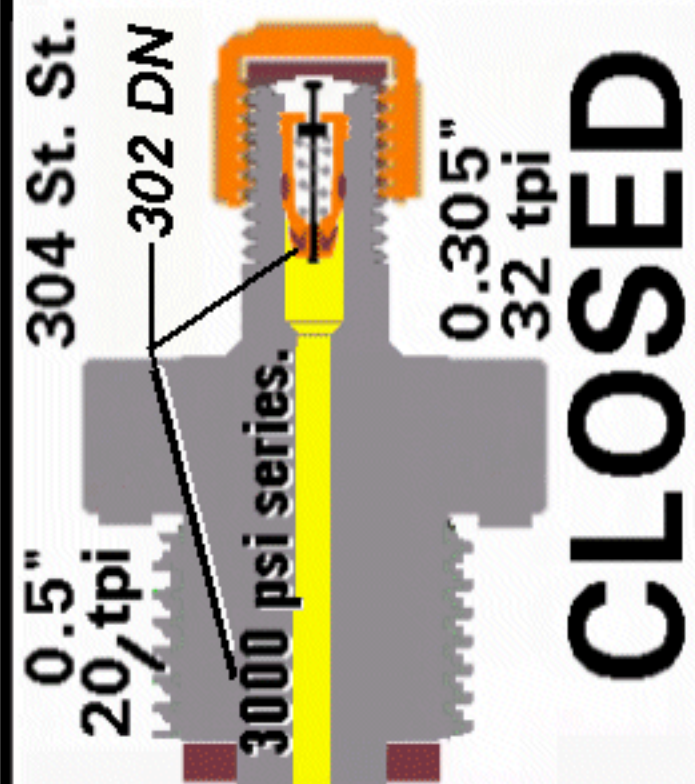
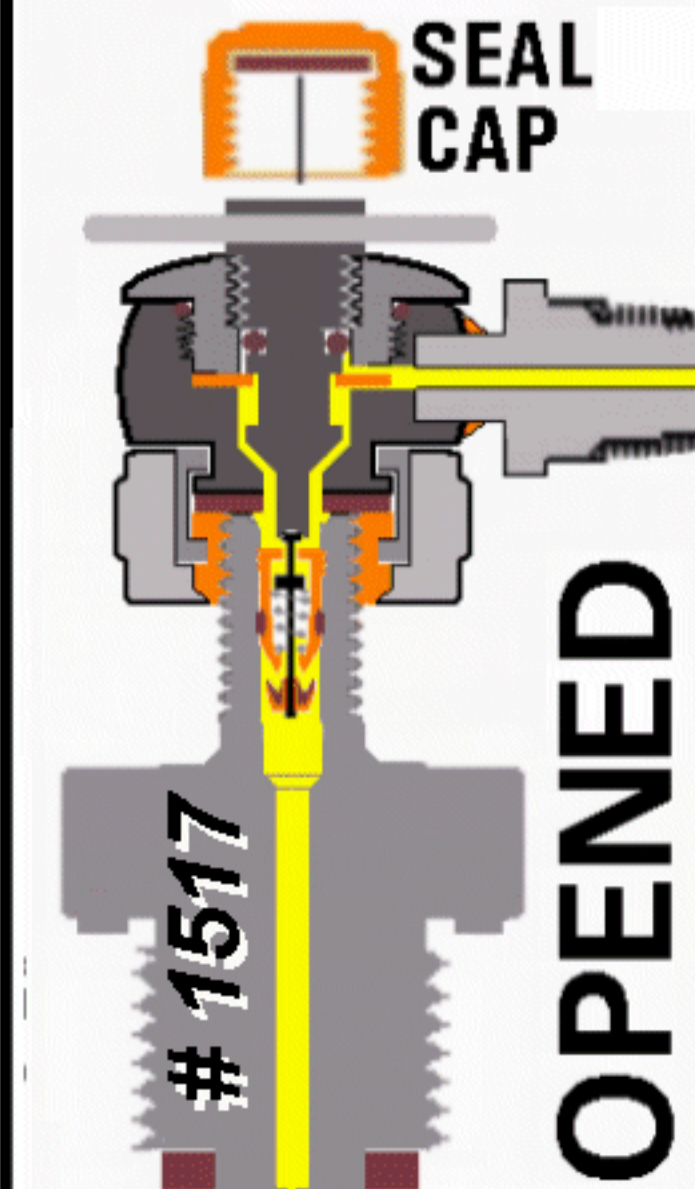
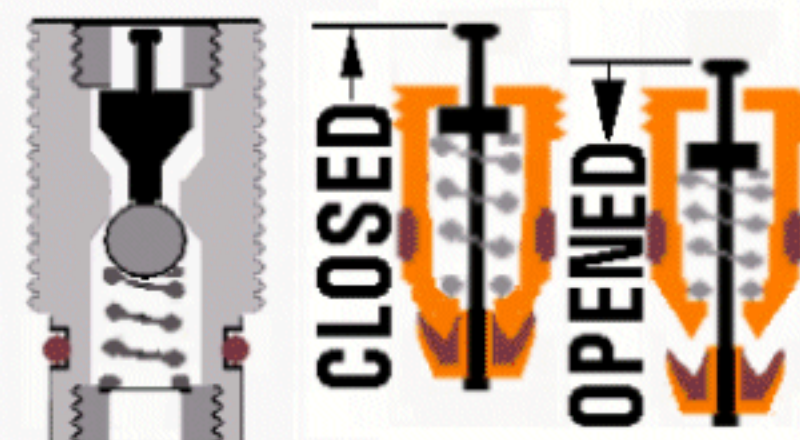
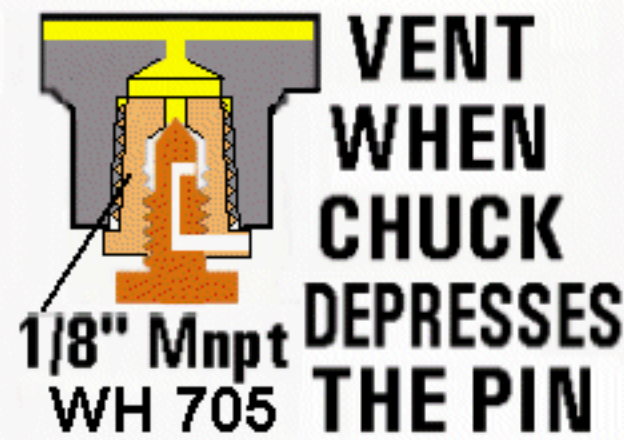


