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Standard Slab Roller Setup & Operating Information For All 18, 24, and 30" models with 2½" OD rolls

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Introduction

Thank you for investing in a North Star slab roller. They have been manufactured for more than 40 years, and they have earned an excellent reputation all around the world. It will last for a very long time, will make slabs dependably, and your clay work will warp and crack less in the fire than slabs made with other machine designs.

Setting Up Your Slab Roller

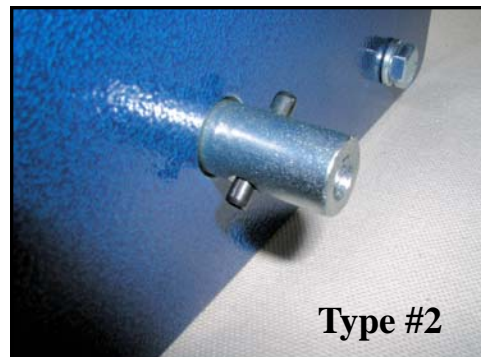
Please follow the setup instructions for the model you have purchased. Included with all standard slab rollers are the following items: Gear Guard, Hex Key, Canvas, and Instructions.

Identifying the Slab Roller Drive Configuration

There are two types of slab roller drive configurations presently used.

Type #1 utilizes a permanently attached drive coupling that allows a square steel peg attached to the crank handle or wagon wheel, to slide into the drive coupling, and is prevented from sliding out by a small star knob.

Type #2 utilizes a drive pin installed directly into the bottom roll shaft where the coupling of the crank handle or wagon wheel is slid over the shaft and in turn engages the drive pin.



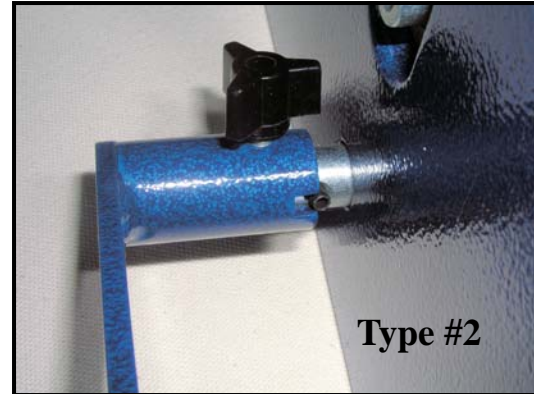
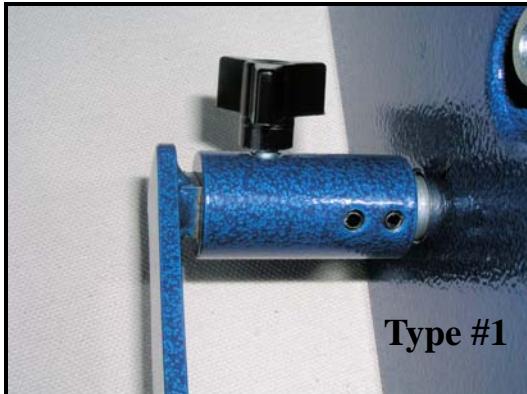
Attaching the Crank Handle or Wagon Wheel to Your Slab Roller

Type # 1 Attachment

Slide the square steel peg of the crank handle or wagon wheel into the square hole of the coupling until it stops. Lightly tighten the star knob.

Type # 2 Attachment

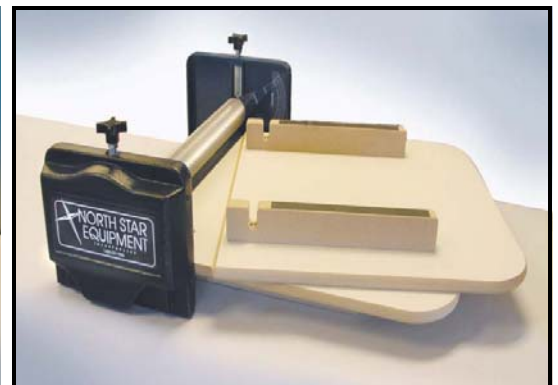
Slide the coupling of the crank handle or wagon wheel over the shaft. Note the two notches at the leading edge of the coupling. Position these notches so that each protruding end of the drive pin is captured. Lightly tighten the star knob.



