

# HOTPOT®

## Tipsheet

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### *Cutting and breaking glass*

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Cutting and breaking of Glass is not very difficult, although many people think so. Here we describe the most common and easy ways to do so.

First of all we would like to advise you never to use oil for cutting purposes, when the glass will be fused afterwards. Oil will usually cause matt spots during the fusing process, which cannot be removed. Therefore, a self-lubricant type of cutters is not a good idea, unless you leave out the oil, of course. A simple type of glass cutter will work excellent but please choose a model that gives you a good sight on the cutting wheel when you are cutting glass. Some “old-fashioned” cutters may have a wheel that is placed in the middle of the lower part, which makes it difficult to see the cutting area. Your HotBox starter pack contains a good cutter. If you have bought a HotPot as a single item, please ask your supplier for such a cutter. We also recommend you to use safety glasses.



*“old fashioned” cutter*



*modern, suitable cutter*

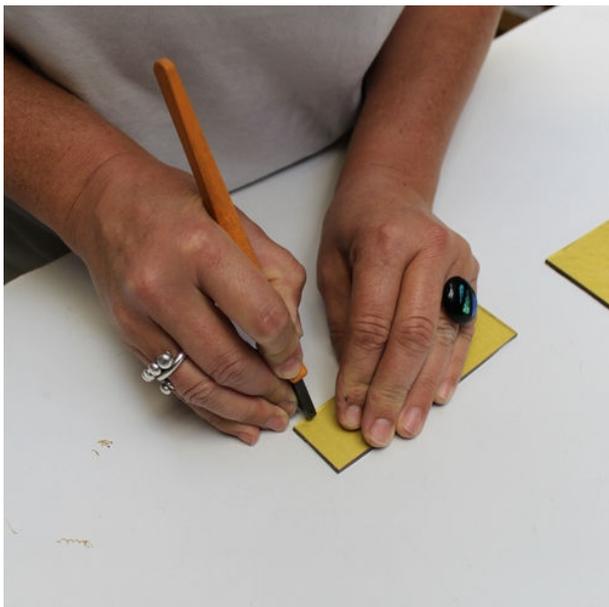
### **THE BASICS**

Place the cutter on the glass, in an angle of about 70 degrees. Keep a constant, light pressure on the cutter while you move it from the top to the bottom of the glass at a uniform speed. During the cutting you will hear a scratching sound, which is a good sign. The faster you cut, the better you hear the sound. If you are cutting very slowly, you may not hear the sound at all, which doesn't mean you are doing it wrong, so don't make the mistake of using unnecessary much pressure, just to hear the scratching.

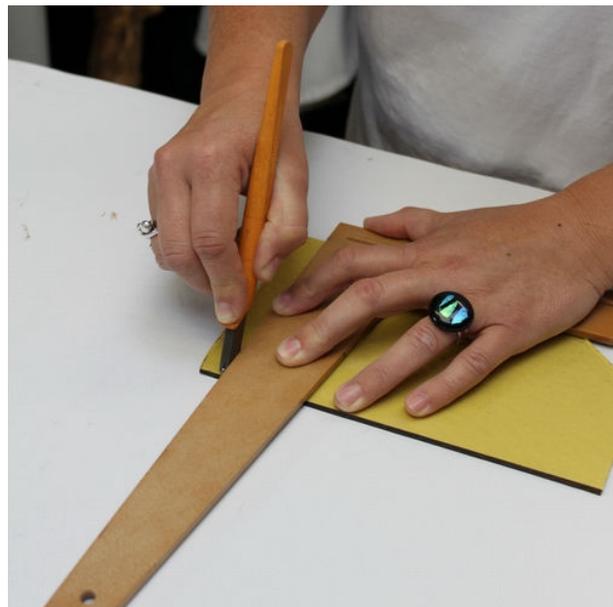
You can also cut from the bottom to the top, whatever suits you best in a given situation. For instance, cutting a straight line is usually easier done from top to bottom, while cutting curved lines that you have drawn on the glass will be easier done from bottom to top, as you can see the exact cutting position in that way. Never cut twice over the same line. Sometimes you may doubt whether you have made a good cut. It is better to break the glass regardless of this doubt, because a second cut will usually not improve the breaking point. On the other hand, you will quickly wear out your cutter by doing so.

