veritas®

Double T-Slot Track
Undercut Slotting Router Bit

Double T-slot tracks can be used for any jig-making application, particularly where it is not possible to secure the track with screws or glue. The wings on the double T-slot track provide a mechanical connection between the track and the substrate, eliminating the need for screws or glue. This feature also allows double T-slot tracks to be used to create sliding connections.

Double T-slot track can be used to create several different types of connections. Installing the track flush with the table or jig creates an uninterrupted surface that is ideal for applications where a workpiece can slide over the track. Recessing the track is perfect for clamping as the track pulls the two elements of the jig together. Raising the track would be done if a sliding joint is desired.

Installing Double T-Slot Track

To install the double T-slot track, you must first cut a 3/4″ wide by 3/8″ deep* dado, then use the undercut slotting bit to modify the dado to accept the double T-slot tracks. The undercut slotting bit is suitable for stock 1/2″ thick or greater, and can be used with a hand-held router or in a router table.

The initial dado can be done using either a router bit or a dado set in a table saw. Once the dado has been cut, test the fit with an inverted length of track, as shown in **Figure 1**.

***Note:** As the undercut locates the track, the dado can be deeper than 3/8".*

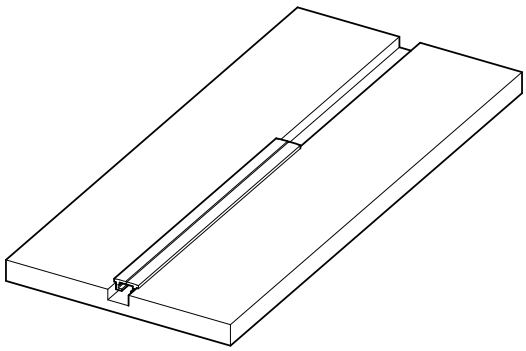

Figure 1: Testing the fit of the dado.

Install the undercut slotting router bit in your router and set the space between the router base plate and the cutter to the required depth.

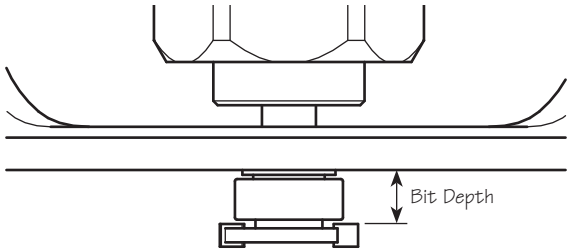

Figure 2: Setting the bit height.

When installed, the double T-slot track is located solely by the undercut, as shown in **Figure 3**. In order for the top of the track to sit flush with the substrate, the undercut should be exactly 1/4″ deep. The undercut slotting router bit cuts a slot slightly undersize so that the fiber crushing below the extrusion prevents undesired motion.

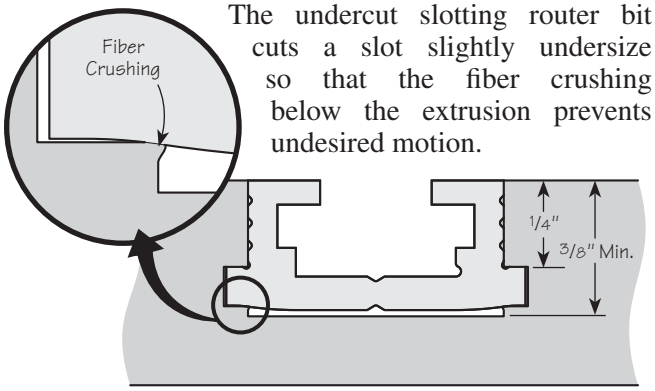

Figure 3: Undercut for double T-slot track.

Run the router bit along both sides of the dado to form the undercut. Test the fit of the track within the dado. To correct for a tight fit, increase the depth of cut by at most 1/64″. To create a sliding joint, increase the depth of the cut by approximately 1/32″. Take another pass to increase the size of the undercut.

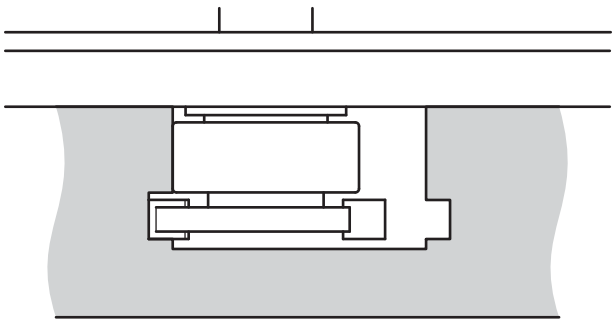

Figure 4: Increasing the undercut depth.

Cutting Aluminum Tracks

Aluminum track can be cut to length using a hacksaw or a bandsaw with a metal-cutting blade. The rough edges should then be deburred using a stationary belt sander, a flap wheel, or a file.

