

veritas®

Combination Plane



05P59.01

The Veritas® Combination Plane can be used to tackle fundamental joinery, such as rabbets, tongues and grooves, as well as through-dadoes. It can also be used with beading, reeding and fluting blades, individually or in sequence with others, to create a variety of decorative details.

The combination plane consists of three main parts: a body, a sliding section and a fence. The body includes the blade bed and depth adjustment, and the tote. The body and the sliding section have depth stops with a capacity of $\frac{3}{4}$ ", scoring spurs for cross-grain work, and bevelled skates to permit the use of beading, reeding and fluting blades. The sliding section rides on two rods and supports the outer edge of the blade. The fence also rides on the rods and, being symmetrical, the plane can

be set for right- or left-hand configuration to suit your dominant hand or accommodate grain direction. The fence assembly includes a wooden sub-fence with a micro-adjust knob. Two pairs of rods are included, 5" long and 8" long, letting you make cuts reaching up to 5" from the edge of the workpiece. Large brass knobs make adjustments fast and easy without need for tools, and the large torrefied maple tote offers a solid, comfortable grip. A straight $\frac{1}{4}$ " wide lapped A2 tool steel blade is included, and a selection of other blades is available separately. It will accept the right-hand (and unhandled) blades available with the Veritas Small Plow Plane, as well as the blades used with the Stanley #45 and most of those used with the Stanley #55.

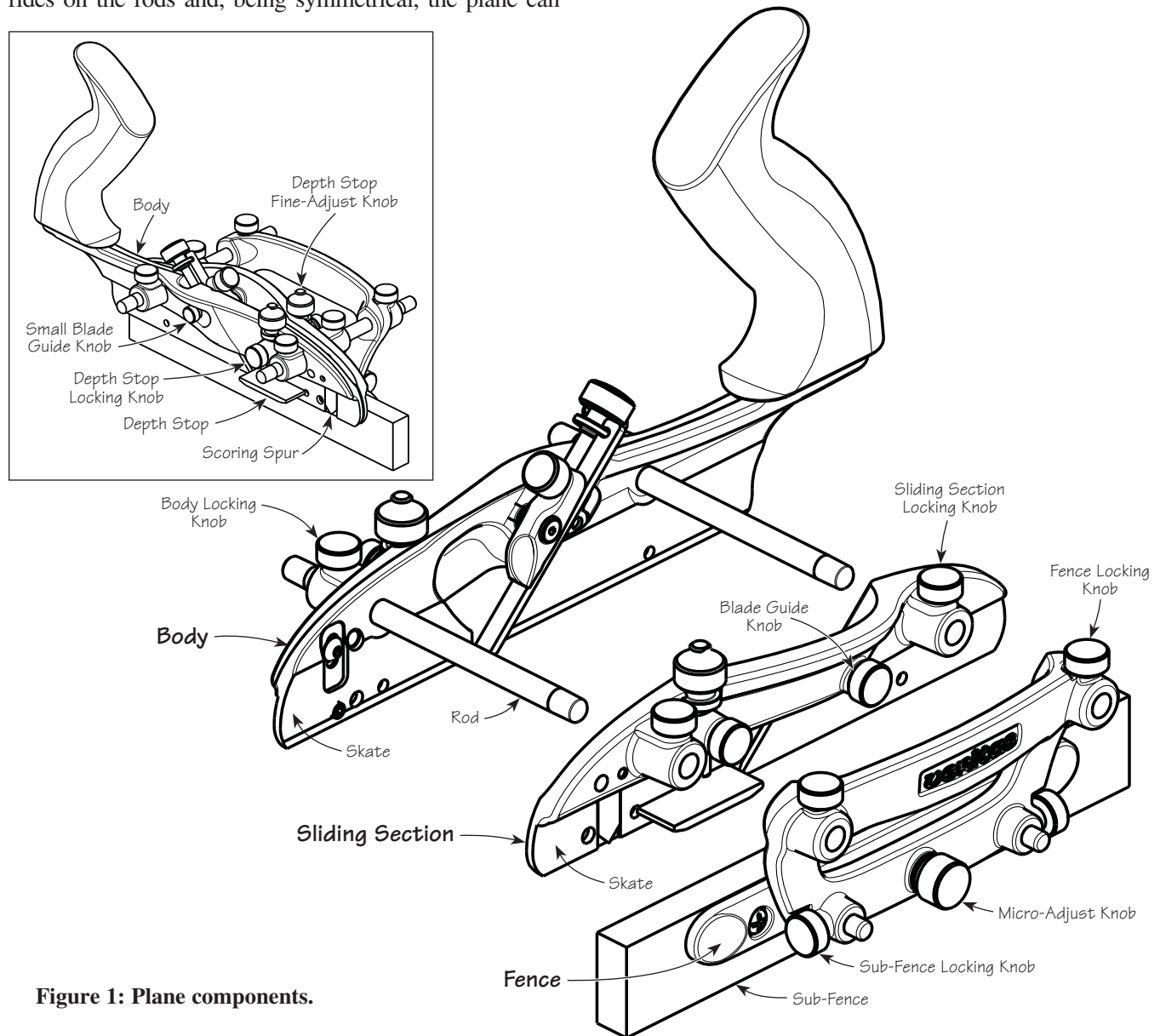


Figure 1: Plane components.