## CUTTING STRIPS

A cutting angle is a handy tool to cut straight strips. Place the angle against the bottom of the glass, make sure the bottom line of the glass is straight and without bumps or tips. Hold both the glass and the cutting angle with you left hand. With your right hand you can cut from the top to the bottom, using the angle as a conductor. (Left-handed people can do this in the opposite way of course)



*without cutting angle*



*with cutting angle*

## BREAKING GLASS

Assuming you have made a good cutting line, the breaking will be just as easy. When you have cut a middle sized piece of glass you can hold the glass between your thumbs en fingers, leaving the cutting line exactly in the middle. Apply an equal pressure with both hands and the glass will break into 2 pieces.



What if it doesn't work?

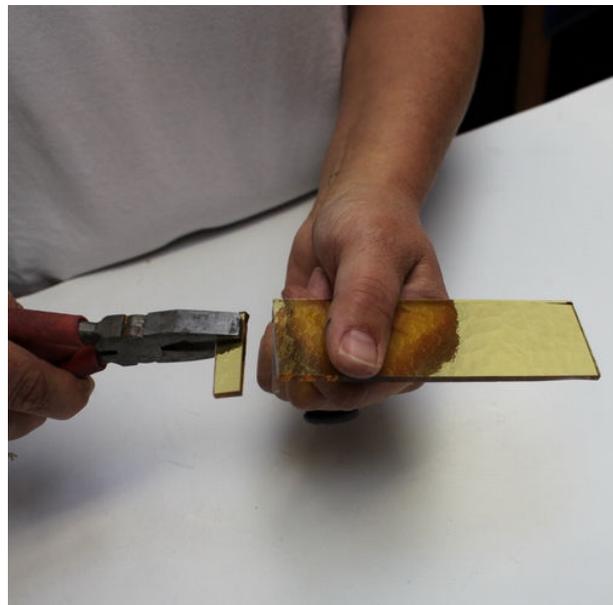
Maybe you haven't made a perfect cutting line, or you lifted the cutter just too soon, leaving the last part uncut. In that case you can try to extend your cutting line or just break it and see what happens. Another option is that you do not possess enough mussel power in your fingers and/or you are dealing with an extreme hard type of glass. The solutions is simple: use the HotPot breaking pliers

This tool simulates the manual breaking method. Place the pliers on the edge of the glass, with the white arrow-mark exactly on the cutting line. The bottom part of the pliers contains a small bump, which is now also on the cutting line, on the other side of the glass. By squeezing the pliers, the glass will easily break exactly over de line. Most convenient!

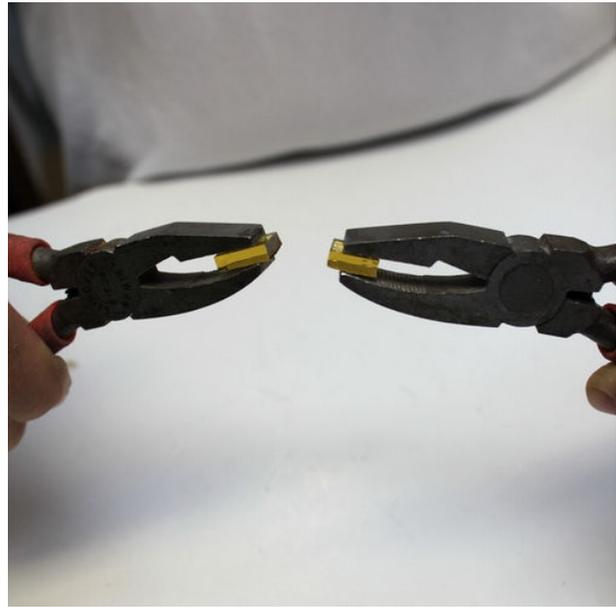
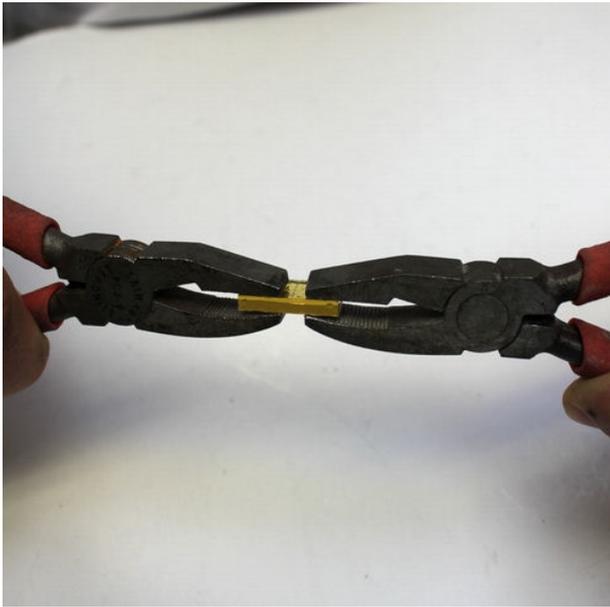


