

OPERATION MANUAL



TUBE AND PIPE NOTCHER

Model. PNM-3

Order Code P094

EDITION No : PNM-3-1

DATE OF ISSUE : 06/2023

MACHINE DETAILS

MACHINE	PIPE & TUBE NOTCHER
MODEL NO.	PNM-3
SERIAL NO.	
DATE OF MANF.	

DISTRIBUTED BY

www.machineryhouse.com.auwww.machineryhouse.co.nz**NOTE:**

This manual is only for your reference. At the time of the compiling of this manual every effort to be exact with the instructions, specifications, drawings, and photographs of the machine was taken. Owing to the continuous improvement of the HAFCO 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.

SAFETY SYMBOLS

The purpose of safety symbols is to attract your attention to possible hazardous conditions

**WARNING**

indicates a potentially hazardous situation causing injury or death

**CAUTION**

indicates an alert against unsafe practices.

Note:

Used to alert the user to useful information

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)

Fig.1

METALMASTER	
PRODUCT SPECIFICATIONS	
Model: PNM-3	Voltage: 240V/50Hz
Capacity: 2.1/2	Motor: 0.375kW
Nett Weight: 87kg	FLC: 7.21A
MFG Date:	
Serial No:	<input type="text"/>
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Metalmaster PNM-3

Tube and Pipe Notcher

OVERVIEW

Bench mounted precision motorised notcher suitable for pipe & tube up to 76mm OD, it includes a 240-volt motor with a right-angle reduction box to ensure the cutter speed is running at the optimum speed for accurate notches as well as long cutter life. The double linear guideways ensure smooth operation whilst providing a solid base for minimal vibration. The material clamp offers quick & easy adjustment for both angle & offset height to give you a professional finish every time.

FEATURES

- Notches 12.7 – 76.2mm OD Tube and ½” – 2-1/2” NB schedule 40 pipe
- Double linear guide ways for smooth trouble-free operation.
- Adjustable notch angle up to 220 degrees with the ability to offset the height of the notch + 35mm
- Quick action angle adjustment handle with easy to see degree markings
- Self-centering vice with double V-Shaped jaws to securely clamp the material

1.1 SPECIFICATION

Order Code	P094
MODEL	PNM-3
Machine (Type)	Bench Mount
Notching Cutter (Type)	Hole Saw (Optional)
Tube Capacity (OD) - Mild Steel (mm)	Ø12.7 - Ø76.2
Pipe Capacity (NB) - Mild Steel (inch)	Ø1/2” - Ø2-1/2”
Angle Adjustment (Degree)	0 – 60°
Footprint Dimension (Lx W xH) (mm)	800 x 520 x 670
Cutting Speed (rpm)	200
Motor Power (kW / hp)	1.1 / 1.5
Voltage (V)	240V
Nett Weight (kg)	87




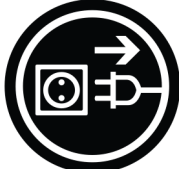

1.2 IDENTIFICATION

Become familiar with the names and locations of the controls and features shown below to better understand the instructions when mentioned later in this manual.



A	Swivel Vice With Height Adjustment	G	Clear Safety Guard
B	240Volt Motor	H	Spindle
C	Control Panel	I	Base
D	Manual Feed Handwheel	J	Swivel Lock Handle
E	Gear Reduction Box	K	Vice Adjustment Screw
F	Feed Rack		

2.1 SAFETY SYMBOLS

	<p>RESPIRATORY PROTECTION</p>	<p>Exposure to the dust created by grinding, may cause serious and permanent respiratory or other injury, including silicosis (a serious lung disease), cancer, and death.</p>
	<p>INJURY PROTECTION</p>	<p>Keep hands away from the cutting head and all moving parts. Contact with the cutting head could result in serious injury or amputation</p>
	<p>EYE & EAR PROTECTION</p>	<p>ALWAYS wear eye protection. Any machine can throw debris into the eyes during operations, which could cause severe and permanent eye damage. Wear ear protection</p>
	<p>DISCONNECT POWER</p>	<p>DISCONNECT THE MACHINE FROM POWER when making adjustments or servicing.</p>
	<p>READ & UNDERSTAND THE MANUAL</p>	<p>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.</p>



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.



CAUTION. Before operating any machine, take time to read and understand all safety signs and symbols. If not understood seek explanation from your supervisor.

