

ROTO-STAR

Benchtop Welding Positioner

USER'S MANUAL



STARLEY
Mfg., Inc.

- **Use Safety Glasses**
Also use face or dust mask if cutting operation is dusty.
- **Do Not Abuse Electrical Cord**
Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges.
- **Secure Work**
Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool.
- **Do Not Overreach**
Keep proper footing and balance at all times.
- **Maintain Tools With Care**
Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tools periodically and if damaged, have repaired by authorized service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean, and free from grease.
- **Disconnect Tools**
Unplug when not in use, before servicing, and when changing accessories.
- **Remove Adjusting Keys and Wrenches**
Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning on.
- **Avoid Unintentional Starting**
Do not carry plugged-in tool with finger on switches. Be sure switches are off when plugging in.
- **Outdoor Use Extension Cords**
When tool is used outdoors, use only extension cords intended for use outdoors and so marked.
- **Stay Alert**
Watch what you are doing. Use common sense. Do not operate tool when you are tired. Do not use when taking medications that may cause drowsiness.

- **Check for Damaged Parts**

Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center. Do not use this tool if switches do not turn it on and off. Have defective switches replaced by an authorized service center.



WARNING: SPECIAL INSTRUCTIONS

- Always securely fasten the ROTO-STAR to the work surface, using 1/2" bolts through the holes in the base plate. The ROTO-STAR is not stable unless fastened down, especially with a load in the chuck.
- Use caution when changing the tilt position of the ROTO-STAR. Never remove the tilt bolt unless the tilting portion of the ROTO-STAR is securely held. Never attempt to change the tilt position with a load in the chuck.
- Ensure that the ROTO-STAR is securely attached to the welder's ground lead, either through the underside of the base plate to a grounded metallic work surface, or by clamping the welder's ground lead to the ground stud on the base plate.
- Never reverse the direction of rotation with the motor running. Allow the motor to come to a complete stop before reversing. Failure to do so will result in excessively high motor current, possibly resulting in damage to the motor and/or controller.

Installation



WARNING: READ AND FOLLOW ALL INSTRUCTIONS

1. Securely bolt or clamp the ROTO-STAR to the work surface.

It is imperative that the base plate of the ROTO-STAR be securely fastened to a stable work surface. Failure to do so may result in the ROTO-STAR and its load tipping over, possibly resulting in equipment damage and/or operator injury. Use 1/2" bolts through the mounting holes provided in the base plate. If so desired, the grounding of the ROTO-STAR may be accomplished by securing the unit to a metallic work surface that is connected to the welding machine ground (the underside of the ROTO-STAR is bare metal).

2. Attach ROTO-STAR to welding machine ground.

If you have bolted the ROTO-STAR to a metallic work surface in step 1 above, then ensure that the welding machine ground is securely attached to the work surface. If it is not possible to ground the ROTO-STAR through the work surface, then attach the welding machine ground clamp to the aluminum ground stud located on the base plate below the chuck. Failure to securely ground the ROTO-STAR to the welding machine will result in motor and/or controller damage. **The ROTO-STAR warranty does not cover damage due to failure to properly ground the unit.**

3. Attach ROTO-STAR motor to controller.

Plug the ROTO-STAR motor into the connector provided on the motor controller. Rotate the cable connector against the socket on the controller until it drops into place, and then rotate the outer ring on the cable connector to lock it in place.

4. Attach motor controller to foot pedal and AC line.

Plug the motor controller AC line cord into the connector on the end of the foot pedal cord. Then plug the foot pedal connector into the AC line socket. The foot pedal acts as a switch in the AC line, applying power to the motor controller only when depressed.

5. Test ROTO-STAR motion.

Test the installation as follows:

- Turn the speed control knob on the motor controller fully CCW (Zero RPM).
- Turn the AC power switch on the motor controller ON (may be marked 0/1, 1 is on).
- If so equipped, switch the Brake/Run switch on the controller to Run.
- Depress the foot pedal. Slowly turn the speed control knob CW to start rotation. You should be able to go from Zero RPM at fully CCW on the speed control to maximum speed (approx. 15 RPM) at full CW. Lifting off the foot pedal should stop all rotation. With the motor stopped, change the direction of rotation by switching the FWD/REV switch on the controller, and again press the foot pedal and check rotation in the opposite direction. **NEVER CHANGE ROTATION DIRECTION WITH THE MOTOR RUNNING.** Doing so will cause excessive motor current, possibly resulting in damage to the motor and/or controller.

