

## Air Quality

**General**-Air quality is often an issue when dealing with instrumentation and valve positioners. Most major manufacturers of control valves will very seldom ship a valve package with a positioner without shipping a filter either bracket mounted or nipple mounted to the assembly. We recommend the use of a good filter (40 micron or less)(filter regulator optional) with all positioners, however the filtering issue becomes more critical when you are dealing with Electropneumatic (V100E series) positioners and the addition of the I/P element. Furthermore, experience has indicated with the use of coalescing filters will improve the effective use and life of the Electropneumatic positioner. Good coalescing filters will remove particles, moisture, and oil. Locating an "inline" filter is also acceptable; just try to locate the unit within 2 feet of the valve assembly. While a pneumatic positioner can fail due to poor air quality, the failure rate of P to E units due to air quality is very heavily weighted toward the Electropneumatic version. While some cylinder manufacturers like to see the use of automatic oilers, the ISA spec "strongly discourages" this practice as it relates to instrument air quality. Any combination of particles, moisture, oil (or all three), will greatly increase the probability of early positioner problems or failure.

**Specifications**-ISA-S7.0.01 is an industry standard that deals specifically with "Quality Standard for Instrument Air". This spec addresses lubricant content, contaminants, air system design, pressure dew point, and particle size. You can obtain a copy of this spec. directly from ISA or we can offer a copy.

**I/P Specifications**-Our primary supplier of I/Ps offers the following air quality guidelines:

Dust < 5 microns

Oil < 1ppm mass

Dew point 10 c (18 deg f) below lowest expected ambient temperature.

### **Coalescing Filters we stock:**

Filter only- part no.-400480-aluminum housing-1/4" NPT-drain manual/brass-removes-max pressure 250 psig/temp 250 F- 95% removal of .1 micron-oil, particles, moisture

Filter regulator-part no.-400481-same as above, except removes 99% of .1 micron.

**Valve Accessories & Controls**  
**200 Jade Park-Chelsea, AI 35043**  
**205-678-0507, fax 0510**  
[www.vacaccessories.com](http://www.vacaccessories.com)