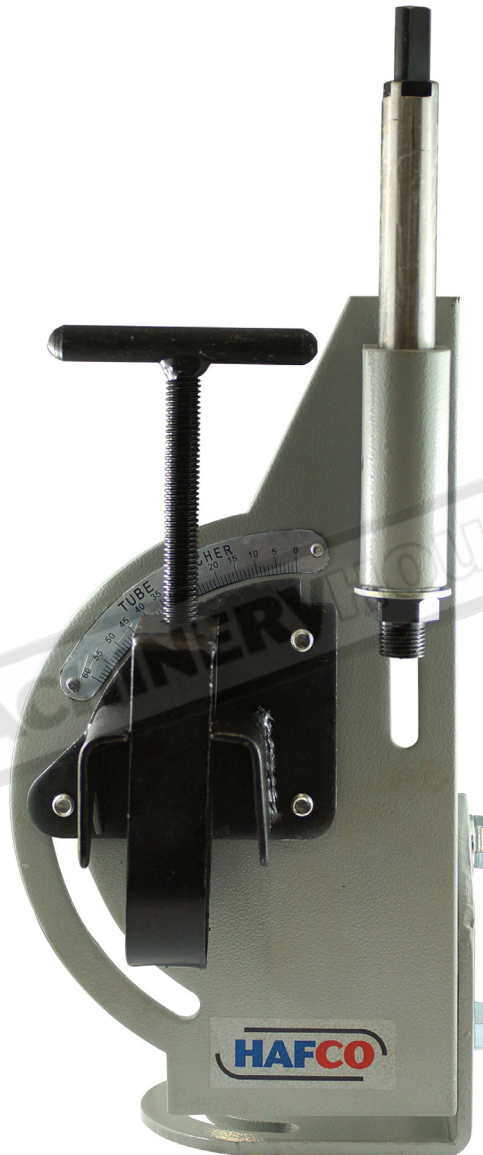


**HAFCO**

# OPERATION MANUAL



## PIPE/TUBE NOTCHER(STEEL)

Model. PN1/2-2"

Order Code P090

*Edition No* : PN1/2-2"-1

*Date of Issue* : 12/2020

[www.machineryhouse.com.au](http://www.machineryhouse.com.au)

## OPERATION MANUAL

### MACHINE DETAILS

**MACHINE**

PIPE & TUBE NOTCHER (STEEL)

**MODEL NO.**

PN1/2-2"

**SERIAL NO.**

**DATE OF MANF.**

DISTRIBUTED BY



[www.machineryhouse.com.au](http://www.machineryhouse.com.au)

[www.machineryhouse.co.nz](http://www.machineryhouse.co.nz)

**NOTE:**

This manual is only for your reference. Owing to the continuous improvement of the HAFCO machines, changes may be made at any time without obligation or notice. Read the manual before using this product. Failure to do so can result in serious injury. Save the manual in a safe place for reference and instruction for other operators.



**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)

MODEL:

SER NO:

MFG DATE:

CAPACITY:

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Made in China

FIG.1

## OPERATION MANUAL

### SPECIFICATION

Order Code	S090
<b>MODEL</b>	<b>PN1/2-2"</b>
Machine (Type)	Pipe & Tube Notcher
Notching Cutter (Type)	Hole Saw (Optional)
Tube Capacity (OD) - Mild Steel (mm)	Ø19.05 ~ Ø50.8
Pipe Capacity (NB) - Mild Steel (Inch / mm)	Ø1-1/2"
Angle Adjustment (degree)	0 ~ 45
Clearance Between Chuck and Table (mm)	356
Hole Saw Mounting Thread (Inch)	1/2" x 20tpi, 5/8" x 18tpi
Dimensions (L x W x H) (mm)	360 x 189 x 180
Weight (kg)	4.6

### SAVE THIS MANUAL

You will need this manual for the safety warnings and precautions, assembly instructions, operating and maintenance procedures, parts list and diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep the manual and invoice in a safe and dry place for future reference.

### SAFETY WARNINGS AND PRECAUTIONS

**WARNING:** When using this tool, basic safety precautions should always be followed to reduce the risk of personal injury and damage.

