



HS1000 Hole Saw Tube & Pipe Notcher

Operation and Parts Manual



Serial no. _____



M-HS1000 Edition 2 07-2018
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1.0 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 the warnings posted on the machine and in this manual. Failure to comply with all of these warnings may cause serious injury.
3. Replace warning labels if they become obscured or removed.
4. This Hole Saw 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 hole saw notcher for other than its intended use. If used for other purposes, Edwards 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 shall be impact resistant, protective safety glasses with side shields which comply with ANSI Z87.1 specifications. Use of eye wear which does not comply with ANSI Z87.1 specifications could result in severe injury from breakage of eye protection. (Everyday eyeglasses only have impact resistant lenses; they are NOT safety glasses.)
7. Wear protective footwear, such as steel-toed 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, other jewelry, and roll sleeves up past the elbows. 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 a tool or attachment to do a job that it was not designed to do.
15. Make certain the switch is in the **OFF** position before connecting the machine to the power supply.
16. Give your work undivided attention. Looking around, carrying on a conversation 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 padlocks, master switches or by removing starter keys.
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 Edwards factory authorized replacement parts and accessories; otherwise, the warranty and guarantee are null and void.
26. Don't use in dangerous environment. Don't use power tools in damp or wet location, or expose them to rain. 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 vise.

29. Use proper extension cord. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table 2 (sect. 8.2) shows correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.

 **WARNING:** This product can expose you to chemicals including Methyl Isobutyl Ketone which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <http://www.p65warnings.ca.gov>.

 **WARNING:** Some dust, fumes and gases created by power sanding, sawing, grinding, drilling, welding and other construction activities contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead based paint
- crystalline silica from bricks, cement and other masonry products
- arsenic and chromium from chemically treated lumber

Your risk of exposure varies, depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area and work with approved safety equipment, such as dust masks that are specifically designed to filter out microscopic particles. For more information go to <http://www.p65warnings.ca.gov/> and [http://www.p65warnings.ca.gov/ wood](http://www.p65warnings.ca.gov/wood).

--- SAVE THESE INSTRUCTIONS ---

2.0 Safety label identification



Figure 2-1

3.0 Table of contents

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4.0 About this manual

This manual is provided by Edwards Manufacturing Co. covering the safe operation and maintenance procedures for an Edwards Hole Saw Pipe and Tube Notcher. This manual contains instructions on installation, safety precautions, general operating procedures, maintenance instructions and parts breakdown. Your machine has been designed and constructed to provide consistent, long-term operation if used in accordance with the instructions set forth in this document.

If there are questions or comments, please contact your local supplier or Edwards. Edwards can also be reached at our web site: www.edwardsironworkers.com.

Retain this manual for future reference. If the machine transfers ownership, the manual should accompany it.

All rights reserved. Reproduction of this manual in any form, in whole or in part, is not permitted without the written consent of Edwards Manufacturing Company.

 **WARNING Read and understand the entire contents of this manual before attempting assembly or operation. Failure to comply may cause serious injury.**

Register your product using the mail-in card provided, or register online:

<http://www.edwardsironworkers.com/warranty.aspx>

5.0 Specifications

Table 1

| | |
|---|--|
| Stock number | HS1000 |
| Motor and Electricals | |
| Motor type | Totally enclosed, fan cooled, AC induction |
| Horsepower | 3/4 HP (0.6 kW) |
| Motor phase | 1 PH |
| Motor voltage | 115 V |
| Cycle | 60 Hz |
| Listed FLA (full load amps) | 7/3.4 |
| Motor speed | 1750 RPM |
| Power transfer | Geared reduction (1:7.5) |
| On/off switch | Paddle style, with removable safety key |
| Power cord and plug | SJTW 14AWG x 3C; 8 ft. cord; NEMA 5-15P |
| Recommended circuit size ¹ | 15 A |
| Capacities and speeds | |
| SCH 40 Pipe notching capacity | 3/8 to 2-1/2 in. |
| Tube notching capacity | 3/4 to 3 in. O.D. |
| Notching angle | 0 to 360 deg. (all notching angles achievable) |
| Offset notching range | 3/4 in. (off center) |
| Vise capacity – O.D. | 5/8 – 3 in. |
| Vise travel and positioning | 14 in. lateral movement across table; 360° rotation; |
| Hole saw arbor speed | 230 RPM |
| Arbor thread type (with adaptor) | 5/8"-18 UNF (1/2"-20UNF) |
| Main materials | |
| Base | Sheet metal |
| Table | Steel, ground and polished |
| Gearbox | Steel |
| Guide rails | Steel |
| Handwheel | Steel |
| General Dimensions | |
| Overall dimensions L x W x H (approx.) | 29.1 x 18.5 x 27.12 in. (739 x 470 x 689 mm) |
| Shipping dimensions L x W x H (approx.) | 29.5 x 27.25 x 18.5 in. (750 x 692 x 470 mm) |
| Base (Footprint) L x W | 20 x 15 in. (508 x 381 mm) |
| Weights | |
| Net weight (approx.) | 265 lbs. (120.2 kg) |
| Shipping weight (approx.) | 220 lbs. (100 kg) |

¹ subject to local/national electrical codes.

L = length, W = width, H = height, D = depth

The specifications in this manual were current at time of publication, but because of our policy of continuous improvement, Edwards reserves the right to change specifications at any time and without prior notice, without incurring obligations.

