



# Bevel Cuts Using The Table Saw

Don't Hesitate To Ask For Help!



# Work Piece Size Affects Which Tool To Use

Tool	Maximum Thickness (45 and 90 degrees)	Minimum Length	Notes
Bandsaw – use the ½” blade	8-1/4” at 45° 13” at 90°	Minimum length: None Specified	<ol style="list-style-type: none"> <li>1. Smaller pieces up to larger pieces</li> <li>2. Risk of pinching and kick down</li> <li>3. Adjust table to required angle</li> </ol>
Table Saw	1-7/8” at 45° 2-3/4” at 90°	Minimum length 12”	<ol style="list-style-type: none"> <li>1. Larger pieces</li> <li>2. Risk of pinching and kickback</li> <li>3. Adjust blade to required angle</li> <li>4. May require removal of blade guard assembly (safety devices) – proceed with caution</li> <li>5. Sleds may be available to simplify the cuts</li> </ol>
Sliding Compound Miter Saw (Horizontal Work Piece)	2” at 45° 7” at 90°	Minimum length 12”	<ol style="list-style-type: none"> <li>1. Larger pieces</li> <li>2. Risk of pinching and kickback</li> <li>3. Can make compound cuts (e.g. crown molding)</li> </ol>
Sliding Compound Miter Saw (Vertical Work Piece)	7” at 45° 7” at 90°	Minimum length 12”	<ol style="list-style-type: none"> <li>1. Larger pieces</li> <li>2. Risk of pinching and kickback</li> <li>3. Can make compound cuts (e.g. crown molding)</li> </ol>
8” Jointer	7” at 45° 8” at 90°	Minimum length 12”	<ol style="list-style-type: none"> <li>1. Larger pieces</li> <li>2. Adjust fence to required angle</li> <li>3. Not normally used for bevel cuts but is a documented capability of the tool.</li> </ol>
Router	Bit Dependent	Minimum length: None Specified	<ol style="list-style-type: none"> <li>1. Smaller pieces up to larger pieces</li> <li>2. Router bit defines the angle</li> <li>3. Not normally used for bevel cuts but can be used.</li> </ol>
CNC	None Specified	Minimum length: None Specified	<ol style="list-style-type: none"> <li>1. Smaller pieces up to larger pieces</li> <li>2. CNC bit defines the angle</li> <li>3. Must complete training and be certified</li> </ol>

Plan Your Work. How Much Material Will You Have For The First And **Last** Cut



# Major Components



Riving Knife  
(Alternative to the  
Blade Guard Assembly)

Blade Guard  
Assembly

Plexiglas Guards

Blade Guard

Splitter

Anti-kickback Pawls

Table Insert

On/Bump-Off  
Switch



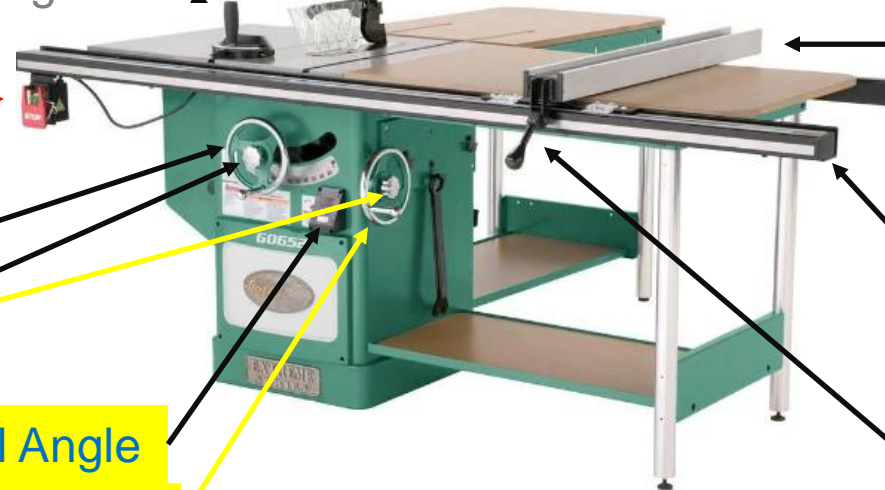
Miter  
Gauge

Fence Assembly



Front Rail

Fence Lock



Blade Height Wheel

Locking Wheels

Digital Readout For Bevel Angle

Blade Tilt Wheel



# Basic Set Up

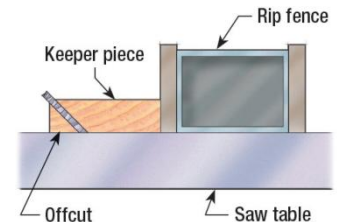
# Basic Setup



- **Use the blade guard assembly whenever possible!!!**
  - **You are making a conscious decision to remove all of the safety features on the saw if you remove the blade guard assembly**
  - Use a riving knife if you must remove the blade guard assembly

