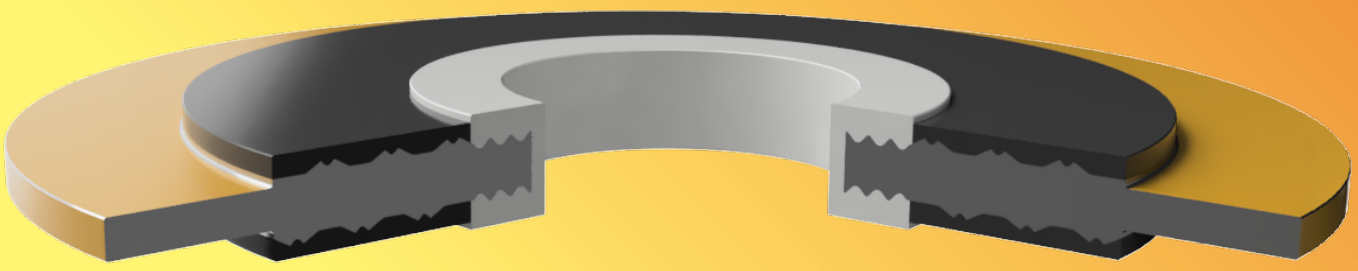
SUPERIOR SEALING SERVICES

A NEW STANDARD FOR HF-ALKYLATION GASKETS

XRG-*HF*



. EXTREMELY LOW LEAKAGE RATES
. HIGH COMPRESSION & RECOVERY

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Leakage Properties
XRG-HF vs Comp A

Fig. 1.1 The XRG-HF design has a very low leakage rate across the range of gasket stresses. Even at the first test point of 721 psi gasket stress the leakage rate is 0.000014 mg/m/s.
The low leakage rates are due to the specially designed encapsulated PTFE inner seal and the proven recovery properties of the XRG core.

