PRECISION TOOL TECHNOLOGIES, INC.
OPTICAL DIVISION

1-800-450-8665

PERFECT SURFACE

What Perfect Surface Does:

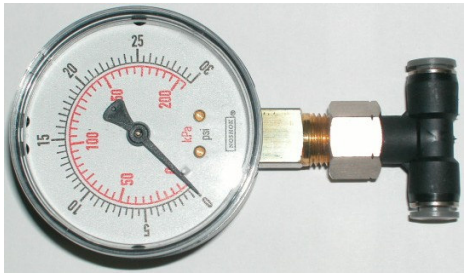
Perfect Surface is an air accumulator that absorbs the back pressure caused during fining and polishing. The result is improved surface quality and reduced surfacing times. The secret to Perfect Surface is constant line pressures. Conventional polishing maintains even line pressure on spherical and near-spherical lens curves. With lenses of increasing cylinder and diopter, oscillation increases. This (back) pressure differential causes the lens to bounce and skip reducing lapidary efficiency and surfacing quality. This can be shown by attaching a pressure gage assembly (see gage assembly below) which will show deviations of up to 50% of the operating pressure (actual results on a 10 base with a 13.50 cross). When this occurs, the take off is greater in the center of the lens than on the outside of the lens. With Perfect Surface, pressures remain constant with both spherical and cylinder polishing motions.

Perfect Surface installation:

1. **Cut the incoming air line between the arm and air pressure gage on the machine. Then, connect a gage assembly to the tube. Next, run the machine while watching the air pressure gage. Be sure to closely observe how much the air pressure gage jumps around.**

2. **Disconnect the tube from the incoming side of the gage assembly. Then, cut a short piece of tube and insert it into the gage. Next, attach one side of the Perfect Surface Kit to the piece of tube in the gage. Then, attach the incoming air line from the machine to the other side of the Perfect Surface Kit. Run the machine again and closely observe the air pressure gage. There should be a noticeable change in pressure readings (they should be more consistent). Next, remove the gage assembly and hook up the Perfect Surface direct. Finally, Secure the Perfect Surface so that it does not fall or interfere with operation.**

Please contact Jim with any further questions at 1-800-450-8665.



Gage Assembly

Perfect Surface Kit

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