

18"-24" Tapering Tool Operating Instructions

INTRODUCTION

This tool is utilized for tapering 18"-24" RED THREAD® II, GREEN THREAD®, SILVER STREAK®, and Marine Offshore pipe. Please read thoroughly the operating instructions before using this tool.

MATERIALS NEEDED

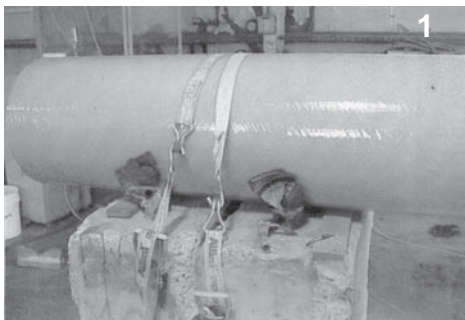
1. 115 Volt power source
2. Sturdy workbench to support the pipe or heavy-duty pipe stands
3. Tie down straps or come-along to secure pipe to table or pipe stands
4. O.D. (pi) tape

PROCEDURE FOR USE

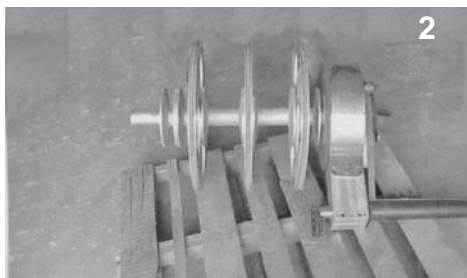
Be sure the tool is unplugged when setting up, working on, or removing the tool from the pipe. When the tool is in operation, a protective barrier around the tool should be utilized.

Setting up the Tool

1. Secure pipe with a factory taper to either a sturdy work table or heavy-duty pipe stand with tie down straps or come-along



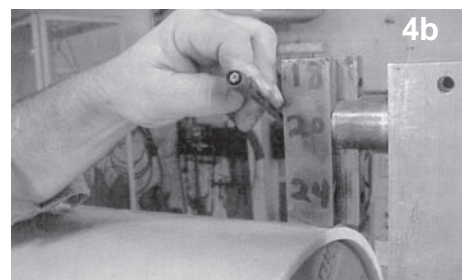
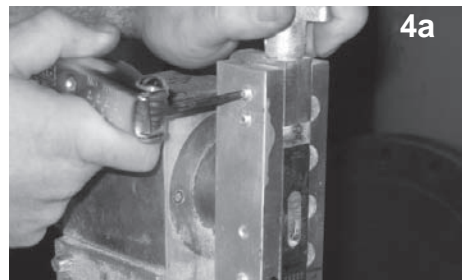
2. Place mandrels on the mandrel shaft with a large spacer between each mandrel and small spacers at each end. Spin the end nut up, but do not tighten. Be sure tool is set to 1 degree (See pin behind the cutting head holder) For Red Thread II, Green Thread and Silver Streak. For Marine/Offshore pipe, set tool to 1.25 degrees.



3. Insert tool into a pipe with factory taper and tighten mandrels. Be sure tool is evenly centered into pipe. Check this by measuring the distance between the mandrel and the I.D. of the pipe. This distance must be equal on all sides of pipe I.D. Loosen mandrel, lift up on the tool and re-tighten if necessary.

Note: If no factory taper is available to set the depth of cut, contact NOV Fiber Glass System for the proper end dimension. Without a factory taper, taper in small increments (See Step 7) until the desired end dimension is achieved (See Step 13).

4. Tool head must be set to the appropriate size.
 - a. Loosen the two set screws at the top of cutting head holder and remove cutting head.
 - b. Loosen Allen head bolt and remove the cutting head holder.
 - c. Place the bolt through the hole on the cutting head holder designated for the size pipe to be tapered.
 - d. Re-tighten the bolt.
 - e. Place cutting head back in the cutting head holder flush with the top. Tighten the two set screws.



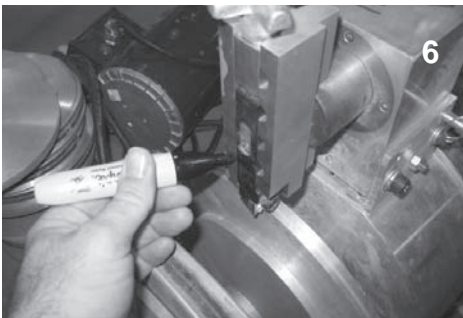
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Setting the Depth of Cut

5. Turn cutting head knob until the cutting head makes light contact with the factory taper. Tighten screws at bottom of the cutting head.