**Read all instructions before using this tool!**

1. **Keep the work area clean.** Remove any slip or trip items in the work area.
2. **Observe work area conditions.** Do not use machines or power tools in damp or wet locations. Don't expose to rain. Keep work area well lite. Do not use electric powered tools in the presence of flammable gases or liquids.
3. **Keep children away.** Children must never be allowed in the work area. Do not let them handle the machines, tools, or extension cords.
4. **Store idle equipment.** When not in use, tools must be stored in a dry location and coated with light oil to prevent rust. Always lock up tools and keep them out of reach of children.
5. **Do not force the tool.** It will do the job better and more safely at the rate for which it was intended. Do not use inappropriate attachments in an attempt to exceed the tool capacity.
6. **Use the right tool for the job.** Do not attempt to force a small tool or attachment to do the work of a larger industrial tool. Do not modify this tool and do not use this tool for a purpose for which it was not intended.

## OPERATION MANUAL

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7. **Dress properly.** Do not wear loose clothing or jewelry as they can be caught in moving parts. Protective, non-conductive clothes and non-skid footwear are recommended when working. Wear restrictive hair covering to contain long hair.
8. **Use eye and ear protection.** Always wear ANSI approved impact safety goggles. Wear a full face shield if you are producing metal filings or wood chips. Wear an ANSI approved dust mask or respirator when working around metal, wood, and chemical dusts and mists.
9. **Do not overreach.** Keep proper footing and balance at all times. Do not reach over or across running machines. Keep hands and fingers clear of moving parts when operating.
10. **Maintain tools with care.** Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and, if damaged, have them repaired by an authorized technician. Handles must be kept clean, dry, and free from oil and grease at all times.
11. **Remove adjusting keys and wrenches.** Check that keys and adjusting wrenches are removed from the tool or machine work surface before plugging it in.
12. **Stay alert.** Watch what you are doing, use common sense. Do not operate any tool when you are tired.
13. **Check for damaged parts.** Before using any tool, any part that appears damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment and binding of moving parts; any broken parts or mounting fixtures; and any other condition that may affect proper operation. Any part that is damaged should be properly repaired or replaced by a qualified technician. Do not use the tool if any switch does not turn on and off properly.
14. **Replacement parts and accessories.** When servicing, use only identical replacement parts. Use of any other parts will void the warranty. Only use accessories intended for use with this tool.
15. **Do not operate tool** if under the influence of alcohol or drugs. Read warning labels if taking prescription medicine to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not operate the tool.
16. **Maintenance.** For your safety, service and maintenance should be performed regularly by a qualified technician.
17. **Workpiece may be sharp.** After bending or cutting workpieces use caution. Be aware of sharp edges or sharp shreds of metal that may be created. Use heavy duty gloves when handling the workpiece.

***NOTE: The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.***

## OPERATION MANUAL

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### FEATURES

1. This precision Pipe/Tube Notcher is a useful fixture for your drill press, allowing you to make round cuts in pipes and tubing of various shapes at any angle from 0° to 45° .
2. Sturdy and durable steel frame holds your workpieces rigid during operation.
3. Adjustable Angle Joint Plate (17#) is adaptable to any worktable, and is especially suited to be mounted on a drill press.
4. The Adjustable Angle Joint Plate (17#) may be swiveled and rotated, which in conjunction with the adjustable holder makes cutting compound angles very easy.
5. Works with any standard drill press, and is adaptable to use a large variety of round cutters, hole saws, and milling bits.

**WARNING:** *When using this Pipe/Tube Notcher with any powered tool, observe all safety precautions relevant to that equipment. Refer to the owner's manual of the power equipment for safe practices in the use of attachments.*

### UNPACKING

This machine was carefully packaged for safe transport. When unpacking, separate all enclosed items from packaging materials and inspect them for shipping damage. If items are damaged, please contact your distributor.

**NOTE:** *Save all the packaging materials until you are completely satisfied with the machine and have resolved any issues with the distributor, or the shipping agent.*

