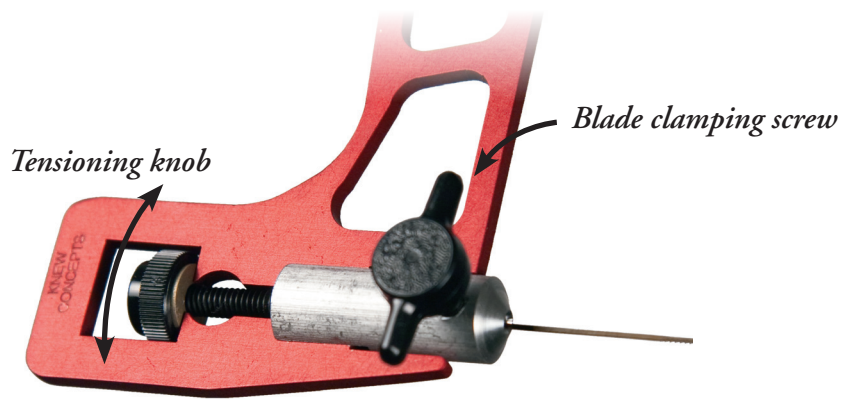




A Cut Above

Using the Knew Concepts Precision Saw Frame with Advanced Screw Tensioning

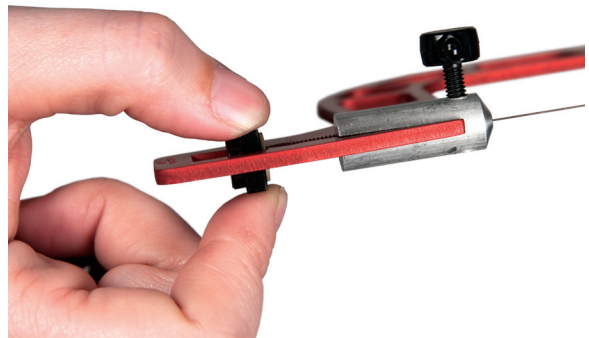
V2.0



Loosen the tension EVERY time you take a blade out, before placing a new blade in both blade clamps. It usually needs to be loosened several turns. However, do not let the barrel of the blade holder slide off the red aluminum frame.

Tensioning

This shows what the black knurled knob is for. This is how tensioning of the blade occurs. The knob must be unwound each time to release tension. After clamping a new blade, wind the knob to increase tension.



Check the Saw Blade length

Before sawing, check the length of the saw blades.

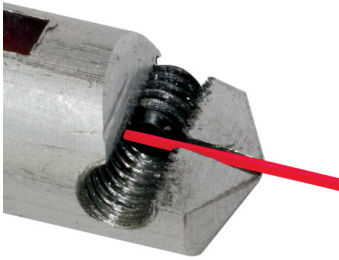
The standard length for jewelers saw blades is 5 1/8".

If the blades are too long, use wire cutters to shorten the blades.

Blades that are shorter than standard will not work. Return them to the source they were purchased from as defective.

Blade Installation

1. **Insert blade in the lower holder** and tighten the clamp screw.



End of blade fully inserted

The end of the blade is stopped by touching the threads at the bottom of the blade hole. *(The blade has been colored red to make it easier to see.)*

As you can see in this cut-away view, the blade is gripped at the very end. The tension must be relaxed before inserting a blade so that the blade will touch the end of the hole.

2. **Loosen the adjusting knob at the top at least one full turn to lower the holder***

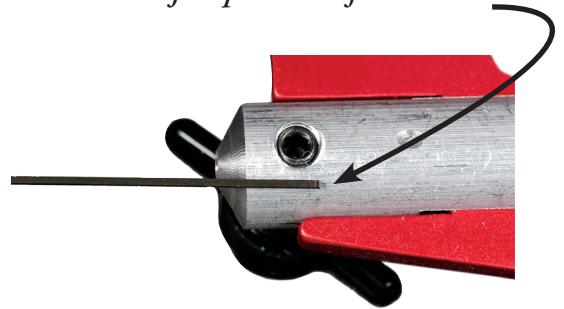
**Take care: Over-loosening the top blade holder can cause the components to become separated.*

3. If you are piercing, thread the blade through the hole in the metal.

4. **Check the Blade length**

After clamping the blade in the lower clamp, the loose end of the blade should extend beyond the upper anvil screw. This makes sure that the blade will be clamped properly before tensioning. If the blade is 5 1/8" long, but does not extend as shown, loosen the tension more.

End of blade should extend just past end of anvil screw.



5. **Push the upper holder upwards.**

This makes it easier to insert the blade

6. **The blade will bow slightly when the ends of the blade contact the bottoms of the holes.**



The image above shows a blade bowed after inserting into the clamp. This sort of flexing shows that the blade will be tensioned and clamped well and correctly.

