

CLARKE[®]

METALWORKER



BENCH MOUNTED ENGLISH WHEEL

MODEL NO: CBMEW1

PART NO: 7627901

OPERATION INSTRUCTIONS

ORIGINAL INSTRUCTIONS

DL0321 ISS1

INTRODUCTION

Thank you for purchasing this CLARKE English Wheel.

The CBMEW1 is suitable for forming and shaping light gauge steel and aluminium panels and for removing dents, smoothing hammer marks, flattening welds etc. Pressure is applied by adjusting the lower anvil roller. Standard anvil rollers are supplied as listed in the specification.

Before attempting to use this product, please read this manual thoroughly and follow the instructions carefully. In doing so you will ensure the safety of yourself and that of others around you and you can look forward to your purchase giving you long and satisfactory service.

GUARANTEE

This product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt which will be required as proof of purchase.

This guarantee is invalid if the product is found to have been abused or tampered with in any way, or not used for the purpose for which it was intended.

Faulty goods should be returned to their place of purchase, no product can be returned to us without prior permission.

This guarantee does not effect your statutory rights.

SAFETY PRECAUTIONS

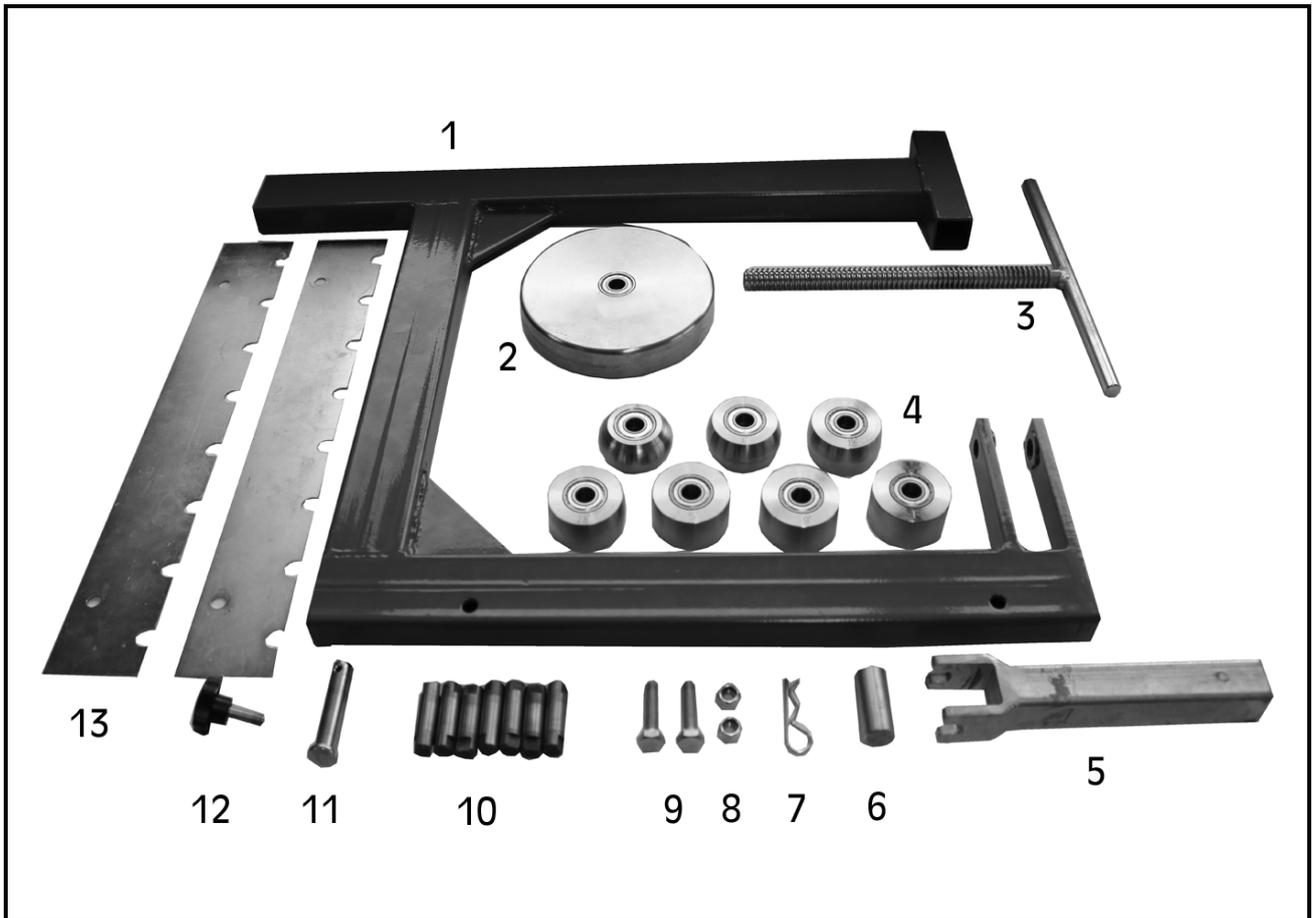


WARNING: THE USER MUST FOLLOW ALL INSTRUCTIONS WITHIN THIS INSTRUCTION BOOKLET

To protect against serious injury, use common sense and observe the following precautions when using this product. CLARKE International is not responsible for misuse of the equipment.

- **ALWAYS** study these instructions before operating and pay close attention to all warnings.
- **ALWAYS** keep the work area clean and well lit. Cluttered and dark areas invite accidents.
- **ALWAYS** secure the English Wheel to a bench before use.
- **ALWAYS** keep the work area free of obstructions.
- Stay alert, watch what you are doing and use common sense when you are using this equipment. **DO NOT** operate this tool when you are tired, ill or under the influence of alcohol, drugs or medication.
