Soft Rubber Lined Eccentric Plug Valve in Slurry Service

The DeZURIK CIS (Cast Iron) Soft Rubber Lined Eccentric Plug Valve has proven to be an excellent valve selection for on-off corrosive and abrasive slurry service. DeZURIK soft rubber lined valves are used in ash handling systems, scrubber circulating and effluent discharge, thickener feed and under-flow, ball and rod mill feeds, classifier feeds, reclaimed water, and tailing systems. The combination of the raised seat and eccentric action allows solids to be wiped away to provide positive closure. The quarter turn action of the valve contains all process media inside the valve body. There is no discharge to the outside environment each time it is operated.

The standard CIS Soft Rubber Lined Valve can be provided with several additional features which make it even more suitable in special applications. Purge connections can be placed in the valve body directed at the plug face in the open position, which allow the area between the plug and the valve body to be flushed if necessary. Because the valve is normally mounted in reverse flow in a slurry application, it is recommended that the nickel seat be exposed when pressure is in excess of 100 psi (690 kPa) to insure drip-tight shut-off. Carbon steel construction can be provided, which enables the CIS to be applied to slurries up to 450 psi (3100 kPa) C.W.P. For acidic slurry applications, additional standard grit excluders can be purchased. The CIS Soft Rubber Lined Valve is available with hard rubber bearings in lieu of the standard stainless steel, and the stainless plug in lieu of the standard cast iron. The factory should be consulted on services with flows above 11’ (3m) per second or particles larger than 1/16” (.0625mm).

It is recommended that either a worm gear or cylinder operator be selected for CIS Soft Rubber Lined Eccentric Valves in slurry service.
Proper Installation

The proper installation of the DeZURIK CIS Soft Rubber Lined Valve in a slurry application is critical to prevent solids from packing into the valve body, restricting the plug movement. This can be accomplished by installing the valve with the flow against the face of the plug in the closed position and the valve on its side with the plug rotating to the top of the pipeline in the open position.

Where the possibility of overhead drainback exists, the valve should be installed with the plug facing in the overhead drainback condition.

The DeZURIK CIS Soft Rubber Lined Valve is not designed to be a throttling valve. This valve should be operated to either the full open or full closed position.

For Pump Isolation Service, install the discharge valve with the seat downstream from the pump and with the plug rotating to the top of the pipeline in the open position.

Shut
Flow against face of plug prevents solids from packing in body cavity while shut. Where there is no chance of overhead drainback, install valve with flow against face of plug. Install valve laying on its side so plug rotates 90° to open. This keeps plug and journals free from sediment.

Open
Install valve so plug rotates up 90° to open. This prevents sediment from sticking plug open.

Slurry in Vertical Line
Where the possibility of overhead drainback exists, install valve with flow against back of plug. This prevents drainback solids from packing into body.

Valve Design

Compression fit where lining contacts hard rubber bearings and meets rubber lining on plug at top and bottom journals excludes abrasive particles and seals metal surfaces of body and bonnet from contact with corrosive fluid.

Top and bottom journals furnished with permanently lubricated stainless steel bearings.

Grease fittings in top and bottom journal bearings provide for easy lubrication and aid in preventing solids from forming or entering the journal area. This is standard on cast iron and optional on hard rubber bearing.

Adjustable multiple ring PTFE packing prevents stem leakage and compensates for packing wear.

Large port opening and straight through flow path minimize turbulence and wear caused by impingement.

Valve body flange faces and all internal body, plug and cover surfaces are lined with soft rubber to resist abrasion.

For information about our worldwide locations, approvals, certifications and local representative:

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