

INSTRUCTION MANUAL

EB0625 Magnetic Panbrake (240V) 625 x 1.6mm



S5251

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INTRODUCTION

ELECTRABRAKE machines use an electromagnet, rather than a mechanical, clamping system. The machine consists of a long electromagnet with a steel clamp bar located above it. The sheet metal is clamped between the two by an electromagnet capable of clamping with a force range of between 3 - 10 Tons. Rotating the bending beam then forms the bend. The sheet is bent around the front edge of the clamp-bar.

Using the machine is simple, slide the sheet in under the clamp-bar; press the start-button to initiate clamping; lift the handle to form the bend to the desired angle; and then return the handle to automatically release the clamping force. The folded sheet can now be removed or repositioned ready for another bend.

The special centre less compound hinges, are distributed along the length of the bending beam allowing bending loads close to where they are generated.

The combined effect of the magnetic clamping with the special centre less hinges means that the ELECTRABRAKE is a very compact, space saving, machine with a very high strength-to-weight ratio.

ELECTRABRAKE EB625, EB1000, EB1250, EB 2000, EB 2500 & EB3200

The ELECTRABRAKE EB625, EB1000, EB1250, EB2000, EB2500 & EB3200 are highly versatile sheet metal folding machines used to bend mild steel and aluminium sheet metal. Thicknesses of up to 1.2 mm thick can be folded on the EB3200, across the full length of the machine. The EB625, EB1000, EB1250, EB2000 and EB2500 machines fold material of up to 1.6mm thickness. These multi-purpose machines bend sheet metal of lengths 625mm, 1000mm, 1250mm, 2000mm, 2500mm and 3200mm respectively.

The ELECTRABRAKE magnetic clamping system replaces the bulky clamping structure used in conventional folding machines. The small compact clamp bar does not hinder or obstruct the work piece. Automatic electromagnetic clamping and unclamping, means faster operation. These machines have a much greater versatility than conventional sheet metal benders. The machines are ideal for use in industry, air-conditioning and building industries.

For the EB-2000, EB2500 and EB3200 an electrical interlock is offered to enhance Operator Safety. This operation ensures that a safe pre-clamping force must be applied before full-clamping can be engaged.

ACCESSORIES

Adjustable backstops, storage tray and a complete set of short-length clamp-bars are included as Standard Accessories.

A foot switch is supplied as a standard accessory on the EB2000, EB2500 and EB3200 only. On the EB1250 the foot switch is an optional extra.

A narrow clamp bar, a slotted clamp bar for forming shallow boxes more quickly and a power shear with guide for straight distortion-free cutting of up to 1.6 mm thick is all available as Optional Extra Accessories.

A Full 12 month warranty is offered that covers faulty materials and workmanship.

WARNING

General Machinery Safety Instructions

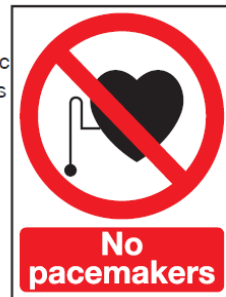
Machinery House
requires you to read this entire Manual before using this machine.

- 1. Read the entire Manual before starting machinery.** Machinery may cause serious injury if not correctly used.
- 2. Always use correct hearing protection when operating machinery.** Machinery noise may cause permanent hearing damage.
- 3. Machinery must never be used when tired, or under the influence of drugs or alcohol.** When running machinery you must be alert at all times.
- 4. Wear correct Clothing.** At all times remove all loose clothing, necklaces, rings, jewelry, etc. Long hair must be contained in a hair net. Non-slip protective footwear must be worn.
- 5. Always wear correct respirators around fumes or dust when operating machinery.** Machinery fumes & dust can cause serious respiratory illness. Dust extractors must be used where applicable.
- 6. Always wear correct safety glasses.** When machining you must use the correct eye protection to prevent injuring your eyes.
- 7. Keep work clean and make sure you have good lighting.** Cluttered and dark shadows may cause accidents.
- 8. Personnel must be properly trained or well supervised when operating machinery.** Make sure you have clear and safe understanding of the machine you are operating.
- 9. Keep children and visitors away.** Make sure children and visitors are at a safe distance for you work area.
- 10. Keep your workshop childproof.** Use padlocks, Turn off master power switches and remove start switch keys.
- 11. Never leave machine unattended.** Turn power off and wait till machine has come to a complete stop before leaving the machine unattended.
- 12. Make a safe working environment.** Do not use machine in a damp, wet area, or where flammable or noxious fumes may exist.
- 13. Disconnect main power before service machine.** Make sure power switch is in the off position before re-connecting.
- 14. Use correct amperage extension cords.** Undersized extension cords overheat and lose power. Replace extension cords if they become damaged.
- 15. Keep machine well maintained.** Keep blades sharp and clean for best and safest performance. Follow instructions when lubricating and changing accessories.
- 16. Keep machine well guarded.** Make sure guards on machine are in place and are all working correctly.
- 17. Do not overreach.** Keep proper footing and balance at all times.
- 18. Secure workpiece.** Use clamps or a vice to hold the workpiece where practical. Keeping the workpiece secure will free up your hand to operate the machine and will protect hand from injury.
- 19. Check machine over before operating.** Check machine for damaged parts, loose bolts, Keys and wrenches left on machine and any other conditions that may effect the machines operation. Repair and replace damaged parts.
- 20. Use recommended accessories.** Refer to instruction manual or ask correct service officer when using accessories. The use of improper accessories may cause the risk of injury.
- 21. Do not force machinery.** Work at the speed and capacity at which the machine or accessory was designed.
- 22. Use correct lifting practice.** Always use the correct lifting methods when using machinery. Incorrect lifting methods can cause serious injury.
- 23. Lock mobile bases.** Make sure any mobile bases are locked before using machine.
- 24. Allergic reactions.** Certain metal shavings and cutting fluids may cause an allergic reaction in people and animals, especially when cutting as the fumes can be inhaled. Make sure you know what type of metal and cutting fluid you will be exposed to and how to avoid contamination.
- 25. Call for help.** If at any time you experience difficulties, stop the machine and call you nearest branch service department for help.

WARNING **Magnetic Panbrake Safety Instructions**

Machinery House
requires you to read this entire Manual before using this machine.

- 1. Maintenance.** Make sure the Panbrake is turned off and disconnect from the main power supply.
- 2. Panbrake Condition.** Panbrake must be maintained for a proper working condition. Never operate a Panbrake that has damaged or worn parts. Scheduled routine maintenance should be performed on a scheduled basis.
- 3. Tooling Condition.** Never operate a Panbrake with damaged or badly worn tooling. Replace if required.
- 4. Hand Hazard.** Do not insert or extend your hands in between bending tools, under any circumstances, while the machine is in operation mode. Serious injury can occur.
- 5. Gloves & Glasses.** Always wear leather gloves and approved safety glasses when using this machine.
- 6. Authorized and trained personnel.** The machine must be operated by authorized and trained personnel. The machine is designed to be operated by a single user. Using the machine with more than one operator is forbidden, except for certain maintenance situations.
- 7. Power outage.** In the event of a power failure during use of the machine, turn off all switches to avoid possible sudden start up once power is restored.
- 8. Work area hazards.** Keep the area around the Panbrake clean from oil, tools, objects & chips. Pay attention to other persons in the area and know what is going on around the area to ensure unintended accidents. Do not access the rear of machine, while the machine is working.
- 9. Guards.** Operate machine only with all protective devices and guarding.
- 10. Overloading Panbrake.** Do not exceed the rated capacity of the machine. Refer to the manual for correct capacities.
- 11. Warning Labels.** Take note of any warning labels on the machine and do not remove them.
- 12. Support arms.** Do not use support arms for intermediate storage of workpieces.
- 13. Operation.** During the bending process, the workpiece may leap up. Therefore, the material must be handled carefully.
- 14. Emergency stop.** Use the emergency stop button in case of any emergency.
- 15. Level machine.** Level the machine on a flat concrete surface by using a spirit level.
- 16. Secure Panbrake.** Make sure you bolt and the machine down so it is secure when in operation.
- 17. Floor load for Installation.** The permissible floor load, where the machine is to be installed, must be accounted for.
- 18. Hearing protection and hazards.** Always wear hearing protection as noise generated from machine and workpiece can cause permanent hearing loss over time.
- 19. Heating Material.** Heating metal with a torch while the metal is in the bending brake will weaken the fingers.
- 20. Pinching.** Prevent pinching by lowering the clamp beam when not in use.
- 21. Call for help.** If at any time you experience difficulties, stop the machine and call your nearest branch service department for help.
- 22. Pacemaker Protection.** Please note: no person with a pacemaker should be closer than 6 foot or 1.828 metres to an Electromagnetic machine or anything that has an electrical field.
 1. Strong electromagnetic fields can cause electromagnetic interference.
 2. EMI can stop the pacemaker from sensing your heart's rhythm.



PLANT SAFETY PROGRAM NEW MACHINERY HAZARD IDENTIFICATION, ASSESSMENT & CONTROL

Magnetic Panbrake

Developed in Co-operation Between A.W.I.S.A and Australia Chamber of Manufacturers
This program is based upon the Australian Worksafe Standard for Plant(NOHSC:101 0-1 994)

Item No.	Hazard Identification	Hazard Assessment	Risk Control Strategies <small>(Recommended for Purchase / Buyer / User)</small>
B	CRUSHING	MEDIUM	Secure & support work material. Keep hands clear of folder blades when clamping.
C	CUTTING, STABBING, PUNCTURING	MEDIUM	Wear gloves to prevent cuts from sharp material offcuts. Care must be taken when handling folder blades.
F	STRIKING	MEDIUM	Ensure guards are secured properly. Wear safety glasses. Ensure clamp beam is correctly adjusted. Keep clear of bending material.
H	ELECTRICAL	MEDIUM	Machine should be installed & checked by a Licensed Electrician. All electrical enclosures should only be opened with a tool that is not to be kept with the machine.
O	OTHER HAZARDS, NOISE.	LOW HIGH	Wear hearing protection as required. Pacemaker Protection: Please note: no person with a pacemaker should be closer than 6 foot or 1,828 metres to an Electromagnetic machine or anything that has an electrical field. 1. Strong electromagnetic fields can cause electromagnetic interference. 2. EMI can stop the pacemaker from sensing your heart's rhythm.
Plant Safety Program to be read in conjunction with manufactures instructions			



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Authorised and signed by:
Safety officer:

Manager:

Revised Date: Aug-08



⚠ WARNING

PACEMAKER PROTECTION



SAFETY PRECAUTIONS

Please note: **no person** with a **pacemaker** should be closer than **6 FOOT OR 1.828 METRES** to an Electromagnetic machine or anything that has an electrical field.

1. Strong electromagnetic fields can cause electromagnetic interference.
2. EMI can stop the pacemaker from sensing your heart's rhythm.

MACHINERYHOUSE

ASSEMBLY

HOW TO ASSEMBLE YOUR ELECTRABRAKE

The EB625, EB1000

Note: The machine is supplied upside down for assembly purposes.

1. Remove all parts from the crate with the exception of ELECTRABRAKE magnet body assembly.
2. Use the 6mm Allen Key and the screws supplied.
3. Place packing between the body and the crate.
4. Attach the feet to the column using the eight M10 x 16 button-head screws provided. Note that the seam on the column is at the back and the two feet with the yellow and black safety tape are the front feet.
5. Fasten the foot plate under the front feet using the M10 x 16 cap-head screws with washers. Alignment is easier if the foot mounting is not tightened until the foot plate is fitted. The rear feet cap head screws can be adjusted to level the machine.
6. Place the stand on its feet in a safe area so that the magnet body can be fastened to the stand.
7. Place the magnet body on the stand securing it with two M8 x 16 cap head screws. This would be best if you used a lifting device or got some assistance. Ensure that the magnet wires are guided down the column as the magnet body is lowered onto the stand.
8. Remove the rear access cover to gain access to the electrical unit. By removing the four pan head screws. Connect the adjoining matching plug leads from the magnetic coil and PC board. Refit the rear access cover.
9. On the EB625 the tray is in two halves. First join the two halves of the tray using the two M6 pan head screws and nuts. Now using two M8 x 12 cap head screws attach the tray to the back of the magnet body. Place the rubber mat in the tray. Attach the back stop slides to the side of the tray.
10. On the EB1000 use four M8 x 12 cap head screws to attach the two back stop bars to the back of the magnet body
11. On the EB1000 use three M8 x 12 cap head screws to attach the tray to the back of the magnet body between the two back stop bars. Place the rubber mat in the tray.
12. Open the bending beam to gain access to the back of the bending beam so that you can attach the handle.
13. Slide the handle through the angle indicating ring. Now using two M8 x 16 cap-head screws to attach the handle to the bending beam.
14. Use solvent i.e. turpentine or methylated spirits to remove the clear protective coating from the top of the unit and the clamp bar.
15. Place the clamp bar on the magnet body.
16. To obtain excellent results follow the operating instructions.

ASSEMBLY

HOW TO ASSEMBLE YOUR ELECTRABRAKE

The EB1250

Note: The machine is supplied upside down for assembly purposes.

