

Delivering Rapid Implementation of Custom-Engineered Subsea Sealing Solution

CHALLENGE

A global oil and gas services company needed to develop a seal design for a **critical coupler interface** to be used in a **large-scale, subsea vertical tree project** with strict project deadlines.

The seal assembly had to meet **stringent technical and chemical compatibility requirements**. Along with **API 6A PR2 testing**, the seal assembly had to withstand a variety of rigorous testing conditions:

- Aggressive subsea media
- Liquid and gas sealing
- Multiple stab testing

SOLUTIONS

Greene, Tweed's engineering and design team collaborated with the client's engineers to develop a **custom sealing solution** for the coupler interface, consisting of **Chemraz® 566 sealing assemblies** with **Arlon® 3000 XT backup rings**.

Greene, Tweed selected Chemraz® 566 for its **proven performance in the low-temperature subsea environment**, and Arlon® 3000 XT because of its **excellent shear strength**, extrusion resistance, and tensile strength at high pressure, which allowed for a **compact seal design**. Both Chemraz® 566 and Arlon® 3000 XT met the application requirements specifying the use of **ISO 23936-2 qualified seal component materials** for rapid gas decompression and fluid aging, respectively. In addition, the design needed to pass API 6A PR2 testing and multiple rigorous internal tests specified by this global oil and gas services company.



Arlon® 3000 XT

RESULTS

Greene, Tweed's sealing solution was **implemented successfully** on the first attempt, with no need for modification or re-design, enabling our client to **easily meet their project deadlines**. Greene, Tweed was later presented with an **innovation award** for our **dedicated support and commitment** to their success.



Chemraz® 566

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