Accusize Industrial Tools 2330-0050

Accusize Industrial Tools End Mill Grinding Fixture 2330-0050 User Manual

Model: 2330-0050

1. Introduction

This manual provides instructions for the safe and effective use of the Accusize Industrial Tools End Mill Grinding Fixture, model 2330-0050. This precision fixture is designed to accurately sharpen various types of end mills and shell mills, ensuring optimal performance and extended tool life. Please read this manual thoroughly before operating the fixture.

2. Safety Information

Always prioritize safety when working with grinding equipment. Failure to follow safety guidelines can result in serious injury or damage to the equipment.

- Wear appropriate personal protective equipment (PPE), including safety glasses or a face shield, gloves, and hearing protection.
- Ensure the grinding machine is stable and securely mounted before use.
- Keep hands and clothing clear of rotating parts and grinding wheels.
- Do not operate the fixture if any parts are damaged or missing.
- Always disconnect power to the grinding machine before making adjustments or changing accessories.
- Maintain a clean and well-lit work area.

3. Product Overview

The Accusize Industrial Tools End Mill Grinding Fixture 2330-0050 is a hand-powered device designed for precise end mill sharpening. It utilizes 5C collets to securely hold end mills and shell mills during the grinding process. The fixture allows for grinding of various flute counts and shank diameters.



Figure 3.1: Accusize End Mill Grinding Fixture 2330-0050, showing the main body and collet holder.



Figure 3.2: Side view of the grinding fixture, highlighting the adjustment knob for precise control.

4. Setup

Proper setup is crucial for achieving accurate grinding results.

1. **Mounting the Fixture:** Securely mount the grinding fixture to a stable workbench or grinding machine table. Ensure it is positioned to allow for full range of motion and safe operation with your grinding wheel.
2. **Inserting a 5C Collet:** Select the appropriate 5C collet for your end mill's shank diameter. Insert the collet into the fixture's collet holder.
3. **Inserting the End Mill:** Insert the end mill into the 5C collet. Ensure the end mill is seated firmly and extends sufficiently for grinding. Tighten the collet nut to secure the end mill. The fixture is designed to grind end mills with shank diameters from 1/16" to 1-1/8".
4. **Adjusting for Shell Mills:** For shell mills, use a straight shank arbor to hold the shell mill, then insert the arbor into the 5C collet as described above.



Figure 4.1: Side profile of the grinding fixture, showing the base and collet assembly.

5. Operating Instructions

This fixture allows for grinding of various end mill flute configurations.

1. **Flute Count Selection:** The fixture features a rotating dial with markings for different flute counts (2, 3, 4, 6, 8, 12). Rotate the dial to align the correct flute count with the index mark for the end mill you are grinding.
2. **Positioning for Grinding:** Carefully position the end mill against the grinding wheel. Ensure the grinding wheel is rotating in the correct direction and at the appropriate speed for the end mill material.
3. **Grinding Process:** Apply light, consistent pressure while moving the end mill across the grinding wheel. Rotate the end mill according to the selected flute count on the dial to grind each flute evenly. Repeat as necessary until the desired sharpness is achieved.
4. **Checking Grind Quality:** Periodically remove the end mill and inspect the grind quality. Ensure all flutes are sharp and consistent.



Figure 5.1: Close-up view of the indexing dial on the grinding fixture, showing flute count markings.



Figure 5.2: Detailed view of the indexing dial, indicating settings for various flute numbers.

6. Maintenance

Regular maintenance ensures the longevity and accuracy of your grinding fixture.

- **Cleaning:** After each use, clean the fixture to remove grinding dust and debris. Use a brush or compressed air. Avoid using harsh chemicals that may damage the finish.
- **Lubrication:** Periodically apply a light machine oil to moving parts and threads to ensure smooth operation and prevent corrosion.
- **Storage:** Store the fixture in a clean, dry environment to prevent rust and damage.
- **Inspection:** Regularly inspect the fixture for any signs of wear, damage, or loose components. Address any issues promptly.

7. Troubleshooting

If you encounter issues during operation, consider the following:

- **Poor Grind Quality:** Check the grinding wheel for wear or glazing. Ensure the end mill is securely held in the collet. Verify that the correct flute count is selected on the indexing dial. Adjust grinding pressure and speed.
- **Difficulty Rotating End Mill:** Ensure the collet is not overtightened. Clean any debris from the rotating mechanism. Apply a small amount of lubricant if necessary.

- **Fixture Movement:** Confirm that the fixture is securely mounted to the workbench or grinding machine. Tighten all mounting bolts.

For persistent issues, contact Accusize Industrial Tools customer support.

8. Specifications

Feature	Detail
Model Number	2330-0050
Manufacturer	Accusize Co. Ltd.
Collet Type	5C Collets
Shank Diameter Capacity	1/16" - 1-1/8"
Flute Grinding Capacity	2, 3, 4, 6, 8, 12 Fluted end mills and shell mills
Material	High Speed Steel (fixture components)
Product Dimensions	12 x 8 x 13 cm
Item Weight	1.85 kg
Power Source	Hand-powered

9. Warranty and Support

For warranty information, technical support, or replacement parts, please contact Accusize Industrial Tools directly. Refer to your purchase documentation for specific warranty terms and contact details. You can also visit the official Accusize Industrial Tools website for further assistance.
Manufacturer: Accusize Co. Ltd.
Place of Business: Richmond Hill, ON L4B 1E6, CA

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