

Large Particulate Mix Proof Valve



Challenge

A customer came to us with the challenge of automating their labor-intensive and inefficient fruit processing system consisting of four mixing kettles and two fillers. The catch was that they wanted the new system to use Mix Proof valves so they could benefit from the flexibility this technology offers, but the system had to be able to handle products that contained large pieces of fruit. At that time, there was no Mix Proof Valve on the market that could handle the size of particulates used in their products.

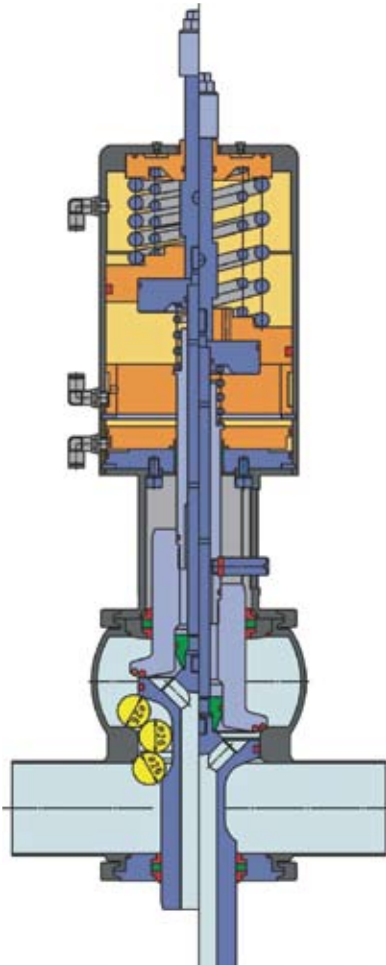
Solution

Our design engineers went to work and, using our standard leak-free Mix Proof Valve as a baseline, developed a valve which allows particulates, up to 1 inch in the standard design, to travel down through the valve without lodging in the seat area. With the standard integral seat lift actuator, both seats can be cleaned during operation. Using the Mix Proof Valves in a cluster design also allowed the customer to lower the height of the mixing kettles so that they were accessible from the ground. By replacing flow plates with Mix Proof Valves, the customer improved product quality by eliminating atmospheric contamination. In conjunction with Norit Südmo's Bus-compatible control top, the customer was able to integrate the valves into their control system with a simple cable and air supply.

Norit Südmo's proven technology, superior service and commitment to continued innovation to meet our customers' needs, are just some of the reasons our customers know they can rely on us.



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Benefits

- Pass particulates up to 1 inch in size
- Safely run product and CIP or two different products simultaneously
- Increase plant efficiency by up to 35% over conventional systems
- 5-year prorated actuator warranty
- O-rings (not V-rings) require no special tools for seal insertion
- Body machined from a solid piece of bar stock
- Leak-free design
- Integral seat lift actuator
- Mix Proof double seat design

Applications

Any application with particulates up to 1 inch including:

- Confectionery
- Meat
- Fruit or vegetable pieces
- Syrups
- Shredded foods

Standard Specifications

Materials

- Product contact: 316L (1.4404)
- Non-product contact: 304 (1.4301)
- Optional: Hastelloy, AL6XN

Seals

- Standard: EPDM
- Optional: HNBR, FPM (Fluoro-Rubber), FFKM (Perfluorinated Fluoro-Rubber)

Operating Pressure

- Control air pressure: Standard 87-116 psi
- Product pressure: Standard 87 psi
- Optional: 145 psi

Connections

- Standard: Sanitary O.D. tube butt weld
- Optional: Sanitary O.D. tube clamp
Welding ends for metric tubes
Welding ends for ISO tubes
DIN nut

Finish

- ≤ 32 Ra product contact
- ≤ 63 Ra non-product contact \geq

Options

- Improved mechanical polish/electropolish
- Control top
- Sterilization chamber
- Mix match body
- 3.1B material certification

Südmö North America, Inc. reserves the right to make changes in the technical specifications at any time.



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