Note: The fence section comes mounted upside down for shipping purposes. In use, it will need to be flipped 180°, as shown in **Figure 1**.

To prevent racking, especially when reinstalling the fence, it is recommended that you stagger the fence rods; slide the fence onto one rod, then the other. Periodically lubricate the fence rods to keep the components sliding freely.

Blade Installation

Caution: Be aware that the blade is sharp; careless handling can result in serious injury.

To install a blade, back off the lever cap knob, and slide the blade (bevel down) into position on the machined bed such that the slot at the top engages the disc on the blade adjustment knob. Hold the blade in position against the side of the blade bed to ensure that the blade is positioned against the machined bed side and properly aligned with the skate. Lightly clamp the blade with the lever cap knob.

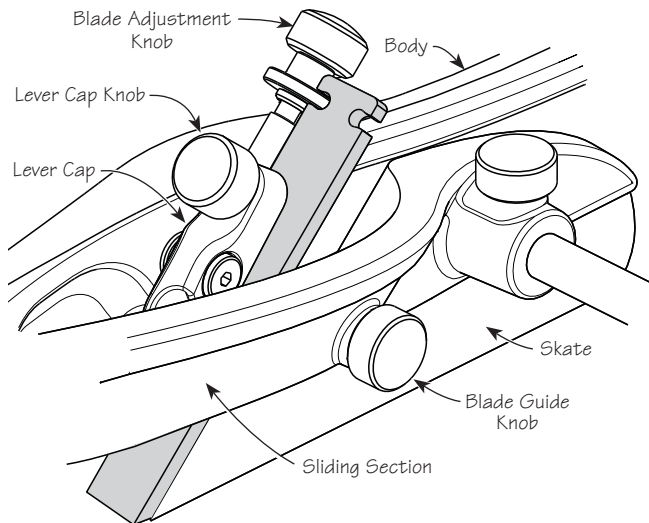


Figure 2: Blade installation.

Note: To accommodate a wide blade, you may first need to move the sliding section away from the body.

Move the sliding section into position below the blade as needed. Turn the blade guide knob in until it just contacts the side of the blade. The exact position of the sliding section relative to the blade can be adjusted with the blade guide knob. For most blades, the outer blade edge should be just proud of the sliding section skate (as is the case with the body), as shown in **Figure 3**. Tighten the locking knobs on the sliding section.

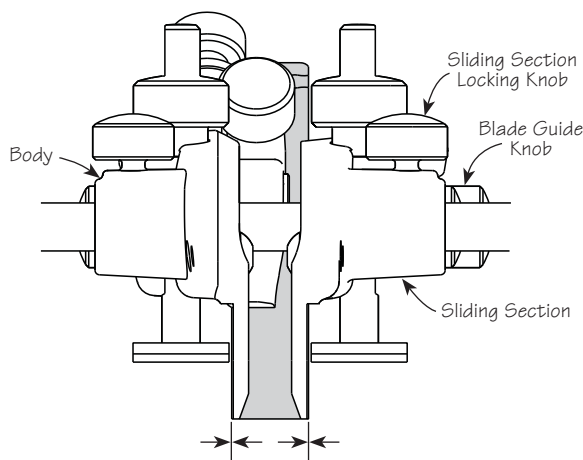


Figure 3: Sliding section position.

When using narrow blades, the sliding section is removed*, essentially converting the combination plane into a small plow plane. In this use, the small blade guide knob (see **Figure 1** inset) is installed in the threaded hole in the machined bed side, as shown in **Figure 4**. The small blade guide knob will not only support a narrow blade, but also ensure that it is properly aligned with the skate.

***Note:** When using narrow blades, the sliding section can be moved off to the side and over the top of the fence, or removed to reduce the weight of the plane.

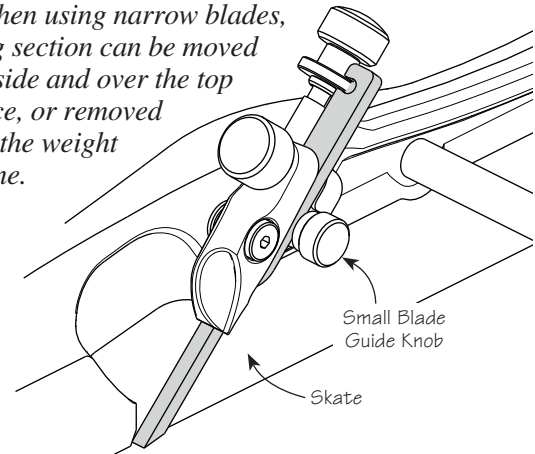


Figure 4: Small blade guide knob installed to support a narrow blade.

