

METALMASTER

SECTION & PIPE ROLLING MACHINE OPERATION MANUAL



HK-50A

Order Code S7401

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www.machineryhouse.com.au



OPERATION MANUAL

MACHINE DETAILS

MACHINE	SECTION & PIPE ROLLING MACHINE
MODEL NO.	HK-50A
SERIAL NO.	
DATE OF MANF.	

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Note:

This manual is only for your reference. Owing to the continuous improvement of the Metalmaster machine, changes may be made at any time without obligation or notice. Please ensure the local voltage is the same as listed on the specification plate before operating any electric machine.



NOTE:

In order to see the type and model of the machine, please see the specification plate. Usually found on the back of the machine. See example (Fig.1)

METALMASTER	
PRODUCT SPECIFICATION	
MODEL:	<input type="text"/>
CAPACITY:	<input type="text"/>
SER. NO:	<input type="text"/>
MFG DATE:	<input type="text"/>
WEIGHT:	<input type="text"/>
VOLTS:	<input type="text"/>
MOTOR Kw:	<input type="text"/>
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Made in China	

Fig.1



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1.1 SPECIFICATIONS

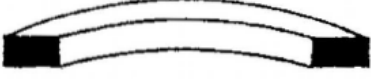


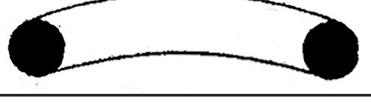
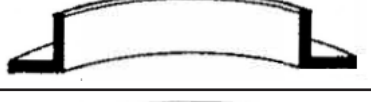
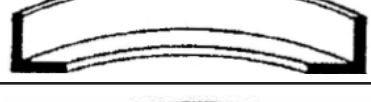
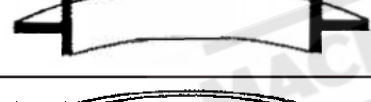

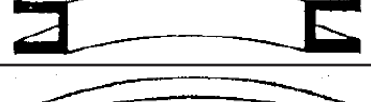
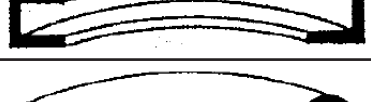
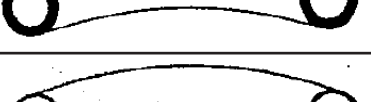
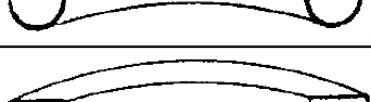
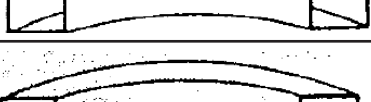
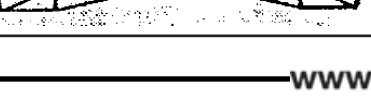
Order Code	S7401
Model	HK-50A
Powered Driven Rolls (Qty)	2
Bending Rolls Type	Hydraulic Top
Top Roll Diameter (Ø) (mm)	155
Flat Bar Edge Capacity - MS (size / Ø) (mm)	60 x 10 / 500
Flat Bar Capacity - MS (size / Ø) (mm)	100 x 15 / 450
Square Bar Solid Capacity - MS (size / Ø) (mm)	35 x 35 / 900
Rectangle Tube Capacity - MS (size / Ø) (mm)	50 x 40 x 3 / 1200*
Square Tube Capacity - MS (size / Ø) (mm)	50 x 50 x 3 / 1700*
Round Bar Solid Capacity - MS (size / Ø) (mm)	Ø35 / 600*
Round Tube Capacity - MS (size / Ø) (mm)	Ø70 x 2 / 1000*
Round Pipe Capacity - MS (size / Ø) (inch/mm)	Ø2" x 2.9mm / 1000mm*
Angle Capacity - MS (size / Ø) (mm)	50 x 50 x 5 / 1000
Hydraulic Motor Power (kW/hp)	1.1 / 1.5
Drive Motor Power (kW/hp)	1.5 / 2
Voltage / Amperage (V/amp)	415 / 20
Dimensions (L x W x H) (mm)	750 x 900 x 1550
Note: Requires Additional Tooling (yes/no)	Yes*
Shipping Dimensions (L x W x H) (cm)	115 x 76 x 185
Nett Weight (kg)	490