- **Power off at the electrical disconnect**

- Install the appropriate blade (rip or cross cut)
- Rip cuts - ensure the fence is on the right side of the blade
  - The blade always tilts away from the fence
- Repetitive cross cuts using the fence and spacer block



The blade always tilts away from the fence when making a bevel rip cut

- Remove the blade guard assembly
- Lower the blade all the way down
- Slide the fence to the left of the blade
- Raise the blade
- Reinstall the blade guard assembly
- **This is the opposite of 90° repetitive cross cuts due to direction of blade tilt**



Repetitive bevel cross cuts

# Basic Setup (continued)

- **Power off at the electrical disconnect**

- Loosen the locking wheel for the the blade tilt wheel
- Square (90°) the blade to the table with the blade guard assembly removed

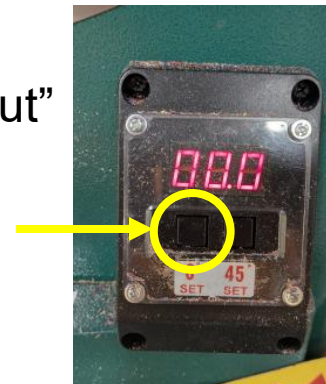


- Insert the blade guard assembly
- Lower the blade to about 1" above table
- Install the table insert
  - Ensure it supports bevel cuts. No dado only or zero clearance inserts

- Note: If making cross cuts using a miter gauge, then square the miter gauge to the blade at this time. (Its easier to square to a 90° blade)

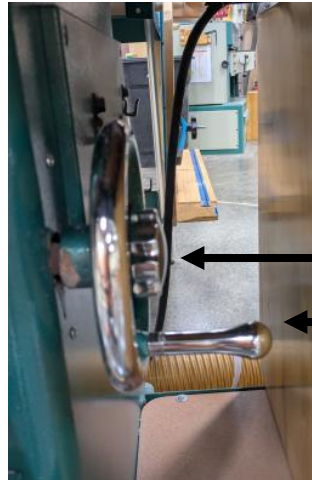
- **Power on at the electrical disconnect**

- Press the “0 set” button below the “digital readout”



## Basic Setup (continued)

- **Power on at the electrical disconnect**
- Rotate the blade tilt wheel until the required angle is displayed



Locking wheel

Blade tilt wheel

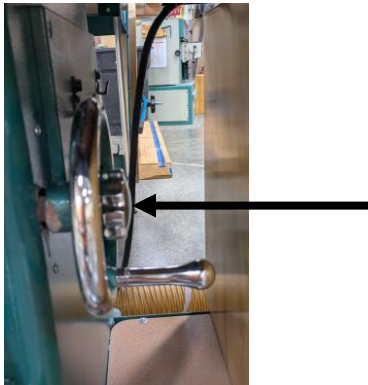
- **Pay attention to the blade guard assembly while adjusting the angle**
  - **(Power Off)** Remove the blade guard assembly if it impacts the table and cannot operate properly
    - You may need to rotate the blade back to 90° to remove the table insert and blade guard assembly (**Power On**)
    - **(Power Off)** Insert a riving knife and the table insert
    - **(Power On)** Rotate the blade as previously described

## Basic Setup (continued)

- **Power off at the electrical disconnect**
- Verify angle using an auxillary measuring device (optional)
  - Properly calibrate measuring devices before checking the blade angle
  - Adjust if required using the blade tilt wheel



- Tighten the locking wheel for the the blade tilt wheel to lock the angle



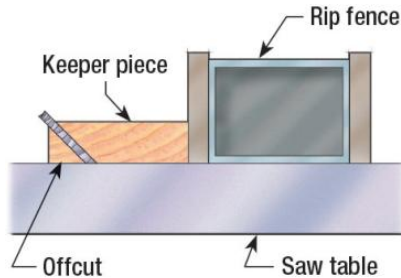




# Bevel Rip Cuts

# Bevel Rip Cuts

- **Power off at the electrical disconnect**
- Measure the distance between the blade and the fence
- Secure the fence (always to the right of the blade)



The blade always tilts away from the fence when making a bevel rip cut

- Position the work piece
  - **The keeper piece is always above the blade**
  - **The off cut is always below the blade**
- Set the blade height
  - 1/8" to 1/4" above the surface of the work piece





# Bevel Rip Cuts (continued)

- **How to make a safer rip cut**
- Use a feather board to apply pressure against the fence
- Use a push stick to guide the cut
  - Position the push stick half way between the blade and the fence
  - Guide material smoothly and slowly
  - Push the material completely past the blade at the end of the cut to minimize the possibility of kickback