2.2 IMPORTANT SAFETY INSTRUCTIONS

Read all safety warnings and instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

1. Read and understand the entire owner's manual before attempting assembly or operation.
2. Read and understand all the warnings on the machine and in the manual. Failure to comply with all of these warnings may cause serious injury.
3. Replace warning labels if they are removed or obscured.
4. This Tube and Pipe Notcher is designed and intended for use by properly trained and experienced personnel only. If you are not familiar with the proper and safe operation of a pipe notcher, do not use it until proper training and knowledge have been obtained.
5. Do not use this notcher for other than its intended use. If used for other purposes, Metalmaster disclaims any real or implied warranty and holds itself harmless from any injury that may result from that use.
6. Always wear protective eye wear when operating machinery. Eye wear must be impact protective safety glasses which comply with ANSI specifications. Use of eye wear which does not comply could result in severe injury. (Everyday eyeglasses are NOT safety glasses.)
7. Wear protective footwear, such as steeltoed shoes, when working with metal materials. Deburr sharp edges and use leather gloves when handling workpieces.
8. Wear ear protectors (plugs or muffs) if sound exceeds safe levels.
9. Make certain the machine is properly grounded.
10. Before operating the machine, remove tie, rings, watches, and jewellery. Do not wear loose clothing. Confine long hair.
11. Keep the floor around the machine clean and free of scrap material, oil and grease
12. Keep machine guards in place at all times when the machine is in use. If removed for maintenance purposes, use extreme caution and replace the guards immediately upon completion of maintenance.
13. Make all machine adjustments or maintenance with machine unplugged from power source.
14. Use the right tool. Do not force the tool to do a job that it was not designed to do.
15. Make certain the switch is in the OFF position before connecting power to the machine.
16. Give your work undivided attention. Looking around, and "horse-play" are careless acts that can result in serious injury.
17. Keep visitors a safe distance from the work area. Keep children away.
18. Do not stand on the machine. Serious injury could occur if the machine tips over.
19. Make your workshop child proof with tools, and master switches out of reach.
20. Maintain a balanced stance at all times so that you do not fall onto moving parts. Do not overreach or use excessive force to perform any machine operation.
21. Use recommended accessories; improper accessories may be hazardous.
22. Do not operate this machine while under the influence of drugs, alcohol or any medication.
23. Keep tools sharp and clean for safe and best performance.
24. Provide for adequate space surrounding work area and non-glare, overhead lighting.
25. Use only Metalmaster replacement parts and accessories to guarantee warranty.
26. Don't use in dangerous environment. Don't use power tools in the rain, damp or wet, places. Keep work area well lighted.
27. Secure the machine to a stand or workbench.
28. Use additional supports for long workpieces that extend off the vice.

3. POWER SUPPLY

3.1 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 240V.

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.....	240V
Cycle.....	50 Hz
Phase.....	Single Phase
Power Supply Circuit.....	10 Amps
Full Load Current.....	7.21Amps

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

3.2 FULL-LOAD CURRENT RATING

The full-load current rating is the amperage a machine draws 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 240V is 7.21Amps

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.

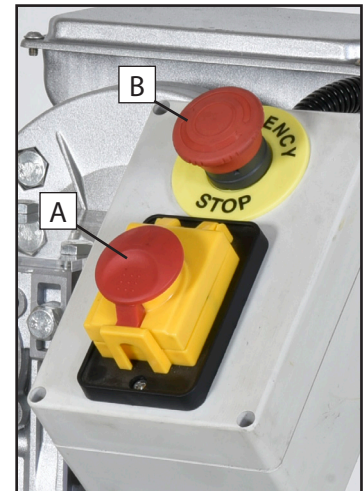


3.3 CONTROLS

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.

NOTE: DO NOT start the machine until all of the setup instructions have been performed.

- A.** Stop and On/Off Buttons
- B.** Emergency Stop Button



ON/OFF SWITCH

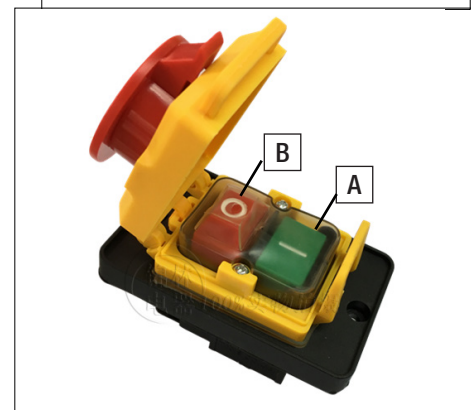
The ON/OFF safety switch is located on the front of the machine for quick, easy and safe access. The switch is fitted with a yellow door with a RED button in the centre of it. To start the machine the yellow door needs to be released by pressing against the catch to open it and reveal the green ON and RED stop buttons.