1.2 ACCESSORIES

Forward & reverse foot pedal switches
 Set of standard rolls
 Manual

OPERATION MANUAL

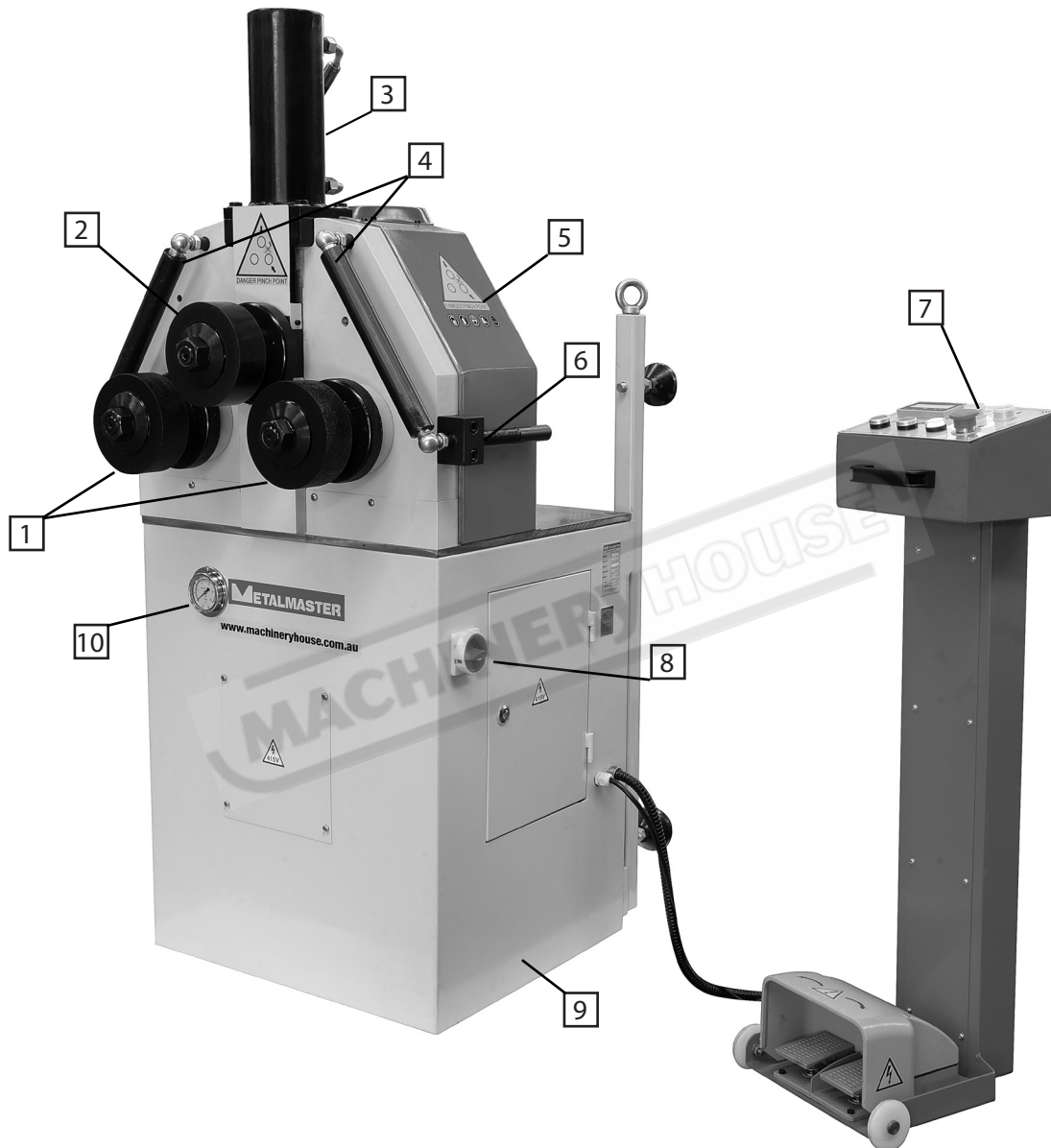
1.3 CAPACITIES

	Profile	Min-Max Cap.	Diameter	Rolls
1		20 x 10 60 x 10	300 600	Standard Rolls
2		50x10 100x15	500 500	Standard Rolls
3		15 30	300 500	Standard Rolls
4		20 35	350 700	Special Rolls
5		30x30x3 60x60x6	350 650	Special Rolls
6		30x30x3 50x50x6	450 700	Special Rolls
7		30x30x3 60x60x7	300 600	Standard Rolls
8		30x30x3 50x50x6	350 600	Standard Rolls
9		30x15x4 80x45x6	300 800	Standard Rolls
10		30x15x4 80x45x6	300 1200	Standard Rolls
11		21x2.3 (1/2" gas) 60x2.9 (2" gas)	250 1000	Special Rolls
12		25x1.5 70x2	400 1200	Special Rolls
13		20x20x2 50x50x3	400 1800	Standard Rolls
14		30x15x2 70x30x3	400 1800	Standard Rolls

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1.4 IDENTIFICATION



1	Driven Rolls	6	Side Guide Roller Adjustment
2	Top Roller	7	Roving Foot Pedal Control
3	Hydraulic Ram	8	Isolating Switch
4	Lateral Side Guide Rollers	9	Base
5	Head	10	Pressure Gauge



OPERATION MANUAL

2.1 GENERAL METALWORKING MACHINE SAFE PRACTICES

DO NOT use this machine unless you have read this manual or have been instructed in the use of this machine in its safe use and operation



WARNING

This manual provides safety instructions on the proper setup, operation, maintenance, and service of this machine. Save this manual, refer to it often, and use it to instruct other operators. Failure to read, understand and follow the instructions in this manual may result in fire or serious personal injury—including amputation, electrocution, or death.

The owner of this machine is solely responsible for its safe use. This responsibility includes, but is not limited to proper installation in a safe environment, personnel training and authorization to use, proper inspection and maintenance, manual availability and comprehension, of the application of the safety devices, integrity, and the use of personal protective equipment.

The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.



- ✓ Always wear safety glasses or goggles.
- ✓ Wear appropriate safety footwear.
- ✓ Wear respiratory protection where required.
- ✓ Gloves should never be worn while operating the machine, and only worn when handling the work-piece.
- ✓ Wear hearing protection in areas > 85 dBA. If you have trouble hearing someone speak from one metre (three feet) away, the noise level from the machine may be hazardous.
- ✓ DISCONNECT THE MACHINE FROM POWER when making adjustments or servicing.
- ✓ Check and adjust all safety devices before each job.
- ✓ Ensure that guards are in position and in good working condition before operating.
- ✓ Ensure that all stationary equipment is anchored securely to the floor.
- ✓ Ensure all machines have a start/stop button within easy reach of the operator.
- ✓ Each machine should have only one operator at a time. However, everyone should know how to stop the machine in an emergency.



OPERATION MANUAL

2.1 GENERAL METALWORKING MACHINE SAFE PRACTICES Cont.

- ✓ Ensure that keys and adjusting wrenches have been removed from the machine before turning on the power. Appropriate storage for tooling should be provided.
- ✓ Ensure that all cutting tools and blades are clean and sharp. They should be able to cut freely without being forced.
- ✓ Stop the machine before measuring, cleaning or making any adjustments.
- ✓ Wait until the machine has stopped running to clear cuttings with a vacuum, brush or rake.
- ✓ Keep hands away from the cutting head and all moving parts.
- ✓ Avoid awkward operations and hand positions. A sudden slip could cause the hand to move into the cutting tool or blade.
- ✓ Return all portable tooling to their proper storage place after use.
- ✓ Clean all tools after use.
- ✓ Keep work area clean. Floors should be level and have a non-slip surface.
- ✓ Use good lighting so that the work piece, cutting blades, and machine controls can be seen clearly. Position or shade lighting sources so that they do not cause any glare or reflections.
- ✓ Ensure there is enough room around the machine to do the job safely.
- ✓ Obtain first aid immediately for all injuries.
- ✓ Understand that the health and fire hazards can vary from material to material. Make sure all appropriate precautions are taken.
- ✓ Clean machines and the surrounding area when the operation is finished.
- ✓ Use proper lock out procedures when servicing or cleaning the machines or power tools.
- ✓ Do not distract an operator. Horseplay can lead to injuries and should be strictly prohibited.
- ✓ Do not wear loose clothing, gloves, necktie's, rings, bracelets or other jewellery that can be come entangled in moving parts. Confine long hair.
- ✓ Do not handle cuttings by hand because they are very sharp. Do not free a stalled cutter without turning the power off first. Do not clean hands with cutting fluids.
- ✓ Do not use rags near moving parts of machines.
- ✓ Do not use compressed air to blow debris from machines or to clean dirt from clothes.

DO NOT

- × Do not distract an operator. Horseplay can lead to injuries and should be strictly prohibited.
- × Do not wear loose clothing, gloves, necktie's, rings, bracelets or other jewellery that can be come entangled in moving parts. Confine long hair.
- × Do not handle cuttings by hand because they are very sharp. Do not free a stalled cutter without turning the power off first. Do not clean hands with cutting fluids.
- × Do not use rags or wear gloves near moving parts of machines.
- × Do not use compressed air to blow debris from machines or to clean dirt from clothes.
- × Do not force the machine. It will do the job safer and better at the rate for which it was designed.



OPERATION MANUAL

2.1 GENERAL METALWORKING MACHINE SAFE PRACTICES Cont.

HAZARDS ASSOCIATED WITH MACHINES include, but are not limited to:

- Being struck by ejected parts of the machinery
- Being struck by material ejected from the machinery
- Contact or entanglement with the machinery
- Contact or entanglement with any material in motion

Health Hazards (other than physical injury caused by moving parts)

- Chemicals hazards that can irritate, burn, or pass through the skin
- Airborne items that can be inhaled, such as oil mist, metal fumes, solvents, and dust
- Heat, noise, and vibration
- Ionizing or non-ionizing radiation (X-ray, lasers, etc.)
- Biological contamination and waste
- Soft tissue injuries (for example, to the hands, arms, shoulders, back, or neck) resulting from repetitive motion, awkward posture, extended lifting, and pressure grip)

Other Hazards

- Slips and falls from and around machinery during maintenance
- Unstable equipment that is not secured against falling over
- Safe access to/from machines (access, egress)
- Fire or explosion
- Pressure injection injuries from the release of fluids and gases under high pressure
- Electrical Hazards, such as electrocution from faulty or ungrounded electrical components
- Environment in which the machine is used (in a machine shop, or in a work site)

WARNING

Machines are safeguarded to protect the operator from injury or death with the placement of guards. Machines must not be operated with the guards removed or damaged.



