

MITER SAW

RIT

The Student Hall for
Exploration and Development



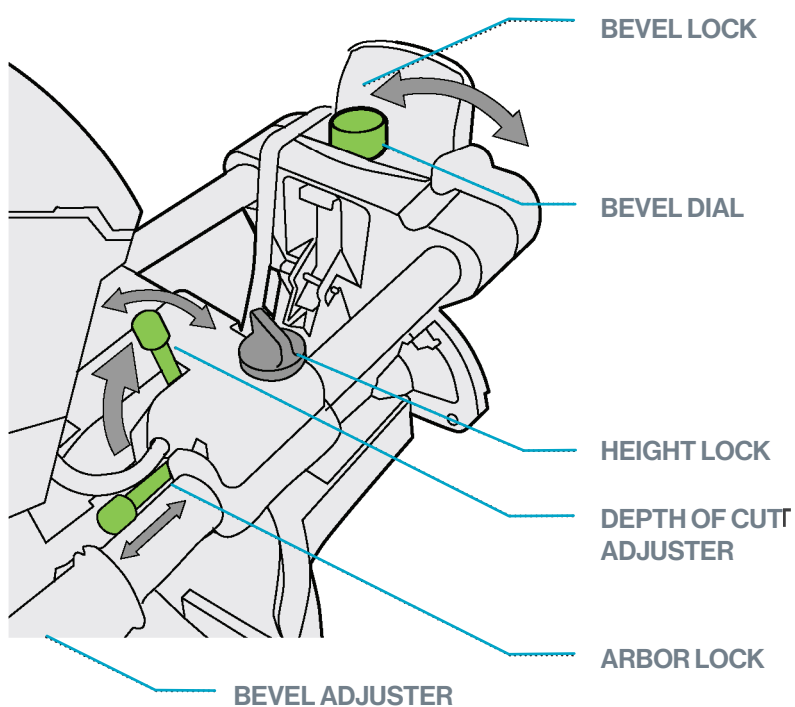
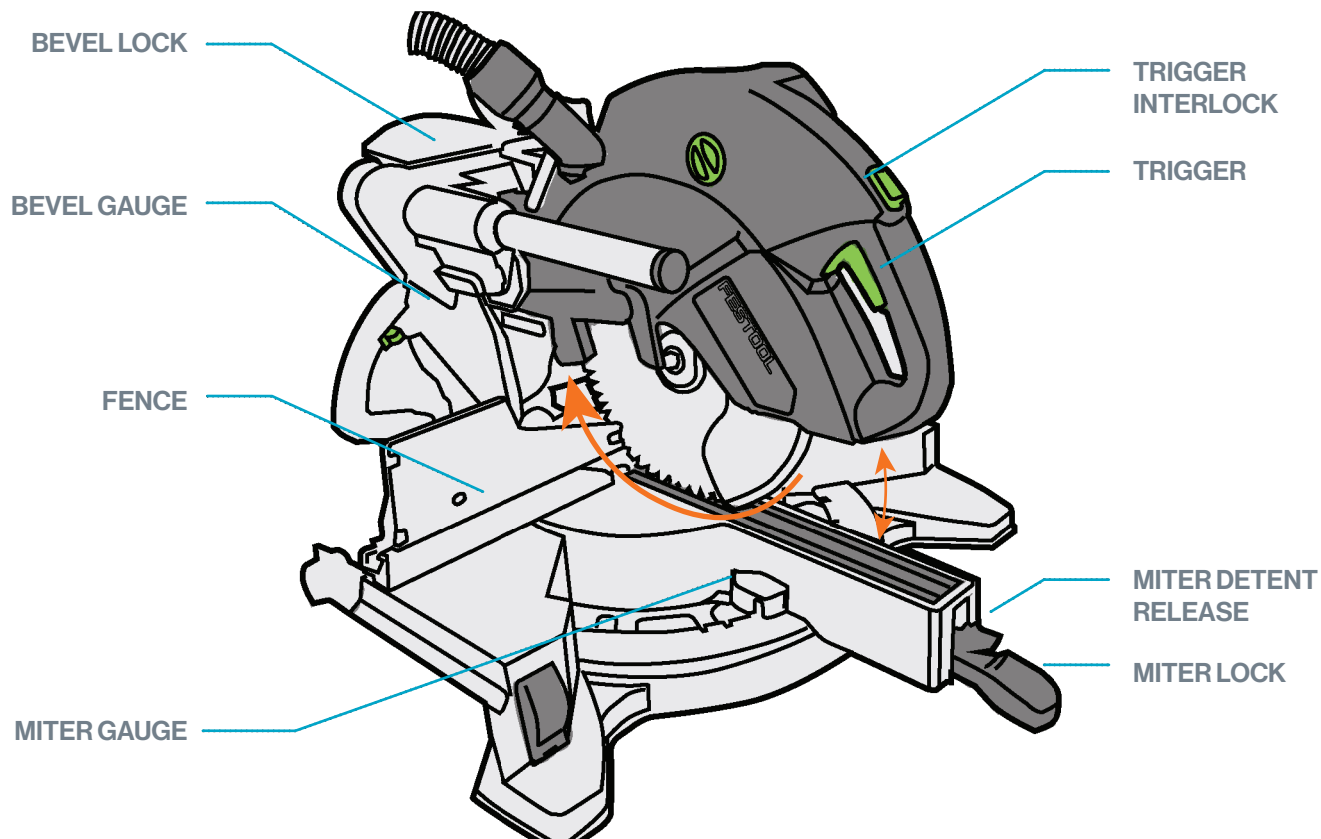
MITER SAW

