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## 3M 33451

# 3M 3/4 X 20.5 60+ Abrasive Belt (Model 33451) User Manual

Your guide to safe and effective use of your 3M abrasive belt.

## 1. PRODUCT OVERVIEW

The 3M 3/4 X 20.5 60+ Abrasive Belt, Model 33451, is designed for efficient material removal and surface preparation. This durable belt features a 60+ grit abrasive surface, suitable for various sanding and grinding applications on wood, metal, and other materials. Its specific dimensions ensure compatibility with a range of belt sanders and abrasive tools.



Image: The 3M 3/4 X 20.5 60+ Abrasive Belt (Model 33451) showing its purple abrasive surface and dark backing, formed into a continuous loop.

## 2. SAFETY INFORMATION

Always prioritize safety when working with abrasive tools and materials. Failure to follow safety guidelines can result in serious injury.

- **Wear Personal Protective Equipment (PPE):** Always wear safety glasses or goggles to protect against flying debris. Consider dust masks or respirators to prevent inhalation of fine particles, and hearing protection if operating noisy machinery.
- **Read Tool Manuals:** Before installing or using the abrasive belt, thoroughly read and understand the operating manual for your specific belt sander or abrasive tool.

- **Inspect Belt Before Use:** Check the belt for any signs of damage, tears, or excessive wear. Do not use a damaged belt.
- **Secure Workpiece:** Ensure the material being worked on is securely clamped or held to prevent movement during operation.
- **Ventilation:** Work in a well-ventilated area to minimize dust accumulation.
- **Keep Clear:** Keep hands, clothing, and hair away from the moving belt.

## 3. SETUP AND INSTALLATION

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Proper installation of the abrasive belt is crucial for optimal performance and safety.

1. **Power Disconnection:** Ensure your belt sander or abrasive tool is unplugged from the power source before attempting any installation or maintenance.
2. **Release Tension:** Locate the belt tension release lever or mechanism on your tool and disengage it to loosen the existing belt or prepare for new belt installation.
3. **Remove Old Belt (if applicable):** Carefully slide the old belt off the rollers.
4. **Install New Belt:** Slide the 3M 33451 abrasive belt onto the rollers, ensuring it is centered and aligned. Pay attention to any directional arrows on the belt or tool, if present.
5. **Apply Tension:** Re-engage the belt tension mechanism. The belt should be taut but not overly stretched.
6. **Track Adjustment:** Plug in the tool and briefly turn it on to check the belt tracking. Adjust the tracking knob or screw on your tool until the belt runs centrally on the rollers without rubbing against the edges of the tool housing. Unplug the tool before making further adjustments if necessary.

## 4. OPERATING INSTRUCTIONS

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Follow these guidelines for effective and safe operation of your 3M abrasive belt.

- **Start Slowly:** Allow the tool to reach full operating speed before bringing the belt into contact with the workpiece.
- **Apply Even Pressure:** Use light, even pressure. Excessive pressure can lead to premature belt wear, overheating, and poor finish.
- **Move Continuously:** Keep the tool moving across the workpiece to prevent gouging or uneven sanding.
- **Material Compatibility:** This 60+ grit belt is suitable for aggressive material removal. For finer finishes, belts with higher grit numbers are recommended.
- **Dust Management:** Utilize dust collection systems on your tool or in your workspace to manage airborne dust.

## 5. MAINTENANCE AND STORAGE

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Proper care extends the life of your abrasive belt and ensures consistent performance.

- **Cleaning:** Periodically clean the belt using a sanding belt cleaning stick or a stiff brush while the belt is running (with extreme caution and appropriate PPE) to remove accumulated debris and prolong its cutting life.
- **Inspection:** Regularly inspect the belt for signs of wear, such as dulling of the abrasive, tears, or fraying. Replace the belt when it shows significant wear or damage.
- **Storage:** Store abrasive belts flat or hung on a large diameter peg to prevent kinking or creasing. Keep them in a dry environment, away from extreme temperatures and humidity, which can degrade the adhesive and abrasive properties.

## 6. TROUBLESHOOTING

Common issues and their potential solutions:

Problem	Possible Cause	Solution
Belt slips or stalls	Insufficient belt tension; Worn belt; Excessive pressure	Adjust belt tension; Replace belt; Reduce pressure
Belt breaks prematurely	Improper tracking; Overheating; Damaged belt; Excessive pressure	Adjust tracking; Allow tool to cool; Replace belt; Reduce pressure
Poor sanding performance	Clogged belt; Worn belt; Incorrect grit for application	Clean belt; Replace belt; Use appropriate grit
Belt runs off track	Improper tracking adjustment; Worn rollers on tool	Adjust tracking; Inspect tool rollers for wear

## 7. SPECIFICATIONS

Detailed technical specifications for the 3M 3/4 X 20.5 60+ Abrasive Belt (Model 33451).

**Brand:** 3M

**Model Number:** 33451

**Part Number:** 33451-564.01.40

**Dimensions:** 3/4 inches (Width) x 20.5 inches (Length)

**Grit:** 60+ (Coarse)

**Color:** Factory (Purple abrasive surface)

**Item Package Quantity:** 1

**Batteries Required:** No

**Date First Available:** May 1, 2017

**UPC:** 051131334519

## 8. WARRANTY AND SUPPORT

For information regarding product warranty, technical support, or specific application guidance, please refer to the official 3M website or contact 3M customer service directly. Warranty terms and conditions may vary by region and product type. Always retain your proof of purchase for warranty claims.

**Official 3M Website:** [www.3m.com](http://www.3m.com)