

## FEMI FM-784XL

# FEMI 784XL Adjustable Rod Metal Band Saw

## INSTRUCTION MANUAL

Model: FM-784XL | Brand: FEMI

### 1. Introduction and Product Overview

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This manual provides essential information for the safe and effective operation, maintenance, and troubleshooting of your FEMI 784XL Adjustable Rod Metal Band Saw. Please read this manual thoroughly before operating the machine to ensure proper use and to prevent injury or damage.

The FEMI 784XL is a powerful and versatile metal band saw designed for precise cutting of various metal materials. It features a robust 1200W motor, an adjustable cutting angle, and a patented blade tensioning system for optimal performance.



Figure 1: Front view of the FEMI 784XL Metal Band Saw, showcasing its red and silver design with the blade and vice assembly.

## 2. Safety Instructions

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Always adhere to the following safety precautions to minimize the risk of injury or damage to the machine.

- **Read the Manual:** Fully understand all instructions and warnings before operation.
- **Personal Protective Equipment (PPE):** Always wear safety glasses, hearing protection, and appropriate work gloves. Avoid loose clothing or jewelry that could get caught in moving parts.
- **Work Area:** Ensure your work area is clean, well-lit, and free of clutter. Keep children and bystanders away from the machine during operation.
- **Power Connection:** Connect the saw to a grounded power outlet with the correct voltage (230V). Do not use damaged cords or plugs.
- **Blade Safety:** Ensure the blade is correctly installed and tensioned before starting. Never touch the blade while the machine is running or connected to power.
- **Material Securement:** Always secure the workpiece firmly in the vice before cutting. Do not attempt to cut freehand.
- **Anti-Start Safety:** The machine is equipped with an anti-start safety function. Do not bypass or modify this

feature.

- **Transport:** Utilize the locking device for easy transport. Ensure the machine is stable before moving.
- **Maintenance:** Disconnect the power supply before performing any maintenance, adjustments, or blade changes.

### 3. Product Features

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The FEMI 784XL is engineered with several features to enhance performance and user safety:

- **Powerful 1200W Motor:** Provides ample power for cutting various metals.
- **Adjustable Cutting Angle:** Allows for precise cuts from 0° to 45° to the left.
- **Patented Friction Blade Tensioner:** Ensures correct blade tension for optimal cutting performance and blade longevity.
- **Electronic "Constant Speed" Regulator:** Maintains consistent blade speed under load, with amperometric limiter and thermal protection.
- **Anti-Start Safety Function:** Prevents accidental startup after a power interruption.
- **Professional Vice with Dovetail Guide:** Securely holds workpieces for accurate cuts.
- **Front Blade Guide:** Enhances cutting stability and precision.
- **Transport Locking Device:** Facilitates safe and easy transportation of the machine.
- **Adjustable Length Stop:** Configurable for series cutting applications.

### 4. Components and Parts Identification

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Familiarize yourself with the main components of your FEMI 784XL band saw:

- **Saw Head/Arm:** Contains the motor, blade, and blade guides.
- **Motor Housing:** Encloses the 1200W motor and speed control electronics.
- **Blade Tensioner:** Knob or lever for adjusting blade tension.
- **Blade Guides:** Support the blade during cutting.
- **Vice Assembly:** Secures the workpiece. Includes the fixed jaw, movable jaw, and clamping handle.
- **Base:** Provides stability for the machine.
- **Control Panel:** Includes power switch and speed regulator.
- **Adjustable Rod/Length Stop:** Used for repetitive cuts of the same length.
- **Transport Handle:** For carrying the machine.



Figure 2: Side view of the FEMI 784XL, illustrating its compact design and the transport locking device.

## 5. Setup

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Follow these steps to set up your band saw for initial use:

1. **Unpacking:** Carefully remove the band saw from its packaging. Inspect for any shipping damage.
2. **Placement:** Place the saw on a stable, level workbench or stand capable of supporting its weight (approx. 16.5 kg) and the workpiece.
3. **Unlock for Operation:** If the transport locking device is engaged, release it to allow the saw arm to move freely.
4. **Blade Installation/Check:** The saw comes with a blade pre-installed. Ensure it is correctly seated on the wheels and within the blade guides.
5. **Blade Tension Adjustment:** Use the patented friction blade tensioner to set the correct blade tension. Refer to the markings on the tensioner for optimal settings. Proper tension is crucial for straight cuts and blade life.
6. **Power Connection:** Plug the power cord into a suitable 230V grounded electrical outlet.