6. With a permanent marker, place a mark all the way across the cutting head where it meets the cutting head holder. This will be your depth stop. Remove tool from factory tapered pipe.

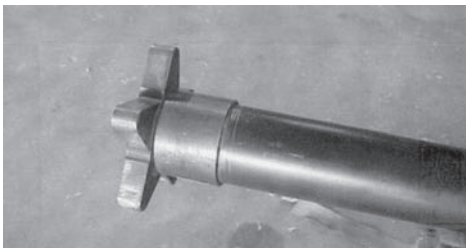


Tapering the Pipe

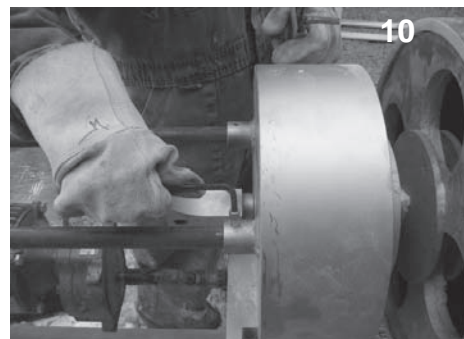
7. Place tool into pipe to be tapered. Be sure tool is centered in the pipe and then tighten mandrels. For standard 150/225 psig 15"-24" Red Thread and Green Thread products, skip to Step 9.

8. Thicker pipe such as Marine Offshore or Performance Plus (300/450 psig) products will require multiple cuts or passes. Loosen the bottom thumb screws and raise the cutting head up to where it will cut a maximum of $\frac{1}{8}$ " off the top of the pipe wall. After first cut is complete, reset cutting head to depth marked in Step 6.

9. Rotate the star at the opposite end of the cutting head tube in the counter clockwise direction to move the cutting head forward. Move forward until there is a small gap between the pipe and the cutting head.



10. Attach motor to motor mounts on front of tool while guiding the universal connector onto the tool shaft and then tighten the mounts. Pull electrical cord back away from moving parts and secure with tape or string. Set the control box up a minimum of 10 ft. from tool. When tool is in operation, maintain a minimum distance of 10 ft. from the rotating head.

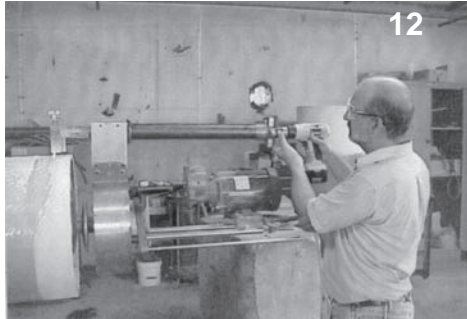


11. Check to be sure the motor speed is at the "0" position on the motor control panel. Turn motor to the "on" position. Slowly increase speed until the tool is cutting smoothly. **Do not take too large of a cut at one time, as this may damage the tool.** Be sure the tool advance star is making firm contact with the steel rod mounted to the back of the tool. This is how the tool advances automatically.

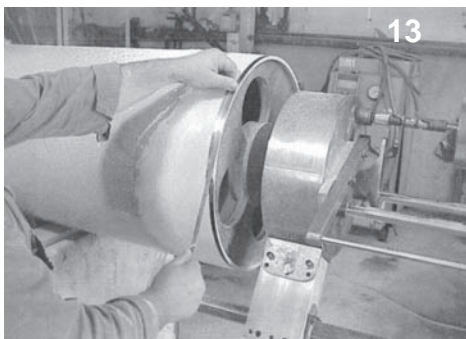


12. Taper pipe until cutting head is no longer cutting. Use a reversible drill on back of the cutting shaft to back out cutting head. For standard tapered products check to be sure joint insertion is within $+\frac{1}{4}$ " of factory insertion.

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If chatter or “feathering” appears on the machined surface, you will need to cut, re-taper and slow machine down on the final cut. If the condition still exists, rotate the cutting insert to a fresh side.



13. Check end dimension with an O.D. (pi) tape. End dimension should be $+ .020$ ” to within the factory taper.

14. After taper is finished, back out the cutting head both vertically and horizontally and remove tool from pipe.

15. **Making short nipples.** To make the first tapered end of the short nipple, use a factory taper or taper a section of pipe. Cut the pipe to the required length of the nipple. Insert the tapered end into a factory bell or if a factory bell is not available insert into a factory coupling, drive together firmly. This will hold the short nipple for tapering. Repeat the tapering process in Steps 8-14.

Note: Installer assumes the risk for personal injury or property damage if instructions are not followed. NOV Fiber Glass Systems shall not be liable in tort or in contact for any loss or injury sustained by customer or others involved in the installation of NOV Fiber Glass Systems products.



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