- Safety equipment such as gloves and non-skid shoes/boots used for appropriate conditions will reduce personal injuries. For best footing, wear rubber soled footwear. Keep floor clear of oil, scrap wood etc.
- **DO NOT** overreach. Keep your proper footing and balance at all times.
- Concentrate on the job in hand, no matter how trivial it may seem. Be aware that accidents can be caused by carelessness due to familiarity.
- **DO NOT** wear loose clothing or jewellery which may get caught in moving parts. Wear protective hair covering to contain long hair.
- Keep equipment clean for the best and safest performance. Check for misalignment or binding of moving parts, broken parts, or any condition that may affect the tools operation. If damaged, have the tool repaired before use.
- **ALWAYS** hold the workpiece securely. Large work pieces should always be well supported to avoid loss of control.
- Sheet metal may have sharp edges. **ALWAYS** wear gloves when handling sheet metal and use caution when bending and cutting.
- Rollers are heavy, take care when handling and keep hands away from contact areas.

INVENTORY



NO	DESCRIPTION	NO	DESCRIPTION
1	Frame	8	Hex Nuts $\frac{1}{4}$ "-20
2	Upper Wheel: 146mm	9	Hex Bolts $\frac{1}{4}$ "-20 x $1\frac{1}{4}$ "
3	Lower Wheel Adjustment Screw	10	Lower Wheel Axle Rods
4	Lower Wheels: $\frac{1}{2}$ ", 1", $1\frac{1}{2}$ ", $2\frac{1}{2}$ ", 5", 9" and Flat	11	Upper Wheel Clevis Pin
5	Lower Wheel Bracket	12	Locking Knob
6	Bracket Spacer Rod	13	Wheel Storage Rack
7	Hairpin Cotter Pin $\frac{3}{8}$ " x $1\frac{7}{8}$ "		

SPECIFICATION

Model	CBMEW1
Dimensions	
Length (mm)	700
Width (mm)	146
Height (mm)	630
Throat (mm)	400
Frame Thickness (mm)	3.2
Weight (kg)	12.15
Capacity	
Mild Steel	16 Gauge, 1.5mm
Aluminium	14 Gauge, 1.8mm
Copper	14 Gauge, 1.8mm

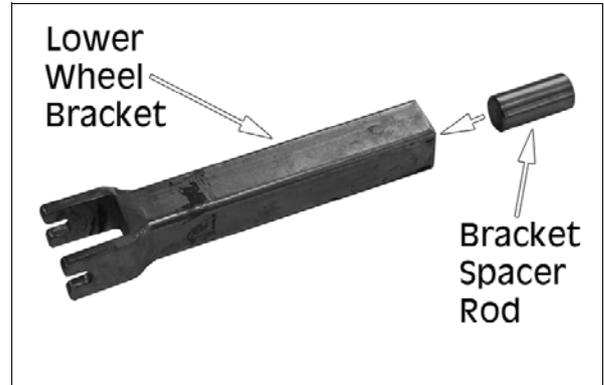
WORKBENCH MOUNTING

- The forces exerted on the English Wheel during operation are substantial. The English Wheel must be firmly secured in a vice (not supplied) that is firmly secured to a workbench or table that will support the weight and dynamic pressures of the operation.
- Make sure that you have a workbench and vice setup for the English Wheel before performing the assembly instructions.