Maintenance

Periodically check the following maintenance items to ensure continued trouble free operation of your ROTO-STAR:

- Add a few drops of lubricating oil to the two oil fittings on the spindle housing.
- Check that all connections to the welder ground system are secure and clean.
- Check the drive chain for proper tension. If the chain is too loose, the spindle may reverse direction slightly when the motor is stopped, especially if the load is not balanced. Tighten the chain as follows:
 1. Loosen the two set screws securing the motor mount pins located on the back side of the spindle housing.
 2. Loosen the two 10-32 screws on the side of the chain guard where it attaches to the angle bracket on the motor mount. Do not loosen the screws attaching the guard bracket to the motor mount.
 3. On ROTO-STAR I, loosen the two 5/16 nuts attaching the chain guard to the front of the spindle housing. The studs that these nuts are on are actually long set screws that secure the motor mount pins on the front side of the spindle housing. Loosen these two set screws with an Allen wrench to allow the motor mount pins to move in the housing. On ROTO-STAR III, remove the two 5/16 bolts securing the chain guard to at the front of the spindle housing. Then, using an Allen wrench, loosen the two set screws securing the motor mount pins.
 4. You should now be able to slide the motor assembly back, tightening the drive chain. It will be necessary to apply pressure to the motor assembly, holding the chain tight, while you tighten a set screw on each motor mount pin. The slotted attachment for the chain guard should allow sufficient movement of the motor assembly to allow the chain to be tightened. If not, the chain may need replacement.
 5. Reverse the steps above to tighten the four set screws securing the motor mount pins, the guard screws to the angle bracket, and the guard attachment at the front of the spindle housing.

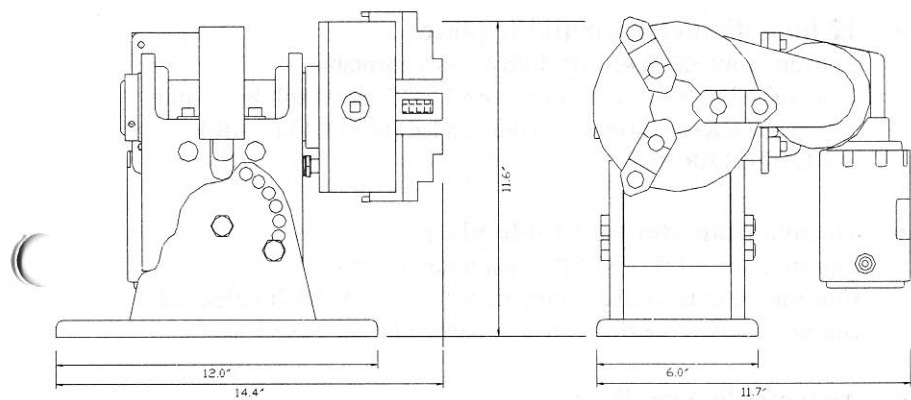
Specifications

	ROTO-STAR I	ROTO-STAR III
Chuck Size	6 in.	8 in.
Spindle Hole	1.5 in.	2.5 in.
Maximum Swing, Horizontal	16 in.	20 in.
Maximum Load, Horizontal	100 lb.	150 lb.
Maximum Load, Vertical	200 lb.	250 lb.
Speed Range	0-10 RPM	0-7 RPM
Maximum Welding Current	300 A.	300 A.
Tilt Increment	15 Deg.	15 Deg.
AC Line Voltage *	115/230 VAC 50/60 Hz	115/230 VAC 50/60 Hz
Maximum AC Line Current (115 VAC)	1 A.	1 A.
Maximum AC Line Current (230 VAC)	1/2 A.	1/2 A.
Weight	52 lb.	78 lb.

