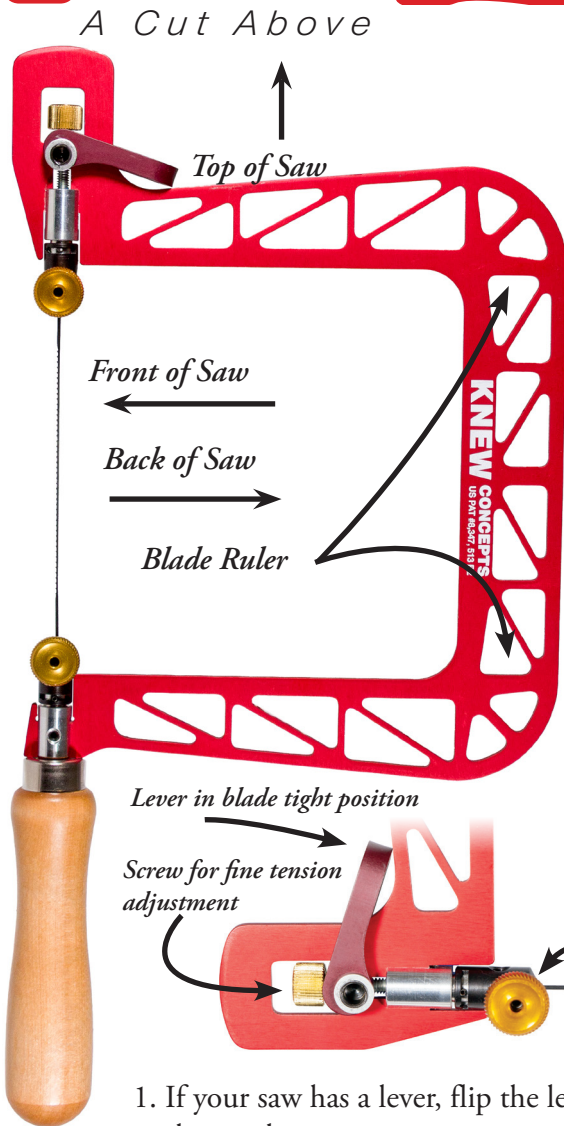


# KNEW CONCEPTS

## Using the Knew Concepts Mark V Fret Saws

V1.0



### Features:

- New and improved. Now stronger, with improved clamps with better grip.
- There are three versions.
  - The deluxe version has lever tensioning and swiveling blade clamps.
  - The middle version has the lever tensioning system but lacks the swiveling blade clamps
  - The basic version has screw tensioning only. They are identical otherwise.
- Each version is available in 2 depths of cut: 3" (77 mm) and 5" (127 mm)
- On swivel models, swiveling blade clamps allow blade to rotate 45° to either side to allow off axis cuts.
- Spring loaded blade clamps snap into locking positions at 45° to either side, or 0°—straight ahead.
- Screw for fine tension adjustments
- 5 1/8" blade ruler built into spine for checking blades
- Improved clamps now have witness hole for checking full blade insertion.

### Blade Removal

1. If your saw has a lever, flip the lever 180 degrees, towards the front, as shown above.  
If not, unscrew the brass tension knob.
2. Loosen both of the clamp screws by turning them counter-clockwise.
3. Remove saw blade

### Check the Saw Blade length

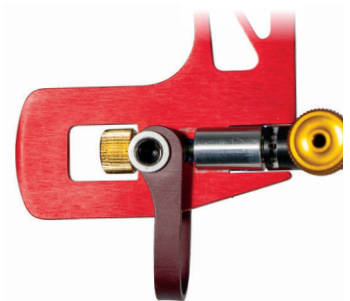
Before sawing, check the length of the saw blades.

**The standard length for jewelers/fret saw blades is 5 1/8" (130mm)**

All sizes of aluminum frame have a blade ruler built into the spine.

The end walls of the windows indicated in the main photo above left are exactly 5 1/8" (130mm) apart. Check your blades between them.

If the blades are too long, use wire cutters to shorten the blades. Blades that are shorter than standard will not work.



Lever Flipped to loosen blade tension

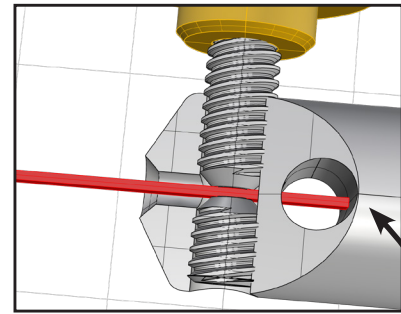
## Blade Installation

**1. If your saw has a lever, flip the lever forward to release the tension.** If not, unscrew the brass tension knob

**2. Insert blade into the top clamp, making sure that it is fully inserted, and tighten the clamp screw.** Touching the back wall of the witness hole stops the blade at the proper length.

