ATOMSTACK S20

ATOMSTACK R3 Pro Rotary Roller Instruction Manual

Model: S20

1. Introduction

The ATOMSTACK R3 Pro Rotary Roller is an auxiliary module designed to enhance the capabilities of your laser engraver. It enables 360-degree Y-axis rotation for engraving on cylindrical, round, cup-shaped, and oversized objects. This device is essential for expanding the range of materials and shapes you can engrave with precision.
The R3 Pro model includes several upgrades over the standard R3, providing more comprehensive accessories for various engraving tasks.

Image: The ATOMSTACK R3 Pro Rotary Roller shown with examples of cylindrical objects it can engrave, such as bottles, cups, and baseball bats.

2. Setup

2.1 Unpacking and Component Identification

Carefully unpack all components from the box. Verify that all parts listed below are present.

Image: A diagram showing the components included in the R3 Pro package: Rotary Roller, Support Frame, Support Shafts (2), and Raise Feet (4).

- 1 x Rotary Roller: Main unit for fixing and rotating objects.
- 4 x Foot Columns (Raise Feet): Used for fixing and raising the engraving machine.
- 2 x Supporting Shafts: For supporting and securing oversized objects.
- 1 x Support Frame: For stabilizing and securing the cup feet to prevent tipping.

2.2 Connecting to Your Laser Engraver

The R3 Pro Rotary Roller is designed for easy integration with most laser engraving machines. No complex assembly is required for the rotary roller itself.

1. Place the Rotary Roller on a stable surface beneath your laser engraver.
2. If your laser engraver requires additional height for the rotary roller to fit underneath, install the provided **Foot Columns** onto the engraver's feet.
3. Disconnect the Y-axis terminal from your laser engraver's main board.

4. Connect the Rotary Roller's cable to the Y-axis terminal on your laser engraver's main board. This allows the engraver to control the rotary motion.

Image: A diagram illustrating the R3 Pro Rotary Roller integrated with a laser engraver, showing the main rotary roller, raise feet, support frame, and support shaft.

The rotary roller is compatible with 95% of laser engraving machines on the market, including ATOMSTACK A, P, S, X series, and other brands like SCULPFUN, XTOOL, and ORTUR.

3. Operation

3.1 Placing Objects for Engraving

The R3 Pro is designed to engrave various cylindrical and irregularly shaped objects.

- For standard cylindrical objects (e.g., mugs, cans), place them directly on the rotary rollers.
- For objects with extra length (e.g., baseball bats), use the**Supporting Shafts** to provide additional stability at both ends.
- For objects like goblets or wine glasses that have a stem and base, use the**Support Frame** to stabilize the base and prevent tipping during rotation. The height of the support frame is adjustable.