1. Remove all parts from the crate with the exception of ELECTRABRAKE magnet body assembly.
2. Find the 6mm Allen Key and the screws supplied.
3. Lift the magnet body up from the crate. Place a plank between the body and the crate.
4. Attach the feet to the column using the eight M10 x 16 button-head screws provided. Note that the seam on the column is at the back and the two feet with the yellow and black safety tape are the front feet.
5. The rear feet cap head screws can be adjusted to level the machine.
6. Place the stand on its feet in a safe area so that the magnet body can be fastened to the stand.
7. Place the magnet body on the stand securing it with two M8 x 16 cap head screws. This would be best if you used a lifting device or got some assistance.
8. Use four M8 x 12 cap head screws to attach the two back stop bars to the back of the magnet body.
9. Use three M8 x 12 cap head screws to attach the tray to the back of the magnet body between the two back stop bars. Place the rubber mat in the tray.
10. Open the bending beam to gain access to the back of the bending beam so that you can attach the handle.
11. Use two M8 x 20 cap-head screws per handle to attach the handles to the bending beam.
12. The handle with the angle scale is attached on the left hand side of the bending beam. Attach the other handle on the right hand side.
13. Slide the angle indicator unit onto the left handle. Attach the 2 arms to the indicator spindle. To ensure correct operation securely fasten the screws to the switching mechanism.
14. Use the two M12 x 60 masonry bolts supplied to secure the Electrabrake machine to the floor. Adjust the head levelling screws in the rear of each foot until the machine is stable and level.
15. Use solvent i.e. turpentine or methylated spirits to remove the clear protective coating from the top of the unit and the clamp bar.
16. Place the clamp bar on the magnet body.
17. To obtain excellent results follow the operating instructions.

ASSEMBLY

HOW TO ASSEMBLE YOUR ELECTRABRAKE

The EB2000, EB2500, EB3200

Note: The machine is supplied upside down for assembly purposes.

1. Remove all parts from the crate with the exception of ELECTRABRAKE magnet body assembly.
2. Find the 6mm Allen Key and the screws supplied.
3. Lift the magnet body up from the crate. Place a plank between the body and the crate.
4. Attach the columns to the magnet body by using four M8 x 16 cap-head screws per column. Open-out the bending beam to gain access to insert the screws.
5. NB Check that the right and left columns are in the correct position with the foot mounting holes facing to the outside.
6. Attach the feet to respective columns with the adjusting screws pointing backwards using four M10 x 16 button-head screws per foot.
7. Place the machine the right way up. Assistance is required on the large units.
8. Use four M8 x 16 cap-head screws to attach shelf to the columns. Place the rubber mat in the shelf.
9. Use three M8 x 12 cap-head screws to attach the tray to the magnet body. Place the rubber mat in the tray.
10. Use two M8 x 12 screws per backstop to attach the four backstop bars to the back of the magnet body.
11. Use one M8 x 20 cap-head screw with lock nut per lifter handle to attach lifter handles to the back of the shaft located at the outside of the columns.
12. Open the bending beam to gain access to the back of the bending beam so that you can attach the handles
13. Use two M8 x 20 cap-head screws per handle to attach the handles to the bending beam.
14. The handle with the angle scale is attached to the right of the bending beam. Attach the other handle on the left hand side.
15. Slide the angle indicator unit onto the right handle. Attach the 2 arms to the indicator spindle. To ensure correct operation securely fasten the screws to the switching mechanism.
16. Use the two M12 x 60 masonry bolts supplied to secure the Electrabrake machine to the floor. Adjust the head levelling screws in the rear of each foot until the machine is stable and level.
17. Use solvent i.e. turpentine or methylated spirits to remove the clear protective coating from the top of the unit and the clamp bar.
18. Place the clamp bar on the magnet body. To engage the heads of the lifter pins push lifter handle back and then pull the handle forward.
19. To obtain excellent results follow the operating instructions.

OPERATING PROCEDURES

GENERAL CAUTIONARY IMPORTANT WARNINGS

Electrabrake machines are designed for ONE operator only, which includes the inserting the sheet metal and operating the switches.

See specifications for clamping strength – please note that the force is several tonnes. All units are fitted with a two-handed interlocking system to prevent hands being accidentally trapped when clamping.

Safety procedures:

1. Safe pre-clamping is engaged
2. Full clamping is activated
3. Lower clamp bar to 5mm of the bed
4. Magnet will engage

STANDARD BENDING

Preparation: Switch on power. Check that the clamp bar is correctly positioned and that locating pins are in place at each end of the clamp bar.

For bigger models EB-2000, EB-2500 and EB-3200

Should lifting pins be locked – locate handles below the machine, push hard back and release forward to lift the clamp bar slightly.

- ◆ Set the machine to suit the sheet metal thickness by rotating the 2 screws situated on the back edge of the clamp bar. Check the clearance by lifting the bending beam at 90 deg. and examine the gap. To achieve a perfect bend, set a fractionally larger gap, than the depth of the sheet metal, between the edge of the clamp bar and the face of the bending beam.
- ◆ Place sheet metal under clamp bar – the backstop can be used if needed.
- ◆ Lift handles or push down the clamp bar onto the sheet metal. The machine will not turn ON until the clamp bar is within 5mm above the surface bed due to the interlock. The interlock can be operated by locking down the lifting system if the clamp bar is unable to be lowered to 5mm. This can occur when sheet metal is buckled.
- ◆ To apply pre-clamping force use the foot-switch or depress and hold any of the green start buttons.
- ◆ To activate the micro-switch for full clamping, pull one of the bending handles with your free hand. Release footswitch or start button.
- ◆ Pull on both handles and begin bending till the angle required is achieved. Assistance will be necessary when carrying out heavy duty bending. The right handle has a beam angle, which graduates continuously. To allow for spring back of the sheet metal, bend a few degrees more than the angle that is required.
- ◆ The electrical circuit of the machine releases a reverse pulse at the OFF stage allowing the clamp bar to release immediately.

- ◆ To release the sheet metal, flick the material upwards, which will lift the clamp bar to make ready for the next bend. It may be necessary to lift the clamp bar by using one of the lifting handles.

CAUTION

Do not insert small items under the clamp bar – a minimum bend of 15mm is essential except when bending very lightweight soft metal. This will prevent damage to the clamp bar.

To get the best performance do not clamp longer than is necessary due to the magnet having less clamping force when heated.

HOW TO USE THE BACKSTOPS

Make use of the backstops when handling volume bends that are all the same size. Set the backstops at the size required.

Backstops can be used with a bar (not supplied) laid against them, making a long surface to use as a reference. The extension pies from the bending beam could be used.

Use a strip of sheet metal of the same thickness as the work piece if a backstop is required under the clamp bar.

HOW TO FOLD A LIP

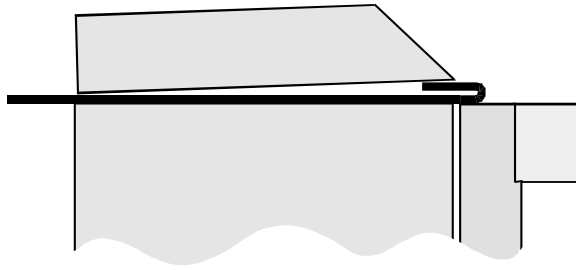
Folding the lip will depend on the sheet metal thickness and the length and width.

Lightweight sheet metal up to 0.8mm.

1. Carry out instruction for standard bending and continue to bend as far as possible. Move the angle stop collar up to the top of the handle, and tighten the Allen head screw to keep it there.
2. Take away the clamp bar, leave the sheet metal on the machine and move 10mm backwards, bring over the bending beam and compress the lip. No clamping is required. Thick sheet metal is not suitable for this application.



3. Further flattening can be accomplished when using thin lightweight material by following up with magnetic clamping



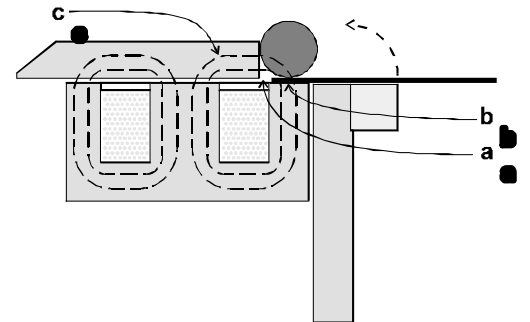
HOW TO MAKE A ROLLED EDGE

Wrap sheet metal around a round steel bar or pipe.

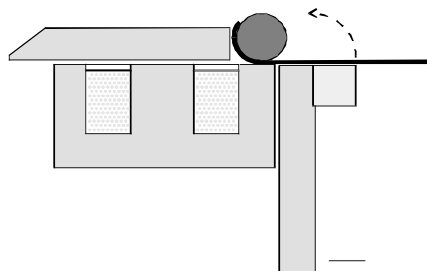
1. Position sheet metal clamp bar and round pipe/bar as indicated on drawing.
 - i) To avoid weak clamping make sure that the clamp bar does not overlap the machines front pole (A).
 - ii) Ensure that the rolling pipe is resting on the front pole of the machine (B). It must not sit on the aluminium surface of the machine.
 - iii) The clamp bar provides a magnetic pathway © for the rolling bar.



Folding round a pipe



2. Wrap the sheet metal around the rolling bar as far as possible –

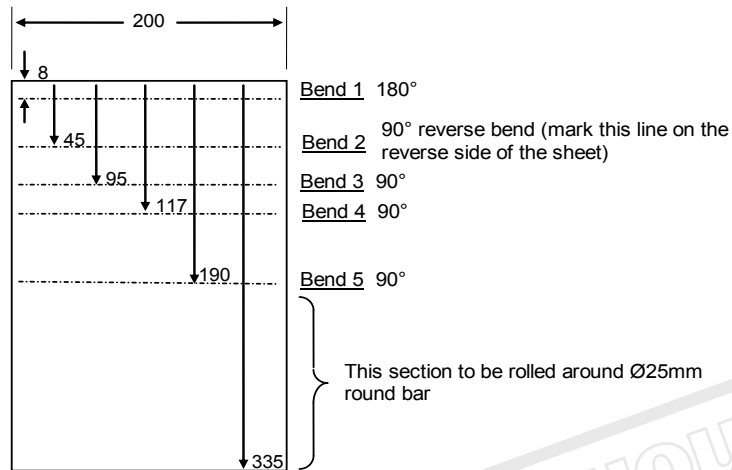


3. Repeat step 2 until rolled edge to requirement.

HOW TO FORM A TEST PIECE

To learn how to work the Electrabrake with confidence it is recommended that test pieces are made.

Use a piece of 0.8 mm thick x 320 x 200mm aluminium or mild steel sheet. Mark sheet as per drawing



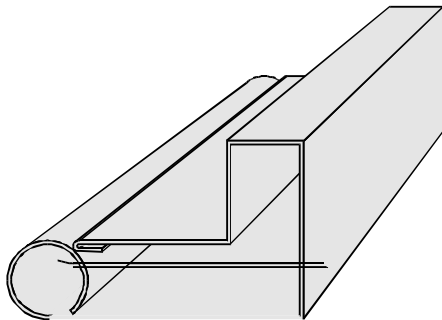
Form a lip on the edge of the sheet metal (see 'How to form a Lip')

Turn sheet metal over and insert under the clamp bar with the folded lip end toward you. Tilt clamp bar and line up bend marked 2. Bend to 90 degrees as shown in drawing below.



Turn sheet metal over and continue with steps marked 3, 4 and 5 bent to 90 degrees.

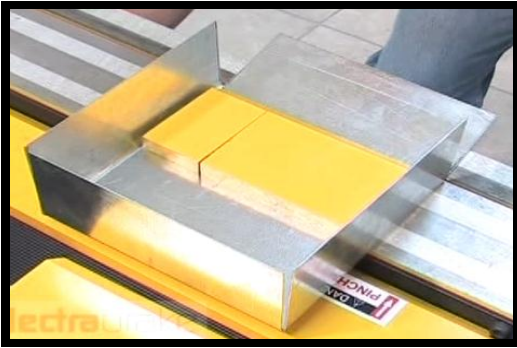
Roll the remaining piece around a 25 mm diameter round bar (see How to make a rolled edge) See drawing below for completed job.



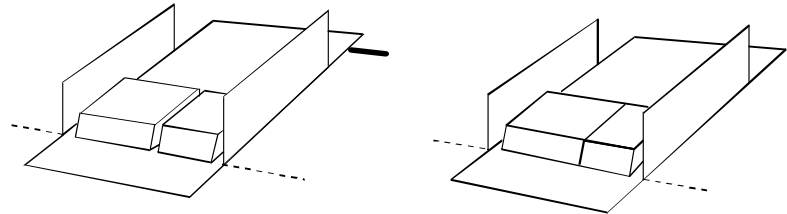
For ease of folding, make use of the short clamp bars to the shape folds into each other. Electrabrake is designed to assist you in the manufacture of a vast variety of box shapes.

BASIC BOXES

Use the long bar clamp to make the first two bends. Choose and insert one or two of the short clamp bars as indicated on drawing.



Fitting the short clamp bar



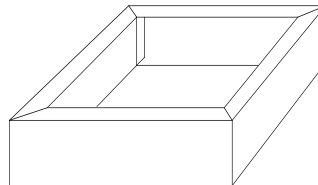
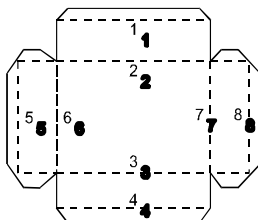
Select the largest clamp piece for bends up to 70mm and for longer lengths use several clamp pieces to fit the required length.

Clamp pieces can be plugged together for repeat bending when making a single unit. A slotted clamp bar must be used for boxes or trays with shallow sides. Refer to HOW TO

MAKE TRAYS.

