



For **Severe Service** Control Solutions, Turn to Fisher Technology and Innovation

FISHER RETROFITS TRIM AND INCREASES LIFE OF POWER PLANT'S FEEDPUMP RECIRCULATION VALVES

A power plant in Florida was having repeated leakage trouble with eight feedpump recirculation valves. The valves would leak after only several months of operation, causing the plant to come off-line for repairs. After looking at several options and consulting with Severe Service engineers from the Fisher Valve Division, plant personnel chose to retrofit the existing valve bodies, using the proven Cavitrol® IV technology.

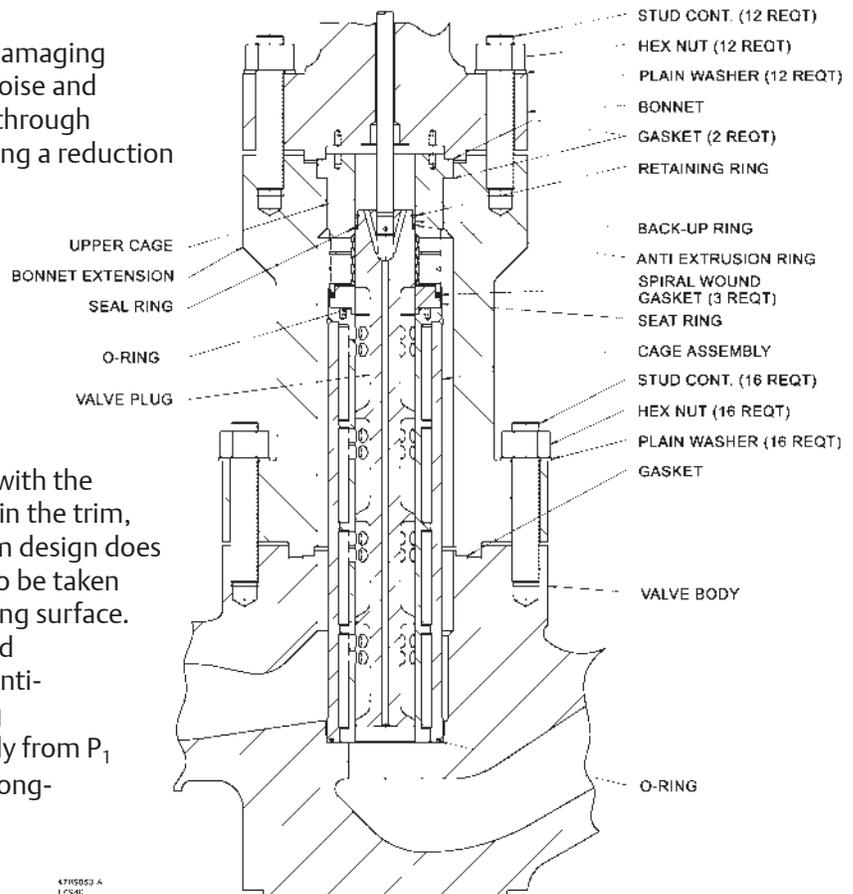
The Cavitrol IV trim was designed specifically for feedpump recirculation applications. The trim incorporates four-stages of anti-cavitation protection, a technique that prevents the formation of damaging cavitation at pressure drops up to 6000 psid.

Cavitrol IV solutions not only eliminate damaging cavitation, but also minimize resultant noise and vibration. The trim's design passes flow through successively larger flow areas, each causing a reduction in pressure. This "staging" of the overall pressure drop results in more than 90% of the total drop being taken in the first three stages where there is less danger of bubble formation. The last stage, therefore, experiences a relatively low inlet pressure, and minimal fluid energy exits the trim.

The pressure staging design, combined with the separation of shutoff and throttling within the trim, prevents clearance-flow erosion. The trim design does not allow any significant pressure drop to be taken until the fluid is downstream of the seating surface. All clearance flow is subjected to a staged pressure drop. Unlike linear, cage-style anti-cavitation trim sets, there are no flowing conditions where pressure can go directly from P_1 to P_2 . This feature is key to maintaining long-lasting tight shutoff in this critical application.

The plant has experienced no leakage-related issues since these retrofitted valves were installed. The improved performance has allowed the plant to maintain operations while improving its efficiency.

For more severe service solutions, see us at www.fishersevereservice.com.



Severe Service