



# SK108 Deluxe Carving Set



## *Owners Manual & Tool Guide*

"Experience starts when you begin."  
- R. D. Culler



**Flexcut**<sup>®</sup>  
CARVING TOOLS

*Thank You  
for Choosing Flexcut Tools*



2

**W**e have put great effort into manufacturing innovative, quality carving tools designed to give you a lifetime of enjoyment. Our reputation for long lasting, razor sharp edges is well known throughout the world. The information contained in this kit is designed to provide you with the basic knowledge and experience needed for safely using our carving tools. We also provide routine maintenance tips. Reading over this material will ensure that the tools perform to their maximum efficiency and that you know how to keep them in top working order. More detailed information can be found at your authorized Flexcut dealer or local library.

---

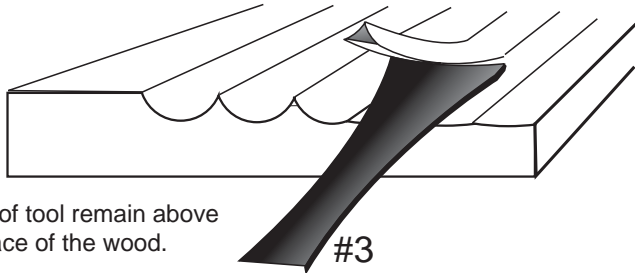
## Tool Use

Each tool profile (shape) is used to create the specific image desired in the material being carved. There are four basic types of shapes: gouges, V-tools, chisels and skewers. These shapes also are referred to as profiles, or sweeps, depending on your region or country. There are other shapes available. However, they are variations of these same tools and are more specialized. Consult the profile sheet on the back of this manual for the full range of available tools.

### Gouges.

Gouges are the round-shaped tools. They are given a number to describe how deep a cut they make (the higher the number, the deeper the cut), and a width dimension to describe the width of the cutting edge. For example, a #3 X 1/2" is a very shallow almost flat cut and is 1/2" wide. A #11 X 1/8" is a deep U-shaped cut and is 1/8" wide. Gouges are used for modeling surfaces or creating different textures. The deeper shapes remove the most material and as a result, leave the roughest texture. The more shallow shapes do not remove much material. However, they leave a smoother surface. Hence, higher numbers are used for roughing out basic shapes quickly and the lower numbers are used to smooth the ridges left from using the deeper tools—that is, if a smooth surface is desired (see fig. 1). A rule of thumb for choosing the width of tool is “the larger the work, the wider the tool.” This will reduce the number of cuts and speed up the carving process. The smaller the tool, the more detail can be carved.

fig. 1



Note: Corners of tool remain above the surface of the wood.



When using any carving tool, it's important to remember that neither of the outside corners of the cutting edge should go so deep as to go below the carving surface. This allows the edge to cut cleanly with less effort and not tear or split. Push the tool through the entire cut. Prying with the tool can damage the edge.

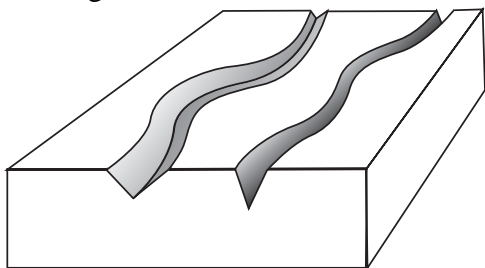
## V-Tools.

V-tools, as their name describes, are the angled, V-shaped tools. Available in different angles and widths, they are used for outlining shapes, lettering, cutting lines or adding textures. They are also referred to as parting tools in that they part one surface

into two. Their sharp corners leave a clean line of demarcation between two adjacent surfaces, much the same as outlining with a pencil. One of the surfaces can then be carved without affecting the other. Smaller angled V-tools ( $60^\circ$  to  $30^\circ$ ) are used for either

undercutting an object or reaching into tight areas. When used for carving lines, the resulting cuts tend to be darker and more visible than those created with larger-angled tools. This is because the cut is deeper in relationship to its width and produces a darker shadow (figs. 2 & 3). The larger angled tools ( $90^\circ$  to  $70^\circ$ ) are good for parting a surface or for lettering where each surface of the V-cut is seen and enhances the appearance of the letter.