OPERATION MANUAL

2.2 SPECIFIC SAFETY FOR SECTION ROLLING MACHINE

DO NOT use this machine unless you have read the manual or have been trained and assessed to a competent level in its safe use and operation.



Safety glasses must be worn when operating this equipment



Long and loose hair must be contained when operating this equipment.



Safety footwear must be worn when operating this equipment



Close fitting/protective clothing must be worn when operating the machine



Dust mask must be worn when operating in high dust areas.



Hearing protection must be used when operating in a noisy environment

PRE-OPERATIONAL SAFETY CHECKS

- Locate and ensure you are familiar with all machine operations and the controls.
- Ensure all guards are fitted, secure and functional. Do not operate if guards are missing or faulty.
- Working parts should be well lubricated and the rolls are free of rust and dirt.
- Check workspaces and walkways to ensure no slip/trip hazards are present.
- Be aware of other people in the area and ensure the area is clear before using equipment.

OPERATIONAL SAFETY CHECKS

- Adjust the chosen rollers slowly and in small adjustments.
- Take care during the initial feeding of the workpiece into the rollers.
- Hold the workpiece sufficiently far back from the edge being fed into the rolls, to allow for the in-feed speed of the machine.
- Adjust the rollers at a slow even rate. Be aware of rotating rolls
- Only one person may operate this machine at any one time.

ENDING OPERATIONS AND CLEANING UP

- Ensure the machine is left in a safe condition after use.
- Leave the work area in a safe, clean and tidy state.

POTENTIAL HAZARDS AND INJURIES

- Sharp edges and burrs.
- Crush and pinch points.
- Hair/clothing getting caught in moving machine parts.
- Operator's hands may be caught and drawn into the rolls.

DON'T

- Do not use faulty equipment. Immediately stop and repair suspect machinery.
- Do not attempt to roll material beyond the capacity of the machine.



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2.3 LIFTING INSTRUCTIONS

On the day that the machine arrives, make sure that a crane with sufficient capacity is available to unload the machine from the vehicle. Ensure access to the chosen site is clear and that doors and ceilings are sufficiently high and wide enough to receive the machine.

To handle the machine, the slings should be positioned so the machine is level when lifted.

When using slings please take note of the sling angle and the loads that apply

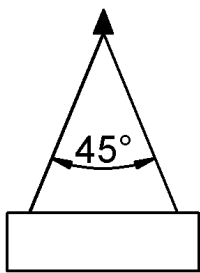


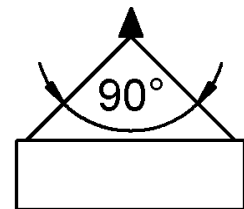
Fig 2.1.

When the slings are at a 45° angle then each sling is carrying the equivalent of 50% of load weight. (Fig.2.1).

When the slings are at a 90° angle then each sling will have a weight equal to 75% of the load on each sling. (Fig 2.2)

Note! The manufacturer recommends not to exceed 90° angle

Fig 2.2



LIFTING POINTS

When lifting the machine only certified lifting slings should be used.

Ensure that when lifting, the machine does not tip over. Check that the lifting slings do not interfere with the hydraulic pipes or electrical conduits.

Failure to follow these instructions could cause damage to the machine

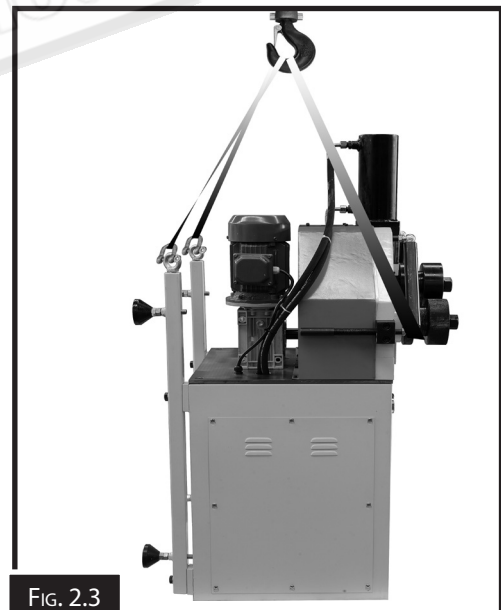


FIG. 2.3



FIG. 2.4

MOUNTING THE ADJUSTABLE FEET

The machine is supplied with 4 adjustable feet to help level the machine when it is used in the horizontal position. Screw each foot into the threaded hole in the extension bars and secure with the locknut. (Fig.2.4)



OPERATION MANUAL

3. SETUP

3.1 SITE PREPARATION

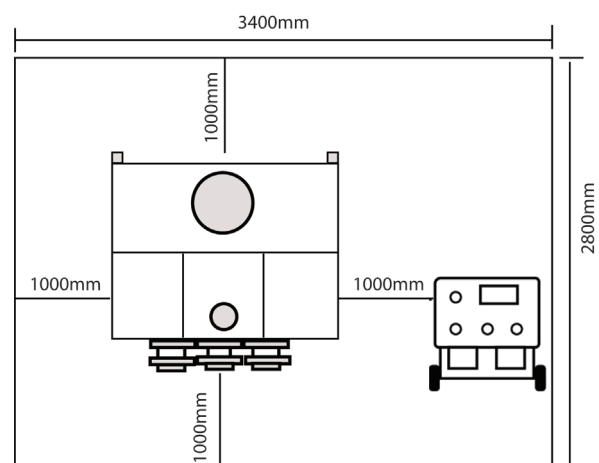
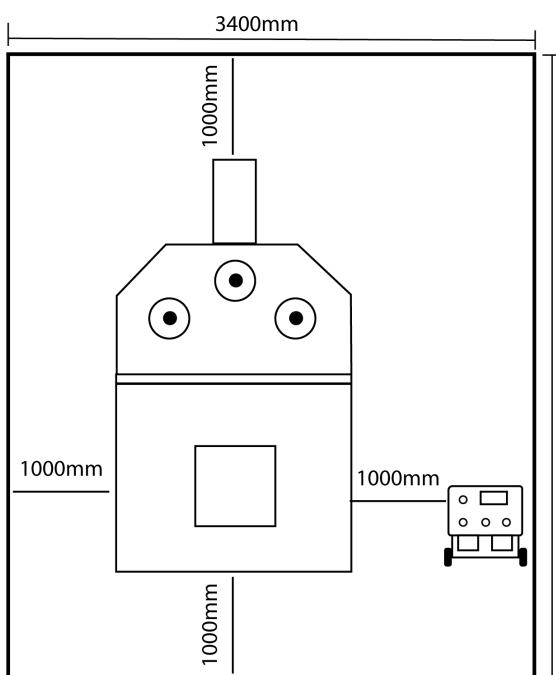
When selecting the site for the machine, consider the largest size of workpiece that will be processed through the machine and provide enough space around the machine for operating the machine safely. Consideration should be given to the installation of auxiliary equipment. Leave enough space around the machine to open or remove doors/covers as required for the maintenance and service as described in this manual.

It is recommended that the machine is anchored to the floor to prevent tipping or shifting. It also reduces vibration that may occur during operation. The machine should be mounted on a reinforced concrete floor with a minimum of 150mm thickness. The floor must be able to support the weight of the machine and any workpiece that is to be worked.

When selecting a site for the machine it is important to remember that the machine can be used either in a vertical or horizontal position so there needs to be enough floor space to use the machine in either configuration.

