

CASE STUDY

Gallagher Fluid Seals helps meters & instruments manufacturer via design and fabrication of a custom-molded gasket with an engineered profile.



PROBLEM

Customer's gas volume micro corrector was experiencing water intrusion past their closed-cell foam O-ring gasket due to severe compression set.

SOLUTION

GFS engineers designed a custom-molded gasket, with an engineered profile, which provided optimal sealing performance in the application.

RESULTS/NEXT STEPS

The Gallagher-engineered gasket solution was a success; it eliminated water intrusion and damage to the electronics, reduced warranty claims, and provided a more reliable product.

Gallagher Fluid Seals, Inc.'s (GFS) client, located in Texas, is a leading global provider of reliable infrastructure products and services for the energy industry. For almost a century, our client's meters have been used for billing of commercial and industrial gas loads and are designed to provide accurate gas measurements over widely fluctuating flow, pressure, and temperature conditions.

Their meters and instruments products include a comprehensive range of rotary meters, metering instrumentation, and test equipment for the global natural gas distribution and transmission industry.

Our client's micro corrector was experiencing water intrusion past the gasket, caused by improper seal material and configuration.

Gallagher Applications Engineer Benjamin Mell worked closely with our client to identify & address the issue and suggested sending a sample of the instrument to GFS headquarters. Our engineering team received the hardware and investigated the root cause of the seal failure.

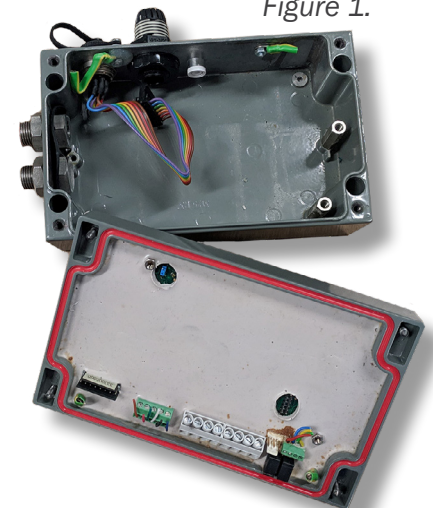
GFS engineers observed that our client's closed-cell foam gasket had taken a severe compression set. This was limiting the life & effectiveness of the foam seal, which in turn allowed water to penetrate the instrument and damage the electronics.

Based on our experience and industry insights, GFS was contracted to design & fabricate a custom-molded gasket with an engineered profile to properly mate with the hardware and perform to customer expectations/requirements. (See *Figure 1. red seal*)

Gallagher's team of engineers were able to successfully solve our client's problem, ultimately eliminating water

ingress and creating a more reliable product with a reduction of warranty claims.


Figure 1.




With the success of this project, GFS is partnering with our client for additional custom solutions. Next, we plan to help design and fabricate a window seal on the micro corrector to further decrease the possibility of water intrusion.

Want to learn more? Contact GFS today to see how we can help you with a custom solution!

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