Clamping often presents some real challenges. But with just a few basic materials and a little different perspective, you can solve even your most difficult clamping problems.

1 Clamp Extenders

Few things are more frustrating than getting ready to clamp up a project only to find your pipe clamps aren’t long enough. Fortunately, there are a couple of easy solutions to this problem.

The simplest way to extend the reach of your pipe clamps is by adding a pipe coupler to the end of the pipe as shown in Figs. 1 and 1a. Then you can add an extra length of threaded pipe to the end to allow the clamp to reach farther.

Another way is to simply build a T-shaped wood extension, like you see in Fig. 2. It’s notched to accept the clamp (see Fig. 2a) so you can pull the pieces together.

2 Bungee Cord Clamp

I build a lot of projects (like picture frames) that require built-up molding strips. And because of the profiles, it’s difficult to clamp the pieces together without marring the details on the surface of the wood.

For this job, I like to use a bungee cord. These cords can be found in a variety of lengths at most hardware stores and home centers. You can often find them in large spools at the store so you can buy just the length you need. They will easily conform to any shape. And best of all, they won’t leave marks on the surface of the wood.

The bungee cord clamp is easy to use. Just wrap it around the molding a few times and tie a knot at the end to hold it in place. (Thicker bungee cords give you more clamping power.)
3 Miter Clamping Blocks

Clamping miter joints always presents a challenge. It’s often difficult to securely hold the joint in position. But you can quickly build a pair of clamping blocks that will let you use your bar clamps to make it easier to get the job done.

Start by making a couple of angle blocks, like you see in Fig. 1. These are simply small triangles cut from a block of wood at 45°. Then each block is glued and screwed to a strip of hardboard.

It’s important that the clamping blocks don’t slip when you tighten the clamp. So I like to attach a piece of adhesive sandpaper to the strip to provide some friction.

Using the clamping block is easy. Just clamp one of the hardwood strips to each workpiece. Then you can simply place a bar clamp across the two blocks and use it to draw the joint together securely, as shown in Fig. 2.

4 Corner Squaring Block

Every time I assemble drawers, I need an extra pair of hands — one to hold things in place and another to apply the clamps. This is where a few simple squaring blocks come in handy.

The base of each block is just a square piece of 3/4” plywood. A top layer of three separate pieces of plywood is added to the base, like you see in the drawing and detail ‘a’ below. Just be sure you glue these three pieces down squarely to the base so the space between each of them matches the thickness of the workpieces you’ll be clamping.

To use the squaring blocks, place one block under each corner. Then add the clamps and tighten them to pull the pieces together.

5 Tape Edge Clamp

Clamping edging to a shelf that’s already attached to a project can be difficult. There’s no good way to position the clamps to get adequate clamping pressure.

A simple solution is masking tape. Just apply a few strips of tape, like you see in the drawing below. Pull the tape tightly around the edging for a solid glue joint.

6 Wedge Clamp

Another way you can hold edging in position is to use a wedge. This is helpful when you don’t have enough clamps or your clamps aren’t long enough.

To do this, you’ll need a few small C-clamps and some wood wedges. First, attach the C-clamp to the edge of the shelf, table, or counter-top. (Use a hardwood pad under the jaws to protect the surface). I space them about 6” apart.

After the clamps are secured in place, you can then slip the wedge against the edging until it contacts the C-clamp as shown in the photo at right. Finally, lightly tap the small wedge with a mallet until it wedges under the clamp with the desired amount of pressure.