Push the bottom green button (A) to turn the machine ON.

Push the top red button (B) to turn the machine OFF.

In an emergency the red button on the yellow door can be pressed and held with the catch and the machine will stop. With the door closed the machine cannot be started until the catch is released and the buttons exposed.

CAUTION: Never walk away from the machine while it is still running. Always lock the switch in the Off position and unplug from the power supply when not in use.





WARNING

Keep hands and fingers away from the cutter. Stop the cutter before opening the hand protection shield. Moving blade cutter hazard may cause serious injury.

4. SETUP AND ASSEMBLY

4.1 SHIPPING CONTENTS

Inspect contents for shipping damage or part shortages. If either is found, contact your distributor. Do not discard carton or packing material until machine is set up and running satisfactorily.

- 1. Hex Key
- 1. Hole Saw Adapter
- 1. Feed Handle
- 1. 17mm Spanner.



4.2 CLEANUP AND LOCATION

- 1. Exposed metal surfaces have been given a protective coating at the factory. This should be removed with a soft cloth moistened with kerosene or a cleaner-degreaser. Do not use acetone, gasoline, or lacquer thinner for this purpose. Do not use solvents on plastic parts, and avoid using an abrasive pad as it may scratch surfaces.



WARNING.

DO NOT USE PETROL or other petroleum products to clean the machine. They have low flash points and can explode or cause fire.

- 2. The Notcher should be secured to a stand or workbench using fasteners (not provided) through the slots in the base. The work area should have good ventilation and sufficient lighting. Leave enough space around the machine for loading and off-loading workpieces and general maintenance work.

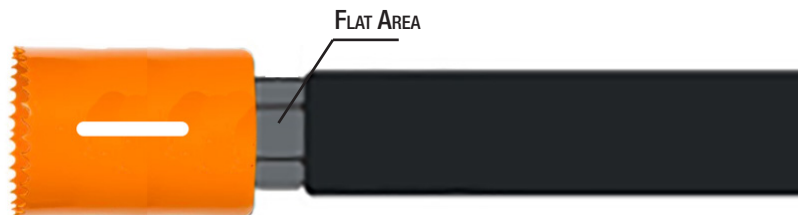


WARNING.

The stand or workbench must be able to support the machine and any additional stresses caused by long workpieces protruding off the vice. Failure to comply may cause the machine to tip over, resulting in damage to machine and personal injury.

4.3 INSTALLING/REMOVING HOLE SAW

Place wrench on the flat area on the spindle to stabilize it, and thread the hole saw clockwise onto spindle. Hand tightening is sufficient, as rotation will further snug it onto the threads.



To remove hole saw, place wrench on hex area. Insert flat blade screwdriver or similar object through slots, and push hole saw counterclockwise to loosen. Note: Insert screwdriver completely through both sides to avoid potential deforming of the hole saw.

4.4 TEST RUN

Once assembly is complete, test run the machine to ensure it is properly connected to the power and safety components are functioning correctly. Check that the direction of the motor is correct and make sure that the machine rotates in the correct direction.

If the direction is incorrect, isolate the machine and have the electrician make changes to the wiring. If you find an unusual problem during the test run, immediately stop the machine, disconnect it from power, and fix the problem BEFORE operating the machine again. The Troubleshooting table in the Maintenance section of this manual may be able to help. If the problem persists then contact your dealers service technician.

TO TEST RUN THE MACHINE:

1. Connect the machine to the power supply.
2. Make sure that the manual has been read and that the safety instructions at the beginning of the manual are understood. Make sure the machine has been setup correctly
3. Make sure all tools and objects used during set up have been cleared away from the machine.
4. Turn the machine ON.
5. Make sure that the machine is travelling in the correct direction.
6. Listen to and watch for abnormal noises or actions. The machine should run smoothly with little or no vibration or rubbing noises.
7. Any strange or unusual noises should be investigated and corrected before operating the machine again. Always disconnect the machine from power supply when investigating or correcting potential problems. The troubleshooting chart in the maintenance section may be helpful in rectifying a problem.