HORIZONTAL

VERTICAL





OPERATION MANUAL

3.2 CLEAN - UP

The unpainted surfaces of the machine have been coated with a waxy oil to protect them from corrosion during shipment. Remove the protective coating with a solvent cleaner or a citrus based degreaser.

Optimum performance from your machine will be achieved when you clean all moving parts or sliding contact surfaces that are coated with rust prevented products.

Metalmaster advise to avoid chlorine based solvents, such as acetone or brake parts cleaner, as they will damage painted surfaces and strip metal should they come in contact. Always follow the manufacturer's instructions when using any type of cleaning product.

3.3 ELECTRICAL INSTALLATION

Place the machine near an existing power source. Make sure all power cords are protected from traffic, material handling, moisture, chemicals, or other hazards. Make sure there is access to a means of disconnecting the power source. The electrical circuit must meet the requirements for 415V. To minimize the risk of electrocution, fire, or equipment damage, these machines should be hard wired with installation work and electrical wiring done by a qualified electrician.

NOTE : The use of an extension cord is not recommended as it may decrease the life of electrical components on your machine.

ELECTRICAL REQUIREMENTS

Nominal Voltage.....	415V
Cycle.....	50 Hz
Phase.....	Three Phase
Power Supply Circuit.....	20 Amps
Full Load Current.....	6 Amps

(Full load current rating is also on the specification plate on the motor.)

3.4 FULL-LOAD CURRENT RATING

The full-load current rating is the amperage a machine draws at when running at 100% of the output power. Where machines have more than one motor, the full load current is the amperage drawn by the largest motor or a total of all the motors and electrical devices that might operate at one time during normal operations.

Full-Load Current Rating for these machine at 415V is 6 Amps

It should be noted that the full-load current is not the maximum amount of amps that the machine will draw. If the machine is overloaded, it will draw additional amps beyond the full-load rating and if the machine is overloaded for a long period of time, damage, overheating, or fire may be caused to the motor and circuitry.

This is especially true if connected to an undersized circuit or a long extension lead. To reduce the risk of these hazards, avoid overloading the machine during operation and make sure it is connected to a power supply circuit that meets the requirements.





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3.5 CHECKING THE MOTOR DIRECTION

METALMASTER machines are supplied wired ready to run. Check the specification plate on the machine to confirm the correct voltage of the power supply.

The machine must be connected by a qualified and licensed electrician. Warranty could be void if it is found that the connection was not carried out by a qualified electrician.

Once connected, check that the direction of the motor by depressing the foot pedals on the roving foot control. The rollers need to travel in the same direction as the symbol on the foot pedal depressed.

If the direction is incorrect, isolate the machine and make changes to the wiring

4 OPERATION

4.1 CONTROLS

The purpose of this control overview is to provide the novice machine operator with a basic understanding of how the machine is used during operation, and the machine controls and what they do. It also helps the operator to understand if they are discussed later in this manual.

The Roving Foot Control

All the operating controls for this machine are mounted on the roving foot controller. (Fig. 4.1)

The control panel is mounted on the top of the roving foot control with the two pedals at the bottom of the unit controlling the direction that the rollers will rotate. (Fig. 4.2) The direction is indicated by an arrow over each pedal.



FIG. 4.2

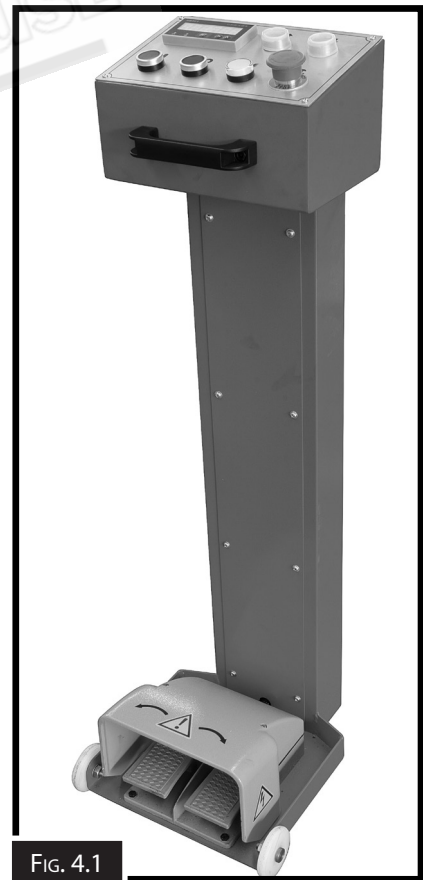


FIG. 4.1

CONTROL PANEL


1. **Controller:** Controls the upper and lower limit of the apron (See page 15)
2. **Up Button:** When pressed the top roller will travel up
3. **Down Button:** When pressed will move the top roller down
4. **Emergency Stop Button:** When pressed will stop all power to the circuitry
5. **Power Light:** Is illuminated when the power is supplied to the circuitry
6. **Pump Off Button:** When pressed switches the hydraulic pump off.
7. **Pump On Button:** When pressed switches the hydraulic pump on.

4.2 HP961 CONTROLLER OPERATION INSTRUCTIONS



1. **J1** Top soft limit
2. **J2** Bottom soft limit
3. **SET** Set changes button
4. **>** Across button
5. **^** Arrow up button

SIMPLE OPERATION-

- The bending roll can be driven full travel up or down reading a positive or negative number.
- Zero display- Press arrow up button until display reads zero.

SOFT LIMIT SETTING & OPERATION.

The controller can be programmed to travel within a top and bottom soft limit and the operator can change soft limits to any desired size.

J1= Top soft limit

J2= Bottom soft limit

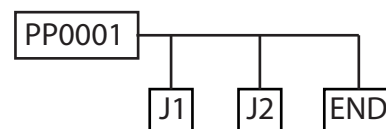
End= Exit programming mode.

PP0001= Soft limit programming mode

Press set button and use the arrow across/up buttons to make display read PP0001. Press the SET button to enter soft limit programming mode.



Menu Diagram





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NOTE: The numbers on the display are not displayed as degrees but simply a reference number that represents the position that the apron moves to.

Example Of Setting J1=50 & J2=10

Set J1-Top Soft Limit

Use arrow across button until J1 is displayed and press SET to enter limit. Make display read 50 and press set to save and exit. This is now the top soft limit.



Set J2- Bottom Soft Limit

Use arrow across button until J2 is displayed and press SET to enter limit. Make display read 10 and press SET to save and exit. This is now the bottom soft limit.



Exit Soft Limit Mode

Use arrow across button until End is displayed and press SET to save and exit.



Bending roll can now be drive up/down between 10 and 50.

