HG4CU

4" Cup Wheel Hollow Grinder
Operator's Manual

Please read all instructions carefully before operating this machine. You are then ready to sharpen cutlery. Please be careful. This machine produces extremely sharp edges.

10/2016

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PRIMEdge®
COZZINI CUTTING EDGES
AND SHARPENING SOLUTIONS

Introduction Statement

"Hollow Grinding" a knife is an exact art. It is a job that should be performed by a person who has mechanical ability and good hand-eye coordination. It is not the type of job that can be done satisfactorily by everyone. The knife sharpener's skill is as valuable in producing high-yield finished products as is the skill of the person using knives on the production floor of a processing plant, in a supermarket, or in a restaurant kitchen.

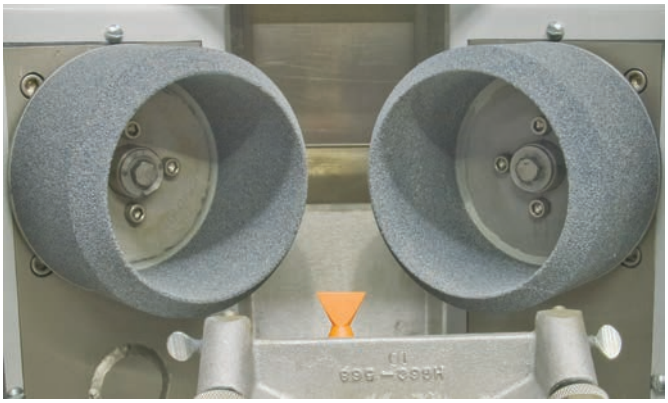

Fig. 1 Hollow grinder cup grinding wheels

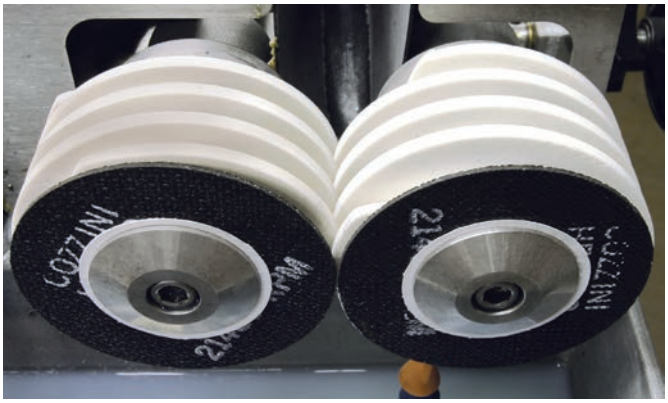

Fig. 2 Spiral grooved edge honer grinding wheels

In a central knife sharpening production line, the cup wheel hollow grinder (**fig. 1**) is the first machine used. Hollow grinding tapers a knife blade and thereby removes the required amount of metal that is essential in preparing the blade for the spiral wheels on the edging machine, which is the sharpening machine (**fig. 2**). The hollow grinder in plain language is a blade thinning or tapering machine.

The cup grinding wheels (**fig. 1**) create a smooth, even bevel on both sides of the blade simultaneously. Since normal wear is from the front of the wheels to the back during grinding and dressing, the cup wheels will automatically maintain their original diameter and thereby will grind a consistent bevel on the knife blade throughout the life of the wheels. Grinding is done under a flow of liquid coolant which aids in preventing scorched or burned knife blades.

A hollow-ground blade will cut with less resistance and drag because the excess material on the sides of the blade has been removed. There will be less strain on the hand, wrist, arm muscles and tendons when cutting with a sharp blade that has been hollow ground.

By following the machine operation and grinding procedures outlined in this manual, excellent results can be achieved. Keep this manual handy and in a safe place for quick reference.

Introduction Statement... *continued*

O.S.H.A.

As part of its obligation and commitment to each of its consumers, **PRIME**dge, Inc. has taken every step available to make the **HG4CU** Hollow Grinder as free as possible from any recognized hazards which may cause harm or injury to anyone who may operate this unit. At any time and for any reason this machine is being worked on, the main electrical disconnect switch should be in the "OFF" position and the proper O.S.H.A. lock out procedures should be followed. Every effort has been made to comply with the applicable sections of the occupational safety and health standards published by the department of Labor.

Warranty

It is the policy of **PRIME**dge, Inc. to warrant all parts manufactured by **PRIME**dge, Inc. for one year from date of shipment. All parts not manufactured by **PRIME**dge, Inc. are covered under vendor's manufacturing warranty. All warranties apply providing the product was operated under normal conditions specified by the procedures and maintenance guides illustrated in this manual. Failure to follow procedures and maintenance guides as specified in this manual will void product of all warranties.

*Use of non-**PRIME**dge, Inc.-manufactured components and use of unauthorized components voids all warranties and guarantees.*

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4,263,497

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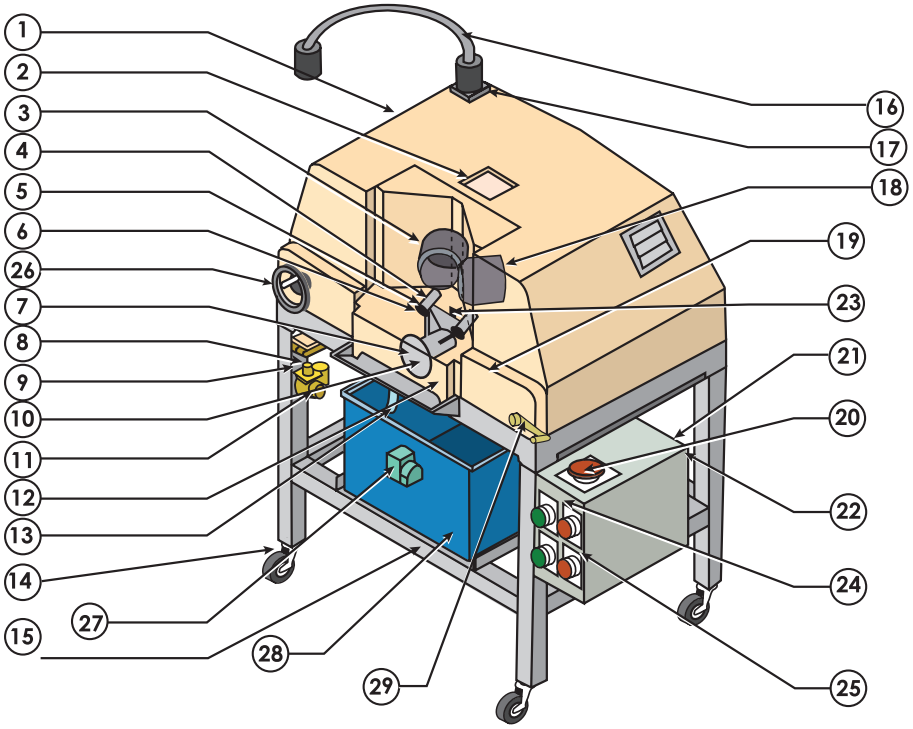
Installation

HG4CU 4" Cup Wheel Hollow Grinder Schematic



No.	Description
1.	Main Cover
2.	Plexiglass Window
3.	Cup Grinding Wheels
4.	Brass Thumb Screw
5.	Diamond Advance Screw
6.	Knurled Nut
7.	Dresser Advance Hand wheel
8.	Dresser Activator (optional)
9.	Air Pressure Regulator (optional)
10.	Dressing Assembly
11.	Air Pressure Gauge (optional)
12.	Access Door
13.	Coolant Flow Handle
14.	Casters (4)
15.	Base Frame

No.	Description
16.	Halogen Lamp
17.	Lamp Bracket
18.	Wheel Flange
19.	Safety Switch
20.	Starter Box
21.	Emergency Stop Button
22.	GFI Outlets
23.	Coolant Spray Nozzle
24.	On-Off Switch
25.	Coolant Pump Switch
26.	Grinding Stone Advance Hand wheel
27.	Coolant Pump
28.	Coolant Tank
29.	Manual Dresser Activator Lever

List Of Items Shipped For New Machine Installation

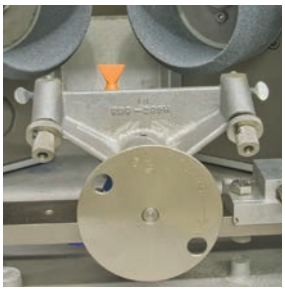
1. Hollow Grinder Machine
2. (1) Set of 4" Cup Wheels Mounted
3. (1) Set of Tools (Allen T Wrenches, 3/16", 1/4" and 5/16")
4. (1) Lamp Bulb
5. (1) Coolant Fluid Tank
6. (1) Coolant Pump
7. (1) Length Plastic Hose (48")
8. (1) Go-No-Go Blade Thickness Gauge
9. (1) Pr. Safety Glasses
10. (1) Coolant Pump Hanger
11. (1) Manual
12. (1) Replacement Parts List

Installation... *continued*

List Of Controls For 4" Cup Wheel Hollow Grinder

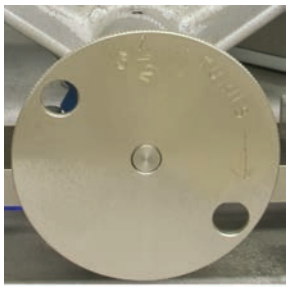
24. On-Off Switch:
This switch starts and stops the motor and the rotation of the grinding wheels. On the same control box is the Emergency Stop button, the control switch for the coolant pump, and the power outlets.

26. Grinding Stone Advance Hand Wheel:
Controls the movement of the grinding stones toward and away from each other. Turning the wheel to the right moves the stones toward each other. Turning the wheel to the left moves the stones away from each other.

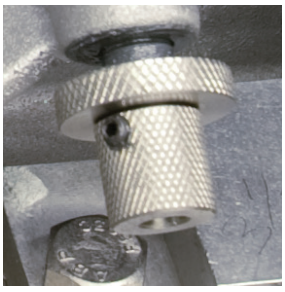


10. Dressing Assembly:
This assembly houses the diamond dressers and the diamond advance screws. Includes knurled nut, diamond advance screws, and brass thumb screws.

8. Dresser Activator: (optional)
Controls the movement of the dressing assembly across the grinding stones. Moving the handle to the left moves the dressing assembly to the operator's left side. Releasing the handle brings the dressing assembly back to the right side.



7. Dresser Advance Hand Wheel:
Controls the movement of the dressing assembly toward and away from the grinding wheels. Turning the wheel to the right moves the assembly toward the wheels: turning to the left moves the assembly away from them.



6. Knurled Nut:
This nut is attached to the diamond advance screw assembly with an Allen set screw and retains the diamond in the diamond advance screw. It is used to rotate the diamond.

4. Brass Thumb Screws:
These screws lock the diamond advance screw assembly into place. Turning right locks the advance screw. Turning left unlocks the advance screw.

5. Advance Screws:
These screws move the diamond toward or away from the grinding wheels. Turning right (clockwise) moves the diamond toward the wheel. Turning left (counter-clock-wise) moves the diamond away from the wheel. Each diamond must be set independently.

13. Coolant Valve:
Controls the flow of the coolant fluid. Tighten to close valve (slow flow down) and loosen to open valve (increase flow).

Installation... *continued*

Machine Location

This machine should be located in the central knife sharpening room in a position that will feed the edging and honing machine(s) which are the next operations after hollow grinding in the sharpening system. The machine must be located near the power source. It is convenient to have a source of water nearby for filling and draining the coolant fluid tank (#28).

Setting Up The Machine

1. Light Fixture:
This lamp (#16) should be mounted on the bracket (#17) at the top rear of the machine. The lamp should be positioned over the clear Plexiglass (#2) window (remove paper from Plexiglass) at top front of the machine. Plug the lamp into one of the GFI outlets (#22). Adjust lamp to illuminate grinding wheels.

2. Coolant Tank and Pump:
Place the coolant tank (#28) at the lower front of the machine. Fill the tank with 10 gallons (38 l.) of water and add two 8-oz. cups (16 oz. / 473 ml.) of coolant fluid (Trim-clear or White-Sol are recommended coolants). The ratio of water to coolant is 80 to 1. Unpack the pump (#27) and the plastic hose. Attach one end of the hose to the pump by forcing it over the threaded outlet on the pump. Place the pump in the hanger and hang on the side of the tank. Slip the other end of the hose over the connection on the coolant valve at coolant flow handle (#13). Plug the pump into the other GFI outlet (#22). Open the coolant valve and switch the pump on (#25). Check to see that coolant fluid flows from the flared coolant nozzle (#23) onto the grinding wheels (#3). Adjust coolant flow if necessary.


Coolant tank


Coolant Pump


Plastic Coolant Hose


Electrical Outlet


Flared Coolant Nozzle

Installation... *continued*

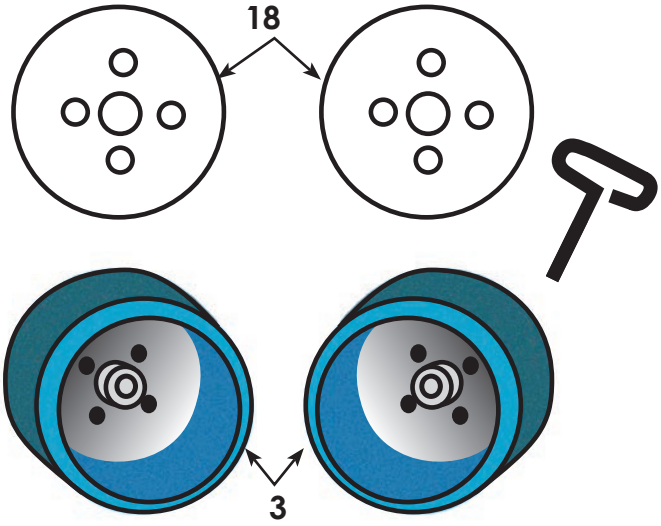
Type Of Grinding Cup Wheels To Be Used

4" Cup Wheels

1. 60 grit stones are used in beef slaughter and possibly some beef fabrication operations.
2. 60 grit stones also may be used in some pork slaughter operations.
3. 60 grit stones are coarser and will grind faster than 120 grit.
4. 60 grit stones will produce a coarser finish on the bevel.
5. 120 grit stones are always used in poultry operations and may be used in pork and beef fabrication operations as well.
6. 120 grit stones will produce a smoother finish on the bevel.

Installation Of New Cup Wheels

Use Cup Wheels in sets. Match stenciled numbers on side of wheels



Turn grinding stone advance hand wheel (#26) counter-clockwise (to the left) to its full stop position. This opens the wheels. Retract the dressing assembly (#10) fully by turning dresser advance hand wheel (#7) to the left to its stop. Using the 1/4" T wrench, remove the four 5/16" Allen screws which secure each grinding wheel to the flanges (#18). Inspect the new set of cup grinding wheels (#3) for cracks or breaks. (Never mount a damaged wheel on the machine). Lubricate the 5/16" Allen screws with anti-seize compound or grease. Mount a grinding wheel on the left side shaft. Insert the four Allen screws and tighten securely with the T wrench. Mount the other grinding wheel on the right side flange. Insert the four Allen screws and tighten securely with the T wrench. After both wheels are securely mounted, you are now ready to start the machine.

Note: Wheels must always be replaced as a set! Never replace only one wheel at a time.

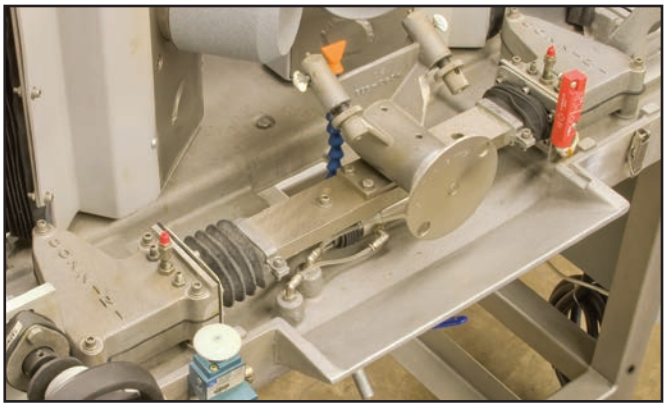
Starting The Machine

Always Wear Safety Glasses When Operating The Machine!

With the grinding wheels fully opened, the grinding stone advance hand wheel (#26) turned all the way to the left (counter-clockwise), and the access door (#12) closed (to protect yourself from anything that may be thrown from the grinding wheels when they start), wire the correct plug onto the power cord and plug it into the power source receptacle. Many times the machine is wired directly to the power source. Turn "Motor" switch "ON" (#24). With the machine running, observe the rotation of the grinding wheels. Both wheels should rotate in the same direction when viewed from the front of the machine. If both wheels are turning in the same direction you can go on to the "Setting Up The Dressing Fixture" procedure. If the wheels are not turning in the same direction, have an electrician (or knowledgeable person) disconnect the power cord from the power supply. Open the starter box (#20) and locate the wire leads inside the box that come from the motors. Reverse the wires inside the box, close the starter box cover and plug the power cord into the power source receptacle, or reconnect the power. Wheels should now be turning in the same direction.

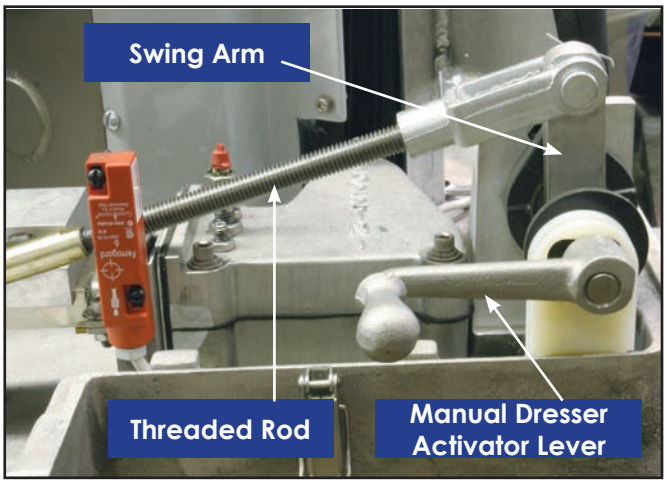
Setting Up The Dressing Fixture To Correctly Dress The Wheels

Air Operated Dresser Assembly (optional)



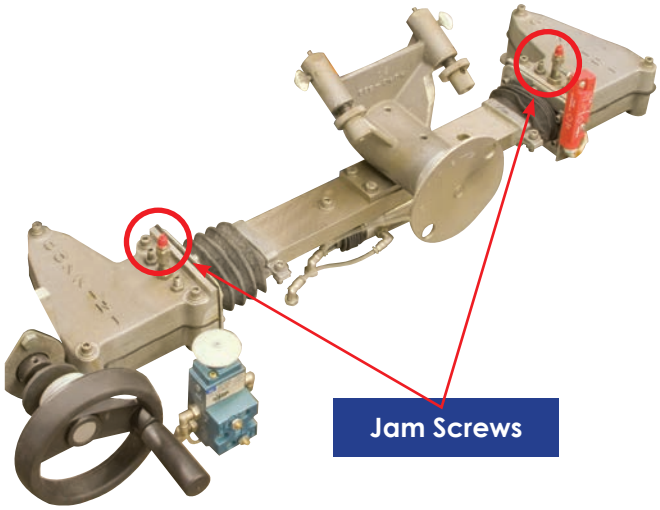
The operator must be certain the dressing fixture is set up correctly. First, connect the air line at fitting located to the lower left of the operator. Make sure the air pressure reading on the gauge is at 90 psi. Activate dresser by pressing the dresser activator button down, releasing when dressing fixture comes to a complete stop. Cycle time in each direction should be two to three seconds.

Manually Operated Dresser Assembly



Slide the dresser bar as far to the right as it can travel. With the dresser bar in it's furthest right position the the swing arm should be at a 90° angle to the base of the hollow grinder.
The position of the swing arm can be adjusted by turning the threaded rod that connects the swing arm to the dresser block. The manual dresser activator lever (#29) should be at a 90° angle to the swing arm to ensure proper dresser bar travel.

Check the amount of play in the dresser bar



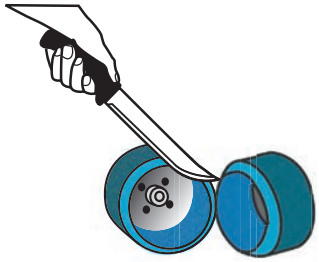
You should periodically check to determine if there is too much play in the dresser bar. To check this, disconnect air line (air operated dresser assembly only), and with two hands pull the dresser bar in an upward direction. If you feel excessive movement and hear a slight knocking sound there is too much play. To adjust the play, loosen the jam nuts located on top of the right and left dresser pivot block covers. Do not turn the jam screws while loosening jam nuts. Notice that the grease fitting screw also serves as a jam screw and must be included in the adjusting procedure. Turn each screw 1/8 turn clockwise and check dresser bar play. Repeat this step until the excessive play in the dresser bar has been eliminated. Grease the dresser bar at grease fitting screws. Turn the grinding stone advance hand wheel counter-clockwise to separate the grinding stones. Reconnect air line and activate dressing fixture. If the dressing fixture hesitates during its cycle or does not move at all, the jam screws are too tight and must be loosened using the reverse of the technique as explained for tightening jam screws.