LIPPED BOXES

1. Use the set of standard short clamp bars to make rectangular lipped boxes i.e. 98mm.
2. Choose the short clamp bar with at least a lip-width shorter than that of the box (Two or three may be necessary – depending on length). Make folds 5, 6, 7 and 8. Take care to guide the corner tabs on inside or outside of the box.



BOXES WITH INDIVIDUAL ENDS

Advantages:

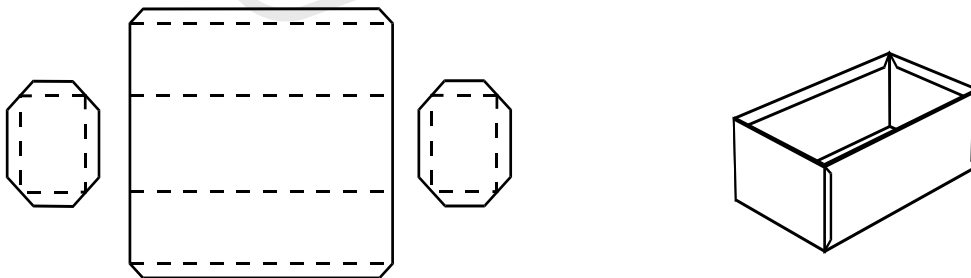
Material saving
No corner notching
Cut without a guillotine
Fold with the regular full length clamp bar.

Disadvantages:

Extra folds to be carried out
Extra corners to join
The finished product shows more joins

Use the full length clamp bar for all folding.

1. Set up sheet metal as per drawing below
2. Form four folds in the sheet metal as shown on drawing.
3. For folds on side panels, as per drawing, use the narrow flange of the end piece of the clamp bar
4. Join the box

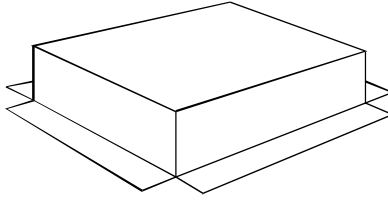
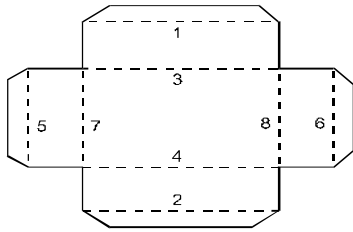


FLANGED BOXES WITH PLAIN CORNERS

To make plain cornered boxes, the length and width should not exceed the clamp bar width of 98mm. Outside flanges are also used when making top hat sections.

1. Mark up sheet metal as per drawing below.
2. Use the full length clamp bar and fold sections marked 1, 2, 3 & 4.
3. Form fold 5 by inserting the flange under clamp bar follow by folding 6.

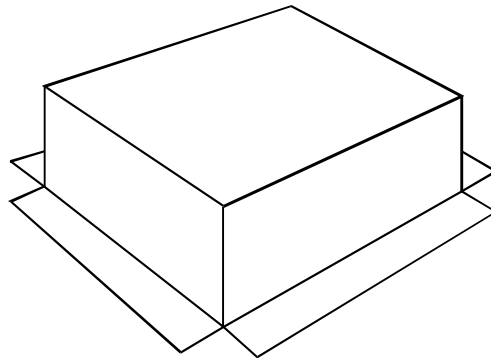
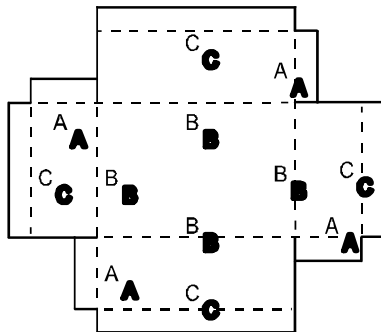
4. Using slotted clamp bar form folds 3, 4, 7 and 8.



FLANGED BOX WITH CORNER TABS

Important Note: Folds must be formed in the correct sequence using one piece of sheet metal. It is suggested the deep boxes are manufactured with separate end pieces.

1. Mark up sheet metal as be drawing below
2. Form all tab folds to 90deg. marked A at the one end of the full length clamp bar by inserting the tab under the clamp bar.
3. Use the same end of the clamp bar and fold B to 45deg. by inserting the side of the box instead of the bottom of the box under the clamp bar.
4. Form the flange fold C to 90deg. at the other end of the clamp bar.
5. Complete folds B to 90deg. By using suitable short clamp bars.
6. Complete the box by joining the corners.



HOW TO USE A SLOTTED CLAMPBAR

FORMING TRAYS

The slotted clamp bar is perfect for manufacturing shallow trays and pans.

Advantages:

The Bending edges are aligned automatically to the front edge of the magnet body. The clamp bar automatically lifts to facilitate insertion and removal of the sheet metal whereas with the short set each section must be lifted individually.

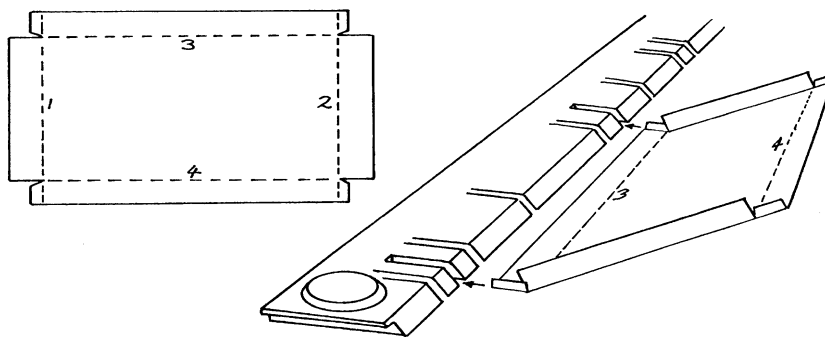
The slotted clamp bar folds shallow trays, however trays of unlimited depth and complex shapes can be manufactured with a short clamp bar.

The pitch of the slots has been calculated to enable the folding of various sizes of trays. Specification sheet indicate shortest and longest tray sizes that can be accommodated by the slotted clamp bar

To fold shallow tray

1. First fold two opposite sides and the corner tabs by using the slotted clamp bar – ignore the slots they will have no effect on the finished folds.
2. Select two slots to fold the remaining two sides. Line up the left side of the tray with the left slot and check if there is a slot for the right side. Slide the tray along the left and try the next slot until a suitable slot is found. The edge of the tray should be under the clamp bar and between the two chosen slots.
3. To complete, fold the remaining sides.

Note: Trays that are almost as long as the clamp bar may need to use the end of the clamp bar in lieu of a slot.





Measuring the slotted clamp bar



Folding a tray note that the folded sides fit into the slots

HOW TO CHECK THE ACCURACY OF YOUR MACHINE

Critical aspects of Electrabrake are that working surfaces of the bending beam, the bending edge clamp bar are straight and that both of these surfaces are parallel. This can be checked with a precision straight edge.

How to check using the machine.

Swing bending beam up to 90deg. and hold or lock it in position with a back stop clamp collar at the back of the angle slide on the handle. Check the gap between the working surface of the bending beam and the edge of the clamp bar. Set the gap at 1mm on each side by using the clamp bar adjusters. A feeler gauge or scrap piece of metal can be used.

The gap must be the same along the edge of the clamp bar. Variations can be within +/-0.2mm. The gap must not exceed 1.2mm and be less than 0.8mm. Should the adjusters not be the same at each end, they will have to be reset – see Maintenance page 16.

Notes

The straightness of the elevated clamp bar is not important as this is flattened out in magnetic clamping when in use.

The gap between the magnet body and bending beam is about 2 to 3mm. This does not affect the bending accuracy.

Electrabrake produces folds on thinner gauges and non-ferrous metals such as aluminium, however, check the specification for heavier gauges.

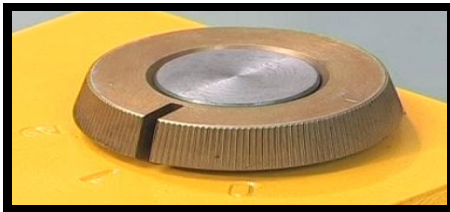
To fill in unused portion under the clamp bar, make use of scrap pieces of sheet metal to create uniformity of the bends in thicker gauges.

MAINTENANCE

ADJUSTERS

The adjuster screws at the end of the clamp bar control the thickness of the sheet metal between the bending beam and its edge.

The heads for the screws are divided into 3 by centre pop marks. Use these marks as a reference for repeat setting of the clamp bar. The bending gap will be approx. 1mm if adjuster screws are both set so that the single pop mark is uppermost.



Adjuster set to 1mm



Hinge

HINGE LUBRICATION

Grease all hinges once per month

WORKING SURFACES

Bare working surface may become rusty or tarnished. Recondition by filling off and clean up surfaces with emery paper. Use an anti-rust spray.

TROUBLE SHOOTING

Prior to ordering a replacement electrical unit from the manufacturer please check the following:

- ◆ If the machine does not operate at all, check the pilot light in the ON/OFF switch.
- ◆ If the machine is hot and power is available, leave the machine to cool and try again.
- ◆ Do not pull the handle prior to starting – the start button must be pressed first.
- ◆ If the bending beam is moved prior pressing the start button begin again and make sure the handle is pushed fully back.

- ◆ Should the problem continue the micro switch actuator may need to be adjusted?
- ◆ To check if the start button is faulty, try to start the machine with the foot switch.
- ◆ Check the connector and magnet at the electrical module.
- ◆ If the clamp bar snaps down on the release of the start button, this indicates that the 15 microfarad capacitor needs to be replaced.
- ◆ Should the machine cause blown fuses or trip your circuit breakers, it is likely that the bridge rectifier is blown.

Full clamping not operating

If you are not achieving a full clamp, the angle micro switch may not be fully actuated.

How to check that the angle micro switch is being fully actuated.

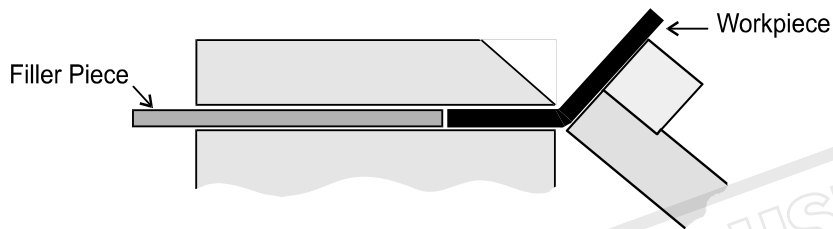
- ◆ The micro switch can be found on the electrical panel located at the end of the square brass section. The brass section is attached to the angle indicating mechanism.
- ◆ To access the electrical panel, the rear cover must be removed.
- ◆ When the bending beam is lifted this rotates the brass section which in turn depresses the micro switch. You should be able to hear the micro switch click on and off.
- ◆ Failing this, adjust the clutching force. This can be done by ensuring that the two M8 cap head screws at either end of the actuator shaft are secured.
- ◆ This adjustment should ensure that the actuator rotates and clutches however, if you are still unable to hear the click, the micro switch may need adjusting.
- ◆ The actuator can be adjusted by loosening the screw that secures it, making the adjustment, followed by re-tightening the screw.
- ◆ If the micro switch does not click on and off after you have made the above adjustments and rotated the bending beam to the maximum stops, then the switch may be fused and would need to be replaced. Call or email your distributor or Electrabrake.

Clamp bar not being released

- ◆ This is caused by the failure of the reverse pulse de-magnetising circuit.
- ◆ Check for sticky contacts on the relay and clean.
- ◆ The 6.8 power resistor or diodes could be faulty which will have to be replaced.