Depth of Cut

The depth of cut is the amount of material that is removed with each pass of the plane, typically in the range from 0.005" to 0.020", depending on the hardness of the wood being cut. Flip the plane upside down and sight down the bottom of the skate to see how far the blade is protruding. Adjust accordingly, tighten the lever cap knob, and take a test cut in a scrap piece of wood to confirm the setting.

Setting the Depth Stop

The depth of the groove is determined by the depth stop setting. In the case of the combination plane, there are two depth stops: one on the main body and one on the sliding section. To set either depth stop, loosen the depth stop locking knob, raise or lower the depth stop to the desired position by turning the threaded fine-adjust knob, and retighten the locking knob.

When cutting a groove, continue making passes with the plane until the depth stop contacts the workpiece and the blade is no longer cutting material.

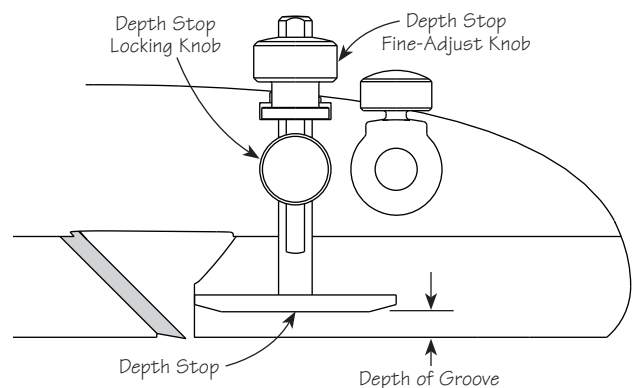


Figure 5: Depth of cut.

Setting the Fence

The position of the cut (i.e., the distance from the edge of the workpiece to the groove, flute, etc.) is determined by the fence setting. Loosen the two fence locking knobs and slide the fence on the rods until the distance from the face of the sub-fence to the outside edge of the blade is equal to the required setting. Retighten the fence locking knobs.

To fine-tune the position of the fence, loosen the two sub-fence knobs and adjust the fence in or out as required with the micro-adjust knob. Retighten the sub-fence knobs.

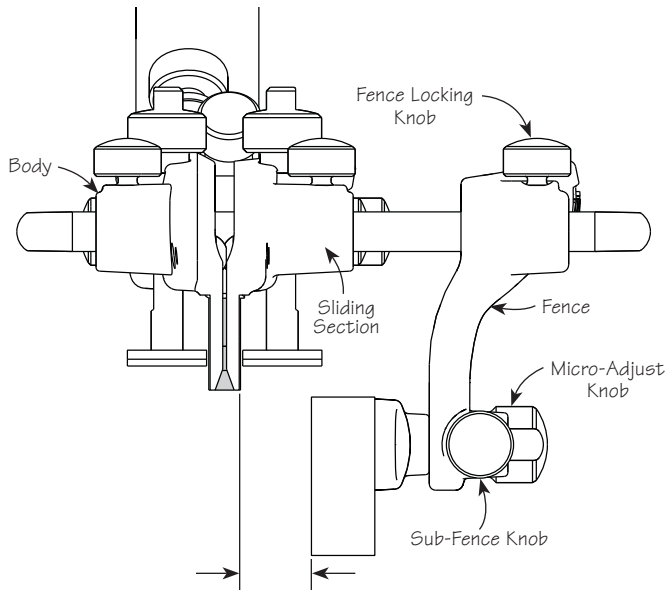


Figure 6: Setting the fence.

Setting the Scoring Spurs

The scoring spurs enable cross-grain work by severing the fibers ahead of the blade, preventing tear-out. There are two screws that adjust the scoring spur, as shown in **Figure 7**. The spur retention screw locks the spur into position and the spur adjustment screw sets how far the spur protrudes from the face of the skates.

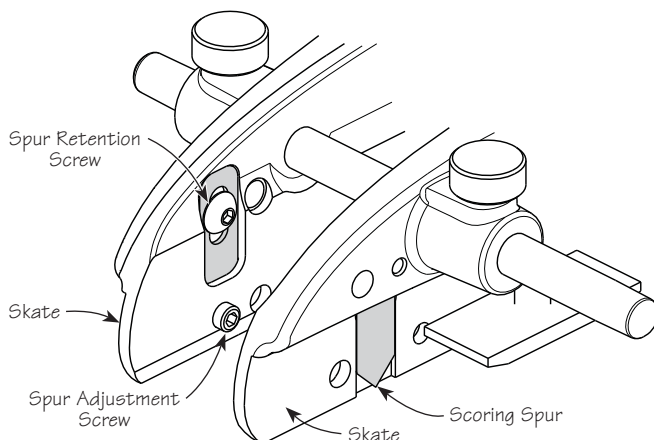


Figure 7: Scoring spurs.