### End of blade fully inserted

As you can see in this cut-away view, the end of the blade is stopped by touching the back wall of the second hole (witness hole). The tension must be relaxed, and the clamp pushed towards the handle before inserting a blade so that the blade will reach the end of the hole



*End of blade should touch rear of witness hole.*

### 3. Insert blade in lower (handle side) clamp.

Remember to push the moving clamp down towards the handle. Then insert the loose end of the blade into the handle side clamp. Make sure the blade touches the rear wall of the rear witness hole. If the blade is 5 1/8", but does not extend as shown, loosen the tension more.

### 4. The blade will bow slightly when the ends of the blade contact the bottoms of the holes, with the lever in the forward/loosened position.

With the lever in the loose position, the blade will bow slightly if the moving clamp is pressed towards the handle until it stops. This is shown below. This sort of flexing shows that the blade will be tensioned correctly. If the blade does not bow, check that the lever is in the loosened position, and try unscrewing the blade tension knob slightly, and pressing the blade clamp downwards a bit.

### 5. Tighten the clamp screw into the blade clamp.

## Tensioning the blade:

**Tension the blade by flipping the lever back, above the frame, or tighten the brass tension knob**

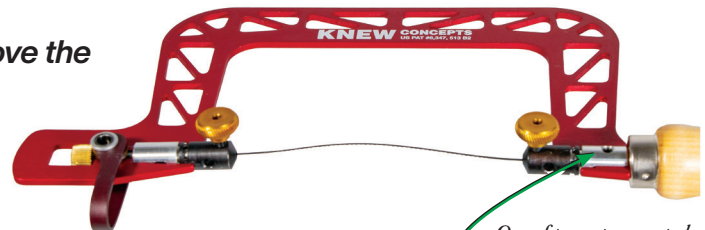
- If it feels difficult to move the lever all the way, stop, and then loosen the tension by turning the gold knob counterclockwise.

Not an issue with screw-only saws.

- Flick the blade with your finger — a taut blade “sings”.

- If the blade is the same as the previous blade, no further adjustment should be necessary.

If desired, or if changing blade size, the brass tension knob can be turned to fine-tune the tension.



*Pl 2.*

*One of two set screws to be loosened to convert to left handed clamps. The other one is on the other side.*

## Installing the next blade:

Remember to loosen the tension, by flipping the lever to the front, or unscrewing the brass clamping screw, which lowers the blade-holding barrel. This is essential, so that the clamp screws can grab the blade ends.

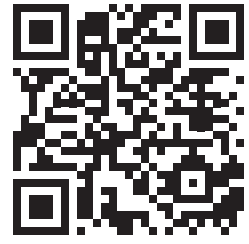
## Tensioning the New Saw Blade:

If the new blade is the same size as the previous blade, the same tension is achieved simply by flipping the lever.

- If the tension is not the same as before, then check that the blade is installed fully and correctly.
- The tension can be adjusted by turning the gold tensioning knob. The knob is difficult to turn with the lever in the tensioned position, flip the lever to the loose position, turn the knob, and then re-tighten the lever. Repeat as needed.

## Tips & Troubleshooting

**There are a variety of troubleshooting videos at [www.knewconcepts.com](http://www.knewconcepts.com). Look for the 'videos' link.**



<https://knewconcepts.com/video-gallery.php>

### ***If you are unable to get the blade tight,***

Make sure that you remembered to loosen the tension, so that the tips of the blade will touch the ends of the holes. Also, check the length of the blade. It may be too long or short; standard length is 5 1/8" (130mm).

- There are blade rulers built into the frame, see page 1.

### ***Tightening means to turn a screw clock-wise.***

Some people like to remember this by saying, "Lefty-Loosey, Righty-Tighty"

### ***If the blade breaks before you start sawing:***

- The blade is over-tightened. Don't set the tension quite so high on the next blade. Knew Concepts saws are the stiffest ever made. Your saw is stronger than the blade, and is capable of tearing it apart if you dial in too much tension. How much tension a blade will take varies by brand and size. You will have to experiment to see how much your brand will take, and how tight you like them.

***If the blades pull out of the holder prematurely,*** unscrew the knob, and check for broken bits of saw blades inside the hole. If you really have trouble, unscrew the clamping knob entirely, and blow out the clamp socket with compressed air through the blade hole. Then reinstall the clamping knob. Do not remove or adjust the anvil screw.

- "Canned Air" sold for computer cleaning works well for this. Use the straw.
- If you really have trouble: at the center of the clamp knobs is a hole. At the bottom of the hole is a socket for a 5/64" (2mm) hex wrench. Try snugging the clamps down with the wrench. Sometimes the extra leverage makes all the difference.