5.1 HS1000 mounting hole dimensions

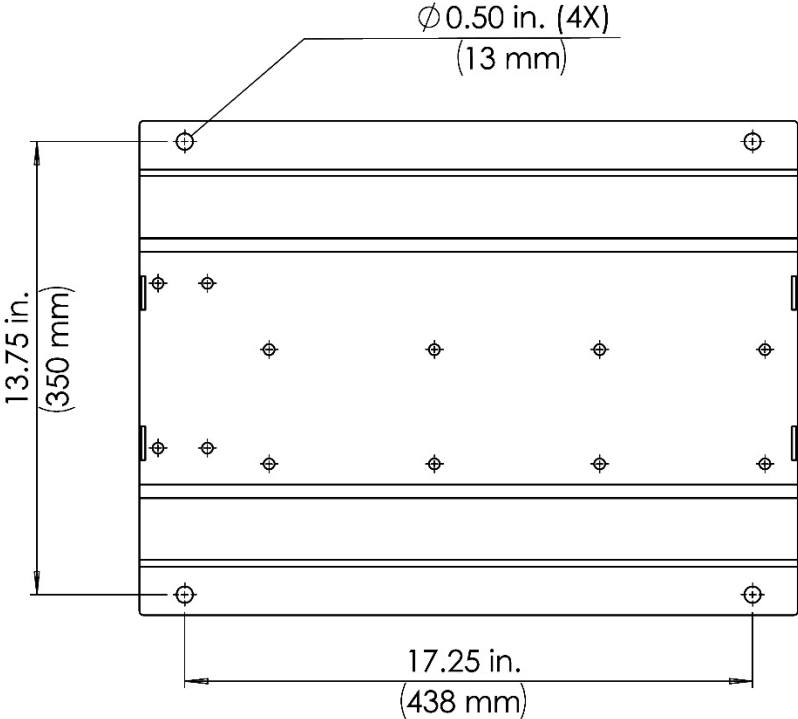


Figure 4-1

6.0 HS1000 Features

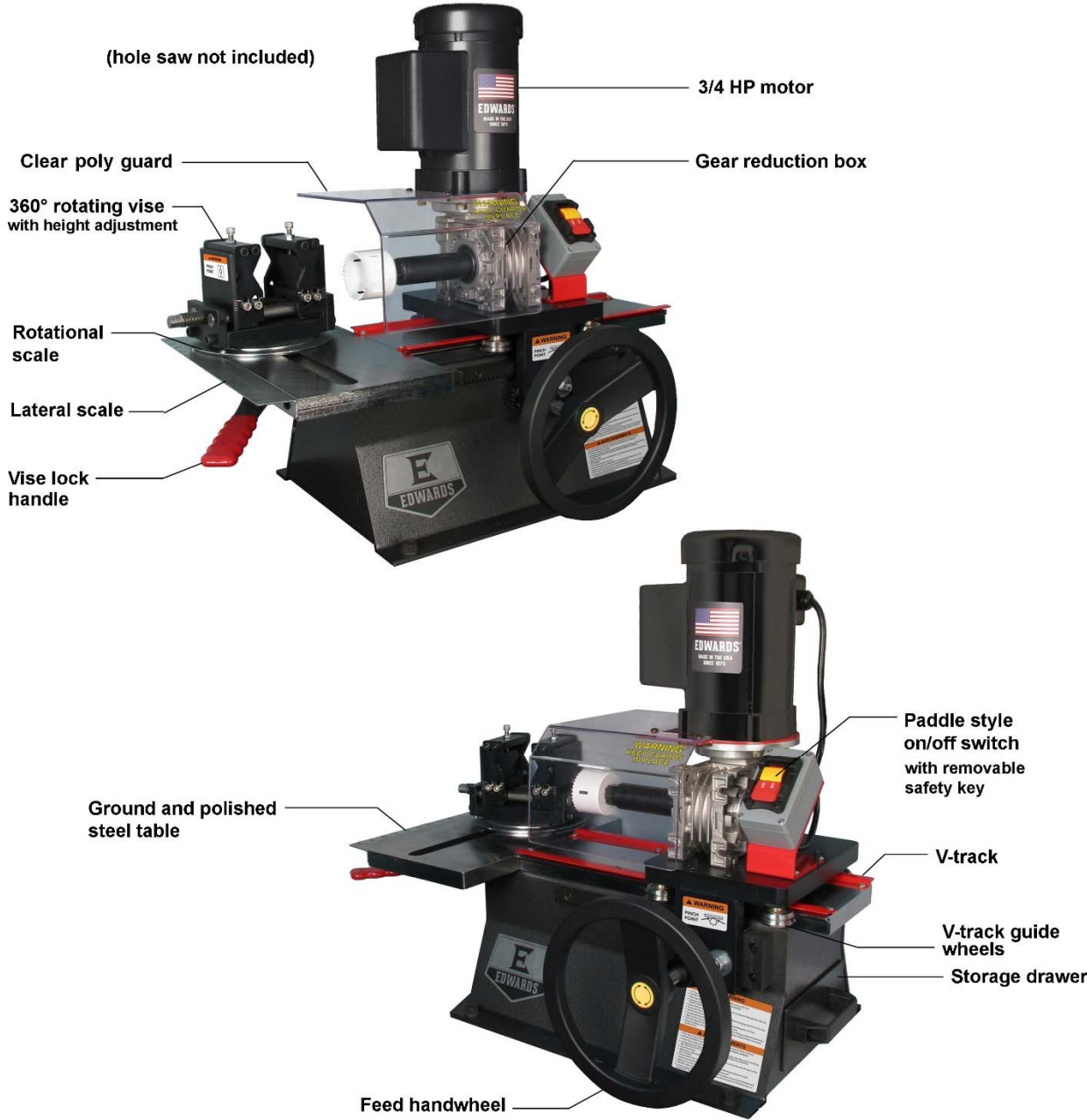


Figure 6-1

7.0 Setup and assembly

7.1 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 Hole Saw Notcher
- 1 Multi-wrench
- 1 Operation and Parts Manual
- 1 Product registration card

7.2 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.
2. The Notcher should be secured to a stand or workbench using fasteners (not provided) through the slots in 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 vise. Failure to comply may cause the machine to tip over, resulting in damage to machine and personal injury.

