

# **Polywater**



# INNOVATIVE WALL SEALING SOLUTION FOR A MISSION-CRITICAL DATA CENTER

#### **BACKGROUND**

The data center faced a significant challenge: ensuring a secure seal for 16 six-inch GRS conduits that penetrated the building envelope. These conduits, critical for housing essential cabling and infrastructure, had to be sealed effectively to protect against environmental hazards. Initially, the project specified a sealing solution that promised to address these needs. However, the contractor quickly encountered problems. Long installation times and subpar performance—especially water ingress during adverse weather—prompted concerns that the existing solution might compromise the data center's operational integrity.

#### **CHALLENGE**

For mission critical facilities like data centers, even a minor breach can lead to catastrophic failures. The contractor's previous experiences with the specified sealing solution had resulted in delays and increased labor costs, along with the persistent threat of water damage. Given the sensitive nature of the equipment housed within, any compromise on the seal could disrupt operations, leading to significant downtime and potential data loss. The primary challenge, therefore, was to find a sealing system that not only fit the unique specifications of the building entry but also delivered rapid installation and reliable, long-lasting protection.



Two industry leaders in infrastructure construction solutions joined forces to deliver engineered sealing systems for sectors where reliability and durability are essential. With their deep experience in pharmaceuticals, data centers, renewable energy, power generation, and food and beverage environments, Polywater® | Hauff-Technik® solutions have earned a trusted reputation—successfully solving unique sealing challenges against water, rain, dust, oil, gas, and pests.





#### **SOLUTION**

In response to these pressing concerns, the data center partnered with Polywater to devise a custom sealing solution. Through detailed consultation and a thorough review of the project parameters, it was determined that a custom-designed wall sealing system was necessary. The seal had to conform to precise openings, spacing, and the outside diameters of the already installed conduits.

Polywater introduced an innovative split flange and mechanical seal solution from their Polywater | Hauff-Technik line. The split flange design allowed the seal to be easily retrofitted around the pre-installed conduits, while the mechanical seal ensured a robust barrier against water, dust, and gas infiltration. This tailored approach meant that the solution could be installed swiftly on site, significantly reducing installation times and labor costs.





#### IMPLEMENTATION AND RESULTS

Once the custom design was finalized, Polywater delivered the flange and seal system within eight weeks of receiving the purchase order. The installation process was streamlined and efficient, leading to measurable labor savings. Most importantly, the new Polywater | Hauff-Technik system achieved a water-tight and gastight seal, effectively protecting the data center from the risks associated with severe storms and other environmental challenges.

### CONCLUSION

This project is a testament to the power of custom solutions in addressing the unique challenges of mission critical applications. By leveraging their extensive expertise, Polywater was able to replace a problematic sealing system with an innovative solution that met the stringent demands of a modern data center. Mission critical engineers and facility owners can take confidence in knowing that with the right approach, even the most challenging sealing issues can be overcome—ensuring continuous operation and protection of vital infrastructure.





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