

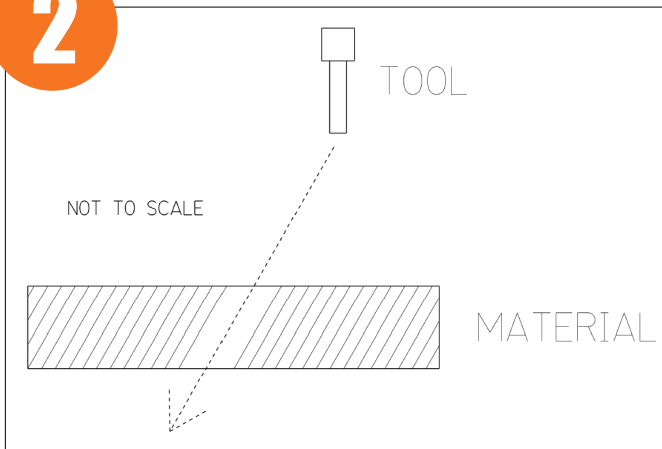
1



*The listed tips for routing textured aluminum are based on the use of Thermwood 3-axis CNC routing machinery, carbide o-flute tooling, MDF spoilboards, and vacuum suction material hold down with foam gasket sealing.*

Remove the protective film from the surface of the textured coated side of the aluminum material before CNC routing. This will prevent the film from being separated from the material during the CNC routing process, which may potentially cause the film to wrap around the tooling or cause debris to become trapped on the edges of the film and underneath the film.

2



Program the CNC router toolpath responsible for plunging into the textured aluminum material to be a ramp in so the tooling enters the material at an angle (such as 60°). Using this method can prevent a helix of material from forming that may scratch the coated surface of the material, which can occur if the toolpath responsible for plunging into the material is orthogonal to the surface of the material.

3



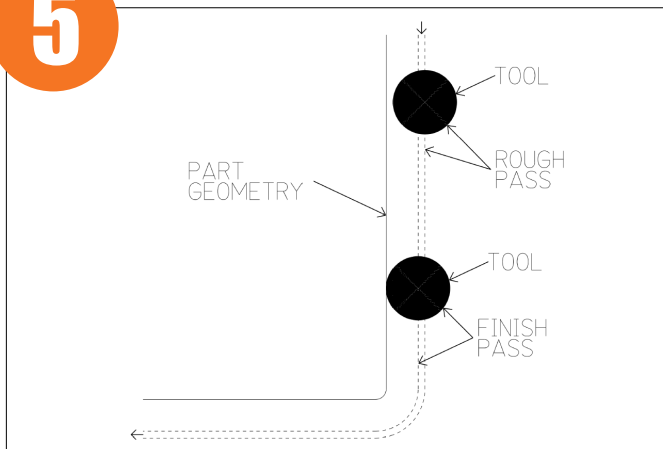
The spoilboard, or wasteboard, upon which the textured aluminum material is placed during the routing process should have relatively wide and relatively deep channels running along the toolpaths. It is best to maximize the width and depth of these spoilboard channels to optimize air flow during the routing process, which can improve the effectiveness of the respective chip collection system being used.

4



It is key to have an effective hold down system in place for keeping the material stationary during the CNC routing process to avoid chipping and chatter from appearing on the product. An example of such a hold down system is the use of vacuum suction with effective sealing.

5



It is suggested to use a double pass method when CNC routing textured aluminum material. A double pass consists of a roughing pass followed by a finishing pass. The rough pass should leave a small amount (such as 0.015" – 0.02") of stock material around the respective product's perimeter and the finish pass should remove the stock of material left over from the rough pass. Using this method can help prevent micro chipping from occurring around the edges of the product's textured coated side and can also assist in avoiding burrs from forming on the product's uncoated side.

6



Keep the section of the chip collection fixtures that contact the surface of the material during the CNC routing process clean. These fixtures may utilize bristles, rubber flaps, or plastic flaps - which can accumulate dirt, dust, and metal shavings. Maintaining cleanliness standards for these fixtures can prevent debris from accumulating on the surface of the textured coating and can prevent damage, such as scratching, to the surface of the material during the CNC routing process.