fig. 2       $90^\circ$  V       $45^\circ$  V



$45^\circ$  V-tool creates narrow, dark cut

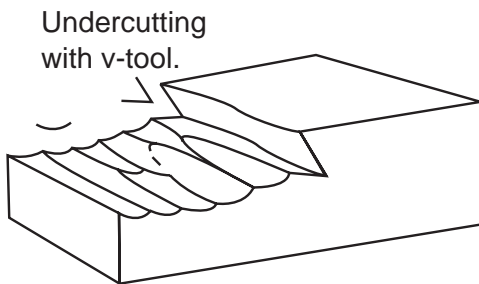


fig. 3



---

## Chisels and Skews.

Chisels, or #1's, are perfectly flat and square-ended. Although mostly seen as a carpenter's tool, they are handy for carving lettering and smoothing off convex surfaces. The latter is true because the corners of the cutting edge do not come into contact with the surface, maintaining as flat a cut as possible (fig. 4). If used on a concave surface, the corners would dig in immediately and tear the grain. Skews or #2's are flat, much the same as a chisel, with the exception of having an angled end instead of being squared. This angle serves two purposes: (1) to give the edge a slicing action in order to reduce the resistance of the cut similar to a guillotine, and (2) to allow the point to reach into narrow spaces or angled corners beyond the scope of a chisel.

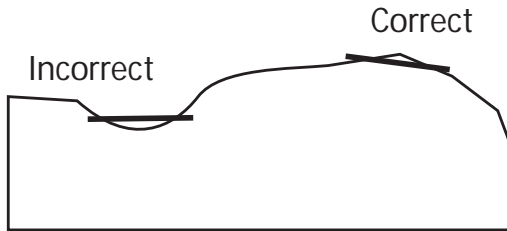


fig. 4

Use chisels or skews for smoothing convex surfaces.



## SAFETY

### Holding the tool.

Flexcut tools are extremely sharp and care must be taken at all times when handling them. To avoid injury the tool should always be held with two hands, both to the rear of the tool's cutting edge, one hand on the handle itself and the other nearer the blade, actually guiding it.

---

## Clamping your work.

Use clamps or some other practical method of securing your workpiece to a stable platform.

If metal clamps are used they should be placed so as to avoid hitting them with the tool's cutting edge while carving. Holding the work in your hand or against your body is unsafe and can lead to severe injury.

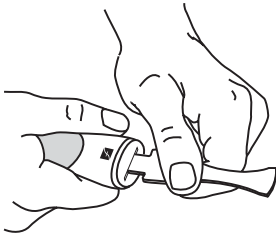
## Inserting and removing blades.

Always keep fingers and hands to the side of the blade (fig. 5) when inserting and removing a tool into and from the handle. Make sure the tool is fully seated into the handle. Never exert undue force on the blade when inserting it into, or removing it from, the handle. Avoid letting chips or other material lodge in the tool slot of the handle adapter. Such material can prevent the blade from fully seating in the handle.

It can also cause the blade to jam in the handle. In either case extra care should be taken to correct the situation.



6



To avoid injury please keep fingers clear of cutting edge when inserting or removing tools.



fig. 5

# MAINTENANCE

## Keeping your tools sharp.

Your Flexcut carving tools are presharpenered at the factory to a highly polished razor's edge. This creates an efficient, long-lasting cutting tool. The more polished the edge, the sharper it is and the longer it will stay sharp. Keeping your tools sharp requires some routine maintenance. This can most easily be done by periodically stropping both sides of the edge (outside and inside) with a Flexcut SlipStrop™ and gold polishing compound. Sharpening stones should not be used for this routine maintenance. They are too coarse and will put scratches in the polish, reducing the sharpness.

The Flexcut SlipStrop™ is designed with the inside profiles moulded into it, so that stropping the inside edge can be done quickly. It can also be flipped over to accommodate the outside of the edge as well (see figs. 6 & 7).

## Stropping the outside edge.

First, using the gold compound like a crayon, apply it to the stropping surface. The tool is then pulled away from the

edge so as to avoid digging into the strop. The bevel of the tool should be placed as flat against the strop as possible. Gouges should be rolled as they are pulled in order to polish the entire edge. Using the moulded coves of the strop can reduce the amount of rolling and strokes needed because more of the edge is in contact with the strop. If the angle of the bevel against the strop is too high, it will round prematurely. If it is too low, the edge will not be properly abraded. (figs. 6 & 8).

