

Ultimate Edge Micro Bevel Guide

Achieving the perfect edge

Once an edge tool has been ground on the machine, some users will want to add a micro-bevel rather than using the primary one ground on the machine. Before starting it is best to have finely ground the blade using a final pass on a 400g belt. On close inspection, a small wire edge burr should be apparent on the bevel side of the tool. It is assumed that any flattening of the back of the blade is done before the bevel is ground.



The guide has two bars on to which the honing guide is placed. The guide can be positioned anywhere along the bars for use. The setting of the micro-bevel guide relies upon a 25mm projection from the guide just as it is used on the machine. If the tool is to be touched up, you should project the tool precisely to 25mm and tighten the tool in the guide.

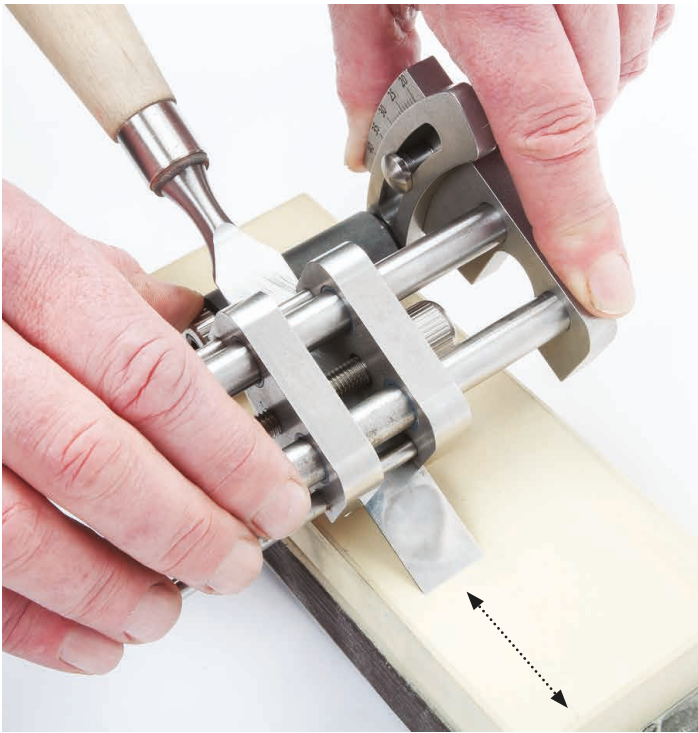
The most common secondary bevel is 30° when the main body of the tool is ground at 25°. The chart below gives you some guidance as to which angle is most suited to which materials.

Bevel edge chisels		
Primary Bevel		Secondary Bevel
20°	Paring	N/A
25°	12mm-50mm	27° - 30°
30°	6mm-10mm	32° - 35°
In general, secondary bevels can be between 2° and 5°		
Mortice chisels		
30°		No secondary bevel needed
Plane blades		
25°		30°

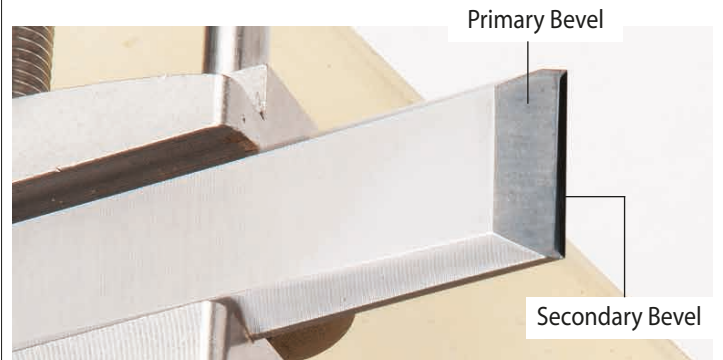
Bevel up blades can be sharpened at different angles dependant on the grain and difficulty of the timber.



Select the given angle and tighten the guide securely placing the guide and the tool on to a suitable abrasive such as a 6000g or 8000g water stone. Make sure the stones have been flattened to ensure no unevenness. With plenty of water on the abrasive, simply pull the guide and tool towards you applying gentle, but even pressure to the blade on the stone.



The final honing is a very precise process and great care should be taken when adding the secondary bevel as the 5° differential in angles is a very small difference. The secondary bevel will work even if it is very small. It doesn't need to be much more than 1.0mm in width for it to achieve the desired effect. Remember, if you want to touch up the tool, this bevel can be elongated a number of times so, always keep the grind down to an absolute minimum.



After a number of passes wipe the blade to assess the progress. A new, very bright line should appear which needs to be even across the length of the blade. If the honed edge appears one-sided simply return the guide and tool to the water stone and draw back again applying more pressure to the side with the least apparent grind. In certain instances, the honing guide may be best placed further away from the main body of the guide. You should apply slightly more pressure to the side least ground. If the water stone is kept clean, the steel removed in the honing process is apparent and is a good indicator of how the grind is going.

As with all tools, this guide will need care and a fair degree of familiarisation before the user is able to get perfect results. You might want to spend time on sharpening some old tools first.

Remember, any edge is a combination of two faces. The tools, no matter how finely ground, will need to have had their reverse side flattened and honed so that it is as equally fine as the bevel edge is ground.