**Caution – Work piece may lift off the table surface as it travels over the blade**

# Bevel Rip Cuts (continued)



- **Power on at the electrical disconnect**
- Make test cuts using scrap work pieces
  - Should be the same width and depth dimensions for best results
    - Does not need to be the same length
  - Verify the cut angle, adjust as required
- Make your final cuts

**Caution – Work piece may lift off the table surface as it travels over the blade**



# Bevel Cross Cuts

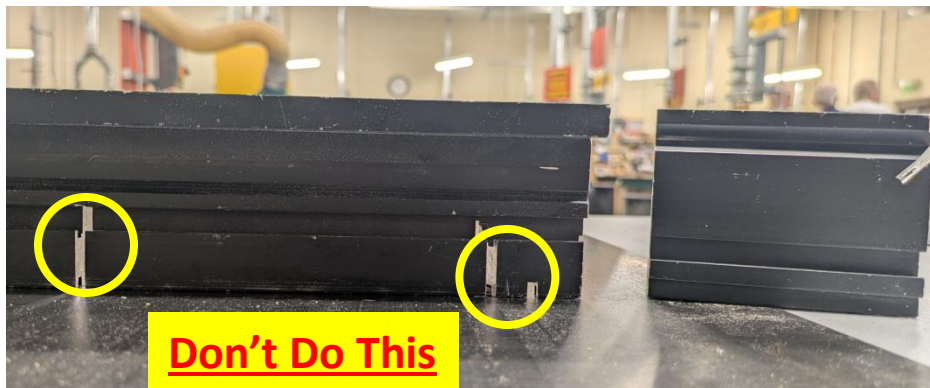
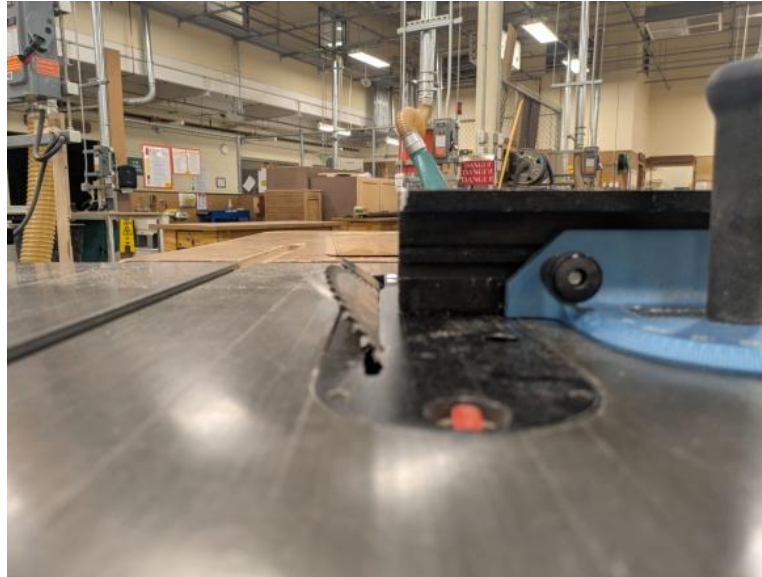


# Bevel Cross Cuts

- Use a miter gauge for bevel cross cuts
  - The miter gauge must be used to the right of the blade
    - The miter gauge controls the keeper piece not the off cut
    - Use a different tool (not the table saw) if the work piece is too small to be safely controlled using a miter gauge
- **Never use a miter gauge and the fence at the same time without a spacer block**

# Bevel Cross Cuts

- **Power off at the electrical disconnect**
- Ensure the miter gauge **WILL NOT** contact the blade



**Yes. A member actually cut the end of the miter gauge completely off!**

# Bevel Cross Cuts (continued)

- **Power off at the electrical disconnect**
- Position the work piece
  - **The keeper piece is always above the blade**
  - **The off cut is always below the blade**







## Bevel Cross Cuts (continued)

- **Power on at the electrical disconnect**
- Make test cuts using scrap work pieces
  - Should be the same width and depth dimensions for best results
  - Verify the cut angle, adjust as required
- Make final cuts



**Caution – Work piece may lift off the table surface as it travels over the blade**



# Restore Set Up for 90°



# Restore to 90°

- **Power off at the electrical disconnect**
- Remove the miter gauge
- Ensure the fence is well to the right of the blade
- Loosen the locking wheel for the the blade tilt wheel





## Restore to 90° (continued)

- **Power on at the electrical disconnect**
- Rotate the blade tilt wheel until the display reads 0°



# Restore to 90° (continued)

- **Power off at the electrical disconnect**
- Remove the blade guard assembly if its installed
- Install the combination blade
- Verify the blade is square to the table (90°)
- Press the “0 set” button below the “digital readout” if it’s not already at 0



- Insert the blade guard assembly
- Install the table insert
- Set the blade height to approximately 1” above the table
- Clean up the saw and your work area