

MAGNATE 9028S

Magnate 9028S Stile/Rail Router Bits User Manual

Model: 9028S | Brand: MAGNATE

INTRODUCTION

The Magnate 9028S Stile/Rail Router Bit set is engineered to create precision stile and rail joints efficiently. This design allows for simultaneous stile and rail cuts, eliminating the need to disassemble and reassemble parts, which is common with reversible bit designs. The bits are designed to produce a 1/4 inch wide by 7/16 inch deep groove. Constructed with high industrial grade micrograin carbide tips brazed onto a heat-treated high-carbon steel body, these bits offer exceptional hardness and rigidity for demanding woodworking applications. Their cutting edges are radially relieved to ensure a strong, smooth cut while preventing rubbing and burning. Each bit is precision ground, hardened, and tempered to perform across various materials and features wide open gullets for effective wood chip disposal.

SAFETY INFORMATION

Always prioritize safety when operating power tools. Failure to follow these guidelines may result in injury or damage to the tool or workpiece.

- Always wear appropriate personal protective equipment (PPE), including safety glasses, hearing protection, and dust mask.
- Ensure the router bit is securely installed in the router collet before operation.
- Never exceed the maximum recommended RPM for the router bit. Refer to the operating instructions for speed guidelines.
- Keep hands and fingers clear of the rotating bit.
- Ensure the workpiece is firmly clamped or secured before routing.
- Disconnect power to the router before changing bits or performing maintenance.
- Inspect the router bit for damage or dullness before each use. Replace damaged bits immediately.
- Work in a well-ventilated area.
- Avoid vibration: For maximum cutting quality and to avoid vibration, always choose a router bit with the shortest cutting edge and overall length suitable for your project. Excessive overall length can lead to tool damage.

PRODUCT OVERVIEW

The Magnate 9028S Stile/Rail Router Bit set consists of two carbide-tipped bits designed for creating bead profile stile

and rail cuts. The bits feature a 1/2 inch shank diameter, a 1-3/8 inch cutting height, an overall length of 3-1/8 inches, and an overall diameter of 1-3/4 inches. They are equipped with two flutes for efficient material removal.

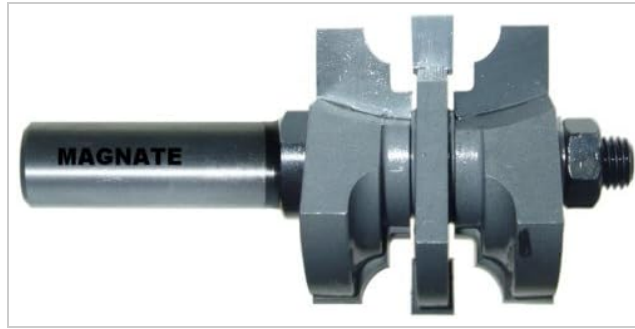


Image: The Magnate 9028S Stile/Rail Router Bit set. This image displays the router bit assembly, featuring a cylindrical shank on the left with "MAGNATE" engraved, followed by two distinct cutting profiles, and secured by a nut on the right. The cutting profiles are designed for creating bead profile stile and rail joints.

Key Features:

- 2 Flute, Carbide Tipped
- Bead Profile; Stile Cut
- 1/2" Shank Diameter
- 1-3/8" Cutting Height
- 3-1/8" Overall Length
- 1-3/4" Overall Diameter

SETUP

Proper installation of the router bit is crucial for safe and effective operation.

1. **Power Disconnection:** Ensure your router is unplugged from the power source before attempting to install or remove any bits.
2. **Collet Cleaning:** Clean the router collet and collet nut to remove any dust or debris that could affect bit seating.
3. **Bit Insertion:** Insert the router bit shank into the collet. For optimal grip and to prevent bit slippage, insert the shank as far as it will go, then pull it out approximately 1/16 to 1/8 inch. This ensures the collet grips the full diameter of the shank.
4. **Tightening:** Use the appropriate wrenches to securely tighten the collet nut. Do not overtighten, but ensure the bit is firmly held and cannot be pulled out by hand.
5. **Depth Adjustment:** Adjust the router's depth setting according to your project requirements. Perform a test cut on scrap material to verify the depth and profile.