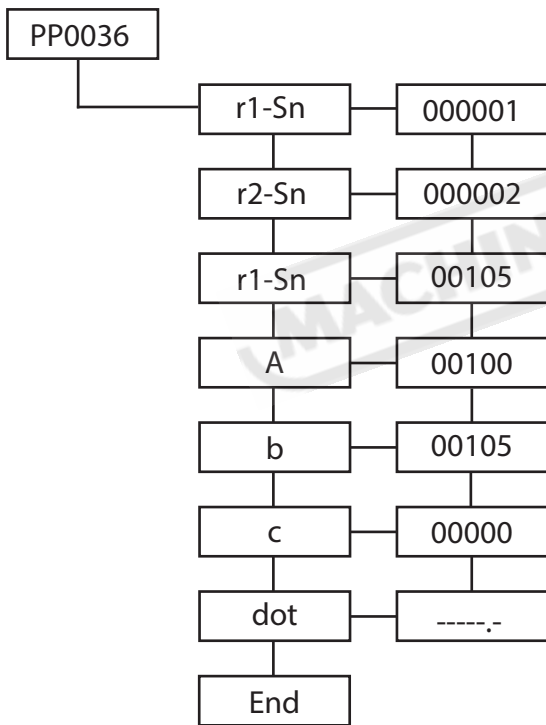
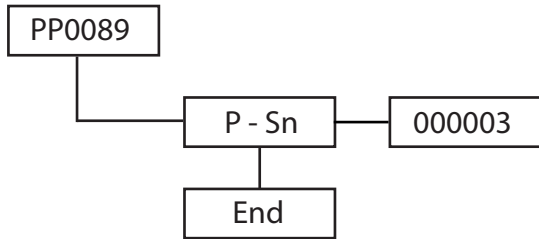


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Reset Factory Setting

J1 = 10000
J2 = 10000

Parameter Setup





OPERATION MANUAL

4.3 SETTING THE SIDE ROLLERS

To ensure the quality of the bend, it is recommended, that the side guide rollers must be parallel with the machine surface, This means, that the axis of side guide rollers must be perpendicular to the machine rolls. If the side guide rollers are not perpendicular the material which is being rolled will be deformed.

If a spiral shaped workpiece is to be rolled, then it is advised to change the angle of side guide rollers to suit the spiral.

If side guide rollers are used in this position frequently, then the side guide roller bolts and joint bearings must be greased once a week.

Material is supported by side guide rolls during the bending operation. (Fig. 4.2)

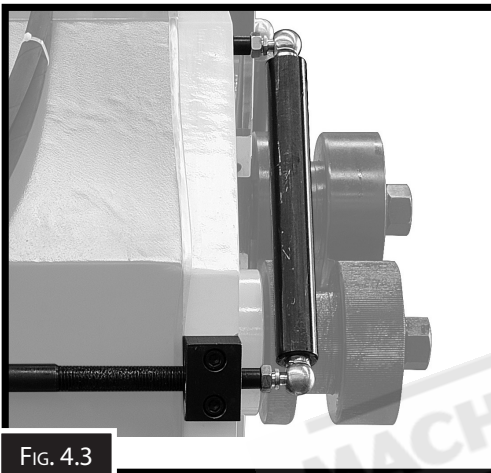


FIG. 4.3

NOTE: Adjustment is made by only adjusting the bottom spherical bearing.

To Adjust The Side Guide Rollers

1. DISCONNECT THE MACHINE FROM THE POWER SUPPLY
2. Loosen the hex nut and rotate the spherical (Fig.4.4) bearing base until the roller is perpendicular with the main rollers.
3. Lock the hex nut.