TESTING THE EMERGENCY STOP BUTTON

Make sure that the emergency button is working correctly

1. Twist the top of the Emergency Stop button to ensure that it is in the raised position.
2. Start the machine and then press the emergency stop button. The machine should stop and the power should be cut off. If the machine cannot be started then the emergency stop is working correctly. To reset the Emergency Stop twist the red top until it pops up.
3. The machine should now work again.



5. OPERATION

The METALMASTER Notcher is designed for 200 RPM arbor speed to accommodate steel tubing, and uses bi-metal hole saws which are commonly available in hardware and tool stores. Use additional supports for long or heavy workpieces that protrude off the vice. It is recommended that a cutting lubricant be applied to the workpiece before and/or during operation; this will prevent overheating and prolong the life of the hole saw.

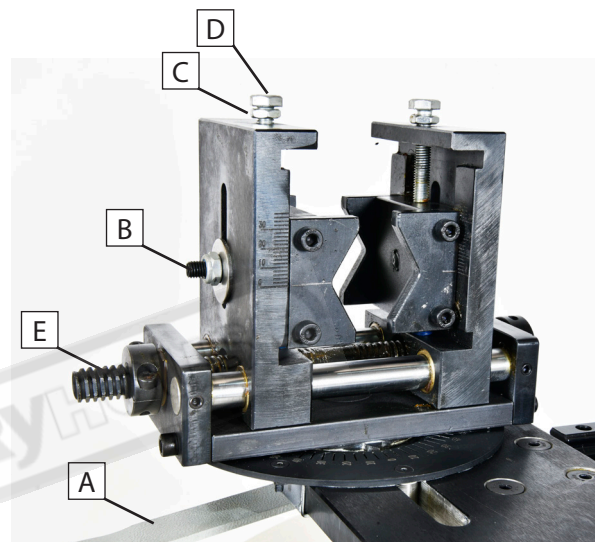
VICE OPERATION

Zero on the circular scale will position the vice perpendicular to the spindle. Zero on lateral scale will position the face of vice flush with spindle center line.

1. Move handle (A) to unlock, and slide vice laterally into position.
2. Rotate vice to desired angle on circular scale.
3. Position the workpiece in the vice and tighten the vice screw (E) using the multi-tool provided.
4. Tighten handle (A) before operating.

NOTE: The vice can also be adjusted for height off-set from the spindle centerline:

1. Loosen 2 screws (one each side) on the side of the vice (B), loosen the top hex lock nuts (C), and turn both top screws (D) in equal amounts. Lines are inscribed on vice to assist in the setting.
2. Retighten lock nuts (C) and screws (B) after adjustment



GENERAL PROCEDURE

The PNM-3 will make round cuts for single or double end notching, side or “offset” notching, and complex or multiple angle notches.

The hole saw used will generally be the same diameter as, or slightly larger than, the pipe to which the workpiece will be fitted.

Note: Devices are available to assist in quickly locating center lines and intersect points.

SINGLE AND DOUBLE END NOTCHING

If one or both ends of tube is to be notched:

1. Position the workpiece against the structure at the angle it will be welded. Measure the acute angle (a), which will also be the angle set on the vice scale.
2. Determine top point and centerline, and mark these on tube (Fig. 5.1).

NOTE: For single end notch, if configuration of opposite end of the tube is not important, the centerline and top point markings are unnecessary.

