

Glass Master Grooving Machine Cutting Blade Adjustment Instructions

CAUTION: *The cutting blades are extremely sharp. Personal protective equipment is recommended when handling, installing and adjusting the blades.*

Cutting blade adjustment is necessary prior to use to accommodate variations in board thickness. These steps are required for new tool holders equipped with blades and when replacing worn or damaged blades on an existing tool holder. Set the blades according to the following techniques:

1. The “A” tool is used to remove all fiberglass material from the foil surface and create a staple flap on the left-hand edge of the duct section. This flap will be used in conjunction with an approved UL181A-P or UL181A-H duct board tape to ensure proper closure of the duct section (see the N.A.I.M.A. manual or duct board manufacturer’s installation instructions for more information). Using the two screws located on the blade-mounting skid, adjust the blade on tool holder “A” so that *light* contact is made against the top surface of the bottom drive roller. Groove a minimum 12” wide piece of scrap material at least 24” long to test the setting of this blade. When the blade is properly adjusted, a staple flap will be produced with very little (if any) fiberglass remaining on the foil scrim surface. If the “A” blade is adjusted too far upward, fiberglass material will be left on the staple flap making the taping process very difficult. If the “A” blade is adjusted too far downward, the foil flap will either be cut or torn as the duct board passes through the machine, and the added pressure on the blade may cause breakage.
2. Tools “B”, “C”, and “D” are used to make “modified shiplap” cuts in order to form the three “non-taped” corners of the duct section. All three tools are comprised of a two-blade set. Locate the first blade in each set – the one that has only one bend. Adjust this blade so that it rests *lightly* on the top surface of the bottom drive roller. The second blade in the set has three bends. Adjust this blade until the tip is even with or slightly lower than the tip of the first blade. Groove a piece of scrap material to test the new blade settings. When properly adjusted, the first blade should cut straight down to, but not through the foil surface. The horizontal portion of the second blade should cut exactly halfway through the thickness of the duct board - matching the depth of the female factory shiplap.
3. Tool “E” is used to make the final female shiplap cut along the right-hand edge of the duct section. This is the easiest blade combination to adjust because the “L” shaped blade must simply cut to a depth of $\frac{1}{2}$ the thickness of the duct board while the “straight cutoff” blade must cut all the way through the fiberglass and aluminum foil scrim. Groove a piece of scrap material to test these settings, and adjust the “L”

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shaped blade upward or downward as required to match the depth of the female factory shiplap.

4. The final test to confirm correct blade and tool settings is to set the tools for a known duct size and groove a trial duct section. Inspect all grooves and panel dimensions to determine which blades are set correctly and which need further adjustment (see the N.A.I.M.A. manual for more information).

For Assistance please call 800-237-7841