.50	5Ba	\$2.55	6Ba	\$2.60	8Ba	\$7.00
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STUDDING : Threaded Rod

Steel	12" lengths	2 Ba	\$	13.40/length
Steel	12" lengths	3 Ba		12.54/length
Steel	12" lengths	4 Ba		11.20/length
Steel	12" lengths	5 Ba		13.701/length
Brass	12" lengths	5 Ba		11.50/length
Steel	12" lengths	6 Ba		13.70/length
Brass	12" lengths	6 Ba		16.30/length
Steel	12" lengths	7 Ba		16.10/length
Steel	12" lengths	8 Ba		26.40/length
Brass	12" lengths	8 Ba		19.64/length

ENGINEERS' STUDS: Threaded both ends

4Ba	x 1"	\$	2.00 each	5Ba	x 1"	\$	2.00 each
6Ba	x 1"		2.00 each				

SPLIT PINS – STEEL : Per 10

1/32" x 1/2"	\$	1.95	1/16" x 3/4 steel	\$	1.40
3/64" x 1" stainless steel		6.12	3/64 x 1/2" stainless steel		4.10
3/32 x 3/8 stainless steel		2.88	1/32 x 1/2" stainless steel		3.50
1/16 x 1/2 stainless steel		4.60	1/32 x 3/8 stainless steel		3.80
3/64 x 1" steel		1.50	5/64 x 1/2 stainless steel		4.50

STAINLESS STEEL SPLIT PINS – MIXED BAG : 100 approx – 1/32 to 5/32 \$ 47.70

SOLID TAPER PINS : Steel	Each	1/16 x 1/2	\$	0.56	5/64 x 1/2	\$	0.60
		5/64 x 1"		0.80	1/16 x 3/4		0.80
		3/32 x 3/4		0.88	1/8 x 1/2		0.87
		3/32 x 1"		1.00	1/8 x 1		1.60
		1/8 x 1 1/2		1.80			

This stock list is being added to constantly, so please enquire if your are wanting a different type of fitting.

TERMS : All prices are in N.Z. dollars, excluding postage and packaging. Post and packaging will be billed separately when the goods are sent, being a variable due to size and weight. We reserve the right to alter the prices shown in this catalogue in the event of fluctuations in labour and material costs, without notice.

INQUIRES : All inquires must be accompanied with a stamped, addressed envelope.

PAYMENT : Payment is to be made at time of placing order and may be made by cash, cheque, EFT-POS, Visa, Mastercard or Maestro – credit card details to be supplied at time of order.

We look forward to your custom and hope we can meet your requirements.

GAGE TVR1A



The GAGE TVR1A is a twin cylinder, reversing steam engine with a 1/2" bore and 5/8" stroke. The crankpins are set at 90 degrees apart so the engine is self-starting at any position of the crankshaft. A Hackworth reversing gear is used to provide the reversing operation and is easily adapted to radio control.

All machining is done and critical assemblies such as the silver-soldered manifolds are pre-assembled. All necessary materials and hardware are supplied. Most of the hardware is stainless steel and the machined parts are made of brass, aluminum and steel. Only a few hand tools are required to assemble this engine. Those include a set of small screwdrivers, needle nose pliers and a small file.

With steam or air operating pressure up to 35 psi, this is a powerful engine for model marine use. After breaking in, the TVR1A makes a good display model, operating reliably at low speeds with under 5 psi of pressure. Included with the kit is a detailed 17 page instruction manual which includes drawings, photographs and detailed assembly instructions.

\$600.00



STEAM VALVE



EJECTOR



WATER BYPASS



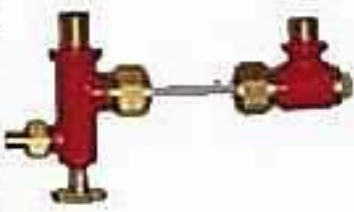
**DISPLACEMENT
LUBRICATOR**



INJECTORS



WATER GAUGE



PRESSURE GAUGE



VACUUM GAUGE



WHISTLE



**INJECTOR
WATER VALVE**



STEAM OPERATED WATER PUMPS

130 MM HIGH



145 MM HIGH



200 MM HIGH



For specifications see page 2

M.B.M. MODEL ENGINEERING SUPPLIES
IMPORTERS OF MODEL ENGINEERING EQUIPMENT

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PEVENSY

A single cylinder horizontal engine with a $\frac{3}{4}$ inch (19mm) bore and stroke. The Pevensy is offered with or without Stevenson reversing linkage.