To deploy the scoring spur(s), loosen the spur retention screw and lower the spur slightly below the skate (to a maximum of $1/32$ ") and then tighten the retention screw to lock the spur's position. Adjust the amount of protrusion of the spur to match that of the blade. Turn the spur adjustment screw clockwise for more protrusion and counterclockwise to retract the spur.

All adjustments can be made through holes in the skates while the plane is fully assembled.

Retract the scoring spurs to their neutral position when not required.

Cutting Grooves

For cutting small grooves ($1/8$ " or $3/16$ "), remove the sliding section (and use the small blade guide knob to support the blade). For blades larger than $3/16$ " , use the sliding section to support the outer edge of the blade, as shown in **Figure 8**.

1. Install the grooving blade in the plane and set the depth of cut (determined by the blade projection past the bottom edge of the skate).
2. Position the fence to locate the groove at the desired distance from the edge of the workpiece.
3. Set the depth stop(s) to establish the resulting depth of the groove below the surface of the workpiece.

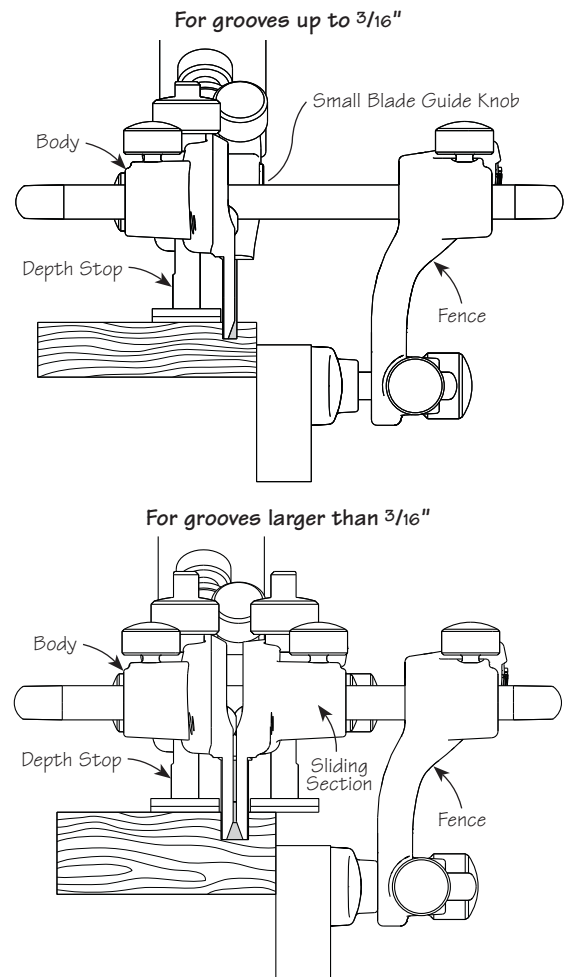


Figure 8: Cutting grooves.

Cutting Tongues

For cutting tongues, use the sliding section to support the outer edge of the blade, as shown in **Figure 9**.

1. Set the tongue height by adjusting the position of the depth stop on the tongue-cutting blade. Retract the depth stops on the body and the sliding section.
2. Install the tongue blade in the plane and set the depth of cut.
3. Position the fence to locate the tongue at the desired distance from the edge of the board.