Hollow Grinding Procedure

The following are important things to remember

Always Wear Safety Glasses When Operating The Machine!

1. Make sure that the grinding wheels are always just touching when grinding. ***This Is Important.*** Failure to check this after grinding a few knives could cause the knife to drop down too far through the wheels and cause the bevel to be too wide and uneven, or cause damage to the wheels. Have coolant fluid flowing on the wheels.



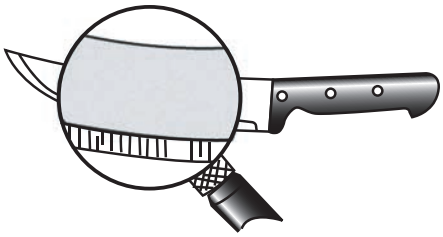
Hollow grinding procedure starts at the tip of knife

2. Always run the knife between the wheels in a straight upright position. Start at the tip of the blade and, with a light but steady pressure, move the knife through the wheels the full length of the blade.

3. Do not stop or pause when grinding. This will cause scorching or burning. Use less pressure when grinding the tip of the blade.

Hollow Grinding Procedure...*continued*

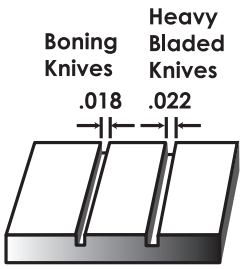
4. Inspect the grind marks. (These are the lines made by the grinding wheels). The grinding marks should run at a 90 degree angle from the cutting edge to the top of the bevel. (See illustration at the right)



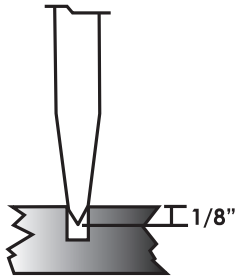
Grinding marks at 90° to the blade edge

5. Check to see that the bevel is even on each side of the knife. If it is uneven, straighten up the knife as you pass it through the wheels.

6. Check the edge thickness in the Go-No-Go gauge. If the blade drops into the slot 1/8", it is thin enough to fit easily between the spiral edge honer wheels.
Do No Over Thin!!! This Is Very Important!!!
A blade that has been thinned too much will have a tendency to chip out or break and the cutting edge will roll over easily.



Go, No Go Gauge



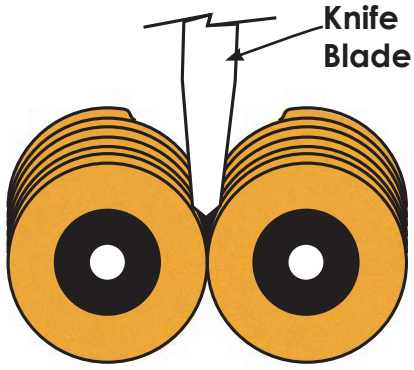
Knife edge should drop into slot $^{1}/_{8}$"

7. The general rule of thumb is to thin boning knives (thin bladed knives) to a measurement of .018" at a point 1/8" from the cutting edge. Thin skinning knives, breaking knives, steak knives (heavy bladed knives) to a measurement of .022" at a point 1/8" from the cutting edge. Knife blade must drop into the gauge slot 1/8" for correct thinning.
Do Not Over Thin!!!

8. If the blade becomes over thinned (drops more than 1/8" into the Go-No-Go gauge), it can be corrected on the edge honer by grinding back the edge until the blade is the correct thickness to give the cutting edge a strong, durable backup.

9. If the blade will not drop into the Go-No-Go gauge slot 1/8", you must continue hollow grinding it until it will drop to gauge slot 1/8".

10. If the cutting edge is too thick (heavy shoulder), it must be hollow ground to the prescribed thinness in order to fit between the spiral wheels on the edge honer. If the shoulders of the blade touch the spiral wheels before the cutting edge hits bottom, you cannot sharpen or hone the edge. You will only be polishing the shoulder of the blade. The cutting edge of a blade will not touch the bottom between the honing wheels when the shoulder is too thick or heavy. The blade must be further thinned (hollow ground to allow the edge to hit bottom between the honer wheels. Use Go-No-Go gauge for correct testing.



Heavy shoulder on blade prevents knife from being honed at edge. Thin edge more.

When To Dress Wheels After Grinding Knives

As the hollow grinding procedure is repeated the grinding wheels will eventually become out of round. You will detect a rough, bumpy feeling when the wheels are not in a good "dress" condition. The diamond dressers must be used to return the wheels to a true, round condition and to recreate a smooth crown on the grinding surface of the wheels.

There is no predetermined number of knives that can be hollow ground (thinned) before the grinding wheels will require dressing.

The number of knives ground between dressings will depend on such things as: The pressure applied on the knife by the operator when grinding; the thickness of the blade to be ground (heavy bladed knives require more grinding than boning knives); the evenness (straightness) of the blade being ground (holding the blade on a slant or tilt, or a bent blade, will cause uneven wear on the grinding wheels). Not adjusting the grinding wheels (moving them together) often enough so they continue to just touch will cause excessive wheel wear and add to creating a rough wheel surface condition. The operator should have good mechanical feel and good hand-eye coordination to know when to dress the wheels.

Operations

Dressing Procedure-Air Operated Dresser Assembly

Bring the wheels together until they just touch. With the grinder motor and coolant pump on, move the dresser activator to the left until the fixture stops, then release to bring fixture back to the right, checking that the wheels are being fully dressed. If the wheels are not being fully dressed, rotate the dresser advance hand wheel (#7) a small amount clockwise (right). The hand wheel can be rotated with the access door closed by reaching under the cover with your fingertips. Move the dresser activator (#8) to the left until the fixture stops, then release to dress the wheels. Bring the wheels together slowly until they just touch and you are again ready to grind knives.

Dressing Procedure-Manual Dresser Assembly

Bring the wheels together until they just touch. With the grinder motor and coolant pump on, rotate the manual dresser activator lever (#29) counter-clockwise until the fixture stops. Then rotate the manual dresser activator hand lever clockwise, checking that the wheels are being fully dressed. If the wheels are not being fully dressed, rotate the dresser advance hand wheel (#7) a small amount clockwise (right). The hand wheel can be rotated with the access door closed by reaching under the cover with your fingertips. Repeat this process until the wheels are fully dressed. Bring the wheels together slowly until they just touch and you are again ready to grind knives.

Operations...*continued*

Changing Diamonds

When there is no longer any usable diamond left, it must be changed. To remove the diamond, unlock it by turning the brass thumb screw (#4) to the left (counter-clockwise). Remove the diamond advance screw (#5) from the dressing fixture by turning left (counter-clockwise). Loosen the setscrew in the knurled nut (#6), and pull the diamond and shaft out. Clean the knurled nut and screw. Lubricate a new diamond, the screw, and knurled nut with anti-seize compound or grease. Install the new diamond in the advance screw assembly. Check that the threads and bore which hold the diamond are free of grinding grit. Disconnect air line and manually move the dressing fixture to the center position of the dressing cycle. Rotate dresser advance hand wheel counter – clockwise until it stops. Screw the new diamond assembly into the fixture so that the diamond points are about ¼" from the housing. Rotate stone advance hand wheel clockwise until stones are just touching. Rotate dresser advance hand wheel clockwise the same number of revolutions as stamped on the dresser advance hand wheel. Both diamonds must be in contact with their corresponding grinding stones. If one isn't touching, advance that particular diamond with the diamond advance screw until it does touch its corresponding grinding stone. Lock the thumb screws. Close access door. Rotate stone advance hand wheel counter-clockwise to separate grinding stones. Connect air line; the dresser fixture should return to its start position at right side. Turn the "Motor" and "Pump" switches to the "ON" positions. Rotate stone advance hand wheel clockwise until the stones are just touching. Activate dressing fixture by moving the dresser activator handle to the left, hold it there until the dressing fixture comes to a complete stop, release handle and the dressing fixture repeats dressing cycle as it returns to the start position. Adjust dressing cuts by rotating dresser advance hand wheel. Rotate hand wheel clockwise for a heavier cut or counter-clockwise for a lighter cut.

NOTE: *Avoid taking heavy dressing cuts since this will cause rapid wear to the diamonds and the grinding stones or could cause a diamond to be knocked loose from its mount. Also, remember to rotate diamonds often.*

Troubleshooting Guidelines

Common Problems Related to Hollow Grinding

Problem	Causes And Remedies
Using Too Many Grinding Wheels	• May be dressing the wheels too often (over-dressing). • May be putting too much pressure on the knife while grinding. Lighten up on pressure. • Not enough coolant flow on grinding wheels. Increase coolant flow. • Not holding the knife in straight upright position when grinding. Hold knife in upright (90 degrees) position while grinding to avoid tilting the knife and wearing one wheel faster than the other. • Watch position of knife between wheels • Diamond dressers set to high, removing too much material when dressing.

Troubleshooting Guidelines...*continued*

Common Problems Related to Hollow Grinding

Problem	Causes And Remedies
Knife Bounces On Wheels When Grinding	• Wheels are worn and require dressing. • Wheels are not touching each other. Move wheels closer together.
One Grinding Wheel Longer Than The Other	• Diamonds are not extended the same distance. Adjust diamonds. • Using wheels with unmatched numbers stamped on sides of wheels. Use wheels in matched sets.
Motor Slides Not Moving In Synchronization (One Wheel Extends Further Than The Other)	• Belt has slipped on pulley. First, ensure stones are same length. Then, loosen tensioner at rear and remove belt from pulley individually until stones touch at correct position. Re-install belt and tensioner.
Coolant Pump Not Pumping Fluid To Grinding Wheels	• Coolant pump clogged up with grit. Remove pump and pump clear water through at sink. Drain coolant tank and clean out grit more often. • Keep coolant pump in hanger and off bottom of tank.
Knife Edges Chipping Out And Breaking	• Knife blade may be over thinned (over ground) on the hollow grinder. Refer to knife grinding procedures and use Go-No-Go thickness gauge.
Knife Blades Are Scorched Or Burned During Hollow Grinding	• Knife is being drawn too slowly through the grinding wheels and/or too much pressure is being applied on the knife while grinding. • Operator may be pausing when hollow grinding. Keep the knife moving at a rapid, steady pace and lighten up the pressure when moving the blade through the wheels. Burning can occur if there is not enough coolant fluid flowing onto the grinding wheels… especially at the tip and toe of the blade which has less blade width and thickness and cannot dissipate the heat build-up as quickly at the wide areas of the blade. Use slightly less pressure when grinding the toe of the blade (first 1" to 2").
Dressing Assembly Does Not Move Or Hesitates	• Jam screws are too tight. Adjust as explained in "Setting Up The Dressing Fixture" (see pg. 9). • Incorrect air pressure. Keep pressure around 90 psi. • Bushings need to be greased. Grease bushings at zerk fitting on jam screws. (See: "Setting Up The Dressing Fixture" pg. 9) ***NOTE:*** *It is always best to activate the dressing assembly back and forth a few times at start-up.*

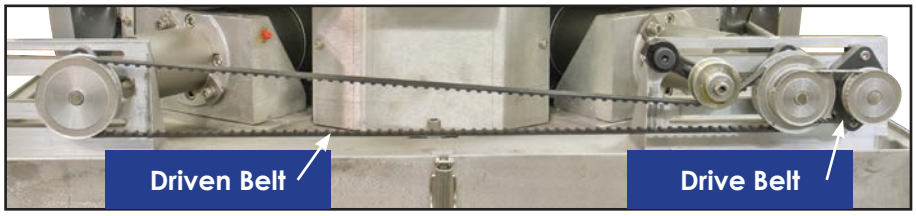
Machine Cleaning And Changing Coolant Fluid

The machine should be rinsed off after each day's grinding. Rinse the grinding grit into the coolant tank with coolant fluid, not fresh water. Once a week or more often, if necessary, the entire machine should be cleaned. Open the access door and wipe out the inside of the machine. As with daily cleaning, always use the coolant fluid to rinse grinding grit into the coolant tank. With the coolant pump switch in the"Off" position, remove the plastic hose from the coolant valve. Use the hose to wash down the inside of the machine with coolant fluid. Use the "On-Off" switch to control the coolant flow. Drain the coolant tank, clean out all the sediment, and rinse the tank clean. Put the proper amount of coolant concentrate in the tank (see "Coolant Tank and Pump" pg. 7) and fill it with water. If you used any fresh water to rinse the machine, close the access door and start the machine and coolant pump to distribute coolant fluid (contains anti-rust agent). The exterior of the machine can be cleaned with a damp cloth. Every month, remove the top cover as described in "Lubrication", and rinse out the top of the wheel advance assembly. Also, with the covers removed, rinse out the "wells" under the sliding surfaces of the dressing fixture support bar. Clean sides and top of motor bellows while top cover is removed. Always use coolant fluid to clean the machine because it contains a rust inhibitor. A strong mixture of coolant fluid and water may cause skin irritation. Wearing rubber gloves may eliminate this.

Safety Switch

The safety switch (#19) ensures the operator that the access door (#12) is completely closed. This will prevent any objects being thrown from the machine and contacting the operator. The safety switch is composed of two parts. One part is fastened at the base of the machine and is wired into the electrical system of the machine. The other part is fastened to the access door (#12) as shown. Both parts are completely waterproofed and care should be taken to keep them absolutely clean and free of grit.

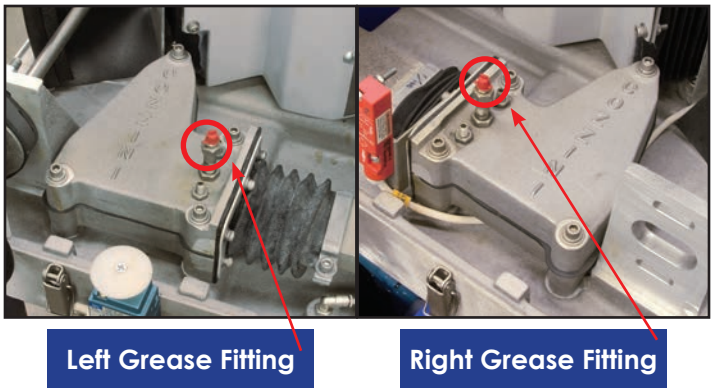
Belt Tension



There are two belts in the hollow grinding machine: a drive belt (3/8" wide) and a driven belt (1/2" wide). Both belts are located at the rear of the machine underneath the main cover. These belts are part of the drive system which advances and retracts the grinding stones. To check tension, use your finger to feel if the belts are taut and without slack. If you feel that the belt needs tensioning use the following procedure. To tension the drive belt loosen the flange bearings located at the front and rear of the side of the machine to the operator's left. Pull shaft that is between flange bearings toward the operator's left. Once correct tension is achieved, tighten the flange bearings, taking care not to release the shaft.

To tension the driven belt simply loosen the clamping screw at the tensioner arm. With the tensioner arm movable, rotate it until it brings the belt to the correct tension, then tighten the clamping screw.

Lubrication



It is very important to grease the machine as prescribed in order to keep the vital parts and assemblies lubricated and working smoothly. There are two grease fittings on the 6" Cup Wheel Hollow Grinder. The fittings are located on top of the pivot block covers. Two or three pumps of water-resistant grease once a month are usually sufficient to keep the machine lubricated. Do not over-grease the machine. Lubrication is very important to order to keep your machine in good working condition. Greasing also helps to prevent rusting and freezing up of moving parts.

Oiling

Since the machine uses a mixture of water and coolant fluid there may be rusting or corroding of certain parts. It is recommended that a light mineral oil (white oil) be sprayed or wiped onto the parts of the machine that are subject to rusting. This should be done daily after the machine clean-up is completed. The light coating of oil will also make clean-up easier.

Replacing A Single Or Three Phase Motor

1. Unplug the machine from the wall receptacle. Disconnect from power source.

2. Remove front cover and top cover.

3. Remove grinding wheel and measure amount of stick-out from motor mounting plate. Jot this down for reference in reassembling. (see **Fig. 1**)

4. Loosen 9/16" hex head screw in center of flange by inserting two 5/16" socket head screws in adjacent holes in flange holding a large screwdriver between these screws to keep the flange from turning. (see **Fig. 2**)
If flange does not slide off easily, use two long 5/16" hex head screws 180° apart and through tightening them by alternating each screw, slowly work the flange off. (Use a penetrating oil)

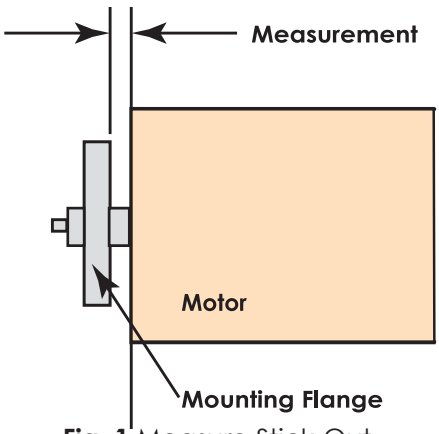


Fig. 1 Measure Stick-Out

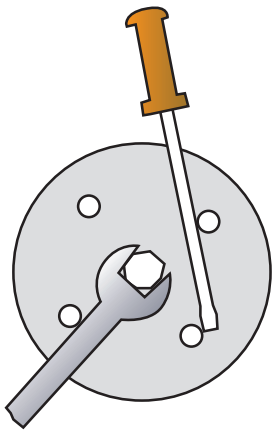


Fig. 2 Removing $^{9}/_{16}$" Hex Head Screw

Replacing A Single Or Three Phase Motor...*continued*

5. Remove the junction box cover and disconnect motor wires. Remove the liquid-tight connector at the motor and unscrew the connector body for use in new motor.

6. To remove the motor, there are four socket head screws on the motor mounting plate that must be loosened and removed.

7. Pull out the motor and remove the spacer, if there is one, located on the motor shaft. Install this on the new motor by first removing the key and three shim washers. Put these in a safe place for use later. (Some motors do not have spacers)

8. Now install the new motor proceeding backward from Step 6 through Step 5. Snug up all four screws before tightening them. Connect motor wires per the correct wiring schematic included with this manual.

9. Fig. 3. Install flange on motor shaft, making sure spacer is still in position. With flange seated firmly against spacer, measure amount of stick out and add shim washers, if necessary, to obtain the same measurement you noted in step **3. Fig. 1**.

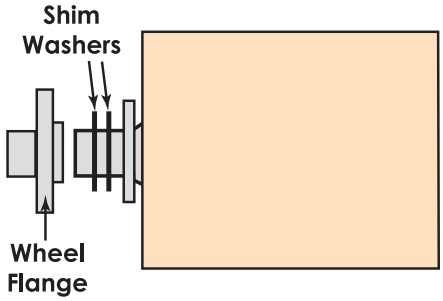


Fig. 3 Add Shim Washers As Needed

10. Check that you have replaced the key, then replace the center washer and hex screw.

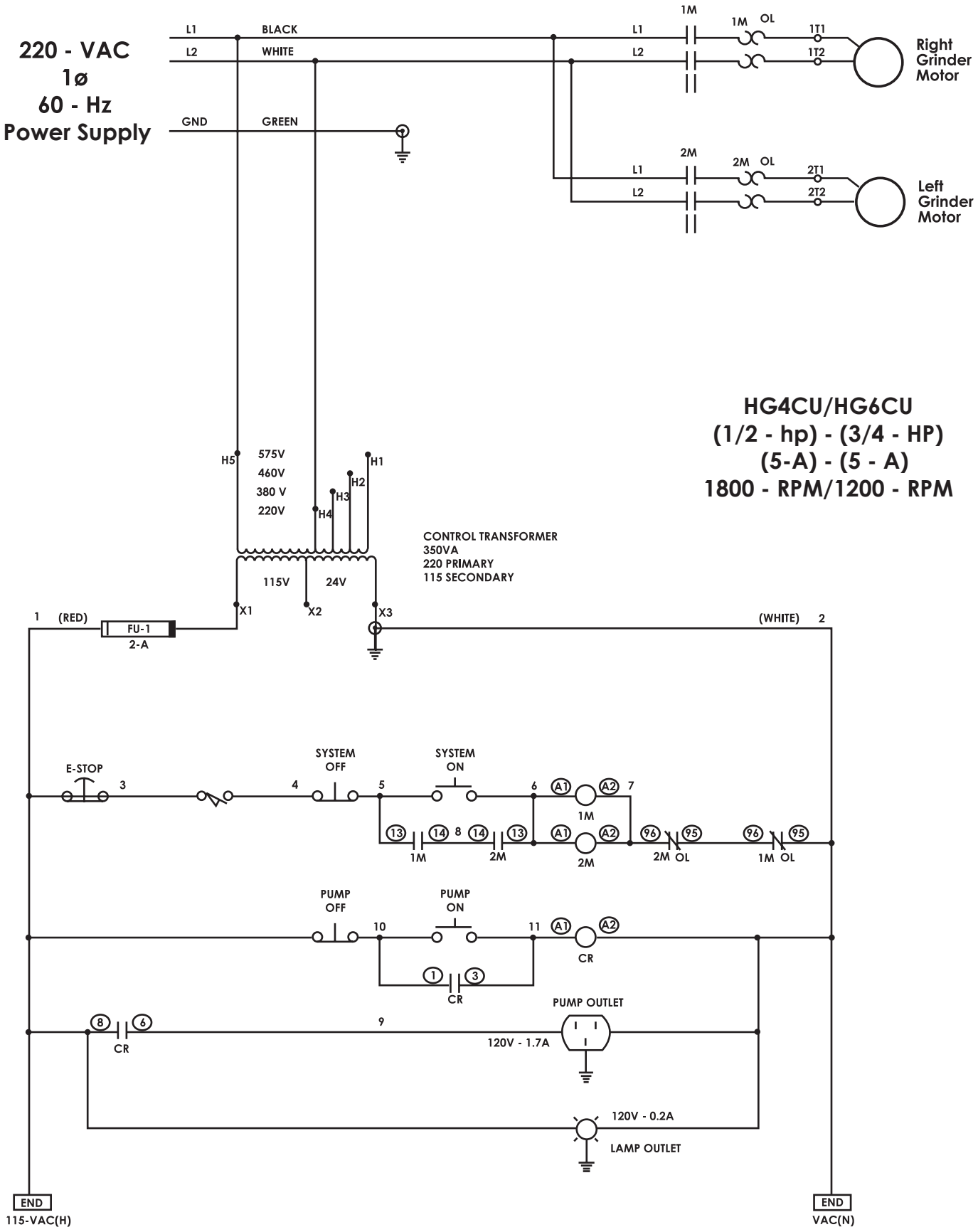
11. Open grinding wheels fully and clean between top and sides of the motor bellows.