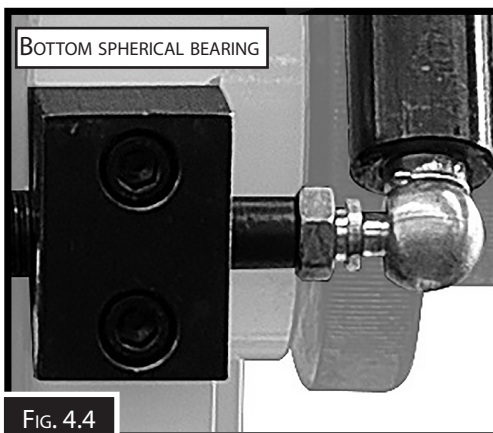


FIG. 4.4

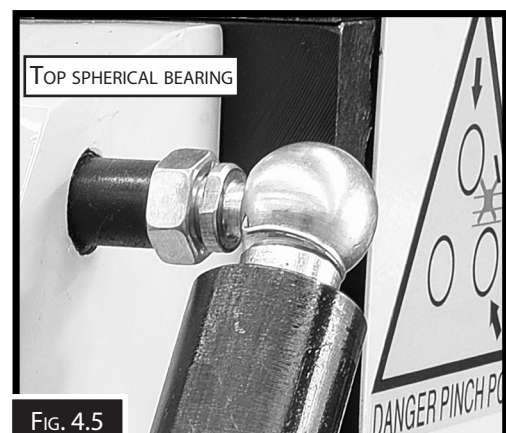


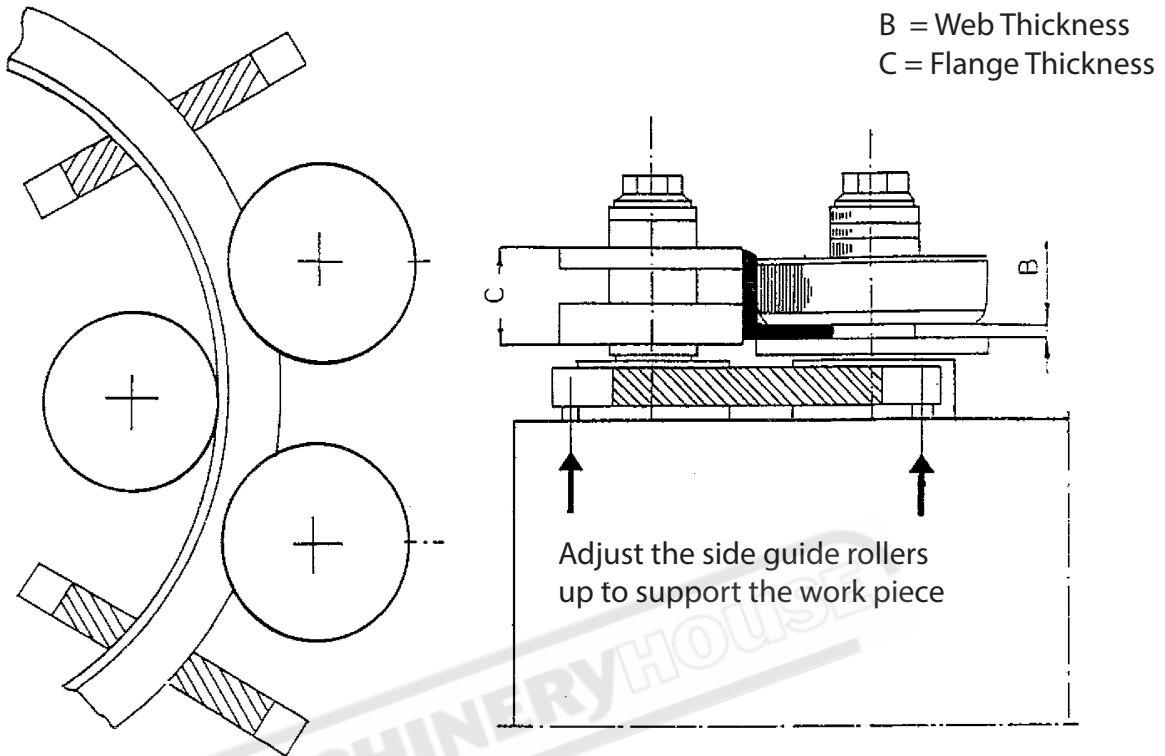
FIG. 4.5



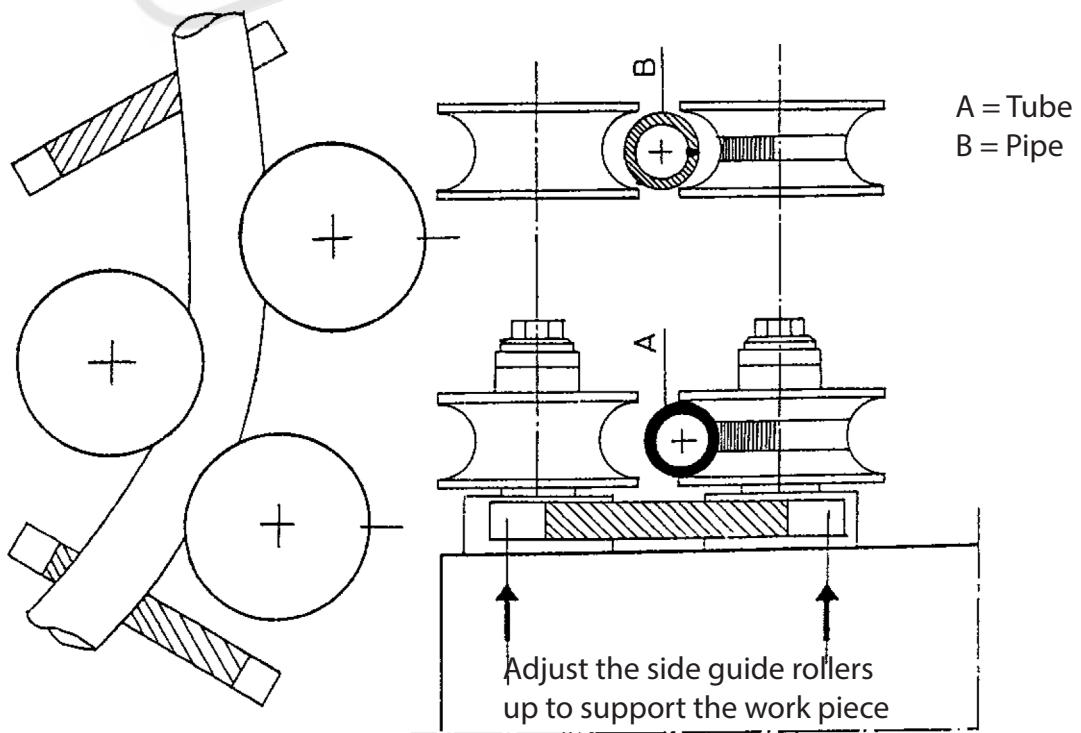
OPERATION MANUAL

4.3 SETTING THE SIDE ROLLERS Cont.

Example 1



Example 2





OPERATION MANUAL

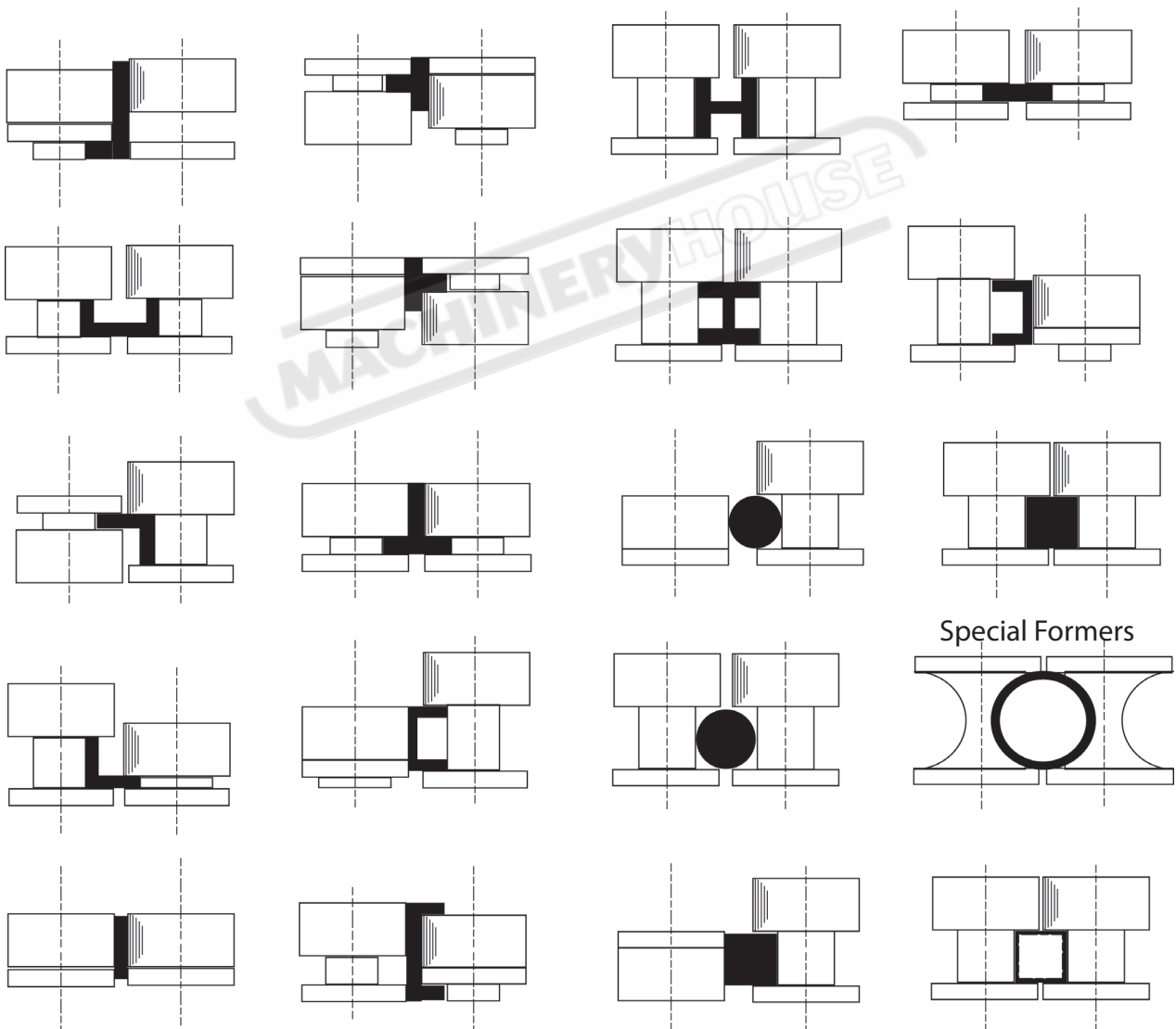
4.4 CHANGING ROLLS

When changing the rolls that came with the machine make sure that the spacers supplied are used to adjust the rolls.

When using Special Rolls, be sure that the width of the rolls do not exceed the length of the roll shaft. The safety nuts must be able to be attached after the new rollers have been mounted on the shafts.

If the width of the roll exceeds the roll shafts, then spacers must be used to adjust their position until the safety nut can be attached. Please see examples below.

