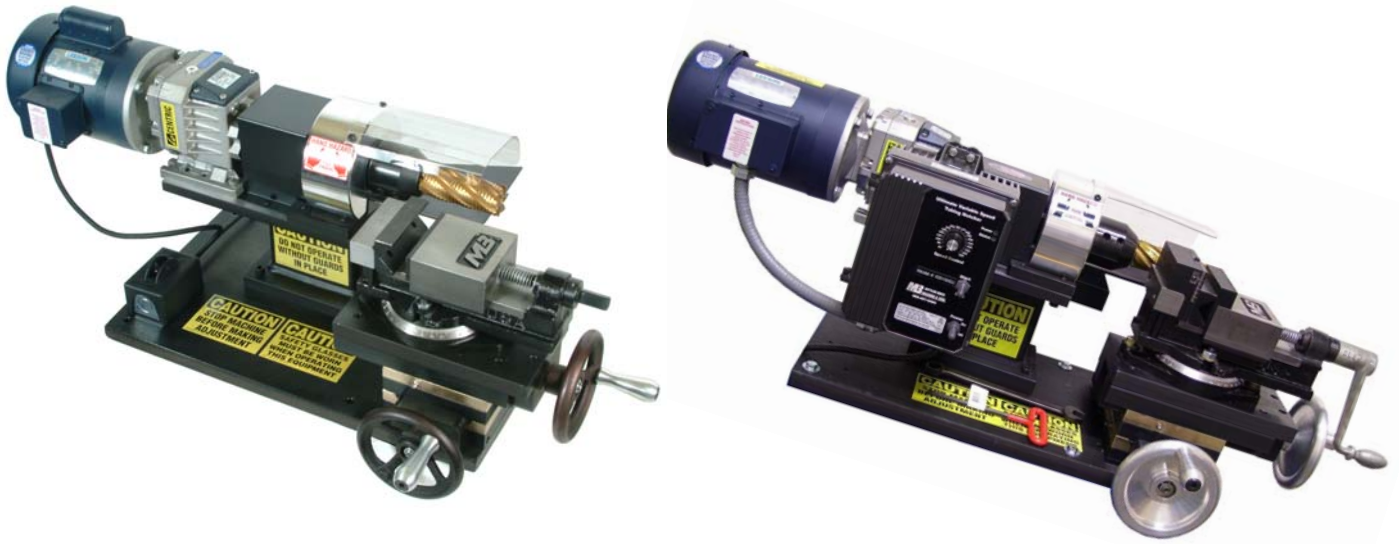


MB MITTLER BROS. **MACHINE & TOOL**

Operating Manual

Model # 400-

S, SADJ, U, UADJ / VS, VSADJ, VSU, VSUADJ
Ultimate Tube Notchers



CAUTION: Read and Understand

These Operating, Servicing, and
Safety Instructions, Before Using
This Machine.

1-800-467-2464

10 Cooperative Way Wright City, MO 63390

P.O. Box 110 Foristell, MO 63348

1-636-745-7757 Fax 1-636-745-2874

www.mittlerbros.com

CRATE CONTENTS

- 1ea. Ultimate Tubing Notcher Machine
- 1ea. ¼" "T" Handle Allen wrench.....#1100-504
- 1ea. ¾" Combination Wrench.....#1100-504
- 2ea. Aluminum Handle.....#400-021
- 2ea. Shoulder Bolts.....#750-SHLDRBOLT.5X3

REPLACEMENT SAFETY DECALS

- 1ea. "Do Not Operate Without Guard In Place..." Sticker #400-542
- 1ea. "Do Not Operate Without Safety Glasses..." Sticker #400-543
- 1ea. "Stop Machine Before..." Sticker #400-518
- 1ea. "Hand Hazard" #400-562

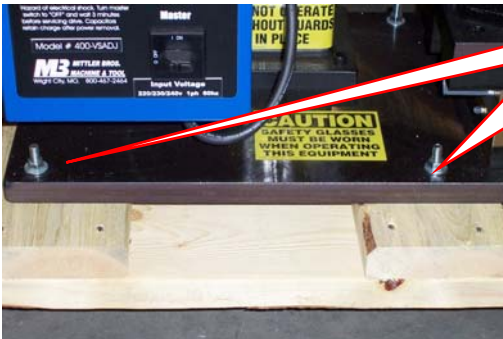
SAFETY

The purpose of the safety section of this manual is to inform operators and maintenance personnel of the precautions to be taken while operating or servicing the machine. The following are a few basic guidelines to follow, but as with any type of machinery good judgment and a safe attitude should be applied at all times.

1. Always disconnect power, lock-out and tag-out machine per OSHA regulations before attempting to service this machine.
2. Always wear safety glasses or other approved eye protection while operating or servicing the machine.
3. Keep all body parts and any foreign objects away from moving parts. Do not reach into the machine without first disconnecting all power sources.
4. Do not attempt to override any safety device on the machine.
5. Do not operate the machine if it has been damaged or is not operating properly.
6. Do not wear jewelry (watches, rings, necklaces, etc.), or loose fitting clothing while operating or servicing the machine.
7. The machine should only be operated or serviced by properly trained, authorized personnel.
8. Replacement parts should have the same specification and operation as the original parts on the machine.
9. All guards and covers must be in place before operating the machine.
10. Before starting the machine be sure it is set up properly.
11. Make sure the machine is properly grounded.
12. The machine and work area should be kept neat and clean.
13. Do not operate or service any machine while under the influence of drugs or alcohol.

NOTE: THESE SAFETY RULES ARE FOR YOUR BENEFIT TO HELP PREVENT INJURY TO YOURSELF AND/OR YOUR CO-WORKERS. REVIEW ALL SETUP AND OPERATING PROCEDURES, WHETHER COVERED OR NOT, IN THIS MANUAL TO HELP INSURE SAFE OPERATION OF THE MACHINE.

MACHINE SET UP



#2 Unbolt from shipping crate.

1. Remove cardboard box and upper wood frame work from shipping crate.
2. Unbolt the Ultimate Tubing Notcher from the crate base by removing the four (4) bolts.
3. Remove the protective plastic film from the chip shield.
4. Install the Crank Handle Knobs using the supplied shoulder bolts.

#4 Shoulder Bolts

#4 Crank Handle Knobs



5. Lift the Ultimate Tubing Notcher from the crate using a hoist and slings positioned as shown below. **CAUTION MACHINE WEIGHS ALMOST 400 POUNDS.**



Using A Hoist

6. Place the machine on your bench, stand or the optional 400-A400 Roller stand. If mounting on your own bench or stand be sure to secure the unit with 3/8" diameter bolts being sure that the bench or stand can support 400 lbs. If you are using the optional roller stand follow the instructions on [page 21](#) of this manual.

