

4" and 6" Guillotine Shear



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The Pepetools 6" Designer Series Guillotine Shear

The Pepetools range of guillotine shears allows you to make straight and accurate cuts in sheet metal, quickly and easily. The included depth gauge allows you to set a predetermined depth and make repeated cuts, with crisp edges and uniform dimensions. Stock metal can quickly be cut into uniform squares, rectangles, and strips. The use of the miter table allows repeated cuts to be made at precisely set angles for perfect corners and joints. Available in a range of sizes the guillotine shears are a superb addition to any studio, offering fast repeatable cutting, with high accuracy and safety.

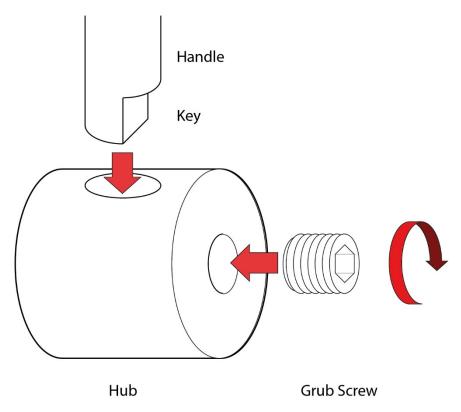
The length in the description of each shear refers to the length of the cutting blade, and therefore the maximum width of cut that each shear can produce. The 4" and 6" shears have a maximum width of four inches and six inches, respectively. As long as you have clearance on each side of the shear, in theory, there is no limit to the length of the strip you can insert. But in all cases, the width is determined by the shear. For jewelry use, the 4" and 6" are the most popular models. See the link at the end to explore the full range.

The thickness of the material which can be cut depends on many factors such as the toughness of the material and the personal comfort of the operator. The units are designed primarily for jewelry use with thin gauge nonferrous metal sheet such as brass, copper, aluminum, silver, and gold. Whilst the opening may be able to accommodate material several mm thick it is not usually possible to cut something that thick. Operation should be simple and fairly effortless. If the metal cannot easily be cut by manual effort, then it should be cut by alternative means such as a saw. The shears are not intended for sheet steel, stainless or similar hard ferrous materials.



Assembly

The tool comes pre-assembled; you just need to insert the handle. It simply slots into the 'hub' on the right side of the unit and is held in place by a small grub screw. Using the hex wrench included, loosen the grub screw at the end of the hub. There's no need to completely remove the screw but do ensure that it does not protrude into the hole. Note that the end of the handle shaft has a flat surface (key), this corresponds to the grub screw. Ensure that the handle goes all the way into the hole (and is not being blocked by the screw). Tighten the grub screw firmly. Check that the handle is firmly fixed and the black knob on the end is also secure - twist the knob clockwise to screw onto the shaft.