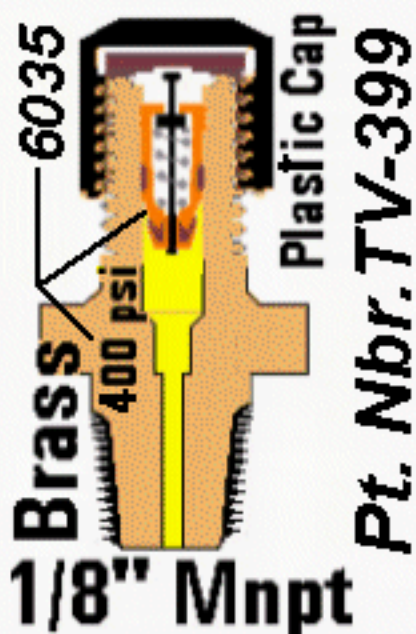
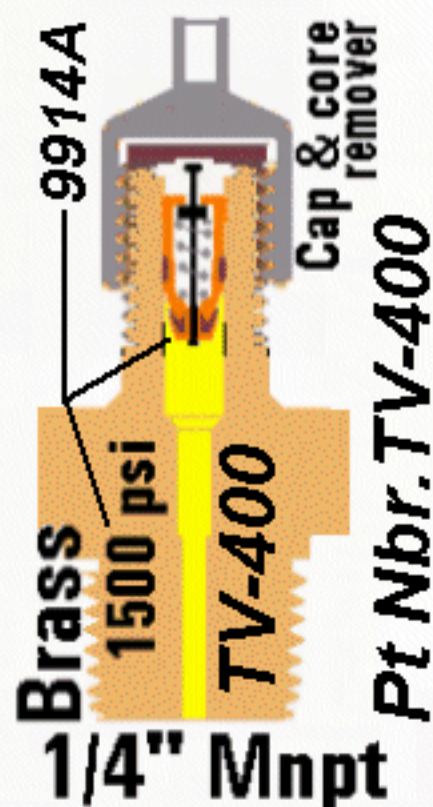
**LOW COST LOW PRESSURE DAMPERS HAVE "PIN CORE" VALVES, NEEDING PRE-FILL TOOLS.**