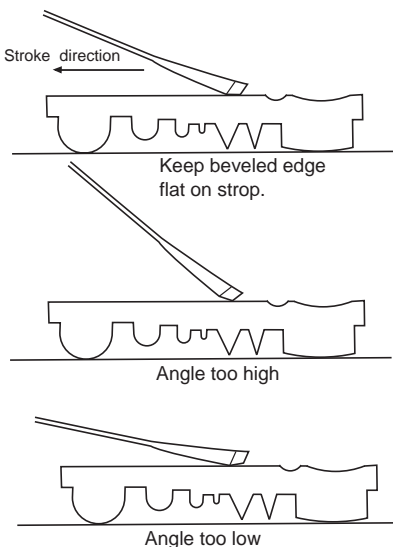


fig. 6

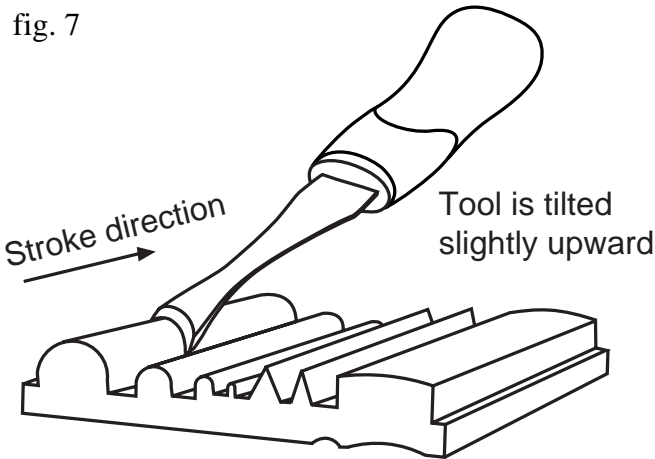


---

## Stropping the inside edge.

Find the strop profile that most closely fits the inside of your gouge or V-tool. The tool should be tilted up slightly as shown in fig. 7 and once again, pulled away from the edge. Tilting the tool while it is stropped creates a slight secondary bevel on the inside of the tool to give the edge more durability and remove any burr. Stropping frequency depends on how hard or abrasive the material is that's being carved. When the tool begins to feel as if it's dragging through a cut, the tool should be stropped a number of times until the sharpness is restored.

fig. 7



Due to the cushioning effect of the wood or leather strop, each time the tool is stropped, the edge becomes slightly rounded. Eventually it will become so rounded that it no longer has an efficient cutting angle. To recognize this, check the angle at which the tool begins to cut in relationship to the surface of the work (fig. 8). When the angle is too high, the force being exerted on the tool is directed improperly. The force should be directed horizontally through the work and not vertically into it. If the angle is too vertical, the tool needs to be reshaped using a sharpening stone or abrasive wheel to flatten the bevel back to its original angle. The edge should always be polished to restore its sharpness and longevity.



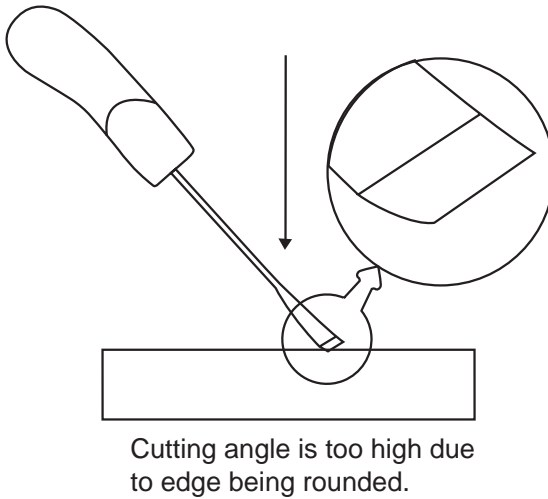
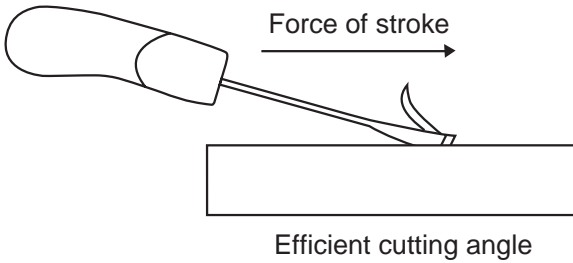


fig. 8



## Tool storage.

Due to the extreme sharpness of the tools they should be stored in their carrying case and out of reach of children when not in use. Care should be taken not to store them in a humid environment (damp basements, greenhouses, etc.). The black oxide finish on the tools is a rust inhibitor but does not rust-proof them. For extra protection, a light coating of oil or paste wax can be wiped on the tool. Moisture desiccant packs placed in the carrying case can also be used.