OPERATION



#1, Standard Machine **ON / OFF** Switch



#1, Variable Speed Machine **Run** Switch

#1, Variable Speed Machine **MASTER** Switch

WEAR SAFETY GLASSES

1. Be sure your machine is turned off and is plugged into the proper power source.

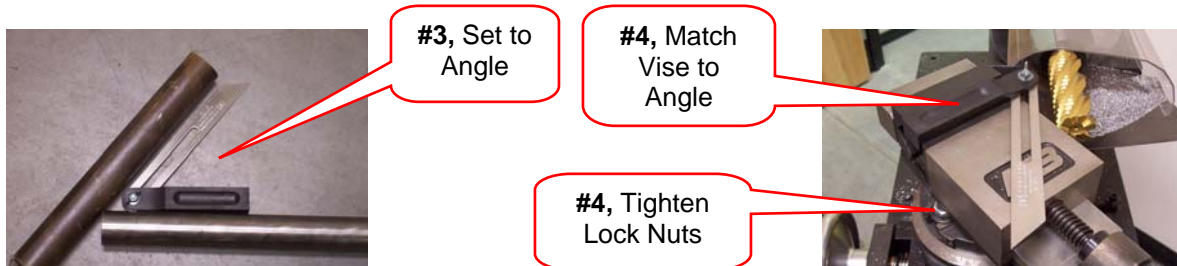
[Both the **Single Speed** & **Variable Speed** machine operate on 110 Volt single (1) phase electric. Switch is on the left side of the main base plate for single speed and on the control box as shown above.

[**Variable Speed**: Use the **MASTER** on / off switch at bottom right of control box to turn on the machine for the day or off at the end of the day, or off for maintenance only. Use the **RUN / STOP** switch at the upper right for normal on / off between notches. Repeated use of the master switch can cause damage to the control unit.

2. Install a cutter into the spindle to match the size of tubing you are notching to. If the cutter is 1-1/8" OD. Or smaller be sure to use the appropriate reducer bushing, these are listed on page 23. Tighten the two set screws with the supplied "T" handle wrench.



3. Calculate the angle of the notch. A sliding "T" Bevel, as shown, is one way of doing this. If you already know the notch angle go to **step #5**.



4. Set the vise to the correct angle required. Use the supplied 3/4" Combination Wrench to loosen the two vise swivel locknuts. Rotate the vise to the desired angle and lock down by tightening the two lock nuts.

5. If you already know the degree of notch use the pointer on the scale to set the angle. If you used the sliding "T" bevel method from step 3 this would be a good time write down the degree for future notches.



#5, Pointer & Degree Scale. This example is set to 75° or 15° from 90°

6. Clamp your tubing in the vise. Stick just enough tubing out the cutter side of the vise to complete the cut. **Be sure that there is enough tubing sticking out to avoid the cutter contacting the vise before notch is complete.** This will minimize deflection and give the best cut. Tighten the vise handle by hand. Over tightening will cause vise damage and may deform your tubing.



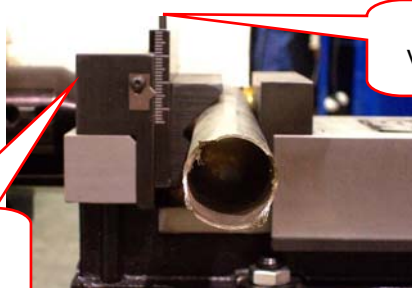
#6, Clamp in Vise and tighten Handle

#6, Minimum Overhang Out of Vise



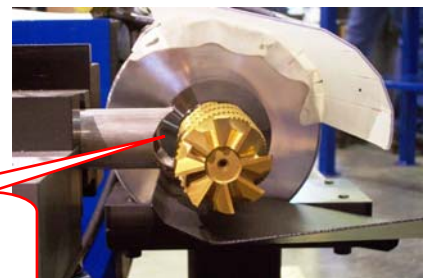
7. If you have the **ADJUSTABLE HEIGHT** vise, and need to make an **OFFSET** notch, you need to set the jaw height. This height is set by turning the adjustment screw in or out to get the correct position of the tube in relation to the cutter. The vise must have light pressure on the tube when making adjustments, just snug enough to center the tube in the jaws. Be sure to lock the adjustable jaws once the height is set, using the indicated screws. Once the height is set tighten the vise as usual.

#7, Locking Screws

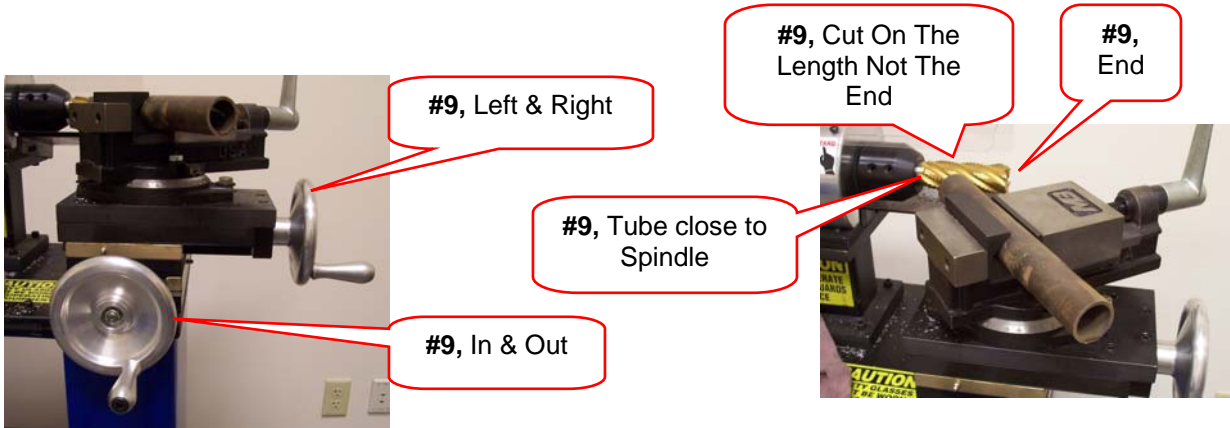


#7, Adjust Vise Height

#7, Tube Position in Relation to the Cutter



8. After setting your vise angle, jaw height and tightening everything down you are ready to make a notch.
9. The main feed direction for notches is In & Out. The Left to Right is used to position the tube in the best location on the cutter. All cutting is done on the length (side) of the cutter and not the end. Keep the tubing as close to the spindle as possible.