**CLOSED**

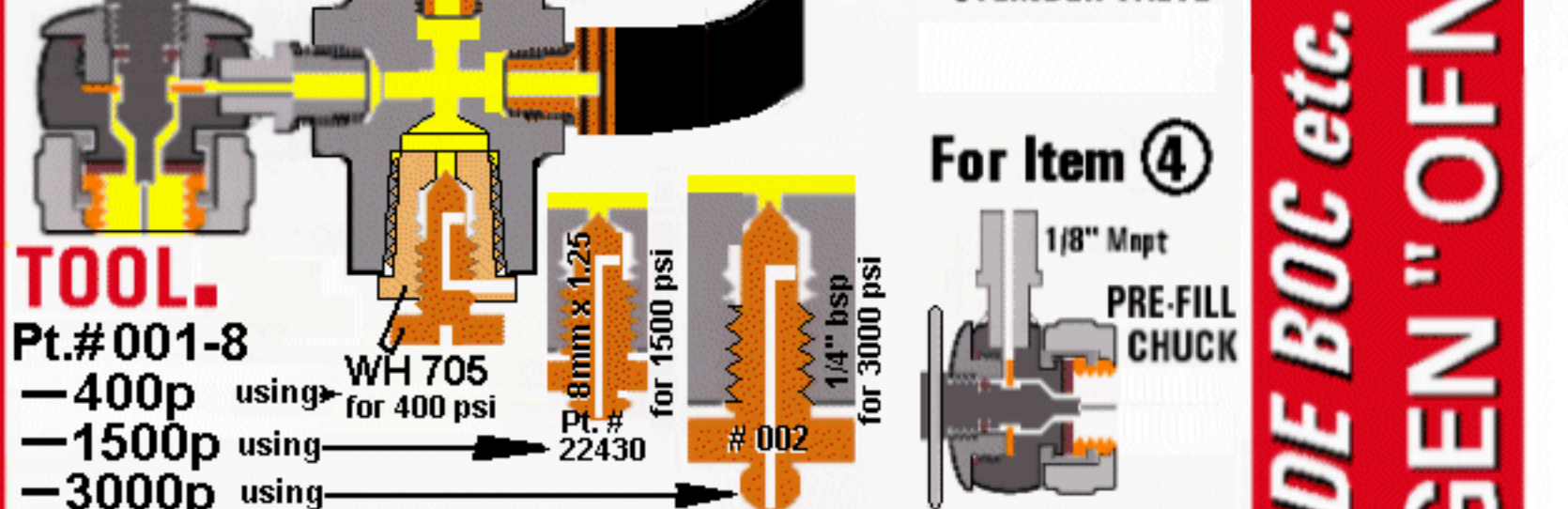
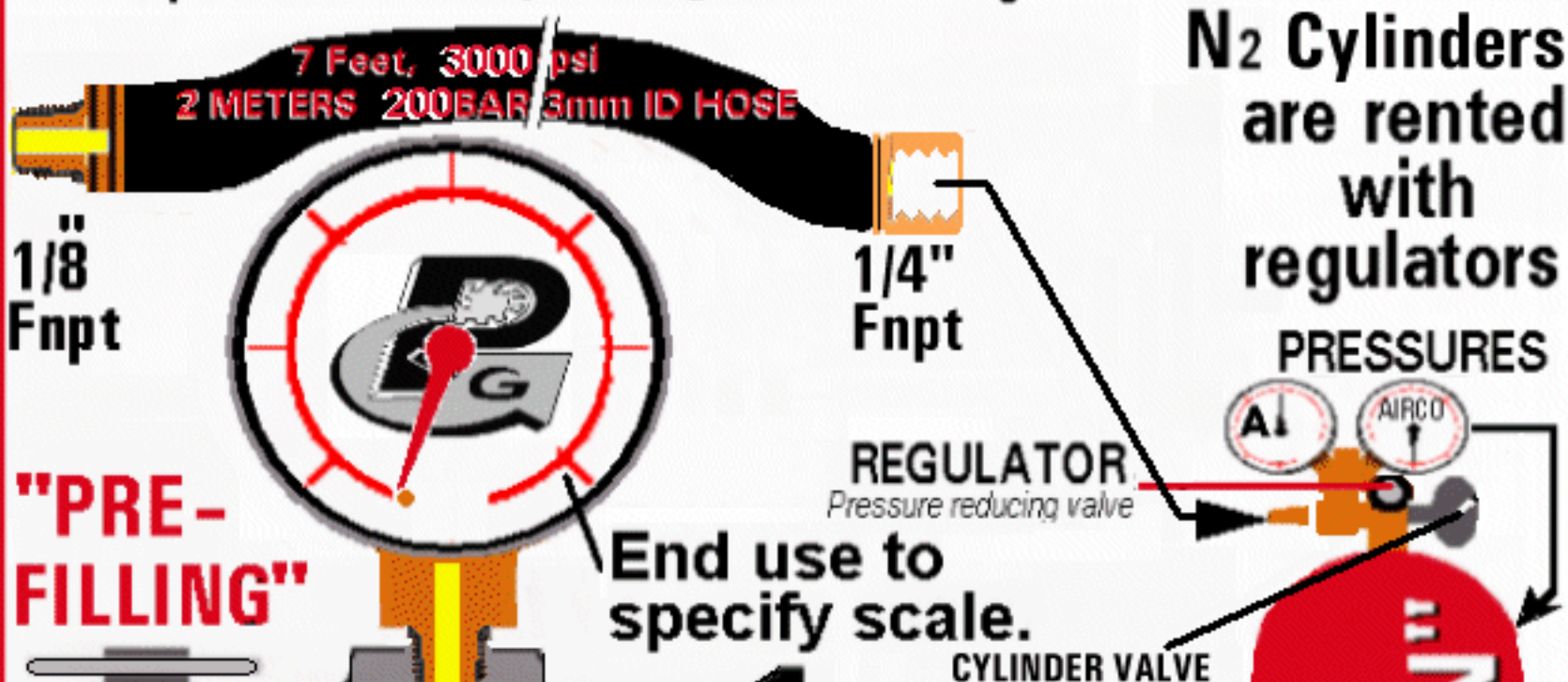


