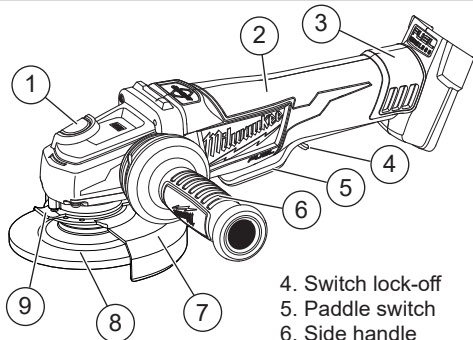


## SPECIFICATIONS

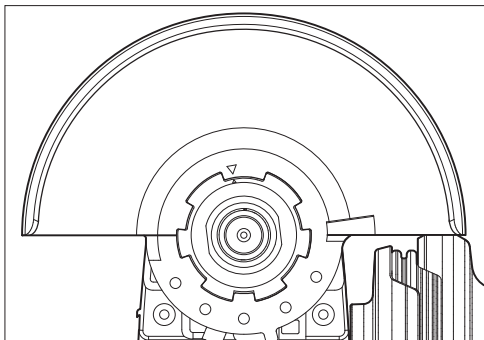
|                                           |              |
|-------------------------------------------|--------------|
| Cat. No.                                  | 2783-20      |
| Volts                                     | 18 DC        |
| Battery Type                              | M18™         |
| Charger Type                              | M18™         |
| Recommended Ambient Operating Temperature | 0°F to 125°F |
| Rated RPM                                 | 8 500        |
| Spindle Thread Size                       | 5/8"-11      |
| Max Capacity                              | 5"x1/4"      |

## FUNCTIONAL DESCRIPTION



1. Spindle lock
2. Handle
3. Dust screen
4. Switch lock-off
5. Paddle switch
6. Side handle
7. Guard
8. Accessory
9. Guard lock lever

3. Press in the lock lever and lift the guard straight up and away from the tool.



4. To **install** the guard, remove the battery pack and remove any accessories from the spindle.  
**NOTE:** Use only 4-1/2" grinding wheels with 4-1/2" guards (available as an accessory). Use only 5" grinding wheels with 5" guards.
5. Line up the tabs on the grinder with the slots in the guard.
6. Press in the guard lock lever and press the guard onto the tool.
7. To **adjust** the guard, press in the guard lock lever and rotate the guard to one of five detent slots.  
**WARNING!** Always adjust the guard to provide the operator with maximum protection while operating.

## SYMBOLOLOGY



Volts



Direct Current

n XXXX min<sup>-1</sup> Rated Revolutions per Minute (RPM)



UL Listing Mark for Canada and the U.S.

## ASSEMBLY

**WARNING** Recharge only with the charger specified for the battery. For specific charging instructions, read the operator's manual supplied with your charger and battery.

### Removing/Inserting the Battery

To **remove** the battery, push in the release buttons and pull the battery pack away from the tool.

**WARNING** Always remove battery pack before changing or removing accessories.

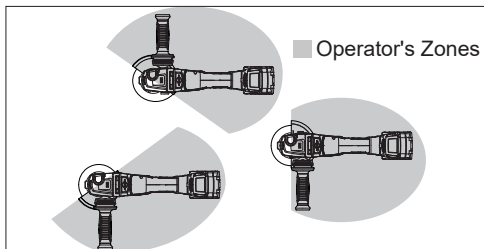
To **insert** the battery, slide the pack into the body of the tool. Make sure it latches securely into place.

**WARNING** To reduce the risk of injury when grinding, always use properly installed guards.

### Removing/Installing/Adjusting the Guard

This tool is shipped with a guard. Always use a guard unless otherwise indicated by these instructions.

1. To **remove** the guard, remove the battery pack and remove any accessories from spindle.
2. Press in the guard lock lever and rotate the guard to line up the tabs on the grinder with the slots in the guard.



**WARNING** To reduce the risk of injury, always use a side handle when using this tool. Hold securely.

### Installing Side Handle

The side handle may be installed on either side of the gear case. Position the side handle in the location which offers best control and guard protection. To install, thread side handle into side handle socket and tighten securely.

**WARNING** To reduce the risk of injury, the operator should be instructed in the use, care and protection of grinding wheels.

### Grinding Wheel Selection

Use grinding wheels, and accessories that are:

- correct size as written on tool's nameplate.
- rated at or above the RPM listed on the tool's nameplate.
- correct accessory, wheel type and grit for the job.

Grinding is the cutting action of thousands of abrasive grains on the face of a grinding wheel. When grinding metals such as steel and iron, choose an aluminum oxide grinding wheel. Select a silicon carbide grinding wheel for stone and concrete. Use cotton reinforced wheels for non-ferrous metals.