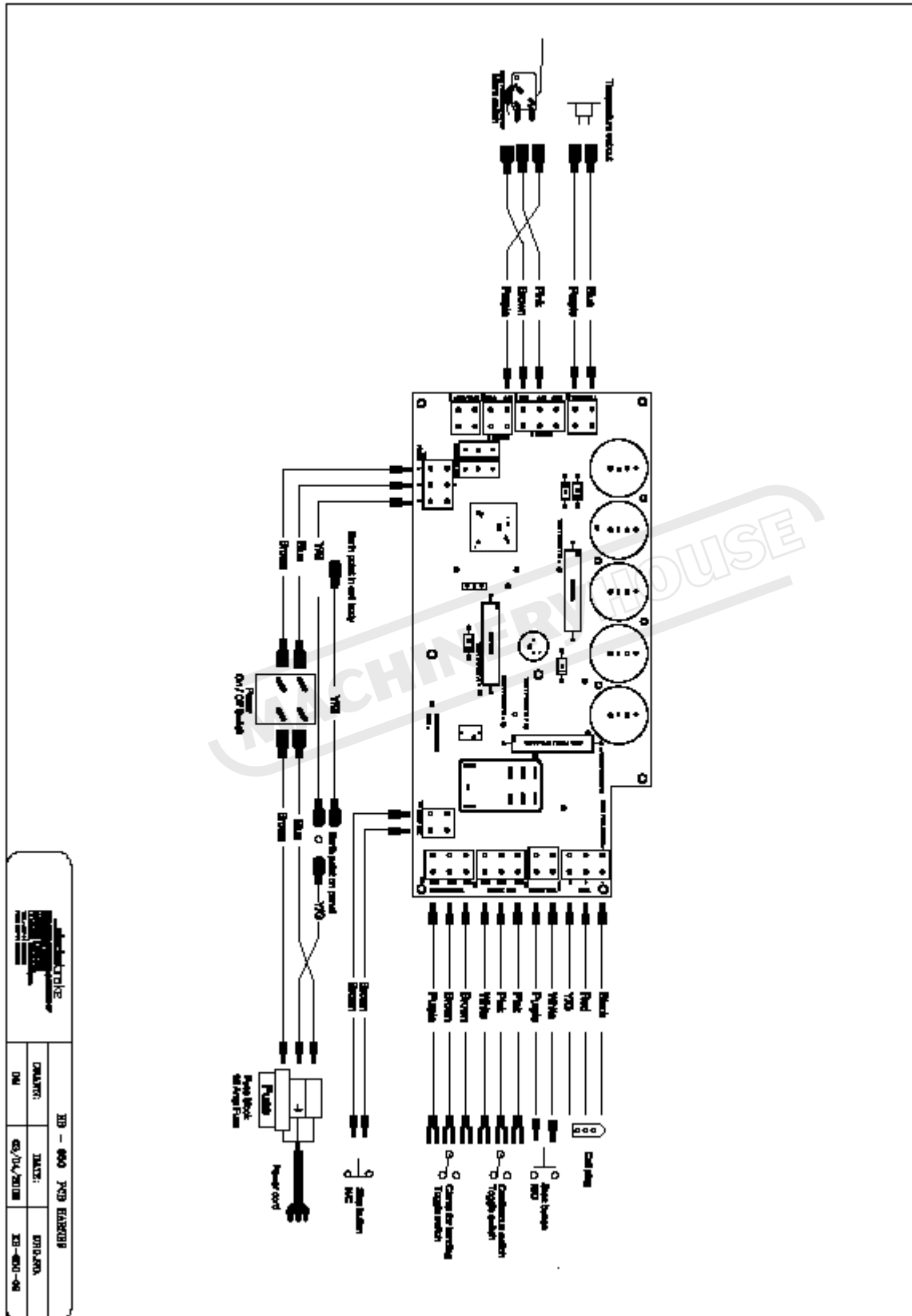
Problems with the bending of heavy gauge sheet metal.

- ◆ Ensure that sheet metal thickness is within the specifications of the machine.
- ◆ It may occur if narrow lips are being bent over the full length of the machine, please note that the machine is not equipped to do this.
- ◆ Should the work piece not be level (i.e. have a welded seam or a joint) it may not be possible to bend the work piece. Ensure that all spaces under the clamp bar are filled with flat pieces of scrap metal.



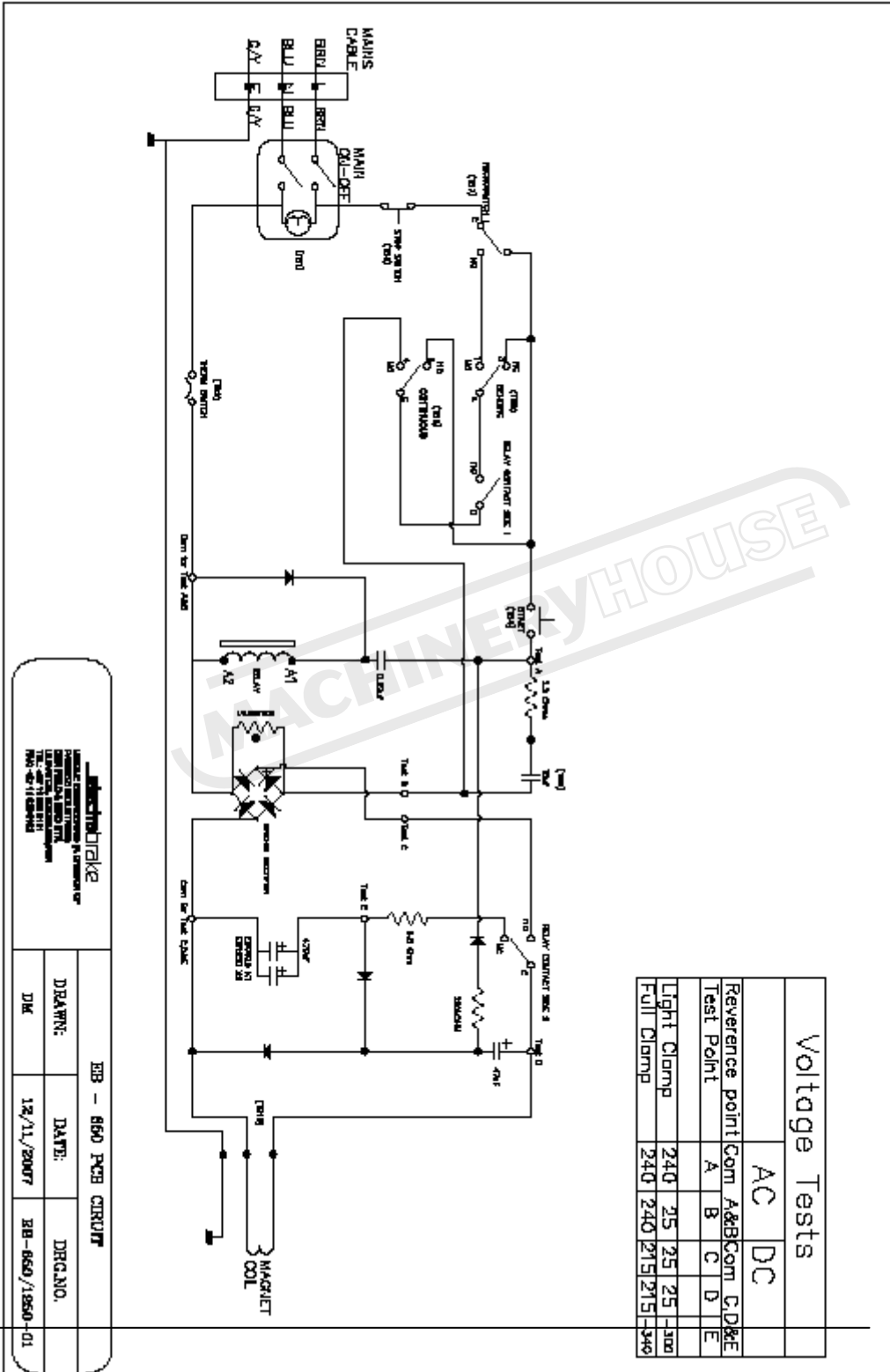
MACHINERYHOUSE

EB0625 AND EB1000 PANEL



EB - 000 PCB ELECTRICAL		
DRAWN:	DATE:	REVISED:
DML	03/10/2010	EB-000-00

EB 0625 1250 CIRCUIT



Voltage Tests	
	AC DC
Reference point	Com A&B Com C,D&E
Test Point	A B C D E
Light Clamp	240 25 25 25 25 25
Full Clamp	240 240 215 215 215 215

EB - 660 PCB CIRCUIT

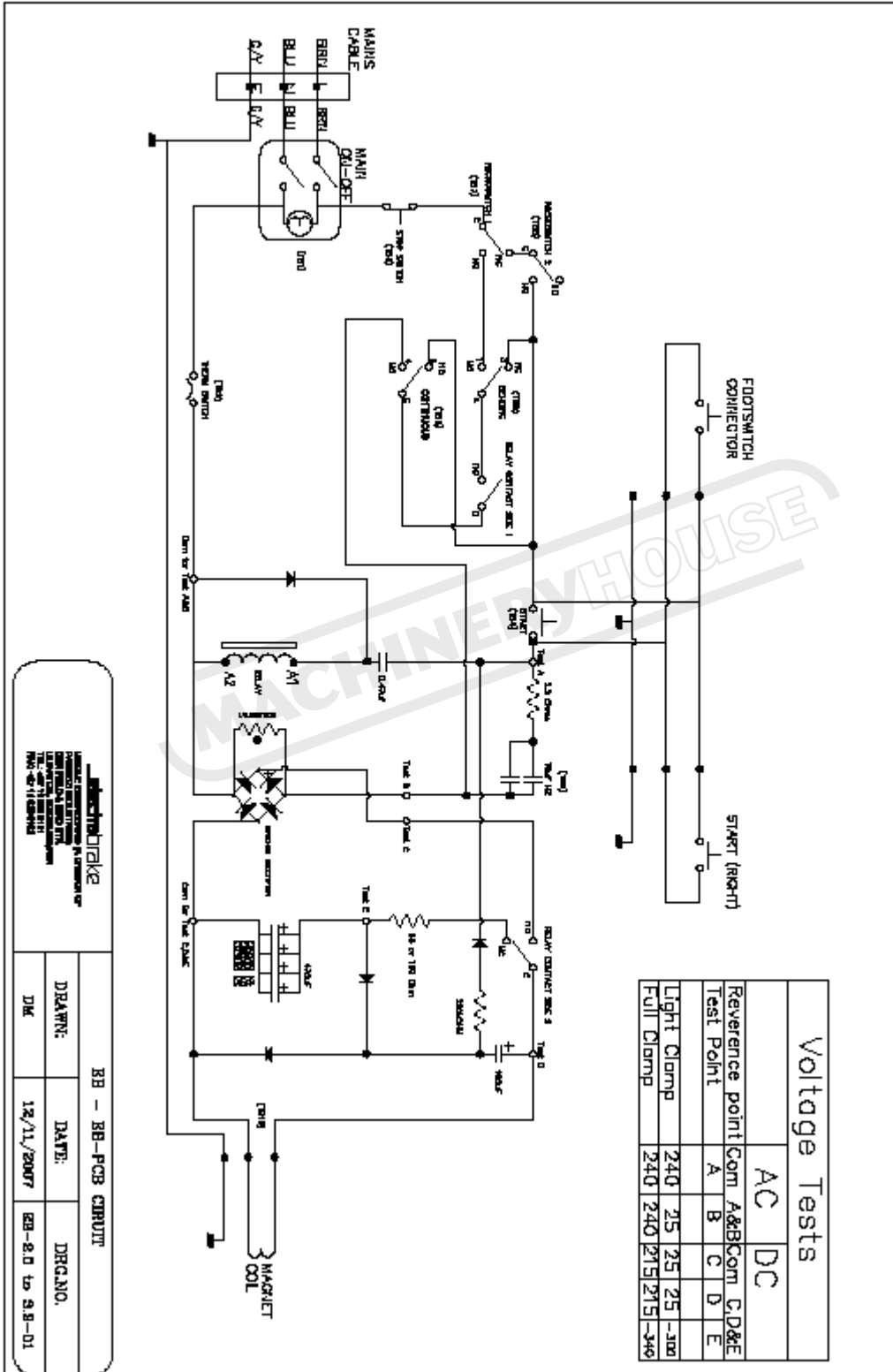
DATE: 12/11/2007

DRG. NO. EB-660/1850-01

DWG. NO. 1850-01

12/11/2007

EB 2000-EB3200 CIRCUIT DIAGRAM



Drake
GENERAL ELECTRIC COMPANY
 ELECTRIC DIVISION
 1200 WEST 17TH AVENUE
 DENVER, COLORADO 80202
 TEL. (303) 733-8111
 FAX (303) 733-8111

