



Appendix C - Valve Actuation Questionnaire Checklist

Return Fax To Tech Services: (818) 364-6945

Contact Name: _____ **Date:** _____
Business Name: _____
City: _____ **State:** _____ **Country:** _____
Phone: _____ **Fax:** _____ **E-mail:** _____
Project Name: _____

<p>Ball Valves: System Media Pressure (Required) psi _____ kPa _____ Bar _____</p> <p>Nominal Size in _____ mm _____ cm _____</p> <p>Ball Valve Type:</p> <p>True Union Industrial <input type="checkbox"/> Three Way Horizontal <input type="checkbox"/> (See 3-way orientation box below)</p> <p>True Union Standard <input type="checkbox"/> Three Way Vertical <input type="checkbox"/> (See 3-way orientation box below)</p> <p>Compact <input type="checkbox"/> Tandem Three Way <input type="checkbox"/></p> <p>True Union Tee Style <input type="checkbox"/> Tandem 3-Way Orientation Document Required</p> <p>Other Valve Type <input type="checkbox"/> _____</p> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p style="text-align: center;">Vertical 3-Way Orientation</p> <p> <input type="checkbox"/> Single L Port <input type="checkbox"/> Triple L Port <input type="checkbox"/> Double L Port <input type="checkbox"/> T Port </p> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px; display: inline-block;"> <p style="text-align: center;">Horizontal 3-Way Orientation</p> <p> <input type="checkbox"/> L Port <input type="checkbox"/> T Port </p> </div>	<p style="text-align: right;">Valve Quantity Each</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
<p>Body Material:</p> <p>PVC <input type="checkbox"/> EPDM <input type="checkbox"/></p> <p>CPVC <input type="checkbox"/> Viton® <input type="checkbox"/></p> <p>LXT PVC <input type="checkbox"/> Other <input type="checkbox"/> _____</p> <p>O-ring Seals:</p> <p>(If Other Explain) _____</p>	<p>End Connector:</p> <p>Socket <input type="checkbox"/> Flange <input type="checkbox"/></p> <p>Threaded <input type="checkbox"/> Spigot <input type="checkbox"/></p> <p>SR Threaded <input type="checkbox"/></p> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>Metric <input type="checkbox"/></p> <p>DIN <input type="checkbox"/></p> <p>JIS <input type="checkbox"/></p> <p>BSP (Thread) <input type="checkbox"/></p> </div>
<p>Pneumatic <input type="checkbox"/> Not all combinations may be available.</p> <p>FailSafe Type - (Position to which valve cycles upon air loss)</p> <p><input type="checkbox"/> Double Acting (No FailSafe. Stays in last activated position)</p> <p><input type="checkbox"/> Spring Return - Close (FailSafe in <u>closed position</u> upon air loss)</p> <p><input type="checkbox"/> Spring Return - Open (FailSafe in <u>open position</u> upon air loss)</p> <p><input type="checkbox"/> Other: _____</p> <p>Operating Air Pressure (psi) - (Compressed air supply required to operate actuator)</p> <p><input type="checkbox"/> 80-150 <input type="checkbox"/> Other: _____</p> <p>Override Type - (Override used to cycle valve upon air loss)</p> <p><input type="checkbox"/> Basic <input type="checkbox"/> Declutchable <input type="checkbox"/> Other: _____</p> <p>Aux. Limit Switches - (Additional mechanical switches to operate external lights, alarms etc. (set of 2))</p> <p><input type="checkbox"/> SPDT - Mechanical <input type="checkbox"/> SPDT - Proximity <input type="checkbox"/> DPDT - Mechanical</p> <p>Voltage Signal Type Specify Voltage: _____</p> <p>Visual Indicator - (Provides local visual valve position indication)</p> <p><input type="checkbox"/> Low Profile <input type="checkbox"/> Dome <input type="checkbox"/> No Indicator</p> <p>Positioner Type - (Positioner accepts an input signal from PLC to control valve cycle).