MACHINE INTRODUCTION

THE MITER SAW CUTS LONG PIECES OF MATERIAL INTO SMALLER CHUNKS

P.2

VERSION #



MATERIALS

ALLOWED MATERIALS

+ Wood

BANNED MATERIALS

- Metal
- PVC
- Pressure treated wood
- Carbon fiber and deposits

CONSULT MAKERSPACE STAFF FIRST

+ Plastic
+ All other materials

MITER SAW

SAFETY

VERSION #

TAKE PROPER SAFETY PRECAUTIONS WHEN OPERATING MITER SAW

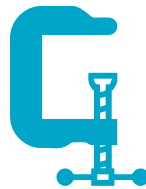
P.3



- Safety glasses required
- Hearing protection recommended (ear plugs or ear muffs)



- Wear short sleeves or roll up long sleeves
- Secure any loose clothing (zip up jackets, tuck in strings, etc.)
- Tie up and tuck in long hair
- Remove jewelry and lanyards, etc.
- Do not wear gloves



- Clamps are recommended for all work but are required for small work
- Do not cut short pieces that require your hands to be within 8" of the blade



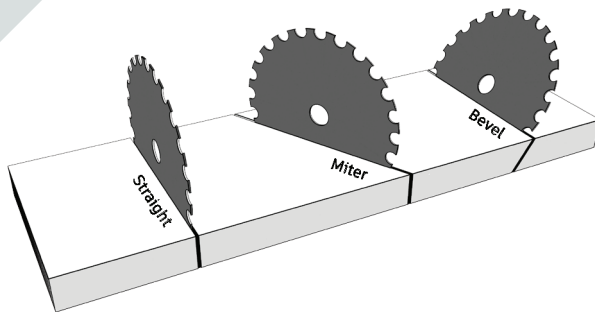
MATERIALS

- What we offer
 - 1/8" Plywood
 - <Other materials tbd>
- Common places to buy these materials:
 - SHED Makerspace Materials Shop
 - ID Shop
 - Foundations 3D Design Shop
 - Lowe's
 - Home Depot
 - Any wood/lumber store
- Material parameters
 - Dimensions
 - Type, etc

If bringing your own material, you must provide a receipt or MSDS as proof of what it is

TOOLS

- What you need
 - Clamps
- Where to get your own
 - Lowe's

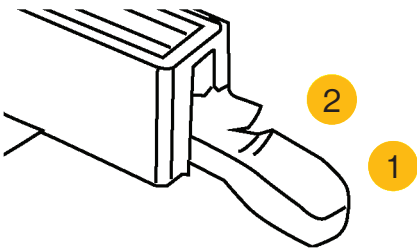


MITER AND BEVEL CUTS

- A miter cut is made at an angle other than 90°, with the blade vertical.
- A bevel cut is made with the blade tilted over.
- A compound miter cut is a combination of a miter and bevel cut.

