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› RIVERWELD Tungsten Grinder Manual Collet Body Instruction Manual for TIG Welding Electrodes (3/32 inch & 1/8 inch)

RIVERWELD 3/32" 2.4mm & 1/8" 3.2mm

RIVERWELD Tungsten Grinder Manual Collet Body Instruction Manual

Model: 3/32" 2.4mm & 1/8" 3.2mm

1. INTRODUCTION

The RIVERWELD Tungsten Grinder Manual Collet Body is a precision tool designed to assist in sharpening tungsten electrodes for TIG (Tungsten Inert Gas) welding. This manual collet body provides a secure and stable grip on tungsten electrodes, allowing for consistent and accurate grinding angles, which is crucial for optimal welding performance. It is compatible with tungsten electrodes ranging from 18mm to 180mm in length and supports two common sizes: 3/32 inch (2.4mm) and 1/8 inch (3.2mm).

2. PACKAGE CONTENTS

Please verify that all items listed below are present in your package:

- 1 x Manual Grinder Collet Body
- 1 x 3/32 inch (2.4mm) Manual Grinder Collet Body Insert
- 1 x 1/8 inch (3.2mm) Manual Grinder Collet Body Insert
- 1 x 3/32 inch (2.4mm) Manual Grinder Collet
- 1 x 1/8 inch (3.2mm) Manual Grinder Collet



Image 2.1: Components of the RIVERWELD Tungsten Grinder Manual Collet Body.

3. SPECIFICATIONS

Model Number	3/32" 2.4mm & 1/8" 3.2mm
Material	Copper, Stainless Steel
Dimensions (L x W x H)	9 x 4 x 1.5 cm (3.54 x 1.57 x 0.59 inches)
Weight	120 g (0.26 lbs)
Compatible Tungsten Length	18mm - 180mm



Image 3.1: Dimensions of the Manual Collet Body.

4. SETUP

Follow these steps to prepare your manual collet body for use:

1. **Select the Correct Collet and Collet Body Insert:** Identify the tungsten electrode size you intend to sharpen (3/32 inch or 1/8 inch). Choose the corresponding collet and collet body insert.
2. **Assemble the Collet Body:** Unscrew one end of the manual grinder collet body. Insert the chosen collet body insert into the main body, followed by the matching collet. Screw the end cap back on, ensuring it is finger-tight.
3. **Insert the Tungsten Electrode:** Loosen the end cap slightly. Insert the tungsten electrode into the collet through the opening. Adjust the electrode to the desired length for grinding.
4. **Secure the Electrode:** Tighten the end cap firmly to secure the tungsten electrode in place. Ensure the electrode is held straight and does not wobble.



Image 4.1: Assembly of the collet body with collet and insert.

5. OPERATING INSTRUCTIONS

This manual collet body is designed to facilitate the precise sharpening of tungsten electrodes.

1. **Safety First:** Always wear appropriate personal protective equipment (PPE), including safety glasses and gloves, when grinding tungsten electrodes. Ensure your grinding equipment is stable and properly maintained.
2. **Prepare the Electrode:** Follow the setup instructions to securely insert your tungsten electrode into the manual collet body. Ensure the exposed length of the tungsten is suitable for your grinding setup. The tool supports electrodes from 18mm to 180mm in length.
3. **Grinding Process:** Hold the manual collet body firmly. Present the tungsten electrode to the grinding

wheel at the desired angle. Rotate the collet body evenly to achieve a concentric grind on the tungsten tip. The collet body helps maintain a consistent angle and prevents accidental contact with the grinding wheel.

4. **Inspect the Tip:** After grinding, carefully remove the tungsten electrode and inspect the tip for a smooth, consistent taper and a sharp point (if desired). Repeat the grinding process if necessary.



Image 5.1: Tungsten electrode secured in the manual collet body.

6. MAINTENANCE

To ensure the longevity and optimal performance of your RIVERWELD Tungsten Grinder Manual Collet Body, follow these simple maintenance guidelines:

- **Cleaning:** After each use, wipe down the collet body with a clean, dry cloth to remove any grinding dust or debris.
- **Storage:** Store the collet body and its components in a dry, clean environment to prevent corrosion.
- **Inspection:** Periodically inspect the collets and collet body inserts for wear or damage. Replace any worn components to maintain precise gripping.

7. TROUBLESHOOTING

If you encounter issues while using the manual collet body, consider the following:

- **Tungsten Not Holding Securely:**

- Ensure you are using the correct size collet and collet body insert for your tungsten electrode.
- Verify that the end cap is tightened sufficiently.
- Check for any debris inside the collet or collet body insert that might prevent a secure grip.

- **Inconsistent Grind:**

- Ensure the tungsten electrode is inserted straight and securely.
- Maintain a steady hand and consistent rotation during the grinding process.
- Check the grinding wheel for wear or uneven surfaces.

8. WARRANTY AND SUPPORT

RIVERWELD products are manufactured to high-quality standards. For specific warranty information or technical support, please refer to the product packaging or contact RIVERWELD customer service through their official channels. Keep your purchase receipt as proof of purchase.