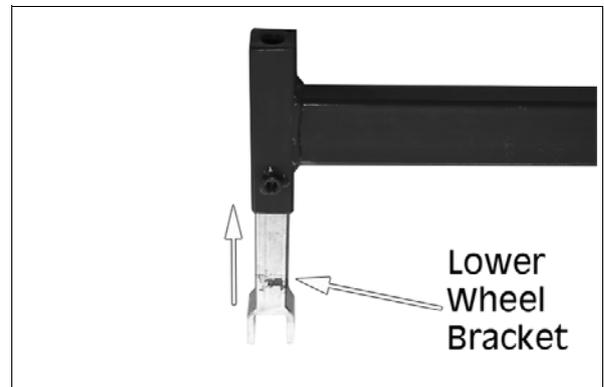
NOTE: Use pieces of cardboard or wood between the vice jaws and the frame to prevent frame damage.

ASSEMBLY

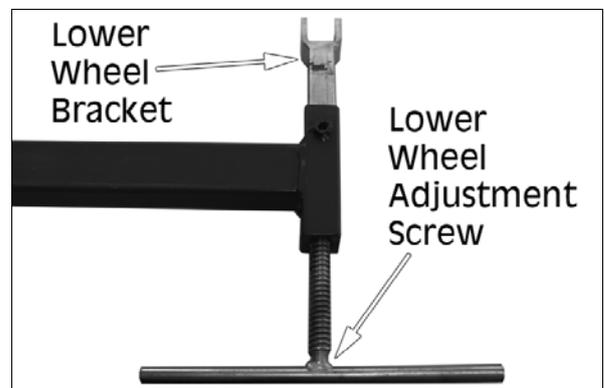
1. Insert the bracket spacer rod into the bottom of the lower wheel bracket, as shown.



2. Turn the frame upside down and insert the lower wheel bracket into the frame, as shown.
 - Inserting the wheel bracket into the frame when it is upside down will keep the spacer rod inside the bracket.

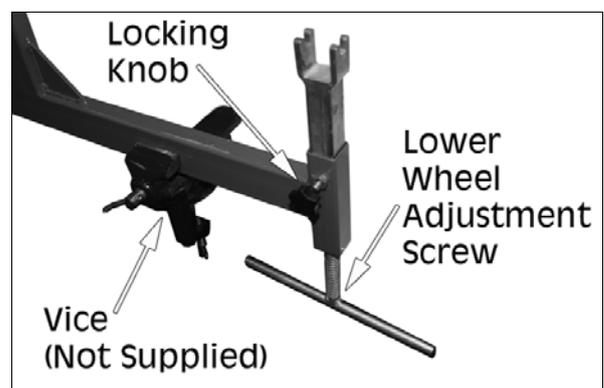


3. Lay the frame down flat and thread the lower wheel adjustment screw into the frame opposite the wheel bracket.



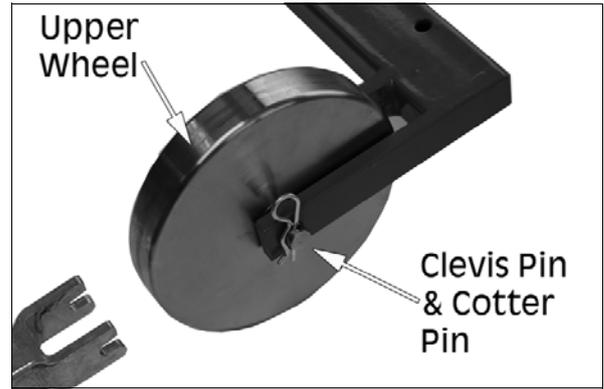
4. Secure the assembly in a bench mounted vice (not supplied), as described on page 5. Screw the locking knob in the threaded hole, as shown.

NOTE: Make sure the adjustment screw handle has enough clearance from the bench to fully rotate.