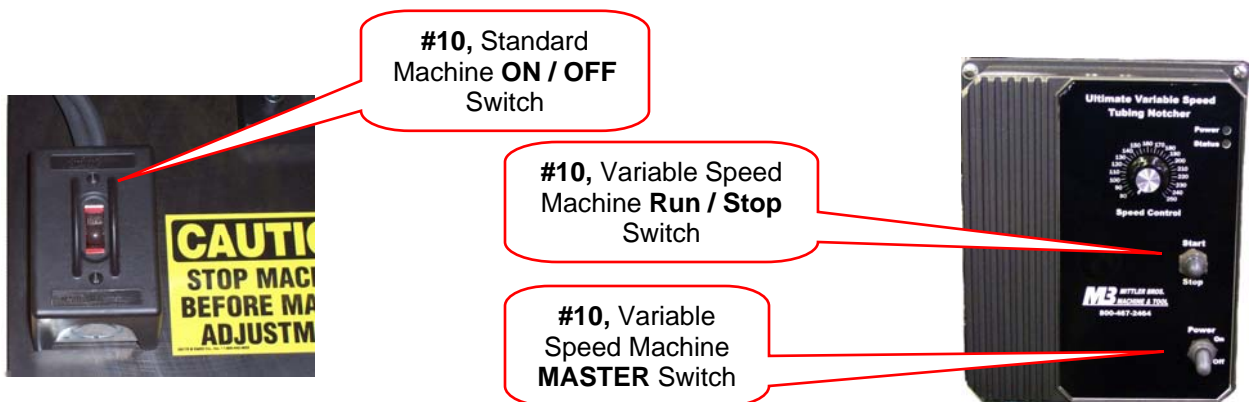


WEAR SAFETY GLASSES

STAY CLEAR OF ROTATING CUTTER

10. **SINGLE SPEED;** Be sure the tube is not touching the cutter and then turn the machine on. Use the switch on the left end of the base plate. Use the IN /OUT crank wheel to feed the tube into the cutter and create the notch. Using a smooth steady feed will create the best cut. A little practice and you will “feel” the best feed rate.

VARIABLE SPEED; Be sure the tube is not touching the cutter and then turn the machine on. You will need to turn the **MASTER** switch to **ON** position and then turn the **RUN** switch to the **RUN** position. Use the IN /OUT crank wheel to feed the tube into the cutter and create the notch. Using a smooth steady feed will create the best cut. Start out with the **SPEED CONTROL** in the middle. Begin feeding your tube into the cutter and change the speed up and down. As you feed the tube and adjust the speed you will “feel” where the best combination of cutter speed and feed speed are. Generally the thinner the tubing wall the faster you will cut and the thicker the tube wall the slower the cutter speed. Use the RUN / STOP switch for normal on / off between notches. Repeated use of the MASTER switch can cause damage to the control unit. *When Turning the MASTER SWITCH ON there may be a 3 to 5 second delay before the machine will power up.*



11. Be sure the machine is **TURNED OFF AND THE CUTTER HAS STOPPED ROTATING** before removing the tube from the vise.

GENERAL MAINTANANCE

SAFETY FIRST / BE SURE MACHINE IS UNPLUGGED BEFORE ANY MAINTAINCE IS PERFORMED

1. Lubrication is required at the grease fittings on the feed table 3 times per year. Use any general purpose grease as required for smooth operation.
2. Keep as clean as possible at all times for long life. Be sure the Cooling slots for the motor fan are kept clean as well as the cooling louvers on the Variable speed control box.
3. The Gear Box and spindle assembly come pre-lubed from the factory and need no further attention. If you see grease or oil coming from either area please contact the factory for service information.

GIB ADJUSTMENTS

Left to Right Slide Assembly

1. Clean machine of all chips.
2. Remove the vise assembly from the slide assembly by removing the two swivel base mounting bolts.



#2, Remove Swivel Base Bolts



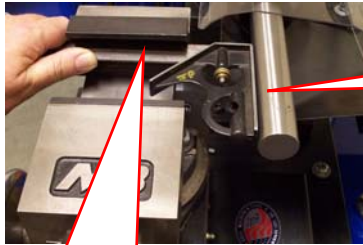
#3, Loosen Gib Mounting Bolts Then **Snug** Up

3. Loosen the five gib mounting bolts, on the operator side of the vise mounting plate, loose. Snug these bolts back up but **DO NOT TIGHTEN**.
4. Turn each Gib adjusting screw in, on the back side of the vise mounting plate, this will "tighten" the gibs. **Make very small adjustments at a time!** After making an adjustment turn the hand wheel and run through the entire range of travel feeling for smooth and snug movement. If it seems too tight, back the adjusting screws off a very small amount and then use a soft head hammer and tap the gib opposite the adjusting screws.



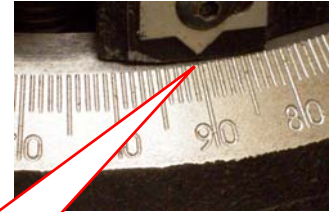
5. Once you are satisfied with the adjustments tighten the five gib mounting bolts and recheck your adjustments. This procedure may take a few tries. You can now remount the vise to the mounting plate.

6. You will need to realign the vise to be square with the cutter. Insert a piece of 1-1/4" OD tubing or shaft into the spindle and lightly tighten the set screws. Hold a combination square or machinist square tight in the groove of the V jaw as shown. Loosen the adjusting jam nuts and rotate the vise until the square and the tube / shaft in the spindle are at 90° to each other. Use a wrench and tighten the adjusting jam nuts. Check the degree pointer. If it does not read 90° you will need to loosen the screw and set it back to 90°.



#6, Square in Bottom of V Jaw

#6, Square & Shaft at 90° to Each Other.



#6, Re-adjust Pointer to 90°

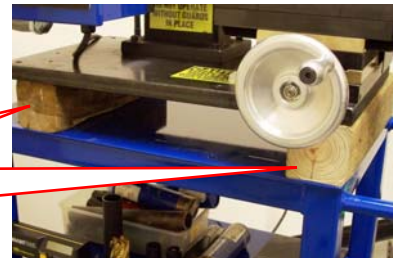
7. If the hand wheels feel loose or tight you will need to adjust the Nylock nut in the center of each hand wheel to set the tension.
8. If you have any questions please call 1-800-467-2464 for technical support.

In & Out Slide Assembly

1. Clean machine of all chips.
2. Remove the 4 mounting bolts that hold the unit to the stand or bench.



#2, Remove 4 Base Mounting Bolts



#3, Place 4 x 4's Under Ends of Base Plate.

3. Raise the machine as shown on **Page 4 Step #5** and place a 4x4 block under each end. Be sure that the 4x4 block on the vise end is even with the edge of the base plate as shown above. Use a C clamp at each end to secure the machine to your work table.

