

Milwaukee 6175-8

Milwaukee 6175-8 15 Amp 14-Inch Abrasive Cut-Off Machine Instruction Manual

1. SAFETY INFORMATION

Always observe basic safety precautions when operating power tools to reduce the risk of fire, electric shock, and serious personal injury. Read and understand all instructions before operating this machine.

General Safety Rules

- **Wear appropriate personal protective equipment (PPE):** Always wear safety glasses or goggles, hearing protection, and a dust mask. Heavy-duty gloves are recommended.
- **Keep work area clean and well-lit:** Cluttered or dark areas invite accidents.
- **Do not operate in explosive atmospheres:** Do not use power tools in the presence of flammable liquids, gases, or dust. Power tools create sparks which may ignite the dust or fumes.
- **Keep children and bystanders away:** Distractions can cause you to lose control.
- **Secure workpiece:** Always clamp the material firmly before cutting.
- **Avoid awkward body positions:** Maintain proper footing and balance at all times.
- **Disconnect power:** Always disconnect the machine from the power source before making adjustments, changing accessories, or performing maintenance.

Specific Cut-Off Machine Safety

- **Use correct abrasive wheels:** Only use 14-inch abrasive cut-off wheels rated for the machine's RPM.
- **Inspect wheel before use:** Do not use cracked, chipped, or damaged wheels.
- **Ensure wheel guard is in place:** Never operate the machine without the wheel guard properly installed and functioning.
- **Be aware of sparks and debris:** Cutting operations produce sparks and hot debris. Clear the area of flammable materials and ensure bystanders are at a safe distance.
- **Allow wheel to reach full speed:** Before beginning a cut, allow the abrasive wheel to reach its full operating speed.

2. PRODUCT OVERVIEW

The Milwaukee 6175-8 is a 14-inch abrasive cut-off machine designed for efficient and portable cutting of various metal materials. It features a powerful 15 amp motor, a durable cast-iron base, and a spindle lock for convenient blade changes. The pivoting wheel guard enhances safety during operation.

Key Features

- Powerful 15 amp motor for demanding cutting tasks.
- Robust cast iron base for stability and durability.
- Spindle lock mechanism for quick and easy abrasive wheel changes.
- Pivoting wheel guard for enhanced user protection.
- Integrated one-piece carrying handle for portability.
- Quick-release locking vise for secure material clamping and angle cutting up to 45 degrees.



Image 2.1: The Milwaukee 6175-8 14-Inch Abrasive Cut-Off Machine. This image shows the overall design of the machine, including the motor housing, cutting arm, base, and vise assembly.

3. SETUP

Unpacking and Inspection

1. Carefully remove the machine and all accessories from the packaging.
2. Inspect the machine for any damage that may have occurred during shipping. If any damage is found, do not operate the machine and contact customer service.
3. Verify that all components listed in the packing list are present: cut-off machine, vise, abrasive wheel, and hex wrench.

Work Area Preparation

- Place the machine on a stable, level surface capable of supporting its weight and the workpiece.
- Ensure adequate clearance around the machine for safe operation and material handling.

- Clear the area of any flammable materials due to sparks generated during cutting.

Abrasive Wheel Installation

1. Ensure the machine is unplugged from the power source.
2. Press and hold the spindle lock button.
3. Using the provided hex wrench, loosen and remove the arbor nut and outer flange.
4. Place the new 14-inch abrasive wheel onto the arbor, ensuring it is seated correctly against the inner flange.
5. Reinstall the outer flange and arbor nut. Tighten the arbor nut securely while holding the spindle lock button. Do not overtighten.
6. Release the spindle lock button and manually rotate the wheel to ensure it spins freely and is properly aligned.

Vise Adjustment

- The quick-release vise allows for rapid clamping and unclamping of workpieces.
- To adjust for different material sizes, loosen the vise handle and slide the movable jaw to the desired position.
- For angle cuts, the vise can be pivoted up to 45 degrees. Loosen the appropriate bolts on the base, adjust the vise to the desired angle using the angle guide, and then securely tighten the bolts.