## **BREAKING SMALL PIECES**

Breaking small pieces can be hard to do with your hands or even with the previous described pliers. For this purpose you can rather use the smaller breaking/grozer pliers. This tool has one flat and one slightly curved side. Place the flat side of the pliers on the glass, straight across the cutting line. Hold the other side of the glass with your fingers, across the pliers. Apply a soft, equal pressure on both the pliers and your fingers and the glass will break smoothly.

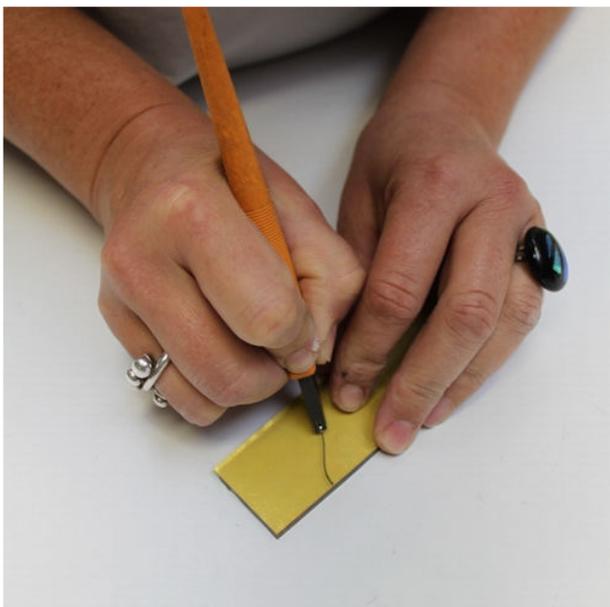


In case the piece is too small to handle with your fingers at all, the easiest way to break the glass is to use not one, but 2 pliers. Place them opposite each other, with the cutting line in the middle. Use an equal pressure on both pliers and the glass will simply break over the line.



## CURVED LINES

Cutting curved lines is something you will probably want to do as well. You can draw your lines on the glass with a marker and follow these lines with your cutter, preferably from bottom to top to have the best possible view on your work. Using the smaller breaking/grozing pliers you can break the pieces. Just make sure your lines aren't too curved too strong, as this will make the breaking more difficult. Practice makes this technique more and more perfect.