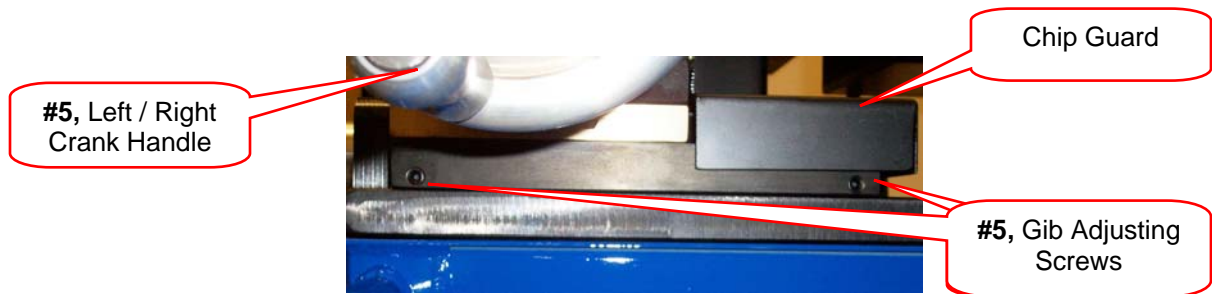
4. Break the five gib mounting bolts, on the bottom of the plate, shown at right. Snug these bolts back up but **DO NOT TIGHTEN**.



#4, 5 Gib Mounting Bolts

5. Turn each Gib adjusting screw in, on the back side of the vise mounting plate, this will "tighten" the gibs. **Make very small adjustments at a time!** After making an adjustment

turn the hand wheel and run through the entire range of travel feeling for smooth and snug movement. If it seems too tight, back the adjusting screws off a very small amount and then use a soft head hammer and tap the gib opposite the adjusting screws.



6. Once you are satisfied with the adjustments tighten the five gib mounting bolts and recheck your adjustments. This procedure may take a few tries.
7. Remove the C clamps and position the lift slings as shown on **Page 4 Step #5**. Lift the machine and remove the 4x4 blocks. Set the machine down on your stand / table and bolt down using the previously removed bolts.

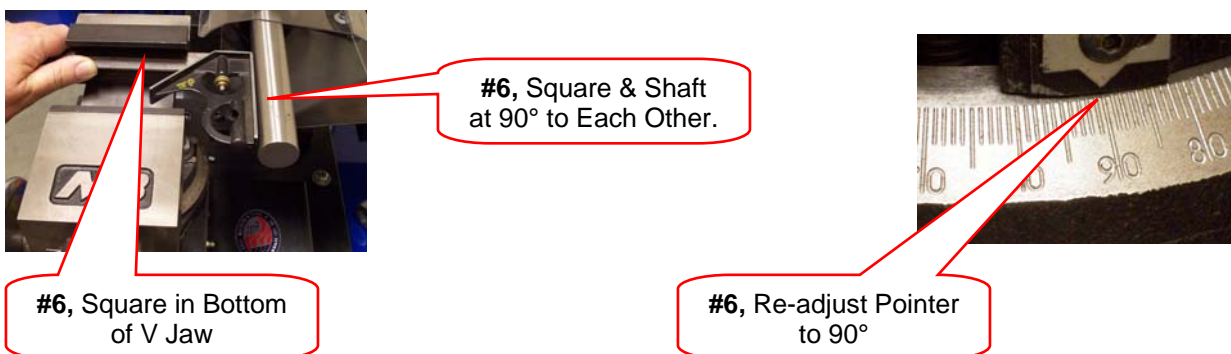
GIB REPLACEMENT

1. Mount right side lower steel gib with 5/16" x 18 x 1" long socket head screws (steel gib with holes drilled on bottom, plus 2 holes on side). NOTE: Cap screws enter from under base plate.
2. Insert 2 steel dowel pins into right lower gib and drive pins into gib and base plate.
3. Tighten 5/16" x 18 x 1" socket head screws on right lower gib.
4. Install Left side lower steel gib with 5/16" x 18 x 1" long socket head screws – DO NOT TIGHTEN.
5. Slide on 6" x 6" plate with bronze gibs attached – Note: Locate 2 holes on 6"x 6" block to the back of the unit for gib guard.
6. Thread **right-hand** acme screw into upper bronze nut for left-to-right movement.
7. Thread **left-hand** acme screw into lower bronze nut for in-to-out movement.
8. Install front bushing block onto bronze bushing of lower acme screw - bolt onto 1" thick base plate.
9. Install front bushing block onto upper bronze nut of upper acme screw and bolt onto underside of base plate.
10. Install bronze thrust washer on acme screw shafts.
11. Install key stock into slot on shafts.
12. Install round hand wheel on upper and lower acme screws and tighten Nylok nut until it bottoms, then back off ¼ turn.

13. Install 3/8" x 16 x 3" long set screws (2) into right side of lower steel gib.
14. Snug up Left side lower steel gib 5/16" x 18 x 1" socket head screws.
15. Turn each adjusting screw in, on the back side of the vise mounting plate, this will "tighten" the gibs. **Make very small adjustments at a time!** After making an adjustment turn the hand wheel and run through the entire range of travel feeling for smooth and snug movement. If it seems too tight, back the adjusting screws off a very small amount and then use a soft head hammer and tap the gib opposite the adjusting screws.



16. Once you are satisfied with the adjustments tighten the five gib mounting bolts and recheck your adjustments. This procedure may take a few tries. You can now remount the vise to the mounting plate.
17. You will need to realign the vise to be square with the cutter. Insert a piece of 1-1/4" OD tubing or shaft into the spindle and lightly tighten the set screws. Hold a combination square or machinist square tight in the groove of the V jaw as shown. Loosen the adjusting jam nuts and rotate the vise until the square and the tube / shaft in the spindle are at 90° to each other. Use a wrench and tighten the adjusting jam nuts. Check the degree pointer. If it does not read 90° you will need to loosen the screw and set it back to 90°.



18. If the hand wheels feel loose or tight you will need to adjust the Nylock nut in the center to adjust the hand wheel.
19. Reinstall the gib guard.
20. If you have any questions please call 1-800-467-2464 for technical support.

HAND WHEEL SHAFT REPLACEMENT

1. Remove bolts holding vise base to compound feed table – remove vise. (see page 9 steps 1 & 2)

Upper Adjustment Screw Replacement – Left-to-Right Movement:

2. Remove upper slider block adjustment screws using 3/16” Allen wrench – located on backside of upper slide gib assembly.
3. Loosen (Do Not Remove) 5 gib mounting 5/16” socket head cap screws on vise mounting plate to allow front gib clearance.
4. Turn upper hand wheel clockwise (left-to-right movement) to remove vise mounting plate and upper gibs from bronze gibs to expose bronze adjusting nut. Place vise mounting plate on bench.
CAUTION: Proceed with care – Do Not Drop.
5. Remove setscrew in upper bronze nut mounting block – use 1/8” Allen wrench.
6. Remove snap ring on each side of bronze nut.
7. Remove bronze nut from housing and discard.
8. Install new bronze nut (right hand thread) in upper mounting block.
9. Install new snap ring on each side of bronze nut.
10. Use 1/8” drill bit and drill point the bronze nut through the set screw hole in mounting block – Do Not drill through bronze bushing.
11. Install/Tighten set screw – use 1/8” Allen wrench.
12. Remove Nylok nut from hand wheel – use 3/4” socket.
13. Remove hand wheel from shaft.
14. Remove acme screw from bronze bushing and mounting block.
15. Replace bronze bushing in mounting block – shoulder to the inside of mounting block.
16. Install new acme screw in bronze bushing (right hand thread).
17. Install new bronze washer over shaft on outside of mounting block.
18. Install hand wheel and Nylok nut – Tighten until clearance between hand wheel and block is removed – DO Not over tighten.