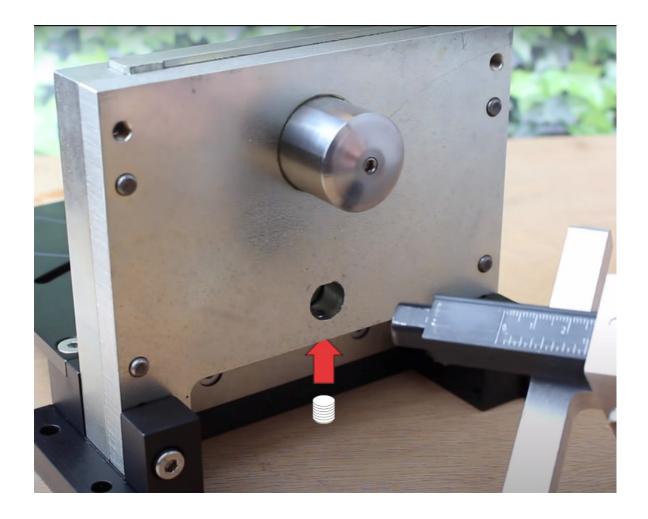




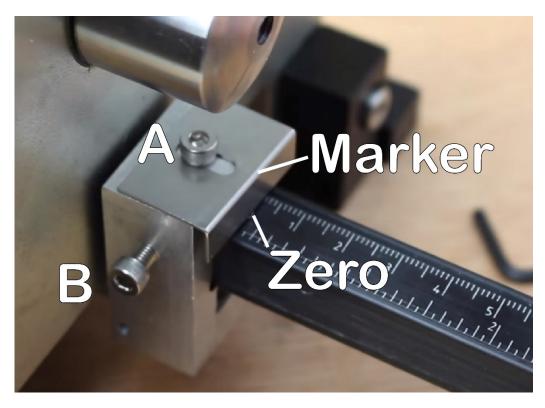
Attaching and calibrating the depth gauge.

The depth gauge allows you to set a stop position to a precise measurement. Once set, you can cut multiple pieces of metal all to the same length, quickly and repeatedly. For the depth gauge to be used accurately, you must calibrate it. This is very simple and only needs to be done once when you first attach it.

The depth gauge slots into a small hole on the right side of the unit underneath the handle. Note that the hole is D-shaped, and the end of the depth gauge is shaped accordingly. IMPORTANT, the depth gauge is fixed in place by a small grub screw, which screws from underneath. Unscrew it first to allow you to insert the depth gauge. Then tighten the screw from underneath with the hex wrench included.



Above. attaching the depth gauge. Notice the D shape of the hole and the corresponding shape of the gauge. Also, note the location of the grub screw which inserts from underneath.



Note the two screws. Screw A at the top allows you to loosen and adjust the marker plate to zero, then lock it. Screw B is used to set the cutting depth each time you use the shear.

Once attached it is vital to calibrate the depth gauge. Begin by pushing the handle back as far as it will go to fully open the blades. Loosen both screws A and B on the depth gauge. Push the depth gauge as far left as it will go. It should be resting under the blade and touching the edge of the table (note the gauge is spring-loaded, you may need to press it down to ensure it goes all the way under the blade). Once it is in all the way, tighten the side screw B. The top screw A allows you to move the marker bracket on the top. Without moving the gauge move the top plate until it aligns perfectly with zero on the gauge and then tighten the top screw A. The unit is now calibrated - the stop is in as far as it will go and the marker reads zero. Once done, do not unscrew the top screw A. When measuring, loosen the side screw B and slide the gauge to the desired depth, noting the measurement on the top marker. This is

the distance from the table (the cutting edge) to the stop and therefore is the width of the metal you will cut. Try cutting a few test pieces and measuring them.

You may like to watch the video on this. Scan the QR code or click the link. https://www.youtube.com/watch?v=BFS433WCbKM





Positioning and installation

The tool is very solid and heavy. Please take care when handling it and placing it into position. The tool needs to be very securely fixed to a solid bench. Ideally, something immovable which is in turn attached to a solid wall. The best way to secure it is via four large bolts, (not included) through the holes in the base of the tool, right through the benchtop, and secured underneath by washers and nuts. Note this will require drilling holes through your benchtop, so choose a location carefully as it will be fixed permanently.

The shear is designed to cut with a right-handed pulling operation. So position it with the table to the left and the handle on the right, ensuring you have the freedom to pull the handle forward, towards you. To fully open the shears, the handle also needs to move backward, away from you, so avoid placement too close to a wall. To cut long strips will require suitable clearance on both sides of the shear.

Tip - As a temporary measure whilst deciding upon its final location, the tool can be screwed to a thick piece of wood and attached to the benchtop with G clamps. Whilst this is not ideal, it does allow you to test out the tool before committing to its final location.

Setting the miter gauge.



Perhaps the most common use for the shear is to perform 90° right-angle cuts to create square ends on the strip and to create perfect rectangular and square sheets. You will note that the table has pre-scored angles on it, typically ranging from 0° to 45° with a movable guide. For a regular right angle cut, position the guide along the 0° line and secure it by tightening the two thumbscrews.