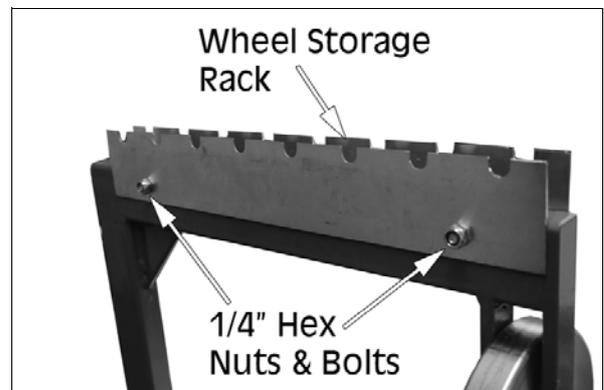


5. Position the upper wheel between the frame arms. Insert the upper wheel clevis pin through the arms and wheel and secure with the hairpin cotter pin.

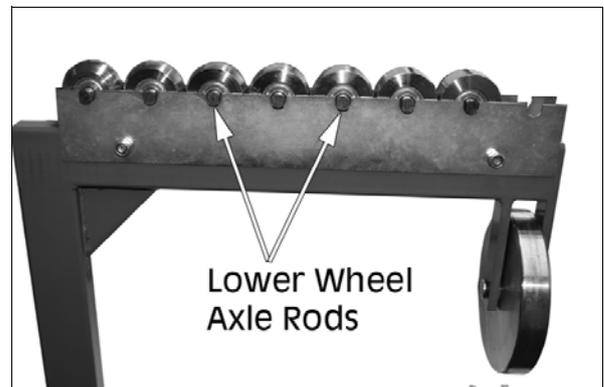
NOTE: If the cotter pin does not easily slide into the clevis pin hole, insert it as far as you can and use a small hammer to tap it the rest of the way.



6. Attach the lower wheel storage racks to the frame top with 2 x 1/4"-20 x 1 1/4" hex bolts and 2 x 1/4"-20 hex nuts.



7. Insert a lower wheel axle rod into each lower wheel, then place the assemblies on the wheel storage rack.



BEFORE STARTING WORK



WARNING: METAL EDGES CAN BE VERY SHARP. AVOID INJURIES BY WEARING APPROVED SAFETY GLOVES.

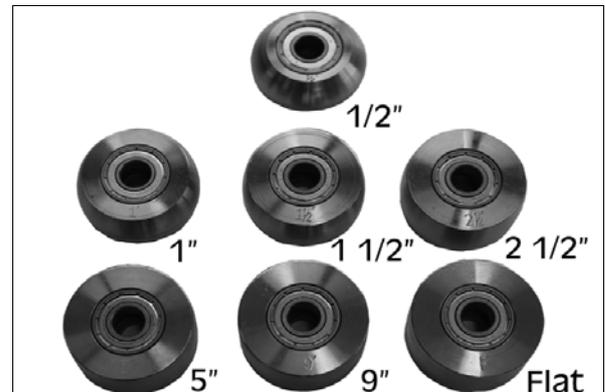
Check that all component parts are secure and that the rollers turn freely.

Practice on some scrap metal before attempting work on the actual stock workpiece. Using an English Wheel successfully requires a considerable degree of acquired skill and experience.

The English Wheel can be used with rollers of various radii in order to suit the task to be carried out. These various radii allow different curves to be formed in the workpiece.

SELECTING THE LOWER WHEEL

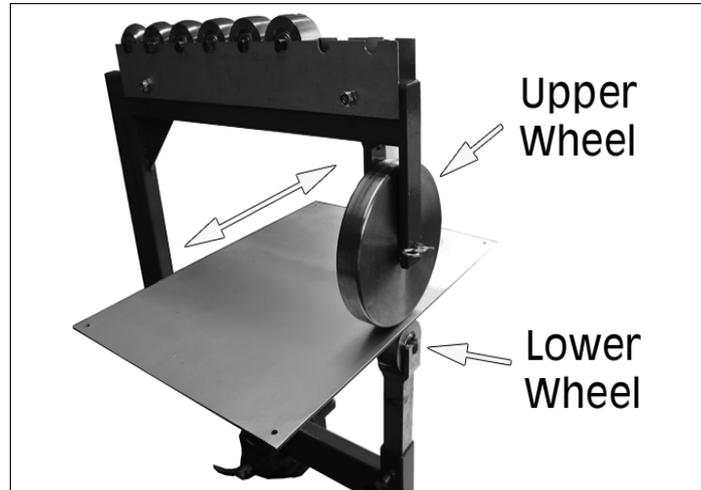
1. Select the appropriate lower wheel from the storage rack and place it on the wheel bracket. When selecting the wheel, consider the type and hardness of the metal being formed as well as the desired curvature of the metal.