3. Mark the intersect point opposite the acute angle, as shown. This will be the line of entry for the hole saw.

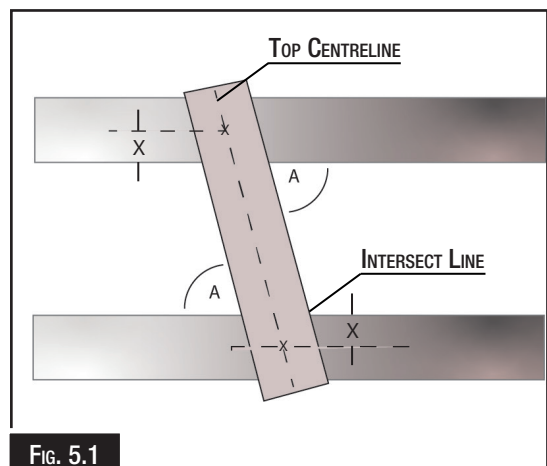


Fig. 5.1

4. Calculate the distance (x) from intersect to end of notch, as this will vary depending upon size and type of tube. Cut off the excess at end of tube, leaving minimal amount for making the notch; this will speed cutting process and save wear on the hole saw.
5. Rotate the vice to desired angle of cut (a) on the scale.
6. Position the tube in the vice. If this is the second notch at the opposite tube end, make sure the top centerline is in the proper position.
7. Use the handwheel to bring the hole saw forward to align edge of the hole saw with the intersect mark on tube. (Fig. 5.1) When positioned, tighten the tube securely in the vice to prevent deflection during the cut.
8. Retract the hole saw so that it does not contact the tube.
9. Turn on the machine and use the handwheel to slowly feed the hole saw into the tube. Experience will help the user to develop a feel for the proper rate of feed depending on the materials used.
10. At larger angles, the hole saw may “bottom out” before completing the cut. If this occurs, turn off the machine and retract the hole saw. Break off the residual piece of tube with pliers, and reintroduce the hole saw to the workpiece to complete the cut without further interference.
11. Deburr the cut end using a sander/grinder.

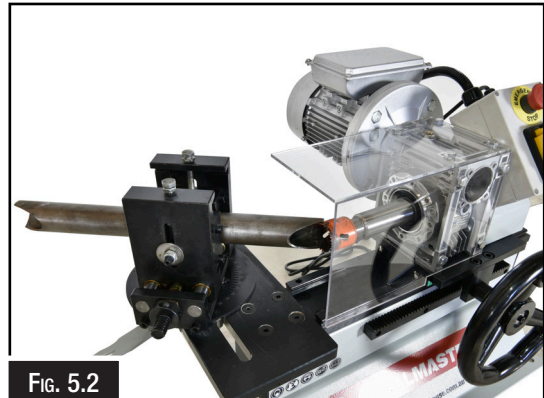


Fig. 5.2

SIDE/OFFSET NOTCH

In Figure 5.3 are examples of side notching. Determine the cutting angle and mark the intersect line on the tube, then set this angle on the vice. If more than one cut is to be made on the tube, then take note of the top and center line.

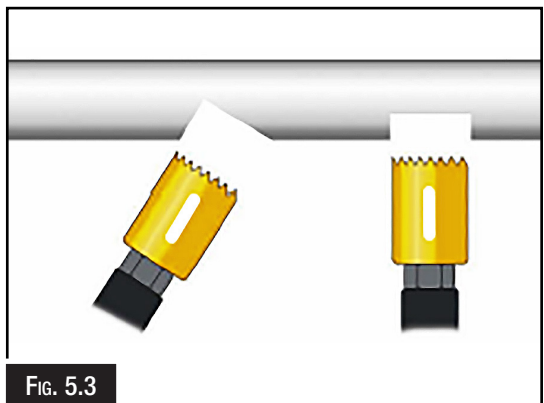


Fig. 5.3

COMPLEX END NOTCH

The example below shows a tube fitted to a 90° corner. Thus, the hole saw must approach the same tube end at different angles:

1. Position workpiece against structure at angle at which it will be welded. Measure angles (a) to determine vice positions.
2. Carefully identify top centerline, and mark it on tube. See Figure 5.4.
3. Trim off excess tube, using appropriate calculations.
4. Follow procedure in sect. 5.1 SINGLE AND DOUBLE END NOTCHING to make each notch.

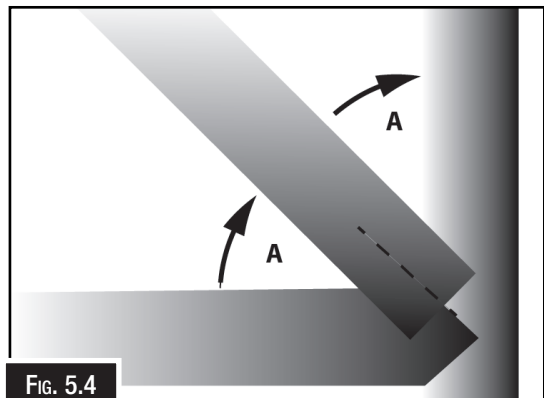


Fig. 5.4

Note: It is possible that further grinding or relieving may be necessary on the notched tube if it is to be fitted against protruding welds on the structure.