Work Table Models : PortaRoller, CT 500, and Sirius Star 30

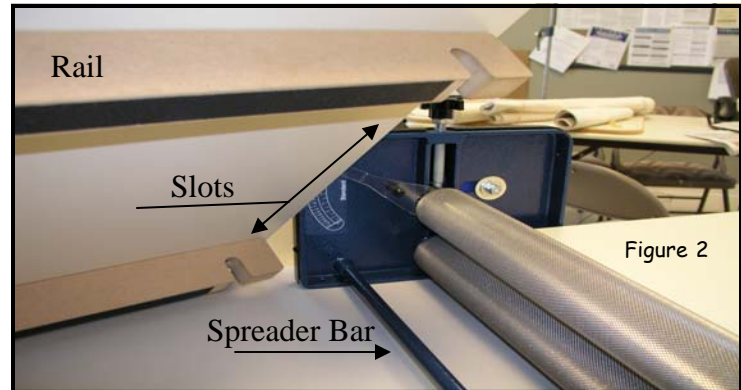
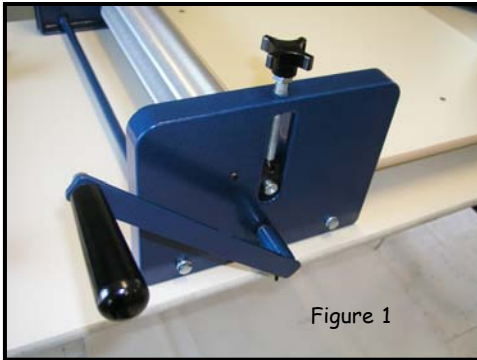
These models have removable table tops and can be operated without being permanently mounted to a work table. This allows the user to remove and store the slab roller and table tops for future use. When used in the free standing configuration, the friction strips located on the bottom of the slab roller and table tops must remain clean. See maintenance section for details.

Install the gear guard on the gear end of the slab roller using the hex key provided. Place the slab roller on your work table with enough room for each table top to be evenly positioned on each side of the slab roller. The work table area where the slab roller will be placed, should be clean, dry, and smooth. Position the slab roller with the gear guard end facing away from you and the drive end of the slab roller facing towards you. In addition, the drive end of the slab roller must be positioned near the work table edge to allow for movement of the crank handle or wagon wheel while in operation (figure 1).



Work Table Models : PortaRoller, CT 500, and Sirius Star 30 Continued

Determine what drive configuration your slab roller is utilizing and attach the crank handle or wagon wheel to your slab roller. See "Attaching the crank handle or wagon wheel to your slab roller" section. The table tops included with your slab roller have two long rails attached to the bottom with machined slots at one end. To mount your table tops, simply slide these slots over the spreader bar of the slab roller and allow the rails to rest evenly on the worktable surface. Repeat for other side. (figure 2)



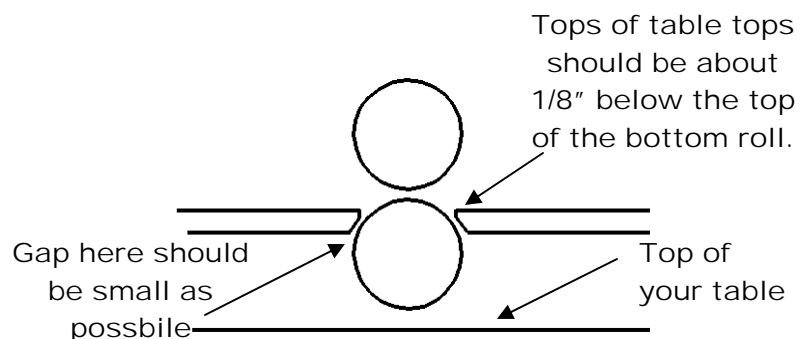
Complete Frame and Table Top Models

Install the gear guard on the gear end of the slab roller using the hex key provided. Follow the frame assembly and slab roller mounting instructions that are packaged with the table frame. Determine what drive configuration your slab roller is utilizing and see "Attaching the crank handle or wagon wheel to your slab roller" section. Continue with "How the slab roller operates" section.