12. Check rotation of replacement motor before grinding knives. Reverse wires if motor is turning in the wrong direction. (These are the wires on the power cord inside the starter box) (See "Starting The Machine" on pg. 9.)

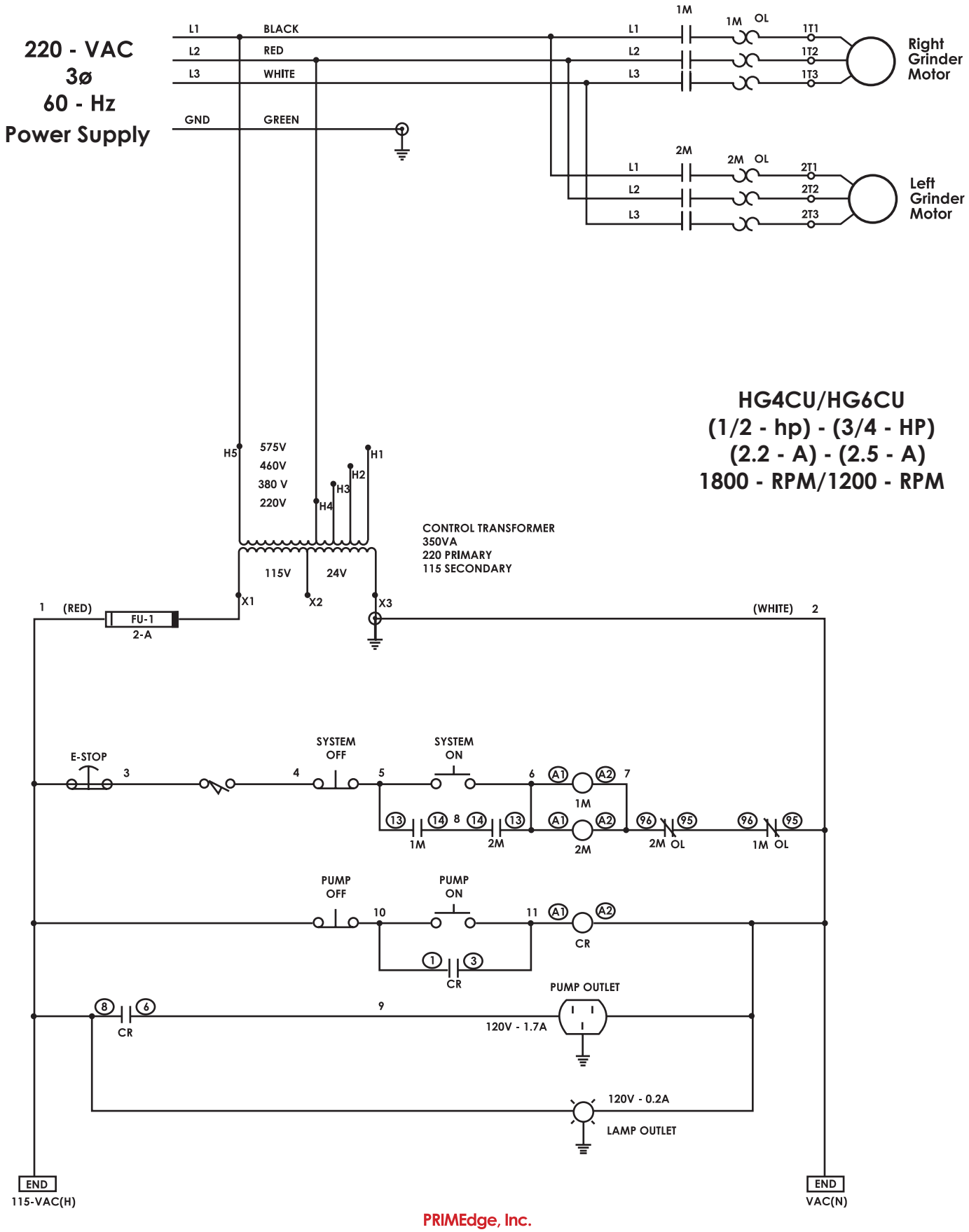
Maintenance Schedule Frequency Guide

Job To Be Done	Daily	Weekly	Monthly
Clean Inside and Outside of Machine	▼		
Check Dresser Bushings	▼		
Check Belt Tensions		▼	
Oil Stone Advance Hand Wheel	▼		
Clean Safety Switch	▼		
Grease Dresser Cross Bar			▼
Clean Motor Bellows	▼		

HG4CU Hollow Grinder
220V 1Ø 60Hz

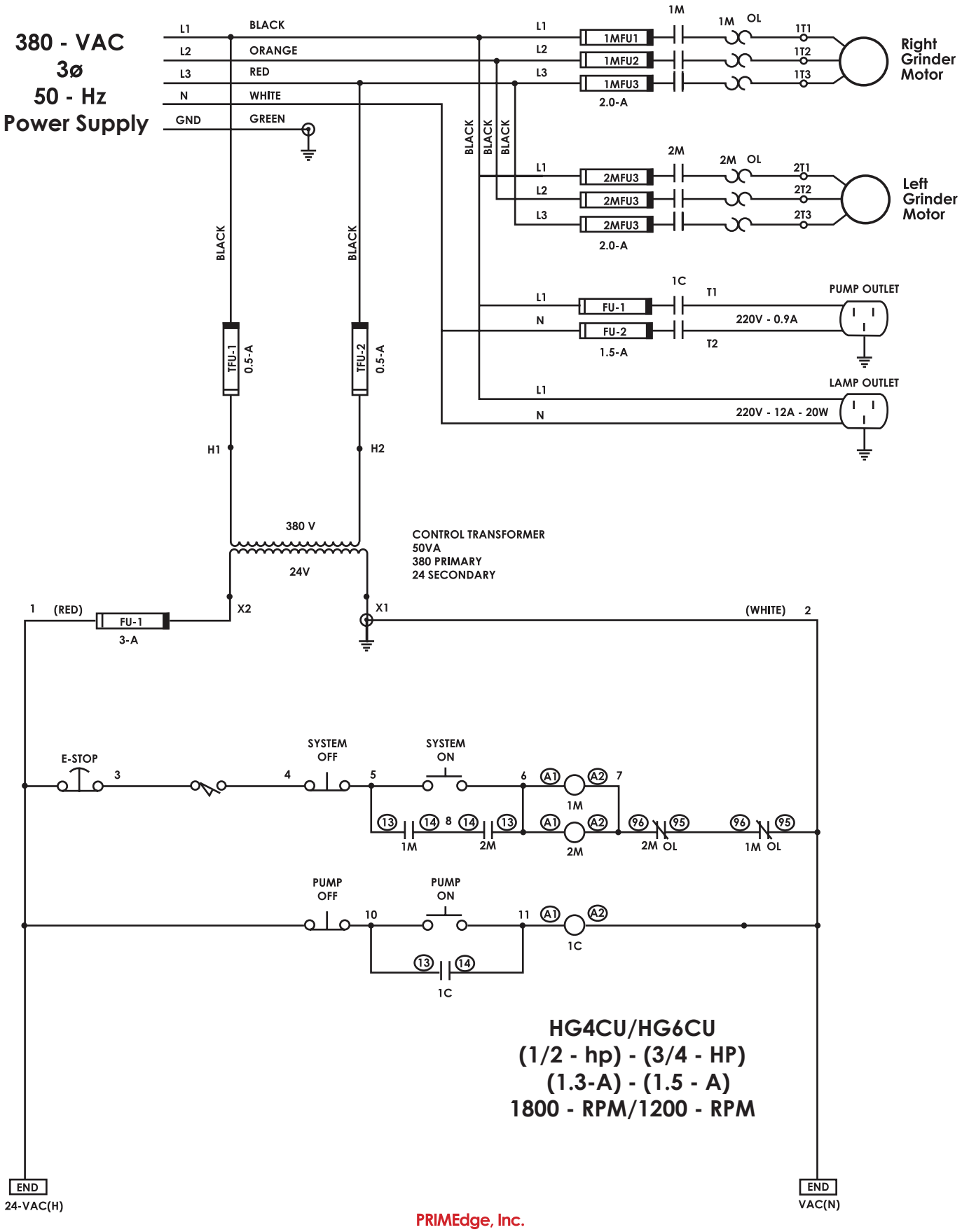


HG4CU Hollow Grinder
220V 3Ø 60Hz

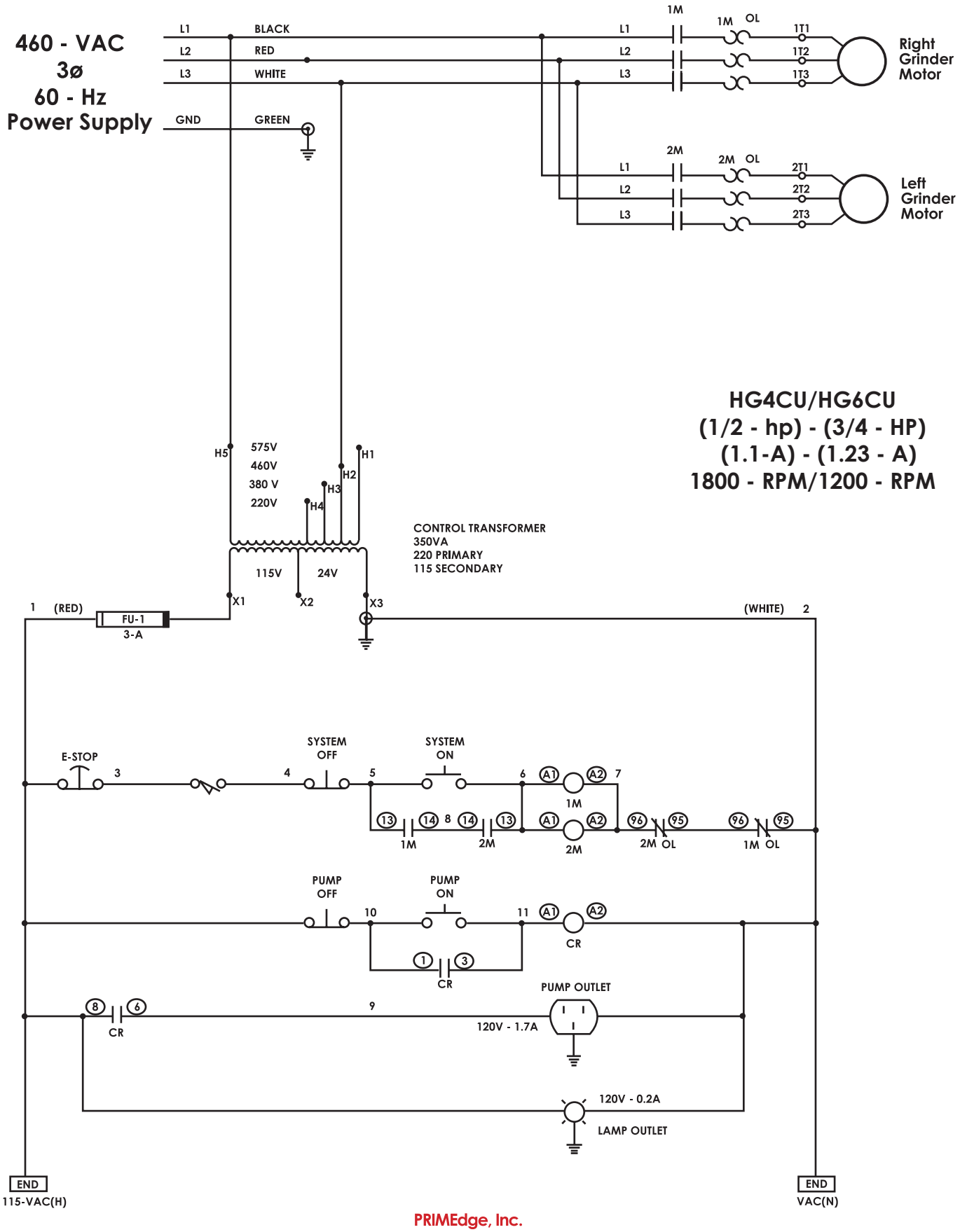


HG4CU Hollow Grinder

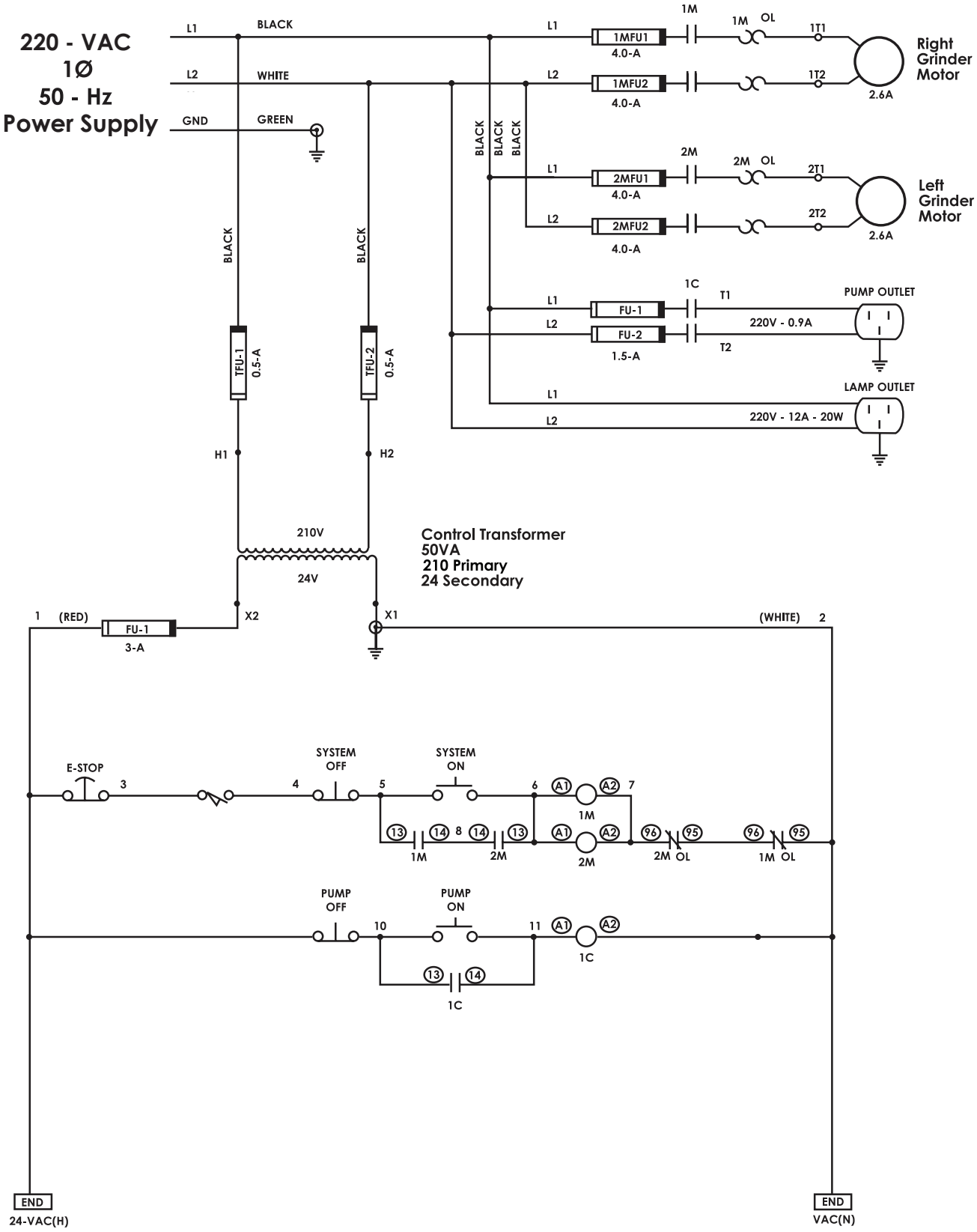
380V 3Ø 50Hz



HG4CU Hollow Grinder
460V 3Ø 60Hz

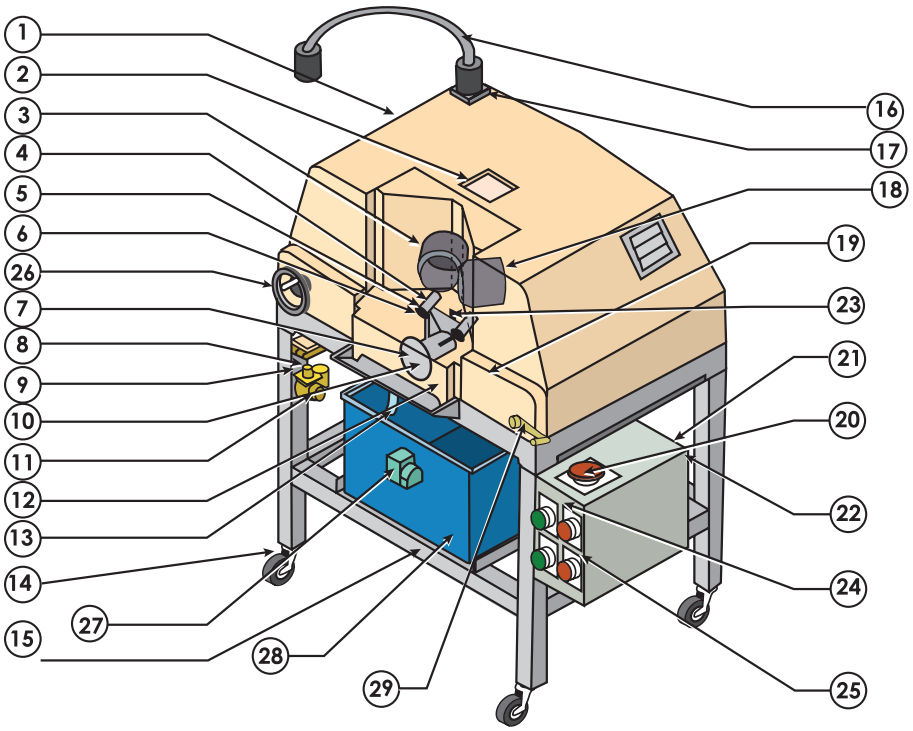


HG4CU Hollow Grinder
220V 1Ø 50Hz



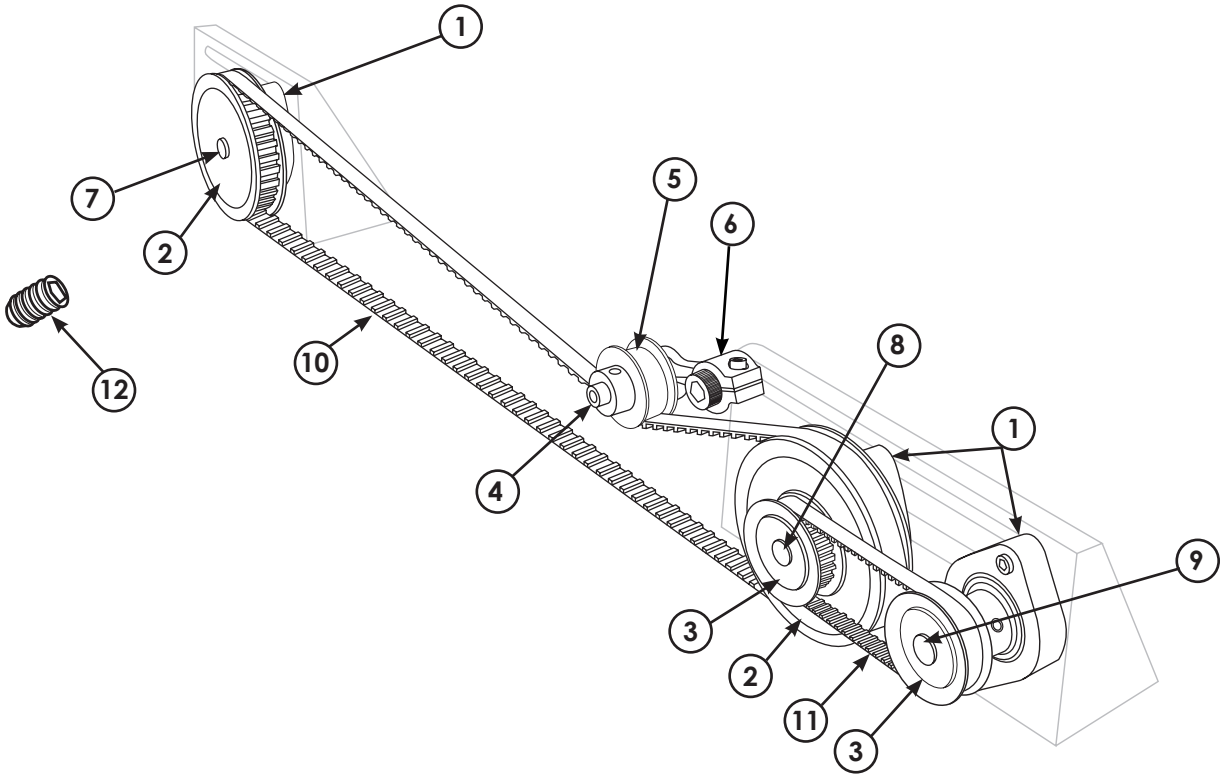
Parts List

HG4CU 4" Cup Wheel Hollow Grinder



No.	PRIMEdge Part No.	Description
1	HZ-571	Main Cover
2	HZ-527	Plexiglass Window
3	HG4C-760	Cup Grinding Wheel 60 Grit / 2 pr.
or	HG4C-7120	Cup Grinding Wheel 120 Grit / 2 pr.
4	HZ-115	Brass Thumb Screw
5	HZ-585	Diamond Advance Screw
6	HZ-536	Knurled Nut
7	HZ-538	Dresser Advance Hand wheel
8	HZ-432	Dresser Activator (optional)
9	HZ-433	Air Pressure Regulator (optional)
10	HG4C-9568	Dressing Assembly
11	HZ-433	Air Regulator Assembly
12	HG4C-572	Access Door
13	HZS-413	Coolant Flow Handle
14	HZ-454	Casters
15	HZ-9814	Base Frame