- All the rollers have the same diameter (50mm) and the same width (25mm), but the working surface radii are different. Note that these are always expressed in imperial units.
- The flat wheel is used for smoothing as against forming curved profiles.
- Smaller radius wheels produce a tighter curve on the workpiece than the larger radius wheels. It is also common practice to change wheels during operation in order to achieve a specific profile.

OPERATION

1. Insert the sheet metal workpiece between the upper and lower wheels.
2. Turn the lower wheel adjustment screw handle to raise the lower wheel and gently pinch the workpiece.



- Minor adjustments to the gap between the wheels can be made by raising or lowering the screw handle.
 - Pinching it tightly will make it harder to pass the metal through the wheels and may cause unwanted creasing.
 - Pinching it loosely makes work easier and therefore more accurate. However, it may take more passes to form the required shape.
3. Before working, turn the locking knob clockwise until tight.
 4. Begin forming the metal by pushing and pulling it through the wheels.

NOTE: If wheels form too high a crown in the workpiece, then use a lower wheel with a larger flat area.

NOTE: If wheels form too low a crown in workpiece, then use a lower wheel with a smaller flat area.

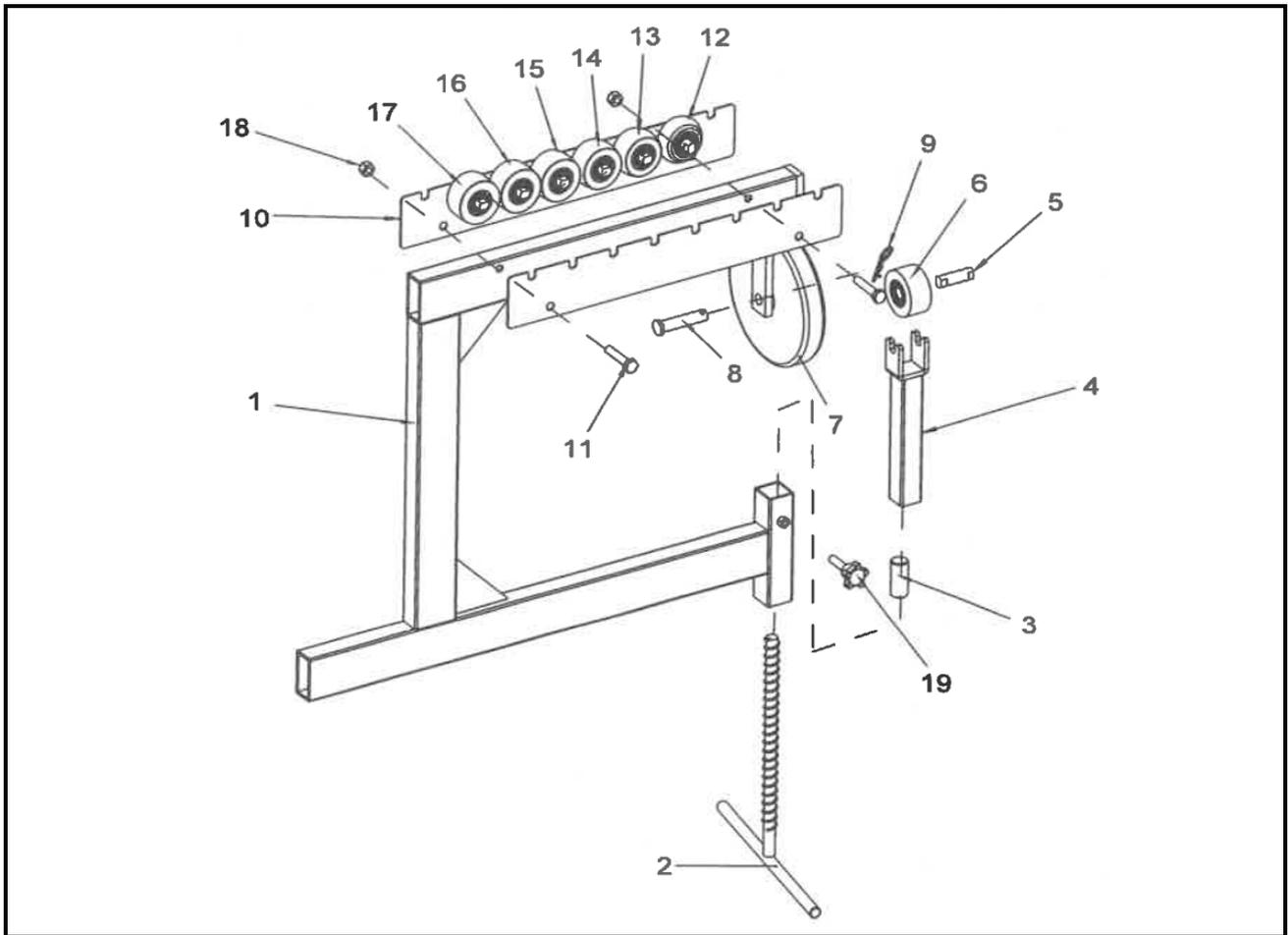
MAINTENANCE

Always inspect the wheels before use and ensure they are in top condition. Check that all moving parts move smoothly and freely.

After use, keep the rollers clean and occasionally lubricate moving parts with a light oil. This will also inhibit any corrosion of the metal components.