Slab Rollers Purchased With No Table Tops

Install the gear guard on the gear end of the slab roller using the hex key provided. Determine what drive configuration your slab roller is utilizing and see "Attaching the crank handle or wagon wheel to your slab roller" section. These models must be permanently mounted to your work surface. Table tops are not included in this configuration and it is the users responsibility to construct and setup appropriately. The diagram below describes the proper slab roller and table top configuration. Continue with "How the slab roller operates" section.

All North Star slab rollers can be retrofitted with easily removable table tops. Contact North Star for details.



How The Slab Roller Operates

The North Star slab roller has been designed to reduce soft bulk clay into a slab of varying thickness. The following is a description of each of the operating features of the North Star slab roller.

The Drive Mechanism (how the rolls move)

By turning the crank handle or the wagon wheel, both the top and bottom rolls turn simultaneously, applying even pressure on the clay. The handle can be turned in both directions. This allows the clay to travel from one side of the slab roller to the other. Thickness adjustments can be made on each pass.

Canvas and Other Transfer Materials

The canvas supplied with your slab roller functions to transfer the clay through the rolls. The clay is placed between the two sheets and the combination is moved through the rolls to reduce the slab thickness. The textured surface on the rolls (knurling), enables the rolls to grab the canvas. It is important to keep the knurling free of clay build-up to prevent slipping. The canvas will leave a slight texture on the surface of the slab. If a smooth surface is desired, the texture can be removed with a rib or similar device. Other transfer materials can be used to produce a desired textured effect and can be used with or without the supplied canvas. Have fun! Be creative.

Adjusting the Slab Thickness

The slab thickness is set by moving the top roll up or down. Adjustments are made by turning the black star knobs on top of the slab roller. Scales are provided for general reference, and are calibrated using the supplied canvas. The zero mark on the scales includes the thickness of the canvas. The accuracy of the scales may change if you use other transfer materials.

Tapered slabs can be achieved by making one end adjustment higher or lower than the other. There are limitations to how much taper can be achieved without binding the slab roller. Always look at the gap between the rolls while turning the adjusting knobs. This prevents binding and possible damage to the slab roller.

Just below the adjusting knobs are large jam nuts. These nuts can be screwed down to the top of the end casting to lock the adjustment in place.

Rolling Slabs

FOR BEST PERFORMANCE USE SOFT CLAY !

- 1.) Shape the clay into a loaf with your hands, approximately four times the thickness of the slab you plan to make.
- 2.) Use the adjustment knobs and pointers to set the initial gap between the rollers about 1/4" narrower than the thickness of your loaf of clay.
- 3.) Match up both sheets of canvas and feed approximately five inches through the rolls.
- 4.) Lift the upper sheet of canvas from the back edge and lay it over the top roll. Lay the clay loaf on the lower sheet snugly against the top canvas sheet. Drape the top sheet back over the clay.
- 5.) Begin turning the crank handle while pressing lightly on the clay. The clay and canvas should start moving through the rollers. If not, continue cranking while exerting more pressure on the clay. **DO NOT PULL ON THE CANVAS SHEET FROM THE OTHER SIDE.**
- 6.) Once the clay and canvas start moving through the rollers, continue cranking until the canvas stops.
- 7.) Use the adjustment knobs and pointers to narrow the gap between the rollers another 1/2" , then roll the clay back through the rollers in the opposite direction.
- 8.) Lift the canvas, inspect the clay and, if you need a rounder shape, turn the clay 90 degrees on the canvas before narrowing the gap again and sending the clay back through.
- 9.) Repeat until the desired thickness is achieved.



Rolling Slabs On Work Table Models

Do not reduce the clay too quickly ! Too much clay resistance may cause the slab roller to lift off your work table. Do not reduce the clay by more than 1/2" for each pass. OPTION : Any standard model slab roller can be permanently mounted to your work table by using the two bolt holes at the inside bottom of each end casting.

Transporting the PortaRoller

The Portaroller was designed to be easily disassembled and transported.