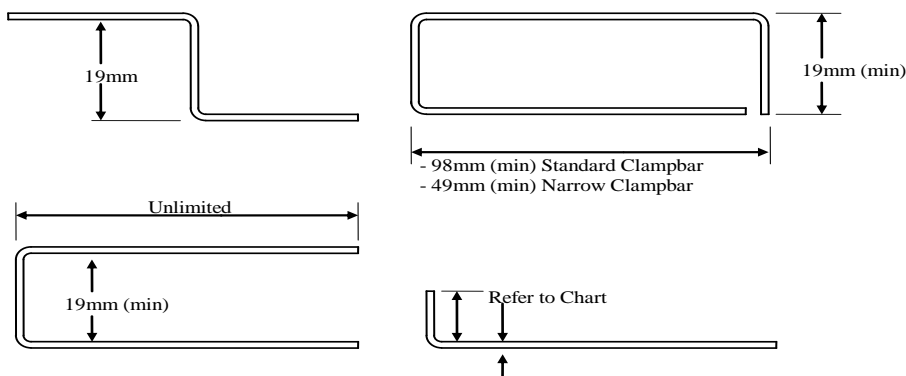
BB - BB-PCB CIRCUIT

DRAWN:	DATE:	DRG. NO.
DM	12/11/2007	BB-2.0 to 2.8-01

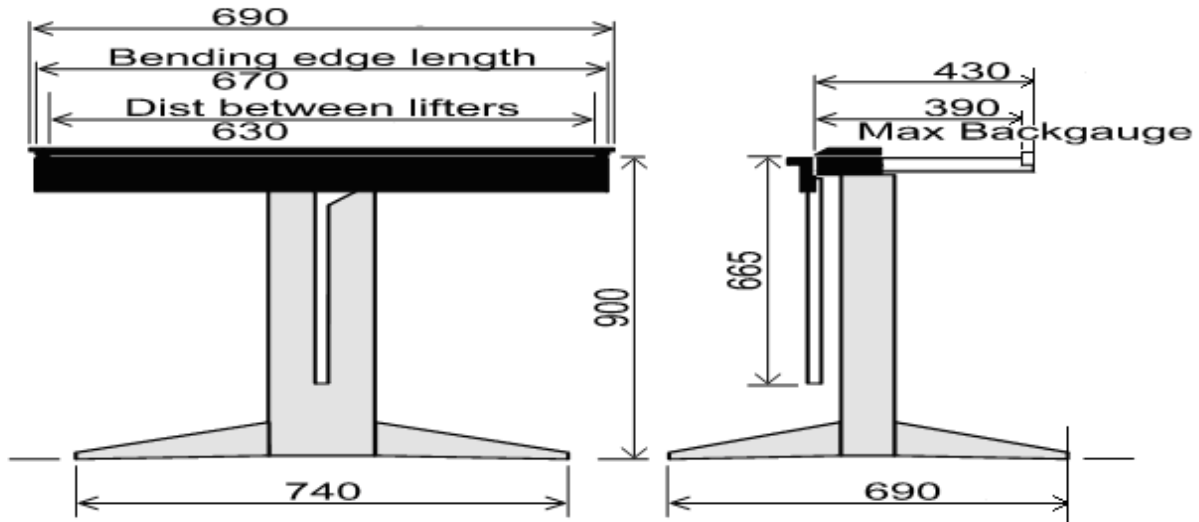
SPECIFICATION SHEET

Model		EB0625	EB1000	EB1250	EB2000	EB2500	EB3200
Weight of Machine	Kg	72	110	150	270	315	380
Nominal Capacity (<i>length x thickness</i>)	mm	0625 x1.6	1000 x 1.6	1250 x 1.6	2000 x 1.6	2500 x 1.6	3200 x 1.2
Clamping Force	Tons	3	4.5	6	9	12	10
Electricity Supply		1 phase, 220/240vac, 10A			1 phase, 220/240vac, 16A		
Duty Cycle	%	30					
Protection	°C	Thermal cut-out 70°/80°C					
Foot Switch		No			Standard		
Bending-edge Length	mm	670	1050	1300	2090	2590	3290
Distance between Lifters	mm	630	1010	1260	2028	2528	3228
U-Channel bends, <i>minimum spacing</i>	mm	16***			19***		45***
Closed channel, <i>minimum internal</i>	mm	99 x 27***			114 x 22***		114 x 45***
Z-reverse bends, <i>minimum spacing</i>	mm	35** / 16*		36** / 18*			
Thickness Capacities, full length (<i>material thickness can increase depending on the length of bend</i>)							
...Mild steel	mm	1.6** / 1.2*					1.2** / 1.0*
...Aluminium (medium-hard)	mm	1.6** / 1.2*					1.2** / 1.0*
...Copper, Zinc, Brass (medium-hard)	mm	1.6** / 1.2*					1.2** / 1.0*
...Stainless steel	mm	1.0** / 0.9*					0.9** / 0.8*
*** with standard full length clamp bar		**with bending beam extension bar removed			*extension bar		

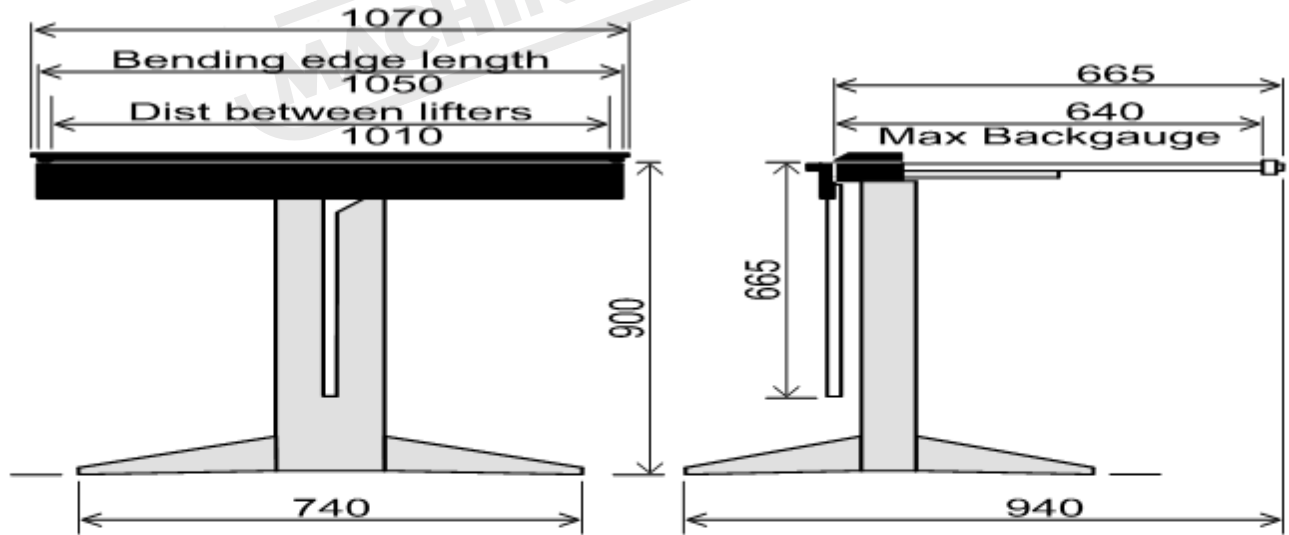
Bending dimensions.



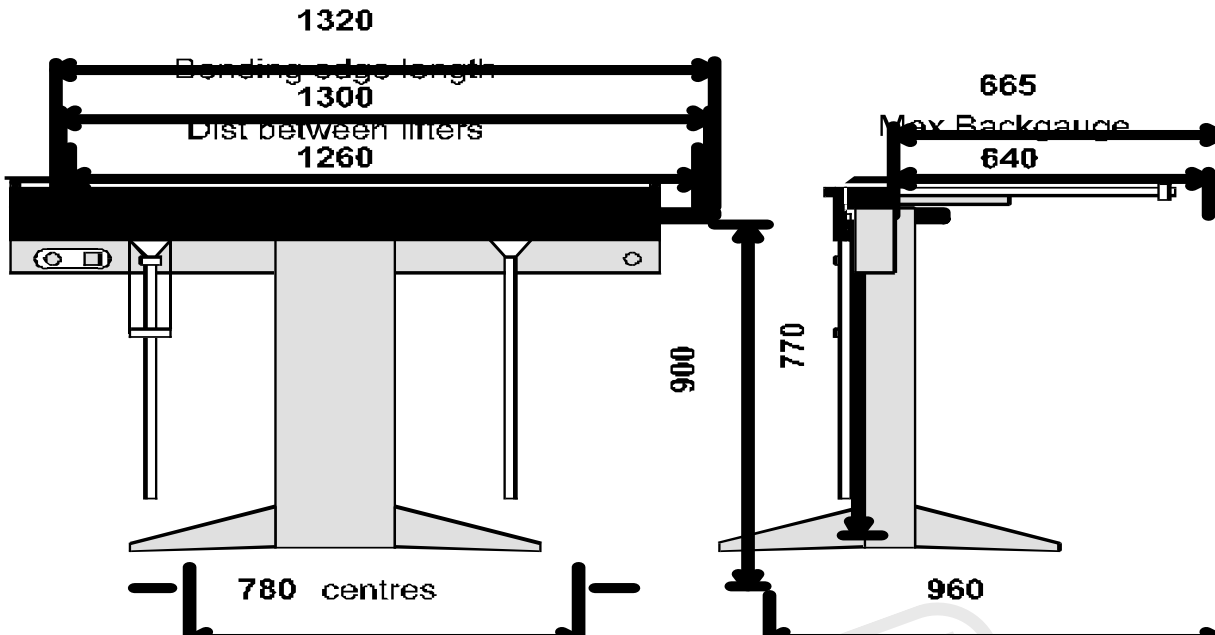
DIMENSIONAL SPECIFICATIONS EB625



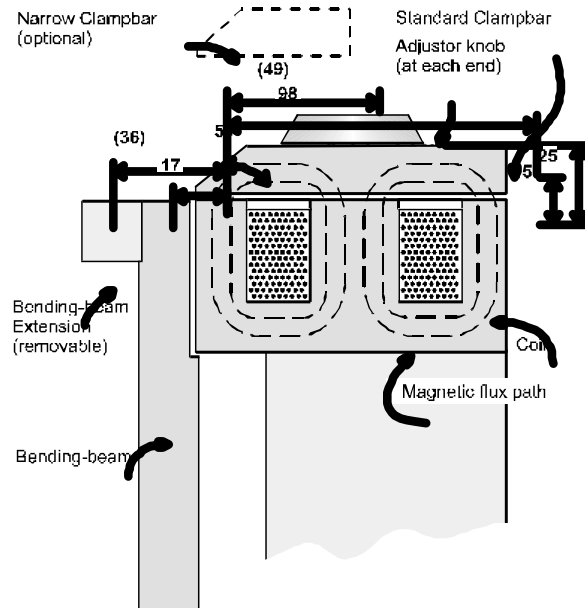
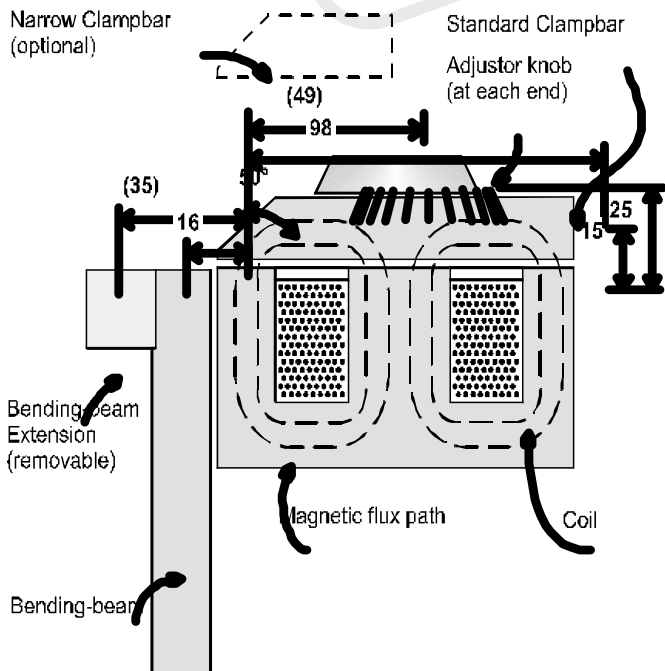
DIMENSIONAL SPECIFICATIONS EB1000