**OPENED**



There are many forms of "Pin Core Valve". None can stop flow into a damper, so regulators must be used, & the pin must be depressed when filling because of Delta P.

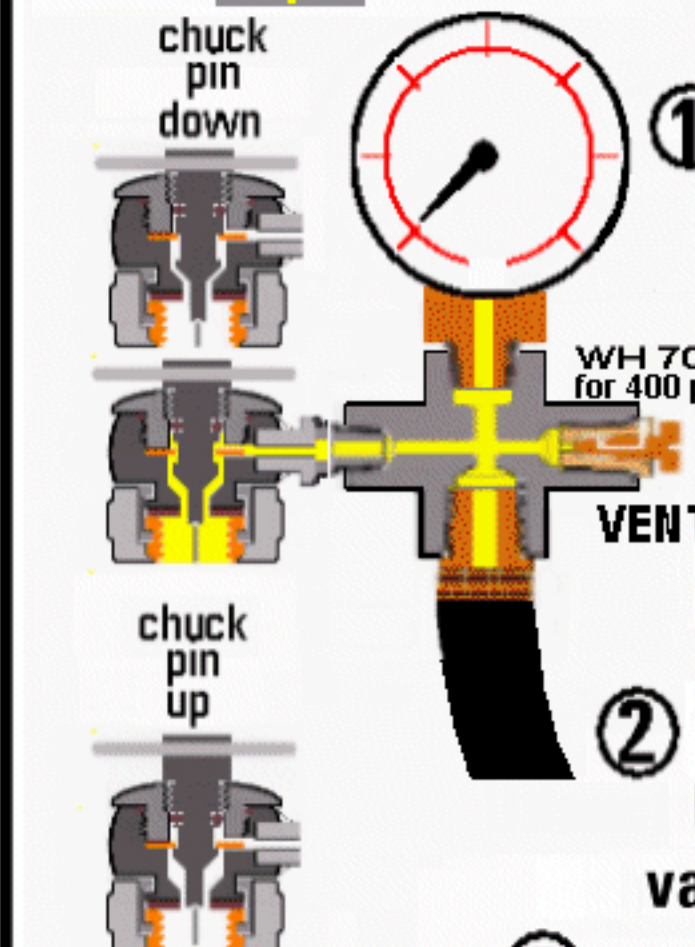
1/8" Fnt Hose, 1/4" Fnt to regulator, 2 Gauges, 2 Chucks & Vent "X".



