



# Attaching a Work Surface to the Desktop

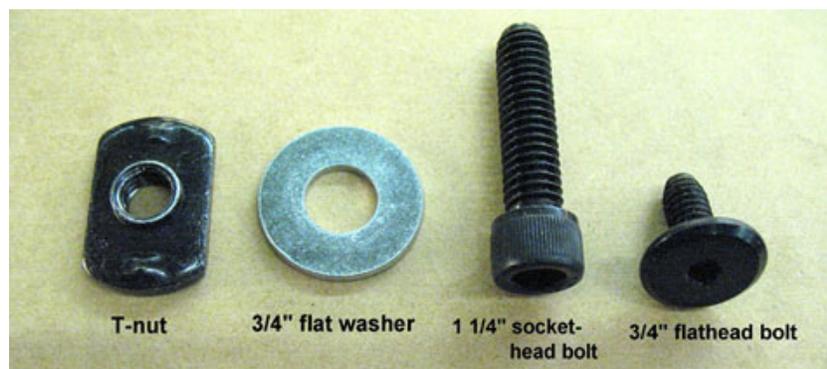


## Introduction

Your Desktop comes with built-in aluminum T-slot table. Using special T-nut hardware, this table excels at holding moveable jigs and fixtures and is well-suited for engraving and carving work on the surface of a workpiece. If you plan on doing any work that cuts through your material, you should attach a sacrificial work surface to your table to avoid damaging the aluminum bed.

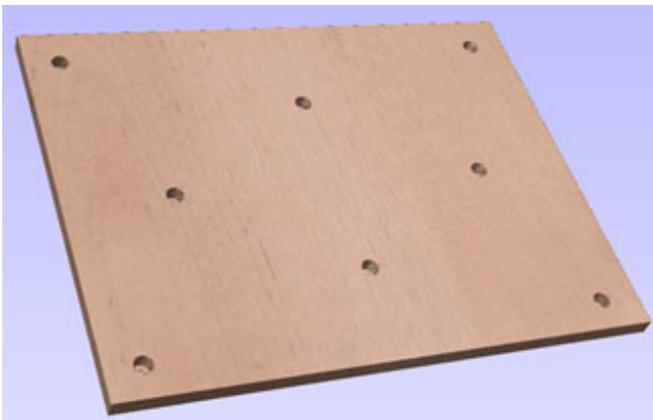
## Parts

- T-nuts (included)
- 1 1/4" socket head bolts (included)
- 3/4" flat head bolts (included)
- 3/4" Washers (included)
- 5/32" Allen wrench



## Tools

- 5/16" drill bit
- 18x24" sheet of 3/4" MDF or plywood
- 1/4" diameter end mill with a flute length of at least 3/4"

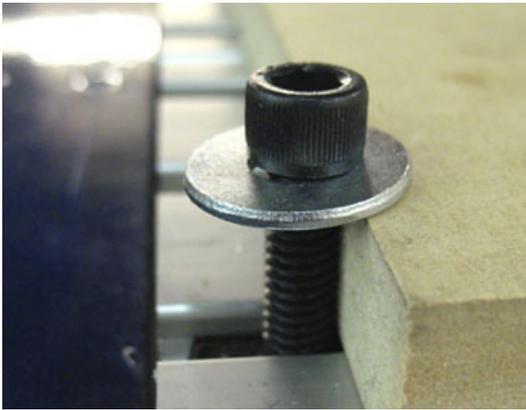


ShopBot has created a cut file with a drilling pattern for an 18x24" work surface. This will not cover the entire surface of the table bed; the ShopBot is capable of about 1" of over-travel to ensure that it can cut past the edge of parts.

To avoid damage to the table, the holes in this cut file will stop short of the full depth of the material. Complete the holes with a 5/16" drill bit.

**IMPORTANT:** The cut file was created for a 3/4" thick sheet of material. Make sure that the material is at least .700" thick (just over 11/16"). If it is any thinner, there is a risk of damaging the aluminum bed. If using a sheet thinner than .700" thick, it will be necessary to either edit the file to reduce the depth of cut, or place a spacer board between the work surface and the table bed.

## Setting up temporary hold-downs



As with any ShopBot project, it is necessary to secure the workpiece before cutting. ShopBot recommends using the included T-nuts, washers, and 1¼" bolts. Center the 18x24" sheet on the table bed and position the bolts so they are snug against the sides. Tighten the bolts into the T-nuts. Test the hold-down strength by trying to move the board. There should be no movement.

## Selecting and zeroing a bit

For this project, a ¼" diameter end mill with a flute length of at least ¾" will be required. Zero the bit to the top of the material, not to the table base. Once the Z-axis is zeroed, zero the X- and Y-axes to the bottom left corner of the material. Align the bit to the corner of the material by eye.

## Setting RPM

Set the spindle or router RPM. The cut file was designed to run at 12,000 RPM. For spindles, adjust the VFD knob so the display reads about 200 (the display shows frequency instead of RPM).

## Attaching new work surface

Once the ShopBot has finished cutting the file, remove the board from the table bed. Use a 5/16" drill bit to complete the clearance holes started by the cut file. Trim away any material blow-out on the back of the board so that it will sit flat on the table.

Slide the T-nuts into the grooves on the table base and place the work surface on the table bed. Check for alignment with the T-nuts. Once everything is aligned, use the ¾" flathead bolts to secure the board to the table. If using screws to secure workpiece, make sure they do not drive through the board into the aluminum base.