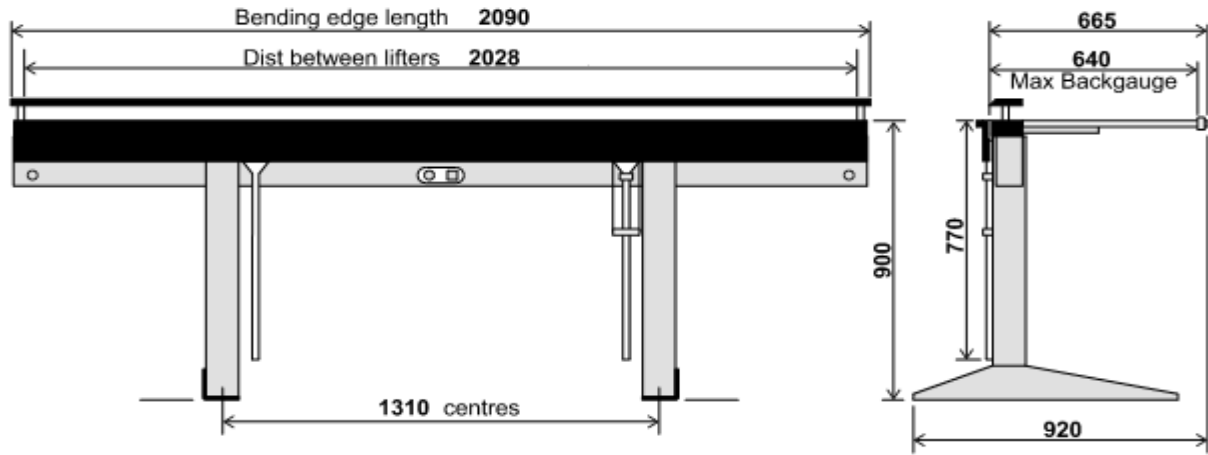
DIMENSIONAL SPECIFICATIONS EB1250



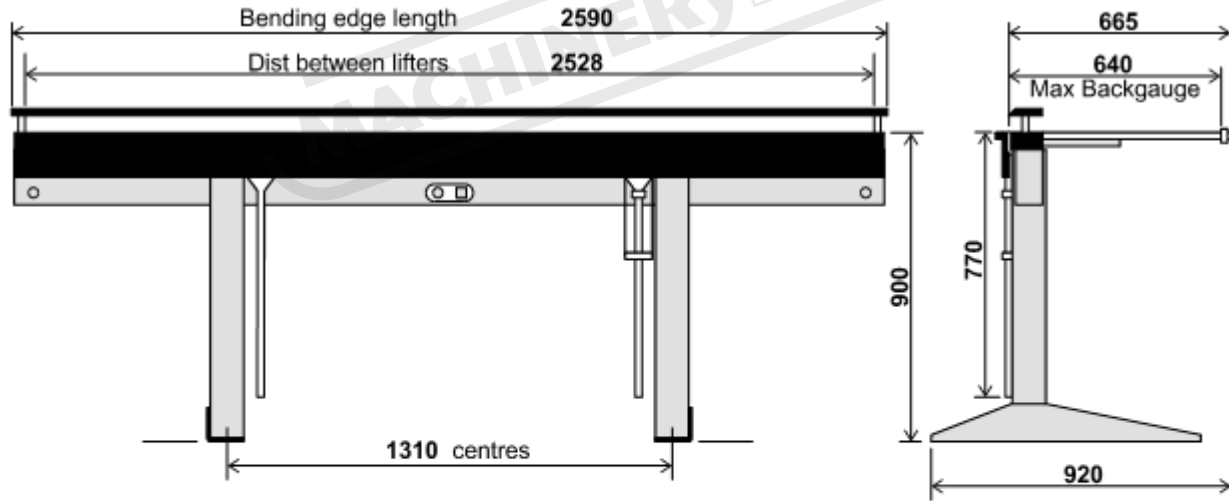
MACHINERYHOUSE



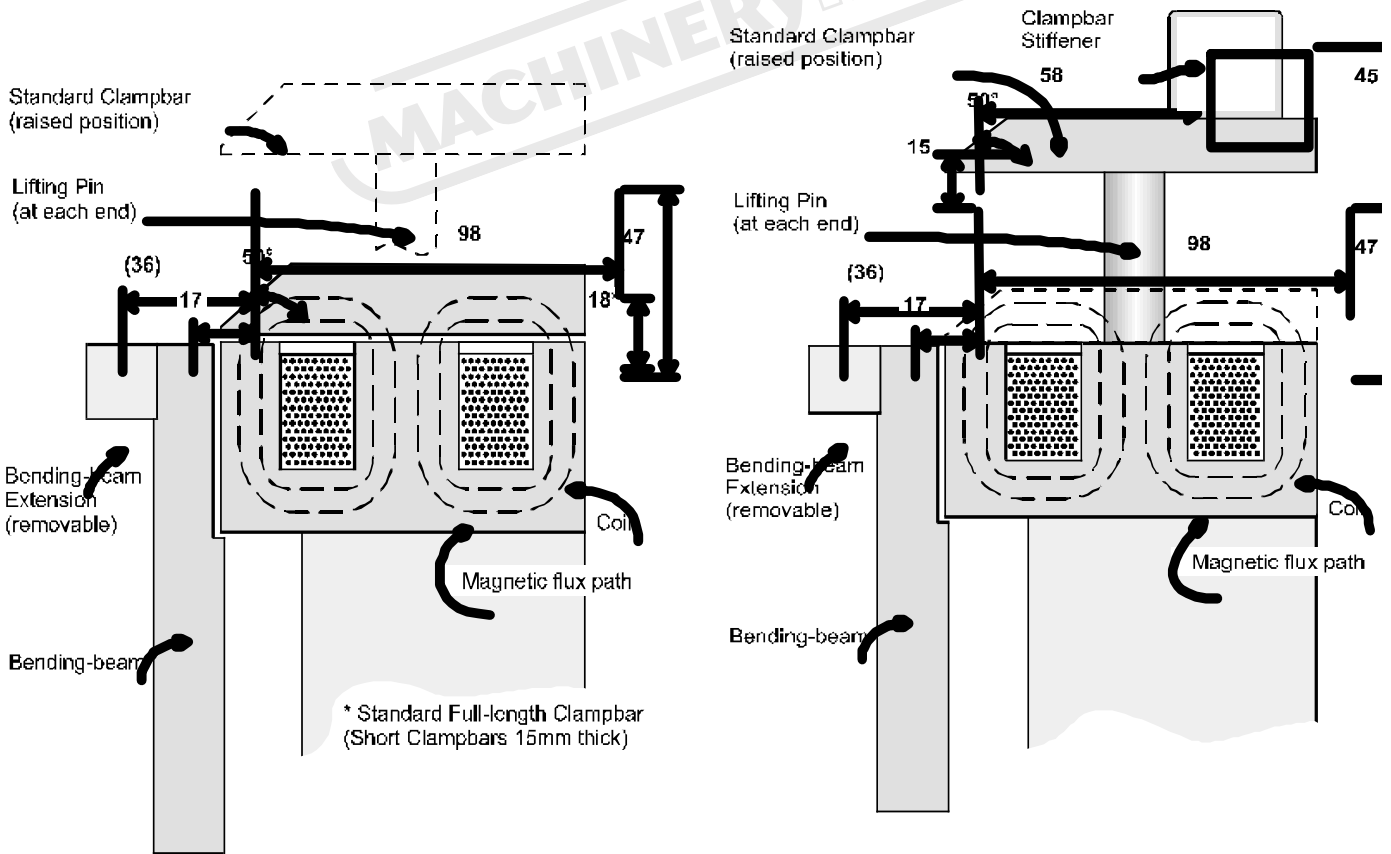
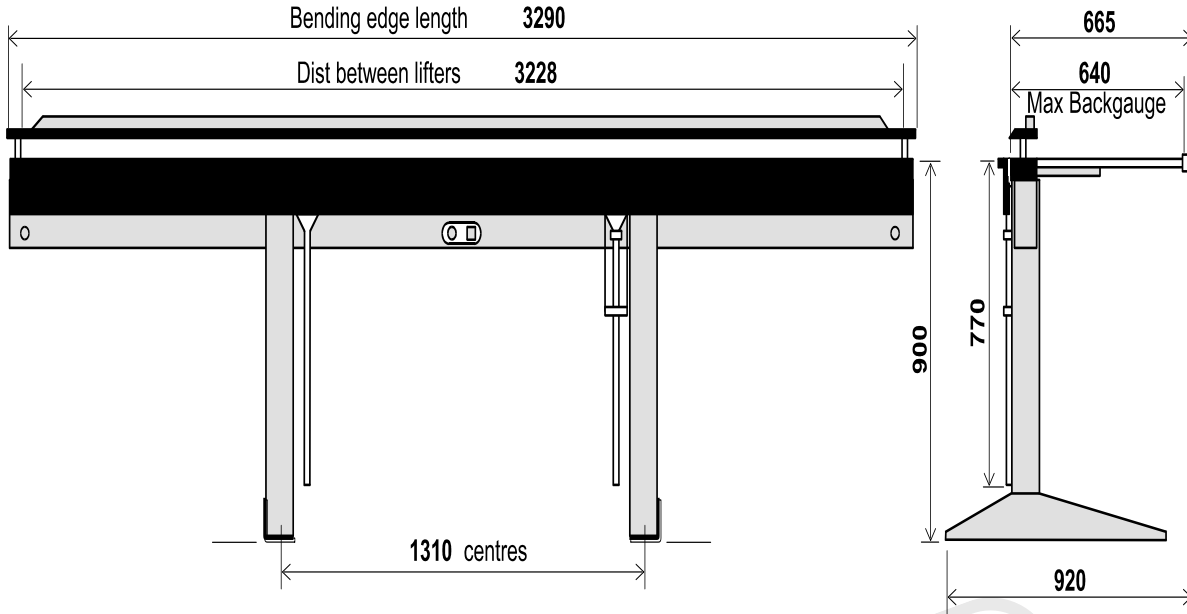
DIMENSIONAL SPECIFICATIONS EB2000



DIMENSIONAL SPECIFICATIONS EB2500



DIMENSIONAL SPECIFICATIONS EB3200



ANNEXURE 1

Basic Safety Precautions and Procedures:

Safety is all about preventing accidents. Personal injury typically occurs because safety precautions are either not learned, or they are not practiced. The following information is intended to assist you with some basic safety procedures and precautions to help ensure your safety when operating and servicing your ELECTRABRAKE machine.

If you cannot operate basic tools, you should not attempt to maintain or repair your ELECTRABRAKE machine. Contact the Manufacturer or Sales Agent if any repair or maintenance procedure is not understood.

Keep a first aid kit near by. Be aware of and know how to use the contents of the first aid kit. It is also a good idea to have a fire extinguisher handy just in case of an emergency.

SAFETY PROCEDURES:

Individual, electrical, machines, and operating safety precautions are relatively similar for all of the major categories. Make sure to pay close attention to any and all safety cautions and warnings posted on the appliance being operated or serviced. Understanding and adhering to these safety tips can greatly reduce the risk of personal injury.

Individual Safety Precautions:

Protecting yourself from injury and harm is absolutely imperative. We strongly suggest that before you begin to install, operate, maintain or service your ELECTRABRAKE machine that you strictly adhere to each of the following:

- Always wear gloves. A sharp edge on a machine or work piece can hurt and/or cut your hands.
- Ensure gloves are worn at all times as the magnet body will become hot and can cause minor burns.
- Ensure that your machine adheres to the assembly instructions.
- Be sure to wear safety boots. You can cause serious injury to unprotected feet by dropping any heavy tools or work pieces.
- Refrain from wearing loose clothing. Loose clothes can get caught in an operating machine.
- Remember to remove any jewellery when operating or servicing your machine.
- If you have long hair, keep it tied back.
- Wear safety glasses to guard your eyes from any dust or flying debris.
- Make sure you use the correct tools and that they are clean and in good condition.
- Keep your work area well lit.
- Use extreme caution when handling access panels, or any other parts that could have sharp edges.
- Abstain from putting your hands into any section of the machine that you have not visually inspected for jagged edges or sharp screws.
- Inspect your work area to make sure it is clean and free of water or oil spills.
- Ask for help if you need to move a heavy object.
- Lift heavy tooling or work pieces with your leg muscles, not your back muscles.

MOVING ELECTRABRAKE BENDING MACHINE:

- Moving bending machine into position. Use lifting brackets attached to Electrabrake columns.

Electrical Safety Precautions:

Before beginning any machine repair, make sure you know where and how to turn off the electricity to the appliance. Know the locations of any plugs, fuses, circuit breakers, and cartridge fuses in your home or workshop. Be sure to label them.

If in servicing your appliance, a voltage test is required, reconnect the power supply only for the duration of the voltage test. Disconnect the power immediately following the test. When conducting a voltage test, make sure that no other conductive parts come into contact with any exposed current-carrying metal parts.

When you replace any parts, or are putting the machine back together, always reinstall the wires to the correct terminals as per the wiring diagram. Inspect the wires closely to make sure they are not crossing any sharp areas, are pinched in any way, caught between panels, or in between any moving parts that can cause an electrical malfunction.

It is also important to keep these safety tips in mind:

- Make sure that your machine has its own grounded electrical circuit.
- Never use an extension cord to plug in your appliance.
- Ensure the electricity has been turned off before servicing the machine.
- Do not remove the ground wire from a three-prong power cord, or any other ground wires from the machine.
- Do not perform any alterations to any machine switches, components, or features.
- Before repairing the machine, replace any damaged, pinched, or frayed wires.
- Make sure all electrical connections within the unit are correctly and securely connected.
- Moisture Protection Ordinary. This Product is not suitable for out door use.
- Shock Protection Class 1.
- This apparatus should always be earthed.

Machine Safety Precautions:

Always call a machine repair technician if you doubt the safety of your machine.

When replacing any part that is not working correctly or that may have blown, use only replacement parts of the same size specifications and capacity as your original part. Consult a machine repair technician if you have any questions or concerns.

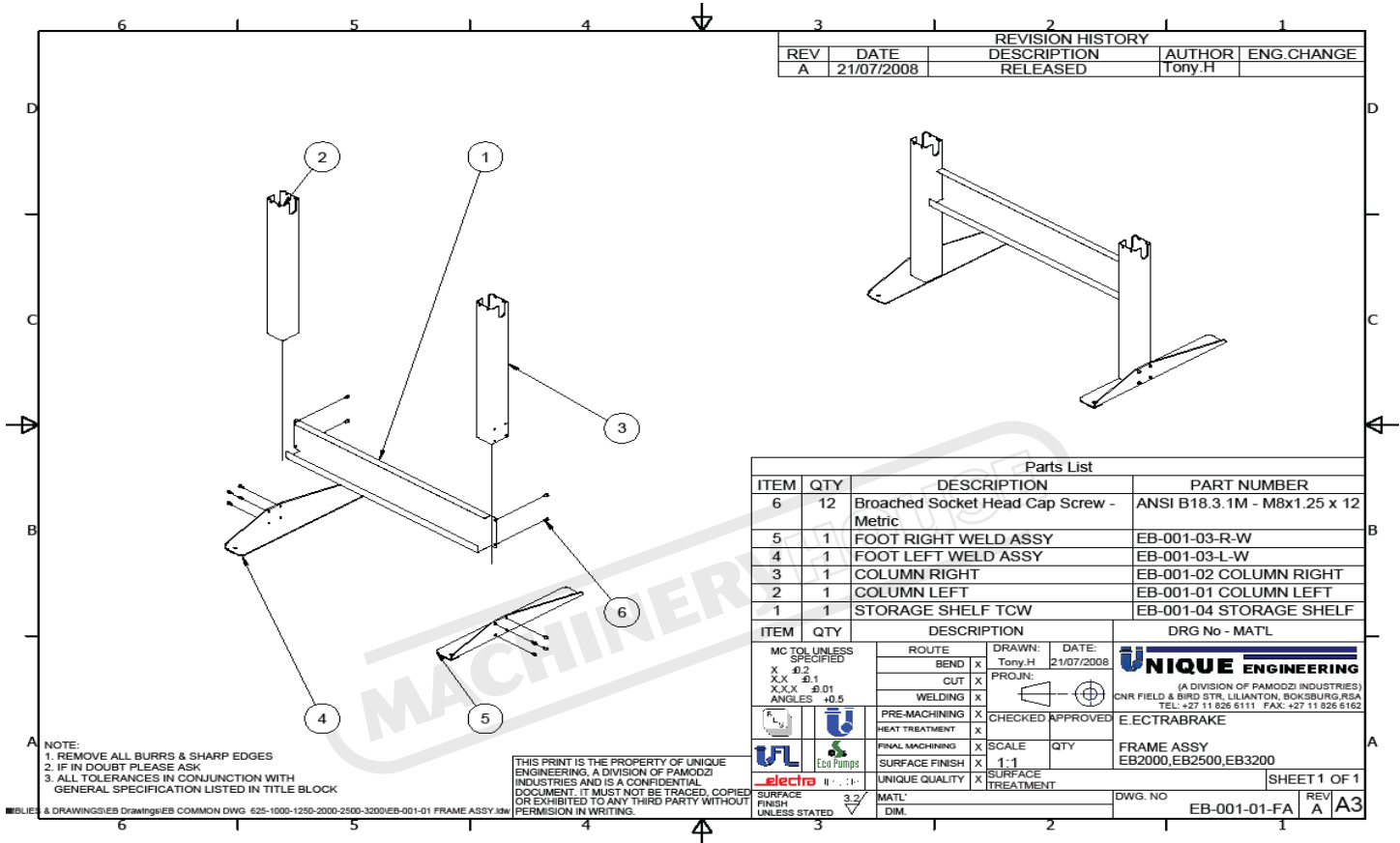
Operating Safety Precautions:

Once you have repaired your machine, do not operate it again until it has been properly reinstalled according to the manual's use and care instructions, and according to the manufacturer's instructions.