### ASSEMBLY

1. The Spindle (7#) is shipped in the reverse position. Remove it and re-insert it in the correct position prior to using the tool.
2. Your Pipe/Tube Notcher must be mounted to your drill press table, using the adjustable angle joint plate (17#) Depending on the configuration of your drill press table, you may use T-bolts, carriage bolts, or machine bolts, washers and nuts. (Hardware not supplied.)
3. After mounting, be sure that the Spindle (7#) travels smoothly without binding against the Bushings (5#). Any undue friction will cause excessive wear of the Bushings (5#).
4. The angle of the Pipe/Tube Notcher can be adjusted by loosening the Bolts (16#) that adjust the Adjustable Angle Joint Plate (17#), and moving the Assembly as necessary.
5. For side to side adjustments, adjust the Bolts (15#) that hold the Adjustable Angle Joint Plate (17#) to the Body (13#).
6. When installing the hole saw, check first to see if its arbor is 1/2" or 5/8". The thread on the spindle is for 1/2", however, there is a Hole Saw Adapter (3#) for 5/8" thread that can be screwed on over the 1/2" thread. You may need to use the Hole Saw Adapter Washer (4#) to assure a good, secure fit.
7. To install a saw blade or bit, first fix the Spindle (7#) in place with the Locking Pin (14#). Do not use locking pliers or clamps to hold the Spindle (7#), as this will cause damage. Slide the Locking Pin (14#) through the hole in the side of the Spindle Support (6#) and through the Spindle (7#). Install the blade, then remove the Locking Pin (14#).

**WARNING:** *Make sure the Locking Pin (14#) is removed prior to engaging the drill.*

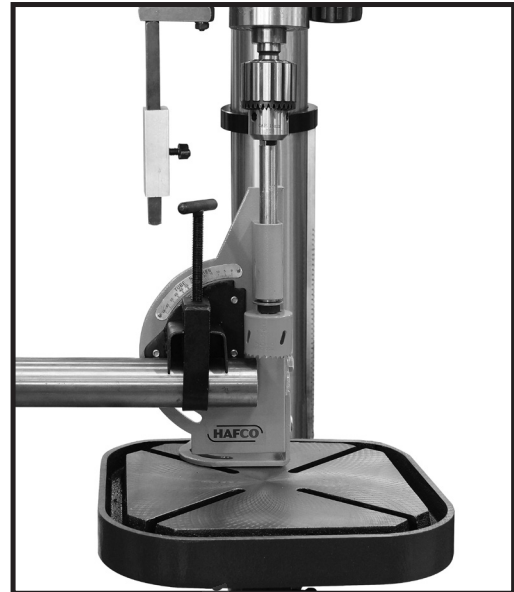
## OPERATION MANUAL

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### OPERATION

1. Insert the tubing you wish to cut in the Clamp Assembly (1#), underneath the inverted "V". The inverted "V" feature of the clamp will hold your tubing (up to 2" long) in place. Do not insert the tubing more than half of its length. When cutting in severe angles, only insert the tubing far enough to start the cut. Secure the tubing in place using the Handle Clamp Screw Assembly (2#).
2. Set the speed of your drill press to approximately 500 rpm for most materials. When cutting thin wall, hard alloy tubing such as chrome-molly, higher speeds will be required. When cutting softer, coarser materials, use slower speeds.

**NOTE: Practice on scrap material before making cuts on your work material.**



3. As you work, lubricate the hole saw and bushings with cutting oil to extend service life.
4. When doing severe angle cuts with large diameter tubing, you will need to put the Spindle Support (6#) in its uppermost position in order to accommodate its size. However, you should always position the Spindle Support (6#) as low as possible to preserve accuracy. To move the Spindle Support (6#), simply loosen the two Bolts (16#) that affix it to the Body (13#) reposition and secure the Bolts (16#).
5. To adjust the angle of the clamp, loosen the Bolts (15#) that secure it to the Body (13#), proceed to the desired angle on the Angle Indicator (10#), and re tighten the Bolts (15#).
6. When the tube is clamped in the Pipe/Tube Notcher and the angle is properly set, you can proceed to cut the workpiece.
7. To remove the blade or bit, shut off the drill press, insert the locking pin (14#) into the spindle support(6#), and remove the bit.

### MAINTENANCE

1. Please observe good shop practices for your safety and to extend the work life of your tools.
2. Periodically brush away cuttings and debris from the Pipe/Tube Notcher, especially the bushings and spindle area to avoid scoring or binding these components.
3. Use a suitable light grease on the bushings to prevent overheating and wear.
4. When cutting metal tubes, use plenty of cutting fluid to prevent tool or material overheating, and to remove cuttings from the work area.
5. Be sure to carefully align the drill press spindle and the Pipe/Tube Notcher spindle to prevent binding.
6. After use, clean the Pipe/Tube Notcher, and apply a light lubrication to all moving parts and unpainted metal to prevent rust.
7. Leave the Locking Pin (14#) in place in the Spindle Support (16#) when moving or storing this fixture.
8. Store the Pipe/Tube Notcher covered and in a dry, dust free place.
9. Help avoid injury by preventing access to this tool by unauthorized persons and children.

