

PROCEDURE FOR INSTALLING ALL MAGNETIC CHUCKS

All Walker new and rebuilt magnetic chucks are precision ground for flatness and parallelism between their top and base plates prior to shipment, and usually require a minimum of effort to install on your machine. However, to assure that the chuck has been properly installed and will allow your machine to produce the highest quality precision machining the following procedure must be followed:

1. The mounting surface on the machine must be clean, perfectly flat, and free of burrs. Check the mounting surface. If it is not flat, and true with the machining axis, it must be remachined.
2. Even though all Walker chucks are precision ground for flatness and parallelism, check the mounting surface of the chuck for flatness. Remove any imperfections that may have occurred since shipment with a smooth abrasive stone. If the flatness is not within your required tolerances, the base plate can be ground by following the grinding instructions on the opposite side of this sheet.
3. Clean the mounting surfaces just before mounting the chuck to the machine.
4. **Rectangular Chucks** Clamps provided with rectangular type chucks should initially be tightened only enough to prevent the chuck from moving. Then the chucks should be aligned with the table and the clamp bolts gradually tightened in an alternating sequence to a torque of 10 foot pounds. Then only the bolts on one end of the chucks should be tightened to 15 foot pounds. This will allow for expansion without distortion along the chuck length as the chuck and machine reach their normal operating temperature.

Rotary Chucks Mounting bolts for rotary chucks should initially be tightened only enough to prevent the chuck from moving. Then the chuck should be aligned for concentricity with the rotary spindle and the bolts gradually tightened in an alternating sequence to a torque of 20 foot pounds for .313" bolts and 30 foot pounds for .375" bolts.
5. **WARNING (Electromagnetic Chucks ONLY)**
Prior to energizing your electromagnetic chuck, check all the electrical connections and confirm that the metal body of the chuck is electrically grounded during the operation of your machine. Most rectangular type chucks are supplied with the power cord containing a green safety ground wire that is connected to the body of the chuck. Rotary chucks are provided with either the green safety wire or provisions for a safety ground connection. **MAKE CERTAIN THAT THE CHUCK HAS BEEN CONNECTED TO A PROPER ELECTRICAL GROUND.**
6. At this time electromagnetic chucks can be turned on and allowed to stabilize at the "median" temperature of the machine. Normal coolant flow (usually any non-nitrate or inhibited nitrate coolant) should be used during this period. Permanent magnetic chucks do not contribute heat, but also require a stabilization period to reach the "median" temperature of the machine.
7. Finish grind surface of the chuck to be assured it is in alignment with the machining axis. A general purpose medium hard open structure grinding wheel such as 36-40 grit would be appropriate. (See grinding instructions on the opposite side of this sheet.) If the chuck is installed on a cutting tool type machine such as a lathe, the surface of the chuck may be machined using a very light cut and a very fine feed. Then the surface should be lightly polished with a smooth abrasive stone.

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