4. OPERATING INSTRUCTIONS

Power Connection

- Connect the machine to a standard 120 Volts AC power outlet. Ensure the circuit can handle the 15 amp motor load.

Material Clamping

- Place the workpiece firmly against the fence and within the vise jaws.
- Tighten the quick-release vise handle to secure the material. Ensure the material is held firmly and will not shift during the cut.
- The machine can cut pipe up to 5" O.D., bar stock up to 3-5/8", and square stock up to 5".

Making a Cut

1. Ensure the workpiece is securely clamped and the area is clear.
2. Lower the cutting arm slightly to ensure the abrasive wheel clears the workpiece.
3. Press the ON switch to start the motor. Allow the abrasive wheel to reach its full operating speed of 3900 RPM before beginning the cut.
4. Slowly and steadily lower the cutting arm, allowing the abrasive wheel to cut through the material. Do not force the cut; let the wheel do the work.
5. Once the cut is complete, release the ON switch and allow the wheel to stop rotating before raising the cutting arm.
6. Unclamp the workpiece and remove it from the machine.

5. MAINTENANCE

Regular maintenance ensures the longevity and safe operation of your Milwaukee cut-off machine. Always

disconnect the machine from the power source before performing any maintenance.

Cleaning

- After each use, clean the machine to remove metal dust and debris. Use a brush or compressed air.
- Do not use solvents or harsh chemicals that could damage plastic parts.
- Keep ventilation openings clear to prevent motor overheating.

Abrasive Wheel Replacement

- Replace abrasive wheels when they become worn down, chipped, or damaged. Refer to the "Abrasive Wheel Installation" section for detailed steps.

General Inspection

- Periodically inspect the power cord for damage. If damaged, have it replaced by a qualified service technician.
- Check all nuts, bolts, and screws for tightness. Tighten as necessary.
- Ensure the wheel guard operates freely and returns to its protective position.
- Inspect the vise mechanism for smooth operation and secure clamping.

6. TROUBLESHOOTING

This section addresses common issues you might encounter with your cut-off machine.

Problem	Possible Cause	Solution
Machine does not start	No power supply Faulty power cord Motor overload protection tripped	Check power outlet and circuit breaker Inspect cord for damage; replace if necessary Allow motor to cool; reduce load
Excessive sparks or smoke during cutting	Dull or incorrect abrasive wheel Forcing the cut Improper material clamping	Replace with a new, sharp abrasive wheel Reduce feed pressure; allow wheel to cut at its own pace Ensure workpiece is securely clamped
Inaccurate cuts	Loose workpiece Vise not set correctly Worn abrasive wheel	Securely clamp the workpiece Check vise angle and tightness Replace the abrasive wheel
Machine vibrates excessively	Loose components Damaged or unbalanced abrasive wheel Unstable work surface	Check and tighten all fasteners Inspect and replace abrasive wheel if damaged Ensure machine is on a stable, level surface

7. SPECIFICATIONS

Technical specifications for the Milwaukee 6175-8 14-Inch Abrasive Cut-Off Machine.

Feature	Specification
---------	---------------

Feature	Specification
Model Number	6175-8
Motor Amperage	15 Amps
Voltage	120 Volts AC
No Load RPM	3900 RPM
Blade Diameter	14 Inches
Arbor Size	1 Inch
Max Cutting Angle	45 Degrees
Workpiece Capacity (Pipe O.D.)	5 Inches
Workpiece Capacity (Bar Stock)	3-5/8 Inches
Workpiece Capacity (Square Stock)	5 Inches
Item Weight	52.5 Pounds
Power Source	Corded Electric
Special Feature	Spindle Lock
Compliance	OSHA

8. WARRANTY & SUPPORT

Warranty Information

This Milwaukee 6175-8 Abrasive Cut-Off Machine is a reconditioned product. Reconditioned Milwaukee Products are covered by a **five-year limited warranty** through the Milwaukee factory or an authorized service center. This warranty covers defects in material and workmanship. Please retain your proof of purchase for warranty claims.

Customer Support

For technical assistance, service, or warranty inquiries, please contact Milwaukee customer support or an authorized Milwaukee service center. Contact information can typically be found on the official Milwaukee website or in the documentation provided with your purchase.