Tip: To create a perfect right angle, at least one edge of your metal must be straight to begin with either by using the shear or by sawing and filing. This straight edge is then used against the guide and all other cuts made at right-angles to it.



Making a cut

- Set the miter guide to the desired angle.
- Set the depth gauge to the desired length (or remove it for longer strips).
- Position the lever backward as far as it will go, to open the shear fully.
- Position your metal up against the guide and slide it 'under' the blade.
- If using the depth gauge, ensure the metal is pushing up against it.
- Whilst gently holding the metal flat and up against the guide, pull the handle towards you slowly, until the metal is cut (the piece on the right will drop).

Repeated cuts.

Push the handle back away from you, again slide the metal along until it touches the depth gauge, and pull the handle again to cut. In this way, repeated cuts can be made of the same dimensions.

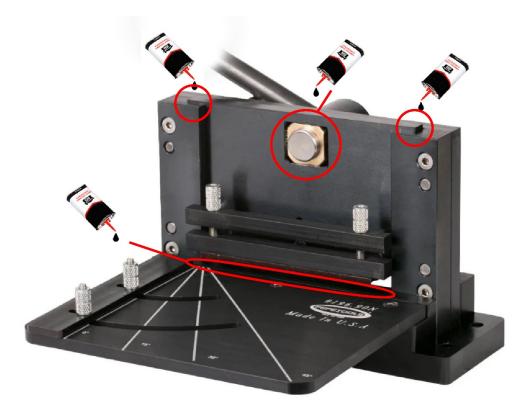
Note. You do not need to use the guide or depth stop. If for example, you want to cut very long strips (longer than the depth gauge). Simply remove the gauge by unscrewing the little grub screw underneath it. This now allows a completely unrestricted length of metal to be inserted in the shear. You can measure and mark your metal as required with a scribe or permanent marker. Align your mark under the blade with the very edge of the table, so that when the blade comes down it cuts along your line. (tip: you may need to remove the safety bar in order to clearly see the edge of the blade).

Likewise, you can mark your metal at any angle required using any measuring tools, angles, squares, and protractors. Position your line under the blade and in line with the edge of the table for accurate cutting.

Tip: Avoid movement. Normally, pushing up against the guide is sufficient. But if cutting freely without the guides, there may be a tendency for the metal to be pushed forward, especially with thicker material. Hold it down firmly or apply a clamp if required.



Maintenance.



With proper use, your Pepetools guillotine shear will last for many years and make thousands of cuts, requiring little more than an occasional drop of oil.

As with any steel tool, the shear needs to be kept dry and free from moisture. The blade and all bare metal parts can be protected with a coat of light general purpose oil. A few drops should be placed around the sides of the blade, where the parts move up and down (apply oil from the top). You should oil or grease in the hole around the brass bushing at the center of the blade. Using a small paintbrush, apply oil along the cutting edge of the blade, where it contacts the edge of the table and performs the cut (you may need to remove the safety bar).

If you experience any problems or inability to cut, remove any sheet metal and check that the cutting edge of the blade is free from any obstructions. Likewise, ensure the brass bushing is free from debris and able to move within the hole. Verify that the handle moves freely back and forth and the blade is moving up and down fully. Examine the very edge of the blade (you may need to remove the safety bar), and check for any nicks or damage, which may have been caused by using excessive force on hard metal. If there is any damage to the cutting edge, then please contact Pepetools for assistance and advice.





Pepetools offer a huge and ever-increasing range of tools and supplies for all your jewelry and metalworking needs, including a range of heavy-duty guillotine shears in larger sizes for every purpose (click the image above).

Check out Pepetools.com for lots of great resources such as downloadable instructions, highly informative blogs, and a host of how-to videos, demonstrations, and projects. Constantly evolving and added to by some of the world's greatest craftsmen and jewelers, sharing their tips and knowledge with you. So, check out the site and see what's new.



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