</p> <p><input type="checkbox"/> Pneumatic Positioner (Air supply required to operate valve)</p> <p>Signal Pressure - (Air pressure required to position the valve)</p> <p><input type="checkbox"/> 3-15 psi <input type="checkbox"/> Other: _____</p> <p><input type="checkbox"/> Electro-Pneumatic Positioner (Air and voltage supply required to operate)</p> <p>Signal Voltage Input <input type="checkbox"/> 4-20mA <input type="checkbox"/> 0-10 VDC <input type="checkbox"/> Other: _____</p> <p><input type="checkbox"/> With Transmitter - (Sends output signal to PLC to provide valve position)</p> <p>Transmitter Output <input type="checkbox"/> 4-20mA <input type="checkbox"/> 0-10 VDC <input type="checkbox"/> Other: _____</p> <p>NEMA Rating - (Enclosure rating indicates level of ingress protection from fluids, solids and gases)</p> <p><input type="checkbox"/> 4 <input type="checkbox"/> 4x <input type="checkbox"/> Other: _____</p> <p>Solenoid Valve - (Regulates actuator intake/exhaust air supply)</p> <p><input type="checkbox"/> 3 & 4 Way <input type="checkbox"/> Dual Coil (Double Acting Actuators only) <input type="checkbox"/> Other: _____</p> <p>Solenoid Valve Voltage</p> <p><input type="checkbox"/> 115 VAC <input type="checkbox"/> 230 VAC <input type="checkbox"/> Other: _____</p> <p>NEMA Rating - (Enclosure rating indicates level of ingress protection from fluids and solids)</p> <p><input type="checkbox"/> 4 <input type="checkbox"/> 4x <input type="checkbox"/> Other: _____</p> <p><input type="checkbox"/> Other Options:</p> <p>_____</p>	<p>Electric <input type="checkbox"/> Not all combinations may be available.</p> <p><input type="checkbox"/> Basic Two Position (90 Degree Travel Standard)</p> <p><input type="checkbox"/> 3 Position 90 <input type="checkbox"/> 180 <input type="checkbox"/></p> <p>FailSafe Position (if required)</p> <p><input type="checkbox"/> Fail Open - FailSafe in <u>open position</u> upon power loss</p> <p><input type="checkbox"/> Fail Close - FailSafe in <u>closed position</u> upon power loss</p> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>Note: On "Fail Safe" Options Two Positions ONLY Override Not Recommended.</p> </div> <p>Voltage Supply Power:</p> <p><input type="checkbox"/> 115 VAC <input type="checkbox"/> 230 VAC <input type="checkbox"/> Other: _____</p> <p>Frequency <input type="checkbox"/> 50 Hertz <input type="checkbox"/> 60 Hertz</p> <p>Phase <input type="checkbox"/> Single <input type="checkbox"/> Three</p> <p>Override Type - (Override used to cycle valve upon power loss)</p> <p><input type="checkbox"/> Basic <input type="checkbox"/> Declutchable <input type="checkbox"/> Other: _____</p> <p>Duty Cycle (Amount of work valve can accomplish before requiring rest)</p> <p><input type="checkbox"/> 25% <input type="checkbox"/> 75% <input type="checkbox"/> Other/Min. Requirement: _____</p> <p>NEMA Rating - (Enclosure rating indicates level of ingress protection from fluids and solids)</p> <p><input type="checkbox"/> 4 <input type="checkbox"/> 4x <input type="checkbox"/> Other: _____</p> <p>Positioner Type - (Positioner accepts an input signal from PLC to control valve cycle)</p> <p><input type="checkbox"/> Positioner with Transmitter</p> <p>Signal Input <input type="checkbox"/> 4-20mA <input type="checkbox"/> 0-10 VDC <input type="checkbox"/> Other: _____</p> <p>Transmitter - (Sends output signal to PLC to provide valve position)</p> <p>Signal Output <input type="checkbox"/> 4-20mA <input type="checkbox"/> 0-10 VDC <input type="checkbox"/> Other: _____</p> <p><input type="checkbox"/> Positioner - NO Transmitter</p> <p>Signal Input <input type="checkbox"/> 4-20mA <input type="checkbox"/> 0-10 VDC <input type="checkbox"/> Other: _____</p> <p>Auxiliary Limit Switches (Additional mechanical switches to operate external lights, alarms etc.)