Lower Adjustment Screw Replacement – In-to-Out Movement:

19. Remove lower slider block adjustment screws using 3/16" Allen wrench – located on right side of lower slide gib assembly.
20. Loosen (Do Not Remove) 5 gib mounting 5/16" socket head cap screws on underside of base plate to allow left gib clearance.
21. Turn lower hand wheel clockwise (in-to-out movement) to remove bronze gib block from lower slide gibs to expose bronze adjusting nut. Place bronze gib block on bench. **CAUTION: Proceed with care – Do Not Drop**
22. Remove setscrew in lower bronze nut mounting block – use 1/8" Allen wrench.
23. Remove snap ring on each side of lower bronze nut.
24. Remove bronze nut from housing and discard.
25. Install new bronze nut (left hand thread) in lower mounting block.
26. Install new snap ring on each side of bronze nut.
27. Use 1/8" drill bit and drill point the bronze nut through the set screw hole in mounting block – Do Not drill through bronze bushing.
28. Install/Tighten set screw – use 1/8" Allen wrench.
29. Remove Nylok nut from lower hand wheel – use 3/4" socket.
30. Remove hand wheel from shaft.
31. Remove acme screw from bronze bushing and mounting block.
32. Replace bronze bushing in lower mounting block – shoulder to the inside of mounting block.
33. Install new acme screw in bronze bushing (left hand thread).
34. Install new bronze washer over shaft on outside of mounting block.
35. Install hand wheel and Nylok nut – Tighten until clearance between hand wheel and block is removed – DO NOT over tighten
36. Install slide gib block onto lower gibs on base plate – NOTE: Left hand thread bronze nut to be on bottom for in-to-out movement.
37. Thread lower acme screw into bronze nut – turn counterclockwise until seated against front bushing block.
38. Install and adjust lower slide block screws (2) on right hand side until smooth in-to-out movement of table is achieved – CAUTION DO NOT over tighten - Adjust so have slight drag on slide blocks.
(page 9 step 4)
39. Tighten 5 left gib 5/16" socket head cap screws on underside of base plate.
40. Install vise-mounting plate onto bronze gib block.

- 41.** Thread upper acme screw into bronze nut – turn counterclockwise until seated against bushing block on right side.
- 42.** Install and adjust upper slide block screws (2) on back side until smooth movement of table is achieved – CAUTION DO NOT over tighten - Adjust so have slight drag on slide blocks.
(page 9 step 4)
- 43.** Tighten 5 gib mounting 5/16” socket head cap screws on front of vise mounting plate.
- 44.** Install 6” x 6” bronze gib block guard on backside.
- 45.** Install vise, tighten bolts and adjust vise. (page 13 step 17)

400 Single Speed to Variable Speed Conversion

#400-202

See kit contents on page 19

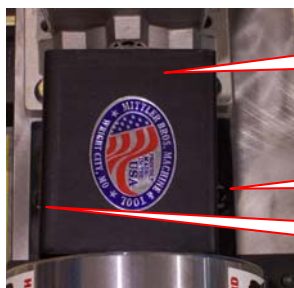
1. Unpack the boxes and be sure all the parts are included. See the list at the end of these instructions.
2. Unplug the machine from any power source. Remove the switch box from the base plate by removing the cover and unscrewing from the base plate.



Remove
Cover

Unscrew
from Base
Plate

3. Remove the Love Joy Cover by removing the two screws. Then loosen the set screws on each half of the Love Joy coupling.



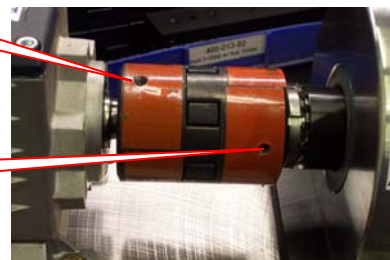
Love Joy
Cover

Remove
Screw

Remove
Screw

Set Screw

Set Screw

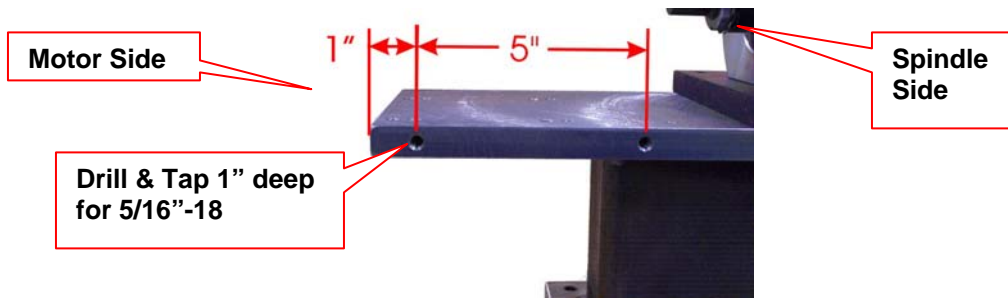


4. With someone holding up the end of the motor remove the four (4) bolts holding the motor / gearbox assembly to the mounting plate. Remove the complete motor, gearbox, cord & switch assembly from the machine. Save the mounting bolts to remount the motor / gearbox.