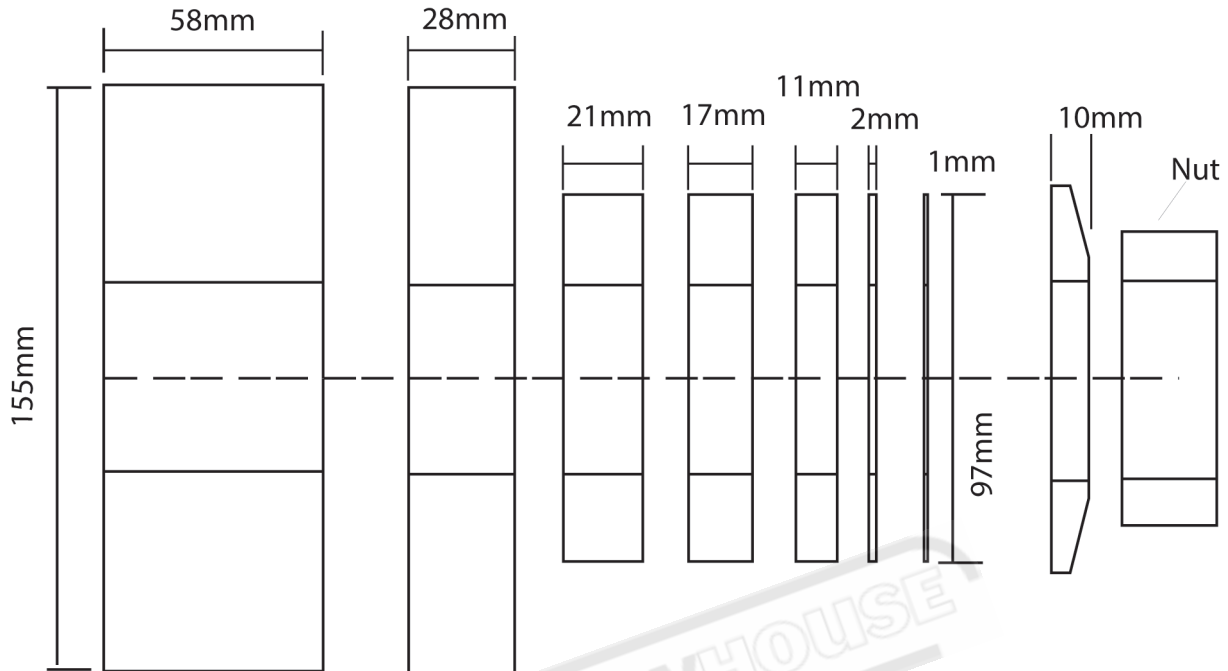
NOTE: Not all the examples below are able to be formed with the rolls and spacers supplied with the machine. Some spacers may need to be made to form some profiles.



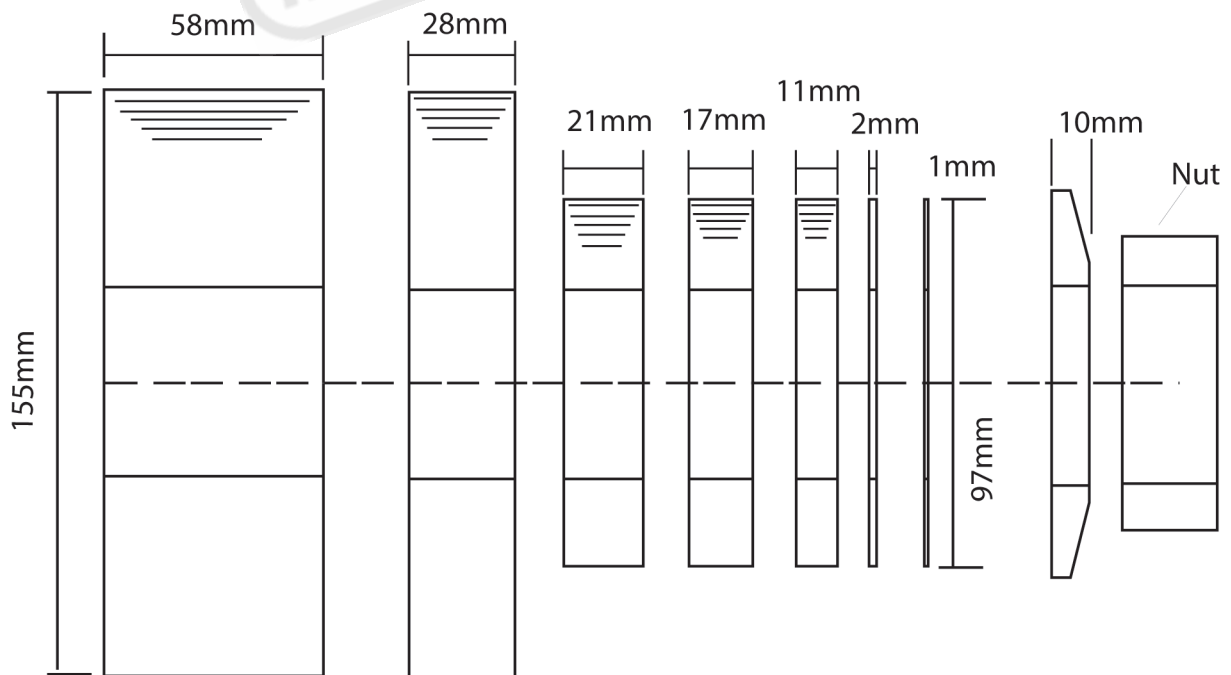


OPERATION MANUAL

IDLER SHAFT SPACERS (1 off Each)



DRIVEN SHAFT SPACERS (2 off Each)





OPERATION MANUAL

ROLLING RECOMMENDATION

Below are a few basic suggestions for rolling material.

Place the material between the rolls, located on lower rolls. Move the upper roll towards the material. The bending operation is started by pressing the foot pedal and as the material moves backward and forward between the rollers then small amounts of downward pressure can be applied to the upper roller.

NOTE: Move the upper roller in small amounts and only as the material is passed under the top roller.. Don't adjust the top roller and then move the material between the rollers.

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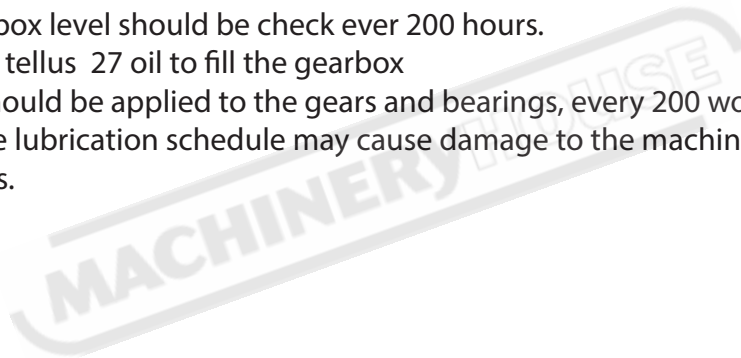
5. MAINTENANCE

5.1 LUBRICATION

Gearbox. The gearbox level should be check ever 200 hours.