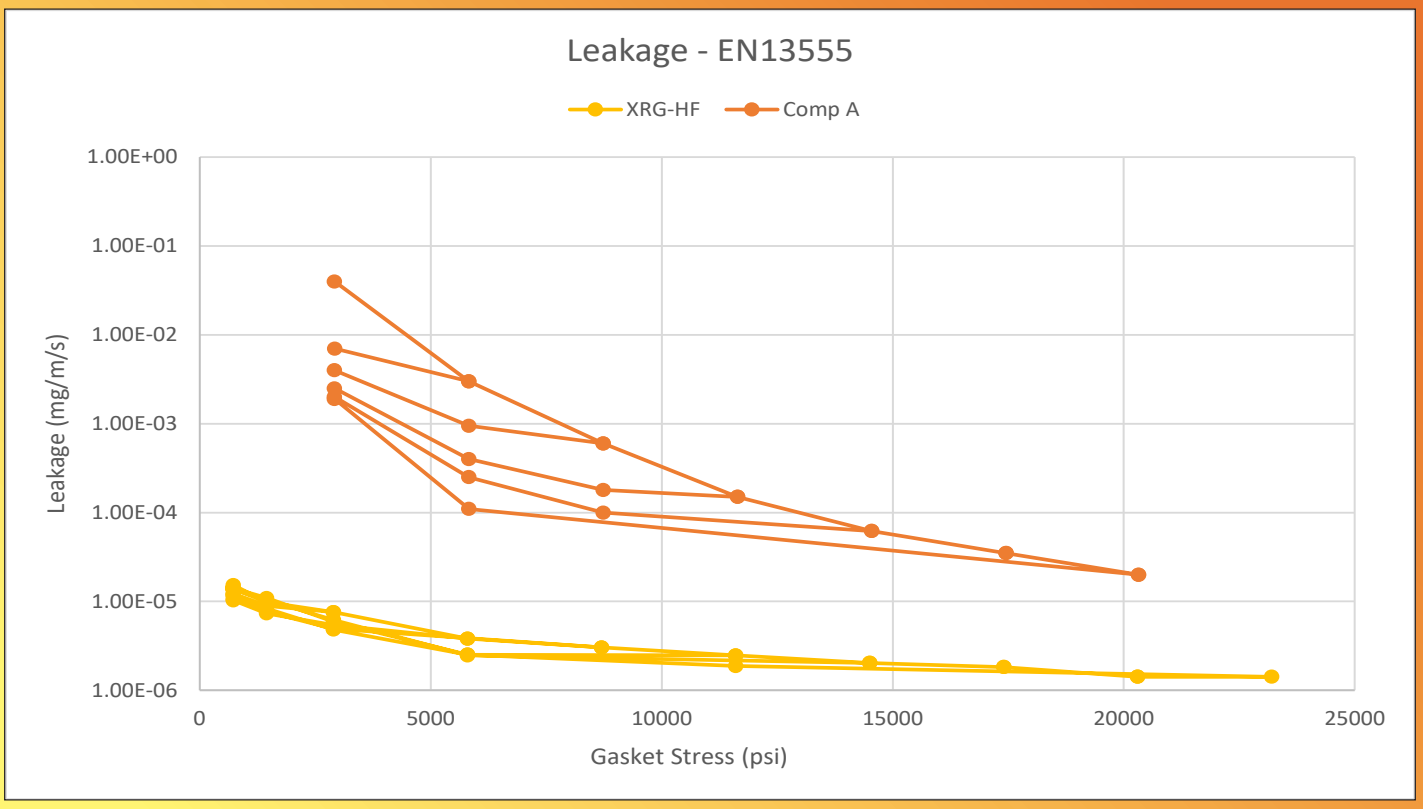


Fig. 1.1

XRG-HF		
Tightness	Gasket stress in assembly	Minimum required gasket stress in service
L	QA	QSmin(L)
	psi	psi
0.00001	1450	1418
0.00001	2901	1188
0.00001	5802	1160
0.00001	8702	1160
0.00001	11603	1068
0.00001	14504	870
0.00001	23206	870

Fig 1.2

Fig. 1.2 Demonstrates how the leakage rate doesn't increase significantly when the gasket stress reduces due to relaxation or general loss of load in the flange setup. At a assembled gasket stress of 23,206 psi the leakge rate = 0.00000142 mg/m/s, for the leakage rate to increase to the next level of magnetude (0.00001 mg/m/s) when load is lost the gasket stress would have to dropdown to 870 psi.

