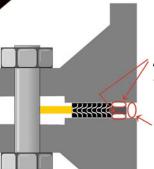
PROBLEM: CREVICE CORROSION

Typical HF Alkylation Units are plagued with flange corrosion because traditional gasket solutions leave crevices & gaps. Crevices remain, even with kammpro inners.



CONSEQUENCE

- Leaks during operation require the need to operate with clamps (run with active leaks).
- Inevitable flange repair and replacement is very costly.



Above & below inner ring after compression & flange bending

Inner ring ID to the bore



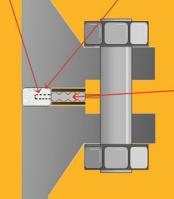
SOLUTION: CPR-HF

Corrosion. Prevention. Reisistance. **Hydrofluoric Acid**

Designed to eliminate all crevices and prevent the onset of corrosion.

- Eliminate costly, time-consuming repair
- Avoid the use of clamps
- Also capable of sealing against some existing corrosion

Inner Ring WILL NOT FALL OUT



1/4" Sigma 600

- Highly compressible PTFE inner ring
- 1/4" thickness designed to the bore eliminates all crevices*
- Conforms better than kammpro inner ring
- Reduced load requirements over kammpro inner ring

Monel Flexpro

- Primary seal
- Reduced load requirements over spiral wound
- Fire Safe graphite facing
- Carbon steel available upon request

*Pipe schedule required for all designs.



CPR-HF Success Story



UOP Licensed HF Alkylation Unit

- Flanges that chronically develop leaks after start-up requiring subsequent clamps have now been sealed with the CPR-HF with no leaks or clamps to date since January 2012.
- Most CPR-HF gaskets are in the most difficult service the Depropanizer.
- CPR-HF is sealing against repaired as well as damaged surfaces.
- No changes or improvements were made to installation procedures. Success is truly from the gasket as opposed to improved installation or controlled torquing.
- "Maintenance and Operations love the new gasket and want to use it everywhere."

CPR & CPR-HF BENEFITS

- Eliminate the use of clamps!!
- Prevent the onset of corrosion
- Resist further corrosion and seal existing damage
- Save on expense of in-situ weld build up, machining or flange replacement
- Reduce turnaround time, reduce cost
- Suitable for all standard ASME Class 150 – 2500
- Non-standard sizes available



Corrosion. Prevention. Resistance.

Flange corrosion is not only a problem in Hydrofluoric acid service. It is a constant battle in all industries ranging from offshore to chemical processing.

The CPR Gasket utilizes the same design concepts as the CPR-HF, yet the Flexpro core and facing materials are selected to match the application.

CPR standard materials are a 316L core with graphite facing unless specified otherwise.

Please provide pipe schedule with all inquiries.



SAFE

innovate / customize / educate