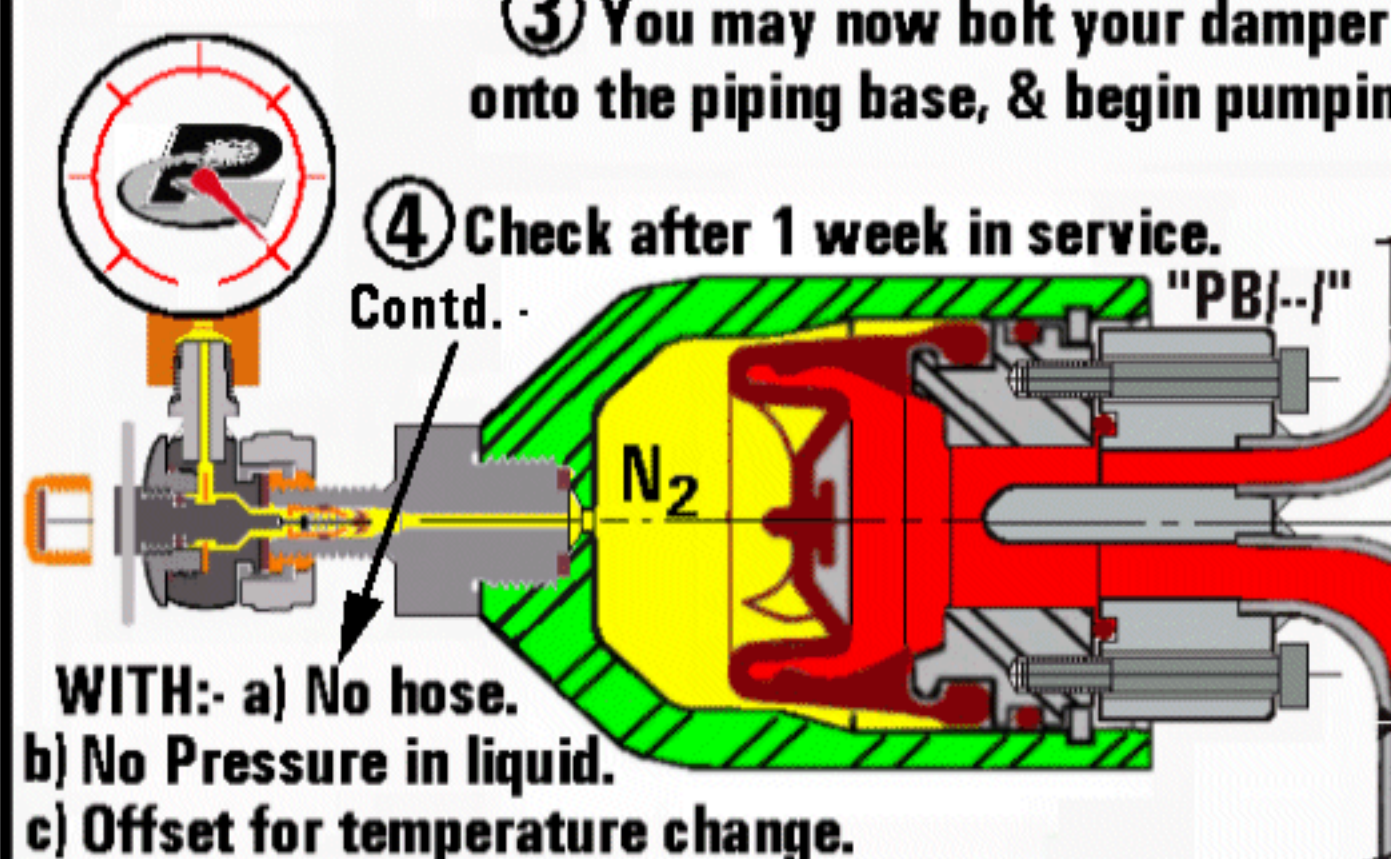
Do not attempt to check the pressure with an empty pre-filling tool, too much N<sub>2</sub> will flow back into it.

**N<sub>2</sub> Pre-Fill Pressure "A":** 80% of theoretical steady state pressure for flow fluctuation smoothing. For pressure pulse interception 50% of steady state. Make calculation on absolute scale and convert back to gauge.

**AIRCO LINDE BOC etc. N<sub>2</sub> NITROGEN "OFN"**



- 1 Remove seal cap, screw chuck to valve. Set regulator to "A". Screw chuck pin down. Flow N<sub>2</sub> into damper. Wait for temperature to stabilize. Vent excess. Unscrew chuck pin - up.
- 2 Turn cylinder valve off. Unscrew chuck from pin valve. Put seal cap on valve.
- 3 You may now bolt your damper onto the piping base, & begin pumping.



WITH:- a) No hose.  
b) No Pressure in liquid.  
c) Offset for temperature change.

With a bubble solution, check that your activity has not loosened the pre-fill valve and caused a leak  
**NEVER RUN WITH ANYTHING ATTACHED TO THE VALVE, ALWAYS HAVE SEAL CAP ON**



"PB/1/2" - 1/4" / 90° - 90° / 316"

"O" 15"