BESSEY TG7.024+2K

BESSEY TG7.024+2K Cast Jaw Clamp Instruction Manual

Model: TG7.024+2K

1. Introduction

The BESSEY TG7.024+2K Cast Jaw Clamp is a robust and versatile F-style bar clamp designed for woodworking, carpentry, home improvement, and DIY projects. Featuring malleable cast iron jaws and a high-quality profiled steel rail, this clamp provides strong and reliable clamping force. Its ergonomic 2K composite handle ensures comfortable operation, while the anti-slip system prevents accidental sliding during use. This manual provides essential information for the safe and effective use of your BESSEY clamp.

2. Safety Information

Always adhere to the following safety guidelines to prevent injury and ensure proper operation of the clamp:

- Always wear appropriate personal protective equipment, such as safety glasses, when operating clamps.
- Ensure the workpiece is stable and securely positioned before applying clamping force.
- Do not overtighten the clamp beyond its rated capacity. Overtightening can damage the workpiece or the clamp itself.
- Keep hands and fingers clear of moving parts, especially the spindle and sliding jaw, during operation.
- Store clamps in a dry, safe place away from children and unauthorized users.
- Inspect the clamp for any damage or wear before each use. Do not use a damaged clamp.

3. Product Features

The BESSEY TG7.024+2K Cast Jaw Clamp incorporates several design elements for superior performance:

- **Malleable Cast Jaw Clamp:** Constructed with durable malleable cast iron for strength and longevity.
- **Serrated Rail with Robust Cast Iron Jaws:** Provides a secure grip and prevents slippage.
- **BESSEY Anti-Slip System:** A set screw molded into the sliding arm interlocks with the serrated rail, preventing unintentional sliding of the movable jaw.
- **High-Quality Profiled Steel Rail:** Acts as a reliable reinforcement against torsional forces, with serration on six faces to further prevent slipping.

- **Hardened, Smooth-Running Spindle with ACME Thread:** Designed for efficient and powerful clamping with less effort.
- **Comfortable 2K Composite Handle:** Ergonomically designed two-component handle provides extra grip and comfort during use.

4. Components Overview

Familiarize yourself with the main components of your BESSEY TG7.024+2K Cast Jaw Clamp:



Image 1: Labeled diagram of the BESSEY TG7.024+2K Cast Jaw Clamp, highlighting key components such as the nickel-plated rail, durable powder-coated cast jaws, ergonomic handle, non-marring jaw pads, and clutch plates designed to prevent slipping.

- **Fixed Jaw:** The stationary end of the clamp, providing a stable anchor point.
- **Sliding Jaw:** The movable jaw that travels along the rail to adjust to the workpiece size.
- **Profiled Steel Rail:** The main bar of the clamp, providing structural integrity and the track for the sliding jaw.
- **Spindle with ACME Thread:** The threaded rod that applies pressure when turned by the handle.
- **2K Composite Handle:** The ergonomic handle used to tighten and loosen the spindle.

- **Non-Marring Jaw Pads:** Protective pads on the jaws to prevent damage to the workpiece. These are replaceable.



Image 2: A close-up view of the BESSEY TG7.024+2K Cast Jaw Clamp, showcasing its red and black ergonomic handle, black cast iron jaws, and steel rail, resting on a light wood surface.

5. Setup

Proper setup ensures optimal performance and safety:

1. **Inspect the Clamp:**

   Before each use, visually inspect the clamp for any signs of damage, such as cracks in the cast iron, bends in the rail, or worn spindle threads. Ensure all components are securely attached. Verify that the jaw pads are clean and intact.

2. **Clean Workpiece Surfaces:**

   Ensure the surfaces of the workpiece to be clamped are clean and free of debris, glue, or other contaminants. This prevents marring of the material and ensures a secure, even grip.

3. **Adjust Jaw Pads (if applicable):**

   The clamp features non-marring jaw pads. Ensure these are properly seated on both jaws. If the pads are worn or damaged, they can be replaced to protect your workpiece.

6. Operating Instructions

Follow these steps for effective clamping:

1. **Position the Workpiece:**

   Place the workpiece securely on a stable and level surface.

