



Leigh Hold Down Clamps

Review

By Dean Bielanowski

How many times in a workshop day do you need to clamp something together or clamp something down to a bench to work on it or with it? It could be clamping down a jig, or that piece of wood to work on with your hand tools, or perhaps to clamp a piece to your drill press table. There is always a need to secure something to a bench or table it seems.

Leigh's new line of Hold Down Clamps may be the answer to these needs... Leigh Industries offer two different types of hold-down clamp;

- The Bench hold-down clamp
- The Surface hold-down clamp

The Bench Hold Down Clamp

As the name suggests this clamp was designed for use with workbenches and their traditional bench dog mounting holes, however, it can be used in other situations as well. The clamps use the same type of clamp style as found on Leigh's top-selling dovetail jigs - the cam clamp. This clamp has proven itself through years of successful use with Leigh's dovetail jig products. The flip-top clamp style lever coupled with the elongated "Z" style clamp head and threaded rod allows the clamp to be used on material from 0 to 3 inches in thickness and even on differing level or angled surfaces in some cases. The clamp can exert a great amount of force to hold objects down, with the cam action able to apply this force easily without excess stress or force from the user. The clamp head is made from ZA12 alloy with the clamp's cam action handle being made from glass-reinforced nylon. Both are very durable and tough materials and Leigh guarantee them with a five year warranty, although they will likely last for a lifetime with proper care and

Leigh Hold Down Clamp Photos

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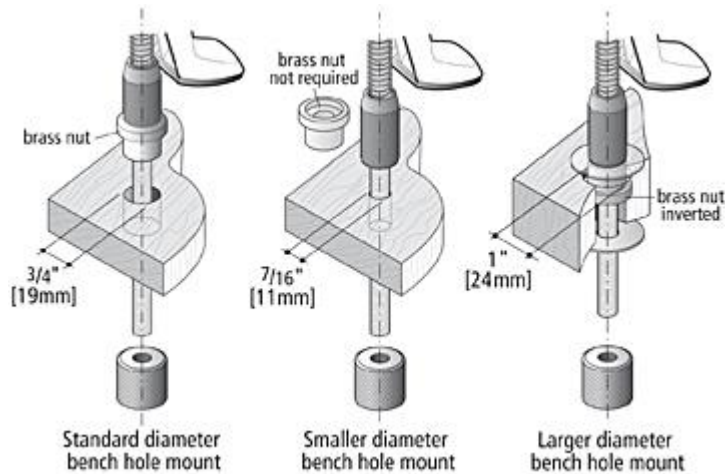
The Leigh Bench Hold Down clamp set up on the Drill Press.



Plenty of hold-down force to secure the piece for drilling.

use.

As mentioned, the clamp was originally designed for use in standard 3/4" diameter workbench dog holes, but it can be used in any bench or clearance hole from 7/16" to 1 1/8" in diameter, and on benches up to 4 1/2" as shown below:



The speed nut, which is the part you see at the bottom of each image above is the nut which secures the clamp to the underside of the bench and aids the clamp in providing more clamping pressure than standard drop-in bench clamps. Originally when I first received the bench hold down clamp I thought this part was incorrectly machined as the nut had an elongated hole and threads that were not machined like a normal nut. It appeared that the die used to cut the thread had slipped during manufacture! I emailed Leigh and their helpful staff quickly informed me that this is indeed how the nut is supposed to be machined. The speed nut will actually slide up and down the threaded rod without engaging so it can be moved quickly (with speed) to where it needs to go up under the bench or table. Then as you tighten the nut against the rod (with the top squaring surface of the clamp engaged above on the table surface, it engages the speed nut's threads and actually secures in place. It is odd at first, but it really does work well, and saves you having to spin the nut all the way up the threaded rod, or down again, each time you want to secure or release the clamp rod. That's why they call it a "Speed Nut". The nut is knurled on the outside to provide a more convenient grip as you manipulate it under a table.

The Bench hold down clamp is perfect for any



The Bench clamp in use on the workbench with clamp secured through dog holes.



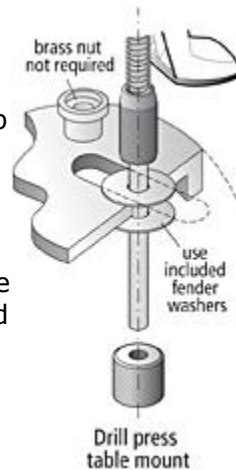
Drilling the 1 1/2" hole (5/16" deep) with a forstner bit for the surface clamp anchor...



The bottom of the Surface Hold Down clamp slots into and slides in the anchor to secure the clamp to the bench.

workbench with dog holes, and I now use it widely for clamping all types of material to my bench to work on, as well as my Leigh dovetail jig for when I am machining dovetails. But the other most obvious use is on the drill press.

If you have a drill press table with holes or slots in the table (most drill presses have these) then you can also use the Bench Hold Down clamp to secure your work on the drill press table for drilling. Using the included fender washers, which locate on the rod at the top and bottom surfaces of the table slot, the clamp can be secured with the speed nut and normal cam clamp action is then available on top of the drill press table. In the past I have always used quick-grips and F-clamps for securing material to my drill press table but this is always difficult as the underside of the table is not flat. In fact very few drill press tables are flat underneath, being cast from any number of wonderful and weird shapes and designs with ribs for strength and flex resistance. With the Bench Hold Down clamps I can now securely hold material on the drill press table without the hassles of other types of clamps, and I have improved the safety factor when using this tool, not to mention the quality of the drilled holes too! The no-mar pads on the clamp ends ensure my material or table surface is not damaged either during the clamping process.



