

container with sloping sides, and a picture frame with sides that slope toward or away from the wall.

Of all table saw operations, compound angle cuts are probably the hardest to do, not because of how they relate to sawing, but because the accuracy of the cut is so critical. Work slowly; be sure of each setting before you cut into good stock. Here is a good procedure to follow: Adjust the miter gauge to the angle you need and make a test cut with the table set at "0". Check to see if the cut is correct. Tilt the table to the angle required and make a test bevel cut. Check to see if that cut is correct.

Compound cutting sometimes requires alternating the miter gauge in the table slots, which means the miter gauge setting must be changed each time. Check each setting carefully before making the pass. Some woodworkers have an extra miter gauge on hand for just such times.

Take a stance that keeps you out of the line of cut and make a test pass without the workpiece and with the power off, so you can preview the best way to handle the operation.

Here is a typical procedure, based on a four-sided frame and using the popular 60° work angle, which may be followed when doing compound angle work. Note: The work angle is the angle measured between your line of sight and the flat face of the frame. First decide the overall size of the frame and from this determine the lengths of the four pieces required. Cut and square these pieces to exact length as if it were a simple frame.

By referring to Table 3-1, you will discover that the 60° work angle requires a table tilt of 20-3/4° and a miter gauge setting of 49°. Set the miter gauge and the table exactly at these settings. If you are off even a fraction of a degree, you won't get a good joint. To gauge the amount of cutoff, you can clamp a stop block to the table or use a miter gauge stop rod so the work can be positioned correctly before making contact

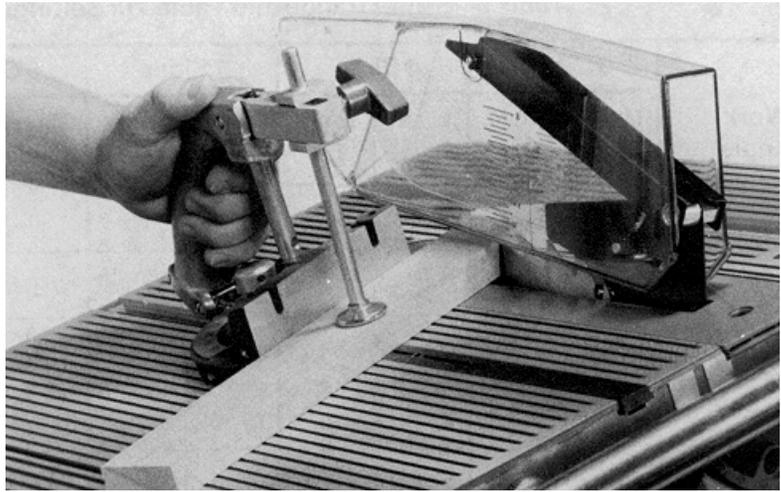


Figure 3-16. Hold the work firmly throughout the pass; cut slowly.

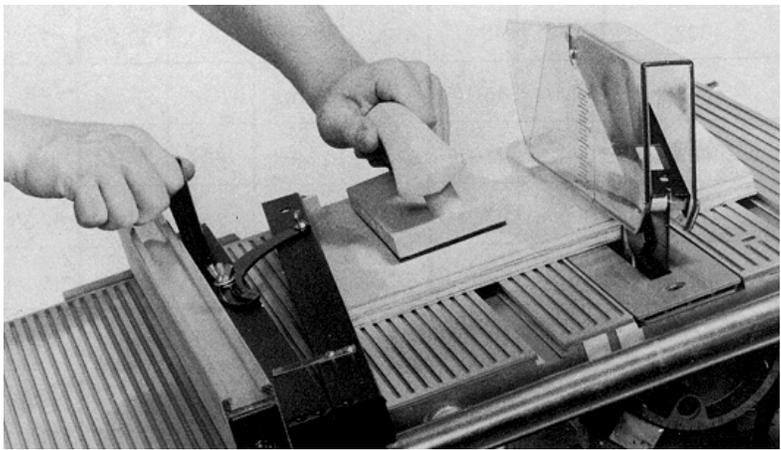


Figure 3-17. Compound bevel cuts are done with the taper guide at one setting and the table tilt at another.