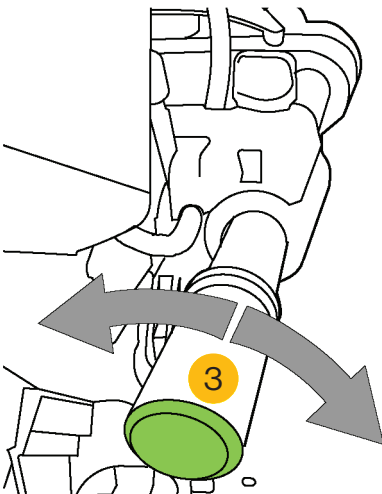
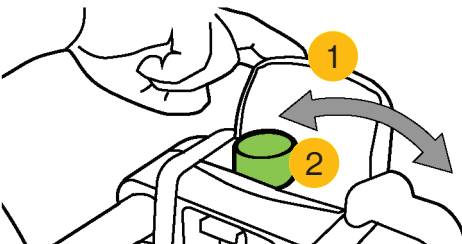
ADJUSTING FOR A MITER CUT

1. Flip the miter lock lever up.
2. Push down on the miter detent lever with your thumb.
3. Rotate the saw to the desired angle.
 - If using a common angle, the miter detent lever will drop into position.
4. Push the miter lock lever down.



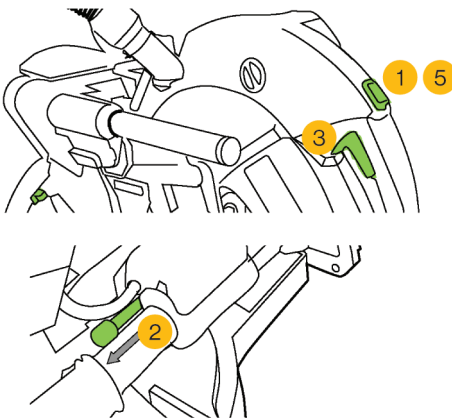
ADJUSTING FOR A BEVEL CUT

1. Flip the bevel lock lever up.
2. Rotate the bevel dial if needed.
3. Rotate the saw to the desired angle.
 - For fine control, use the bevel adjuster on the front of the saw.
4. Push the bevel lock lever down.
 - The bevel lock lever must be in the down position before cutting.
5. Check the fence for blade interference.



**USE CLAMPS TO KEEP
YOUR FINGERS AWAY
FROM THE BLADE**

**LEAVE THE BLADE
DOWN IN THE MATERIAL
UNTIL IT STOPS**



**RETURN SAW ARM TO
NEUTRAL POSITION
WHEN FINISHED**



QUICK CHECK BEFORE STARTING

1. Clean and clear the table.
2. Make sure there is sufficient room around the saw for your workpiece.
3. Adjust the miter and bevel angle if needed.
4. Place your material on the table, tight against the fence.
5. Small pieces must be clamped.
 - If in doubt, clamp it.

DURING THE JOB

1. Pull the trigger (3) to allow saw movement.
 - The blade will not start to spin.
 - You can bring the blade down to see where the cut will be.
2. Pull the blade towards you, and down.
 - The blade should not be touching the workpiece.
3. Press the trigger interlock (1) with your thumb to start the blade.
 - Allow the blade to reach full speed.
4. Pull the blade all the way down into the work.
5. Cut by pushing the blade away from your body, until it reaches the stop.
6. Let go of the trigger to stop the blade.
7. After the blade comes to a complete stop, raise the blade to the upright position.

CLEANUP

1. Brush off the table and clean up the area.
2. Pull the saw arm down, and lock it in place.
3. Put scraps in the trash and reusable pieces in the storage bin in the wood shop.

MITER CUTS NOT AT RIGHT ANGLE

- Check that angle is set correctly. For common angles (22.5, 30, 45, 60), there are detents that the saw will sit in.