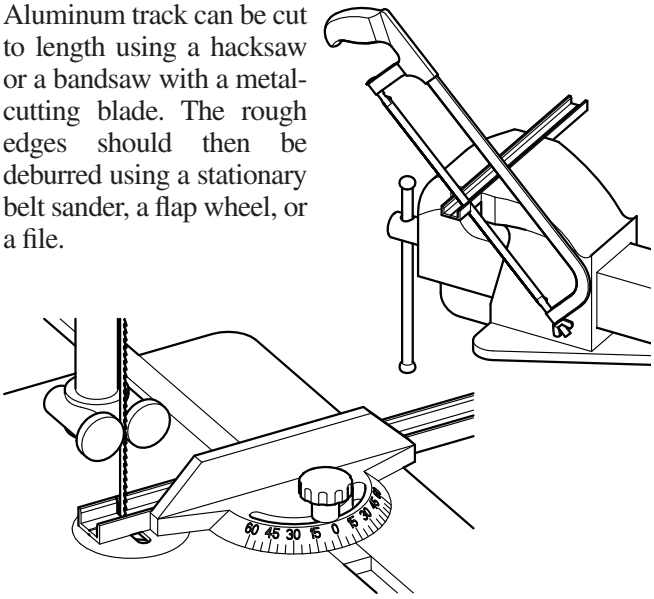

Figure 5: Cutting aluminum tracks.

Gluing the Tracks

If a permanent assembly is desired, the double T-slot track may be glued into the substrate. A glued-in track is guaranteed to stay exactly where it has been installed. Cyanoacrylate or epoxy may be used to glue aluminum tracks in place. Cyanoacrylate can be squeezed into the gap between the track and the substrate while the track is in place. Epoxy should be applied to the sidewalls of the dado and the track slid in afterward. Considerable glue will likely be pushed out of the dado so be prepared for some clean-up.

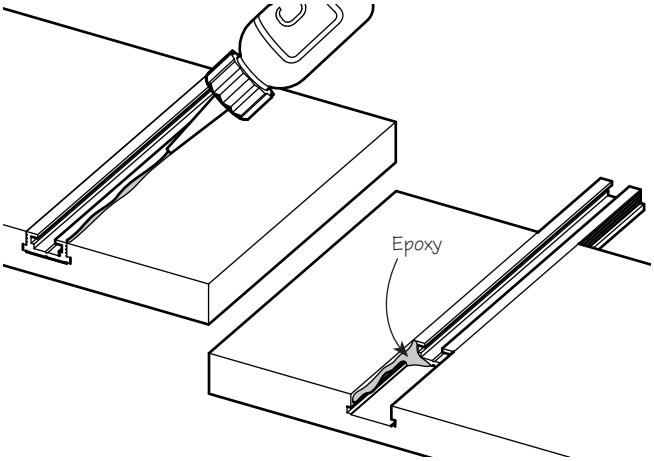

Figure 6: Methods for gluing a double T-slot track.

Note: *Water-based wood glues (e.g., PVA, yellow, 2002 GF glue) are not formulated to adhere to the aluminum track and can swell the table or jig material if it is not properly sealed.*

Using a Locking Screw

For temporary applications, the double T-slot track can also be fixed in place using a single #6 or #8 screw. As the wings prevent lifting, the screw is used only to prevent the track from sliding.

If clearance is required above the screw (e.g., for a T-slot nut), a #6 flat-head screw should be used; otherwise, any type of #6 or #8 screw may be used, as shown in **Figure 7**.

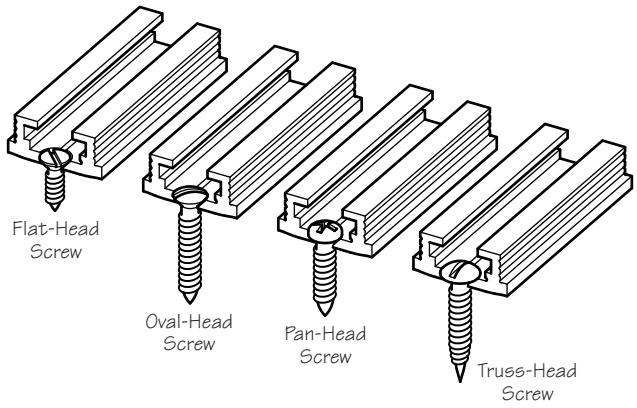

Figure 7: Types of screws that may be used.

Table 1 below lists the drill sizes required for different screw types.

Table 1: Hole Sizes

Screw Size	Screw Type	Dia. of Hole in Track*	Dia. of Pilot Hole in Table or Jig Material
#6	Wood Screw	9/64″	3/32″
	Machine Screw		1/8″
#8	Wood Screw	11/64″	1/8″
	Machine Screw		5/32″

***Note:** To drill a hole through aluminum track, use a regular twist bit rather than a brad-point bit.*