No.	PRIMEdge Part No.	Description
16	HZ-445	Halogen Lamp (U.S.A.) 60Hz
or	HZ-446	Halogen Lamp (Europe) 50Hz
17	HZ-546	Lamp Bracket
18	HZ-502	Wheel Flange
19	HZ-590	Safety Switch
20	HZ-280	Starter Box
21	HZ-276	Emergency Stop Button
22	HZ-289	GFI Outlets
23	HZ-484	Coolant Spray Nozzle
24	HZ-275	On-Switch
25	HZ-274	Off-Switch
26	HZ-439	Grinding Stone Advance Hand wheel
27	HZ-443	Coolant Pump 110V
or	HZ-444	Coolant Pump 220V
28	HZ-475	Coolant Tank
29	HZ-538	Manual Dresser Activator Lever



No.	Qty.	PRIMEdge Part No.	Description
1	3	HZ-411	Flange bearing
2	2	HG4C-503	HG4C Driven pulley
3	2	HZ-535	Drive pulley
4	1	HZ-496	Tensioner pulley shaft
5	1	HZ-499	Tensioner pulley
6	1	HZ-498	Tensioner
7	1	HZ-559	Driven pulley shaft-short
8	1	HZ-560	Driven pulley shaft-medium
9	1	HZ-561	Driven pulley shaft-long
10	1	HZ-441	Driven belt
11	1	HG4C-404	HG4C drive belt
12	4	HZ-149	Set screw (2 per HG4C-503 pulley)

Suggested spare parts list for HG4CU

Model HG4CU 4" Hollow Grinder

Qty.	Part No.	Description	
1BX.	HG4C-760	4" Cup wheel / 60 grit / 2 pairs per box	
	OR		
1BX.	HG4C-7120	4" Cup wheel / 120 grit / 2 pairs per box	
1 EA.	HZ-441	Driven belt	
1 PR.	HG4C-404	HG4C Drive belt	
1 PR.	HG4C-705	Cluster diamond long shank / pair	
1 CS.	HZ-473-C	1 case (4 Gallons) White Sol Coolant	

PRIMEdge, Inc.

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email: contact@primedge.com

PRIMEdge HG4CU Master Parts List

HG6CU Master Parts List			
	PRIMEdge Part No.	Qty.	Description
1	HE7-410	3	ELBOW, 1/4"NPT STREET GALV.
2	HE7-417	5	CATCH
3	HE7-418	5	LATCH
4	HG4C-404	1	HG4C DRIVE BELT
5	HG4C-503	2	HG4C DRIVEN PULLEY
6	HG4C-572	1	ACCESS DOOR HG4CU
7	HG4C-9568	1	HG4C DRESSER ASS'Y
8	HG4C-9577	1	HG4C DRESSER BAR ASS'Y
9	HG4C-9814	1	HG4C BASE FRAME WELDMT. ASSY.
10	HZ-221	1	1/2" CONDUIT STRAP
11	HZ-246R	121 IN.	EXTRA FLEXIBLE CONDUIT
12	HZ-247	2	INSULATING CONNECTOR 1/2"90DEG
13	HZ-249	6	STRAIG. INSUL. CONNECTOR 1/2"
14	HZ-252	2	SEALING RING 1/2"
15	HZ-256	10	#10 CRIMP ON RING TERMINAL
16	HZ-260	12	ORANGE WIRE NUT 14 GA.
17	HZ-286	2	3/4 TO 1/2 REDUCER
18	HZ-292	1	1/4 LIQUID TIGHT CORD GRIP
19	HZ-399	1	FLANGE BEARING SEAL (FRONT)
20	HZ-400	5.75 IN.	LOC-LINE HOSE SEGMENT / IN
21	HZ-405	1	COOLANT PUMP HANGER
22	HZ-407	4	SPLINE DRIVE SCREW THRUST BEAR
23	HZ-408	8	SPLINE DRIVE SCREW THRUST RACE
24	HZ-409	2	SPLINE DRIVE SCREW UNIVER.JOINT


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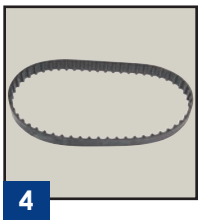
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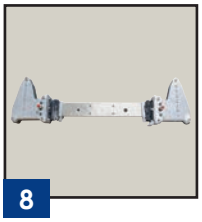
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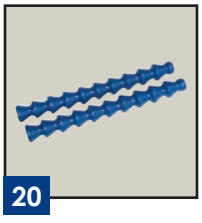
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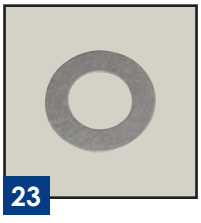
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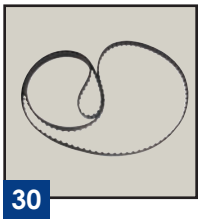
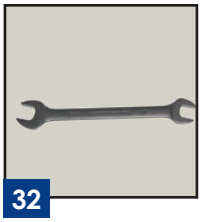
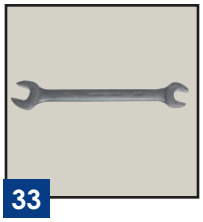
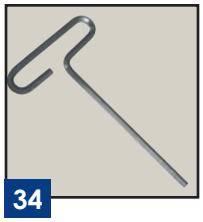
PRIMEdge HG4CU Master Parts List

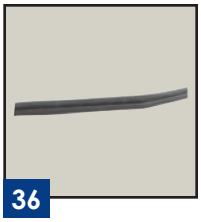
HG6CU Master Parts List cont...			
	PRIMEdge Part No.	Qty.	Description
25	HZ-411	4	DRIVEN SPROCKET FLANGE BEARING
26	HZ-424	1	SHAFT SEAL 2-1/16OD X 1/2ID
27	HZ-430	1	1/4 NPT MALE LOC LINE
28	HZ-439	1	GRINDING STONE CRANK/W HANDLE
29	HZ-440	1	ALLEN WRENCH SET
30	HZ-441	1	DRIVEN BELT
31	HZ-442R	48 IN.	HOSE,1/2 ID X 1/8" WALL AMACL
32	HZ-448	1	1/2 X 9/16 OPEN END WRENCH
33	HZ-449	1	7/16 X 1/2 OPEN END WRENCH
34	HZ-450	1	T-HANDLE HEX KEY 1/4"HW 6"LG
35	HZ-454	4	CASTER 3"D 7/16-14 STEM SWIVAL
36	HZ-455	66 IN.	BULKHEAD SEAL/66" LONG
37	HZ-467	1	FLANGE BEARING SEAL (REAR)
38	HZ-469	2	SLIDE GREASE FITTING
39	HZ-470	2	GREASE FITTING CAPS
40	HZ-474	1	8 OZ. MEASURING CUP - PLASTIC
41	HZ-475	1	COOLANT TANK / LARGE
42	HZ-476	1	CAUTION LABEL EYE PROTECTION
43	HZ-477	1	PRIMEDGE NAME PLATE
44	HZ-479	1	CAUTION LABEL GUARDS
45	HZ-480	1	LABEL,"DANGER ELECTRICITY"
46	HZ-480-1	1	CAUTION LABEL HAND OUT OF MACH
47	HZ-488	1	EAR PLUGS/KNIFE MACHINES
48	HZ-488-1	1	EAR PROTECTION SAFETY STICKER

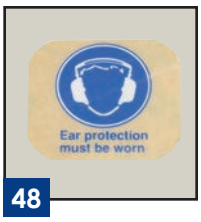






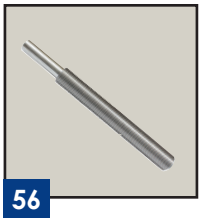






PRIMEdge HG4CU Master Parts List

HG6CU Master Parts List cont...			
	PRIMEdge Part No.	Qty.	Description
49	HZ-489	1	SAFETY GLASSES
50	HZ-496	1	TENSIONER PULLEY SHAFT
51	HZ-498	1	TENSIONER
52	HZ-499	1	TENSIONER PULLEY
53	HZ-500	1	GO-NO GO GAUGE
54	HZ-502	2	LABYRINTH FLANGE
55	HZ-503	2	THRUST BEARING CAP
56	HZ-505	2	SPLINE DRIVE SCREW
57	HZ-516	2	LABYRINTH FLANGE RETAINING WASHER, SPEC.
58	HZ-527	1	WINDOW 4-7/8 X 3-7/8 PLEXI
59	HZ-535	2	DRIVE PULLEY
60	HZ-545	1	ACCESS DOOR WINDOW
61	HZ-546	1	LAMP BASE
62	HZ-564	1	COOLANT HOSE FITTING
63	HZ-564R	1	NIPPLE,1/4NPT X 4" LG GALV.
64	HZ-571	1	MAIN COVER
65	HZ-578	1	DRESSER MOUNTING BLOCK
66	HZ-589	1	CRANKSHAFT GROMMET
67	HZ-590	1	LIMIT SWITCH BLOCK
68	HZ-591	1	FLANGE BEARING SEAL RETAINER
69	HZ-593	1	STONE COVER HINGE
70	HZ-9504		REAR SPLINE COVER WEDLD ASSEMB
71	HZS-413	1	BALL VALVE, 1/4"NPT,BRASS
72	HZS-414	1	BULKHEAD FITTING



PRIMEdge HG4CU Master Parts List

HG6CU Master Parts List cont...			
	PRIMEdge Part No.	Qty.	Description
73	HZS-422R	35 IN.	1/2 X 5/32 WEATHRSTRIP FOAM/IN
74	HZS-514	4	LOUVER
75	HG4C-852	1	HG4C TOWER LH
76	HG4C-853	1	HG4C TOWER RH
77	HZ-492	2	MOTOR BELLOWS
78	HZ-815	1	BULKHEAD
79	HZ-816	1	BULKHEAD REINFORCEMENT
80	HZ-817	8	MOTOR BELLOWS RETAINER - SIDE
81	HZ-818	4	MOTOR BELLOWS RETAINER - TOP
82	EM-1376	1	MAGNETIC SAFETY SWITCH/MAGNET
83	HV-LGMOM-DVD	1	LARGE SHARPENING MACH.OPER/MAINTEN.
84	S104155	2.66 FT.	1/2 SS ROUND BAR 303 A&CD
85	HSR-411	1	SPRAY NOZZLE
86	HZ-460R	18 IN.	TUBING, 3/8 ID, POLYETHYLENE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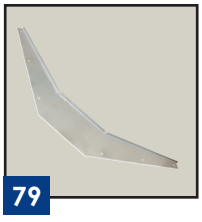
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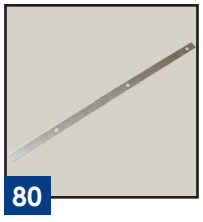
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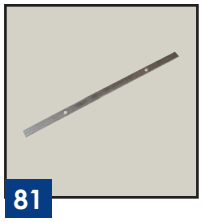
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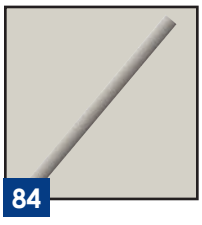
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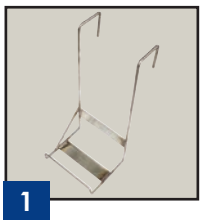
PRIMEdge HG4CU Accessories Shipped with the HG4CU

Accessories shipped with unit			
	PRIMEdge Part No.	**Qty.**	**Description**
1	HZ-405	1	COOLANT PUMP HANGER
2	HZ-474	1	8 OZ. MEASURING CUP - PLASTIC
3	HZ-440	1	ALLEN WRENCH SET
4	HZ-450	1	T-HANDLE HEX KEY 1/4"HW 6"LG
5	HZ-449	1	7/16 X 1/2 OPEN END WRENCH
6	HZ-448	1	1/2 X 9/16 OPEN END WRENCH
7	HE2-431	1	16OZ PLASTIC COOLANT BOTTLE
8	HZ-488	1	EAR PLUGS/KNIFE MACHINES
9	HZ-489	1	SAFETY GLASSES
10		1	OWNERS MANUAL
11	HV-LGMOM-DVD	1	VIDEO, LARGE SHARPENING MACH.OPER/MAINTEN.
12	HZ-445	1	LAMP W/PLUG 120V/60 HZ
OR	HZ-446	1	LAMP W/PLUG 220V/50 HZ
13	HZ-442R	48 IN.	HOSE,1/2 ID X 1/8" WALL AMACL
14	HZ-443	1	115 V PUMP W/PLUG
OR	HZ-444	1	220 V PUMP W/PLUG
15	HZ-454	4	CASTER 3"D 7/16-14 STEM SWIVEL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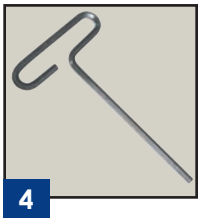
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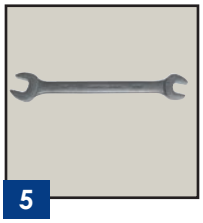
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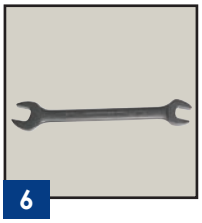
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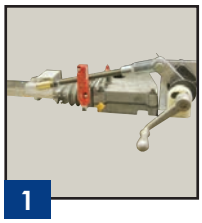
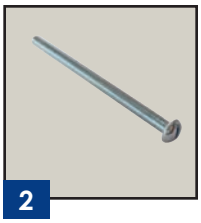
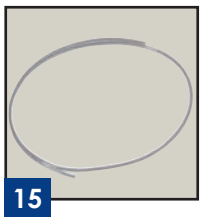
PRIMEdge HG4CU Dresser Assembly Master Parts List

Dresser Parts			
	PRIMEdge Part No.	Qty.	Description
The Following Parts Are Included On Machines Ordered With Manual Dressers			
1	HZ-9608	1	MANUAL DRESSER ASSEMBLY
The Following Parts Are Included On Machines Ordered With Air Operated Dressers			
2	HZ-179	1	SHOULDER BOLT, 1/4 X 1/2 LG
3	HZS-415	1	ELBOW, STREET, 1/4" NPT
4	HZ-584	1	CONNECTING PIN
5	HZ-495	1	CLEVIS
6	HZ-462	1	AIR CYLINDER BELLOWS
7	HZS-419	2	HOSE CLAMP 1" NOMINAL
8	HZ-452	10	5/32 TUBE FITTING 1/8 NPT
9	HZ-494	1	AIR CYLINDER 1-1/16" BORE
10	HZ-432	1	4 WAY VALVE W/HANDLE & FLO CONTROL
11	HZ-433	1	AIR REGULATOR ASSY COMPLETE
12	HZ-435	1	MPT PLUG 1/4"
13	HE7-412	1	REDUCER, HEX 1/4" NPTX 1/8" NPT
14	HZS-160	2	#10-32 X 2-3/4" RHNS ZINC PL.
15	HZ-468	50 IN.	5/32 OD AIR TUBING PE







PRIMEdge HG4CU Electrical Parts

Electrical Parts			
	PRIMEdge Part No.	**Qty.**	**Description**
The Following Parts Are Included On Machines Ordered With **220V - 1Ph - 60Hz** Electrical Systems			
1	HZ-443	1	PUMP/LITTLE GIANT 115V
2	HZ-445	1	LAMP, 60HZ MACHINES
3	HG4C-203	2	MOTOR 1/2HP, 1PH, 115V/230V, 60HZ
4	HG4C-9210	1	220V 1PH ELECT. ASSY DOMESTIC
5	EM-1376	1	MAGNETIC SAFETY SWITCH/MAGNET
The Following Parts Are Included On Machines Ordered With **220V - 3Ph - 60Hz** Electrical Systems			
1	HZ-443	1	PUMP/LITTLE GIANT 115V
2	HZ-445	1	LAMP, 60HZ MACHINES
3	HG4C-201	2	MOTOR 1/2HP, 3PH, 230/460V, 50/60HZ
4	HG4C-9211	1	220V 3PH ELECT. ASSY DOMESTIC
5	EM-1376	1	MAGNETIC SAFETY SWITCH/MAGNET
The Following Parts Are Included On Machines Ordered With **460V - 3Ph - 60Hz** Electrical Systems			
1	HZ-443	1	PUMP/LITTLE GIANT 115V
2	HZ-445	1	LAMP, 60HZ MACHINES
3	HG4C-201	2	MOTOR 1/2HP, 3PH, 230/460V, 50/60HZ
4	HG4C-9214	1	460V 3PH ELECT. ASSY DOMESTIC
5	EM-1376	1	MAGNETIC SAFETY SWITCH/MAGNET
The Following Parts Are Included On Machines Ordered With **380V - 3Ph - 50Hz** Electrical Systems (International)			
1	HZ-444	1	PUMP/LITTLE GIANT 220V
2	HZ-446	1	LAMP, 50 HZ MACHINES
3	HG4C-201	2	MOTOR 1/2HP, 3PH, 230/460V, 50/60HZ
4	HG4C-9212	1	230/380V 3PH 50HZ ELECT. ASSY EUROPE
5	HZ-200	1	LIMIT SWITCH INTERNATIONAL 3A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PRIMEdge HG4CU Electrical Parts 220V - 60Hz - 1PH

HG4C-9210			220V - 60Hz - 1 PH, Electrical Assembly
	PRIMEdge Part No.	Qty.	Description
1	02-007-0020	2	CONTACTOR 1/3-5HP NONREV 120V
2	02-008-0253	2	OVERLOAD RELAY 193-ED 3.2-16 amp
3	HE7-155	4	8-32 HEX NUT ZINC PLT.
4	HE7-156	4	8-32 X 1/2 RHMS SLOT ZINC PLT.
5	HE7-157	4	#8 LOCKWASHER ZINC PLT.
6	HZ-101	11	10-32 X 1/4 RHMS SST
7	02-015-0349	1	TERMINAL BLOCK END CLAMP
8	HZ-228	1	CORD GRIP,ENCLOSURE SINGLE/PHA
9	HZ-230R	144 IN.	POWER CORD 14-3 SO 1 PH
10	HZ-251	1	LOCKNUT,1/2" CONDUIT
11	HZ-252	1	SEALING RING 1/2"
12	HZ-256	9	#10 CRIMP ON RING TERMINAL
13	HZ-261R	636 IN.	STRANDED MACH. WIRE/BLK 14 GA.
14	HZ-262R	10 IN.	STRAND. MACH WIRE/WHT 14 GA.
15	HZ-263R	120 IN.	STRANDED MACH. WIRE/GRN 14 GA.
16	HZ-265R	264 IN.	STRANDED MACH. TOOL WIRE/RED
17	HZ-272	3	N.C.CONTACT BLOCK
18	HZ-273	2	N.O. CONTACT BLOCK
19	HZ-274	2	RED EXTENDED PUSHBUTTON 25MM
20	HZ-275	2	GREEN FLUSH PUSHBUTTON 25MM
21	HZ-276	1	MUSHROOM PUSHBUTTON 50MM RED
22	HZ-277	1	YELLOW LEGEND PLATE
23	HZ-278	1	LEGEND PLATE "SYSTEM ON"
24	HZ-278-2	1	LEGEND PLATE LAMP