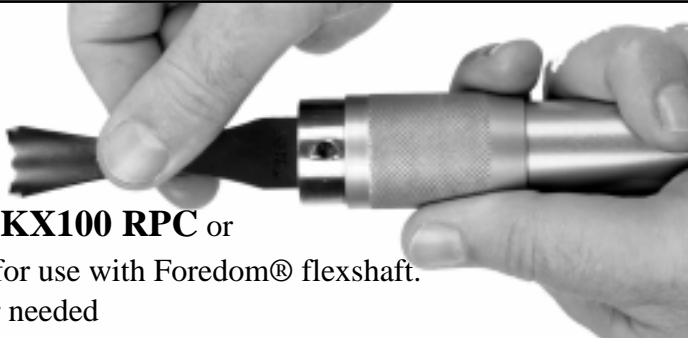
Allowing the edges to come into contact with each other, or other hard surfaces will damage them.

---

# Power Carving

Your Flexcut gouges can also be used with a variety of reciprocating power tools. Power carving can add a new dimension of control to carving as well as eliminating some of the work. Listed are a number of available reciprocating power carvers. Some machines will require the addition of a tool adapter to allow them fit a particular model. For additional information consult your authorized Flexcut dealer.

---



**Flexcut SKX100 RPC** or  
**SKX200** for use with Foredom® flexshaft.  
No Adapter needed

---



10

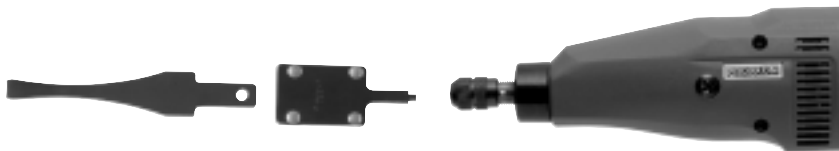


**SK109 Universal Adapter**



**AutoMach HCT30** Portable Power Carver

---



**Proxxon** Portable Power Carver

---



**Wecheer** Reciprocating Handpiece  
for use with flexible shaft machines

---

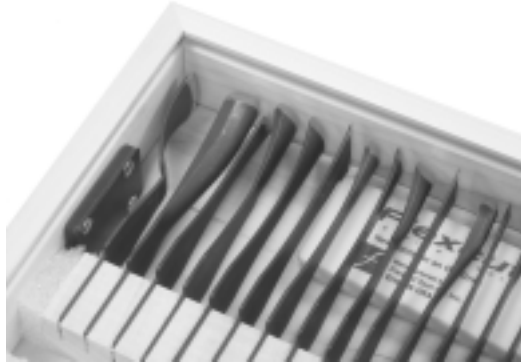
**Bosch®** Portable Power Carver  
Not available in North America



**SK105** Bosch Adapter

---

**A space has  
been reserved in  
your storage box  
for a power carver-  
ing adapter.**



Reciprocating power carvers generate thousands of very short strokes per minute yielding much better control than using a few mallet strokes. It is a great way to remove large amounts of waste wood in a short amount of time. Some machines offer greater power and can accommodate larger tools more efficiently without heating up from working for long periods of time. The size of the work and hardness of the wood will determine how powerful a machine that is needed to push the gouges. Consult with your dealer for the most appropriate machine for your work.

---

The two examples below represent the control that can be achieved with power carving. Figure 9 shows a scrolled V- cut done with a power carver in hard maple using one continuous motion. Figure 10 illustrates the same tool being used with a mallet to cut with multiple strokes through the same maple. Note how each mallet stroke creates a flat spot in the curves. This cut would require additional work to clean up the irregularities.

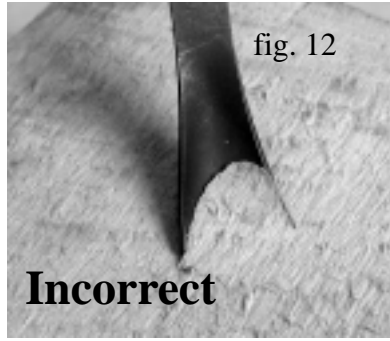
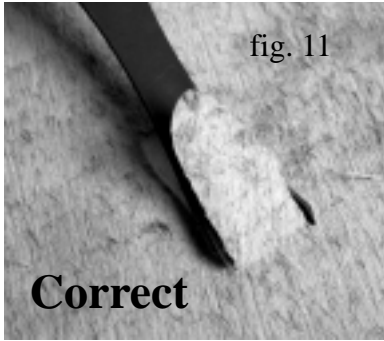


Power carving with smaller gouges in soft woods such as basswood is usually not very helpful. However, in hardwoods, smaller tools can be used with power to great benefit with clean, effortless cuts. This is due to the resistance the wood presents to the gouge. For example: using a #11 X 1/8" gouge in cherry wood (hardwood), power may be very helpful, in basswood the power may be more than you need and using the handle is more appropriate. It is a good idea to practice with the carving tools on scrap wood to see how it performs.

