



Pneumatic Safety

Ross Controls
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Global Safety Manager



Lockout Standards

Requirements (OSHA)

- A manually operated valve
- Not used for any other function
- Located outside of hazardous areas
- Easily identified and operated
- Tamper resistant



ROSS
Consider it **DONE!**



Lockout Standards

Best Practice (ANSI, PMMI, CSA)

- Only lockable in off position
- Easy to operate
 - eg. a simple push/pull action
- Visible pressure indication
- Full size exhaust



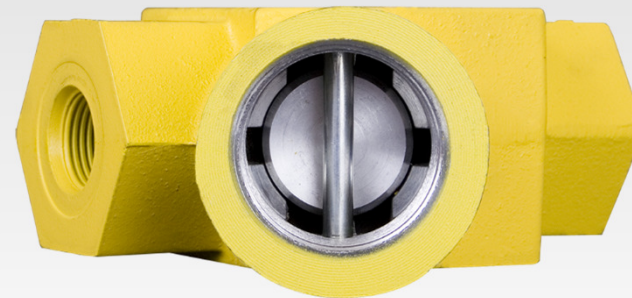
Pop up pressure indicator



Pneumatic Lockout

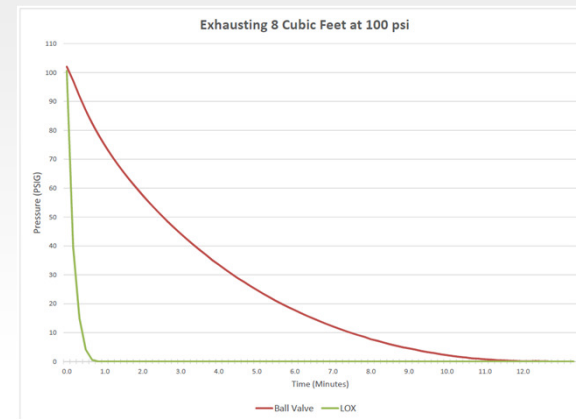
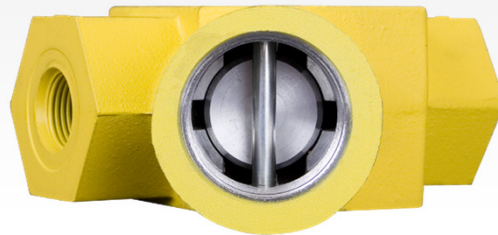
Best Practice (ANSI B11.0)

- Full diameter exhaust
 - Rapid release of stored energy



Pneumatic Lockout

- Best Practice (ANSI B11.0)
 - Full diameter exhaust (rapid release of stored energy)
 - 8 Cubic feet (60 gallons) at 100 psi
 - Full exhaust = 35 seconds
 - Bleed port > 11 minutes



Lockout Standards

Valves should be:

- Accessible
- Suitable for environment
 - 316 SS available
- Easily identified

Available with 1/4" – 2" ports



Alternative Measures

- Production related
- Improve safety & productivity
- “Monitored Power Systems” ok’d by OSHA
 - Requires control reliable systems



Alternative Measures

- Control reliable system
 - Equivalent to category 3 - 4 systems
 - Redundant
 - Monitored
 - Fail to a safe conditions
 - Safety does not end with the wire



Pneumatic Safety

- Ross valves meet all global requirements
- Safety and productivity improvements

