

## 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.

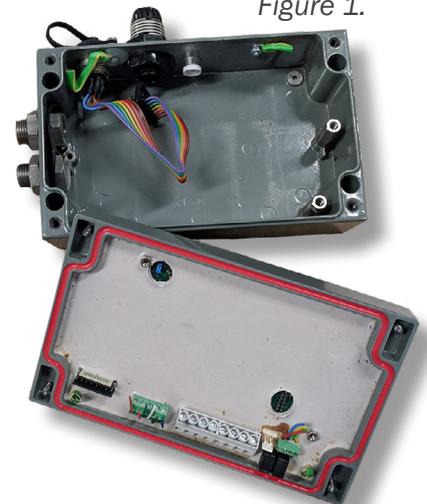
GFS engineers observed that our client's closed-cell foam gasket had taken a severe compression set. This was limiting the life & effectiveness of the foam seal, which in turn allowed water to penetrate the instrument and damage the electronics.

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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