For 220V 60Hz 1PH U.S. Electrical Requirements


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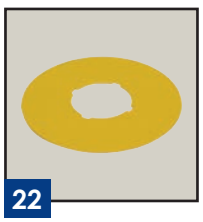
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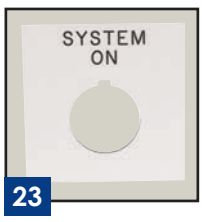

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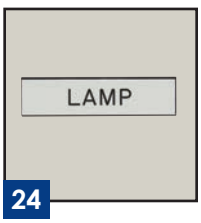

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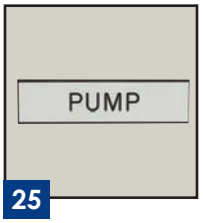
PRIMEdge HG4CU Electrical Parts 220V - 60Hz - 1PH

HG4C-9210			220V - 60Hz - 1 PH, Electrical Assembly cont...
	PRIMEdge Part No.	Qty.	Description
25	HZ-278-3	1	LEGEND PLATE PUMP
26	HZ-279	1	LEGEND PLATE "SYSTEM OFF"
27	HZ-287	1	INTERNATIONAL ELECT. ENCL.
28	02-018-0300	1	XF 240/400/460/575 - 115/24 250VA
29	HZ-289	2	120V 15A SINGLE RECPT.
30	HZ-292	1	1/4 LIQUID TIGHT CORD GRIP
31	HZ-295	2	2 AMP QUICK BLOW FUSE
32	HZ-297	1	TERMINAL/FUSE BLOCK 300V
33	HZ-298	1	END BARRIER-FUSE BLOCK
34	HZ-299	10	#10 SPADE TERMINAL
35	HZ-501	1	DIN RAIL 8"LONG
36	HZ-282	1	LEGEND PLATE, WHITE "PUMP ON"
37	HZ-283	1	LEGEND PLATE, WHITE "PUMP OFF"
38	02-006-0011	1	RELAY, DPDT 120VAC W/PL, 8 PIN
39	02-006-0020	1	RELAY, SOCKET 8 PIN, TYPE HA
40	HE7-104	4	10-32 X 1/2 RHMS SST
41	HZ-129	4	#10 FLATWASHER ZINC PLT.
42	HZ-134	4	#10 LOCKWASHER ZINC

For 220V 60Hz 1PH U.S. Electrical Requirements



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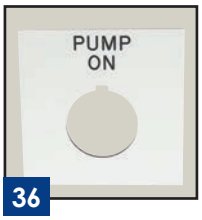

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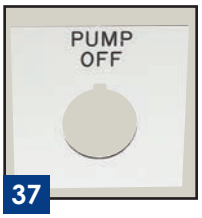

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PRIMEdge HG4CU Electrical Parts 220V - 60Hz - 3PH

HG4C-9211			220V - 60Hz - 3 PH, Electrical Assembly
	PRIMEdge Part No.	Qty.	Description
1	02-007-0020	2	CONTACTOR 1/3-5HP NONREV 120V
2	02-008-0252	2	OVERLOAD RELAY 193-ED 1.0-5.0 amp
3	HE7-155	4	8-32 HEX NUT ZINC PLT.
4	HE7-156	4	8-32 X 1/2 RHMS SLOT ZINC PLT.
5	HE7-157	4	#8 LOCKWASHER ZINC PLT.
6	HZ-101	11	10-32 X 1/4 RHMS SST
7	02-015-0349	1	TERMINAL BLOCK END CLAMP
8	HZ-229	1	ENCLOSURE CORD GRIP THREE/PHA
9	HZ-231R	144 IN.	POWER CORD 14-4 SO 3 PH
10	HZ-251	1	LOCKNUT,1/2" CONDUIT
11	HZ-252	1	SEALING RING 1/2"
12	HZ-256	9	#10 CRIMP ON RING TERMINAL
13	HZ-261R	636 IN.	STRANDED MACH. WIRE/BLK 14 GA.
14	HZ-262R	20 IN.	STRAND. MACH WIRE/WHT 14 GA
15	HZ-263R	130 IN.	STRANDED MACH. WIRE/GRN 14 GA.
16	HZ-265R	264 IN.	STRANDED MACH. TOOL WIRE/RED
17	HZ-272	3	N.C.CONTACT BLOCK
18	HZ-273	2	N.O. CONTACT BLOCK
19	HZ-274	2	RED EXTENDED PUSHBUTTON 25MM
20	HZ-275	2	GREEN FLUSH PUSHBUTTON 25MM
21	HZ-276	1	MUSHROOM PUSHBUTTON 50MM RED
22	HZ-277	1	YELLOW LEGEND PLATE
23	HZ-278	1	LEGEND PLATE "SYSTEM ON"
24	HZ-278-2	1	LEGEND PLATE LAMP

For 220V 60Hz 3PH U.S. Electrical Requirements


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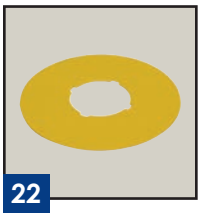
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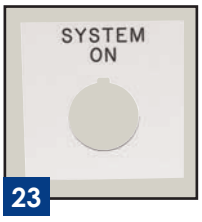

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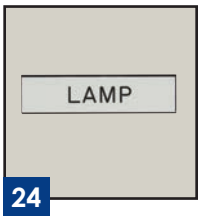

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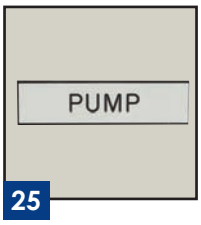
PRIMEdge HG4CU Electrical Parts 220V - 60Hz - 3PH

HG4C-9211			220V - 60Hz - 3 PH, Electrical Assembly cont...
	PRIMEdge Part No.	Qty.	Description
25	HZ-278-3	1	LEGEND PLATE PUMP
26	HZ-279	1	LEGEND PLATE "SYSTEM OFF"
27	HZ-287	1	INTERNATIONAL ELECT. ENCL.
28	02-018-0300	1	XF 240/400/460/575 - 115/24 250VA
29	HZ-289	2	120V 15A SINGLE RECPT.
30	HZ-292	1	1/4 LIQUID TIGHT CORD GRIP
31	HZ-282	1	LEGEND PLATE, WHITE "PUMP ON"
32	HZ-295	2	2 AMP QUICK BLOW FUSE
33	HZ-297	1	TERMINAL/FUSE BLOCK 300V
34	HZ-298	1	END BARRIER-FUSE BLOCK
35	HZ-299	10	#10 SPADE TERMINAL
36	HZ-501	1	DIN RAIL 8"LONG
37	2-006-0011	1	RELAY, DPDT 120VAC W/PL, 8 PIN
38	02-006-0020	1	RELAY, SOCKET 8 PIN, TYPE HA
39	HE7-104	4	10-32 X 1/2 RHMS SST
40	HZ-129	4	#10 FLATWASHER ZINC PLT.
41	HZ-134	4	#10 LOCKWASHER ZINC
42	HZ-283	1	LEGEND PLATE, WHITE "PUMP OFF"

For 220V 60Hz 3PH U.S. Electrical Requirements



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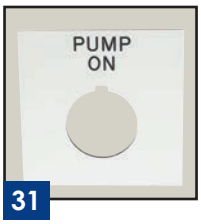

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PRIMEdge HG4CU Electrical Parts 380V - 50Hz - 3PH

HG4C-9212			460V - 60Hz - 3 PH, Electrical Assembly
	PRIMEdge Part No.	Qty.	Description
1	02-007-0038	2	CONTACTOR 1/3-5HP NONREV 24VAC
2	02-008-0252	2	OVERLOAD RELAY 193-ED 1.0-5.0 amp
3	02-015-0098	2	FUSE BLOCK INDICATOR 2P 600V 30A CC
4	02-015-0099	2	FUSE BLOCK INDICATOR 3P 600V 30A CC
5	02-017-0018	3	FUSE CLASS CC 600V 1.5A TD REJECT
6	HE7-155	4	8-32 HEX NUT ZINC PLT.
7	HE7-156	4	8-32 X 1/2 RHMS SLOT ZINC PLT.
8	HE7-157	4	#8 LOCKWASHER ZINC PLT.
9	HZ-101	11	10-32 X 1/4 RHMS SST
10	HZ-203R	450"	STRND. MACH WIRE GRN/YEL
11	02-015-0349	1	TERMINAL BLOCK END CLAMP
12	HZ-229	1	ENCLOSURE CORD GRIP THREE/PHA
13	HZ-232R	144"	POWER CORD 14-5 3PH 50HZ
14	02-018-0310	1	XF 380 – 24 50VA
15	HZ-256	9	#10 CRIMP ON RING TERMINAL
16	HZ-262R	72"	STRAND. MACH WIRE WHITE 14 GA
17	HZ-265R	300"	STRAND. MACH. WIRE RED
18	HZ-272	3	N.C.CONTACT BLOCK
19	HZ-273	2	N.O. CONTACT BLOCK
20	HZ-274	2	RED EXTENDED PUSHBUTTON 25MM
21	HZ-275	2	GREEN FLUSH PUSHBUTTON 25MM
22	HZ-276	1	MUSHROOM PUSHBUTTON 50MM RED
23	HZ-277	1	YELLOW LEGEND PLATE
24	HZ-278	1	LEGEND PLATE "SYSTEM ON"

For 380V 50Hz 3PH International Electrical Requirements


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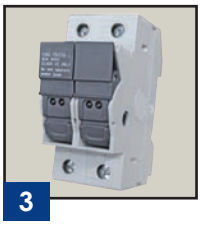
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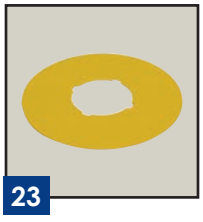
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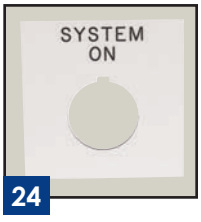

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PRIMEdge HG4CU Electrical Parts 380V - 50Hz - 3PH

HG4C-9212			460V - 60Hz - 3 PH, Electrical Assembly cont...
	PRIMEdge Part No.	Qty.	Description
25	02-017-0022	7	FUSE CLASS CC 600V 2A TD REJECT
26	HZ-278-2	1	LEGEND PLATE LAMP
27	HZ-278-3	1	LEGEND PLATE PUMP
28	HZ-279	1	LEGEND PLATE "SYSTEM OFF"
29	HZ-287	1	INTERNATIONAL ELECT. ENCL.
30	HZ-290	2	240V 20A SINGLE RECEPTACLE
31	HZ-292	1	1/4 LIQUID TIGHT CORD GRIP
32	02-017-0007	3	FUSE CLASS CC 600V .5A TD REJECT
33	02-017-0030	2	FUSE CLASS CC 600V 3A TD REJECT
34	HZ-297	1	TERMINAL/FUSE BLOCK 300V
35	HZ-298	1	END BARRIER-FUSE BLOCK
36	HZ-299	9	#10 SPADE TERMINAL
37	HZ-501	1	DIN RAIL 8"LONG
38	HZ-282	1	LEGEND PLATE, WHITE "PUMP ON"
39	HZ-283	1	LEGEND PLATE, WHITE "PUMP OFF"
40	HZ-261R	636 IN.	STRANDED MACH. WIRE/BLK 14 GA.

For 380V 50Hz 3PH International Electrical Requirements


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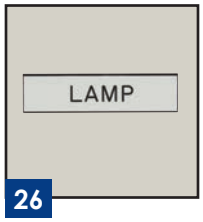

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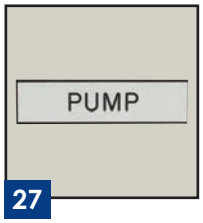

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PRIMEdge HG4CU Electrical Parts 460V - 60Hz - 3PH

HG4C-9214			460V - 60Hz - 3 PH, Electrical Assembly
	PRIMEdge Part No.	Qty.	Description
1	02-007-0020	2	CONTACTOR 1/3-5HP NONREV 120V
2	02-008-0252	2	OVERLOAD RELAY 193-ED 1.0-5.0 amp
3	HE7-155	4	8-32 HEX NUT ZINC PLT.
4	HE7-156	4	8-32 X 1/2 RHMS SLOT ZINC PLT.
5	HE7-157	4	#8 LOCKWASHER ZINC PLT.
6	HZ-101	11	10-32 X 1/4 RHMS SST
7	02-015-0349	1	TERMINAL BLOCK END CLAMP
8	HZ-229	1	ENCLOSURE CORD GRIP THREE/PHA
9	HZ-231R	144 IN.	POWER CORD 14-4 SO 3 PH
10	HZ-251	1	LOCKNUT,1/2" CONDUIT
11	HZ-252	1	SEALING RING 1/2"
12	HZ-256	9	#10 CRIMP ON RING TERMINAL
13	HZ-261R	636 IN.	STRANDED MACH. WIRE/BLK 14 GA.
14	HZ-262R	20 IN.	STRAND. MACH WIRE/WHT 14 GA
15	HZ-263R	130 IN.	STRANDED MACH. WIRE/GRN 14 GA.
16	HZ-265R	264 IN.	STRANDED MACH. TOOL WIRE/RED
17	HZ-272	3	N.C.CONTACT BLOCK
18	HZ-273	2	N.O. CONTACT BLOCK
19	HZ-274	2	RED EXTENDED PUSHBUTTON 25MM
20	HZ-275	2	GREEN FLUSH PUSHBUTTON 25MM
21	HZ-276	1	MUSHROOM PUSHBUTTON 50MM RED
22	HZ-277	1	YELLOW LEGEND PLATE
23	HZ-278	1	LEGEND PLATE "SYSTEM ON"
24	HZ-278-2	1	LEGEND PLATE LAMP

For 460V 60Hz 3PH U.S. Electrical Requirements


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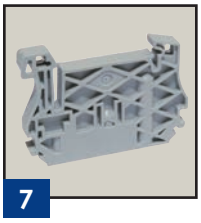
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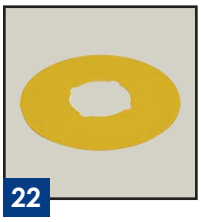
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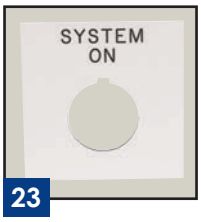

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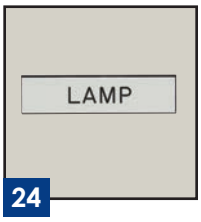

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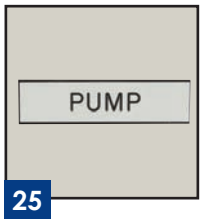
PRIMEdge HG4CU Electrical Parts 460V - 60Hz - 3PH

HG4C-9214			460V - 60Hz - 3 PH, Electrical Assembly cont...
	PRIMEdge Part No.	Qty.	Description
25	HZ-278-3	1	LEGEND PLATE PUMP
26	HZ-279	1	LEGEND PLATE "SYSTEM OFF"
27	HZ-287	1	INTERNATIONAL ELECT. ENCL.
28	02-018-0300	1	XF 240/400/460/575 - 115/24 250VA
29	HZ-289	2	120V 15A SINGLE RECPT.
30	HZ-292	1	1/4 LIQUID TIGHT CORD GRIP
31	02-017-0030	2	FUSE CLASS CC 600V 3A TD REJECT
32	HZ-297	1	TERMINAL/FUSE BLOCK 300V
33	HZ-298	1	END BARRIER-FUSE BLOCK
34	HZ-299	9	#10 SPADE TERMINAL
35	HZ-501	1	DIN RAIL 8"LONG
36	HZ-282	1	LEGEND PLATE, WHITE "PUMP ON"
37	HZ-283	1	LEGEND PLATE, WHITE "PUMP OFF"
38	02-006-0011	1	RELAY, DPDT 120VAC W/PL, 8 PIN
39	02-006-0020	1	RELAY, SOCKET 8 PIN, TYPE HA
40	HE7-104	4	10-32 X 1/2 RHMS SST
41	HZ-129	4	#10 FLATWASHER ZINC PLT.
42	HZ-134	4	#10 LOCKWASHER ZINC

For 460V 60Hz 3PH U.S. Electrical Requirements



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PRIMEdge HG4CU Fasteners

HG4CU Fasteners			
	PRIMEdge Part No.	**Qty.**	**Description**
1	03-012-0053	2	BOLT 3/8-16 X 3 HEX HEAD SS
2	EM-1075-05	38	WASHER FLAT #10 SST
3	EM-1075-12	8	SHCS 3/8-16 X 1 SST
4	EM-1075-14	2	NUT 3/8-16 HEX SST
5	EM-1075-22	4	WASHER FLAT 1/2" SST
6	EM-1075-41	2	SET SCREW 3/8-16 X 1/2 SST
7	HE7-101	4	M4 X .70 X 20 RHMS SST
8	HE7-104	4	10-32 X 1/2 RHMS SST
9	HE7-147	2	FLATWASHER 5/16 X 3/4 ZINC PL.
10	HE7-153	6	8-32X 1-1/4 RH SLOT SCR ZINC
11	HE7-154	2	5/16-18 SST JAM NUT
12	HE7-155	6	8-32 HEX NUT ZINC PLT.
13	HE7-157	6	#8 LOCKWASHER ZINC PLT.
14	HE7-158	10	8-32 X 1/4 RHMS SLOT ZINC PLT.
15	HZ-097	12	10-32 X 1/2 LG SHCS SST
16	HZ-099	4	7/16-14 X 2" HHCS
17	HZ-109	6	1/4-20 X 1/2 RHMS ZINC PLT.
18	HZ-110	4	3/8-16 X 1-3/4 SHCS 18-8 SST
19	HZ-115	2	BRASS THUMBSCREW 1/4-20 X 1/2
20	HZ-119	4	1/8 DIA. X 7/8 ROLL PIN
21	HZ-129	4	#10 FLATWASHER ZINC PLT.
22	HZ-134	4	#10 LOCKWASHER ZINC
23	HZ-135	1	1/8DIA. X 1-1/2 ROLL PIN
24	HZ-138	2	3/8-24 X 1 HHCS GRADE 5 ZINC.

PRIMEdge HG4CU Fasteners

HG6CU Fasteners Cont...			
	PRIMEdge Part No.	Qty.	Description
25	HZ-139	6	1/4-20 X 3/4 FHSS SST
26	HZ-146	2	5/16-18 X 2-1/4 HHCS GR.5 ZINC
27	HZ-149	4	1/4-20 X 1/4 SHSS SST
28	HZ-151	2	10-32 X 1/2" FH SLOT SCR. ZINC
29	HZ-152	2	10-32 X 5/16 SHSS BLK.OX.
30	HZ-153	4	3/8-16 X 2 SHCS 18-8 SST
31	HZ-154	4	#10-32 X 1/2 BHCS SST
32	HZ-160	8	3/8-16 X 3/4 SHSS SST NYLN TIP
33	HZ-162	8	1/4-20UNC X 1/2 SHCS SST
34	HZ-166	8	5/16-18 X 1/2" SHCS SST
35	HZ-179	1	SHOULDER BOLT, 1/4 X 1/2 LG
36	HZ-180	1	SHOULDER BOLT/1/2 X 1"LG
37	HZ-181	42	#10 LOCKWASHER SST
38	HZ-182	42	10-32 HEX NUT SST
39	HZ-183	4	1/4-20 X 1"LG SHSS SST
40	HZ-184	14	1/4-20 X 1 1/2 SHCS SST
41	HZ-185	14	1/4-20 JAM NUT SST
42	HZ-186	5	1/4-20 X 3/4 SHCS SST
43	HZ-187	4	1/4-20 X 3/4 HHCS SST
44	HZ-188	28	1/4 LOCKWASHER SST
45	HZ-189	17	1/4 FLATWASHER SST
46	HZ-190	40	10-32 X 3/4"LG SHCS SST
47	HZ-191	5	3/8-16 X 3/4 SHCS SST
48	HZ-192	8	3/8-16 X 1 1/2 SHCS SST

PRIMEdge HG4CU Fasteners

HG6CU Fasteners Cont...			
	PRIMEdge Part No.	Qty.	Description
49	HZ-193	2	3/8-16 X 3" SHCS SST
50	HZ-194	3	3/8" LOCKWASHER SST
51	HZ-195	2	3/8-16 X 3 1/2LG SHCS SST
52	HZ-196	2	1/2" DIA X 3/4LG DOWEL PIN SST
53	HZ-197	4	5/16-18 X 1" SHCS SST
54	HZ-198	6	5/16" LOCKWASHER SST
55	HZ-199	2	3/8-16 JAM NUT SST
56	HZS-123	2	#4 FLAT WASHER ZINC PLT.
57	HZS-124	2	#4-40 X 3/4 0HMS ZINC PLT.
58	HZS-127	2	#4 LOCK WASHER SST
59	HZS-157	34	1/8"DIA.X1/4"LG. ALUM.RIVET
60	HZS-160	2	#10-32 X 2-3/4" RHMS ZINC PL.