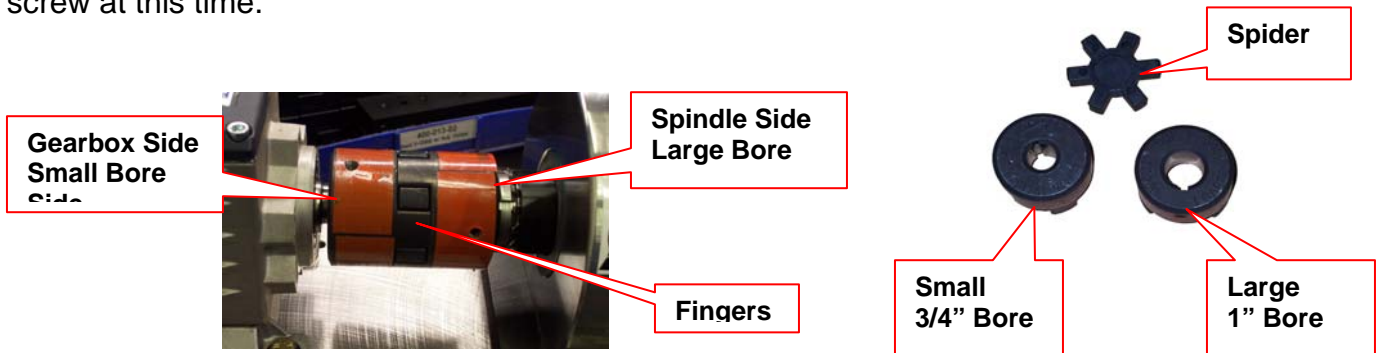


Mounting
Bolts. 2
on Each
Side

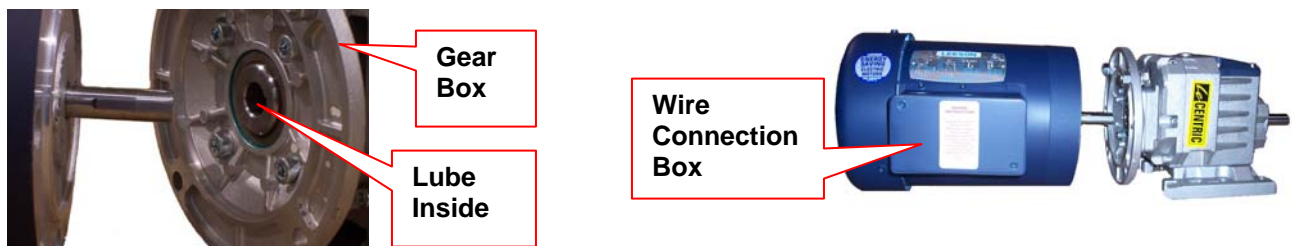
5. Remove the Love Joy coupling half from the spindle shaft if it did not slide off in step 4.
6. Drill and tap two (2) holes, 5/16"-18, in the motor mounting plate as shown below. The holes should be drilled 1" deep and then counter sunk a small amount to allow for the bolt heads.



- Slide the large bore (1") Love Joy coupler half onto the spindle. Be sure the "fingers" are pointing toward the motor location and that the key is installed in the key way. Do not tighten down set screw at this time.

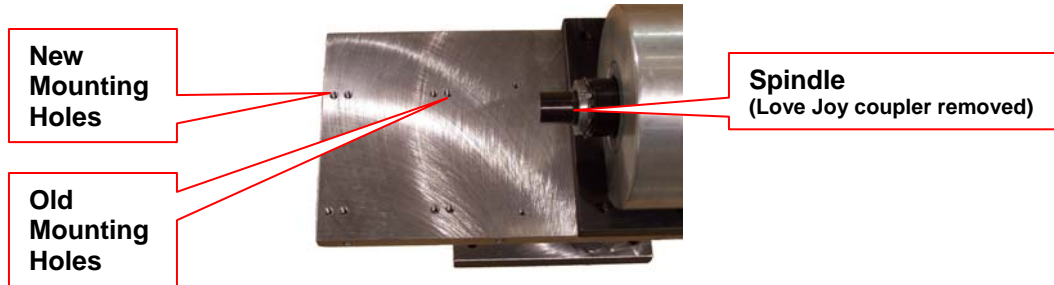


- Assemble the motor to the gear box. Use supplied anti-seize from the gear box container and lube the inside of the gear box shaft where the motor slips in. Be sure the motor to gearbox mounting flange on the gear box has no bolts in it. Be sure the supplied key is in the motor shaft and slide the motor and gearbox together. Make sure the motor is rotated so that the wire connection box is on the side as shown. Install the four (4) bolts and lock washers by hand and then tighten once you are sure that everything is lined up.

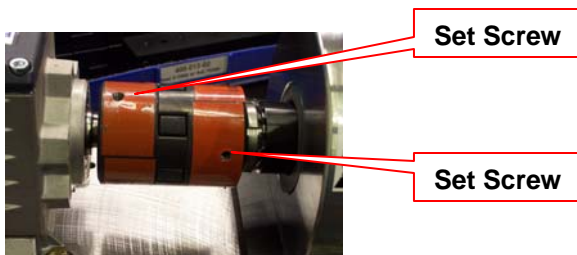


- Slide the small bore (3/4") Love Joy coupler half onto the gearbox shaft. Be sure the "fingers" are pointing away from the gearbox and that the key is installed in the key way. Do not tighten down set screw at this time. Slip the "spider" into the fingers of the coupler.

10. Set the motor / gearbox assembly onto the mounting plate. While someone is holding the motor end up install the mounting bolts finger tight. Use mounting holes farthest from the spindle as shown below.



11. Slip the two Love Joy coupler halves together with your fingers, being sure the spider is still locked in the "fingers". Tighten the set screws and snug up the motor / gearbox mounting bolts.

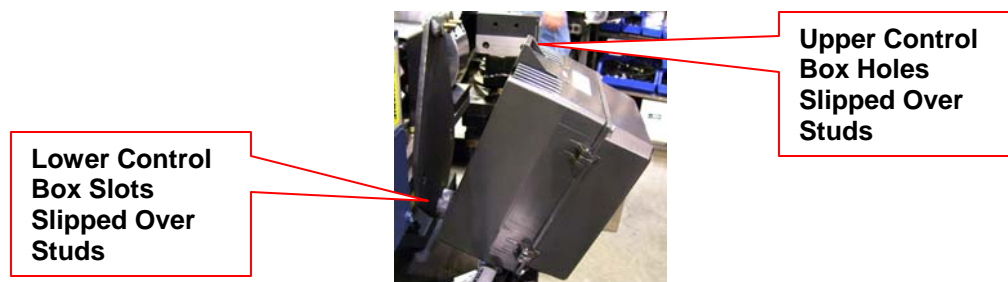


12. Install the new Love Joy cover using the old screws.

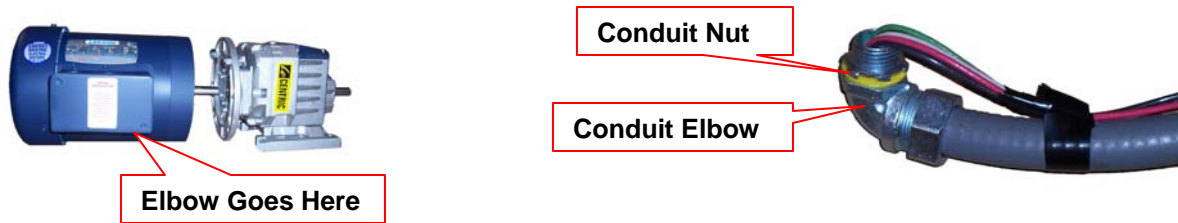
13. Bolt the control box mounting plate to the motor / gearbox mounting plate using the holes you drilled earlier and the 5/16"-18 x 3/4" FHCS. Put a drop of locktite on the bolt threads. Be sure the long end of the plate is at the top.