There is enough clamp force to even hold down rounded objects quite well.

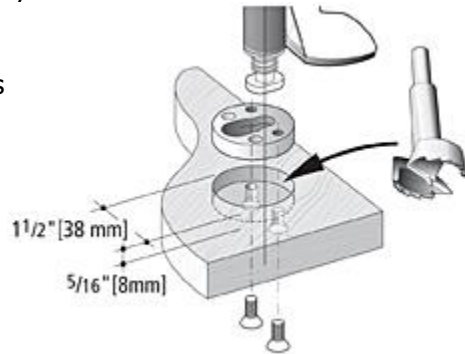
Like the clamps on the Leigh jigs you can adjust them by lifting up the clamp lever arm and rotating/twisting the lever which adjusts the height of the clamp up and down to accommodate varying material thickness. Once that is set the clamp lever is then pushed down to engage the cam action which provides a very good hold on your material

Overall I am very happy with the Bench Hold Down clamp. It is quite a versatile clamp and can easily move from one application or location to another. While it has limitations on where it can be used (as it does need that "hole" to work with), on the workbench or drill press I haven't come across a better clamp yet, or one at least as easy to use. And if you don't have holes in your workbench, you have the option of drilling them wherever you like to accommodate the clamp. Being removable you can

disengage and remove the clamp at any time when not in use.

The Surface Hold Down Clamp

This clamp works in pretty much the same way as the Bench clamp above in terms of clamping mechanism, however the way it is fixed to a surface is different. It uses a surface clamp anchor, a 1 1/2" machined metal disc with a main slot which is mounted onto your workbench or table surface, either horizontally or vertically (or perhaps even at an angle for special jigs) and the clamp assembly drops, slides and locks into the anchor ready for use. The anchor is similar in function to that of the *Kreg Bench Klamps*, except this one is easier to install as it is a round disc rather than a square plate. All you need to do is take a 1 1/2" Forstner bit and drill a 5/16" deep hole wherever



you wish to mount the anchor. The anchor when inserted into this hole will sit flush with the table or surface so it does not impede table or surface use when the clamp is not attached to it. However, the problem may arise in the fact that you need to insert the anchor holding screws from the underside of your bench. The anchor has a set of drill-guide-type holes to drill the through-holes needed to secure the anchor down. Once these are drilled you rotate the anchor 180 degrees and the drilled holes then line up with two tapped holes into which the included mounting screws thread in. These screws need to be accessed via the underside of the surface/bench which could cause a problem if access to the underside of your workbench is limited - if you have draws or smaller storage areas directly underneath etc. In most cases though it might not be an issue, but it's worth considering. But of course, the advantage of securing from the underside is that there is virtually no risk of having the anchor pull out from the surface when clamp force is applied on the clamp. This probably also allows a much smaller anchor to be used, which is a good thing. Another thing to consider is thickness of your surface. The included 1/4" 20 mounting screws are probably only good for surfaces 3/4" thick, or up to 1/8" thicker than that. If you have a thicker surface to contend with (my work surface tops are 1 1/2"

thick) then you may need to purchase longer screws, or at least countersink the underside of the bench to make the supplied screws work for you. I couldn't get good enough access to countersink the holes on my 1 1/2" thick bench because of thin tool drawers I had added below the bench surface, so I purchased a couple of longer screws to suit and it all worked out fine. Just a consideration to be aware of - it's not a detrimental flaw in the product by any means.

Now, on the flip side, there is a way around this for those with no access to the underside of their benches. The anchor has two countersunk holes that will accept #8 woodscrews which sit flush when screwed down if you needed to secure the anchor down from the top. While the underside securing method is preferred, the woodscrew method from the top will work as a second option.

You can mount as many surface anchors as you like, where needed, and move the clamp to any of them at any time. Two anchor discs are included in the kit, along with the screws to secure them flush to the surface they are mounted in. You can order more anchors separately, but having two surface clamps is even better for securing longer pieces to a workbench to work on.

The surface clamp can also be used in conjunction with T-tracks for more jig or machine hold down function versatility, like adding a hold down clamp to an imbedded table T-track for a radial arm saw, for example.

The surface mount clamp is essentially the same function-wise as the bench hold down with the same clamping capacity and cam securing action. It is also made from the same durable material. The difference is only in the way it is secured to a surface via the anchors. It does not have the threaded rod and Speed Nut like the Bench Hold Down clamp.

In Use

You probably have gathered now that I am quite wrapped with these clamps. Cam action clamps are certainly not anything new, and neither really are the ideas behind both of these clamps, except for a noticeable difference in design here and there (i.e. the Speed Nut on the Bench clamp). Regardless, these have to be perhaps the most versatile and heavy duty cam clamps I have used to date.

Installation is straightforward and the cam action of the clamp allows quick and easy "secure and release"

of material with little fuss. The clamps provide an excellent hold on material in most all use situations and I can't really find any fault with them so far. They are great for hand tool users and those looking for a clamping solution for the drill press.

I am sure you will also find many more uses for them in your shop, should you decide to purchase some. The "Leigh" name is synonymous with quality in dovetail jig production, and it appears that tradition of quality is continuing with the new Bench and Surface Hold Down clamps.

Well done Leigh Industries.