

SAFETY INFORMATION

Deliver this insert to operator. Keep for reference.

3M™ TN and NTN Disc Products



Read this insert before mounting or using product. Follow tool's instructions, employer's safety rules, ANSI B7.7 re: "Safety Requirements for Abrading materials with Coated Abrasive Systems", and any other local standards. Operator must be properly trained.



WARNING

Improper operation can cause serious injury or death to operators and bystanders. Sparks, heat, and dust generated while grinding can create fire, explosion, and respiratory hazards.

Planning and Preparation

Prepare a safe work area

Check workpiece materials

Use only on Carbon Steel, Stainless Steel, Cast Iron, or Alloys of: Titanium, Copper, Zinc, Chromium/Nickel, or Aluminum to reduce the risk of disc breaking, fire, explosion, or health hazards. Read the Safety Data Sheets (SDSs) for the workpiece materials.

Respiratory hazard

Exposure to dust generated from workpiece and/or abrasive materials can result in serious, permanent lung damage or other injury. To reduce this risk:

- Use dust capture or local exhaust as appropriate.
- Wear all recommended protective equipment.

Fire and explosion hazard

Grinding produces sparks and heat. Keep away from anything that can ignite or explode. Do not allow dust to accumulate. Do not use on flammable or explosive materials.

Do not allow bystanders

Keep bystanders out of the work area. Disc fragments can be thrown a long distance, and bystanders may also be exposed to respiratory, fire, and explosion hazards. If other people must be nearby, ensure that they wear proper personal protective equipment (PPE).

Always wear proper PPE as identified by your risk assessment to help protect against dust, grinding sparks and debris, noise, and some disc fragments:

- full face shield
- impact resistant protective eyewear marked as ANSI Z87.1 conformant
- hearing protection
- NIOSH approved respirator
- gloves
- body and skin protection

Do not alter or modify the disc in any way.



Safe Operating Procedures

Tool selection:

1. Use only on tools designed for discs.
2. Compare the maximum operating speed (RPM) rating of the tool with the maximum RPM rating of the backup pad and disc. Make sure the machine speed does not exceed the maximum operating speed marked on the product or package (see example on this page). **Exceeding product's Max. RPM can cause it to break apart and cause serious injury.**
3. Use manufacturer's recommendations for use of tool guards.

Mounting:

1. Always use proper backup pad with disc.
2. Inspect backup pad and disc and replace if either are damaged.

Additional 4½" instructions:

1. Do not exceed 13,300 RPM operating speed.
2. TN Quick Change Back-up Pad (Cat. #51111 56573) must be used with all 4½" in NTN attachments.
3. Thread back-up pad onto tool shaft and tighten securely. The end of the tool shaft should be flush with the face of the back-up hub. (May require adaptor or spacer [see below]. Adaptors that change the tool shaft diameter to 5/8-11 tpi (threads per inch) are available for many different shaft sizes).
4. Thread abrasives onto tool shaft and tighten against back-up pad.
5. Test in small area to determine best speed and pressure for the job.
6. To change abrasive, wait until tool has completely stopped.
7. Disconnect from the air supply. Shaft of tool should be flush with back-up pad. If shaft of tool extends beyond grinding disc, spacers must be used as shown between tool shaft and back-up pad.

Operation:

1. Direct disc away from your body and bring it up to operating speed before grinding.
2. Stop immediately if vibration or wobbling occurs during use. Determine cause and correct before continuing.
3. Follow good grinding practices:
 - Secure workpiece.
 - Keep all body parts and objects clear of grinding path.
 - Begin grinding by gradually engaging workpiece.
 - Never bump or force disc so that tool motor slows or stalls.
 - Direct sparks away from face and body.
 - Product that disengages from the backup pad may cause injury. Abruptly stopping tool off work piece can cause the product to disengage from the backup pad. Do not abruptly stop the product off the workpiece.
 - Do not use discs with abnormally curled or cupped shape.

Storage: Incorrect storage could affect safety as well as product performance. Protect disc when not in use. Never rest tool on disc. Store discs in dry environment below 150°F (65°C) and limit exposure to water and high humidity.