14. Mount the Speed Control box to the mounting plate by slipping the slots in the bottom of the Control Box over the studs on the rubber mounts at the bottom of the plate. Then push the top mounting holes over the studs on the upper rubber mounts and then install and tighten the supplied nuts.



15. Attach the conduit elbow to the bottom of box by removing the nut, slipping the fitting through and then installing and tightening the nut.



16. Wire the control box to the motor as shown by the included wiring diagram. Use the supplied wire nuts and then use electrical tape for added safety.

17. Wire the input cord correctly for the style and voltage you are using, refer to enclosed wiring diagram.

18. Check all bolts for tightness and all electrical connections. Once you are sure everything is tight and correct set the master switch to **OFF** and the run switch to **STOP**. Plug the power cord into the receptacle.



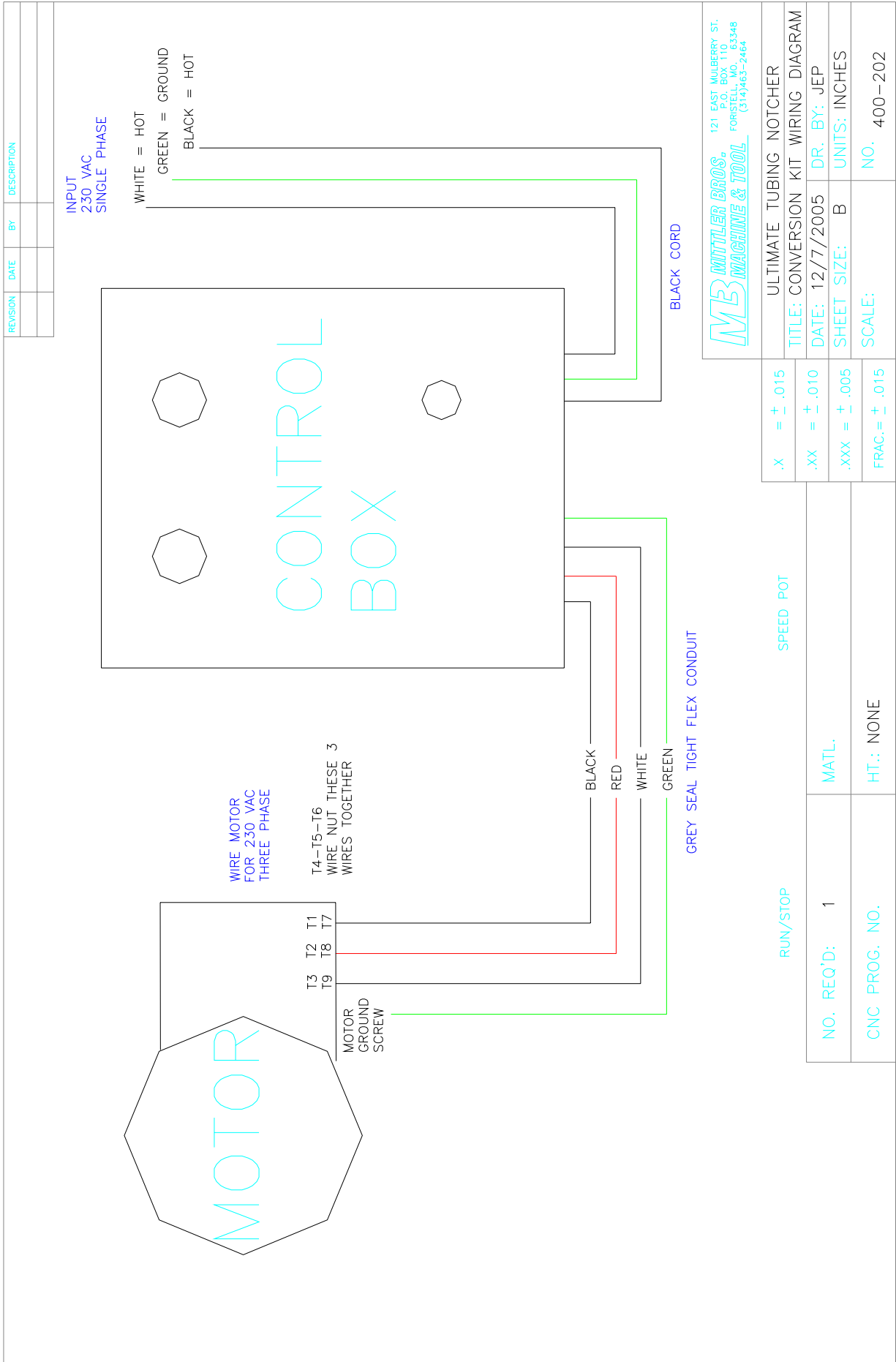
19. Turn the **MASTER** switch on and then turn the **RUN** switch on. Turn the speed control knob up and down to cycle the motor. Listen for and clicking or odd sounds. If you hear a clicking sound you will need to loosen the spindle housing bolts and then retighten while the motor is running. This will usually align the Love Joy and quiet the clicking.

KIT CONTENTS:

- 1ea. 400-503-M Motor
- 1ea. 400-503-G Gear Box
- 1ea. 400-035 Large Love Joy Coupling Cover (guard)
- 1ea. 400-507 Love Joy Coupler Half 3/4" ID
- 1ea. 400-508 Love Joy Coupler Half 1" ID
- 1ea. 400-509 Love Joy Coupler Spider
- 1ea. 400-039 Control Box Mounting Plate
- 1ea. Pre Wired Speed Control Box
- 2ea. 5/16"-18 x 3/4" FHCS
- 4ea. 1/4"-20 x 1/2" SHCS
- 1ea. Wire Diagram
- 1ea. Instruction Sheet Set

We appreciate your business and hope that you enjoy your new Mittler Bros. Product. If you have any questions or concerns please feel free to call us at 1-800-467-2464 for help.