3. **IMPORTANT:** The gearbox platform has been fixed against the table for shipping purposes with a set screw at *each end* of platform. *Both* set screws must be backed off before operating. See Figure 7-1.



Figure 7-1

7.3 Installing/removing hole saw

Place wrench (not provided) on hex area to stabilize spindle, and thread hole saw clockwise onto spindle. Hand tightening is sufficient, as rotation will further snug it onto the threads.

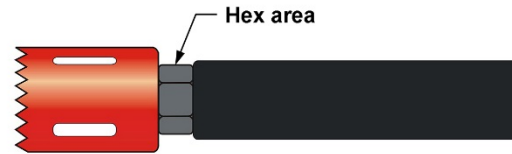


Figure 7-2

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.

8.0 Electrical connections

⚠WARNING Electrical connections must be made by a qualified electrician in compliance with all relevant codes. Failure to comply may cause serious or fatal injury.

The HS1000 Hole Saw Tube and Pipe Notcher is prewired for single phase, 115V power. It is provided with a plug designed for use on a circuit with a grounded outlet that looks like the one pictured in Figure 8-1.

Before connecting to power source, be sure switch is in OFF position.

It is recommended that the Notcher be connected to a dedicated 15 amp circuit with circuit breaker or fuse. If fuses are used, they should be time-delay fuse marked "D". **Local codes take precedence over recommendations.**

8.1 GROUNDING INSTRUCTIONS

1. All Grounded, Cord-connected Tools:

This machine must be grounded. In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided - if it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

⚠ WARNING Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded. Failure to comply may cause serious or fatal injury.

Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug.

Repair or replace damaged or worn cord immediately.

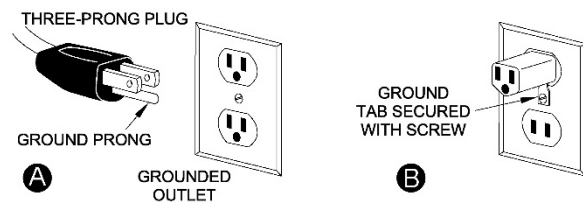


Figure 8-1

2. Grounded, cord-connected tools intended for use on a supply circuit having a nominal rating **less than 150 volts**:

This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in **A**, Figure 8-1. A temporary adaptor that looks like the adaptor illustrated in **B** may be used to connect this plug to a 2-pole receptacle as shown in **B** if a properly grounded outlet is not available. The temporary adaptor should be used only until a properly grounded outlet (**A**) can be installed by a qualified electrician. The green colored rigid ear, lug, or the like extending from the adaptor must be connected to a permanent ground such as a properly grounded outlet box cover. Whenever the adaptor is used, it must be held in place by a metal screw.

In Canada, the use of a temporary adaptor is not permitted by the Canadian Electrical Code, C22.1.

8.2 Extension cords

The use of extension cords is discouraged. Try to position machines within reach of the power source. If an extension cord must be used, make sure it is heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table 3 shows correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

| Amp Rating | | Volts | Total length of cord in feet | | | |
|------------|---------------|-------|------------------------------|-----|-----------------|-----|
| More Than | Not More Than | 120 | 25 | 50 | 100 | 150 |
| | | 240 | 50 | 100 | 200 | 300 |
| | | | AWG | | | |
| 0 | 6 | | 18 | 16 | 16 | 14 |
| 6 | 10 | | 18 | 16 | 14 | 12 |
| 10 | 12 | | 16 | 16 | 14 | 12 |
| 12 | 16 | | 14 | 12 | Not Recommended | |

Extension Cord Recommendations
Table 2

9.0 Adjustments

9.1 Vise movement

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

1. Move handle (A) to unlock, and slide vise laterally into position.
2. Rotate vise to desired angle on circular scale.
3. Position workpiece in vise and use provided multi-tool to close vise jaws. See Figure 9-1.
4. Tighten handle (A) before operating.

Vise can also be adjusted for height offset from spindle centerline:

1. Loosen 8 screws on face (B), loosen top hex nuts (C), and turn both top screws (D) equal amounts. Lines are inscribed on vise to assist in the setting.
4. Retighten nuts (C) and screws (B) after adjustments.

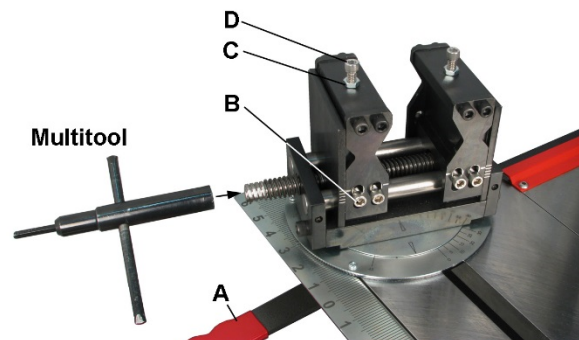


Figure 9-1

9.2 V-guide wheel adjustment

Slide travel should be smooth without binding or play. Also, loose v-guide wheels will result in excessive vibration during cuts. If adjustment is needed, adjust the two *front* v-guide wheels (near the handwheel), which are mounted on eccentric shafts.

