

EBERTH AK1-ZFG12

EBERTH AK1-ZFG12 Dovetail Jig Instruction Manual

Model: AK1-ZFG12

1. INTRODUCTION

The EBERTH AK1-ZFG12 Dovetail Jig is designed for creating precise dovetail and finger joints in woodworking projects. This device facilitates the simultaneous milling of two workpieces, making it an efficient tool for both professional carpenters and DIY enthusiasts. It is compatible with commonly available 1/2 inch and 1/4 inch router bits.

Proper care and maintenance will ensure reliable operation and a long service life for this tool.

2. SAFETY INFORMATION

Always prioritize safety when operating power tools and accessories. Read and understand all instructions before use.

- Wear appropriate personal protective equipment (PPE), including safety glasses, hearing protection, and gloves.
- Ensure the dovetail jig is securely mounted to a stable workbench before operation.
- Keep hands and loose clothing away from moving parts and router bits.
- Always disconnect the router from the power supply before making adjustments or changing bits.
- Ensure the workpiece is firmly clamped in place to prevent movement during milling.
- Use only router bits that are sharp and in good condition.
- Maintain a clean and well-lit work area.

3. PACKAGE CONTENTS

Verify that all items are present upon unpacking:

- 1x EBERTH AK1-ZFG12 Dovetail Jig
- 1x 1/2 inch Template (pre-assembled)
- 1x Instruction Manual

4. PRODUCT FEATURES AND COMPONENTS

The EBERTH AK1-ZFG12 Dovetail Jig is constructed for stability and ease of use. Key features include:

- **Robust Construction:** Made from durable metal for stability and longevity.
- **Quick Clamping System:** Equipped with two quick-release clamps for efficient securing and removal of workpieces.
- **Interchangeable Templates:** Comes with a pre-assembled 1/2 inch template. Other compatible templates can be used.
- **Workbench Mounting:** Designed with mounting options for secure attachment to a workbench.
- **Compatibility:** Works with standard 1/2 inch and 1/4 inch router bits.



Figure 1: Front view of the EBERTH AK1-ZFG12 Dovetail Jig, showing the template and clamping mechanisms.



Figure 2: Side view of the Dovetail Jig, illustrating the robust metal construction and clamping handles.

5. SETUP

1. **Unpacking:** Carefully remove all components from the packaging. Inspect for any shipping damage.
2. **Workbench Mounting:** Securely attach the dovetail jig to a stable workbench using appropriate fasteners (not included). Ensure it is firmly fixed to prevent movement during operation.
3. **Template Installation:** The 1/2 inch template is pre-assembled. If using a different compatible template, ensure it is correctly aligned and secured.
4. **Router Bit Selection:** Select the appropriate 1/2 inch or 1/4 inch router bit for your desired joint type. Ensure the bit is sharp and clean.
5. **Router Setup:** Install the selected router bit into your router according to the router manufacturer's instructions. Adjust the router's depth setting as required for the joint.



Figure 3: Detail of the 1/2 inch template, indicating its size and design for precise cuts.

6. OPERATING INSTRUCTIONS

Follow these steps for creating dovetail or finger joints:

1. **Prepare Workpieces:** Cut your wood pieces to the desired dimensions. Ensure edges are square and free of defects. The maximum workpiece dimensions are 300mm width and 32mm thickness.
2. **Clamp Workpieces:** Place the two workpieces to be joined into the jig. Use the quick-release clamps to firmly secure them. Ensure they are flush against the jig's guides.
3. **Router Bit Adjustment:** Double-check that the correct router bit is installed and the depth of cut is set accurately for the joint type and wood thickness.
4. **Milling Process:**
 - Turn on your router.
 - Carefully guide the router along the template, ensuring the router's guide bushing follows the template

precisely.

- Make smooth, consistent passes. Avoid forcing the router, as this can lead to poor cut quality or damage.
- Complete the milling for both workpieces.

5. **Inspect and Assemble:** Turn off and unplug the router. Release the clamps and remove the workpieces. Inspect the milled joints for accuracy and fit. Assemble the joint.



Figure 4: Detail of a quick-release clamping handle, used to secure workpieces quickly and efficiently.

7. MAINTENANCE

Regular maintenance ensures the longevity and performance of your dovetail jig:

- **Cleaning:** After each use, clean the jig thoroughly to remove sawdust and debris. Use a brush or compressed air.
- **Lubrication:** Periodically apply a light coat of machine oil to moving parts and clamping mechanisms to ensure smooth operation and prevent rust.
- **Inspection:** Regularly inspect the template for wear or damage. Replace worn templates to maintain joint accuracy. Check all fasteners for tightness.

- **Storage:** Store the dovetail jig in a clean, dry place to protect it from moisture and dust.

8. TROUBLESHOOTING

Common issues and their solutions:

Problem	Possible Cause	Solution
Inaccurate joints	<ul style="list-style-type: none"> ◦ Loose workpiece clamping ◦ Worn or incorrect template ◦ Incorrect router bit depth setting ◦ Router guide bushing not following template 	<ul style="list-style-type: none"> ◦ Ensure workpieces are firmly clamped. ◦ Inspect and replace template if worn. Verify template is correct for joint. ◦ Adjust router bit depth precisely. ◦ Ensure router guide bushing is clean and correctly sized for the template.
Router bit binding/burning wood	<ul style="list-style-type: none"> ◦ Dull router bit ◦ Feeding router too fast ◦ Incorrect router speed 	<ul style="list-style-type: none"> ◦ Replace or sharpen router bit. ◦ Reduce feed rate, make lighter passes. ◦ Adjust router speed according to wood type and bit size.
Workpiece slipping	<ul style="list-style-type: none"> ◦ Clamps not tight enough ◦ Workpiece surface slick 	<ul style="list-style-type: none"> ◦ Tighten clamps securely. ◦ Ensure workpiece surfaces are clean and dry.

9. SPECIFICATIONS

Specification	Value
Model Number	AK1-ZFG12
Brand	EBERTH
Max. Workpiece Width	300 mm
Max. Workpiece Thickness	32 mm
Template Format	1/2 inch (standard)
Compatible Router Bits	1/2 inch and 1/4 inch
Material	Metal
Weight	Approx. 8 kg

10. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation provided with your purchase or visit the official EBERTH website. Keep your proof of purchase for warranty claims.

Note: Information regarding spare parts availability is currently unavailable.