Variable Speed Conversion Kit Wiring Diagram



TROUBLESHOOTING

PROBLEM:	CAUSE / SOLUTION:
Machine does not turn on.	<ol style="list-style-type: none"> 1. Check plug & power cord. 2. Check circuit breaker and panel. 3. Check machine switch / switches. 4. Check fuses in speed control box. (VS only)
Machine stops working.	<ol style="list-style-type: none"> 1. Machine overload or power cord. 2. Check plug & power cord. 3. Check circuit breaker and panel. 4. Check machine switch / switches. 5. Check fuses in speed control box. (VS only)
“HOOKING” .Top of tube gets caught by cutter & bent down.	<ol style="list-style-type: none"> 1. Slow hand wheel feed speed. 2. Go to “HIGH HELIX” cutter if available. 3. Tubing sticking out of vise to far on cutter side. 4. Speed up cutter speed. (VS only) 5. Use a cutter with more flutes.
Hand wheel is hard to turn	<ol style="list-style-type: none"> 1. Cutter is dull, send in for resharpening or replace. 2. Gibs are adjusted too tight. Adjust according to manual.
Excessive Chattering or Vibration of Vise assembly.	<ol style="list-style-type: none"> 1. Tubing sticking out of vise to far on cutter side. 2. Gibs are loose. Adjust according to manual. 3. Hand wheel screw shafts are worn. Replace with kit # 400-300 Both sets, #400-301 In / Out, #400-302 Left / Right.
“CLICKING” sound when motor is running but not cutting.	<ol style="list-style-type: none"> 1. Check the Love Joy shaft connector between gear box and spindle assembly. Replace if “spider” excessively worn, #400-509.
Excessive spindle “wobble” or run-out.	<ol style="list-style-type: none"> 1. Spindle nut on gear-box end is loose, tighten. 2. Spindle nut lock washer tang is broken off, replace lock washer. 3. Bearings are worn. Call factory for set-up procedure.

If the items above do not solve your problems please call the factory for further support, 1-800-467-2464.

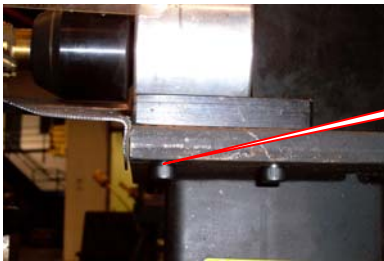
400-100 Chip Tray Installation Instructions

Kit Contents:

- 1ea. Tray
- 2ea. 3/8-16 x 2" SHCS
- 2ea. Nuts
- 1ea. Instruction Sheet

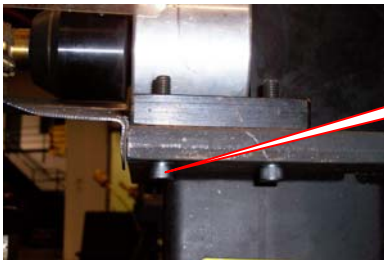


1. Loosen and remove one of the Spindle Bearing Block mounting bolts as shown. Be sure to remove only one bolt.



Remove one bolt

2. Replace the removed bolt with one of the supplied 2" long SHCS as shown below. Tighten the bolt.



Replace with 2" SHCS

3. Repeat steps 1 & 2 above for the remaining bolt.
4. Slip the Chip Tray over the protruding threads and secure with the supplied nuts



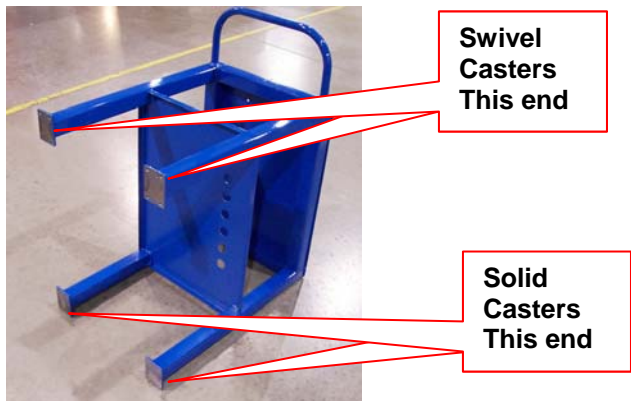
Nuts

400-A400 Ultimate Roller Stand Assembly Instructions

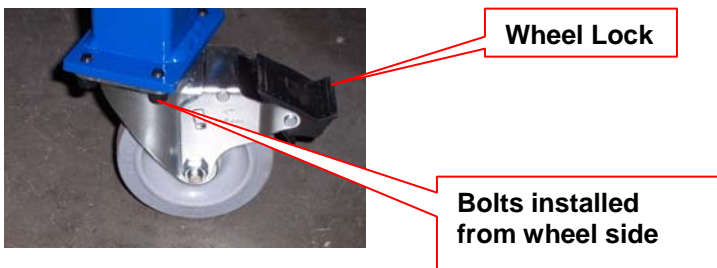
Kit Contents:

- 16ea. 5/16-18x1/2 HHCS
- 2ea. 3/8-16x4 HHCS,
- 2ea. 3/8-16x1-3/4 HHCS
- 4ea. 3/8 Flat Washers
- 4ea. 3/8 Lock Washers
- 4ea. 3/8-16 Nuts
- 2ea. Swivel Casters, Locking
- 2ea. Solid Casters
- 1ea. Instruction Sheet

1. Uncrate the stand. Tip the stand up onto its end by lifting the round tube handle.



2. Using the 5/16" X 1/2" Long Hex Bolts attach the Swivel Casters to the legs on the same end as the handle. Install the bolts from the wheel side and thread into the threaded mounting plate. Attach the solid caster to the opposite legs as shown above. These bolts also thread into the mounting plate from the wheel side. Tighten all bolts.



3. Turn the stand upright and check caster movement. Be sure the wheel locks work correctly. [These casters, when locked, stop the wheel from rolling as well as the locking the swivel.](#)

CUTTER PART NUMBERS

Tube OD	Part#	Pipe Size	Cut Length	Bushing #
2-3/8"	400-525	2"	4"	
2"	400-526		4"	
1.90"	400-527	1-1/2"	4"	
1-3/4"	400-528		4"	
1.66"	400-529	1-1/4"	4"	
1-5/8"	400-530		4"	
1-1/2"	400-531		4"	
1-3/8"	400-532		4"	
1-1/4"	400-533	1"	4"	
1-1/8"	400-534		4"	400-019-1
1"	400-535		4"	400-019-1
1"	400-555	High Helix	2"	400-019-1
7/8"	400-536		3-1/2"	400-019-875
7/8"	400-556	High Helix	1-3/4"	400-019-75
3/4"	400-537		3"	400-019-75
3/4"	400-557	High Helix	1-3/4"	400-019-75
5/8"	400-558	High Helix	1-3/4"	400-019-625 &1100-100 Shim
1/2"	400-538		2"	400-019-625 &1100-100 Shim
1/2"	400-559	High Helix	1-1/4"	400-019-625 &1100-100 Shim

Vise Jaw Shim required for 1/2" & 5/8" OD Tubing.....1100-100

MACHINE EXPLODED VIEW

WISE EXPLODED VIEW

CAUTION: Read and Understand

These Operating, Servicing, and
Safety Instructions, Before Using
This Machine.

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