As mentioned before, when using any carving tool, it's important to remember that neither of the outside corners of the cutting edge should go so deep as to go below the carving surface. This allows the edge to cut cleanly with less effort and not

---







tear or split (Fig.11). Pushing the tool too deeply can wedge it into the wood. If the tool becomes buried in this way, it cannot be pulled out with the handpiece (Fig.12). Remember, the handpiece only holds the tool for pushing and not pulling. It will need to be pulled out by hand.










Push the tool through the entire cut. Prying with the tool to finish the cut can damage the edge and void its warranty. **Keep both hands behind the cutting tool, to avoid injury.**



# Tool Reference Guide

		1/4" (6mm)	SK329
		3/8" (9mm)	SK316
<b>#1 Straight Chisels</b>		1/2" (13mm)	SK441
		5/8" (16mm)	SK406
		7/8" (22mm)	SK705
		1-1/8" (28mm)	SK901






<b>#2 Skew Chisels</b>		5/16" (8mm)	SK308
		9/16" (15mm)	SK407

<b>#3 Straight Gouges</b>		1/8" (3mm)	SK600
		1/4" (6mm)	SK323
		3/8" (9mm)	SK305
		1/2" (12mm)	SK443
		5/8" (16mm)	SK400
		7/8" (22mm)	SK700
		1-1/8" (28mm)	SK903




























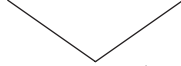









14

<b>#5 Straight Gouges</b>		2.5mm (micro)	SK802
		1/8" (3mm)	SK601
		9/16" (14mm)	SK401
		1-1/16" (28mm)	SK905

<b>#6 Straight Gouges</b>		1/4" (6mm)	SK426
		5/16" (8mm)	SK306
		1/2" (12mm)	SK446
		13/16" (20mm)	SK701
		1" (26mm)	SK906

<b>#8 Straight Gouges</b>		1/4" (6mm)	SK428
		3/8" (10mm)	SK402
		11/16" (17mm)	SK702
		7/8" (22mm)	SK908

<b>Back Bend Gouges</b>		1-1/8" (28mm)	SK954
		7/8" (22mm)	SK754
		5/8" (16mm)	SK453
		9/16" (14mm)	SK455
		7/16" (12mm)	SK458

<b>#9 Straight Gouges</b>		1mm (micro)	SK800
		1.5mm (micro)	SK801
		9/16"(14mm)	SK703
<b>#11 Straight Gouges</b>		1/16"(2mm)	SK602
		1/8"(3mm)	SK309
		3/16"(5mm)	SK409
		1/4"(7mm)	SK408
<b>#11X Thumbnail Grind Gouges</b>		3/16"(5mm)	SK725
		5/16"(8mm)	SK925
		3/8"(10mm)	SK926
		1/2"(12mm)	SK927
<b>30° V-Tool</b>		5/32"(4mm)	SK413
<b>45° V-Tools</b>		1mm (micro)	SK803
		5/32"(4mm)	SK317
		1/4"(6mm)	SK412
<b>60° Soft V-Tool</b>		1/2"(12mm)	SK760
<b>70° V-Tools</b>		1/8"(3mm)	SK603
		1/4"(6mm)	SK307
		3/8"(9mm)	SK403
<b>90° V-Tools</b>		5/8"(15mm)	SK706
<b>110° Lettering V-Tool</b>		1" (25mm)	SK910
<b>Macaroni Tool</b>		7/16"(11mm)	SK735
<b>Skewed Gouges</b>		#3 X 9/16"(14mm) SKR400	Right Hand
		#3 X 9/16"(14mm) SKL400	Left Hand
		#5 X 9/16"(14mm) SKR401	Right Hand
		#5 X 9/16"(14mm) SKL401	Left Hand
<b>Bent Spoon Gouges</b>		45° X 1/8"(3mm)	SK367
		3/8"(9mm)	SK361
		1/8"(3mm)	SK364
		7/16"(11mm)	SK451





16

