



ADJUSTABLE T.I.R. TOOL HOLDER

Our newly patented Adjustable Tool Holder allows you to "tram in" your diamond tip and multi-diameter cutting tools to "0.0000" T.I.R. This new Hydra-Lock hydraulic tool holder eliminates run out and increases your tool life as much as 10 times.

The purpose of this idea was to find a way to adjust a tool once it was locked into the holder. This tool holder design provides compensation for the "run-out" condition of the tool and allows adjustment of the cutting end of the tool to an "on center" position with little or no run-out and still maintain the tool holder balance.

The adjusting feature of this tool holder makes it relatively easy to adjust and bring the point of the tool to the exact position on center.

It works as follows:

- The tool shank is hydraulically clamped and held by the tool holder.
- A dial indicator is placed at the cutting edge of the tool.
- Three (3) equally spaced screws parallel to the centerline of the tool holder are then adjusted to move the tool tip as close as possible to the center.
- This action allows for a fractional tilting of the clamping mechanism relative to the true tool holder and spindle axis.
- This provides exact centering of the cutting of the tool.

Some additional notes to make it easier to adjust the tool holder:

- With automatic tool change machines, spindle orientation is recommended.
- Start with all adjusting screws seated in the bottom position.
- Position the indicator gage at the top of the cutting tool, and find the high point of the run-out condition. Locate the adjusting screw on the tool holder closest to, and in line with this point. Turn this screw clockwise, this will tighten the screw and move the high point down and closer to the centerline. Repeat for additional high points until the cutting tool runs true.
- Once the cutting tool has been adjusted into position, it can be removed from the tool holder if necessary and replaced and it will repeat within .000050". (Provided the tool shank is straight.)