1. Place a wrench on hexagonal bushing (E, Figure 9-2) to stabilize the shaft, and loosen bolt (F).
2. Turn hexagonal bushing as needed with the wrench to adjust wheel's tightness against v-track. Move slide back and forth to check the setting.

CAUTION Pinch point. Use caution when working around v-guide wheels and v-track.

3. Retighten bolt (F).

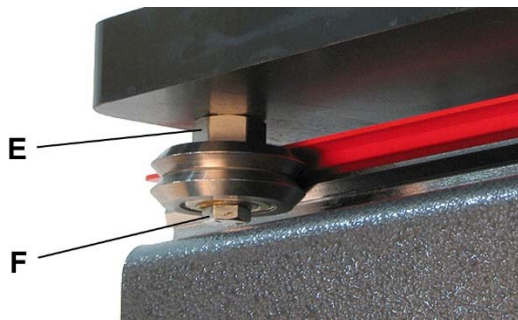


Figure 9-2

10.0 Operations

The Hole Saw Notcher is designed for 230 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 vise.

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.

10.1 On/off switch

Pull up switch to start; push down to stop.

Switch has removable yellow safety key to prevent unauthorized use (Figure 10-1). Move switch to OFF and pull out key; store key in a safe place, inaccessible to children. Key must be reinserted to start machine.

CAUTION If a power outage occurs during operation, the hole saw will resume operation once power is restored. For safety, if outage occurs immediately turn off switch.

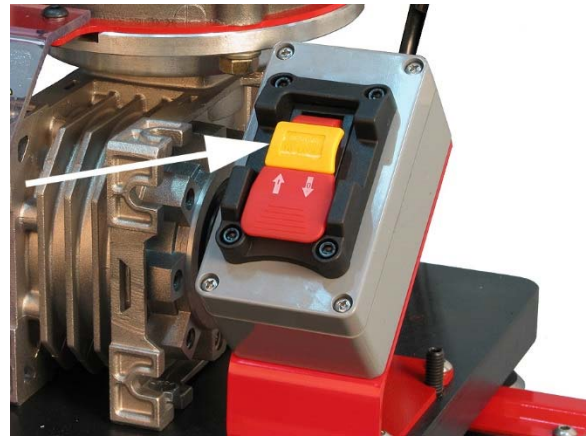


Figure 10-1

10.2 General procedure

The HS1000 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 that aftermarket devices are available to assist in quickly locating center lines and intersect points.

10.2.1 Single and double end notching

See Figure 10-2.

If one or both ends of tube will be notched:

1. Position workpiece against structure at the angle at which it will be welded. Measure the acute angle (a), which will also be the angle set on the vise scale. See Figure 10-2.

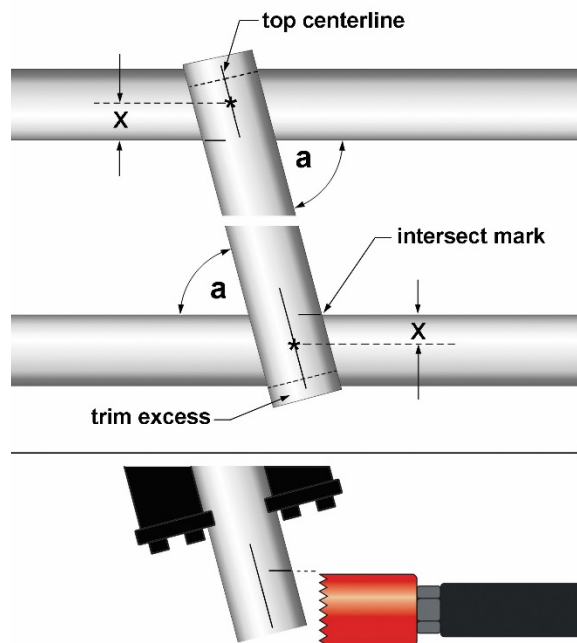


Figure 10-2: single or double end notch

- Determine top point and centerline, and mark these on tube (Figure 10-2).

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

- Mark the intersect point *opposite* the acute angle, as shown. This will be the line of entry for the hole saw.
- Calculate distance (x) from intersect to end of notch, as this will vary depending upon size and type of tube. Cut off excess at end of tube, leaving minimal amount for making the notch; this will speed cutting process and save wear on the hole saw.
- Rotate vise to desired angle of cut (a) on scale.
- Position tube in vise. If this is second notch at opposite tube end, make sure top centerline is in proper position.
- Use handwheel to bring hole saw forward to align edge of hole saw with intersect mark on tube. See Figure 10-2. When positioned, tighten tube securely in vise to prevent deflection during cut.
- Retract hole saw so that it does not contact tube.
- Turn on machine and use handwheel to slowly feed hole saw into tube. Experience will help user develop a feel for proper rate of feed depending on materials used.
- At larger angles, hole saw may “bottom out” before completing cut. If this occurs, turn off machine and retract hole saw. Break off residual piece of tube with a pliers, and reintroduce hole saw to workpiece to complete cut without further interference.
- Deburr the cut end using a sander/grinder.

10.2.2 Side/offset notch

Figure 10-3 shows examples of side notching. Determine cutting angle and mark intersect line on tube, then establish this angle on vise. If more than one cut will be made on tube, also define top and center line.