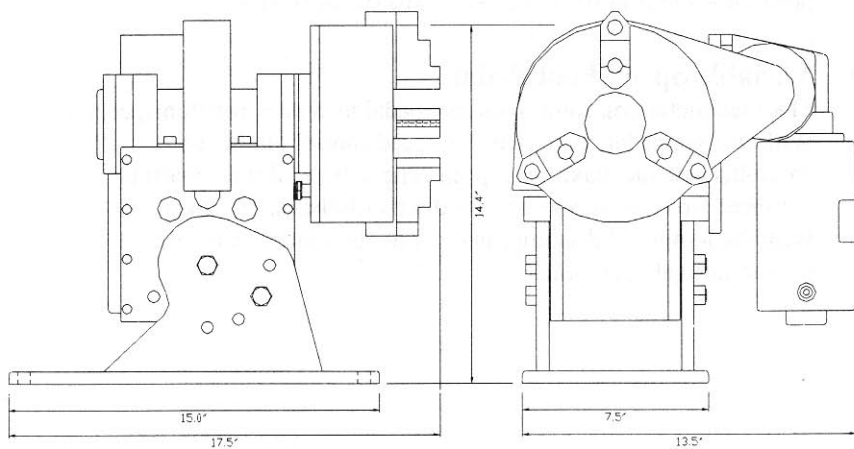
* 230 VAC operation requires optional 180V motor.

Dimensions

ROTO-STAR I



ROTO-STAR III



Accessories

Available accessories for the ROTO-STAR line include:

- **12 inch diameter turntable plate**

Converts your ROTO-STAR into a rotary turntable.

Constructed of 6061 aluminum, with 1/2-13 radial bolt holes and concentric reference rings. Recommended for ROTO-STAR I or ROTO-STAR III.

- **16 inch diameter turntable plate**

Converts your ROTO-STAR into a rotary turntable.

Constructed of 6061 aluminum, with 1/2-13 radial bolt holes and concentric reference rings. Recommended for ROTO-STAR III.

- **Adjustable Arm Rest**

Cast aluminum base plate with plated steel upright and adjustable rest. The ROTO-STAR Arm Rest is the ideal accessory for use with either ROTO-STAR I or ROTO-STAR III. Reduce operator fatigue and increase weld quality by resting your arm in the proper position while your ROTO-STAR turns the workpiece.

- **Variable Speed Foot Pedal**

Modified motor controller with foot pedal to control rotation speed.

With the foot pedal connected, the speed control on the motor controller sets the maximum speed. The foot pedal then controls the speed from zero up to the speed set with the main control.

With the foot pedal disconnected, the motor controller reverts back to normal operation.

Limited Warranty

1. Starley Manufacturing, Inc. ("Seller"), warrants that its products shall be free from defects in material and workmanship for a period of one year from the date of purchase. IN THE EVENT OF A DEFECT, MALFUNCTION OR OTHER FAILURE OF THE PRODUCT NOT CAUSED BY UNREASONABLE USE, FAILURE TO PROVIDE REASONABLE AND NECESSARY MAINTENANCE OR DAMAGE TO THE PRODUCT WHILE IN THE POSSESSION OF THE PURCHASER, THE SELLER WILL, AT ITS SOLE OPTION, REPAIR OR REPLACE THE PRODUCT. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.
2. ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY EXPRESSLY DISCLAIMED IN THEIR ENTIRETY. SOME STATES DO NOT ALLOW CERTAIN DISCLAIMERS AND THEREFORE THE ABOVE DISCLAIMERS MAY NOT APPLY TO YOU.
3. UNDER NO CIRCUMSTANCES SHALL SELLER BE LIABLE TO PURCHASER OR ANY OTHER PERSON FOR ANY CONSEQUENTIAL, INCIDENTAL, ECONOMIC, DIRECT, INDIRECT, GENERAL, SPECIAL, OR ANY DAMAGES WHATSOEVER ARISING OUT OF ANY BREACH OF WARRANTY, EXPRESS OR IMPLIED, UNDER THIS WARRANTY. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.
4. This warranty does not apply to any defects caused by modification, alteration, improper or unauthorized use or repair.
5. Claims under this warranty should be made to Starley Manufacturing, Inc., 15796 S.E. 114th St., Clackamas, Oregon 97015. The claim should state the nature of the alleged defect and the date and place of purchase. If the seller acknowledges the defect, the repair or replacement will be made within 60 days of the receipt of claim. If the seller does not acknowledge the defect, this decision is not final or binding upon the purchaser. The purchaser has the right to pursue his legal remedies and, if necessary, to have a state or federal court determine whether, in fact, the product is defective.
6. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS THAT VARY FROM STATE TO STATE.
7. This warranty extends only to the original purchaser of the product.

Sold and Serviced Exclusively By

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