TROUBLESHOOTING

Review the troubleshooting and procedures in this section if a problem develops with your machine. If you need replacement parts then follow the procedure in beginning of the spare parts section or if additional help with a procedure is required, then contact you distributor.

Note: Make sure you have the model of the machine, serial number, and manufacture date before calling.

Symtoms	Possible Cause	Possible Solution
Motor will not start	Low voltage. Open circuit in motor or loose connection.	Check power line for proper voltage. Inspect all lead connections on motor for loose or open connections.
Motor will not start: fuses or circuit breakers blow.	Short circuit in line cord or plug. Short circuit in motor or loose connections. Incorrect fuses or circuit breakers in power line.	Inspect cord or plug for damaged insulation and shorted wires. Inspect all connections on motor for loose or shorted terminals or worn insulation. Install correct fuses or circuit breakers.
Motor overheats.	Motor overloaded. Air circulation through motor restricted.	Reduce feed speed. Clean motor fan with compressed air to restore normal air circulation.
Motor stalls, resulting in blown fuses or tripped circuit.	Motor overloaded. Short circuit in motor or loose connections. Low voltage. Incorrect fuses or circuit breakers in power line.	Reduce load on motor. Inspect connections on motor for loose or shorted terminals or worn insulation. Correct the low voltage conditions. Install correct fuses or circuit breakers.
Machine slows when operating.	Applying too much pressure to workpiece. Too deep of a cut	Feed workpiece more slowly. Reduce cutting depth.
“Chatter” or excessive vibration develops during cut.	Spindle overextended. Feeding too quickly. V-guide ways not tight enough.	Use handwheel to move hole saw closer to workpiece before beginning cut. Slow feed rate. Adjust V-guide ways.
Loud, repetitive noise coming from machine.	Loose slide Motor fan is hitting the cover.	Inspect and tighten if needed. Tighten fan or shim cover.
Poor quality cuts.	Hole saw off center. Drive spindle runout.	Inspect. Use good-quality hole saws. Have drive spindle inspected and replaced by qualified personnel.



WARNING!

*Electricity is dangerous and could cause death
All electrical work must be carried out by a qualified electrician.*

SPARE PARTS SECTION

TUBE AND PIPE NOTCHER

Model. PNM-3

Order Code P094

EDITION No : PNM-3-1
DATE OF ISSUE : 06/2023

The following section covers the spare parts diagrams and lists that were current at the time this manual was originally printed. Due to continuous improvements of the machine, changes may be made at any time without notification.