Follow these easy steps for disassembly -

1. Remove each table side from the spreader bar supports.
2. Remove the crank handle from the slab roller and press the crank handle into the storage clips located on the bottom of the table.
3. Place the two table tops together with their flat surfaces facing each other and the rails facing out.
4. Strap the two table tops together at the handle using the Velcro strap attached to the bottom of the table. This keeps the table tops from scissoring while you walk.
5. Fold the canvas and place it between the rolls of the slab roller. Adjust the thickness knobs to secure the canvas.

Maintenance

Your North Star slab roller has been manufactured with the best quality parts and workmanship in mind. With a small amount of maintenance, your slab roller should last for many years to come. To help us with our warranty obligation, please perform these simple maintenance steps at least every three months if needed, and more often if you are a power user.

1. Lightly grease the gears of the four gear drive train using a light weight grease. Any of the synthetic greases on the market will do well. Apply a small amount of grease using a disposable paint brush. Grease just the top portion of the gear teeth on each gear. The grease will last a long time, and you may not have to reapply the grease for several years. The grease primarily keeps the slab roller running smooth and quiet. Keep your gear guard on at all times. This keeps the gears clean and your fingers safe !
2. Lightly grease the riser screws in the same manner. The riser screws are the threaded rod pieces attached to the thickness adjustment knobs.
3. Keep the knurling on the rollers clean. This will allow the knurling to grab the canvas securely and prevent slipping. Clean out the knurling with a tooth brush (plastic bristles) or similar non abrasive brush dipped in soapy water. Do not use a steel wire brush, this may damage the rolls.

Special Note For Work Table Models

The PortaRoller, CT 500, and the Sirius Star 30 slab rollers are prevented from slipping on your work table from the use of heavy duty friction tape installed on both the table rails and the slab roller end castings. The friction tape must be kept clean. Clean the strips with a mild soap solution or alcohol based window cleaner. **DO NOT USE FURNITURE POLISH** or any waxed based product. Remove any clay dust, or any other debris from your work table before setting up the slab roller.

Ordering Replacement Parts

Replacement parts are available from the factory. Call North Star for a complete list and current pricing.



Repair and Warranty Information



North Star slab rollers are proudly manufactured in the USA.
In this way we can control the quality and service of our products.
We thank you for your patronage.

North Star Standard Slab Roller Warranty

February 2012

This warranty policy covers all North Star products shipped on and after January 1, 2012 and supersedes all previous warranty policies. Warranty terms, product designs, specifications and prices are subject to change without notice. All warranties extend to the original purchaser only and are not transferable. To make your warranty effective, register on line at northstarequipment.com.

FULL NO-TIME-LIMIT PRODUCT WARRANTY

Your North Star standard slab roller is warranted to be free of defects in materials and workmanship. This warranty will remain in effect for the life of the machine subject to the conditions specified below. North Star will repair or replace, at no cost to you, any part we find to be worn out or defective. This includes even parts that wear in normal use, such as bushings, spacers, gears and spring pins. Failures caused by abuse or use of the machine for other than the intended purposes, as determined by North Star Equipment, are not covered. If it is necessary for the machine to come back to the factory for repairs, you must pack it and prepay the shipping to North Star. It will be repaired or replaced at our option and returned to you at North Star's expense.

Conditions and Exceptions

- 1.) All standard series Slab Rollers used in commercial or academic settings are warranted for 24 months from date of purchase.
- 2.) The Slab Roller which forms the heart of the PortaRoller, is warranted for five years.
- 3.) Table tops, table shelves, and wings carry no warranty beyond arrival in good condition and proper fit.

Delivery Warranty

Delivery in good condition is guaranteed for every product, regardless of the carrier. Should shipping damage occur, customer should have it noted on the freight bill and contact North Star for immediate repair or replacement. If the carrier is liable, North Star will pursue the claim.

Merchandise Return Privilege

Any North Star product except custom items may within 10 days of receipt be returned for refund if is unsatisfactory in any way, provided it is complete with all parts and documentation, in new condition, and in its original packaging. Should you wish to return an item, it should be repacked and returned to your dealer. He is authorized to refund the purchase price in full.

Factory Rebuilding

At any time, no matter how new or old a North Star Standard Slab Roller may be, North Star Equipment will rebuild and refinish it, replace every worn part and install all available updates for one third the current list price of that model or its equivalent (if that model has been changed). To take advantage of this offer, contact the factory directly.