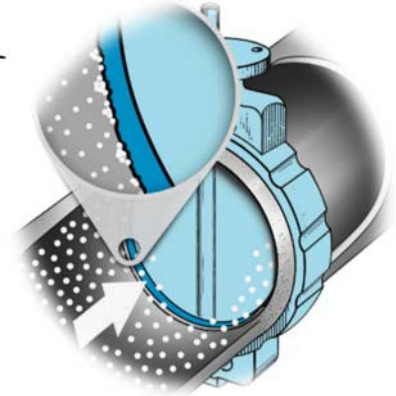


Development background

The transportation of powder and particulates is a lasting challenge in the application of traditional industrial butterfly valves.

1. Long-lasting wear caused by powder flow to the sealed valve seat.
2. The powder trapped between the valve seat and plate intensified the abrasion of the valve and the seat in the moment.
3. Excessive squeeze deformation under high-frequency operating conditions between the valve seat and plate further reduces the reliability of the valve.
4. The working life of the valve seat is greatly reduced
5. Energy waste due to excessive operating torque



Based on the specificity of the powder conveying application, Flowx finally successfully developed a targeted model-expansion seal butterfly valve after directional testing and R & D. In addition to excellent technical performance, the precise design concept minimizes the user's Maintenance cost and use cost.

Application

With its unique product design, in addition to powder material delivery, the expansion seal butterfly valve can also more perfectly meet the working conditions of traditional industrial butterfly valves.

Energy industry — Lithium battery graphite powder

Smelting industry— Metal powder

Food and pharmaceutical industry - Medicine powder, granular raw material

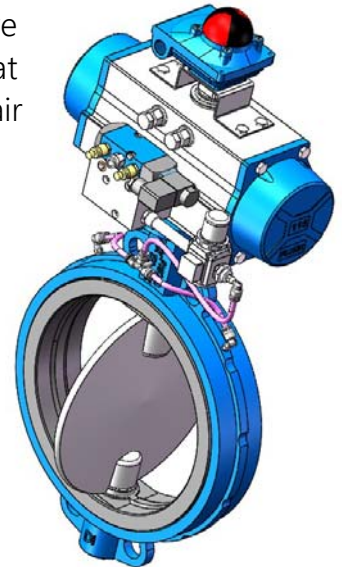
Petrochemical industry-Coating powder, toner, plastic pellet

Construction Engineering Industry— Cement Power Industry— Ash

Technical characteristics

Expansion seal system

The unique design of the valve seat makes the valve body and valve seat have a continuous, deformable cavity. When the valve plate is closed, the valve seat slowly expands and holds the valve plate under the pressure of the external air source to achieve the sealing effect. When need to open, the pressure in the cavity will quickly evacuate the valve seat to contract to release the valve plate, and then open the valve plate. Therefore, during the opening and closing process, the contact time and contact area of the valve seat and the valve plate are very small. The operating torque of the valve is reduced by 85% compared with the traditional butterfly valve, the wear rate between the valve plate and the seat is reduced by about 98%, and at the same time, the sealing reliability of the valve has been greatly improved.



Integrated pneumatic valve block

The integrated air control valve block designed for the expansion seal butterfly valve ensures the stability and accuracy of the valve switch under high frequency operation conditions. The integrated solution reduces the complexity of internal pipelines and the overall structure size, which simplifies on-site installation and maintenance.

Technical Parameters

Size : DN80~DN300

Pressure : PN10/16

Installation : Flanged wafer type

Seat : EPDM

Body : Various options (cast iron, cast steel, stainless steel CF8, stainless steel CF8M)

Solenoid Valve : Two-position five-way pneumatic solenoid valve (optional manual control solenoid valve)

Control: 220VAC 50Hz or 24VDC

Signal feedback : Two sets of passive contact signals (open into position, close into position)

Air pressure : 0.2~1 MPa Compressed air

Air source interface : 8mm

Operating frequency : No more than 10 times / minute

Working principle

Through the air control valve block, the sequence action between the air seal, the exhaust and the switch signal is formed.