HOW TO ORDER SPARE PARTS

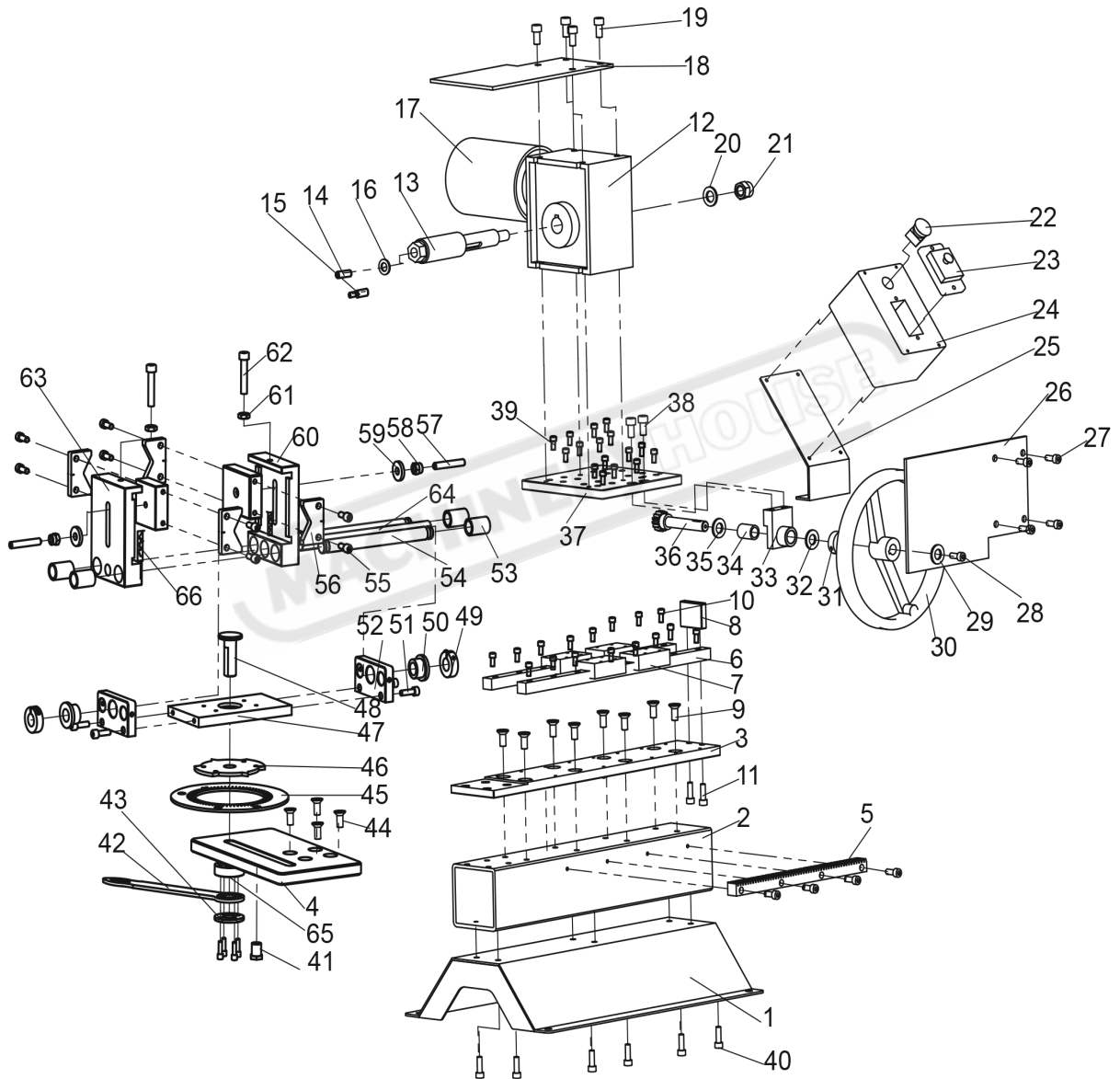
1. Have your machines model number, serial number & date of manufacture on hand, these can be found on the specification plate mounted on the machine
2. A scanned copy of your parts list/diagram with required spare part/s identified
3. Go to www.machineryhouse.com.au/contactus and fill out the enquiry form attaching a copy of scanned parts list.



WARNING

The machine is the sole responsibility of the owner for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training, proper inspection and maintenance, manual availability and comprehension. The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.

SPARE PARTS DIAGRAM



SPARE PARTS LIST

Item	DESCRIPTION	Qty	Item	DESCRIPTION	Qty
1	Stand	1	34	Sleeve Bushing	1
2	Main Tube	1	35	Washer	1
3	Track Mount	1	36	Gear	1
4	Slide Plate	1	37	Motor Base	1
5	Gear Rack	1	38	Screw	2
6	Linear Guide rail	2	39	Screw	16
7	Slide Block	4	40	Screw	6
8	Stop Block	1	41	Lock Screw	1
9	Screw	8	42	Lock Lever	1
10	Screw	16	43	Lock Cap	1
11	Screw	2	44	Screw	4
12	Gearbox	1	45	Degree Dial	1
13	Saw Arbor	1	46	Pointer Disc	1
14	Adapter,Standard 5/8-18	1	47	Vice Base	1
15	Adapter,Reducer 5/8-18 to 1/2-20	1	48	Vice Lock Stud	1
16	Washer	1	49	Collar	2
17	Motor	1	50	Flanged Sleeve Bushing	2
18	Lexan Guard	1	51	Screw	4
19	Screw	4	52	Vice Shaft Support	2
20	Washer	1	53	Sleeve Bushing	4
21	Nut	1	54	Vice Slide Shaft	2
22	Emergency Stop	1	55	Screw	8
23	Power Switch	1	56	Vice Jaw	4
24	Control Box	1	57	Screw	2
25	Switch Base	1	58	Nut	2
26	Lexan Guard	1	59	Washer	2
27	Screw	4	60	Vice Slide Block (L.H.)	1
28	Screw	1	61	Nut	2
29	Washer	1	62	Screw	2
30	Handwheel	1	63	Vice Slide Block (R.H.)	1
31	Collar	1	64	Double Vise Screw	1
32	Washer	1	65	Vice Lock Nut	1
33	Shaft Mount	1	66	Spring	2