OPERATING INSTRUCTIONS

These router bits are suitable for use with softwoods, hardwoods, chipboard, and plywood. Always perform test cuts on scrap material to ensure desired results and proper setup.

Material Compatibility:

- Softwoods
- Hardwoods
- Chipboard

- Plywood

Speed Guidelines:

The following RPM guidelines are general suggestions. Actual optimal speeds may vary based on material hardness, feed rate, and router power. Always start with a lower RPM and gradually increase if necessary, while monitoring for burning or excessive vibration.

- For 1" overall diameter router bits: Run 24,000 rpm maximum.
- For 1-1/4" overall diameter router bits: Run 18,000 rpm maximum.
- For 2-1/4" to 2-1/2" overall diameter router bits: Run 16,000 rpm maximum.
- For 3" to 3-1/2" overall diameter router bits: Run 12,000 rpm maximum.

MAINTENANCE

Regular maintenance extends the life of your router bits and ensures consistent cutting performance.

- **Cleaning:** After each use, clean the bit to remove resin and wood residue. Use a specialized router bit cleaner or a mild solvent and a brass brush. Avoid using wire brushes, which can damage the carbide.
- **Inspection:** Regularly inspect the carbide tips for signs of dullness, chips, or cracks. A dull bit can cause burning, excessive heat, and poor cut quality.
- **Sharpening:** If the bit becomes dull, it can be professionally sharpened. Do not attempt to sharpen carbide tips yourself unless you have the proper equipment and expertise.
- **Storage:** Store router bits in a protective case or rack to prevent damage to the cutting edges. Keep them in a dry environment to prevent rust.
- **Lubrication:** A light coat of rust preventative oil can be applied to the steel body of the bit if storing for extended periods in humid conditions.

TROUBLESHOOTING

Refer to the table below for common issues and their potential solutions.

Problem	Possible Cause	Solution
Burning on workpiece	Dull bit, too slow feed rate, excessive RPM, or too deep a cut.	Sharpen or replace bit, increase feed rate, reduce RPM, or make shallower passes.
Rough cut surface	Dull bit, incorrect feed rate, excessive vibration, or improper bit setup.	Sharpen or replace bit, adjust feed rate, ensure bit is securely tightened, reduce bit overhang.
Excessive vibration	Bit not properly seated, bent shank, excessive bit overhang, or worn router bearings.	Re-seat bit, inspect bit for damage, reduce bit overhang, or service router.
Bit breakage	Excessive force, impact, incorrect RPM, or manufacturing defect.	Use appropriate feed pressure, avoid dropping bits, adhere to RPM guidelines, replace defective bit.

SPECIFICATIONS

Detailed technical specifications for the Magnate 9028S Stile/Rail Router Bit.

Attribute	Value
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Attribute	Value
Model Number	9028S
Brand	MAGNATE
Manufacturer	Magnate
Material	Carbide
Flutes	2
Profile	Bead Profile; Stile Cut
Shank Diameter	1/2 inch
Cutting Height	1-3/8 inches
Overall Length	3-1/8 inches
Overall Diameter	1-3/4 inches
Groove Dimensions	1/4 inch wide x 7/16 inch depth
Item Weight	12 ounces
Product Dimensions	3.5 x 2 x 2 inches
ASIN	B001802IME
UPC	637881737338

WARRANTY AND SUPPORT

For specific warranty information or technical support regarding your Magnate 9028S Stile/Rail Router Bits, please refer to the official MAGNATE website or contact their customer service directly. Keep your purchase receipt as proof of purchase for any warranty claims.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

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