Also, follow these additional safety tips to prevent injuries:

- Do not permit children to play on or operate your machine.
- Do not permit persons who are unfamiliar with the proper operation of your machine to operate it.
- Use your machine only to complete the tasks they were designed to complete.

FRAME ASSEMBLY AND PARTS LIST EB2000, EB2500, EB3200



REVISION HISTORY				
REV	DATE	DESCRIPTION	AUTHOR	ENG.CHANGE
A	21/07/2008	RELEASED	Tony.H	

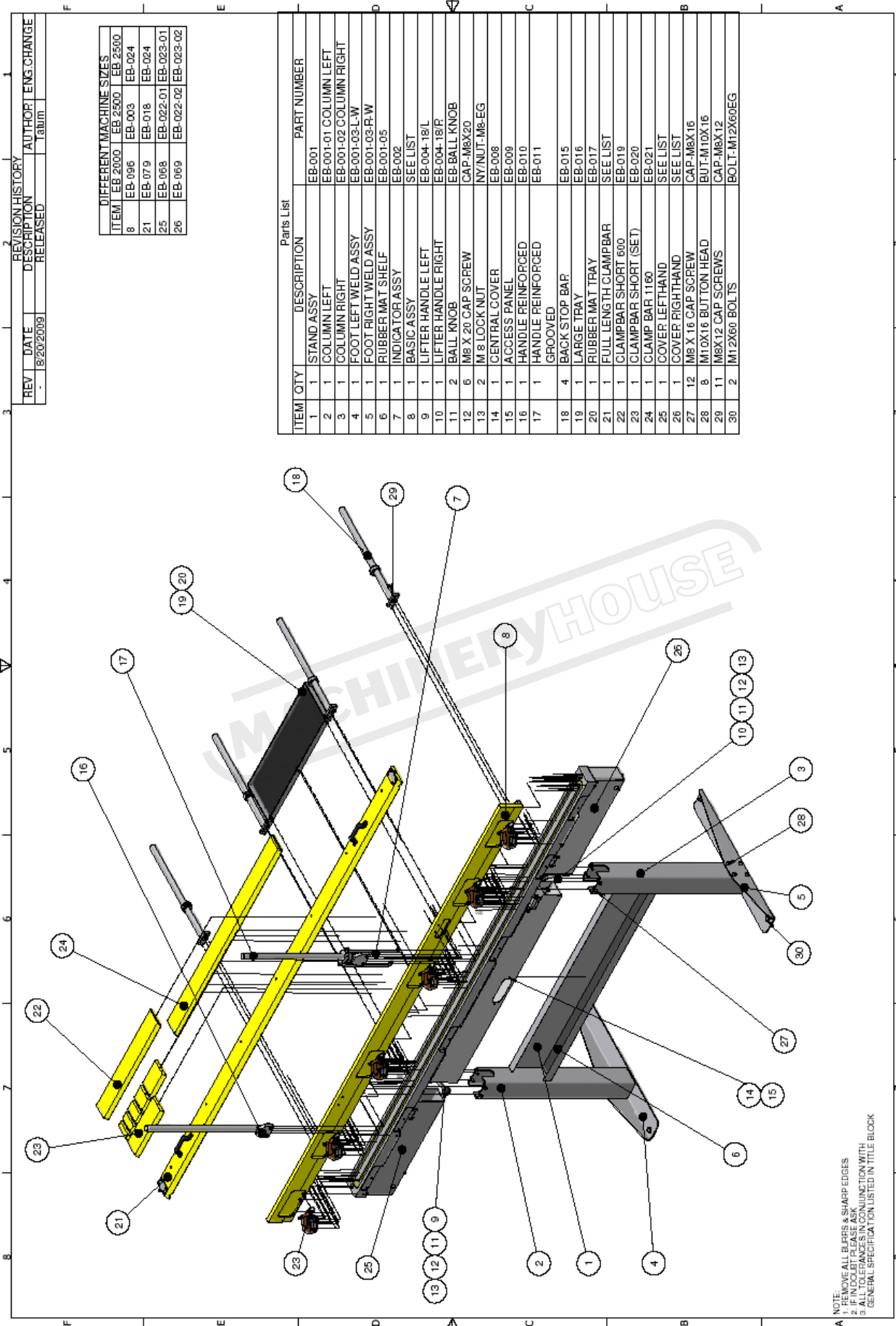
Parts List			
ITEM	QTY	DESCRIPTION	PART NUMBER
6	12	Broached Socket Head Cap Screw - Metric	ANSI B18.3.1M - M8x1.25 x 12
5	1	FOOT RIGHT WELD ASSY	EB-001-03-R-W
4	1	FOOT LEFT WELD ASSY	EB-001-03-L-W
3	1	COLUMN RIGHT	EB-001-02 COLUMN RIGHT
2	1	COLUMN LEFT	EB-001-01 COLUMN LEFT
1	1	STORAGE SHELF TCW	EB-001-04 STORAGE SHELF

ITEM	QTY	DESCRIPTION	DRG No - MAT'L
MC TOL UNLESS SPECIFIED		ROUTE	DRAWN: Tony.H DATE: 21/07/2008
X	±0.2	BEND	X
X	±0.1	CUT	X
X	±0.01	WELDING	X
ANGLES ±0.5		PROJN:	
	PRE-MACHINING	X	CHECKED APPROVED
	HEAT TREATMENT	X	
	FINAL MACHINING	X	SCALE QTY
	SURFACE FINISH	X	1:1
	UNIQUE QUALITY	X	SURFACE TREATMENT
SURFACE FINISH UNLESS STATED		ELECTRABRAKE	
DIM.		FRAME ASSY EB2000,EB2500,EB3200	
DWG. NO		EB-001-01-FA	
REV		A	
SHEET		1 OF 1	

NOTE:
 1. REMOVE ALL BURRS & SHARP EDGES
 2. IF IN DOUBT PLEASE ASK
 3. ALL TOLERANCES IN CONJUNCTION WITH GENERAL SPECIFICATION LISTED IN TITLE BLOCK

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FILE: & DRAWINGS\EB Drawings\EB COMMON DWG 625-1005-1250-2000-2500-3200\EB-001-01 FRAME ASSY.IDW



REV	DATE	REVISION HISTORY	AUTHOR	ENG. CHANGE
1	8/20/2009	RELEASED	Tatum	

DIFFERENT MACHINE SIZES			
ITEM	EB 2000	EB 2500	EB 2500
8	EB-096	EB-003	EB-024
21	EB-079	EB-018	EB-024
25	EB-068	EB-022-01	EB-023-01
26	EB-069	EB-022-02	EB-023-02

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	STAND ASSY	EB-001
2	1	COLUMN LEFT	EB-001-01
3	1	COLUMN RIGHT	EB-001-02
4	1	FOOT LEFT WELD ASSY	EB-001-03-L/W
5	1	FOOT RIGHT WELD ASSY	EB-001-03-R/W
6	1	RUBBER MAT SHELF	EB-001-05
7	1	INDICATOR ASSY	EB-002
8	1	BASIC ASSY	SEE LIST
9	1	LIFTER HANDLE LEFT	EB-004-18/L
10	1	LIFTER HANDLE RIGHT	EB-004-18/R
11	2	BALL KNOB	EB-BALL KNOB
12	6	M8 X 20 CAP SCREW	CAP-M8X20
13	2	M 8 LOCK NUT	NY/NUT-M8-EG
14	1	CENTRAL COVER	EB-008
15	1	ACCESS PANEL	EB-009
16	1	HANDLE REINFORCED	EB-010
17	1	HANDLE REINFORCED GROOVED	EB-011
18	4	BACK STOP BAR	EB-015
19	1	LARGE TRAY	EB-016
20	1	RUBBER MAT TRAY	EB-017
21	1	FULL LENGTH CLAMPBAR	SEE LIST
22	1	CLAMPBAR SHORT 600	EB-019
23	1	CLAMPBAR SHORT (SET)	EB-020
24	1	CLAMP BAR 1160	EB-021
25	1	COVER LEFT HAND	SEE LIST
26	1	COVER RIGHT HAND	SEE LIST
27	12	M8 X 16 CAP SCREW	CAP-M8X16
28	8	M10X16 BUTTON HEAD	BUT-M10X16
29	11	M8X12 CAP SCREWS	CAP-M8X12
30	2	M12X60 BOLTS	BOLT-M12X60EG

NOTE:
 1. REMOVE ALL BURRS & SHARP EDGES
 2. ALL DIMENSIONS IN CONJUNCTION WITH TOLERANCES
 3. ALL TOLERANCES IN CONJUNCTION WITH GENERAL SPECIFICATION LISTED IN TITLE BLOCK

PACKING LIST FOR EB0625**MACHINE SERIAL NUMBER**

PART NUMBERS	DESCRIPTION	QTY	CHECKED
EB-119	SAFETY CABLE ASSY	2	
EB0625-TEST PIECE	625 BENDER – TEST PIECE	1	
EB-097	BASIC ASSEMBLY 650	1	
EB-101	STAND ASSEMBLY 650/10	1	
EB-059	HANDLE 650/1000	1	
EB-054	BEAM EXTENSION 650	1	
EB-057	SWITCH ACTUATOR LIGHT	1	
EB-058	ANGLE ROD	1	
EB-052/L	TRAY LEFT 650 COMP	1	
EB-052/R	TRAY RIGHT 650 COMP	1	
EB-052-01	625 TRAY STOP CLAMP	2	
EB-102 (DECALS)	EB0625 630X65 BLK/RD ON	1	
EB-053	RUBBER MAT 650	1	
EB-250 RULER	EB0625 ALUMINIUM RULER	1	
EB-ELEC-650/PCB	EB 650 ELECTRICAL UNIT	1	
EB-012	STOP COLLAR	1	
EB-110/D	FUSE 3 VARIANT (10A) WA	1	
EB-089	CLAMP BAR 625 ASSY	1	
EB-020	CLAMP BARS (SHORT SET)	1	
ELEC476	CRIMP TERMINAL PINS 29	2	
EB-111-BACK	STICKER FOR ELECTRABRAKE	1	
EB-110-FRONT	STICKER FOR ELECTRABRAKE	1	
EB-112-LEFT	STICKER FOR ELECTRABRAKE	1	
EB-113-RIGHT	STICKER FOR ELECTRABRAKE	1	
ELEC474	SOCKET HOUSING 3 PIN 29	1	
FW-M10 EG	M10X1.2 FLAT WASHER GAL	4	
FW-M6 EG	M6X1.2 FLAT WASHER GAL	3	
P/O-WAS-8MM	8MM PUSH ON FIX WASHER	1	
PAN-M6X10	M6X10 POZI PAN HEAD SCREW	3	
SW-M6 EG	M6 SPRING WASHERS GALV	3	
A/KEY-M6	M6 ALLEN KEY LONG SERIES	1	
EB-650-CRATE	880X270X270 WOODEN CRATE	1	
CAP-M8X12 HT	M8X12 SOCK HEAD SCREW	5	
FW-M8 EG	M8X1.2 FLAT WASHER GALV	3	
CAP-M8X20	M8X20 SOCKET HEAD CAP S	3	