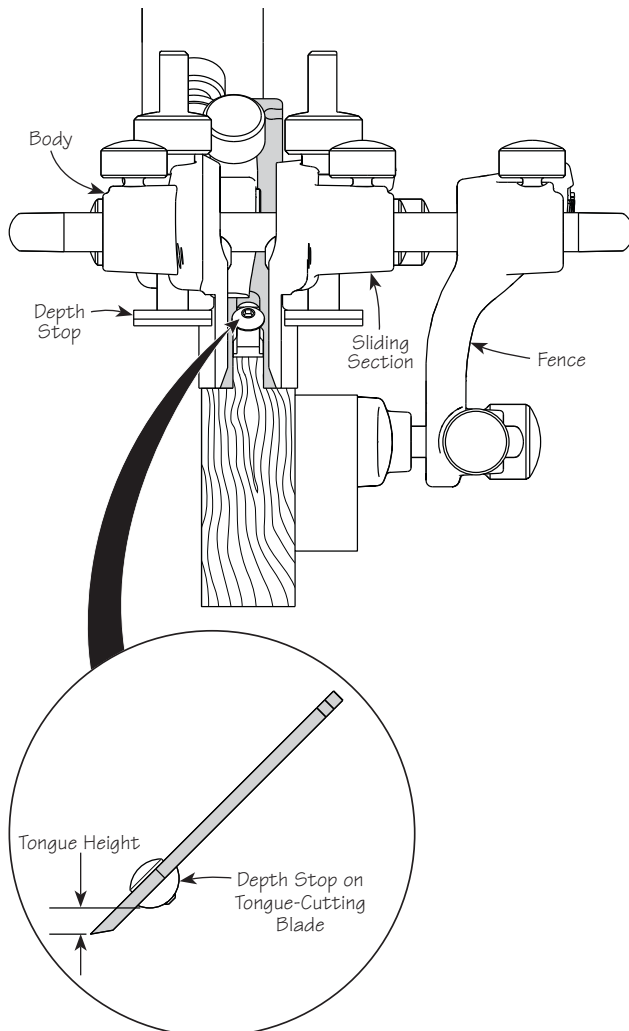


Figure 9: Cutting tongues.

Cutting Beads

For cutting small beads ($1/8''$ to $1/4''$), remove the sliding section (and use the small blade guide knob to support the blade). For larger beads ($5/16''$ to $1/2''$), use the sliding section to support the outer edge of the blade, as shown in **Figure 10**.

Note: A $1/16''$ quirk is cut on either side of each bead.

1. Install the beading blade in the plane as you would a standard blade and set the depth of cut (determined by the blade projection past the bottom edge of the skate).
2. Position the fence to locate the bead where desired on the workpiece. For an edge bead where you do not want the $1/16''$ quirk, position the fence tangent to the bead.
3. Set the depth stop on the body such that the top of the resulting bead is just below the surface of the workpiece.

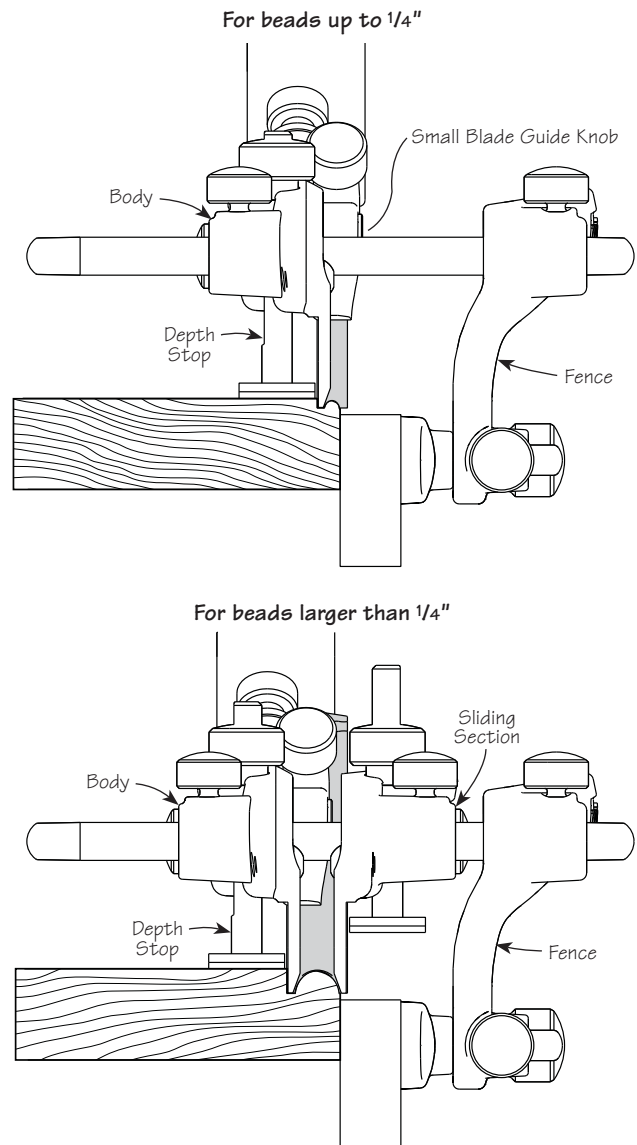


Figure 10: Cutting beads.

Cutting Rabbets

For cutting rabbets, use the the sliding section to both support the blade and to keep the cut parallel, as shown in **Figure 11**.

1. Install the rabbeting blade in the plane and set the depth of cut (determined by the blade projection past the bottom edge of the skate).
2. Bring the sliding section in under the blade such that it will run on the workpiece.
3. Position the fence to establish the width of the rabbet from the edge of the workpiece.
4. Set the depth stop on the body to determine the resulting depth of the rabbet below the surface of the workpiece.