# **SPARE PARTS SECTION**

## **PIPE/TUBE NOTCHER(STEEL)**

### **Model. PN1/2-2"**

Order Code P090

*Edition No : PN1/2-2"-1*

*Date of Issue : 12/2020*

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.

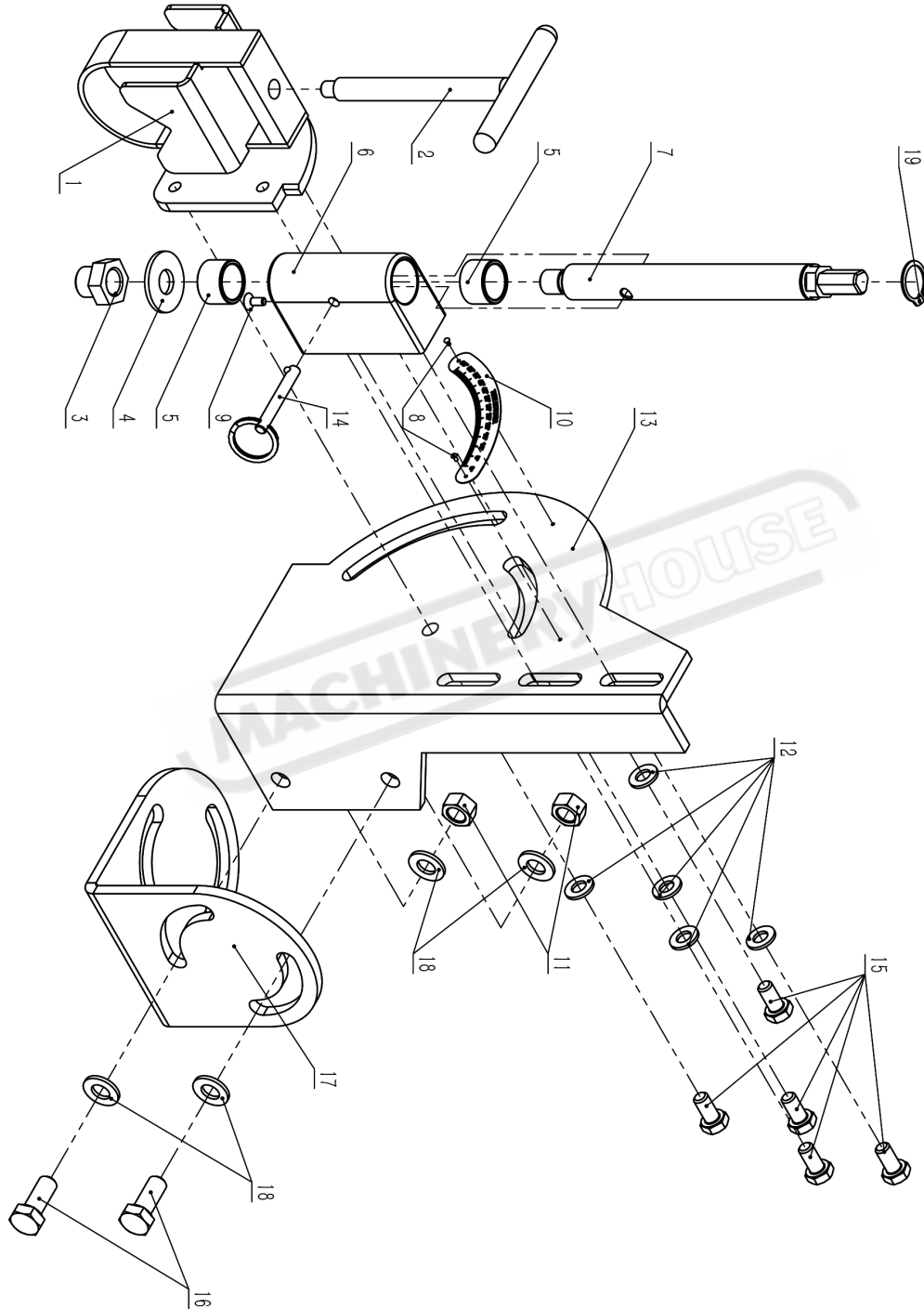
**NOTE: SOME PARTS MAY ONLY BE AVAILABLE AS AN ASSEMBLY**

3. Go to [www.machineryhouse.com.au/contactus](http://www.machineryhouse.com.au/contactus) and fill out the inquiry form attaching a copy of scanned parts list.