Use shell tellus 27 oil to fill the gearbox

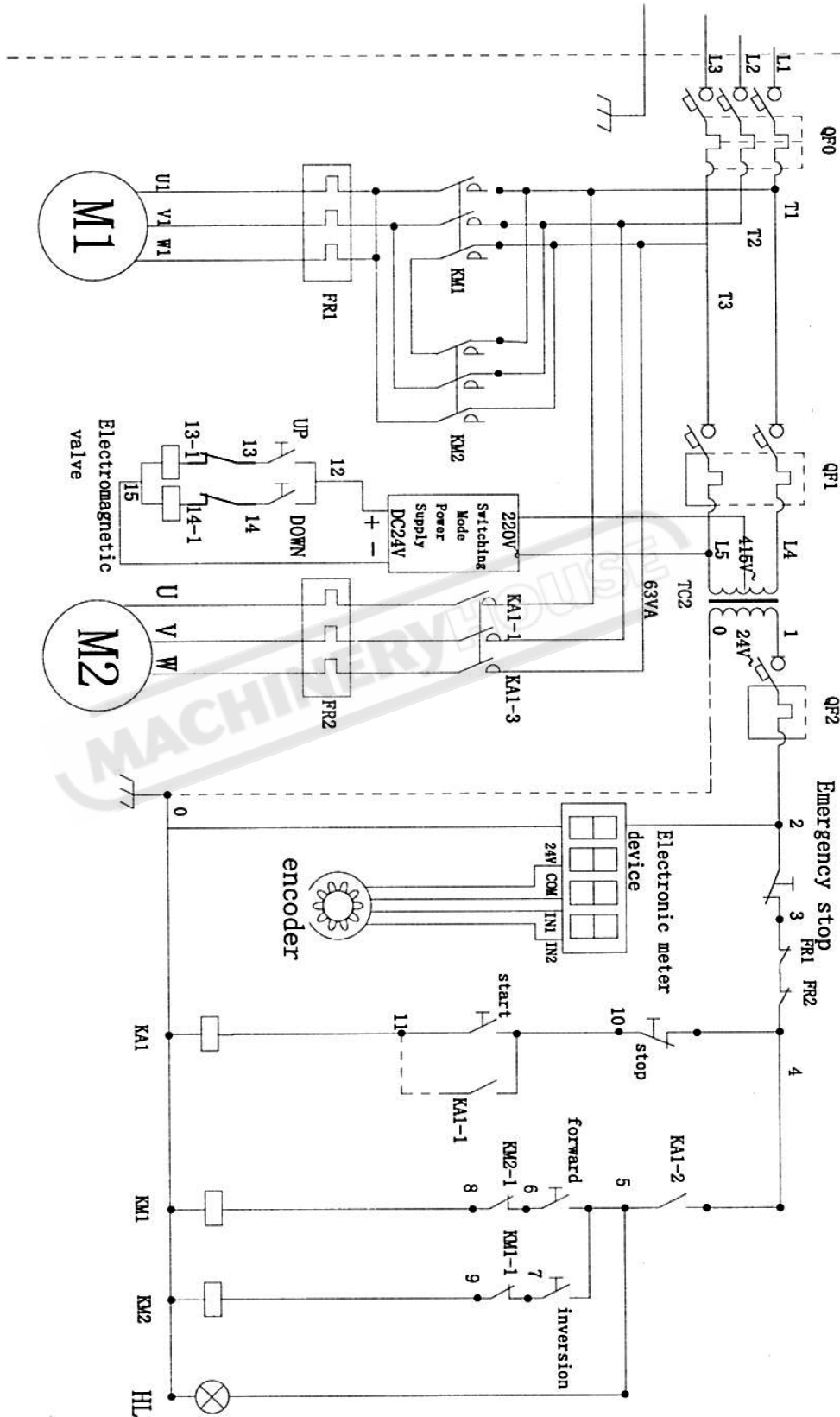
Gears: Grease should be applied to the gears and bearings, every 200 working hours. Failure to follow the lubrication schedule may cause damage to the machine and may effect any warranty claims.





OPERATION MANUAL

5.2 ELECTRICAL DIAGRAM





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

Section Rolling Machine Safety Instructions

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

- 1. Maintenance.** Make sure the Section Rolling Machine is turned off and disconnect from the main power supply and make sure all moving parts have come to a complete stop before any inspection, adjustment or maintenance is carried out.
- 2. Section Rolling Machine Condition.** A Section Rolling Machine must be maintained for a proper working condition. Never operate a Section Rolling Machine that has damaged or worn parts. Scheduled routine maintenance should be performed on a scheduled basis.
- 3. Roll Condition.** Never operate a Section Rolling Machine with a damaged or badly worn roll. Replace if required. Rolls should never be greased or lubricated as rolls will slip the material and will not bend.
- 4. Roll Direction.** Be aware of the correct rotational axis of the motor when a qualified electrician connects the Machine.
- 5. Hand Hazard.** Keep hands and fingers clear from moving parts. Serious injury can occur if hand or finger tips get pinched by rolls and can be dragged into machine.
- 6. Personal Protection.** Gloves, safety glasses and safety hat are recommended during operation.
- 7. Avoiding Entanglement.** Section Rolling Machine guards must be used at all times. Tie up long hair and use the correct hair nets to avoid any entanglement with the Section Rolling Machine moving parts.
- 8. Understand the machines controls.** Make sure you understand the use and operation of all controls.
- 9. Trained Operator.** This machine must be operated by authorized and trained personnel.
- 10. 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.
- 11. Work area hazards.** Keep the area around the Section Rolling Machine clean from oil, tools, chips. Pay attention to other persons in the area and know what is going on around the area to ensure unintended accidents.
- 12. Guards.** Do not operate Section Rolling Machine without the correct guards in place. Necessary guards protect you from injuries by worm-type gearbox and other gears. The only other area which needs to be carefully monitored during use is the rotational area of the rolls.
- 13. Material condition.** Material must be clean of oil and dry. Oily material can slip and will not bend.
- 14. Material hardness.** Make sure your hardness is the same throughout the material, we recommend that you use certified material. Never bend hard steel, glass or fragile material on this machine.
- 15. Feeding material.** Making a tight bend in one pass is not possible. Several passes are needed before you can achieve a certain radius. Tighter curves and full radius always need more passes.
- 16. Stopping the Rolls.** Do not stop or slow the rolls with your hand or workpiece. Allow the Section Rolling Machine to stop on its own.
- 17. Emergency stop.** Use the emergency stop button in case of any emergency.
- 18. Hearing protection and hazards.** Always wear hearing protection as noise generated from machine and workpiece can cause permanent hearing loss over time.
- 19. Call for help.** If at any time you experience difficulties, stop the machine and call your nearest branch service department for help.

PLANT SAFETY PROGRAM

NEW MACHINERY HAZARD IDENTIFICATION, ASSESSMENT & CONTROL

Section Rolling Machine

Developed in Co-operation Between A.W.I.S.A and Australia Chamber of Manufactures
This program is based upon the Safe Work Australia, Code of Practice - Managing Risks of Plant in the Workplace (WHSA 2011 No10)

Item No.	Hazard Identification	Hazard Assessment	Risk Control Strategies <small>(Recommended for Purchase / Buyer / User)</small>
A	ENTANGLEMENT CRUSHING	HIGH LOW	Eliminate, avoid loose clothing / Long hair etc. Secure & support work material. Ensure machine is bolted down.
C	CUTTING, STABBING, PUNCTURING.	MEDIUM	Isolate power to machine prior to any checks or maintenance being carried out. Do not adjust or clean until the machine has fully stopped. Wear gloves to prevent cuts from material.
D	SHEARING	MEDIUM	Isolate power to machine when checks or maintenance is being carried out. Make sure all guards are secured shut when machine is on. Hands should be kept clear of moving parts such as rolls etc.
F	STRIKING	MEDIUM	Ensure area is kept clear of material being rolled.
H	ELECTRICAL	MEDIUM	All electrical enclosures should only be opened with a tool that is not to be kept with the machine. Machine should be installed & checked by a Licensed Electrician.
O	OTHER HAZARDS, NOISE.	LOW	Wear hearing protection as required.
Plant Safety Program to be read in conjunction with manufactures instructions			



www.machineryhouse.com.au



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Authorised and signed by:
Safety officer:



Manager:



Revised Date: 12th March 2012