</p> <p><input type="checkbox"/> 2 <input type="checkbox"/> 4 (Set of 2 each)</p> <p>Standard Accessories - All options not available in all actuator combinations</p> <p><input type="checkbox"/> Torque Sensor <input type="checkbox"/> Friction Brake</p> <p><input type="checkbox"/> Battery Backup <input type="checkbox"/> LED Indicating Lights (red /green)</p> <p><input type="checkbox"/> Speed Control <input type="checkbox"/> 2 Wire Control Relay</p> <p><input type="checkbox"/> Heater & Thermostat <input type="checkbox"/> [On @ 41F] [Off @ 60.8F] <input type="checkbox"/> [On @ 69.8F] [Off @ 89.6F]</p> <p style="text-align: center;"><input type="checkbox"/> [On @ 62.6F] [Off @ 80.6F]</p> <p><input type="checkbox"/> Other Options:</p> <p>_____</p>

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Diaphragm Valves: System Media Pressure (Required) psi _____ kPa _____ Bar _____ Nominal Size in _____ mm _____ cm _____ Valve Quantity Each _____	
Diaphragm Valve Type: EPDM <input type="checkbox"/> Viton® <input type="checkbox"/> PTFE/Viton® <input type="checkbox"/> PTFE/EPDM <input type="checkbox"/> Other Valve Type <input type="checkbox"/> _____	Body Material: PVC <input type="checkbox"/> CPVC <input type="checkbox"/> LXT PVC <input type="checkbox"/> Polypropylene <input type="checkbox"/>
End Connector O-rings 1/2" - 2": EPDM <input type="checkbox"/> Viton® <input type="checkbox"/> PTFE/Viton® <input type="checkbox"/> PTFE/EPDM <input type="checkbox"/> Other <input type="checkbox"/> _____ (If Other Explain) _____	End Connector: Socket <input type="checkbox"/> SR Threaded <input type="checkbox"/> Flange <input type="checkbox"/> Spigot <input type="checkbox"/>
<input type="checkbox"/> Other information: _____	
Pneumatic <input type="checkbox"/> Not all combinations may be available. FailSafe Type - (Position to which valve cycles upon air loss) <input type="checkbox"/> Double Acting (No FailSafe. Stays in last activated position) <input type="checkbox"/> Spring Return - Close (FailSafe in <u>closed position</u> upon air loss) <input type="checkbox"/> Spring Return - Open (FailSafe in <u>open position</u> upon air loss) <input type="checkbox"/> Other: _____ Operating Air Pressure (psi) - (Compressed air supply required to operate actuator) <input type="checkbox"/> 80-116 <input type="checkbox"/> Other: _____ Override Type - (Override used to cycle valve upon air loss. Not available in sizes 1/2" - 2") <input type="checkbox"/> Basic <input type="checkbox"/> Declutchable <input type="checkbox"/> Other: _____ Aux. Limit Switches - (Additional mechanical switches to operate external lights, alarms etc. (set of 2) <input type="checkbox"/> SPDT - Mechanical <input type="checkbox"/> SPDT - Proximity <input type="checkbox"/> DPDT - Mechanical Voltage Signal Type: Specify Voltage: _____ Visual Indicator - (Provides local visual valve position indication) <input type="checkbox"/> Low Profile <input type="checkbox"/> Dome Positioner Type - (Positioner accepts an input signal from PLC to control valve cycle). <input type="checkbox"/> Pneumatic Positioner (Air supply required to operate valve) Signal Pressure - (Air pressure required to