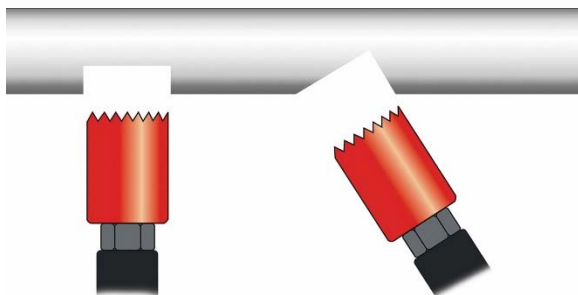


Figure 10-3: side/offset notches

10.2.3 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:

- Position workpiece against structure at angle at which it will be welded. Measure angles (a) to determine vise positions.
- Carefully identify top centerline, and mark it on tube. See Figure 10-4.
- Trim off excess tube, using appropriate calculations.
- Follow procedure in *sect. 10.2.1* to make each notch.

Note that further grinding or relieving may be necessary on notched tube if it will be fitted against protruding welds on structure.

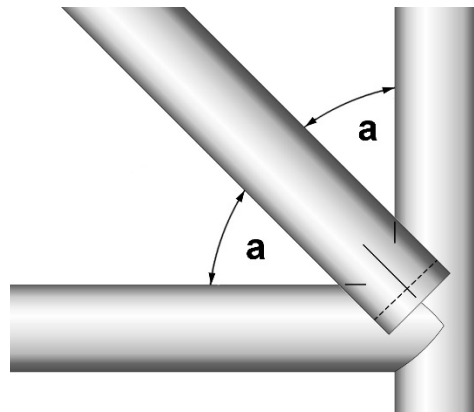


Figure 10-4: complex end notch

11.0 User-maintenance

⚠WARNING Always disconnect power to machine (unplug) before doing maintenance. Failure to comply may result in serious personal injury.

After each use, clean chips and shavings from machine, especially around sliding and contacting surfaces. **Use brush or vacuum, not bare hands.**

Apply a light coat of oil to exposed metal surfaces, such as table, spindles and threaded rods, to inhibit rust.

Bearings are sealed and do not require further attention.

The gearbox is pre-lubricated and sealed; oil changes are not required.

11.1 Additional servicing

Any additional servicing should be performed by authorized service personnel.

12.0 Troubleshooting HS1000 Hole Saw

Table 4

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

* **WARNING:** Some corrections may require a qualified electrician.

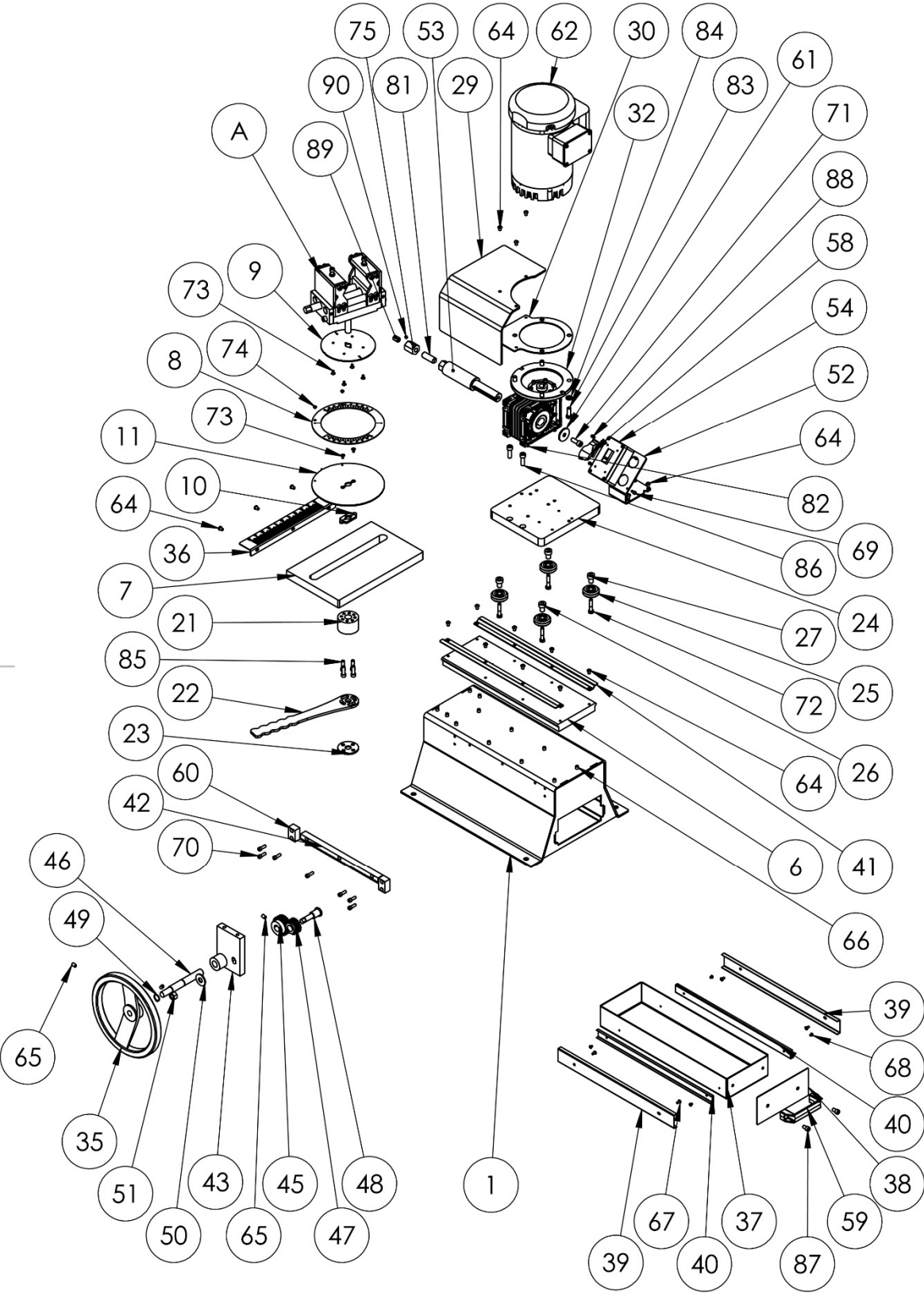
13.0 Replacement Parts

Replacement parts are listed on the following pages. To order parts or reach our service department, call 1-800-373-8206 Monday through Friday, 8:00 a.m. to 5:00 p.m. CST. Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately.

