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METHOD OF ACCURATE DIAPHRAGM CHUCK / TOP JAW MOUNTING

DIAPHRAGM CHUCK MOUNTING:

Ensure that all critical surfaces are clean ! This equipment should be handled more like instrumentation than machinery (especially ground surfaces).

Skim the annular surface on the face of the adapter plate mounted to your spindle nose such that the face runout is .0001" or better.

First, true up the chuck by placing a dial indicator (.0001" graduations) on the OD of the chuck **(at the top of the chuck which is the actual flex plate on which the jaws are mounted)** and "true it in" to better than .0001" TIR. Use either a rubber hammer or plastic-faced mallet to tap down the "high spots" as they approach the dial indicator.

DIAPHRAGM JAW MOUNTING:

1. Load Top Jaw (Insert) onto face of chuck and outward against lip of diaphragm plate (faceplate of chuck). Tighten all (6) screws fully to initially seat the jaws. Back off the top jaw mounting screws and retighten to hand snug such that they have freedom to move, but not lift, upon clamping.

2. Using gage pin of finish-ground diameter (jaws may be designed to use loading plug instead when grip diameter is large), flex open jaws with line pressure, insert pin and vent line pressure to clamp onto pin. With pin clamped, back off screw slightly and re-tighten (tightly) on all six top jaws. Remove gage pin (or loading plug).

3. This step can only be used where the OD of the top jaws is ground flush with the ID of the flex plate lip: At 0 PSI to chuck (air lines vented with no air captured), indicate the OD of the top jaws (where they stick above the diaphragm plate (faceplate of chuck)). No more than .0002" TIR runout should be obtained. Anything more than that, remove only that top jaw, reload it and try again.

4. If necessary, true up the entire chuck while gripping on the gage pin for ultimate accuracy.

MOUNTING DIAPHRAGM CHUCK AND JAWS.doc