Vektek LLC 1334 East Sixth Ave. P.O. Box 625 Emporia, KS 66801 U.S.A.	Instruction Sheet		IS7007	
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PRESSURE CONFIRMATION CYLINDER
INITIAL PRESSURE PRESET SETTING INSTRUCTIONS

SCOPE:

This document will guide you through how to set the extension pressure on the 70-7500-79 Pressure Confirmation Cylinder.

EQUIPMENT REQUIRED:

Plumbing: Manifold or fitting that are capable of being rigidly mounted to a table or vise. Additional hoses or fittings may be required. See figure 1 for example.

Distance Indicator Gauge

This gauge can either be a dial indicator gauge or a digital indicator gauge. It must be capable of measuring at least a 0.11". A tolerance of .0005" or greater is recommended.

Pressure Source

A screw pump or hand pump is recommended for maximum precision during the setting process. However, an air/hydraulic or electric power supply may be used. Regardless of the type of pump selected, ensure it can achieve and maintain the desired preset pressure without significant leak down.

Pressure Gauge

Any hydraulic pressure gauge capable of reaching your desired preset is acceptable. A digital pressure gauge with a tolerance of +/-30 PSI is recommended.

Miscellaneous Hosing

This will probably include only one length of hose capable of spanning the distance between your power supply and your manifold but other hoses may be required.

INSTRUCTIONS:

STEP 1: Initial Planning

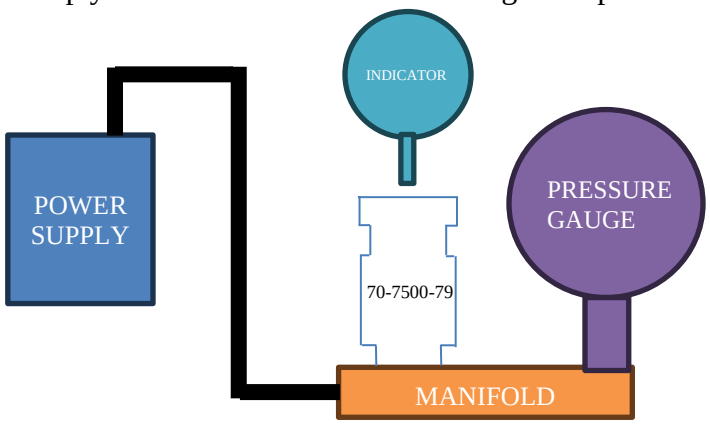
To begin setting up your unit, start by determining your desired pressure preset.

Option 1: 300-500 psi less then initial operating pressure.

Option 2: Minimum acceptable operating pressure.

STEP 2: Setup

Mimic the circuit diagram as shown below. Run a hose between your power supply and your manifold, clamp or bolt your manifold to a secure surface, install the Pressure Confirmation Cylinder, and set up your dial indicator to be touching the top of the cylinder.



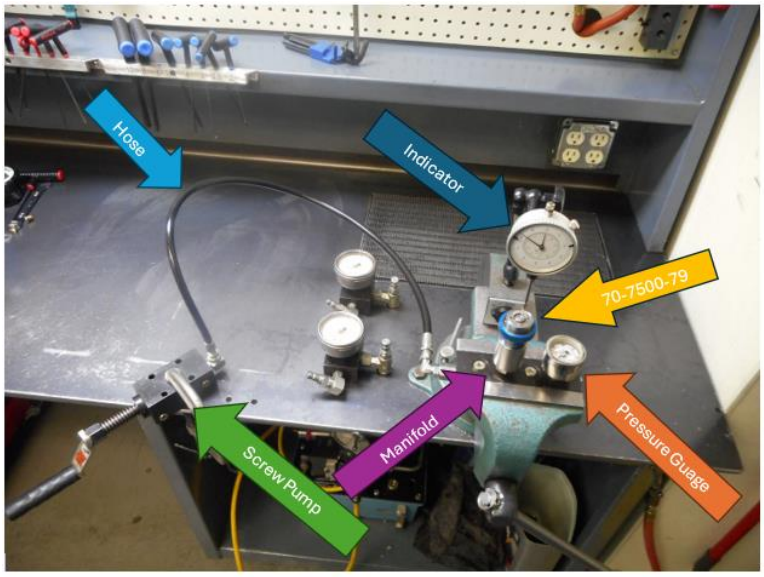


FIGURE 1:
(A STANDARD TEST SETUP)

In this setup, the following equipment was used.