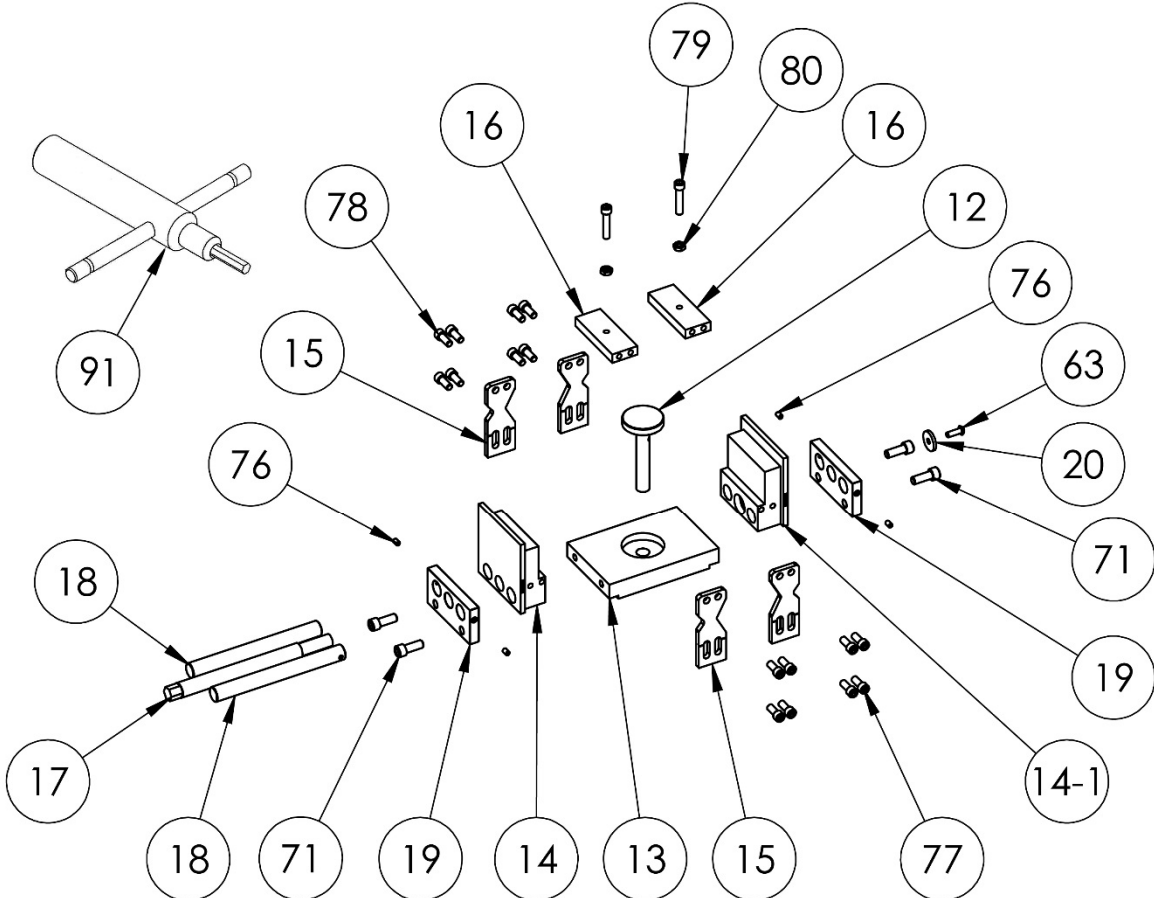
Non-proprietary parts, such as fasteners, can be found at local hardware stores, or may be ordered from Edwards Manufacturing Co.

Some parts are shown for reference only, and may not be available individually.