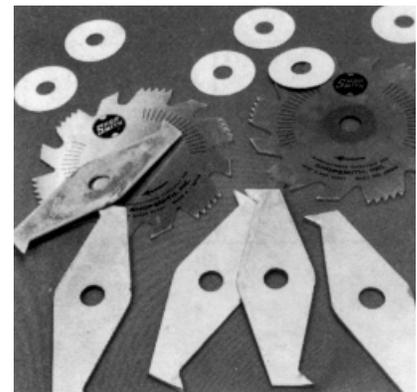


Figure 3-18. The dado accessory consists of two outside blades and an assortment of chippers. The paper washers are for slight adjustments to compensate for variations in material thicknesses.

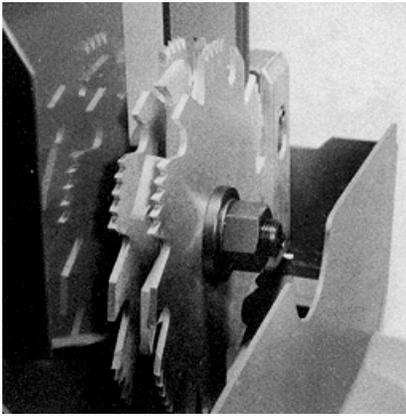


Figure 3-19. The dado accessory mounts on the 5/8" molder/dado arbor which is then locked to the MARK V's main spindle.

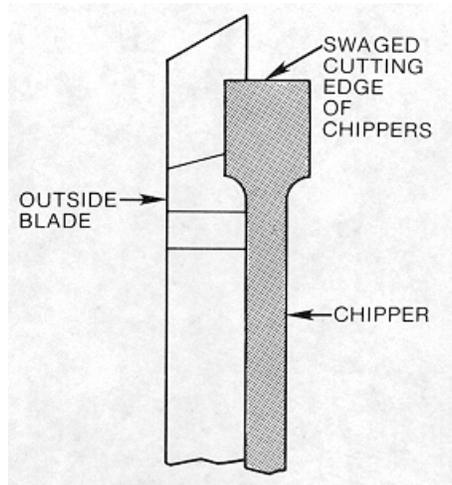


Figure 3-20. Chippers are always used between outside blades. Situate the chippers so the swaged cutting edges are in the gullets of the outside blades.

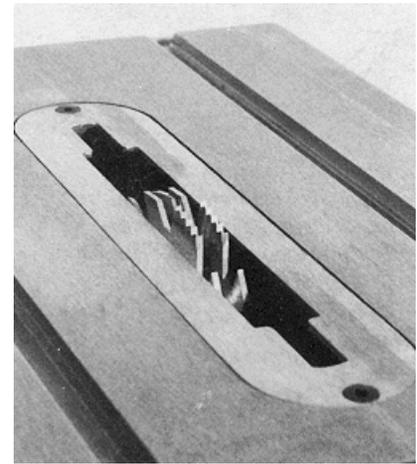


Figure 3-21. Use the special dado table insert with the dado accessory. The Model 500 insert is shown.

with the blade. Hold the workpiece very firmly by using the miter gauge safety grip and make the pass very slowly (Figure 3-16). The four parts should fit together snugly, while forming a perfect right angle at each corner.

This method does involve wasting some wood, but attempting to cut each part of the frame consecutively from one long board or calculating the exact length is extremely difficult. Cutting the four pieces to exact length beforehand, as suggested, pays off in accuracy and convenience.

Work with the taper guide when you need to cut a compound angle on a wide piece of stock (Figure 3-17). In effect, the taper guide is a substitute for the miter gauge. The difference between this operation and normal taper cuts is that, here, you work with the table at a tilt angle.

DADO ACCESSORY JOINERY

In joinery and some other special applications, it is often necessary to make a cut considerably wider than the saw kerf. For this type of work, a dado accessory is usually used.

A dado accessory (Figure 3-18) consists of two outside blades, four 1/8" and one 1/16" chippers that are used between the blades. Width of cut, which can range from 1/8" to 13/16", is controlled by the number of components that you mount. A single outside blade will cut a 1/8" kerf; if you mount the two blades, the cut will increase to 1/4". You must add chippers to go beyond 1/4". For example, for a 1/2" cut, use both outside blades and two 1/8" chippers. To increase the kerf to 9/16" wide, add the 1/16" chipper. Since there can be some minute variation in nominal wood and even plywood thicknesses, paper washers are supplied for mounting on the arbor between the components; thus you can make slight adjustments in width of cut.