Figure 3: Detailed view of the blade and vice area, showing the blade path and clamping mechanism.

## 6. Operating Instructions

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Follow these steps for safe and effective operation:

1. **Prepare Workpiece:** Mark the cutting line on your metal workpiece.
2. **Secure Workpiece:** Place the workpiece firmly in the professional vice. Use the clamping handle to tighten the vice securely. Ensure the workpiece is stable and will not shift during the cut.
3. **Adjust Cutting Angle:** If an angled cut is required, loosen the locking mechanism for the saw arm base and adjust the angle from 0° to 45° to the left. Tighten the lock securely once the desired angle is set.
4. **Set Blade Speed:** Use the electronic "Constant Speed" regulator to select the appropriate blade speed for the material being cut. Consult a material speed chart if available.
5. **Start the Saw:** Press the power switch to start the motor. Allow the blade to reach full speed before beginning the cut.
6. **Perform Cut:** Gently lower the saw arm, allowing the blade to cut through the material. Apply steady, even pressure. Do not force the cut. The machine is designed to cut without lubrication.
7. **Series Cutting (Optional):** For repetitive cuts, configure the adjustable length stop to the desired length.
8. **Complete Cut:** Once the cut is complete, release the pressure on the saw arm and allow it to return to its upright position.
9. **Turn Off:** Switch off the machine and wait for the blade to come to a complete stop before removing the workpiece.



Figure 4: Close-up of the motor housing, showing the speed control and warning labels.

## 7. Maintenance

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Regular maintenance ensures the longevity and optimal performance of your band saw. Always disconnect the power before performing maintenance.

- **Blade Change:** Use the included tool to change the blade when it becomes dull or damaged. Follow the instructions for proper blade installation and tensioning.
- **Cleaning:** Regularly clean metal chips and dust from the machine, especially around the blade guides, motor vents, and vice assembly. Use a brush or compressed air.
- **Blade Guides:** Inspect blade guides for wear and tear. Worn guides can affect cutting accuracy. Replace as needed.
- **General Inspection:** Periodically check all nuts, bolts, and fasteners for tightness. Inspect the power cord for any damage.
- **Storage:** Store the band saw in a dry, clean environment when not in use. Engage the transport locking device for secure storage.

## 8. Troubleshooting

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Refer to this section for common issues and their solutions:

Problem	Possible Cause	Solution
Saw does not start	No power; Anti-start safety engaged; Faulty switch	Check power connection; Reset power; Consult service if safety or switch is faulty.
Blade not cutting efficiently	Dull blade; Incorrect blade tension; Wrong blade speed for material	Replace blade; Adjust blade tension; Adjust speed regulator.
Blade breaking frequently	Over-tensioned blade; Worn blade guides; Forcing the cut	Reduce blade tension slightly; Inspect/replace guides; Apply less pressure during cut.
Inaccurate cuts	Loose workpiece; Worn blade guides; Incorrect angle setting	Secure workpiece firmly; Inspect/replace guides; Re-check angle setting.

## 9. Specifications

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Detailed technical specifications for the FEMI 784XL Metal Band Saw:

Specification	Value
Manufacturer	FEMI
Item Model Number	FM-784XL
Product Dimensions (L x W x H)	87 x 39.5 x 52.5 cm
Item Weight	16.5 Kilograms
Color	Red
Style	Adjustable Rod Stop
Power Source	Corded Electric
Voltage	230 Volts
Power	1200 Watts
Blade Length	120 Millimeters
Speed	1200 rpm
Special Feature	Brushless
Included Components	Tool for changing the blade
Blade Material	High Carbon Steel
Surface Recommendation	Metal

## 10. Warranty and Support

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For warranty information, please refer to the warranty card included with your product or visit the official FEMI

website. Keep your purchase receipt as proof of purchase.

For technical support, spare parts, or service inquiries, please contact FEMI customer service or an authorized service center. Contact details can typically be found on the manufacturer's website or on the product packaging.