Compression and Recovery Values
XRG-HF vs Comp A

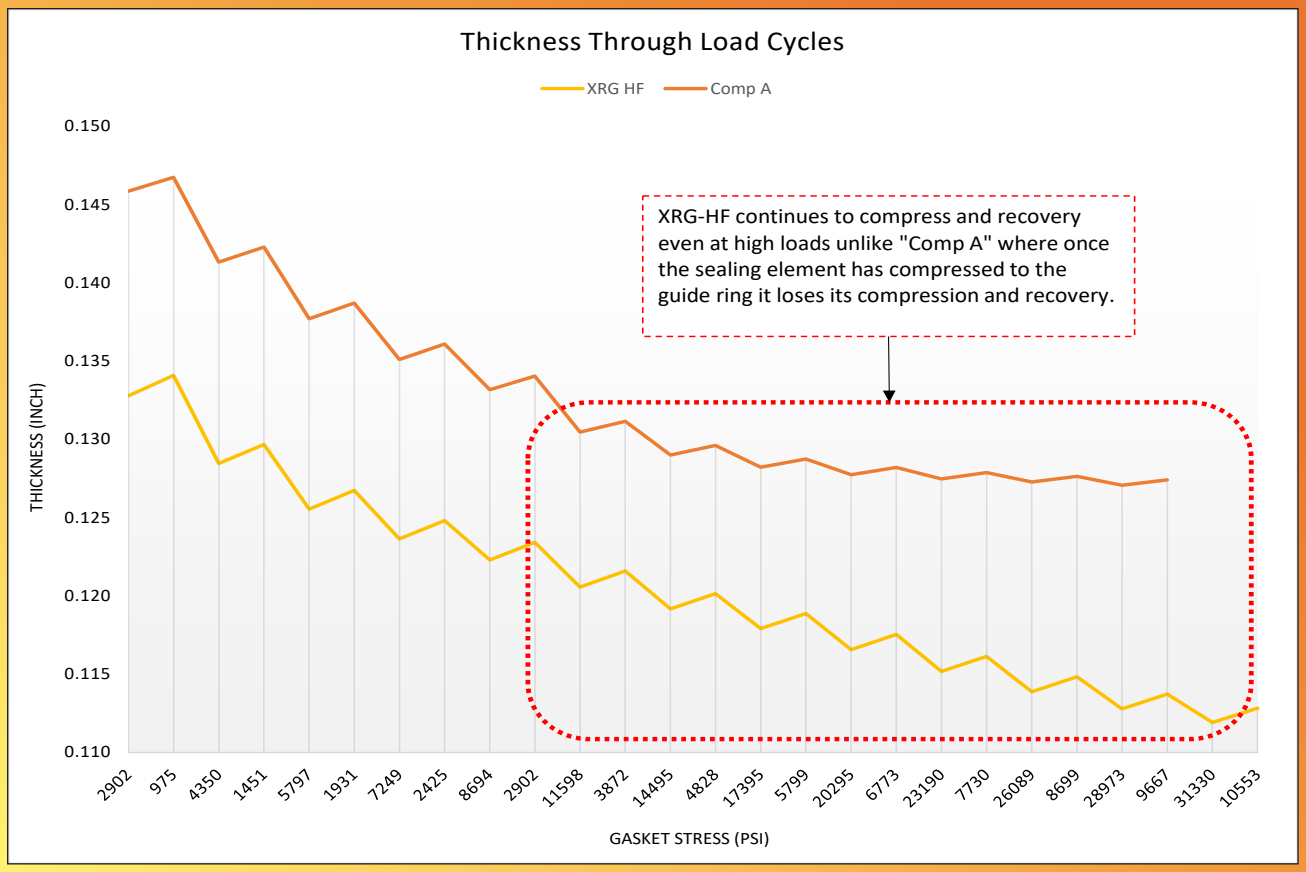


Fig. 2.1

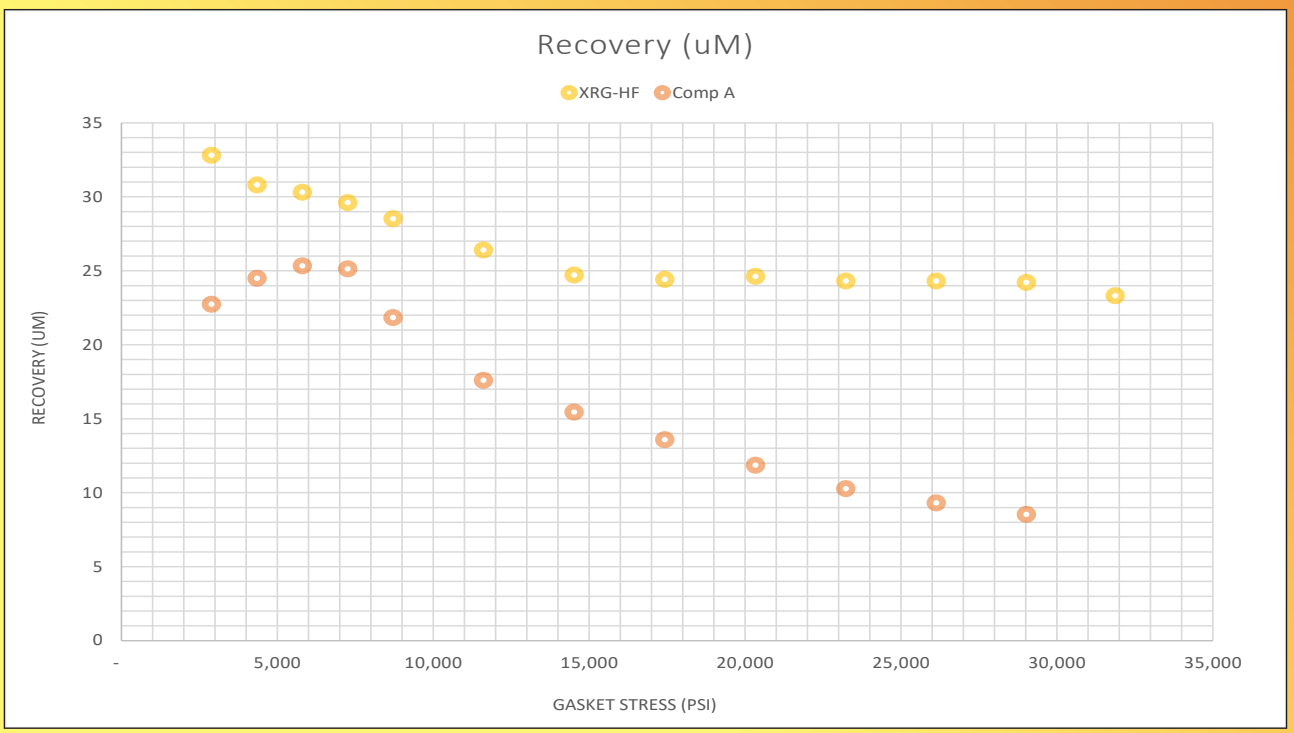


Fig. 2.2

Fig. 2.1 & 2.2 The leakage rates are consistent due to the recovery of the XRG-HF gasket as it compresses and recovers consistently throughout the gasket stress cycling test.

XRG-HF Product Range
HF Alkylation Service

Description:

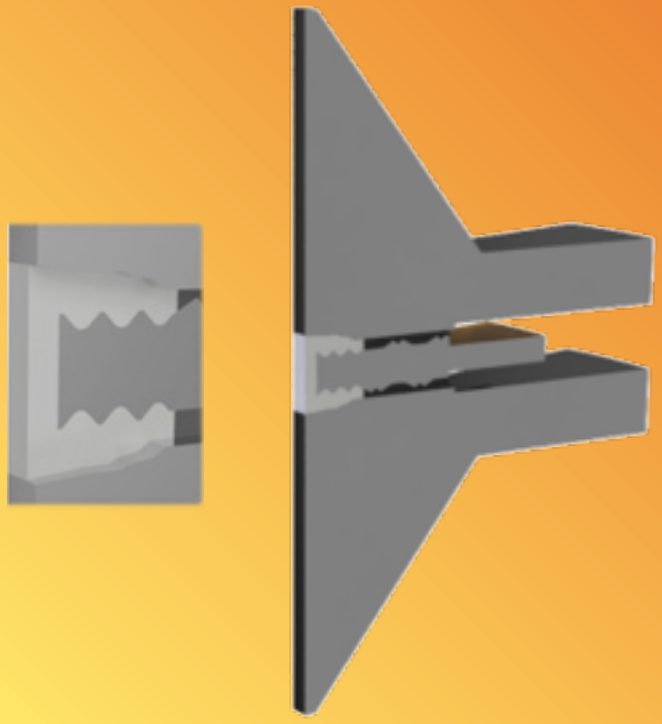
Style XRG-HF gaskets are designed for highly corrosive applications, such as Hydrofluoric Acid (HF). This style offers the advantage of having double sealing design which occupies all the space from the bore of the pipe to the outer diameter of raised face flanges.
The inner kammprofile seats the encapsulated PTFE seal, the thickness of the PTFE can vary depending on the flange corrosion, standard thickness is 1/8". The outer XRG (extra recovery gasket) sealing portion offers excellent compression and recovery as a standard and can consist of APX2® Graphite or PTFE soft sealing layers.
XRG-HF gaskets are designed for standard and non-standard flanges.

Styles:

Core Material: Monel or Carbon Steel
Facing Materials: PTFE - APX2® Graphite

Core Material: Monel or Carbon Steel
Facing Materials: PTFE - PTFE

The inner kammprofile is designed to sit on the inner bore of the pipe to stop HF build up in this area. The soft PTFE inner seal will conform to flange corrosion and create a tight seal.



Gasket Properties	
m	2.5
y	2500 psi

Maximum Temperature (Filler)	
3S Inhibited Graphite	850˚F (454˚C)
APX2 ® Graphite	975˚F (524˚C)
PTFE	500˚F (260˚C)
Maximum Temperature (Alloys)	
Monel	1500˚F (815˚C)
Carbon Steel	900˚F (482˚C)