PRIMEdge HG4CU Parts Lists For Assemblies

	HG4C-9492		Motor Bellows Assembly Complete
	PRIMEdge Part No.	**Qty.**	**Description**
1	EM-1075-05	38	WASHER FLAT #10 SST
2	HG4C-852	1	HG4C TOWER LH
3	HG4C-853	1	HG4C TOWER RH
4	HZ-181	38	#10 LOCKWASHER SST
5	HZ-182	38	10-32 HEX NUT SST
6	HZ-190	38	10-32 X 3/4"LG SHCS SST
7	HZ-492	2	MOTOR BELLOWS
8	HZ-815	1	BULKHEAD
9	HZ-816	1	BULKHEAD REINFORCEMENT
10	HZ-817	8	MOTOR BELLOWS RETAINER - SIDE
11	HZ-818	4	MOTOR BELLOWS RETAINER - TOP

	HZ-9492		Motor Bellows & Retainers
1	HZ-492	2	MOTOR BELLOWS
2	HZ-816	1	BULKHEAD REINFORCEMENT
3	HZ-817	8	MOTOR BELLOWS RETAINER - SIDE
4	HZ-818	4	MOTOR BELLOWS RETAINER - TOP

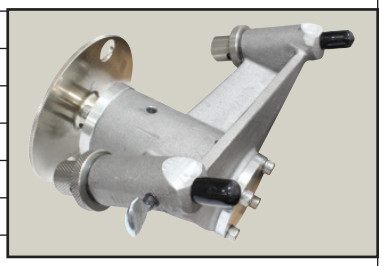
	HG4C-9814		Base Frame Assembly
1	HG4C-9534	1	MALE SPLINE MTR. MT. WELD.R.H.
2	HG4C-9535	1	MALE SPLINE MTR. MT. WELD. L.H.
3	HZ-110	4	3/8-16 X 1-3/4 SHCS 18-8 SST
4	HZ-153	4	3/8-16 X 2 SHCS 18-8 SST
5	HZ-160	8	3/8-16 X 3/4 SHSS SST NYLN TIP
6	HZ-192	8	3/8-16 X 1 1/2 SHCS SST
7	HZ-193	2	3/8-16 X 3" SHCS SST
8	HZ-194	12	3/8" LOCKWASHER SST
9	HZ-195	2	3/8-16 X 3 1/2LG SHCS SST
10	HZ-424	8	SHAFT SEAL 2-1/16OD X 1/2ID
11	HZ-567	1	UNIBODY BASE
12	HZ-568	2	SPLINE SUPPORT BRACKET
13	HZ-814	1	BASE FRAME
14	HZ-9533	2	FEMALE SPLINE MTR.MT.WELD
15	EM-1075-10	2	WASHER FLAT 3/8 SST
16	EM-1075-14	2	NUT 3/8-16 HEX SST
17	EM-1075-15	2	WASHER LOCK 3/8 SST
18	03-012-0053	2	BOLT 3/8-16 X 3 HEX HEAD SS
19	S102345	5.167 FT.	1-1/2 X 1-1/2 X 1/4 SS ANGLE-304

PRIMEdge HG4CU Parts Lists For Assemblies

	HG4C-9572		Access Door Subassembly
	PRIMEdge Part No.	**Qty.**	**Description**
1	HG4C-572	1	ACCESS DOOR HG4CU
2	HZ-545	1	ACCESS DOOR WINDOW
3	HZ-590	1	LIMIT SWITCH BLOCK
4	HZ-593	1	STONE COVER HINGE
5	HZ-139	3	1/4-20 X 3/4 FHSS SST
6	HZ-188	3	1/4 LOCKWASHER SST
7	HZ-185	3	1/4-20 JAM NUT SST
8	HZ-154	2	#10-32 X 1/2 BHCS SST
9	HZ-151	2	10-32 X 1/2" FH SLOT SCR. ZINC
10	HZ-181	2	#10 LOCKWASHER SST
11	HZ-182	2	10-32 HEX NUT SST
12	HZS-124	2	#4-40 X 3/4 0HMS ZINC PLT.
13	HZS-127	2	#4 LOCK WASHER SST
14	HZS-123	2	#4 FLAT WASHER ZINC PLT.

All parts are sold individually			Coolant Spray Plumbing Assembly
1	HSR-411	1	SPRAY NOZZLE
2	HZ-430	1	1/4 NPT MALE LOC LINE
3	HZ-400	5.75 IN.	LOC-LINE HOSE SEGMENT / IN
4	HZS-414	1	BULKHEAD FITTING
5	HE7-410	3	ELBOW, 1/4"NPT STREET GALV.
6	HZ-564R	1	NIPPLE,1/4NPT X 4" LG GALV.
7	HZ-564	1	COOLANT HOSE FITTING
8	HZS-413	1	BALL VALVE, 1/4"NPT,BRASS

	HG4C-9568		Dresser Assembly
1	EM-1041-02	1	O-RING GRISTLE RING PIN AR901
2	HG4C-568	1	HG4C DRESSER
3	HZ-115	2	BRASS THUMBSCREW 1/4-20 X 1/2
4	HZ-149	4	1/4-20 X 1/4 SHSS SST
5	HZ-152	2	10-32 X 5/16 SHSS BLK.OX.
6	HZ-162	8	1/4-20UNC X 1/2 SHCS SST
7	HZ-434	2	DRESSER DRIVE SCREW BUSHING
8	HZ-536	2	DIAMOND KNURLED KNOB
9	HZ-538	1	HAND WHEEL
10	HZ-575	1	SQUARE HOLED SLEEVE
11	HZ-576R	1	SQUARE ROD-PARTIALLY MACHINED
12	HZ-580	1	DRESSER SPLINE DRIVE SCREW
13	HZ-582	1	DRESSER FRONT CAP
14	HZ-583	1	DRESSER REAR CAP
15	HZ-585	2	DIAMOND FEED SCREW
16	HG4C-705	1 PR.	CLUSTER DIAMOND LONG SHNK/PAIR

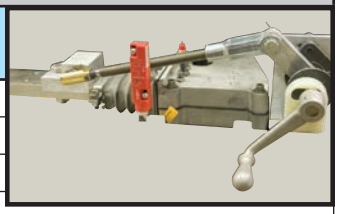


PRIMEdge HG4CU Parts Lists For Assemblies

	HG4C-9577		Dresser Bar Assembly
	PRIMEdge Part No.	**Qty.**	**Description**
1	EM-1075-05	12	WASHER FLAT #10 SST
2	EM-1075-41	2	SET SCREW 3/8-16 X 1/2 SST
3	HG4C-579	2	HG4C PIVOT BAR
4	HZ-097	12	10-32 X 1/2 LG SHCS SST
5	HZ-151	4	10-32 X 1/2" FH SLOT SCR. ZINC
6	HZ-180	2	SHOULDER BOLT/1/2 X 1"LG
7	HZ-181	12	#10 LOCKWASHER SST
8	HZ-183	4	1/4-20 X 1"LG SHSS SST
9	HZ-184	8	1/4-20 X 1 1/2 SHCS SST
10	HZ-185	6	1/4-20 JAM NUT SST
11	HZ-186	2	1/4-20 X 3/4 SHCS SST
12	HZ-188	10	1/4 LOCKWASHER SST
13	HZ-189	10	1/4 FLATWASHER SST
14	HZ-196	2	1/2" DIA X 3/4LG DOWEL PIN SST
15	HZ-199	2	3/8-16 JAM NUT SST
16	HZ-470	2	GREASE FITTING CAPS
17	HZ-493	2	PIVOT BLOCK BELLOWS W/O PLATES
18	HZ-565	1	SAFETY SWITCH BRACKET
19	HZ-566	2	DRESSER BELLOWS MOUNTING PLATE
20	HZ-569	1	PIVOT BLOCK RH (REV D)
21	HZ-570	1	PIVOT BLOCK LH
22	HZ-573	1	DRESSER PIVOT BLOCK COVER RH (RV C)
23	HZ-574	1	DRESSER PIVOT BLOCK COVER LH
24	HZ-577	1	DRESSER BAR
25	HZ-586	2	LOWER DRESSER BAR BUSHING
26	HZ-587	2	UPPER DRESSER BAR BUSHING
27	HZ-588	2	GREASE FITTING
28	HZ-823	2	BELLOWS CLAMP
29	HZ-597	2	GASKET, PIVOT BLOCK

PRIMEdge HG4CU Parts Lists For Assemblies

	HZ-9608		Manual Dresser Bar (Can be used to convert pneumatic system to manual)
	PRIMEdge Part No.	**Qty.**	**Description**
1	HZ-600	1	SWING ARM
2	HZ-602	1	DRESSER BAR BLOCK
3	HZ-606	1	SHIELDED BALL JOINT
4	HZ-607	1	CLEVIS
5	HZ-119	4	1/8 DIA. x 7/8 ROLL PIN
6	HPB8-104	2	1/4 - 20 x 2" LG. SHCS
7	HZ-185	2	1/4 - 20 JAM NUT SST
8	HZ-188	2	1/4 - 20 LOCK WASHER SST
9	EM-1075-16	1	HHCS 1/2 - 13 x 2" SST
10	EM-1075-17	1	NUT 1/2 - 13 HEX SST
11	EM-1075-18	1	LOCK WSHER 1/2" SST
12	HZ-149	2	1/4 - 20 x 1/4 SHSS SST
13	HZ-424	1	SHAFT SEAL 21/16 O.D. x 1/2 I.D.
14	HZ-589	1	CRANKSHAFT GROMMET
15	HZ-411	2	DRIVEN SPROCKET FLANGE BEARING
16	HZ-421	1	CRANK
17	HZ-608	1	THREADED ROD, 81/2" Long x 1/2 - 13
18	S104155	0.5414	1/2 SS ROUND BAR 303 A&CD



	HZ-9432		Pneumatic Assembly (Air Operated Dresser only)
1	HZ-432	1	4WAY VALVE W/HANDL&FLO CONTROL
2	HZ-433	1	AIR REGULATOR ASSY COMPLT.
3	HZ-435	1	MPT PLUG 1/4"
4	HZS-415	1	ELBOW, STREET,1/4"NPT
5	HE7-412	1	REDUCER, HEX 1/4"NPTX1/8"NPT
6	HZ-452	8	5/32 TUBE FITTING 1/8 NPT
7	HZ-182	2	10-32 HEX NUT SST
8	HZ-181	2	#10 LOCKWASHER SST
9	HZ-129	2	#10 FLATWASHER ZINC PLT.
10	HZS-160	2	#10-32 X 2-3/4" RHMS ZINC PL.
11	HZ-468	50 IN.	5/32 0D AIR TUBING PE

	HZ-9494		Air Cylinder Subassembly (Air Operated Dresser only)
1	HZ-182	1	10-32 HEX NUT SST
2	HZ-181	1	#10 LOCKWASHER SST
3	HZ-584	1	CONNECTING PIN
4	HZ-495	1	CLEVIS
5	HZ-462	1	AIR CYLINDER BELLOWS
6	HZS-419	2	HOSE CLAMP 1" NOMINAL
7	HZ-452	2	5/32 TUBE FITTING 1/8 NPT
8	HZ-494	1	AIR CYLINDER 1-1/16 BORE

PRIMEdge HG4CU Parts Lists For Assemblies

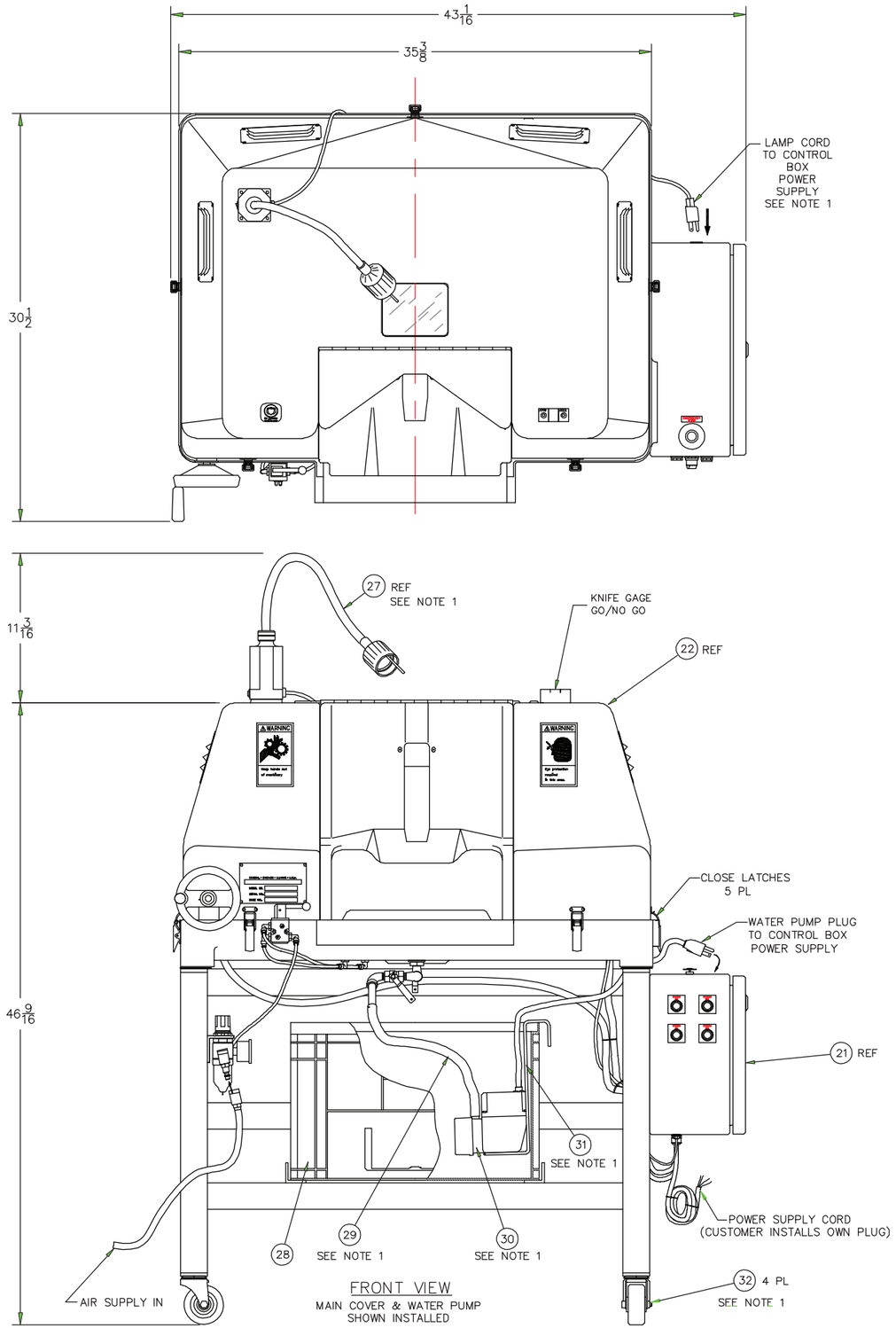
All parts are sold individually			Pulley & Crankshaft Assembly
	PRIMEdge Part No.	**Qty.**	**Description**
1	HG4C-9492	1	MOTOR BELLOWS ASSEMBLY
2	HZ-9504	2	REAR SPLINE COVER WEDLD ASSEMB
3	HZ-408	8	SPLINE DRIVE SCREW THRUST RACE
4	HZ-407	4	SPLINE DRIVE SCREW THRUST BEAR
5	HZ-503	2	THRUST BEARING CAP
6	HZ-409	2	SPLINE DRIVE SCREW UNIVER.JOIN
7	HZ-560	1	SHAFT DOUBLE PULLEY
8	HZ-498	1	TENSIONER
9	HZ-441	1	DRIVEN BELT
10	HZ-499	1	TENSIONER PULLEY
11	HZ-496	1	TENSIONER PULLEY SHAFT
12	HZ-455	66 IN.	BULKHEAD SEAL/66" LONG
13	HG4C-404	1	HG6C DRIVE BELT
14	HZ-535	2	DRIVE PULLEY
15	HG4C-503	2	HG4C DRIVEN PULLEY
16	HZ-411	4	DRIVEN SPROCKET FLANGE BEARING
17	HZ-559	1	SHAFT, SINGLE PULLEY
18	HZ-561	1	SHAFT, HANDCRANK
19	HZ-424	1	SHAFT SEAL 2-1/16OD X 1/2ID
20	HZ-467	1	FLANGE BEARING SEAL (REAR)
21	HZ-399	1	FLANGE BEARING SEAL (FRONT)
22	HZ-591	1	FLANGE BEARING SEAL RETAINER
23	HZ-439	1	GRINDING STONE CRANK/W HANDLE
24	HZ-595	1	GUARD, SPLASH WHOLE
25	HZ-596	1	GUARD, SPLASH PLAIN
26	HZ-180	1	SHOULDER BOLT/1/2 X 1"LG
27	HZ-589	1	CRANKSHAFT GROMMET
28	HZ-184	14	1/4-20 X 1 1/2 SHCS SST
29	HZ-188	28	1/4 LOCKWASHER SST
30	HZ-185	14	1/4-20 JAM NUT SST
31	HZ-189	17	1/4 FLATWASHER SST
32	HE7-147	2	FLATWASHER 5/16 x 3/4 ZINC PLT.
33	HE7-154	2	5/16-18 SST JAM NUT
34	HZ-198	6	5/16" LOCKWASHER SST
35	HZ-197	4	5/16-18 X 1" SHCS SST
36	HZS-157	34	1/8"DIA.X1/4"LG. ALUM.RIVET
37	HZ-119	4	1/8 DIA. X 7/8 ROLL PIN
38	HZ-135	1	1/8DIA. X 1-1/2 ROLL PIN

PRIMEdge HG4CU Parts Lists For Assemblies

All parts are sold individually			Main Cover Subassembly
	PRIMEdge Part No.	**Qty.**	**Description**
1	HZ-571	1	MAIN COVER
2	HE7-417	5	CATCH
3	HZS-514	4	LOUVER
4	HZ-500	1	GO-NO GO GAUGE
5	HZ-527	1	WINDOW 4-7/8 X 3-7/8 PLEXI
6	HZ-546	1	LAMP BASE
7	HZ-477	1	COZZINI NAME PLATE
8	HZ-480-1	1	CAUTION LABEL HAND OUT OF MACH
9	HZ-476	1	CAUTION LABEL EYE PROTECTION
10	HZ-479	1	CAUTION LABEL GUARDS
11	HZ-488-1	1	EAR PROTECTION SAFETY STICKER
12	HZ-184	14	1/4-20 X 1 1/2 SHCS SST
13	HZ-129	4	#10 FLATWASHER ZINC PLT.
14	HE7-153	6	8-32 x 1-1/4 RH SLOT SCR ZINC
15	HE7-157	6	#8 LOCKWASHER ZINC PLT.
16	HE7-155	6	8-32 HEX NUT ZINC PLT.
17	HE7-157	6	#8 LOCKWASHER ZINC PLT.

All parts are sold individually			Motor & Cup Wheel Assembly
1	HG4C-9439	1	PULLEY & CRANKSHAFT ASSY.
2	HZ-502	2	LABYRINTH FLANGE
3	HZ-516	2	FLANGE RETAINING WASHER, SPEC.
4	HE7-104	4	10-32 x 1/2 RHMS SST
5	HG4C-760	1PR.	CUP WHEEL 4" 60 GRIT (1 PAIR)
OR	HG4C-7120	1PR.	CUP WHEEL 4" 120 GRIT (1 PAIR)
6	HG4C-203	2	MOTOR 1/2HP, 1PH, 115V/230V, 60HZ (FOR SINGLE PHASE DOMESTIC)
OR	HG4C-201	2	MOTOR 1/2HP, 3PH, 230/460V, 50/60HZ (FOR THREE PHASE DOMESTIC & INTERNATIONAL)
	HZ-221	1	1/2" CONDUIT STRAP
	HZ-260	12	ORANGE WIRE NUT 14 GA.
	HZ-261R	636 IN.	STRANDED MACH. WIRE/BLK 14 GA.
	HZ-247	2	INSULATING CONNECTOR 1/2"90DEG
	HZ-256	10	#10 CRIMP ON RING TERMINAL
	HZ-263R	120 IN.	STRANDED MACH. WIRE/GRN 14 GA.
	HZ-246R	121 IN.	EXTRA FLEXIBLE CONDUIT
	HZ-249	6	STRAIG. INSUL. CONNECTOR 1/2"
	HZ-286	2	3/4 TO 1/2 REDUCER
	HZ-252	2	SEALING RING 1/2"
	HZ-166	8	5/16-18 X 1/2" SHCS SST
	EM-1075-12	8	SHCS 3/8-16 X 1 SST
	HZ-138	2	3/8-24 X 1 HHCS GRADE 5 ZINC.