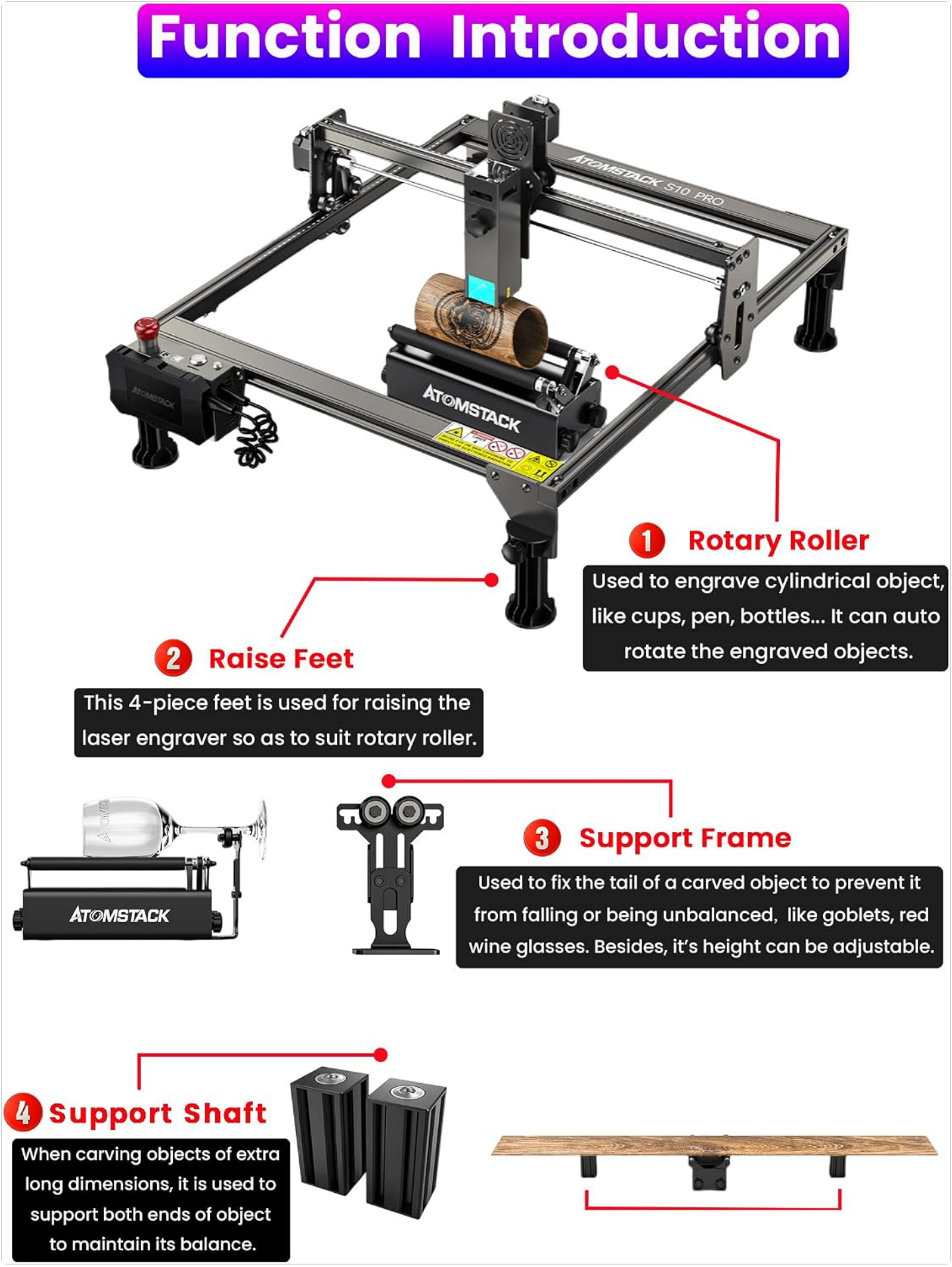

Image: The R3 Pro Rotary Roller demonstrating engraving on a goblet, showing the use of the support frame for stability.

3.2 Adjusting Roller Width and Diameter

The rotary roller features an 8-gear adjustable mechanism to accommodate objects of different diameters.

1. Locate the adjustment points on the rotary roller.
2. Adjust the width of the rollers to securely hold your object.
3. The engraving diameter can be adjusted in 8 levels, from as small as 4mm up to 100mm. Select the appropriate gear setting for your object's diameter.

Image: Close-up view of the 8-gear diameter adjustment mechanism on the ATOMSTACK R3 Pro Rotary Roller.

3.3 Engraving Process

Once the object is securely placed and the roller adjusted, you can proceed with your engraving software.

1. Ensure your laser engraver software is configured for rotary engraving (Y-axis rotation).
2. Load your design and set the engraving parameters according to your material and desired outcome.
3. Initiate the engraving process. The rotary roller will automatically rotate the object, allowing for continuous 360-degree engraving.

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Video: Demonstration of the ATOMSTACK R3 Pro Rotary Roller in action, engraving a baseball bat. This video illustrates the setup and automatic rotation during the engraving process.

The R3 Pro supports engraving on various items including bottle-shaped cylinders, small diameter cylinders (like pencils), and can also be used for extra-length plate engraving and cutting when used as a support.

Image: An illustration of the R3 Pro's multifunctionality, showing its use for bottle-shaped cylinders, small diameter cylinders, extra-length plate engraving, and cutting.

4. Maintenance

To ensure the longevity and optimal performance of your ATOMSTACK R3 Pro Rotary Roller, follow these simple maintenance guidelines:

- **Cleaning:** Regularly wipe down the rollers and the main unit with a soft, dry cloth to remove dust and debris. Avoid using abrasive cleaners or solvents.
- **Inspection:** Periodically check for any loose connections or signs of wear on the rollers and support components.
- **Storage:** When not in use, store the rotary roller in a clean, dry environment away from direct sunlight and extreme temperatures.

The motor is enclosed within the unit, providing enhanced safety and durability, requiring no specific user maintenance.

5. Troubleshooting

This section addresses common issues you might encounter with the ATOMSTACK R3 Pro Rotary Roller.

Problem	Possible Cause	Solution
Rotary roller not rotating.	Incorrect Y-axis connection; power issue; software misconfiguration.	◦ Ensure the rotary roller is correctly connected to the laser engraver's Y-axis port. ◦ Verify the laser engraver is powered on. ◦ Check your engraving software settings to ensure rotary mode is enabled and configured correctly.
Object slipping on rollers.	Rollers not adjusted correctly; object surface too smooth.	◦ Adjust the roller width to ensure a snug fit for the object. ◦ Ensure the object is centered and balanced. ◦ For very smooth objects, consider adding a thin layer of non-slip material to the rollers (e.g., rubber bands, if safe and not interfering with engraving).
Engraving is distorted or uneven.	Object not stable; incorrect software settings; laser focus issue.	◦ Ensure the object is firmly secured and not wobbling. Use support shafts or the support frame if necessary. ◦ Double-check the rotary settings in your engraving software (e.g., diameter, steps per rotation). ◦ Verify the laser focus is correctly set for the curved surface of the object.

If you encounter issues not covered here, please refer to the Warranty & Support section for assistance.

6. Specifications

Feature	Detail
Product Dimensions	11.02 x 7.2 x 5.39 inches
Item Model Number	S20
Item Weight	4.49 pounds
Manufacturer	ATOMSTACK, Co, Ltd.
Engraving Diameter Range	4mm to 100mm (8-gear adjustable)
Compatibility	Compatible with 95% of laser engravers (e.g., ATOMSTACK, XTOOL, SCULPFUN, ORTUR)
Structure	All-metal structure with enclosed motor

7. Warranty & Support

The ATOMSTACK R3 Pro Rotary Roller is manufactured with high-quality materials and undergoes rigorous quality control.

For specific warranty details, please refer to the documentation provided with your purchase or contact the manufacturer directly.

7.1 Customer Support

For technical assistance, troubleshooting, or warranty claims, please contact ATOMSTACK customer support. You can typically find contact information on the official ATOMSTACK website or through your original point of purchase.
Online resources and FAQs may also be available on the**ATOMSTACK Official Store**.