position the valve) <input type="checkbox"/> 3-15 psi <input type="checkbox"/> Other: _____ <input type="checkbox"/> Electro-Pneumatic Positioner (Air and voltage supply required to operate) Input <input type="checkbox"/> 4-20mA <input type="checkbox"/> 0-10 VDC <input type="checkbox"/> Other: _____ <input type="checkbox"/> With Transmitter - (Sends output signal to PLC to provide valve position) Transmitter Output <input type="checkbox"/> 4-20mA <input type="checkbox"/> 0-10 VDC <input type="checkbox"/> Other: _____ NEMA Rating - (Enclosure rating indicates level of ingress protection from fluids and solids) <input type="checkbox"/> 4 <input type="checkbox"/> 4x <input type="checkbox"/> Other: _____ Solenoid Valve - (Regulates actuator intake/exhaust air supply) <input type="checkbox"/> 3 way (Air-to-Spring) <input type="checkbox"/> 4 way (Double Acting Actuators only) <input type="checkbox"/> Other: _____ Solenoid Valve Voltage <input type="checkbox"/> 115 VAC <input type="checkbox"/> 230 VAC <input type="checkbox"/> Other: _____ NEMA Rating - (Enclosure rating indicates level of ingress protection from fluids, solids and gases) <input type="checkbox"/> 4 <input type="checkbox"/> 4x <input type="checkbox"/> Other: _____ <input type="checkbox"/> Other Options: _____	Not all combinations may be available. Electric Multi Turn <input type="checkbox"/> Voltage Supply Power: <input type="checkbox"/> 115 VAC <input type="checkbox"/> 230 VAC <input type="checkbox"/> Other: _____ Frequency <input type="checkbox"/> 50 Hertz <input type="checkbox"/> 60 Hertz Phase <input type="checkbox"/> Single <input type="checkbox"/> Three Override Type - (Override used to cycle valve upon power loss) <input type="checkbox"/> Basic <input type="checkbox"/> Declutchable <input type="checkbox"/> Other: _____ Duty Cycle (Amount of work valve can accomplish before requiring rest) <input type="checkbox"/> 25% <input type="checkbox"/> 75% <input type="checkbox"/> Other: _____ NEMA Rating - (Enclosure rating indicates level of ingress protection from fluids and solids) <input type="checkbox"/> 4 <input type="checkbox"/> 4x <input type="checkbox"/> Other: _____ Positioner Type - (Positioner accepts an input signal from PLC to control valve cycle) <input type="checkbox"/> Positioner with Transmitter Signal Input <input type="checkbox"/> 4-20mA <input type="checkbox"/> 0-10 VDC <input type="checkbox"/> Other: _____ Transmitter - (Sends output signal to PLC to provide valve position) Signal Output <input type="checkbox"/> 4-20mA <input type="checkbox"/> 0-10 VDC <input type="checkbox"/> Other: _____ <input type="checkbox"/> Positioner - NO Transmitter Signal Input <input type="checkbox"/> 4-20mA <input type="checkbox"/> 0-10 VDC <input type="checkbox"/> Other: _____ Auxiliary Limit Switches (Additional mechanical switches to operate external lights, alarms etc.) <input type="checkbox"/> 2 <input type="checkbox"/> 4 (Set of 2 each) Standard Accessories - All options not available in all actuator combinations <input type="checkbox"/> Torque Sensor <input type="checkbox"/> Battery Backup <input type="checkbox"/> LED Indicating Lights (red /green) <input type="checkbox"/> Speed Control <input type="checkbox"/> 2 Wire Control Relay <input type="checkbox"/> Heater & Thermostat <input type="checkbox"/> [On @ 41F] [Off @ 60.8F] <input type="checkbox"/> [On @ 69.8F] [Off @ 89.6F] <input type="checkbox"/> [On @ 62.6F] [Off @ 80.6F] <input type="checkbox"/> Other Options: _____

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