REV	NAME	DATE	DESCRIPTION
A	OP	6/24/00	ECN H-2179: REPLACES OLD HG4CU ASSY



ITEM	PART NO.	QTY	DESCRIPTION
45	HZ-480	1	LABEL, DANGER ELECTRICITY
44	HG4C-9814	1	BASE FRAME ASSEMBLY
43	EM-1376	1	ACTUATOR, MAGNETIC SAFETY SWITCH
	HZ-200		ACTUATOR, MAGNETIC SAFETY SWITCH, EURO
42		1	MAINTENANCE VIDEO
41		1	OWNERS MANUAL
40	HZ-489	1	GLASSES, SAFETY
39	HZ-488	1	EARPLUGS
38	HE2-431	1	COOLANT BOTTLE, 16 OZ PLASTIC, W/ COOLANT FLUID
37	HZ-448	1	WRENCH, OPEN END 1/2"
36	HZ-449	1	WRENCH, OPEN END 7/16"
35	HZ-450	1	HEX KEY, T-HANDLE, 1/4" HW 6"LG
34	HZ-440	1	ALLEN WRENCH SET
33	HZ-474	1	CUP, MEASURING, 8 OZ, PLASTIC
32	HZ-454	4	CASTERS, 3" SWIVEL
31	HZ-405	1	HANGER, COOLANT PUMP
30	HZ-444	1	COOLANT PUMP ASSY, 230V 60 HZ
	HZ-443		COOLANT PUMP, 115V 60HZ
29	HZ-442R	48"	HOSE, 1/2" ID x 1/8" WALL
28	HZ-475	1	COOLANT TANK, LARGE
27	HZ-445	1	LAMP, 60 HZ
	HZ-446		LAMP, W/PLUG 220V/50 HZ EURO
26	HZS-422R	35"	WEATHERSTRIP FOAM, 1/2 x 5/32
25	HZ-185	3	JAM NUT, HEX 1/4 STN STL
24	HZ-139	3	SCREW, FLAT HD CAP, 1/4-20UNC x .75 LG STN STL
23	HG4C-9572	1	ACCESS DOOR SUBASSEMBLY, HG4CU
22	HG4C-9571	1	MAIN COVER SUBASEMBLY, HG4CU
21	HG4C-9210	1	220V-60HZ-1PH ELECTRICAL ASSY DOMESTIC
	HG4C-9211		230V-60HZ-3PH ELECTRICAL ASSY DOMESTIC
	HG4C-9212		220/380V-50HZ-3PH ELECTRICAL ASSY EURO
	HG4C-9214		460V-60HZ-3PH ELECTRICAL ASSY DOMESTIC
	HG4C-9215		575V-60HZ-3PH ELECTRICAL ASSY 120V SEC.
20	HZ-191	2	SCREW, SKT HD CAP, 3/8-16UNC x .75 LG, STN STL
19	HZ-187	4	SCREW, HEX HD, 1/4-20UNC x .75 LG, STN STL
18	HZ-578	1	DRESSER MOUNTING BLOCK
17	HG4C-9568	1	DRESSER ASSEMBLY HG4CU
16	02-023-0018	4	CABLE TIES
15	HZ-292	1	CORD GRIP, 1/4 LIQUID TIGHT
14	HE7-153	2	SCREW, ROUND HD SLOT, 8-32UNC x 1.25 LG, BLK OX.
13	HE7-157	2	LOCKWASHER, #8, ZINC PLATED
12	HE7-155	2	HEX NUT, 8-32UNF, ZINC PLT.
11	HG4C-9577	1	DRESSER BAR ASSEMBLY HG4CU
10	HZ-184	6	SCREW, SKT HD CAP, 1/4-20UNC x 1.50 LG, STN STL
9	HZ-188	13	LOCKWASHER, 1/4 STN STL
8	HZ-460R	15"	TUBING, 3/16 ID, POLYETHYLENE
7	HZ-189	7	FLAT WASHER, 1/4 STN STL
6	HZ-186	1	SCREW, SKT HD CAP, 1/4-20UNC x .75 LG, STN STL
5	HG4C-9760	1	MOTOR & CUP WHEEL ASSEMBLY
4	HZ-9494	1	AIR CYLINDER SUBASSEMBLY
3	HZ-179	1	BOLT, SHOULDER, ø1/4 x .50 LG
2	HZ-9484	1	PLUMBING ASSEMBLY, COOLANT SPRAY
1	HZ-9432	1	PNEUMATIC ASSEMBLY

BILL OF MATERIAL

NOTES:

1.THE FOLLOWING ITEMS ARE SHIPPED INSIDE COOLANT TANK (ITEM 28):
- ITEM 27 (LAMP)
- ITEMS 29 THRU 42.

2. ALL DIMENSIONS FOR REF ONLY.

SHEET 1 OF 4

ENGINEER: _____
DATE ISSUED: _____
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☐QUOTATION ☐QUALITY CONTROL
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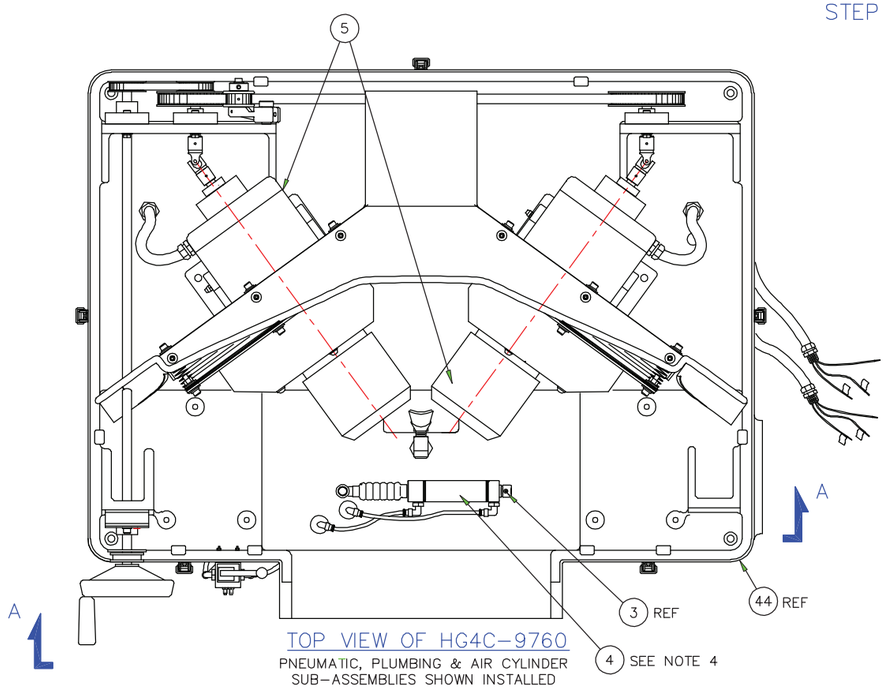
NOTES:
UNSPECIFIED TOLERANCES:
DECIMALS: .0000 ± .0005
.000 ± .005
.00 ± .01
FRACTIONS: ±1/32
ANGLES ±1°
SQUARENESS AND PARALLELISM ±.015 INCHES PER FOOT
CONCENTRICITY: T.I.R. EQUALS TOLERANCE ON DIAMETER
DIMENSIONING SYSTEM ANSI/ASME Y14.5M

RAW MATERIAL: SEE BOM
FINISH

PRIMEdge, Inc.
CHICAGO, ILLINOIS 60646 USA
PART NAME: 4" HOLLOW GRINDER
NEXT ASSEMBLY
MODEL NO.: HG4CU
DRAWN BY: OP
DATE: 6-14-00
CHECKED BY
SCALE: 1/5 = 1
DRAWING NUMBER: HG4CU PAGE 1

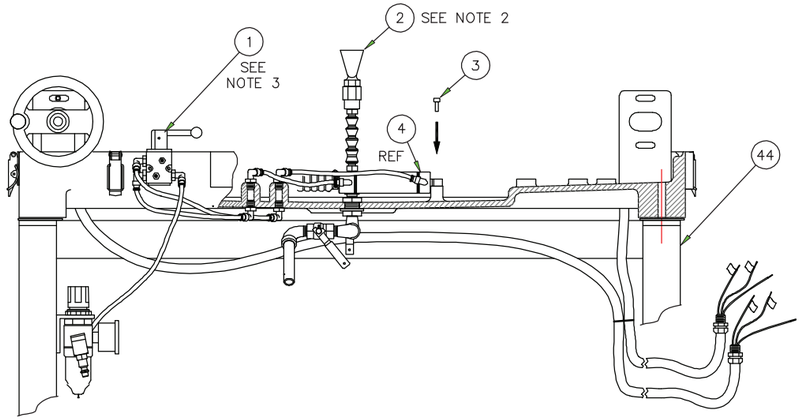
REV	NAME	DATE	DESCRIPTION
A	OP	6/24/00	ECN H-2179: REPLACES OLD HG4CU ASSY

1 STEP



TOP VIEW OF HG4C-9760

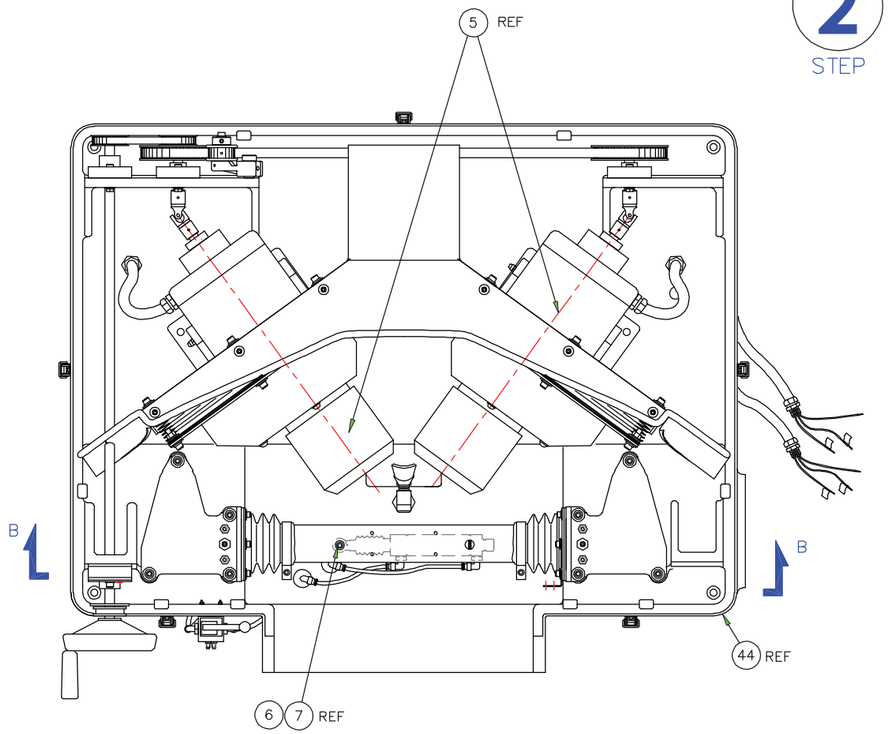
PNEUMATIC, PLUMBING & AIR CYLINDER SUB-ASSEMBLIES SHOWN INSTALLED



SECTION A-A: FRONT VIEW

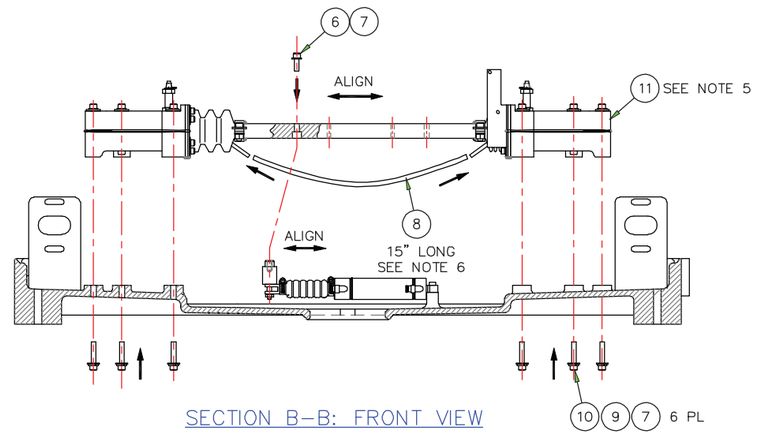
PNEUMATIC, PLUMBING & AIR CYLINDER SUB-ASSEMBLIES SHOWN INSTALLED (BACKGROUND ITEMS NOT SHOWN FOR CLARITY)

2 STEP



TOP VIEW

DRESSER BAR ASSEMBLY SHOWN INSTALLED



SECTION B-B: FRONT VIEW

DRESSER BAR ASSEMBLY INSTALLATION (ADJACENT ITEMS NOT SHOWN FOR CLARITY)

ASSEMBLY NOTES:

1. APPLY ANTI-SIEZE LUBRICANT TO ALL MOUNTING SCREWS.
2. INSTALL PLUMBING ASSY PER PRINT HZ-9484.
3. INSTALL PNEUMATIC ASSY PER PRINT HZ-9432.
4. INSTALL AIR CYLINDER ASSY (ITEM 4) AS SHOWN ON STEP 1.
5. INSTALL DRESSER BAR ASSY (ITEM 12) AS SHOWN ON STEP 2.
6. INSTALL ITEM 8 (HZ-460R) UNDER DRESSER BAR AS SHOWN ON FRONT VIEW, STEP 2.

ENGINEER: _____

DATE ISSUED: _____

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☐QUOTATION ☐QUALITY CONTROL

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NOTES:

UNSPECIFIED TOLERANCES:
DECIMALS: .0000 ± .0005
.000 ± .005
.00 ± .01
FRACTIONS: ±1/32
ANGLES ±1°
SQUARENESS AND PARALLELISM ±.015 INCHES PER FOOT
CONCENTRICITY: T.I.R EQUALS TOLERANCE ON DIAMETER
DIMENSIONING SYSTEM ANSI/ASME Y14.5M

RAW MATERIAL: SEE BOM

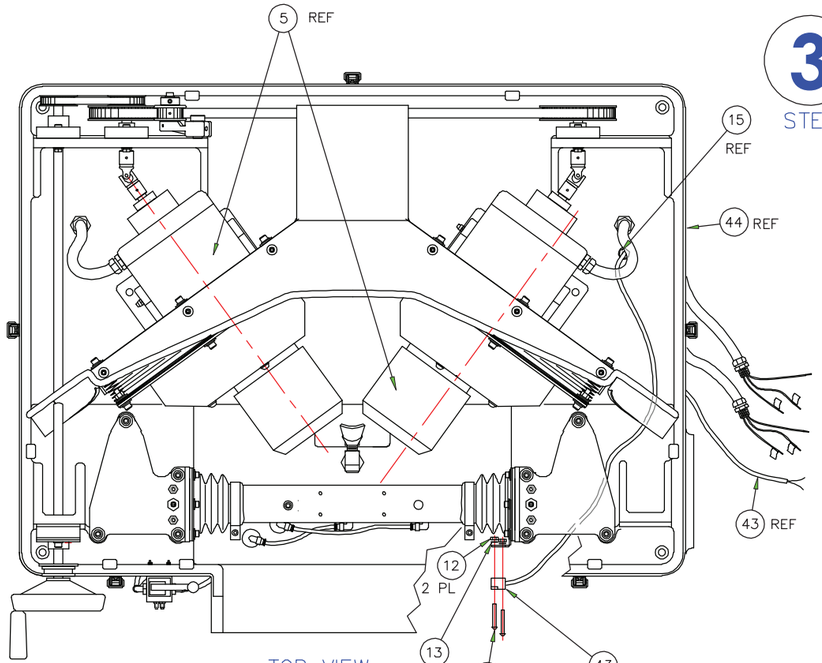
FINISH

PRIMEdge, Inc.
CHICAGO, ILLINOIS 60646 USA

PART NAME	4" HOLLOW GRINDER
NEXT ASSEMBLY	MODEL NO. HG4CU
DRAWN BY: OP	DATE: 6-14-00
CHECKED BY	SCALE: 1/4 = 1
	DRAWING NUMBER: HG6CU PAGE 2

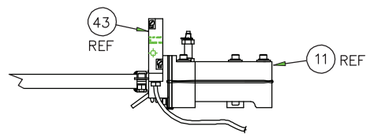
D

REV	NAME	DATE	DESCRIPTION
A	OP	6/24/00	ECN H-2179: REPLACES OLD HG4CU ASSY

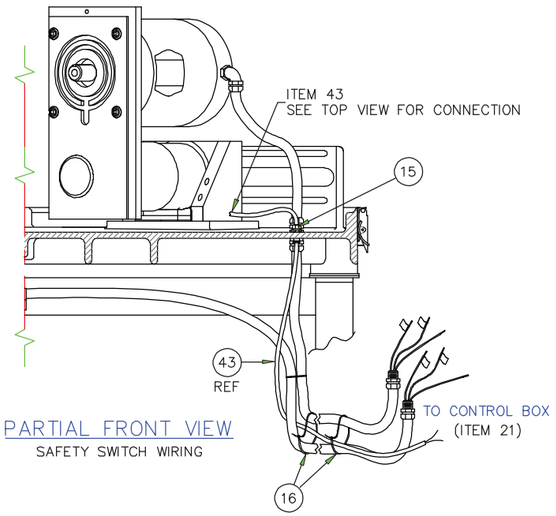


3 STEP

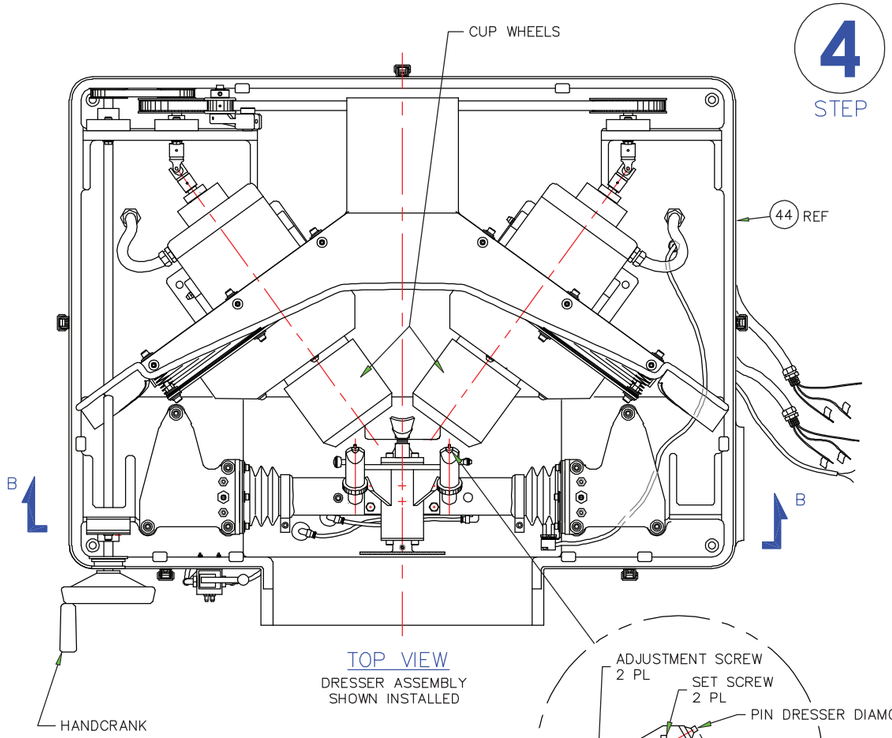
TOP VIEW
SAFETY SWITCH ASSEMBLY



PARTIAL FRONT VIEW
SAFETY SWITCH ON DRESSER BAR BRACKET



PARTIAL FRONT VIEW
SAFETY SWITCH WIRING



4 STEP

TOP VIEW
DRESSER ASSEMBLY SHOWN INSTALLED

SECTION B-B: FRONT VIEW
DRESSER ASSEMBLY INSTALLATION
(BACKGROUND ITEMS NOT SHOWN FOR CLARITY)

ASSEMBLY NOTES:

1. APPLY ANTI-SIEZE LUBRICANT TO ALL MOUNTING SCREWS.

2. INSTALL DRESSER (ITEM 17) AS SHOWN ON STEP 4.

3. TIGHTEN SCREWS AFTER ALIGNING THE DRESSER. SEE NOTE 4.

4. DRESSER ALIGNMENT PROCEDURES:

a.-MOVE CUP WHEELS FORWARD BY USING THE HAND CRANK WHEEL, UNTIL CUP WHEELS LIGHTLY TOUCH EACH OTHER. TO ACCOMPLISH THIS WITHOUT BREAKING CUP WHEELS DO THE FOLLOWING:

b.-SPIN ONE OF THE CUP WHEELS BY HAND.
MOVE CUP WHEELS FORWARD SLOWLY BY USING THE HANDCRANK WHEEL.

c.-WHEN THE SPINNING CUP WHEEL STARTS TO SPIN THE OTHER CUP WHEEL, STOP. THEY ARE NOW LIGHTLY TOUCHING.(THIS IS THE POSITION THE CUP WHEELS ARE WHEN SHARPENING KNIVES. SEE OWNERS MANUAL FOR DETAILS)

d.-BOTH PIN DRESSER DIAMONDS SHOULD BE 1/4" FROM DRESSER CASTING, IF NOT, USE ADJUSTMENT SCREW. THEN TIGHTEN BOTH WITH SET SCREWS.

e.-MOVE DRESSER PIN TIPS FORWARD IF NECESSARY USING DRESSER HANDWHEEL UNTIL PIN TIPS TOUCH CUP WHEELS. BOTH TIPS SHOULD TOUCH CUP WHEEL AT THE SAME TIME, IF NOT ADJUST DRESSER BASE (ITEM 18) SO BOTH PIN TIPS ARE TOUCHING CUP WHEELS.

f.-AFTER ADJUSTING DRESSER, TIGHTEN SCREWS (ITEMS 19).

g.-USING DRESSER HANDWHEEL, MOVE DRESSER TIPS AWAY FROM THE TOUCHING CUP WHEELS, WHILE TURNING HANDCRANK COUNTERCLOCKWISE UNTIL DRESSER STOPS. COUNT THE NUMBER OF TURNS AND ENGRAVE IT ON DRESSER ADVANCE HANDWHEEL. APPROXIMATE TO THE NEAREST 1/4 TURN.
(THIS ENGRAVED NUMBER IS THE NUMBER OF CLOCKWISE TURNS THE OPERATOR WILL NEED TO RESTORE THE DRESSER TO THE DRESSING POSITION. SEE OWNERS MANUAL FOR DETAILS)

h.-TO PREVENT BREAKAGE DURING SHIPPING, MOVE CUP WHEELS BACK WITH HANDCRANK SO THEY DO NOT TOUCH.

