Replacement of Fisher™ POSI-SEAL™ A81 High-Performance Butterfly Valve with Fisher 8580 High-Performance Butterfly Valves

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Management of Change

Management of Change (MOC) is a procedure used to proactively manage changes that have the potential to impact safety or the process within a plant. Evaluating new techniques for improving MOC approval procedures can have an impact on plant efficiency. Historically, upgrading obsolete products or replacing existing process control equipment had been delayed or abandoned due to the extensive paperwork involved in completing a complex MOC approval sheet.

Background

The Fisher POSI-SEAL™ A81 rotary valve is a high-performance butterfly valve (HPBV) for use in automated on-off, quarter-turn applications. The A81 valve is configured with a square shaft and mounting brackets meeting ISO5211 for use with actuators such as rack-and-pinion style or similar. Fisher POSI-SEAL A81 valves are obsolete, effective October 2015, and have transitioned to the Fisher 8580 rotary valve.

The Fisher POSI-SEAL A81 valve was developed together with and is very similar to the Fisher 8580 rotary valve. The 8580 valve is typically configured with a spline shaft and mated with Fisher 2052 or 1061 actuators for excellent throttling performance. However, the 8580 valve is now available with shaft style and actuator mounting options that make it possible to configure an 8580 valve identically as an A81 valve. Fisher 8580 valves configured with the square shaft and ISO5211 mounting options will perform and install the same as the A81 valve and may be used in the same applications.

For more information regarding Fisher rotary valves, please contact your local Emerson sales office.

Question & Answer Checklist

1 **Q:** Does the proposed modification cause any changes to the piping and instrumentation diagram (P&ID)?

A: No.

2 **Q:** Does the proposed modification change process chemistry, technology, or operating and control philosophies?

A: No.

3 **Q:** Does the proposed modification change how the existing plant is operated?

A: No.

4 **Q:** Does the proposed modification change process flows?

A: No.

5 **Q:** Does the proposed modification change existing pressure relief cases?

A: No.

6 **Q:** Does the proposed modification change the process description?

A: No.

7 **Q:** Have the codes and standards to which the new equipment was designed changed?

A: No. However, they may have been updated since installation.

8 **Q:** Does the proposed modification change the materials of construction, such as a change in material form (cast, forged, or alloy)?

A: No.

9 **Q:** Does the proposed modification introduce new equipment items that require periodic predictive maintenance?

A: No. These equipment items will require the same periodic predictive maintenance.

10 **Q:** Does the proposed modification change existing operator training requirements?

A: No.

11 **Q:** Does the proposed modification introduce new equipment items that require spare parts, training manuals, maintenance procedures or training to teach the maintenance department how to maintain them?

A: No.

12 **Q:** Does the proposed modification introduce new equipment items that require spares or obsolete spares for existing equipment?

A: No.

13 **Q:** Does the proposed modification permanently remove the spares for existing pieces of equipment?

A: No.

14 **Q:** Does the proposed modification change the inspection scope or inspection interval?

A: No.

15 **Q:** Does the proposed modification require welding work to be performed?

A: No.

16 **Q:** Have the materials of construction been reviewed to ensure that the metallurgy is correct?

A: Change does not affect metallurgy.

A81 Valve and 8580 Valve Comparison

The following sections are intended to provide a nominal comparison between Fisher POSI-SEAL A81 valve and the Fisher 8580 valve.

Scope, Size, Class

The A81 valve was available in NPS2, CL150-600 and NPS3 through NPS 12, CL150-300. All sizes of A81 valve are obsolete and replaced with the equivalent size and class 8580 valve.

Capacities (C_v)

The flow capacity of the 8580 valve is the same as the A81 valve.

Actuator Sizing (Torque)

The actuator sizing for the A81 valve is the same as the 8580 valve. The sizing coefficients, breakout torque, and dynamic torque are the same.

Dimensions

The A81 valve has the same dimensions as the 8580 valve when the square shaft style option is used. This includes actuator mounting dimensions.

Body Style

A81 and 8580 valves were previously available in both wafer (flangeless) and lugged (single flange) valve body styles. The lugged body style of the Fisher 8580 valve is now standard. Lugged valve bodies can be direct replacements of wafer body valves. The face-to-face dimensions are the same. A drilled through flange hole option is available for users who prefer the flange bolting style typically used with wafer bodies.

Spare Parts

The A81 valve and 8580 valve uses identical trim parts, including: seals, gaskets, bearings, packing, disk, and pins. Any spare parts for the A81 valve may be used in the 8580 valve.

Conclusion

Emerson offers the Fisher 8580 valve with an optional ISO5211 actuator mounting configuration as a replacement for the obsolete Fisher POSI-SEAL A81 valve. With this change, Emerson offers a simplified line of Fisher butterfly valves while maintaining full application coverage.

Additional Resources

8580 Product Webpage

8580 Instruction Manual

8580 Product Bulletin

Visit Fisher.com to find an Emerson sales contact in your area.

http://www.Facebook.com/FisherValves

http://www.YouTube.com/user/FisherControlValve

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