13.1.1 HS1000 Hole Saw Tube and Pipe Notcher – Exploded View



13.1.2 HS1000 Vise Assembly – Exploded View



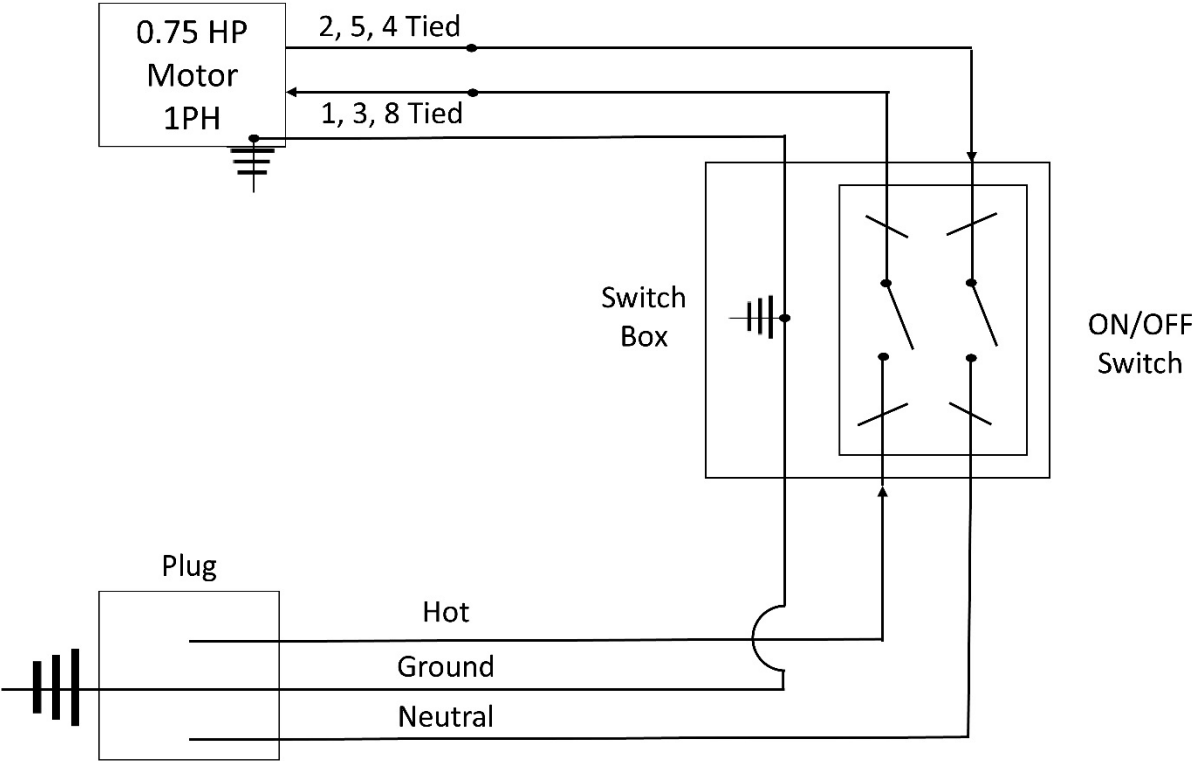
View A - Vise Breakdown

13.1.3 HS1000 Hole Saw Tube and Pipe Notcher – Parts List

| Index No | Part No | Description | Size | Qty |
|----------|------------|------------------------------|---------------------------------|-----|
| 1 | HS101 | Base Assembly | | 1 |
| 6 | HS102 | Mount Plate | | 1 |
| 7 | HS103 | Vise Mount | | 1 |
| 8 | HS104 | Degree Wheel | | 1 |
| 9 | HS105 | Degree Wheel Mount | | 1 |
| 10 | HS107 | Degree Mount Drive | | 1 |
| 11 | HS106 | Degree Mount Ring | | 1 |
| 12 | HS108 | Mount Stud | | 1 |
| N/A | 1164133 | Slotted Spring Pin | 3/16" x 1.00" | 1 |
| 13 | HS109 | Vise Base | | 1 |
| 14 | HS116 | Vise Block (Movable) | | 2 |
| 14-1 | HS116-1 | Vise Block (Fixed) | | 1 |
| 15 | HS117 | Vise Side | | 4 |
| 16 | HS118 | Vise Top Adjustment Block | | 2 |
| 17 | HS112 | Screw Adjustment | | 1 |
| 18 | HS111 | Vise Guide Slide | | 2 |
| 19 | HS110 | Vise Mount Side | | 2 |
| 20 | HS157 | Washer - Vise | | 1 |
| 21 | HS113 | Vise Mount Nut | | 1 |
| 22 | HS114 | Vise Mount Adjustment Handle | | 1 |
| 23 | HS115 | Vise Mount Washer | | 1 |
| 24 | HS119 | Gear Box Mount Plate | | 1 |
| 25 | HS147 | V-Guide Wheel | | 4 |
| 26 | HS146 | V-Guide Adjustable Bushing | | 2 |
| 27 | HS145 | V-Guide Fixed Bushing | | 2 |
| 29 | HS156 | Poly Guard | | 1 |
| 30 | HS140 | Guard Mount | | 1 |
| 32 | HS137 | Gearbox | | 1 |
| 35 | HS150 | Hand Wheel | | 1 |
| 36 | HS121 | Scale | | 1 |
| 37 | HS124 | Drawer | | 1 |
| 38 | HS125 | Drawer End | | 1 |
| 39 | HS144-1 | Drawer Slide | | 2 |
| 40 | HS144-2 | Drawer Slide Inner | | 2 |
| 41 | HS127 | Chip Guard | | 2 |
| 42 | HS135 | Gear Rack 12 Pitch | 3/4" x 3/4" 14.5 Deg. | 1 |
| 43 | HS133 | Wheel Mount Block + Bushing | | 1 |
| 45 | HS143 | Spur Gear | 24T 12 Pitch 14.5 Deg. | 1 |
| 46 | HS128 | Hand Wheel Shaft | | 1 |
| N/A | 1168014 | External Snap Ring | 11/16" | 1 |
| 47 | HS142 | Spur Gear | 18T 12 Pitch 14.5 Deg. | 1 |
| 48 | HS131 | Idler Shaft | | 1 |
| 49 | F005935 | C-Retaining Ring, Ext | 11/16" | 1 |
| 50 | 33012 | Flat Washer USS Z | 1/2" | 1 |
| 51 | F003130 | Hex Nut Black Oxide Finish | 1/2"-13 | 1 |
| 52 | HS132 | Switch Mount | | 1 |
| 53 | HS138 | Drive Shaft | | 1 |
| N/A | 12073 | Key | 7x8x2.5 mm | 1 |
| 54 | HS152 | Electrical Box | | 1 |
| 58 | HS153 | Electrical Switch | | 1 |
| 59 | HS151 | Handle Drawer | | 1 |
| 60 | HS154 | Rail Stop | | 2 |
| 61 | HS158 | Output Shaft Washer | | 1 |
| 62 | VEL11307 | Motor | 0.75HP, 1750RPM, 1PH, 60HZ, 56C | 1 |
| 63 | TS-0254041 | Socket Hd Button Screw | 1/4"-20 x 3/4" | 1 |
| 64 | TS-0255021 | Socket Hd Button Screw, Zinc | 1/4"-20 x 3/8" | 18 |
| 65 | TS-0270051 | Socket Set Screw CPP BO | 5/16"-18 x 1/2" | 3 |
| 66 | F004841 | Socket Head Cap Screw | 5/16"-24 x 1/2" | 12 |
| 67 | F009670 | Socket Hd Button Screw | #10-32 x 3/8" | 4 |