Type 1 Reinforced 1/8" thick or less Cut-Off Wheels are suited for small cut-off and shallow notching operations only. Always handle wheels carefully to avoid damage. Before installing any wheel, always inspect it for cracks. If wheel is cracked, discard it to prevent others from using it.

### Care of Grinding & Cut-Off Wheels

Grinding/cut-off wheels should be protected from:

- wetness and extreme humidity
- any type of solvent
- extreme changes in temperature
- dropping and bumping

Grinding and cut-off wheels should be stored:

- in an organized way so wheels can be removed without disturbing or damaging other wheels
- with their safety information

Grinding and cut-off wheels should NOT be dropped, rolled or bumped.

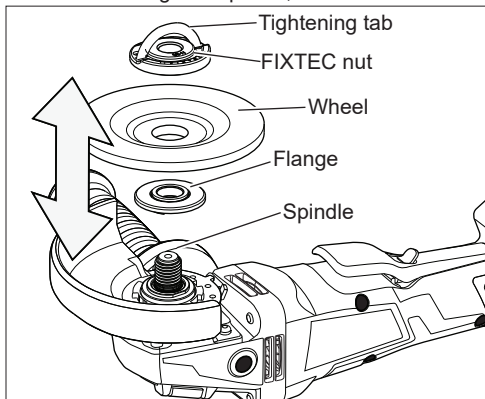
Discard wheels that have been dropped, rolled, bumped, subjected to extreme changes in temperature, or come into contact with solvents or wetness.

**⚠WARNING** Only use accessories with Maximum Safe Operating Speed rated at least equal to the maximum speed marked on the power tool. This speed is based on the strength of the wheel, allowing for a reasonable measure of safety. It is not meant to imply a best or most efficient operating speed. Do not exceed the Maximum Safe Operating Speed.

### Installing/Removing Grinding Wheels

Make sure the wheel does not extend beyond the bottom of the guard. Threaded hub grinding wheels may require a deeper guard (see "Accessories").

1. Remove the battery pack. **WARNING!** Always remove battery pack before changing or removing accessories.
2. Properly position the guard.
3. Wipe the flange, FIXTEC nut and spindle to remove dust and debris. Inspect the parts for damage. Replace if needed. Use only MILWAUKEE mounting hardware designed for your tool.
4. Place the flange on spindle, as shown.



5. Place the selected wheel on the spindle and align it with the flange.
6. Press in the spindle lock button. With the tightening tab up, thread the FIXTEC nut clockwise onto the spindle. Use the tightening tab on the FIXTEC nut to grasp the nut and tighten securely. Press down the tightening tab.
7. To **remove** wheel, remove the battery pack and reverse the procedure.

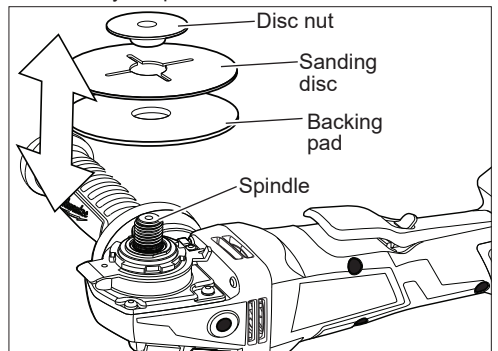
### Sanding Disc Selection

Use sanding discs and accessories that are:

- correct size as written on tool's nameplate.
  - rated at or above the RPM listed on the tool's nameplate.
  - correct accessory, wheel type and grit for the job.
- Select the correct type of sanding disc for your job. Generally, use 24 or 36 grit for heavy stock removal; 50, 60, or 80 grit for medium stock removal and 120 grit for finishing. Always begin with a coarse grit, using successively finer grits to obtain the desired finish.
- **Aluminum Oxide:** For fast cutting, general purpose discs for most metal jobs. Best for cold-rolled steel, stainless steel or metals requiring tough, fast cutting, long lasting abrasives.
  - **Aluminum Zirconia Bi-Cut:** Unique grit pattern is arranged in clusters for faster stock removal and cleaning. Ideal for removing paint from cars, boats, etc. without clogging.
  - **Ceramic:** Lasts up to 3 times longer than Aluminum Oxide Discs. For general metal working. Ideal for tough jobs.

### Installing Backing Pad and Sanding Discs

1. Remove the battery pack. **WARNING!** Always remove battery pack before changing or removing accessories.
2. Wipe the accessories, disc nut and spindle to remove dust and debris. Inspect the parts for damage. Replace if needed. Use only MILWAUKEE mounting hardware designed for your tool.
3. Slip backing pad onto spindle with flat side away from gear case.
4. Place sanding disc on backing pad and secure assembly to spindle with disc nut.