WHEN IN DOUBT ASK A MAKERSPACE STAFF

ADDITIONAL MACHINE INFO CAN BE FOUND HERE:














Hazard Communication Standard Pictogram

The Hazard Communication Standard (HCS) requires pictograms on labels to alert users of the chemical hazards to which they may be exposed. Each pictogram consists of a symbol on a white background framed within a red border and represents a distinct hazard(s). The pictogram on the label is determined by the chemical hazard classification.

HCS Pictograms and Hazards

Health Hazard  <ul style="list-style-type: none"> • Carcinogen • Mutagenicity • Reproductive Toxicity • Respiratory Sensitizer • Target Organ Toxicity • Aspiration Toxicity 	Flame  <ul style="list-style-type: none"> • Flammables • Pyrophorics • Self-Heating • Emits Flammable Gas • Self-Reactives • Organic Peroxides 	Exclamation Mark  <ul style="list-style-type: none"> • Irritant (skin and eye) • Skin Sensitizer • Acute Toxicity (harmful) • Narcotic Effects • Respiratory Tract Irritant • Hazardous to Ozone Layer (Non-Mandatory)
Gas Cylinder  <ul style="list-style-type: none"> • Gases Under Pressure 	Corrosion  <ul style="list-style-type: none"> • Skin Corrosion/ Burns • Eye Damage • Corrosive to Metals 	Exploding Bomb  <ul style="list-style-type: none"> • Explosives • Self-Reactives • Organic Peroxides
Flame Over Circle  <ul style="list-style-type: none"> • Oxidizers 	Environment (Non-Mandatory)  <ul style="list-style-type: none"> • Aquatic Toxicity 	Skull and Crossbones  <ul style="list-style-type: none"> • Acute Toxicity (fatal or toxic)

For more information:



U.S. Department of Labor



OSHA

Occupational
Safety and Health
Administration

www.osha.gov (800) 321-OSHA (6742)

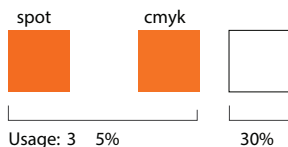
OSHA 3491-01R 2016

RIT Brand Elements collected

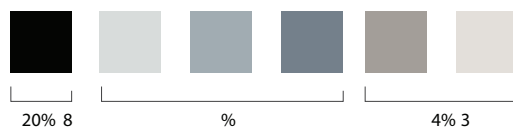
These are some of the elements that we use frequently. Last updated 092721

Colors

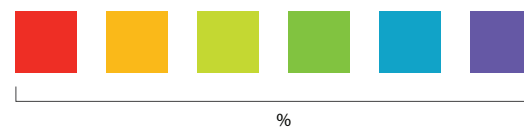
Primary



Secondary



Accents



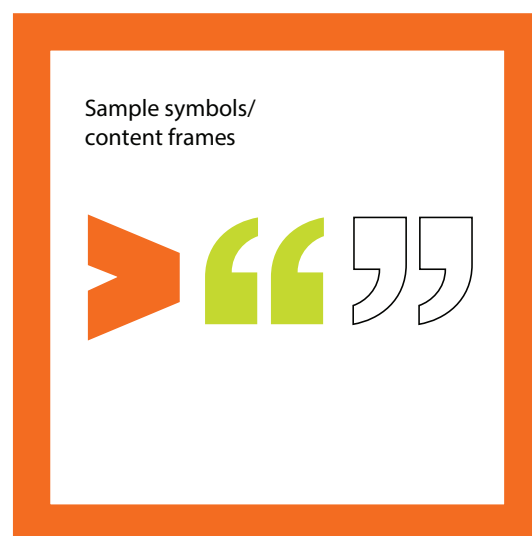
Moving frame edges



Prisms



Closed content frame



Moving content frame



Content brackets



Typical frame line thickness is 14 pt. on a 8.5" x 11" page

Orange corner cut style

Shape the Future
and Improve
the World

Sample usage of an orange line separator and
an open content frame with text

OPEN
HOUSE

Saturday
9/28
2019

We have many exciting
facts to share with you,
but there's one special
attribute we'd like you to
associate with RIT:

Value.

The

Right Fit