# Cluster #6A — Compound Miter Saw

### **Primary Use**

The primary uses for the Miter saw is to crosscut wood to length and to cut simple and compound angles for mitering.

### **Important Parts**

The most important parts of the Miter Saw are:

Blade Guard – the cover over the blade, it should **always** be in place.

*Miter Adjustment* – changes the angle of the cut. It swings left and right of center to a maximum of 47 degrees.

Bevel or Tilt Adjustment - can change a simple angle into a compound angle.

Fence – the vertical surface the wood **must** rest against.

#### Adjustments of the tool

Be sure all adjustments are **locked** in (miter & tilt) before turning on the saw.

### **Demonstrate the basic operations**

- Crosscutting to length to a pre-drawn line.
- Cut a 22.5 degree miter angle. Tighten the lock before cutting. Also, make cuts both with at least 3" stock lying flat on the table and upright against the fence.
- Cut a compound miter angle.

#### Safety

- Always wear eye protection.
- The cutoff piece must not be jammed against or pressured by any other means against the spinning saw blade. If confined, i.e. using a large stop block, it could get wedged against the blade and thrown violently.
- Do not cut bent or warped wood that does not fit flat on the table.
- You must always keep your hands outside the Danger Zone, 8" from the blade.
- Allow the motor to reach full speed before cutting.
- Do not attempt to cut small pieces 8" or less without the use of a clamp. Do not perform any operation free hand. [without the use of a fence] Be sure the wood is in full contact with the table of the saw.
- Be sure long work pieces are supported properly.
- After completing the cut, release the power switch & wait for the blade to come to a complete stop before returning the saw to a raised position.
- Never support the work piece "cross handed" i.e. holding the left side of the work piece with your right hand.

• Roll sleeves above the elbow. Don't wear loose clothing, jewelry or gloves.

### **Give Hands on Experience**

### MEMBER DEMONSTRATION Put your safety glasses on

Have each member perform the following on the **Compound Miter Saw**:

- Cut a 90 degree angle on a pre-measured line.
- Cut a 45 degree angle on a pre-measured line using a minimum of a 3" wide board. Cut the angle both with the board lying flat on the table and with the board upright against the fence. Ensure the upright cut is made with the blade moving from top to bottom of the cut, NOT into the cut from the front.
- Cut a compound angle at a 23 degree angle and a 20 degree tilt.
- Return the saw to the normal operating position.

Have each member perform a slide action cut on the **Sliding Compound Miter Saw**.

- Cut a 90 degree angle on a pre-measured line.
- Method: pull head forward, turn saw on, lower head assembly then push head into workpiece.

Review with each member the features and use of the Festool Saw, and the assembly and use of one, or both, saw guides.

If you feel uncomfortable with what you did, repeat this procedure and/or ask for help.

#### Cluster #6A - Festool Circular Saw

The TS 55 EQ, hand-operated circular saw, is designed exclusively for sawing of wood, wood-like materials, and plastics.

### Safety

- Always wear eye protection.
- Keep hands away from the blade and cutting area.
- Do not reach underneath the workpiece.
- Never hold the piece being cut in your hands or across your leg.
- When ripping, always use a rip fence or straight edge guide.

Instructor will demonstrate the correct use of the Festool saw.

## Cluster #6A - MicroLux Mini Table Saw

Variable speed, mini table saw with self-aligning rip fence and miter gauge.

# Safety

- There is no blade guard so keep hands away from the blade at all times.
- There is no cartridge brake protection if hands contact the blade.

The maximum wood thickness the carbide blade can cut is 1". Instructor will demonstrate the correct use of the Mini Table saw.