2. **Open the Clamp:**

   Loosen the spindle by turning the handle counter-clockwise. Slide the movable jaw along the rail until the opening is slightly wider than your workpiece.

3. **Apply Clamping Force:**

   Position the clamp over the workpiece, ensuring both jaws make full and even contact with the material. Turn the handle clockwise to tighten the spindle and apply clamping pressure. The BESSEY anti-slip system will engage to prevent the sliding arm from moving unintentionally.

4. **Secure the Clamp:**

   Continue tightening until the desired clamping force is achieved. Avoid overtightening, which can damage the workpiece or the clamp. The clamp is designed to provide significant force with moderate effort.

5. **Release the Clamp:**

   To release the clamp, turn the handle counter-clockwise until the pressure is relieved, then slide the movable jaw away from the workpiece.



Image 3: Several BESSEY TG7.024+2K clamps are shown in use, securing multiple curved wooden pieces together on a workbench, demonstrating their application in woodworking projects.



Image 4: A woodworker is depicted in a workshop, using a BESSEY TG7.024+2K clamp to firmly secure a wooden board to a workbench, illustrating a common clamping application.

7. Maintenance

Regular maintenance will extend the life and performance of your clamp:

1. **Cleaning:**

   After each use, wipe down the clamp with a clean, dry cloth to remove dust, wood glue, or other debris. For stubborn residue, a mild solvent can be used, ensuring it does not damage the handle or jaw pads.

2. **Lubrication:**

   Periodically apply a light machine oil to the spindle thread and the sliding mechanism of the movable jaw. This ensures smooth operation, prevents corrosion, and reduces wear.

3. **Inspection:**

   Regularly check for any signs of wear, damage, or loose parts. Pay close attention to the serrated rail, jaw pads, and spindle. Replace worn or damaged parts immediately to maintain safety and effectiveness.

4. **Storage:**

   Store the clamp in a dry environment to prevent rust and corrosion. Keep the jaws slightly open to relieve any residual tension on the spring mechanism and prevent potential binding.

8. Troubleshooting

Common issues and their solutions:

- **Clamp Slips During Use:**

  Ensure the workpiece surfaces are clean and dry. Verify that the BESSEY anti-slip system is engaging properly with the serrated rail. If the rail or sliding arm mechanism is excessively worn, consider replacement or professional inspection.

- **Difficulty in Tightening/Loosening Spindle:**

  The spindle thread may be dirty or require lubrication. Clean the thread thoroughly and apply a light machine oil. If the spindle is bent or damaged, it may need replacement.

- **Workpiece Marring:**

  Ensure the non-marring jaw pads are correctly in place and not damaged. If pads are worn, replace them. For delicate surfaces, consider using additional protective material (e.g., wood scraps, felt) between the clamp jaws and the workpiece.

9. Specifications

Specification	Detail
Brand	BESSEY
Model Number	TG7.024+2K (also TGJ2.506 2K)
Material	Malleable Cast Iron, High-quality Profiled Steel
Item Dimensions (L x W x H)	24.6 x 3.8 x 77.5 Centimetres
Colour	Red, Black, Silver
Clamping Force	1320 lb
Item Weight	7 Pounds
Tensile Strength	600 Pounds
UPC	091162009215
Manufacturer	Bessey
Included Components	TG7.024+2K Clamp
Country of Publication	Germany

10. Warranty Information

Specific warranty details for the BESSEY TG7.024+2K Cast Jaw Clamp are not provided in this manual. For comprehensive warranty information, please refer to the official BESSEY website or contact BESSEY customer support directly. It is recommended to retain your purchase receipt as proof of purchase for any warranty claims.

11. Customer Support

For further assistance, technical support, or to inquire about replacement parts for your BESSEY TG7.024+2K Cast Jaw Clamp, please utilize the following resources:

- **Official BESSEY Website:** Visit www.bessey.de/en/ for product information, FAQs, and contact details.
- **Contact Customer Service:** Refer to the contact section on the official website for phone numbers or email addresses specific to your region.
- When contacting support, please provide the model number **TG7.024+2K** (or TGJ2.506 2K) and the UPC **091162009215** for efficient service.

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