



Summary

Industry:	Petrochemical
Application:	Filter bowl seal and Centre plate
Actual Saving:	£n/a
Payback Period:	n/a



X Ring Reduces Seal Extrusion

ERIKS Sealing Technology Supports OEM Filtration Manufacturer

ISSUE

An ERIKS OEM customer, a world leading motion and control systems manufacturer was experiencing problems with a compressed air preparation filter that they supply. ERIKS Sealing Technology currently supply o-rings for this filter. The customer contacted ERIKS for their sealing technology expertise in solving the problem.

The end user of the filter was experiencing significant air leakage from the outer casing as well as the end plate of the filter bowl. There was an extrusion gap of 0.5mm if the endplate was fitted centrally. The O ring compression ranged from 4% to 15% dependant on the +/- extremities of the metal work tolerances. As a result of this, the end plate was moving every time the pressure was switched on/off. This created a possibility of the end plate being eccentrically positioned creating an O ring compression of -17% to 30%.

SOLUTION

The filter manufacturer was not able to change the geometry of the groove, so ERIKS suggested changing the O ring to an X ring, which would provide greater stability whilst reducing the possibility of seal extrusion in this dynamic application. By increasing the cross section of the seal, ERIKS and the OEM are able to increase the compression percentage to create an air tight solution.

OTHER BENEFITS

- ERIKS Sealing Technology Know-how resulted in an alternative seal solving the problem rather than the a fundamental design change which would have been extremely costly

FURTHER COMMENTS...

Since changing the design, there have been no further issues or product returns.

MORE INFORMATION

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know-how makes the difference