#### **PLEASE READ THE FOLLOWING CAREFULLY**

*The manufacturer and distributor have provided the parts diagram in this manual as a reference tool only. The manufacturer and distributor expressly state that all repairs and parts replacement must be undertaken by a qualified service technician and not by the buyer. The buyer assumes all risk and liability arising from repairs and parts carried out by the buyer. The manufacturer or the distributor reserve the right to void warranty of the product if non standard parts have been used or repairs carried out incorrectly.*

**SPARE PARTS DIAGRAM**





**OPERATION MANUAL****PARTS LIST**

ITEM	DESCRIPTION	QTY.	ITEM	DESCRIPTION	QTY.
1	CLAMP ASSEMBLY	1	11	NUT M10	2
2	HANDLE/CLAMP SCREW ASS.	1	12	WASHER M8	5
3	HOLE SAW ADAPTER	1	13	BODY	1
4	HOLE SAW ADAPTER WASHER	1	14	LOCKING PIN	1
5	BUSHING	2	15	BOLT M8 X 16	5
6	SPINDLE SUPPORT	1	16	BOLT M10 X 25	2
7	SPINDLE	1	17	AJUSTABLE ANGLE JOINT PLATE	1
8	RIVET	2	18	WASHER M10	4
9	SCREW M4 X 10	1	19	C-RING 19MM	1
10	ANGLE INDICATOR	1			

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

MACHINERYHOUSE

# WARNING

## General Machinery Safety Instructions

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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

## Manual Pipe Notcher Safety Instructions

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

- 1. Maintenance.** Make all moving parts have come to a complete stop before any inspection, adjustment or maintenance is carried out.
- 2. Pipe Notcher Condition.** Pipe Notcher must be maintained for a proper working condition. Never operate a Pipe Notcher that has damaged or worn parts. Grease and oil maintenance should performed on a scheduled basis.
- 3. Hand Hazard.** Keep hands and fingers clear from moving parts. Serious injury will occur if hand or finger tips come between notcher cutting area.
- 4. Glasses.** Always wear approved safety glasses when using this machine.
- 5. Authorized and trained personnel.** The machine must be operated by authorized and trained personnel.
- 6. 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 shearing blades or moving parts.
- 7. Work area hazards.** Keep the area around the Pipe Notcher 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.
- 8. Secure Material.** During the notching process, the workpiece must be supported 90° to the Notcher.
- 9. Do not force tool.** It will so the job better and more safety at the rate for which it was intended. Do not use inappropriate attachments in an attempt to exceed the tool capacity.
- 10. Keep Children Away.** Children must never be allowed in the work area.
- 11. Secure machine.** Secure the Pipe Notcher by bolting to a solid working surface.
- 12. Call for help.** If at any time you experience difficulties, stop the machine and call you nearest branch service department for help.

# PLANT SAFETY PROGRAM

## **NEW MACHINERY HAZARD IDENTIFICATION, ASSESSMENT & CONTROL**

### **Manual Pipe Notcher**

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	LOW	Eliminate, avoid loose clothing / Long hair etc.
B	CRUSHING	LOW	Secure & support work material on Notcher. Secure notcher by bolting to a solid working surface
C	CUTTING, STABBING, PUNCTURING	MEDIUM	Remove handle prior to any checks or maintenance being carried out. Do not adjust or clean machine until the machine has fully stopped and remove handle Do not place hands or fingers inside moving parts of notcher
D	SHEARING	MEDIUM	Remove handle prior to any checks or maintenance being carried out. Do not place hands or fingers inside moving parts of notcher
F	STRIKING	LOW	Ensure work material is secure when in operation Wear safety glasses. Stand clear of moving parts on machine. Remove all loose objects around moving parts.
O	OTHER HAZARDS, NOISE.	LOW	



Plant Safety Program to be read in conjunction with manufactures instructions



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Authorised and signed by:  
Safety officer:   
Manager: 

Revised Date: 12th March 2012