| Index No | Part No | Description | Size | Qty |
|----------|------------|---------------------------------------|------------------|-----|
| 68 | F009662 | Socket Hd Button Screw | #8-32 x 1/4" | 4 |
| 69 | F005677 | Socket Head Cap Screw, Zinc | #10-24 x 1/2" | 2 |
| 70 | TS-0207041 | Socket Head Cap Screw | 1/4"-20 x 3/4" | 7 |
| 71 | TS-0209051 | Socket Head Cap Screw | 3/8"-16 x 1" | 5 |
| 72 | TS-0051071 | Hex Bolt, Zinc, Grade 5 | 5/16"-18 x 1.50" | 4 |
| 73 | F010990 | Zinc Flat Socket Head | #10-24 x 3/8" | 6 |
| 74 | F001227 | Phillips Pan Hd Machine Screw | #8-32 x 1/8" | 2 |
| 75 | HS136 | Adaptor Blade Drive | | 1 |
| 76 | F010451 | Socket Set Screw CPP BO | #12-28 x 3/8" | 4 |
| 77 | F004847 | Socket Head Cap Screw, Zinc | 5/16"-18 x 3/4" | 8 |
| 78 | TS-0208041 | Socket Head Cap Screw | 5/16"-18 x 3/4" | 8 |
| 79 | F005676 | Socket Head Cap Screw, Zinc | 5/16"-18 x 1.5" | 2 |
| 80 | F012253 | Hex Jam Nut, Zinc | 5/16"-18 | 2 |
| 81 | F010452 | Socket Set Screw CPP BO | 5/8"-18 x 1-3/4" | 1 |
| 82 | F009713 | Socket Hd Button Screw, Zinc | 5/16"-18 x 5/8" | 4 |
| 83 | F006776 | Hex Cap Bolt, Zinc, Grade 5 | 3/8"-16 x 1.00" | 4 |
| 84 | F001912 | Split Lock Washer, Zinc | 3/8" | 4 |
| 85 | TS-0208061 | Socket Head Cap Screw | 5/16"-18 x 1" | 4 |
| 86 | F005674 | Socket Head Cap Screw | 3/8"-16 x 1-1/8" | 2 |
| 87 | TS-0208021 | Socket Head Cap Screw | 5/16"-18 x 1/2" | 2 |
| 88 | F005675 | Socket Head Cap Screw, Zinc | #8-32 X 3/8" | 4 |
| 89 | F010453 | Socket Set Screw CPP BO | 1/2"-20 x 3/4" | 1 |
| 90 | TS-0267021 | Socket Set Screw CPP BO | 1/4"-20 x 1/4" | 1 |
| 91 | HS155 | Vise Wrench | | 1 |
| | WACF-10704 | Liquid Tight Cord Grip (not shown) | | 3 |
| | WACF-10701 | Power Cord w/Plug (not shown) | 14/3 | 1 |
| | DE4010 | Decal – Pinch Point, Gear (not shown) | | 1 |
| | DE4011 | Decal – Pinch Point, Vise (not shown) | | 1 |
| | DE4012 | Warning Decal (not shown) | | 1 |

14.0 HS1000 electrical schematic



15.0 Warranty and service

Edwards Manufacturing Company® warrants every product it sells against manufacturers' defects. If one of our tools needs service or repair, please contact Technical Service by calling 1-800-373-8206, 8AM to 5PM CST, Monday through Friday.

Edwards Manufacturing Company will, within one (1) year of date of original purchase (proof of purchase required), replace F.O.B. the factory, any goods, excluding punches, dies and shear blades, which are defective in materials or workmanship provided that the buyer return the defective goods, freight pre-paid, to the seller, which shall be the buyer's sole and exclusive remedy for the defective goods. Hydraulic components are subject to their manufacturer's warranty.

Edwards Manufacturing Company will, within thirty (30) days of date of original purchase (proof of purchase required), replace F.O.B. the factory, any punches, dies and/or shear blades, which are defective in materials or workmanship.

This warranty does not apply to machines and/or components which have been altered, changed or modified in any way, or subjected to abusive and abnormal use, inadequate maintenance and lubrication, or subjected to use beyond seller recommended capacities and specifications. Edwards Manufacturing Company shall not be liable for labor costs expended on such goods or consequential damages. Edwards Manufacturing Company shall not be liable to the purchaser or any other person for loss, down-time, or damage directly or indirectly arising from the use of the goods or from any other cause. No officer, employee, or agent of Edwards Manufacturing Company is authorized to make any oral representations or warranty of fitness or to waive any of the foregoing terms and none shall be binding on Edwards Manufacturing Company.

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