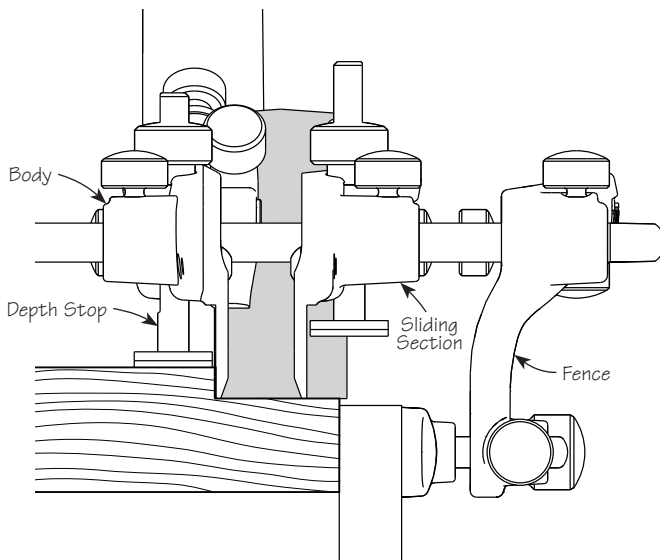


Figure 11: Cutting rabbets.

Cutting Flutes

For cutting flutes, remove the sliding section (and use the small blade guide knob to support the blade). The fluting blade is offset and will be centered on the body skate.

1. Install the fluting blade in the plane and set the depth of cut (determined by the blade projection past the bottom edge of the skate).
2. Position the fence to locate the flute at the desired distance from the edge of the workpiece.
3. Set the depth stop on the body to establish the resulting depth of the flute below the surface of the workpiece, as shown in **Figure 12**.

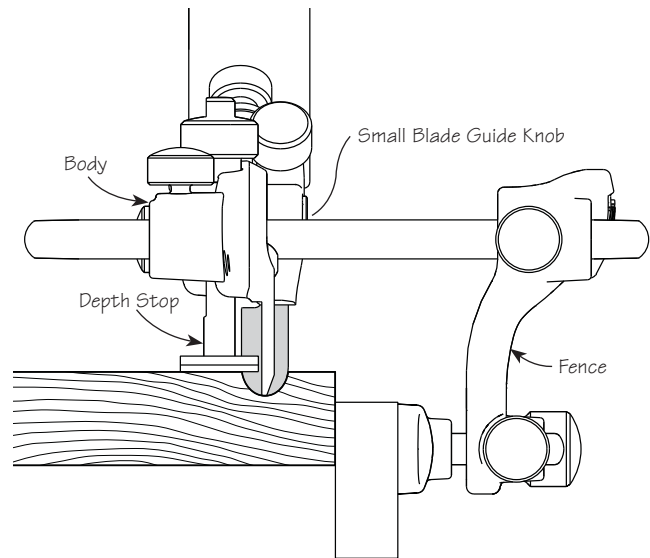


Figure 12: Cutting flutes.

Cutting Reeds

For cutting reeds, the sliding section is required to limit the depth of cut and prevent the outer edge of the blade from diving into the workpiece.

Note: A $\frac{1}{16}$ " quirk is cut on either side of each reed.

1. Install the reeding blade in the plane as you would a standard blade and set the depth of cut (determined by the blade projection past the bottom edge of the skate).
2. Bring the sliding section in under the blade and position it such that the bottom edge of the skate is aligned behind the blade inside the outer reed, as shown in **Figure 13**.
3. Position the fence to locate the reeds where desired on the workpiece. For reeds that start on the edge (where you do not want the $\frac{1}{16}$ " quirk), position the fence tangent to the outer reed.
4. Set the depth stop on the body such that the tops of the resulting reeds are just below the surface of the workpiece.

Cutting Dadoes

For cutting dadoes, the fence is not required; however, a shop-made batten secured to the workpiece with double-sided tape or a tool guide will be required to guide the plane.

1. Install the desired grooving blade in the plane and set the depth of cut (determined by the blade projection past the bottom edge of the skate).
2. Set the depth stop on the sliding section (opposite the batten) to establish the resulting depth of the dado below the surface of the workpiece, as shown in **Figure 14**.
3. Deploy both scoring spurs.