The dado accessory is mounted on a 5/8" molder/dado arbor which locks on the Mark V's main spindle (Figure 3-19). **Warning: Be sure the tongue washer is used under the hex nut and the threaded shaft of the arbor is flush or extends past the end of the hex nut. Never use chippers alone or**

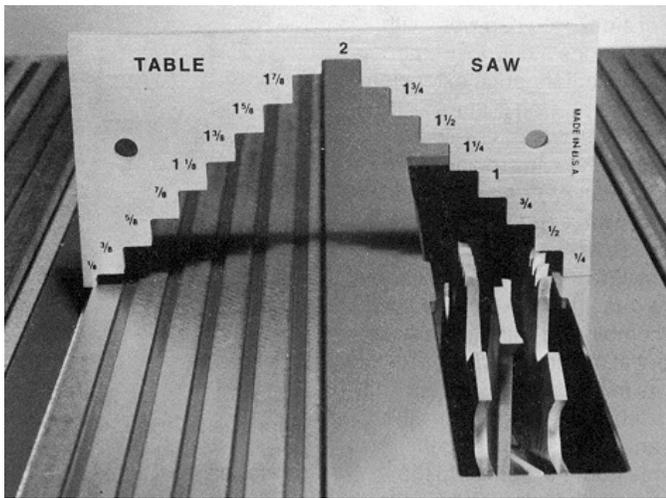


Figure 3-22. The projection of the dado accessory can be set by using a step gauge.

mount chippers with only one outside blade, because a kick-back hazard is created. Arrange chippers so they are evenly distributed and so their swaged cutting edges align in the gullets of the outside blades (Figure 3-20).

Because the dado accessory makes extra-wide cuts, you must use a special table insert that accommodates it (Figure 3-21). **Warning: Be sure that the dado accessory has clearance in the slot. Rotate it by hand, using the auxiliary spindle, before turning on the power.**

The projection of the dado accessory is always less than the thickness of the stock. You can set projection by using a measuring scale or a step gauge (Figure 3-22).

You work with a dado accessory in much the same way as you do a saw blade, but since the tool will be removing much more material, the pass should be made very slowly to give the blades a chance to work without clogging. Form extra-deep cuts by making more than one pass. For example, if you need a cut that is 1-1/4" deep, make one pass with the cutter's projection at about 5/8". Make a second pass after adjusting the saw table for the full 1-1/4" deep cut. This procedure is especially applicable if you are working with a hardwood like oak or maple. **Warning: The dado accessory is used without the upper saw guard in place. Whenever you remove the upper guard, keep the lower guard in place and make sure the lock knob is secured. Use a push stick, push blocks and safety devices. Work with extreme caution.**

Guard Spacer (Mark V with Metal Lower Saw Guard Only)- Because the dado accessory can be used for extra-wide cuts, you must place a spacer (offered free through Customer Service) between the two halves of the lower saw guard. If you want to make a spacer, remove the cover from the guard and trace its contour on a piece of 1-1/4" stock that measures 3-1/2" wide by 10" long. Mark the location of the bolt holes and then draw another line parallel to the first one but about 1/4" smaller. Cut the stock on

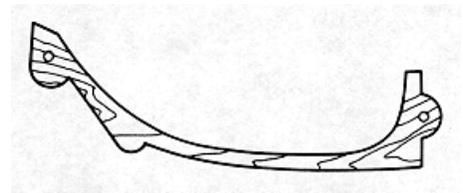


Figure 3-23. Because the dado accessory is designed for wide cuts, the metal lower saw guard must be modified by using a spacer between the main part of the guard and its cover.

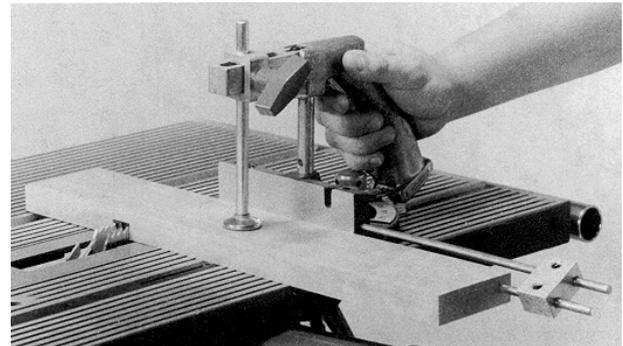


Figure 3-24. A dado is a U-shaped cut made across the grain. Use the miter gauge stop rod when you need the same cut on more than one piece.