7. **Tighten the clamp screw into the blade holder.**

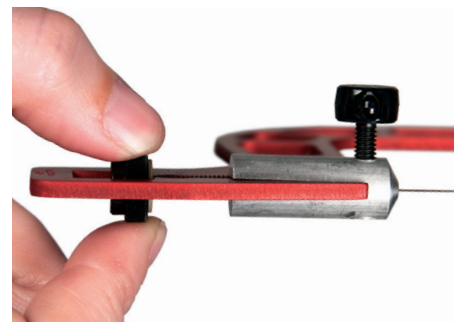
Tensioning the blade:

Tension the blade by turning the adjusting knob clockwise.

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

Installing the next blade, after a blade wears or breaks:

Remember to loosen the tension, which lowers the blade-holding barrel. This is essential, so that the clamp screw can touch the blade.



Tips & Troubleshooting

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”

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, either:

- The blade is over-tightened, or
- The blade is too brittle. Some brands don't have the tensile strength to stand up to the users' desire for blade tautness.

If the blades pull out of the holder prematurely, unscrew the knob, and check for broken bits of saw blades inside the hole.

Note: The bottom clamp knob has only one lever. The opposite side has been removed to prevent bumping into the bottom of the bench pin.

Changing clamp knob orientation

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

Remove the the clamp screws and set screws (use a 5/64” allen wrench/hex key for the set screws).

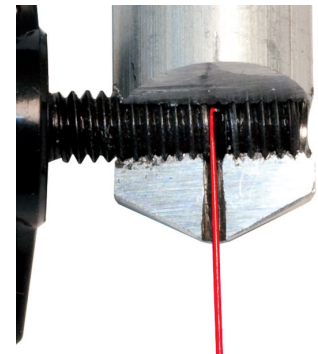
Re-install the set screws so that they are flush with the outside of the barrel of the blade holder.

Adjust the position of the lever on the lower clamp screw to prevent it from hitting the bottom of the bench-pin on the “up-stroke”, which can often break the blade:

- Install the lower clamp screw with your favorite size blade
- Tension the saw blade.
- If the lever on the knob points upward (10 to 2 o'clock), loosen the clamp and adjust the set screw “in” slightly, so that the “tight” position of the lever will be lower.

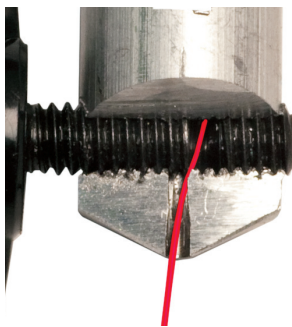
Correct alignment

Because the anvil screw can be moved from one side to the other for those left handed folks out there, its alignment is important. 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.



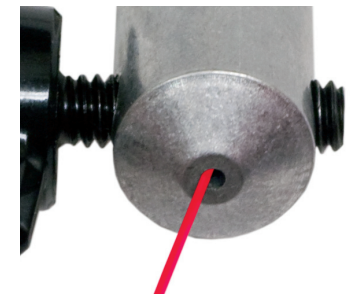
Anvil screw out too far

This shows what usually causes bent or broken ends. Adjust for correct alignment.



Mis-alignment

This shows an extreme example of the anvil screw out of adjustment. As you tighten the clamp knob, notice blade movement. If it wants to angle to one side or the other, the anvil screw must be adjusted.



The loose end of the blade usually tilts toward the side that's in too far
Use a 5/64” hex key to adjust it.

These instructions have been written by Lee Marshall and Cynthia Eid.

Suggestions for additions and corrections are gratefully received at ceid@cynthiaeid.com & knewconcepts@yahoo.com

Photography & Graphics by Brian Meek.

Precision Work Requires Precision Tools



About Knew Concepts and Lee Marshall

I am dedicated to helping you pursue your work and your passion for well-made tools that bring pleasure to the task. My products may feel luxurious to use, but they are never extravagant, as they are designed and made with you and your needs foremost and are made to last a lifetime. Reward yourself for all of your hard work!

Knew Concepts is the logical continuation of what began in 1990 as Bonny Doon Engineering, when I developed a series of hydraulic presses and tooling for shaping and forming jewelry.

The “Back Story” of this Saw Frame

Several years ago, Lee Marshall developed the Precision Saw Guide 2 for making blanking dies. Cynthia Eid found that she *really* enjoyed the saw that was developed for this system, because of the blade tensioning mechanism. She started using this saw for *all* of her sawing, and she kept telling Lee that he needed to develop this saw as a “stand-alone” tool. Finally, he got the message!

About this Saw Frame

THIS IS THE LIGHTEST, MOST RIGID FRAME ON THE MARKET!

Weight:

Aluminum three inch deep frame weighs 3.4 ounces/96.4 grams.

Titanium* three inch deep frame weighs 4.0 ounces/113.36 grams.

**Titanium is much stronger than aluminum, though slightly heavier.*

Rigidity:

The rigidity of the frame determines how much blade flex occurs.

A weak frame increases blade flex, increasing blade breakage.

A weak frame reduces your control of the blade.

Have a question? Visit our forum at WWW.KNEWCONCEPTS.COM

or contact us at knewconcepts@yahoo.com

ENJOY!

Lee Marshall, “The Saw Guy”