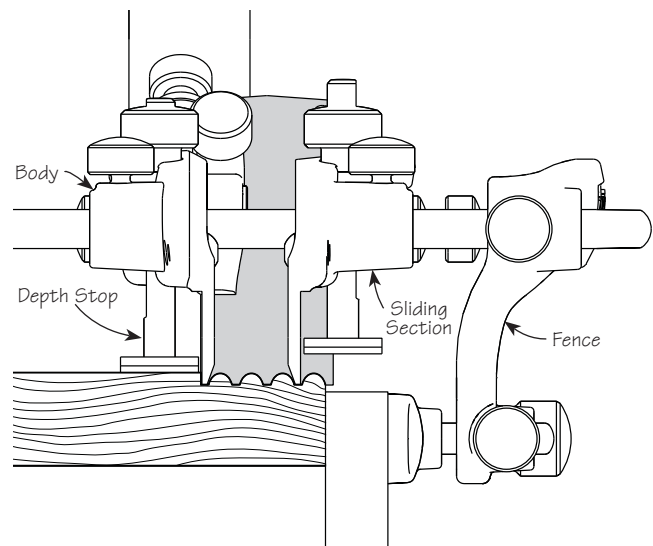


Figure 13: Cutting reeds.

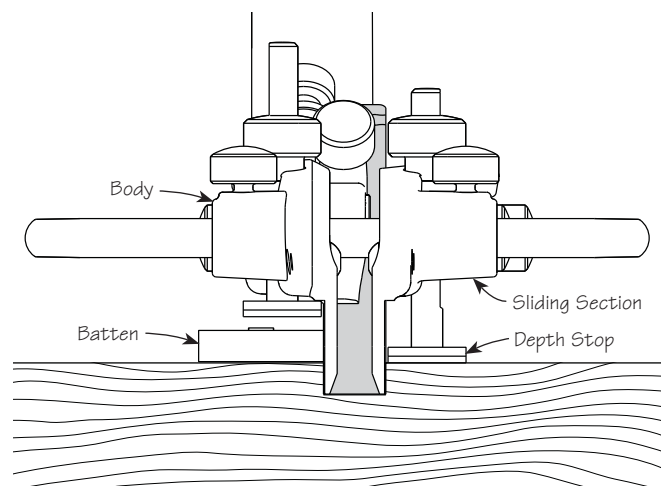


Figure 14: Cutting dadoes.

Blade Sharpening

The blades used with the combination plane come with the face lapped and are ground with a 35° bevel. Since the blade is installed bevel down, the cutting angle is determined by the bed angle; in this case, 45° . Additional sharpening need only involve honing a small micro-bevel.

The standard grooving blades and the tongue-cutting blades are made of A2 tool steel. The rabbeting, beading, reeding and fluting blades are made from PM-V11® tool steel. The spear-point scoring spurs are made of spring steel and can be honed many times before replacement.

When sharpening, a light touch is required to avoid altering the blade profile. The straight cutting edges of the blades can be honed as you would any straight blade. The bead, reed and flute profiles may be honed with small slip stones or with slips made with micro-abrasive sheet wrapped around dowels.

Care and Maintenance

The combination plane body, sliding section and skates are ductile cast iron and come treated with rust preventative. Remove this using a rag dampened with mineral spirits. Clean all machined surfaces.

We recommend that you initially, then periodically, apply a light coat of silicone-free paste wax to seal out moisture and prevent rusting. (Also lubricate the fence rods to keep the components sliding freely.) Wipe off any wood dust from the surfaces that you will be waxing, apply a light wax coating, let dry, then buff with a clean soft cloth. At the same time, the solvents in the wax will remove any harmful oils left from your fingers that can lead to corrosion.

If storage conditions are damp or humid, the plane should, in addition to the treatment outlined above, be wrapped in a cloth or stored in a plane sack. This precaution will also guard against dings and scratches.

Accessories

- 05P59.02 Replacement Scoring Spurs, pkg. of 2
- 05P59.04 Box for Combination Plane
- 05P59.03 Blade Box

Standard Grooving Blades, RH, Imperial, A2

- 05P51.02 1/8" Std. Blade*
- 05P51.03 3/16" Std. Blade*
- 05P51.04 1/4" Std. Blade*
- 05P51.05 5/16" Std. Blade*
- 05P51.06 3/8" Std. Blade *
- 05P51.10 Set of 4 Imperial Blades*

Standard Wide Grooving Blades, RH, Imperial, A2

- 05P51.77 7/16" Wide Blade
- 05P51.78 1/2" Wide Blade
- 05P51.79 9/16" Wide Blade
- 05P51.80 5/8" Wide Blade
- 05P51.81 11/16" Wide Blade
- 05P51.82 3/4" Wide Blade
- 05P51.90 Set of 6 Imperial Blades

Standard Grooving Blades, RH, Metric, A2

- 05P51.34 4mm Std. Blade
- 05P51.35 5mm Std. Blade
- 05P51.36 6mm Std. Blade
- 05P51.37 7mm Std. Blade
- 05P51.38 8mm Std. Blade
- 05P51.40 10mm Std. Blade
- 05P51.50 Set of 6 Metric Blades

Standard Wide Grooving Blades, Metric, A2

- 05P51.42 12mm Wide Blade
- 05P51.46 16mm Wide Blade
- 05P51.48 18mm Wide Blade
- 05P51.70 Set of 3 Metric Blades
- 05P51.87 1 1/16" Rabbeting Blade, PM-V11®