5. Press in the spindle lock button while turning flange nut clockwise. Tighten securely.
6. To **remove** backing pad and sanding disc, remove the battery pack and reverse the procedure.

## Installing/Removing/Cleaning the Dust Screen

Using the dust screen will increase the performance and extend the life of the tool.

1. To **attach** the dust screen, snap the screen over the tool's handle.
2. To **remove** the dust screen, insert a flat screwdriver into the notch at the top of the dust screen and pry away from the tool.
3. To **clean** the dust screen, tap against a hard surface, or blow clean with compressed air.

## OPERATION

**WARNING** To reduce the risk of injury, always wear proper eye protection marked to comply with ANSI Z87.1.

When working in dusty situations, wear appropriate respiratory protection or use an OSHA compliant dust extraction solution.

Never grind without proper safety equipment.

### Controlled Start

The controlled start feature reduces the torque reaction "jerk" when the trigger is pulled.

### Electric Brake

The electric brake engages when the switch is released, causing the wheel to stop within seconds. There may be a delay between the time the switch is released and when the brake engages. Occasionally the brake may miss completely. If the brake misses frequently, have the tool serviced by an authorized MILWAUKEE service facility. Make sure the tool comes to a complete stop before laying it down.

**WARNING** Always hold the tool firmly with both hands using the handles provided before and during grinding.

### Paddle Switch Operation

To **start** the tool, grasp the handle and side handle firmly. Push the lock-off button forward and squeeze the paddle switch.

To **stop** the tool, release the paddle switch. Make sure the tool comes to a complete stop before laying down the tool.

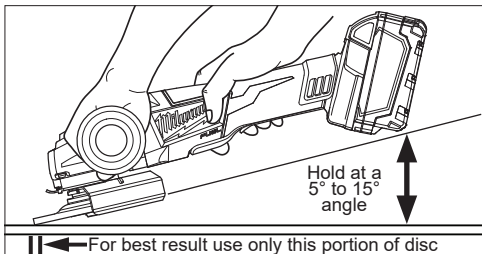
### General Operation

1. If you have just installed an accessory or are beginning a period of work, test the wheel by letting it spin for one minute before applying it to the workpiece. **WARNING!** Never use a accessory that has been dropped. Out-of-balance or damaged accessories can mar workpiece, damage the tool, and cause stress that may cause accessory failure.
2. Use a clamp, vise or other practical means to hold your work, freeing both hands to control the tool.
3. **WARNING!** Hold tool securely with both hands. Start the tool.  
**NOTE:** If the battery is inserted when the tool is ON, the tool will not run. Turn the tool OFF, then back ON to begin work.
4. Allow accessory to come to full speed before beginning work.
5. Control pressure and surface contact between accessory and workpiece. **WARNING!** Never bang accessory onto work. Too much pressure causes accessory failure or slows speed.
6. When finished, turn off the tool and make sure it comes to a complete stop before laying it down.

## Using Grinding Wheels

**WARNING** The guard type must match the wheel type to provide maximum protection for the operator if the wheel should break.

When grinding, hold tool at a 5° to 15° angle, using constant pressure for a uniform finish. Too great an angle causes concentrated pressure on small areas which may gouge or burn work surface.

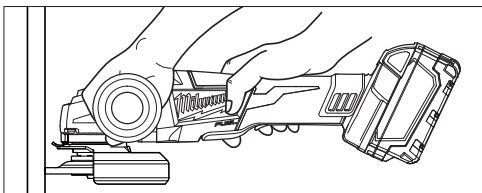


## Using Cut-Off Wheels

Cut-Off Wheels are suited for small cut-off and shallow notching operations only.

**WARNING** The guard type must match the wheel type to provide maximum protection for the operator if the wheel should break.

When using a cut-off wheel, hold the tool as shown, using only the edge of the wheel. **WARNING!** Using the face of a Cut-Off Wheel (as in grinding) will cause the Wheel to crack and break, resulting in serious personal injury.



## Using Wire Brushes

Wire brushes are useful for removing rust, scale, burrs, weld slag, etc.

**WARNING** Everyone in the area must wear protective clothing and safety goggles or face shields. Fatigued wires and residue will fly off the brush with considerable force, causing potential for serious injury.

Never exceed Maximum Safe Operating Speed of brush. Do not use a damaged brush or one that is functioning improperly (throwing wires, out-of-balance, etc.). These conditions increase the possibility of further brush failure and possible injury. Discard and replace damaged brushes immediately.

A Type "27" guard must be installed when using a wire wheel brush to provide maximum protection for the operator when fatigued wires break. (See "Removing/Installing/Adjusting the guard".) Always install wire brushes according to the accessory manufacturer's instructions. Only use accessories with threads matching the tool spindle.