NOTE: SOME INDIVIDUAL PARTS MAY ONLY BE AVAILABLE AS AN ASSEMBLY

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

Pipe/Tube Notcher-Electric Safety Instructions

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

- 1. Maintenance.** Make sure the Pipe/Tube Notcher 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. Pipe/Tube Notcher Condition.** Pipe/Tube Notcher must be maintained for a proper working condition. Never operate a Pipe/Tube Notcher that has damaged or worn parts. Scheduled routine maintenance should be performed on a scheduled basis.
- 3. Leaving a Pipe/Tube Notcher Unattended.** Always turn the Pipe/Tube Notcher off and make sure all moving parts have come to a complete stop before leaving the Pipe/Tube Notcher. Do not leave Pipe/Tube Notcher running unattended for any reason.
- 4. Avoiding Entanglement.** Remove loose clothing, belts, or jewelry items. Never wear gloves while machine is in operation. Tie up long hair and use the correct hair nets to avoid any entanglement with the Pipe/Tube Notcher spindle or moving parts.
- 5. Adjusting spanner safety.** Always check and remove all adjusting spanners and service tools immediately before & after use as this can cause serious injury.
- 6. Understand the machines controls.** Make sure you understand the use and operation of all controls.
- 7. Tooling selection & holding.** Always use the correct cutting tool for the job you are Notching. Make sure it is sharp and held firmly in place.
- 8. Cutting Tool inspection.** Inspect cutting tool bit for sharpness, chips, or cracks before use. Replace any cutting tools immediately if dull, chipped or cracked. Handle new cutting tools with care. Cutting edges are very sharp and can cause lacerations.
- 9. Stopping the spindle.** Do not slow or stop the spindle by using your hand.
- 10. Speed selection.** Select the appropriate speed for the type of work, material, and tool bit. Allow the Pipe/Tube Notcher to reach full speed before beginning to notch.
- 11. Secure Material.** During the notching process, the workpiece must always be secured in the work holding vice.
- 12. Guards.** Do not operate Pipe/Tube Notcher without the correct guards in place.
- 13. Clearing chips.** Always use a brush to clear chips. Never clear chips when the Pipe/Tube Notcher is running.
- 14. Hand Hazard.** Keep hands and fingers clear from moving parts. Serious injury will occur if hand or finger tips come between workpiece and notching area.
- 15. Work area hazards.** Keep the area around the Pipe/Tube Notcher clean from oil, tools, objects & swarf. Pay attention to other persons in the area and know what is going on around the area to ensure unintended accidents.
- 16. Switching.** Always turn the Pipe/Tube Notcher off and make sure all moving parts have come to a complete stop before leaving. Do not leave running unattended for any reason.
- 17. Power outage.** In the event of a power failure during use of the Pipe/Tube Notcher, turn off all switches to avoid possible sudden start up once power is restored.
- 18. Glasses.** Always wear approved safety glasses when using this machine.
- 19. Authorized and trained personnel.** The machine must be operated by authorized and trained personnel.
- 20. Keep Children Away.** Children must never be allowed in the work area.
- 21. 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

Pipe/Tube Notcher - Electric

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	HIGH	Eliminate, avoid loose clothing / Long hair etc.
B	CRUSHING	LOW	Secure & support work material on Notcher. Use machine on solid level working surface.
C	CUTTING, STABBING, PUNCTURING	MEDIUM	Make sure all guard are secured shut when machine is on. Do not adjust or clean machine until the machine has fully stopped. Isolate power to machine prior to any checks or maintenance being carried out. Do not place hands or fingers inside moving parts of notcher.
D	SHEARING	MEDIUM	Make sure all guard are secured shut when machine is on. Do not place hands or fingers inside moving parts of notcher.
F	STRIKING	LOW	Ensure work material and cutter are securely fastened before use. Wear safety glasses. Stand clear of moving parts on machine. Remove all loose objects around moving parts. Ensure work hold table is correctly adjusted before use.
H	ELECTRICAL	MEDIUM	All electrical enclosures should only be opened with a tool that is not to be kept with the machine.
M	HIGH TEMPERATURE	LOW	Wear appropriate clothing to prevent hot swarf.
O	OTHER HAZARDS, NOISE	LOW	Wear hearing protection as required.
Plant Safety Program to be read in conjunction with manufactures instructions			



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Authorised and signed by: _____
 Safety officer: _____
 Manager: 

Revised Date: 25th January 2019