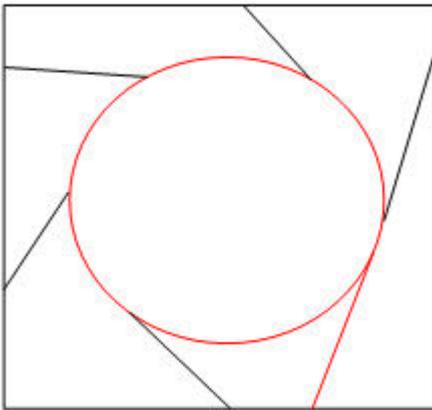


## CIRCLES

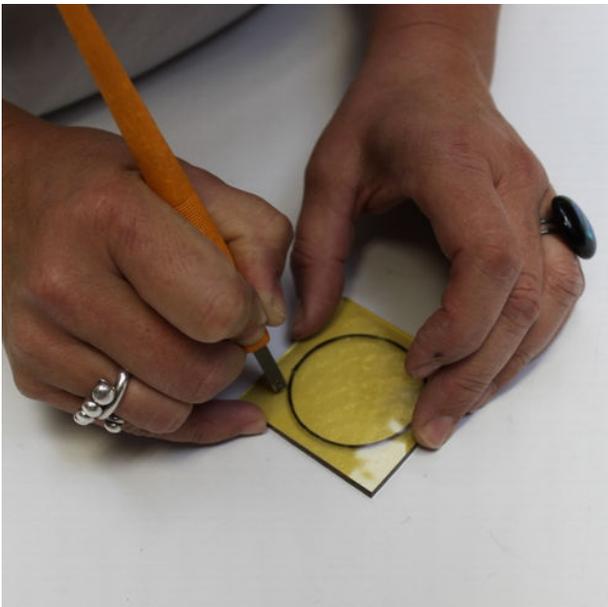
HotPot users very often use circles for their glass works, so let's try this.

Draw a circle on a piece of glass by using a round object as a model. A black marker - not too thick – will do fine when using clear or light coloured glass. In case you use a dark type of glass, a white marker will do better, as you need to be able to see your circle of course.

Start your cutting on the edge of the glass, as the red line of the picture below shows. Keep following the red line until the circle is completed, without removing the cutter. You will have to turn the piece a few times, but hold the cutter fixed on the cutting line while you are doing so. Then make 5 to 6 more lines from the circle to the outer edges of the glass, like in the picture. Then you can break away the pieces from the circle, starting with the piece along your firstly placed cutting line.



*The red Line indicates where you start your first cutting. So start from the edge and stop when the circle is complete. Then cut the other lines from the circle to the edges, to ease the breaking of the glass around the circle. Remove any sharp tips with the grozing pliers.*

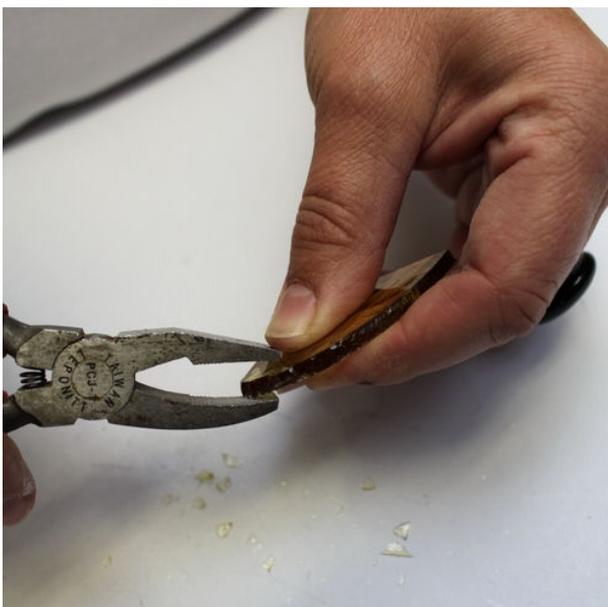




## GROZING

If you take a good look at your small breaking/grozing pliers, you can see that the inner sides of the beak are ribbed. These ribs are for grozing the glass. If you have cut a piece of glass that has sharp or undesired tips, use the pliers to remove these tips, to get the best possible shape for glass fusing. Tips will often occur during the breaking of curved lines, especially with circles. Place the glass against the ribs of the pliers, holding the pliers open, and scrape the glass. This way you can not only remove tips and irregularities, but with some experience you will see that you can actually groze the glass in any shape you want!

For usage of glass in the HotPot it is not always necessary to have perfect shapes. When you fire your glass to a full fuse, all tips and small irregularities will disappear during the melting process. But for the best result and the shortest amount of firing time, it is always good to have your glass pieces as good as possible. For tack fusing you need more perfect perfectly pieces. Improving your cutting, breaking and grozing techniques will lead to better HotPot results!



**ALLWAYS USE YOUR SAFETY GLASS DURING GROZING OF THE GLASS!**