Tongue-Cutting Blades, Imperial, A2

- 05P51.62 1/8" Tongue-Cutting Blade
- 05P51.63 3/16" Tongue-Cutting Blade
- 05P51.64 1/4" Tongue-Cutting Blade
- 05P51.95 Set of 3 Imperial Blades

Tongue-Cutting Blades, Metric, A2

- 05P51.65 4mm Tongue-Cutting Blade
- 05P51.66 5mm Tongue-Cutting Blade
- 05P51.67 6mm Tongue-Cutting Blade
- 05P51.96 Set of 3 Metric Blades

Fluting Blades, Imperial, PM-V11®

- 05P59.13 3/16" Fluting Blade
- 05P59.14 1/4" Fluting Blade
- 05P59.16 3/8" Fluting Blade
- 05P59.18 1/2" Fluting Blade
- 05P59.25 Set of 4 Fluting Blades

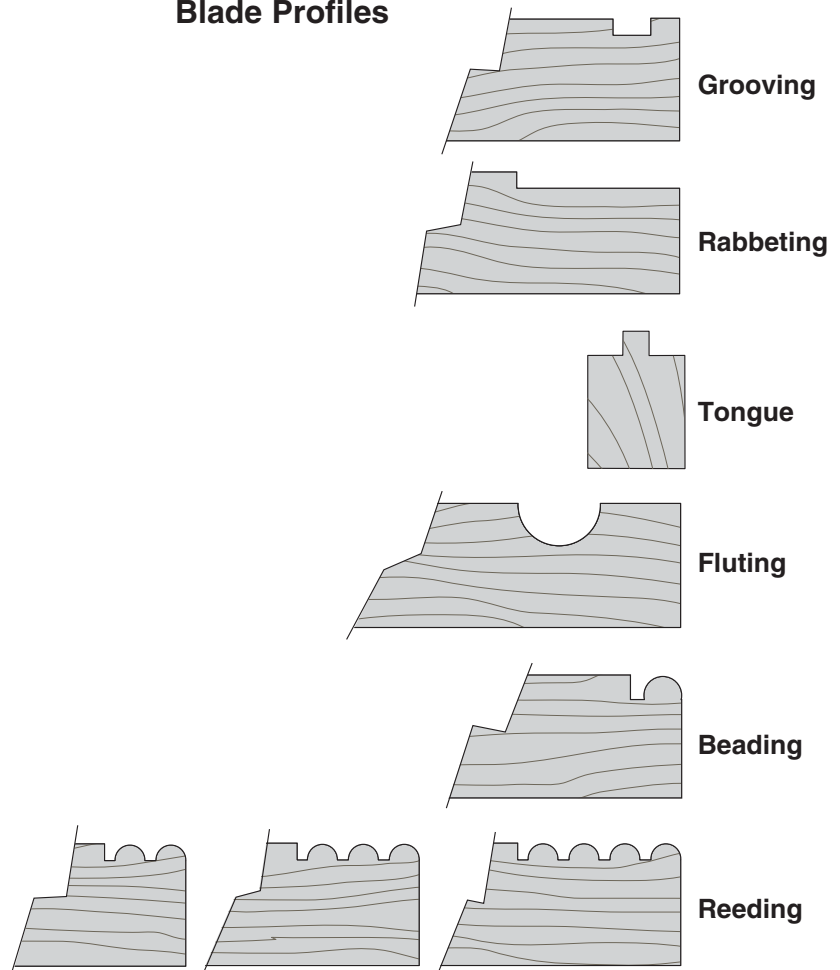
Beading Blades, Imperial, PM-V11®

- 05P52.72 1/8" Sm. Beading Blade
- 05P52.73 3/16" Sm. Beading Blade
- 05P52.74 1/4" Sm. Beading Blade
- 05P52.75 Set of 3 Sm. Beading Blades
- 05P52.80 5/16" Lg. Beading Blade
- 05P52.81 3/8" Lg. Beading Blade
- 05P52.82 7/16" Lg. Beading Blade
- 05P52.83 1/2" Lg. Beading Blade
- 05P52.87 Set of 4 Lg. Beading Blades

Reeding Blades, Imperial, PM-V11®

- 05P52.90 1/8" Two-Reed Blade
- 05P52.91 1/8" Three-Reed Blade
- 05P52.92 1/8" Four-Reed Blade
- 05P52.93 3/16" Two-Reed Blade
- 05P52.94 3/16" Three-Reed Blade
- 05P52.95 3/16" Four-Reed Blade
- 05P52.96 1/4" Two-Reed Blade
- 05P52.97 1/4" Three-Reed Blade

Blade Profiles



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