ADJUSTABLE KERF KNIFE – USE INSTRUTIONS

The knife comes set to cut a straight sided scion with a 6mm kerf (approx.).

The kerf can be widened by adjusting the set fixing screws to increase the gap between the blades and will cut with a slight taper. The knife works well on wood diameters of 6mm to 15mm. Larger or smaller diameters may require manual shaving using the back of either blade. The knife blade gap should be set about 0.5mm wider than the blade used to cut the stump kerf and adjusted accordingly.
The left hand blade is threaded; the right hand is not.

The middle screw set in the cutting blades can be adjusted to close the blades to cut thinner kerfs down to about 4.5 mm if required, without adjusting the handle screws. The middle screw can also be removed if desired. It is advisable to leave the tip screw in place. This will stop the blades closing or spreading when cutting larger scion wood diameters. When the blades are widened, use this adjustment screw (with the spacer) at the tip end to make minor adjustments to the blades. Loosen the nuts and screw. Use a pair of needle nose pliers to set the blade gap by adjusting the threaded spacer against the right hand side blade. Tighten the screw and lock the nuts on both sides of the blades to lock in place. It may take two or three attempts to get the correct adjustment for your blade. Once set for your blade, you should not need to alter the gap unless the scions are a loose fit.

If the blades need to be widened by more than 1mm, adjust the handle screws also, to keep the gap between the blades parallel. The handle screws allow the blades to be widened to about 10mm while still retaining tension. Using the Allen Key or wrench supplied the kerf can be adjusted inward or outward. The spring loaded handles allow the blades to normally operate between 5mm – 10mm (approx.).

When a scion kerf is cut that is too wide to fit the stump kerf, use the blades to shave down the sides to make minor adjustments. This is also useful when thinner kerfs are required than the narrowest setting allows e.g. 3mm or 4mm. The tighter the fit the better the cambium contact will be. This manual shaving technique will often be required on wood diameters of 8mm or less.

1. Cut your scion wood to length with one or two buds allowing about 50mm – 60mm below the bud. Use dense straight grained wood without spirals, as the blades will tend to follow the grain.

2. Place the bottom of the scion wood on to the blades of the knife and push against blades so that the blades hold and anchor the wood centrally.

3. Tap the wood on a firm surface (stump, bench or post) allowing the blades to slice evenly into the wood. Several taps will be required to create the length of kerf desired, (normally 40mm – 60mm). The kerf does not have to be exactly centered, so long as it is solid.

4. Remove the wood from between the blades. Even up any distortion by shaving one or both sides if necessary. The flaps can be removed either with secateurs prior to insertion or with the knife blades prior to or following insertion. Cut scions can be stored for short periods wrapped in damp cloth until used. Discard any scions with soft spongy kerfs.

5. Tap the kerf into the pre-cut slot on the stump using a rubber mallet or similar, taking care to align the cambiums. It is not necessary that all of both sides align, but it is best to ensure good contact at the bottom of the scion if possible and on most of one side.

6. The saw kerf slot should be about 5mm - 10mm longer than the kerf scion, to act as a bleed hole. Cut a taper on the back of the scion if necessary to follow the saw blade cut. Seal and secure in place as normal leaving the bleed hole partly exposed. Cut or drill additional bleed holes only if necessary.

If you encounter any problems setting up the knife for use, please get directly in touch with Ian at Scionon. A short discussion will assist to get you underway.

SHARPENING AND CLEANING

The knife can be disassembled for cleaning and or sharpening. Evenly sharpen the tip edge bevels at a 25° - 30° angle, using a fine diamond file, carbide file or oil stone. Polish on 1200 grit wet/dry paper to remove burrs.