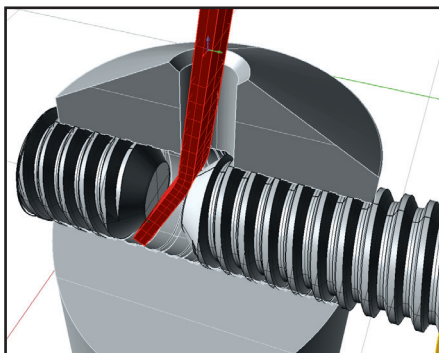
## **Changing clamp knob orientation for left handed use**

***If you prefer to have the clamp knobs on the opposite side of the frame:***

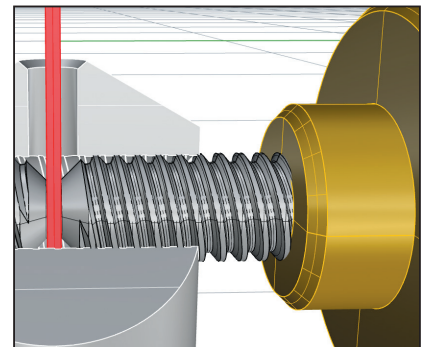
- Unscrew the brass tension knob from the upper blade clamp.
- Remove the upper blade clamp, flip it over so that the clamping knob is on the other side, and reinstall.
- Replace the brass tension knob.
- Use 5/64" (2mm) Allen wrench to loosen the set screws that hold the lower blade clamp in place.

(The two sockets closest to the handle. Indicated with an arrow in Pl 2, opposite page.)

- Flip the blade clamp over so that the clamping knob is on the other side.
- Reinstall lower blade clamp. (Make sure the lower clamp re-seats all the way down against the handle.)



- Re-tighten the two set screws loosened previously.
- Replace blade, and adjust brass tension knob for desired tension.

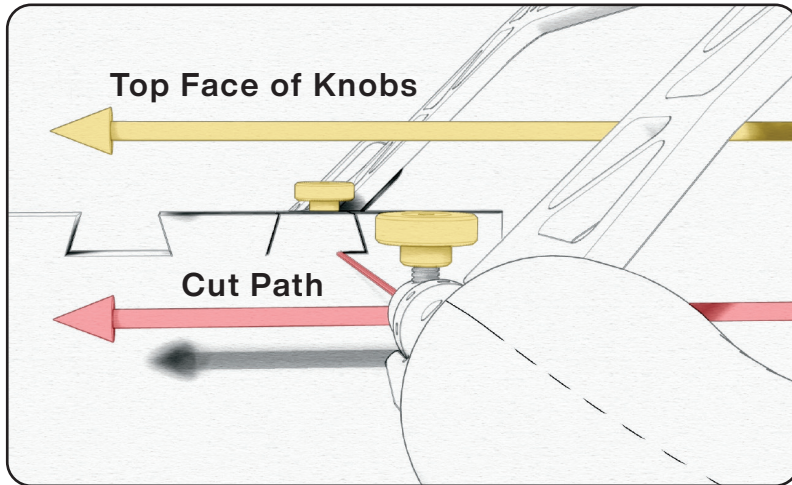


### ***Correct alignment***

This cut-away provides a visual of what is going on inside the blade clamp. When properly aligned, the blade will go in easily, and when the clamp knob is tightened, the blade will stay straight.

# Blade Swivels

What blade swivels can do for you



*To aid in aiming the saw blade, use the flat sides of the clamping knobs as a reference for where the blade is pointed. The blade always cuts in the same plane as the faces of the knobs.*

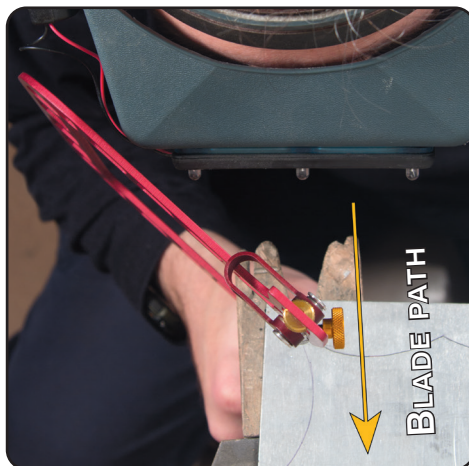
*Notice that with most dovetails, you can still see the knob on the forward clamp. This makes it easier to cut straight.*

This is more than just a marketing gimmick, they really do allow your new saw to do things no jeweler's or fret saw has ever done before. Your new Mk.V clamps will rotate 45° to either side of zero, with click stops at the 45 degree marks as well as straight ahead.

To rotate them just hold the silver barrel of each clamp, then press the black section towards it to overcome the internal spring. Then rotate to your desired angle and release. Set both clamps to the same angle.

What they allow you to do depends on what kind of work you do.

- **For woodworkers**, the biggest and most obvious advantage is that they let you rotate the blade off to the side, to allow the accurate removal of the waste left inside dovetail cuts.
- **For jewelers and metalsmiths**, being able to rotate the blade allows greater flexibility in terms of cutting into and around larger sheets of metal. It allows effectively infinite 'depth' when cutting along the edge of a large piece of material.
- **Another advantage for jewelers**, or anyone doing close up, detailed cuts using an optivisor or other magnifying headpiece is that it allows you to swivel the frame of the saw off to the side, to avoid the sawframe hitting the optivisor.



*The saw is cutting straight ahead. Without smacking into the optivisor.*