D

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NOTES:
UNSPECIFIED TOLERANCES:
DECIMALS: .0000 ± .0005, .000 ± .005, .00 ± .01
FRACTIONS: ±1/32
ANGLES ±1°
SQUARENESS AND PARALLELISM ±.015 INCHES PER FOOT
CONCENTRICITY: T.I.R EQUALS TOLERANCE ON DIAMETER
DIMENSIONING SYSTEM ANSI/ASME Y14.5M

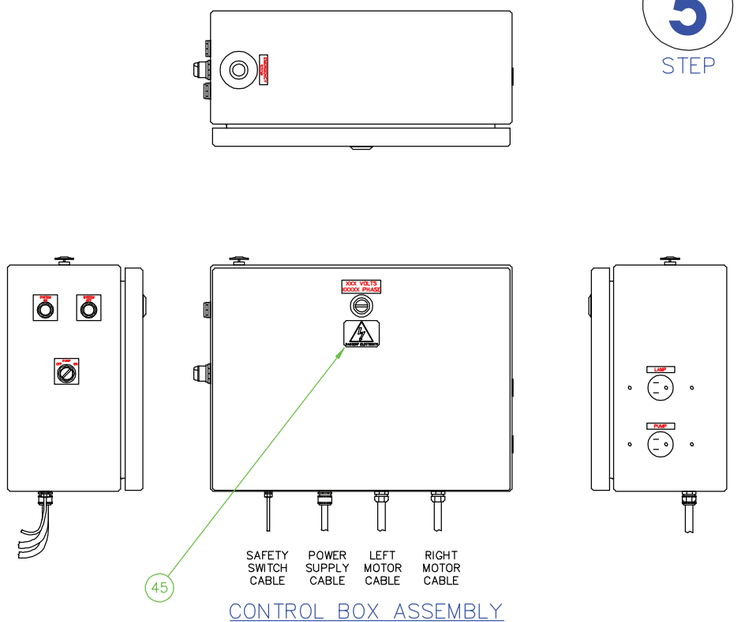
RAW MATERIAL: SEE BOM
FINISH

PRIMEdge, Inc.
CHICAGO, ILLINOIS 60646 USA

PART NAME	4" HOLLOW GRINDER	
NEXT ASSEMBLY		MODEL NO. HG4CU
DRAWN BY OP	DATE 6-14-00	DRAWING NUMBER HG4CU PAGE 3
CHECKED BY	SCALE 1/4 = 1	

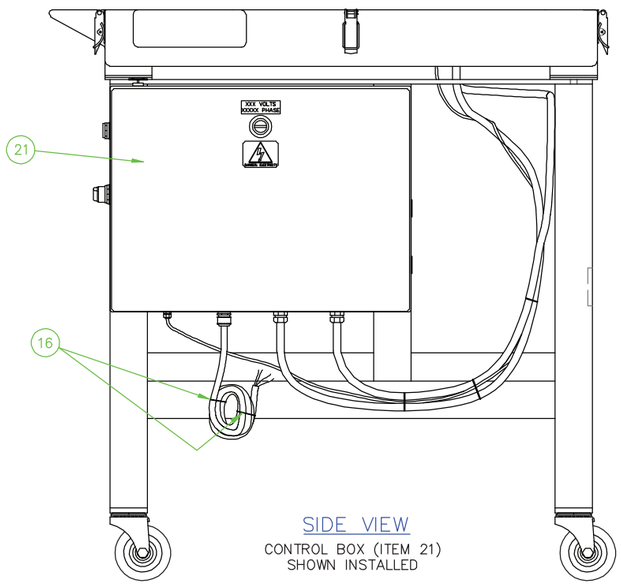
REV	NAME	DATE	DESCRIPTION
A	OP	6/24/00	ECN H-2179: REPLACES OLD HG4CU ASSY

5 STEP



CONTROL BOX ASSEMBLY
ITEM 21

BACKGROUND ITEMS NOT SHOWN FOR CLARITY



SIDE VIEW
CONTROL BOX (ITEM 21) SHOWN INSTALLED

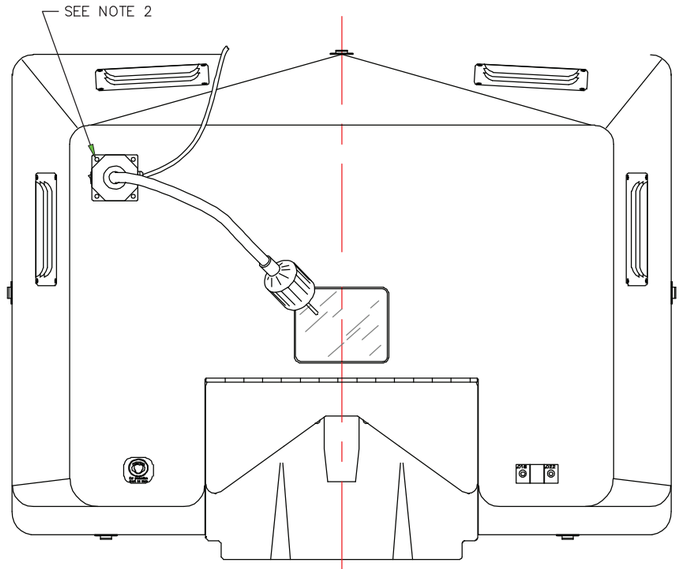
ASSEMBLY NOTES:

1. INSTALL ITEM 21 (CONTROL BOX) TO THE RIGHT SIDE OF THE BASE FRAME USING THE MOUNTING SCREWS INCLUDED INSIDE BOX.

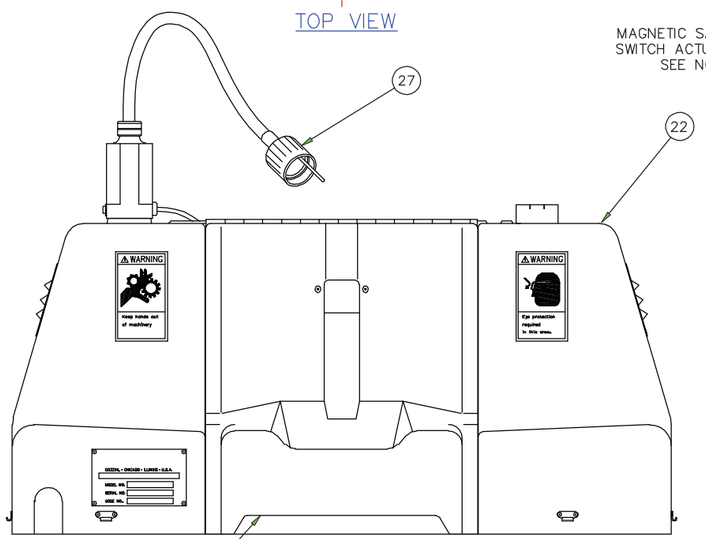
2. CONNECT CABLES AS SHOWN.

3. FOR WIRE CONNECTIONS INSIDE THE CONTROL BOX, SEE CORRESPONDING ELECTRICAL DIAGRAM (DRAWING No: HG4CU-HG6CU-ELECTRICAL).

6 STEP



TOP VIEW



FRONT VIEW
ACCESS DOOR SHOWN INSTALLED

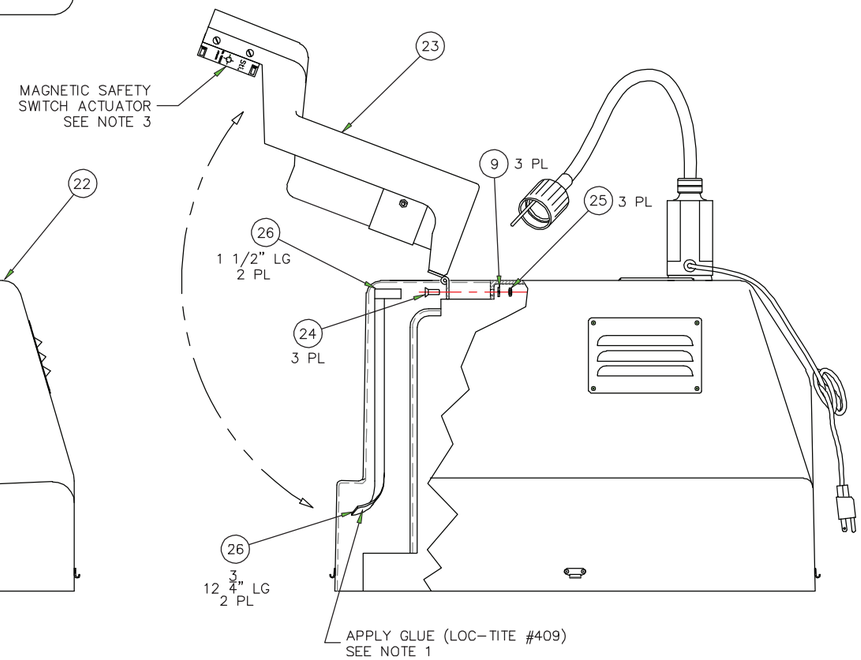
ASSEMBLY NOTES:

1. ASSEMBLE ACCESS DOOR (ITEM 23) TO MAIN COVER (ITEM 22) AS FOLLOWS:

- INSTALL WEATHER-STRIP FOAM (ITEM 26) INSIDE OF MAIN COVER AS SHOWN. USE LOC-TITE #409 GLUE.
- ALIGN AND MARK HOLE LOCATIONS ON MAIN COVER. DRILL THREE ø9/32 MOUNTING HOLES.
- INSTALL ACCESS DOOR WITH SCREWS, LOCKWASHERS, WASHERS & NUTS.

2. INSTALL LAMP (ITEM 27) WITH SCREWS SUPPLIED BY VENDOR. AFTER TESTING HOLLOW GRINDER, PLACE INSIDE COOLANT TANK (ITEM 28) ALONG WITH SCREWS.

3. MAGNETIC SAFETY SWITCH LOCATED ON DRESSER BAR ASSY. (SEE SHEET 3).



RIGHT VIEW
ACCESS DOOR INSTALLATION

D

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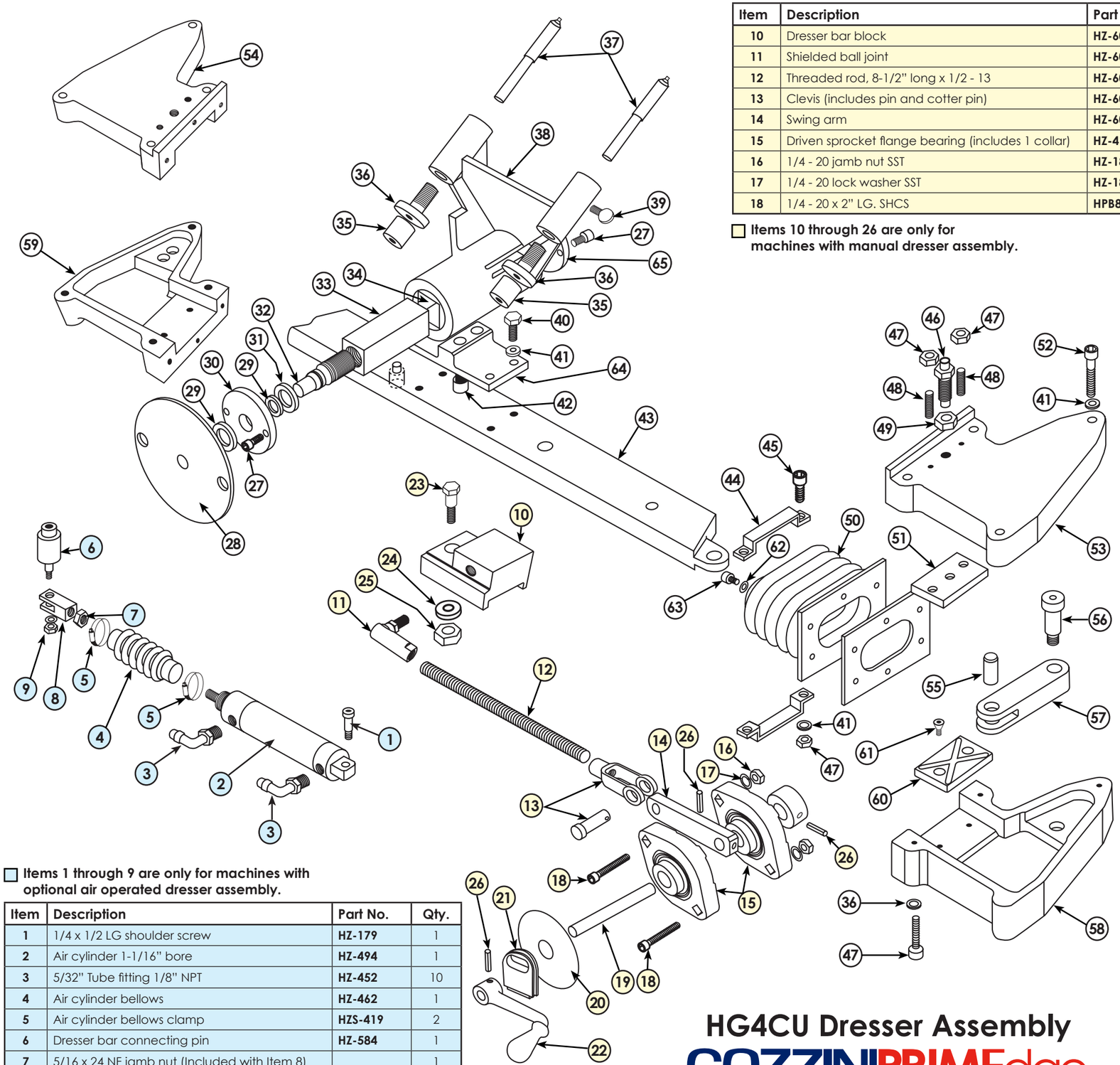
NOTES:
UNSPECIFIED TOLERANCES:
DECIMALS: .0000 ± .0005
.000 ± .005
.00 ± .01
FRACTIONS: ±1/32
ANGLES ±1°
SQUARENESS AND PARALLELISM ±.015 INCHES PER FOOT
CONCENTRICITY: T.I.R EQUALS TOLERANCE ON DIAMETER
DIMENSIONING SYSTEM ANSI/ASME Y14.5M

RAW MATERIAL
SEE BOM
FINISH

PRIMEdge, Inc.
CHICAGO, ILLINOIS 60646 USA

PART NAME: 4" HOLLOW GRINDER		
NEXT ASSEMBLY		MODEL NO.: HG4CU
DRAWN BY: OP	DATE: 6-14-00	DRAWING NUMBER: HG4CU PAGE 4
CHECKED BY	SCALE: 1/4 = 1	



Item	Description	Part No.	Qty.
10	Dresser bar block	**HZ-600**	1
11	Shielded ball joint	**HZ-606**	1
12	Threaded rod, 8-1/2" long x 1/2 - 13	**HZ-608**	1
13	Clevis (includes pin and cotter pin)	**HZ-607**	1
14	Swing arm	**HZ-600**	1
15	Driven sprocket flange bearing (includes 1 collar)	**HZ-411**	2
16	1/4 - 20 jamb nut SST	**HZ-185**	2
17	1/4 - 20 lock washer SST	**HZ-188**	2
18	1/4 - 20 x 2" LG. SHCS	**HPB8-104**	2

☐ **Items 10 through 26 are only for machines with manual dresser assembly.**

Item	Description	Part No.	Qty.
19	1/2" round bar, 303 A&CD	**S104155**	
20	Shaft seal 2-1/16 O.D. x 1/2" I.D.	**HZ-424**	1
21	Crankshaft grommet	**HZ-589**	1
22	Crank	**HZ-421**	1
23	HHC 1/2 - 13 x 2" SST	**EM-1075-16**	1
24	1/2 Lock washer SST	**EM-1075-18**	1
25	Nut 1/2 - 13 hex SST	**EM-1075-17**	1
26	1/8 diameter x 7/8" roll pin	**HZ-119**	3

☐ **Items 1 through 9 are only for machines with optional air operated dresser assembly.**

Item	Description	Part No.	Qty.
1	1/4 x 1/2 LG shoulder screw	**HZ-179**	1
2	Air cylinder 1-1/16" bore	**HZ-494**	1
3	5/32" Tube fitting 1/8" NPT	**HZ-452**	10
4	Air cylinder bellows	**HZ-462**	1
5	Air cylinder bellows clamp	**HZS-419**	2
6	Dresser bar connecting pin	**HZ-584**	1
7	5/16 x 24 NF jamb nut (Included with Item 8)	**HZ-495**	1
8	Clevis		1
9	10-32 NF Hex nut SST	**HZ-182**	1

Item	Description	Part No.	Qty.
27	1/4-20 x 1/2" SHCS SST	**HZ-162**	8
28	Dresser advance hand wheel	**HZ-538**	1
29	Dresser drive screw bushing	**HZ-434**	2
30	Dresser front cap	**HZ-582**	1
31	O-ring	**EM-1041-02**	1
32	Dresser drive screw	**HZ-580**	1
33	Square rod	**HZ-576**	1
34	Square holed sleeve	**HZ-575**	1
35	Diamond knurled knob	**HZ-536**	2
36	Diamond feed screw	**HZ-585**	2
37	Cluster diamond (1 pair)	**HG4C-705**	1
38	HG4C dresser	**HG4C-568**	1
39	Brass thumbscrew	**HZ-115**	2
40	1/4-20 x 3/4" Hex Hd. SST	**HZ-187**	4
41	1/4" lock washer	**HZ-188**	20
42	3/8-16 x 3/4" SHCS SST	**HZ-191**	2
43	Dresser bar	**HZ-577**	1
44	Dresser bellows clamp	**HZ-823**	4
45	1/4-20 x 3/4" SHCS SST	**HZ-186**	5
46	Grease fitting jamb screw	**HZ-588**	5
47	1/4-20 jamb nut SST	**HZ-185**	4
48	1/4-20 x 1" SHSS SST	**HZ-183**	4
49	3/8-16 jamb nut SST	**HZ-199**	2
50	Dresser bellows w/plate	**HZ-493**	2
51	Dresser slide bushing top	**HZ-586**	2
52	1/4-20 x 1-1/2" SHCS SST	**HZ-184**	8
53	Pivot block cover (RH)	**HZ-573**	1
54	Pivot block cover (LH)	**HZ-574**	1
55	1/2 x 3/4" LG. dowel pin	**HZ-196**	2
56	1/2 x 1" LG. shoulder screw	**HZ-180**	2
57	HG4C pivot bars	**HG4C-579**	2
58	HG4C pivot block (RH)	**HZ-569**	1
59	HG4C pivot block (LH)	**HZ-570**	1
60	Dresser slide bushing bottom	**HZ-587**	2
61	10-32 x 1/2" FHSS	**HZ-131**	4
62	No. 10 lock washers	**HZ-181**	12
63	10-32 x 1/2" SHCS SST	**HZ-190**	12
64	Dresser mounting block	**HZ-578**	1
65	Dresser rear cap	**HZ-583**	1

HG4CU Dresser Assembly

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