Vacuum Plate Tooling Usage Guide

The purpose of a vacuum plate is to hold large flat stock, or stock you need access to sides and top of part unimpeded.

* Treat the plate delicately, if damaged, bent, scraped, etc, the plate will not work as intended and you may be liable for damages
* Vacuum plate bolts directly into the Saunders Table Plate
* Always leave +.008” above the bottom of your part
  + If you plan to machine all the way to bottom edge of your part use a purpose built sacrificial top late. See how at piersonworkholding.com
* Always use gasket when holding you part
* For best tips and tricks look up Pierson Workholding Top Ten Tips
* Always use the coolant catch inline to prevent flooding vacuum source
* Make lighter cuts then you normally would as vacuum holding is more suspectable to lateral forces
* Sandwich some 600 grit sandpaper between your part and the top surface (grit side up) to increase lateral holding

To Set Up

1. Remove all work holding from the bed
2. Clean the bed thoroughly
3. Make sure the vacuum plate is free and clear of chips
4. Remove the necessary hole plugs from the Saunders Plate
5. Bolt the vacuum plate down with 4 cap head bolts (~1” thread length)\*\*
6. Attach the inline coolant catch to the side of the machine with magnets

Figure Coolant Catch

1. Attach ¼” od hose from vacuum plate to coolant catch
   1. Make sure air flow will be in proper direction (look at arrow on top of coolant catch)
2. Attach Vacuum gauge inline (recommended between pump and coolant catch, not between coolant catch and table)
3. Attach line to vacuum source (vacuum pump or venturi)
4. Use ¼” gasket cord around the largest area possible to hold your part
   1. Do not stretch cord while installing
   2. Cut ends square
   3. Do not glue ends
   4. Meet ends in a enclosed row
   5. Always make sure to position so your part and vacuum ring is around the vacuum hole
   6. Do not use o-ring or nitrile cord, use only gasket cord.
5. Place part and turn on vacuum, you want at least 25hg vacuum holding force
6. Continue to set up as you normally would