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JessEm 08351

JessEm 08351 1/4 Inch Dowelling Jig Kit Instruction Manual

Precision Woodworking Joinery Tool

1. INTRODUCTION

This manual provides comprehensive instructions for the safe and effective use of your JessEm 08351 1/4 Inch Dowelling Jig Kit. Designed for precision woodworking, this kit enables the creation of accurate 1/4 inch dowel holes for strong and reliable joinery. Please read this manual thoroughly before operation to ensure proper setup, usage, and maintenance.

2. PRODUCT OVERVIEW

The JessEm 08351 1/4 Inch Dowelling Jig Kit is an accessory designed for use with the JessEm Model #08350 Dowelling Jig. It allows users to create precise 1/4 inch dowel holes. The kit features hardened guide bushings for durability and accuracy, ensuring consistent results in various woodworking applications. Its robust construction is engineered for reliable performance in both hobbyist and professional settings.



1/4 Dowelling Jig Kit

- Includes seven 1/4" hardened guide bushings mounted in a guide mount
- Create 1/4" dowel holes using the model #08350 dowelling jig
- Guide bushing carrier has built in 1/4" alignment slot

Figure 1: Overview of the JessEm 08351 1/4 Inch Dowelling Jig Kit components, including the guide mount, bushings, drill bit, indexing pin, and stop collar.

3. COMPONENTS LIST

The JessEm 08351 1/4 Inch Dowelling Jig Kit includes the following items:

- 1/4 Inch Guide Mount with 7 Guide Bushings
- 1/4 Inch Drill Bit
- 1 Stainless Steel Indexing Pin
- 1 Stop Collar
- 1/8 Hex Key

4. SAFETY INFORMATION

WARNING: Always wear appropriate personal protective equipment (PPE) including safety glasses, hearing protection, and gloves when operating power tools and woodworking jigs.

- Ensure your workpiece is securely clamped before drilling.
- Keep hands and fingers clear of the drill bit during operation.
- Use the correct drill bit size for the guide bushings to prevent damage to the jig and ensure accurate holes.
- Disconnect power tools from the power source before making adjustments or changing drill bits.
- Maintain a clean and well-lit work area.

5. SETUP

Follow these steps to set up your JessEm 08351 1/4 Inch Dowelling Jig Kit for use with the JessEm Model #08350 Dowelling Jig:

- Attach Guide Mount:** Secure the 1/4 Inch Guide Mount onto the main body of your JessEm Model #08350 Dowelling Jig. Ensure it is seated correctly and tightened with the provided fasteners or locking mechanism on the main jig.
- Insert Bushings:** The 1/4 Inch hardened guide bushings are pre-mounted in the guide mount. Verify they are all securely in place.
- Prepare Drill Bit:** Insert the 1/4 Inch drill bit into your drill. Attach the stop collar to the drill bit at the desired drilling depth. Use the 1/8 hex key to tighten the stop collar securely. The depth should be set to allow the dowel to fully seat without protruding, typically half the dowel length plus a small allowance for glue.
- Indexing Pin:** The stainless steel indexing pin is used for aligning subsequent holes. Keep it accessible.

-  Simple and accurate alignment
-  1/16" dual-side detents
-  Laser engraved markings

-  Stainless indexing pins
-  11-gauge stainless steel
-  Proudly manufactured in Canada



Figure 2: The JessEm Dowelling Jig clamped to a workpiece during drilling, illustrating proper setup and operation.

6. OPERATING INSTRUCTIONS

Using the JessEm 08351 1/4 Inch Dowelling Jig Kit for precise dowel joinery:

- Marking:** Clearly mark the centerlines or positions for your dowel holes on your workpiece.
- Positioning the Jig:** Place the JessEm Dowelling Jig (with the 1/4 Inch Guide Mount attached) onto your workpiece. Align the jig's reference marks or the edge of the jig with your marked lines or the edge of the workpiece.
- Clamping:** Securely clamp the jig to the workpiece. Ensure there is no movement between the jig and the wood. The jig's design allows for various clamping methods.
- Drilling the First Hole:** Insert the 1/4 Inch drill bit into one of the guide bushings. Begin drilling slowly, then increase speed, applying steady pressure. Allow the stop collar to contact the bushing to ensure consistent depth. Withdraw the drill bit cleanly.
- Indexing for Subsequent Holes:** For multiple, evenly spaced holes, insert the stainless steel indexing pin into the previously drilled hole. Slide the jig along the workpiece until the indexing pin engages with the next guide bushing. This ensures accurate spacing.

6. **Drilling Remaining Holes:** Re-clamp the jig if necessary and drill the next hole. Repeat the indexing and drilling process until all required holes are complete.
7. **Mating Workpieces:** Once holes are drilled in both mating workpieces, apply wood glue and insert dowels. Assemble the joint, ensuring proper alignment and clamping until the glue cures.

7. MAINTENANCE

Proper maintenance ensures the longevity and accuracy of your dowelling jig kit:

- **Cleaning:** After each use, wipe down the jig components with a clean, dry cloth to remove sawdust and debris. For stubborn residue, a mild solvent can be used, ensuring it does not damage the finish.
- **Lubrication:** Periodically apply a light coat of machine oil or wax to moving parts and stainless steel surfaces to prevent corrosion and ensure smooth operation. Avoid lubricating the guide bushings internally, as this can attract sawdust.
- **Storage:** Store the jig and its components in a dry, clean environment. Keep all parts together to prevent loss.
- **Inspection:** Regularly inspect the guide bushings for wear or damage. Worn bushings can lead to inaccurate holes. Replace any damaged components immediately.

8. TROUBLESHOOTING

Common issues and their solutions:

Problem	Possible Cause	Solution
Dowel holes are not aligned	Jig shifted during drilling; improper indexing; workpiece not flat.	Ensure jig is securely clamped. Use the indexing pin correctly for sequential holes. Verify workpiece flatness.
Drill bit binds or gets stuck	Excessive drilling pressure; dull drill bit; sawdust buildup in bushing.	Reduce drilling pressure. Use a sharp drill bit. Clear sawdust from bushings frequently.
Inconsistent hole depth	Stop collar loose; stop collar incorrectly set.	Tighten stop collar securely with hex key. Re-measure and set stop collar depth accurately.
Dowel holes are oversized or sloppy	Worn guide bushings; incorrect drill bit size.	Inspect and replace worn guide bushings. Ensure a 1/4 inch drill bit is used with the 1/4 inch bushings.

9. SPECIFICATIONS

Feature	Detail
Model Number	08351
Manufacturer	JessEm Tools
Item Weight	15.2 ounces
Package Dimensions	8.39 x 7.64 x 2.24 inches
Color	Stainless Steel

Feature	Detail
Power Source	Hand-powered (requires external drill)
Item Package Quantity	1
Included Components	Guide Mount, Bushings, Drill Bit, Indexing Pin, Stop Collar, Hex Key
Batteries Required?	No

10. WARRANTY INFORMATION

JessEm Tools products are manufactured to high standards. For specific warranty details regarding your 08351 1/4 Inch Dowelling Jig Kit, please refer to the official JessEm Tools website or contact their customer service directly. Warranty terms and conditions may vary.

11. SUPPORT

For technical assistance, replacement parts, or further inquiries, please visit the official JessEm Tools website or contact their customer support:

- **JessEm Tools Official Store:** [Visit JessEm Store on Amazon](#)
- Refer to the packaging for additional contact information or visit the manufacturer's website.

12. PRODUCT VIDEOS

No official product videos from the seller were found for this specific model in the provided data. Please check the manufacturer's website or product page for any available video resources.