- A $^{+}$/- 0.0001" Dial Indicator.
- VEKTEK Pressure Gauge No. 72-3221-55
- VEKTEK Manifold No. 31-4264-24.
- VEKTEK Screw Pump No. 55-8190-00
- A VEKTEK SAE 4 Plug No. 30-6011-44.
- A VEKTEK 36" Hose No. 35-1133-03.
- A VEKTEK 90^{0} Adapter No. 30-1615-44.
- A VEKTEK Adapter No. 30-8012-64
- A VEKTEK Run Tee No. 30-2312-44

NOTE: MAKE SURE ALL UNUSED MANIFOLD AND PUMP PORTS ARE PLUGGED!

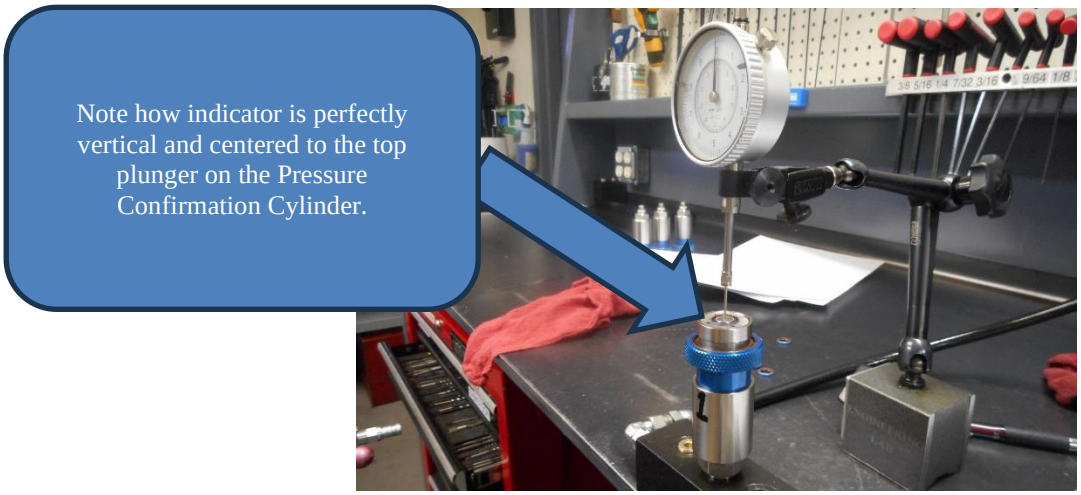


FIGURE 2:

(A CLOSE UP OF THE INDICATOR CENTERED AND VERTICAL TO THE PLUNGER)

STEP 3: Safety Check

STEP 3A: After setup is complete, reverify that all of the fittings, hoses, manifolds, and plugs used are rated at a pressure equal to or greater than that of the power supply being used.

STEP 3B: Verify that the Power supply being used can not provide more than 5,000PSI of pressure.

STEP 3C: Verify that every port is plugged and slowly pressurize the circuit to 100 PSI.

STEP 3D: Turn off the power supply and leave the system at pressure for 1 minute. Look for any external leaks. If none are found proceed to Step 4.

STEP 4: Test and Set

STEP 4A: Ensure that the system pressure is at zero PSI. Position the Distance Indicator Stylus on the top of the Pressure Confirmation Cylinder's main plunger. Verify that the stylus is as concentric to the plunger as possible and aligned in the same plane. Refer to Figure 2 for guidance.

STEP 4B: Slowly pressurize circuit to desired pressure set point. Hold the pressure at this point.

STEP 4C: Adjust the blue knob on the Pressure Confirmation Cylinder until the gauge reading is 0.100" exactly. If the reading is over 0.100", turn the blue dial down (clockwise). If the reading is under .100" turn the blue dial up (Counter Clockwise).

NOTE: If the blue knurled knob seems to top or bottom out and the indicator is not at the correct position, call customer support for assistance.

Step 4D: Depressurize the circuit and make sure gauge returns to zero.

NOTE: At low pressures the gauge may fail to return to zero. Carefully apply a slight amount of force to the plunger to return it to the zero position. If this does not work or gauge fails to reach zero. Reset the gauge and repeat Step 4C and 4D again.

Step 4E: Repressurize the circuit to desired set point. Observe gauge reading and make adjustments as necessary to return indicator to 0.100"

Step 4F: Continue repressurizing and depressurizing the circuit until the gauge reliably reads 0.100" at full pressure every time.

Step 4G: Your Pressure Confirmation Cylinder is now set. You may want to put a mark aligning the blue knob to the static silver body if you are concerned with tampering in the field. While on the test stand you can also remove the set screw and adjust the top cap to be equal to the plungers' lowest position to give a reference point for the machine's probe. However, this last step is not necessary.