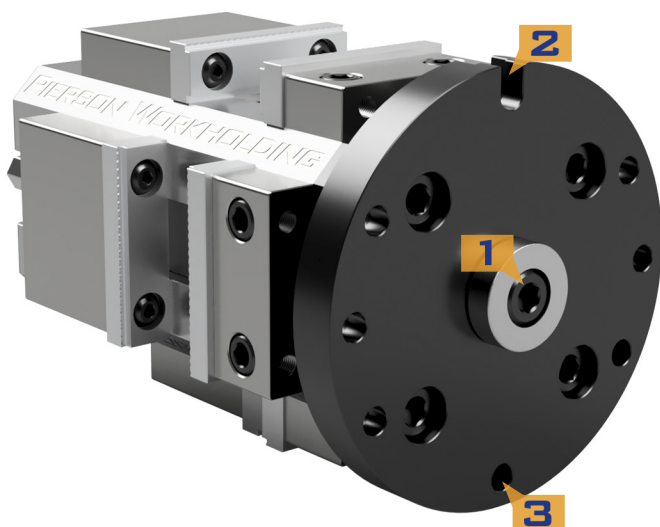# RotoVise - Quick Start Guide

1. Mounting the RotoVise

1. The RotoVise ships with a choice of guide pin installed at the factory at the time of order. This pin is interchangeable by removing the bolt **1** and pulling it out of the body. There is no need to loosen other bolts. If the pin isn't able to be removed by hand, thread in the included 9/16-18 tool. The threading action will pull the pin out.
2. Prepare all mating surfaces by stoning for burrs and wiping all faces clean. Make sure the bore of the rotary unit is wiped clean as well.
3. Preassemble a bolt and t-nut and keep it close by. At this point, position the RotoVise with the notched side of the adapter plate **2** facing up. This will help drop the preassembled bolt and t-nut into the slot in the next step.
4. Carefully place the RotoVise onto the rotary unit platter and guide the guide pin into the bore. Once they are flush, drop the bolt and t-nut into the t-slot and HAND TIGHTEN only.
5. Add another bolt and t-nut to the opposite position **3** at the bottom of the RotoVise adapter plate. HAND TIGHTEN this bolt as well.

2. Indicating the RotoVise
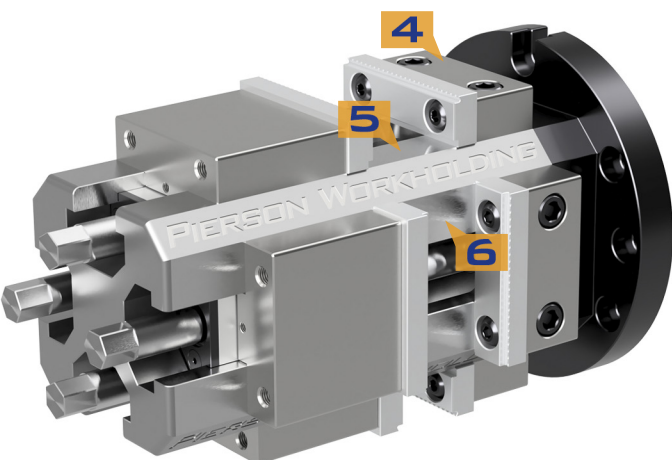
NOTE: Out of the box, the RotoVise will have a rough runout under .005" to the axis of the rotary unit. Several factors including clearance between the guide pin and rotary bore, runout of the rotary unit itself and allowable tolerance between assembled parts have an affect on the initial runout. Follow these steps to establish higher accuracy.

1. With the top and bottom bolts hand tight, jog the rotary unit to get a rough parallelism with the table by indicating along the top surface of the fixed jaw **4**. A final indication will be done in later steps.
2. With an indicator mounted to the spindle, jog down in Z to touch the ground bed of the RotoVise **5** and save this as a Z-zero height.
3. Jog the indicator up and out of the way and jog the rotary unit exactly 180 degrees. Jog the indicator down to the Z-zero height from step 2 and compare the difference between zero and the number on the indicator. For example, if the indicator reads a height of .002", tap the edge of the adapter plate with a mallet until this number is cut in half to .001". This will center the RotoVise vertically.
4. Incrementally tighten the two bolts firmly and double check to make sure the RotoVise did not move during this step.
5. Jog the rotary unit 90 degrees and repeat steps 2 and 3.

3. Dialing Everything In

1. **Establishing the A axis zero**
   1. Clamp a 1" tall parallel in the top jaw and ensure it rests on the bed of the RotoVise **5**.
   2. Use a spindle mounted indicator to jog along the top of the parallel and jog the rotary unit until a zero flatness is achieved. Set the A axis orgin.
   3. CAUTION: remove the parallel since jogging the rotary unit can cause a colision with the machine table if the parallel protrudes.
2. **Establishing the centerline of the rotary unit**
   1. Using an edge finder, touch off one of the vertical faces of the RotoVise body **6**. The width of the body is 3.900" which makes the axis of rotation 1.950" in from this face.
   2. The vertical centerline of rotation will be the same as the center line height of the rotary unit from the machine table.

4. Programming Notes and Cautions

1. Origins - The RotoVise is best programmed with a single work offset (such as G54) using the center of rotation as the Y and Z axis origins. The X axis origin is usually set off the right side of the part since it is easy to touch off. Individual origins for each station can also be used (G54, G55, G56, G57).
2. Tooling - It is best if tools AND holders can be simulated during programming since toolholder clearance interferences are possible when machining on the sides of a part.
3. Parts - Before running parts make sure there is adequate clearance between the raw material and bed of the machine table.

7.950
4.950
3.200
0.775
0.875
3.900 3.000
0.200
1.950
4.950
9.500
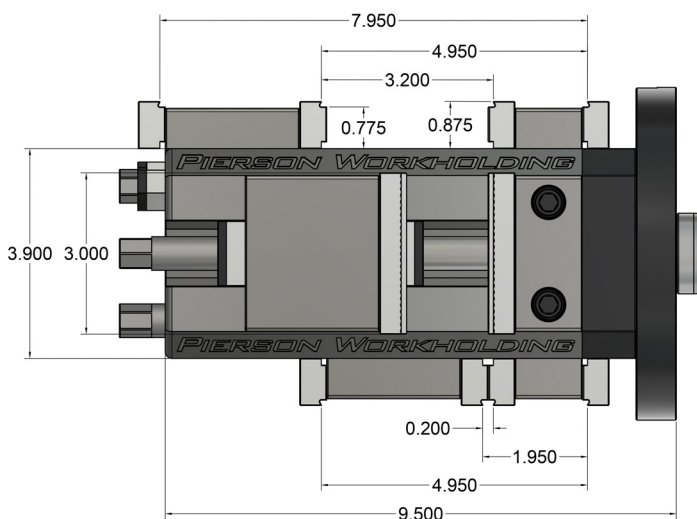
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