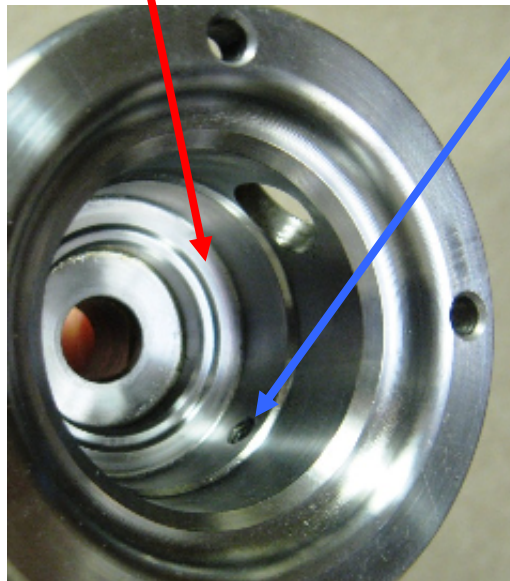


JT Turning Tools, LLC

Installing the Precision Vacuum Hand Wheel on Nova Lathes.

Precision Vacuum Hub: Carefully unpack your Precision vacuum-ready Hand Wheel, including the O-ring, four bolts, and threaded nut plates.

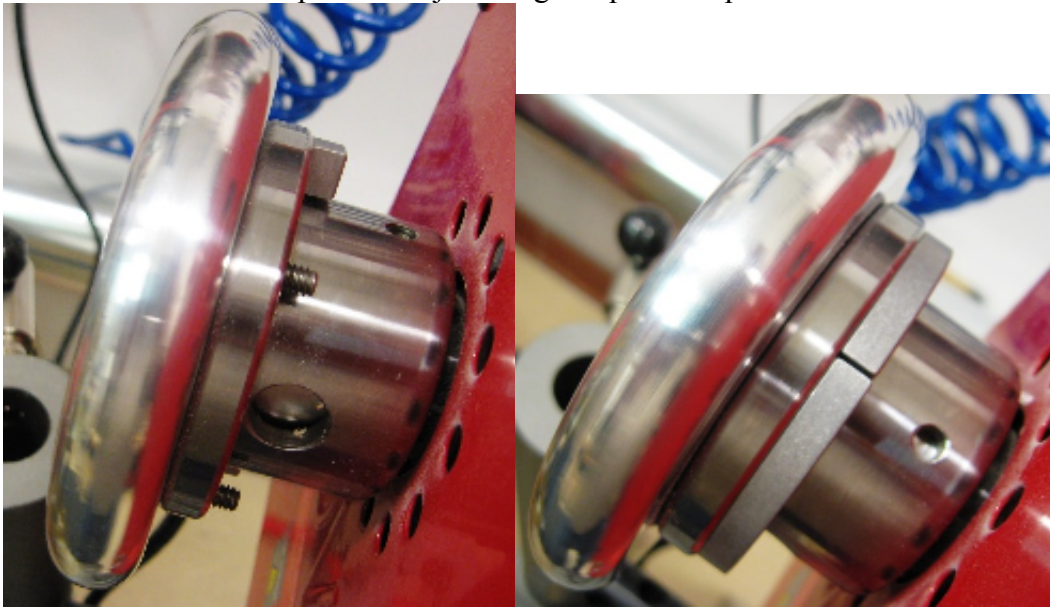
- **Tools Required:**
 - 5/32" Allen hex wrench
 - Vaseline or similar light grease
- Begin by making sure that the shoulder groove for the O-ring is clean and free of debris.
- Using a soft clean cloth, thoroughly clean out the interior of the Nova "left hand brake" (wheel) attached to your spindle outboard end. (NOTE: if your lathe is not equipped with this Nova part, see your lathe dealer to obtain the "Left Hand Brake" part. Follow the procedure(s) in the lathe manual for removing/replacing this wheel. Caution – the threads on the Nova part and spindle are **left-hand!**)
-) The O-ring will need to seat on the large diameter shoulder approximately 1.5" in from the face of the Nova wheel – this shoulder must be free of debris! The Nova brake also has a set screw hole approximately 1.125" in from the face. If a set screw is present, remove it. With your finger, check for a burr in the inside of this set screw hole. If you feel a protrusion or burr here, use some emery cloth or small file to carefully remove it – failure to remove any burr or debris may damage your new hand wheel.



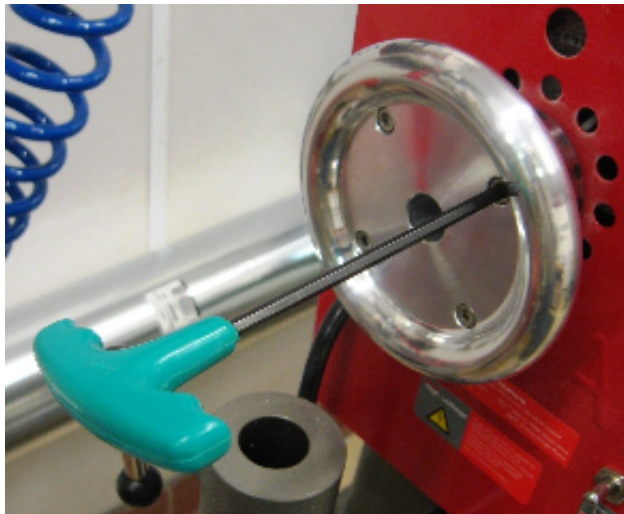
- With cleaning and preparation complete, prepare the Precision Hand Wheel for installation as follows.
 - Install the O-ring on the shoulder groove on the inboard end of the wheel. Make sure the O-ring is firmly seated in the groove so that it will stay in place during the installation process. Apply a **very slight** amount of light grease (Vaseline) to the outer face of this O-ring.
 - Carefully insert the hand wheel into the Nova part. This is a precision fit and must be installed straight. Go slowly – a little twist of the hand wheel while inserting may help – until you feel that the hand wheel is seated. You should be able to see a **very slight** gap between the new hand wheel and the Nova part when the O-ring is touching the bottom.
 - Gently turn the hand wheel to align the hand wheel bolt holes with the four holes in the Nova part. Caution, use a light touch – excess inward pressure on the hand wheel while turning to align the holes could dislodge the O-ring. If this occurs, you will know it because the hand

wheel will not be able to seat against the Nova part – remove the hand wheel, reinstall the O-ring and repeat the steps above.

- Included are two semi-circular threaded plates. Place one plate against the right hand side of the flange on the Nova adapter, so that the threaded holes align with two of the bolt holes. Now, with the 5/32" Allen wrench, insert the provided screws into the hand wheel and turn them into the threaded plate until just snug. Repeat this process for the other threaded plate.



- Using the 5/32" Allen wrench, carefully tighten the four mounting bolts evenly in an X pattern, working from bolt to bolt and tightening in stages. Make sure that all four bolts are secure.



- **Note:** in the event that you need to remove the Nova Left Hand Brake part from your lathe for service, you will first have to remove the Precision Hand Wheel. Simply reverse the above procedure to remove the wheel. When service is complete follow the above procedures to re-install the Precision Hand Wheel on your Nova lathe.

That's it! You should be all set to use your Precision Hand Wheel and Precision Vacuum Adapter.

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