PACKING LIST FOR EB1000 ELECTRABRAKE BENDING MACHINE

MACHINE SERIAL NUMBER

PART NUMBERS	DESCRIPTION	QTY	CHECKED
EB1000-TEST PIECE	1000 BENDING TEST PIECE	1	
EB-119	SAFETY CABLE ASSY	2	
EB-098	BASIC ASSEMBLY 1000	1	
EB-101	STAND ASSEMBLY 650/1000	1	
EB-059	HANDLE 650/1000	1	
EB-062	BENDING BEAM EXTENSION	1	
EB-057	SWITCH ACTUATOR LIGHT	1	
EB-058	ANGLE ROD	1	
EB-016	LARGE TRAY	1	
EB-017	RUBBER MAT	1	
EB-015	BACK STOP BAR – ASSY	2	
EB-012	STOP COLLAR	3	
EB-103 (DECALS)	EB1000 1010X65 BLK/RD C	1	
EB-090	CLAMP BAR 1000 ASSY	1	
EB-019	CLAMP BAR 600 LONG	1	
EB-020	CLAMP BARS (SHORT SET)	1	
EB-ELEC-1000/PCB	1000 ELECTRICAL UNIT WI	1	
ELEC474	SOCKET HOUSING 3 PIN 29	1	
ELEC476	CRIMP TERMINAL PINS 29	2	
FW-M8 EG	M8X1.2 FLAT WASHER GAL	3	
P/O-WAS-8MM	8MM PUSH ON FIX WASHER	1	
EB-1000-CRATE	1170X270X270 WOODEN CRATE	1	
EB-110-FRONT	STICKER FOR ELECTRABRAKE	1	
EB-111-BACK	STICKER FOR ELECTRABRAKE	1	
EB-112-LEFT	STICKER FOR ELECTRABRAKE	1	
EB-113-RIGHT	STICKER FOR ELECTRABRAKE	1	
EB-250-RULER	EB0625 ALUMINIUM RULER	1	
A/KEY-M6	M6 ALLEN KEY LONG SERIES	1	
CAP-M8X12 HT	M8X12 SOCKET HEAD SCREW	7	
CAP-M8X16	M8X16 SOCKET HEAD CAP SCREW	2	
CAP-M8X20	M8X20 SOCKET HEAD CAP SCREW	4	
CAP-M8X25 HT	M8X25 CAP SCREWS HT	4	
EB-110/D	FUSE 3 VARIANT (10A) WA	1	

PACKING LIST FOR EB1250 ELECTRABRAKE BENDING MACHINE**MACHINE SERIAL NUMBER**

PART NUMBERS	DESCRIPTION	QTY	CHECKED
EB-119	SAFETY CABLE ASSY	2	
EB1250-TEST PIECE	1250 BENDER TEST PIECE	1	
EB-099	BASIC ASSEMBLY 1250	1	
EB-100	STAND ASSEMBLY 1250	1	
EB-010	HANDLE REINFORCED	1	
EB-011	HANDLE REINFORCED & GROOVED	1	
EB-012	STOP COLLAR	3	
EB-015	BACK STOP BAR – ASSY	2	
EB-016	LARGE TRAY	1	
EB-017	RUBBER MAT	1	
EB-038	B/BEAM EXTENSION 1250	1	
EB-046	INDICATOR ANCHOR	1	
EB-039	COVER 1250 R/HAND	1	
EB-044	COVER 1250 L/HAND	1	
EB-047	ACCESS PANEL 1250	1	
EB-048	COLUMN BLOCK 1250	1	
EB-006	COVER END PLATE	2	
EB-002	INDICATOR ASSEMBLY H.D.	1	
EB-104 (DECALS)	1260X95 EB1250 BLK/RED	1	
EB-110-FRONT	STICKER FOR ELECTRABRAKE	1	
EB-111	START LABEL	1	
EB-111-BACK	STICKER FOR ELECTRABRAKE	1	
EB-112-LEFT	STICKER FOR ELECTRABRAKE	1	
EB-113-RIGHT	STICKER FOR ELECTRABRAKE	1	
EB-225 RULER	EB1250 ALUMINIUM RULER	1	
EB-019	CLAMP BAR 600 LONG	1	
EB-020	CLAMP BARS (SHORT SET)	1	
EB-ELEC-1250/PCB	1250 ELECTRICAL UNIT WI	1	
EB-HAR 1250/S	1250 HARNESS – SHORT	1	
EB-HARNESS 1250	1250-ELECTRICAL HARNESS	1	
ELEC474	SOCKET HOUSING 3 PIN 29	1	
ELEC476	CRIMP TERMINAL PINS 29	2	
EB-091	CLAMP BAR 1250 ASSY	1	
EB-1250-CRATE	1400X300X300 WOODEN CRA	1	
CAP-M8X30 EG	M8X30 CAP SCREWS GALV	4	
PAN-M6X10	M6X10 POZI PAN HEAD SCR	13	
R/BOLT-M12X60	M12X60 RAWL BOLT	2	
A/KEY-M6	M6 ALLEN KEY LONG SERIES	1	
CAP-M8X12 HT	M8X12 SOCK HEAD SCREW	7	
CAP-M8X16	M8X16 SOCKET HEAD CAP S	8	
CAP-M8X25 HT	M8X25 CAP SCREWS HT	7	
EB-110/D	FUSE 3 VARIANT (10A) WA	2	
PAN-M10X16	10X16 POZI S/T PAN HEAD	6	

PACKING LIST FOR EB2000 ELECTRABRAKE BENDING MACHINE**MACHINE SERIAL NUMBER**

PART NUMBERS	DESCRIPTION	QTY	CHECKED
EB2000-TEST PIECE	2000 BENDER – TEST PIECE	1	
EB-119	SAFETY CABLE ASSY	2	
EB-096	BASIC ASSEMBLY 2000	1	
EB-001	STAND ASSY	1	
EB-002	INDICATOR ASSEMBLY H.D.	1	
EB-066	BEAM EXTENSION 2000 UNP	1	
EB-095	LIFTER MECHANISM 2000	1	
EB-011	HANDLE REINFORCED & GROOVED	1	
EB-012	STOP COLLAR	5	
EB-015	BACK STOP BAR – ASSY	4	
EB-016	LARGE TRAY	1	
EB-017	RUBBER MAT	1	
EB-006	COVER END PLATE	2	
EB-007	COLUMN BLOCK	2	
EB-008	COVER CENTRAL	1	
EB-009	ACCESS PANEL	1	
EB-068	COVER LEFT 2000	1	
EB-069	COVER RIGHT 2000	1	
EB-010	HANDLE REINFORCED	1	
EB-225 RULER	EB1250 ALUMINIUM RULER	1	
EB-105 (DECALS)	EB2000 2040X95 BLK/RED	1	
EB-110-FRONT	STICKER FOR ELECTRABRAKE	1	
EB-110/B	FUSE 3 VARIANT (20A) WA	1	
EB-111	START LABEL	2	
EB-111-BACK	STICKER FOR ELECTRABRAKE	1	
EB-112-LEFT	STICKER FOR ELECTRABRAKE	1	
EB-113-RIGHT	STICKER FOR ELECTRABRAKE	1	
EB-079	CLAMP BAR FULL LENGTH	1	
EB-019	CLAMP BAR 600 LONG	1	
EB-083	FOOT SWITCH ASSY	1	
EB-020	CLAMP BARS (SHORT SET)	1	
EB-021	CLAMP BAR 1160	1	
EB-ELEC-2.0/PCB	2MT ELECTRICAL UNIT	1	
EB-HAR 1250/S	1250 HARNESS – SHORT	1	
EB-HARNESS 2000	2000 ELECTRICAL HARNESS	1	
ELEC474	SOCKET HOUSING 3 PIN 29	1	
EB-2000-CRATE	2165X295X250 WOODEN CRATE	1	
ELEC476	CRIMP TERMINAL PINS 29	2	
PAN-M6X10	M6X10 POZI PAN HEAD SCR	24	
R/BOLT-M12X60	M12X60 RAWL BOLT	2	
A/KEY-M6	M6 ALLEN KEY LONG SERIES	1	
CAP-M8X12 HT	M8X12 SOCKET HEAD SCREW	44	
CAP-M8X16	M8X16 SOCKET HEAD CAP SCREW	44	
CAP-M8X20	M8X20 SOCKET HEAD CAP SCREW	20	
CAP-M8X30 EG	M8X30 CAP SCREWS GALV	8	
PAN-M10X16	10X16 POZI S/T PAN HEAD	6	

PACKING LIST FOR EB2500 ELECTRABRAKE BENDING MACHINE**MACHINE SERIAL NUMBER**

PART NUMBERS	DESCRIPTION	QTY	CHECKED
EB-119	SAFETY CABLE ASSY	2	
EB2500-TEST PIECE	2500 BENDER – TEST PIECE	1	
EB-003	BASIC ASSEMBLY 2500	1	
EB-001	STAND ASSY	1	
EB-002	INDICATOR ASSEMBLY H.D	1	
EB-014	B-BEAM EXTENSION 2500	1	
EB-010	HANDLE REINFORCED	1	
EB-011	HANDLE REINFORCED & GROOVED	1	
EB-012	STOP COLLAR	5	
EB-015	BACK STOP BAR – ASSY	4	
EB-016	LARGE TRAY	1	
EB-017	RUBBER MAT	1	
EB-006	COVER END PLATE	2	
EB-007	COLUMN BLOCK	2	
EB-004	LIFTER MECHANISM 2500E	1	
EB-008	COVER CENTRAL	1	
EB-009	ACCESS PANEL	1	
EB-022-01	2500 COVER L/H	1	
EB-022-02	2500 COVER R/H	1	
EB-106 (DECALS)	EB2500 2540X95 BLK / RED	1	
EB-110-FRONT	STICKER FOR ELECTRABRAKE	1	
EB-110/B	FUSE 3 VARIANT (20A) WA	1	
EB-111	START LABEL	2	
EB-111-BACK	STICKER FOR ELECTRABRAKE	1	
EB-112-LEFT	STICKER FOR ELECTRABRAKE	1	
EB-113-RIGHT	STICKER FOR ELECTRABRAKE	1	
EB-225 RULER	EB1250 ALUMINIUM RULER	1	
EB-018	CLAMP BAR (FULL LENGTH)	1	
EB-019	CLAMP BAR 600 LONG	1	
EB-020	CLAMP BAR (SHORT SET)	1	
EB-021	CLAMP BAR 1160	1	
EB-083	FOOT SWITCH ASSY	1	
EB-ELEC-2.5/PCB	2.5MT ELECTRICAL UNIT	1	
EB-HAR 1250/S	1250 HARNESS – SHORT	1	
EB-HARNESS 2.5	2.5 ELECTRICAL HARNESS	1	
ELEC474	SOCKET HOUSING 3 PIN 29	1	
ELEC476	CRIMP TERMINAL PINS 29	2	
PAN-M10X16	10X16 POZI S/T PAN HEAD	6	
PAN-M6X10	M6X10 POZI PAN HEAD SCR	24	
R/BOLT-M12X60	M12X60 RAWL BOLT	2	
A/KEY-M6	M6 ALLEN KEY LONG SERIES	1	
CAP-M8X12 HT	M8X12 SOCK HEAD SCREW	11	
CAP-M8X16	M8X16 SOCKET HEAD CAP S	8	
CAP-M8X25 HT	M8X25 CAP SCREWS HT	16	
CAP-M8X30 EG	M8X30 CAP SCREWS GALV	8	
EB-2500-CRATE	2665X295X250 WOODEN CRATE	1	

PACKING LIST FOR EB3200 ELECTRABRAKE BENDING MACHINE**MACHINE SERIAL NUMBER**

PART NUMBERS	DESCRIPTION	QTY	CHECKED
EB-119	SAFETY CABLE ASSY	2	
EB3200-TEST PIECE	3200 BENDER – TEST PIECE	1	
EB-024	BASIC ASSEMBLY 3200	1	
EB-001	STAND ASSY	1	
EB-002	INDICATOR ASSEMBLY H.D.	1	
EB-025	BENDING BEAM EXTENSION	1	
EB-028	LIFTER MECHANISM – 3200	1	
EB-010	HANDLE REINFORCED	1	
EB-011	HANDLE REINFORCED (GROOVED)	1	
EB-012	STOP COLLAR	5	
EB-015	BACK STOP BAR – ASSY	4	
EB-016	LARGE TRAY	1	
EB-017	RUBBER MAT	1	
EB-006	COVER END PLATE	2	
EB-007	COLUMN BLOCK	2	
EB-008	COVER CENTRAL	1	
EB-009	ACCESS PANEL	1	
EB-023-01	3200 COVER PLATE R/H	1	
EB-023-02	3200 COVER L/H	1	
EB-107 (DECALS)	EB3200 3240X95 BLK/RD C	1	
EB-110-FRONT	STICKER FOR ELECTRABRAKE	1	
EB-110/B	FUSE 3 VARIANT (20A) WA	1	
EB-111	START LABEL	2	
EB-111-BACK	STICKER FOR ELECTRABRAKE	1	
EB-112-LEFT	STICKER FOR ELECTRABRAKE	1	
EB-113-RIGHT	STICKER FOR ELECTRABRAKE	1	
EB-225-RULER	EB1250 ALUMINIUM RULER	1	
EB-026	CLAMPBAR FULL LENGTH	1	
EB-019	CLAMPBAR 600 LONG	1	
EB-020	CLAMPBARS (SHORT SET)	1	
EB-021	CLAMPBAR 1160	1	
EB-083	FOOT SWITCH ASSY	1	
EB-118	SUPPORT LEG ASSEMBLY	2	
EB-3200-CRATE	3365X295X250 WOODEN CRATE	1	
EB-ELEC-3.2/PCB	3.2MT ELECTRICAL UNIT	1	
EB-HAR 1250/S	1250 HARNESS – SHORT	1	
EB-HARNESS 3.2	3.2 ELECTRICAL HARNESS	1	
ELEC474	SOCKET HOUSING 3 PIN 29	1	
ELEC476	CRIMP TERMINAL PINS 29	1	
PAN-M10X16	10X16 POZI S/T PAN HEAD	6	
PAN-M6X10	M6X10 POZI PAN HEAD SCR	24	
R/BOLT-M12X60	M12X60 RAWL BOLT	2	
A/KEY-M6	M6 ALLEN KEY LONG SERIES	1	
CAP-M8X12	M8X12 SOCKET HEAD CAP S	1	
CAP-M8X16	M8X16 SOCKET HEAD CAP S	15	
CAP-M8X25 HT	M8X25 CAP SCREWS HT	15	