For any technical problems contact your CLARKE International Service Department on 020-8988-7400.

EXPLODED DIAGRAM

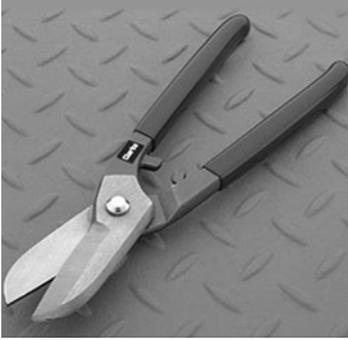


PARTS LIST

1	Frame
2	Lower Wheel Adjustment Screw
3	Bracket Spacer Rod
4	Lower Wheel Bracket
5	Lower Wheel Axle Rod
6	Lower Wheel Flat
7	Upper Wheel
8	Upper Wheel Clevis Pin
9	Hairpin Cotter Pin 3/8" x 1 7/8"
10	Wheel Storage Rack

11	Hex Bolt 1/4"-20 x 1 1/4"
12	Lower Wheel 1/2" Radius
13	Lower Wheel 1" Radius
14	Lower Wheel 1 1/2" Radius
15	Lower Wheel 2 1/2" Radius
16	Lower Wheel 5" Radius
17	Lower Wheel 9" Radius
18	Hex Nut 1/4"-20
19	Locking Knob

ASSOCIATED PRODUCTS

<p>Bench Vice - CL CV3RB</p>	<p>3 in 1 Sheet Metal Machine - SBR610</p>	<p>Sheet Metal Folder - CMF24B</p>
		
<ul style="list-style-type: none"> • 75mm Jaw Width • 75mm Jaw Opening • 46mm Jaw Depth • Part No. 6504001 	<ul style="list-style-type: none"> • Bends, Slip Rolls & Shears Sheet Metal: 1mm • Minimum Rolling Dia.: 39mm • Part No. 6560005 	<ul style="list-style-type: none"> • Max Sheet Steel Capacity: 22 swg (0.71mm) • Max. Width Capacity: 600mm • Part No. 7630067
<p>150mm Sheet Metal Shears - CPS150B</p>	<p>Double Headed Metal Nibbler- DHC-2</p>	<p>10" Tin Snips - CHT308</p>
		
<ul style="list-style-type: none"> • Sheet Cutting Capacity: 5mm • Bar Cutting Capacity: 8mm Dia. • Part No. 1700261 	<ul style="list-style-type: none"> • Max Cutting Cap.: Steel Plate - 1.8mm, Stainless Steel - 1.2mm, Copper - 2mm, Plastic - 2mm • Part No. 6500233 	<ul style="list-style-type: none"> • Max Cut: Rolled Sheet Steel: 0.8mm • Part No. 1801308

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