Price : Without Stevenson reversing linkage casting set \$ 240.00

With Stevenson reversing linkage casting set \$ 429.87

Detailed engineering drawings included free with every casting set.

GEM

A twin cylinder horizontal engine with a $\frac{3}{4}$ inch (19mm) bore and stroke. The Gem is offered with or without Stevenson reversing linkage.

Price : Without Stevenson reversing linkage casting set \$ 365.00

With Stevenson reversing linkage casting set \$ 540.00

Detailed engineering drawings included free with every casting set.



MILDURA

A twin cylinder vertical engine with a $\frac{3}{4}$ inch (19mm) bore and stroke. The Mildura is offered with or without Stevenson reversing linkage.

Price : Without Stevenson reversing linkage casting set	\$ 430.00
With Stevenson reversing linkage casting set	\$ 595.00

Detailed engineering drawings included *free* with every casting set.

ECHUCA

A single cylinder vertical engine with a $\frac{3}{4}$ inch (19mm) bore and stroke. The Echuca is offered with or without Stevenson reversing linkage

Price : Without Stevenson reversing linkage casting set	\$ 270.00
With Stevenson reversing linkage casting set	\$ 380.00

SPECIFICATIONS : All cast components are manufactured using the Investment Casting process (lost wax) to achieve the highest possible standards in surface finish, surface detail and dimensional accuracy of the castings. The Spherulidal Graphite (SG) cast iron crankshaft has a soft each to machine surface. There is no hard difficult to machine surface skin, which can occur with some grey cast iron components using other casting methods.

Quayle MODEL STEAM ENGINE KITS

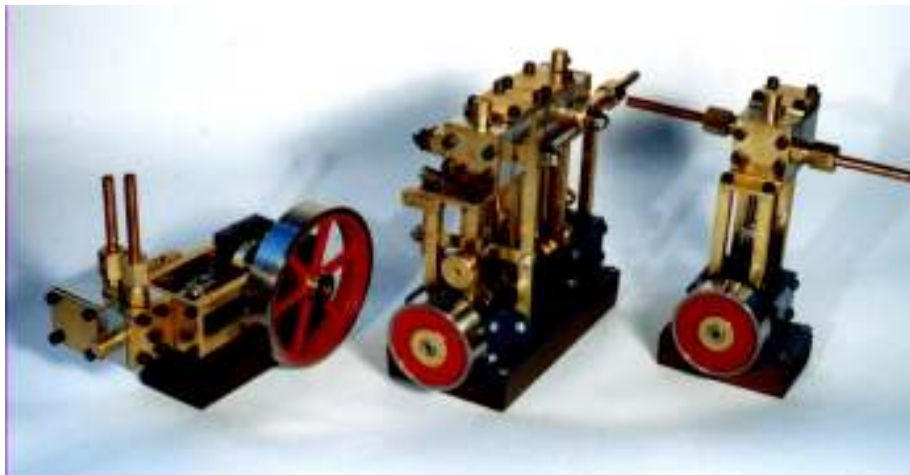
Easy to build model steam engines

16/16 Series

These simple steam engines are especially aimed towards the modeller who wishes to tackle a project that is not too difficult. They work like the real ones, as they are double acting with slide valve to control steam admission. These are available in vertical, horizontal and reversing twin-cylinder models.

Bore 16mm Stroke 16mm Price : 16/16 V & H \$126.50

16/16 Twin \$225.50



20/20 series

These are traditionally styled models of slide valve steam engines with cylindrical trunk guides. They can be made on a small metal lathe with a vertical slide for milling. These are available in vertical, horizontal and reversing twin cylinder models.

Bore 20 mm Stroke 20 mm



These kits contain all the materials required to complete the model. Including screws, nuts drawings and comprehensive building instructions.

The twin cylinder engines are ideal for radio controlled model boats.

Price : 20/20 V & H \$165.00

20/20 Twin \$290.00

Dimensions for Stanier Vice – For price please refer to page 6

