

# VCS Flange Isolating Gasket Kit

## VCS - FIK600

### Description

The VCS flange isolating gasket kit is a Very Critical Service gasket designed for electrical flange insulation and general sealing applications. This gasket is suitable for use in raised-face, flat face and RTJ flanges in all pressure classes including API 15,000 psi service. In addition to its superior sealing characteristics and excellent dielectric properties, the VCS flange insulation gasket kit is ideal for isolating flanges made from dissimilar metals (thus mitigating galvanic corrosion) and for mitigating localized flange face corrosion.

The type VCS flange isolating gasket kit delivers the greatest safety and consistency in the most challenging, hazardous conditions on the planet. By using the high quality materials and professional design for sealing, our critical service flange insulation gasket kits give you with the dependability you need when failing is completely unacceptable.

### Application

VCS very critical service flange insulation gasket kit can be used for cathodic protection, Insulation between dissimilar metals to prevent galvanic erosion, wellhead isolation from inter-connected flow lines. And as its excellent sealing results, it can be used to seal and isolate valve associations, Christmas Tree connections, Pump connections, Compressor connections, Tanks and heat exchangers with sacrificial anodes to increase anode life. It can Mate mismatched ring joint to raised face flanges. Remove fluid trap corrosion between RTJ flanges where high concentrations of CO<sub>2</sub>, H<sub>2</sub>S, other extreme hydrocarbon media exist and turbulence and flow-induced erosion between ring-joint (RTJ) flanges.

### VCS Design

#### Central Big Gasket Retainer

The big gasket retainer is usually a G10 gasket bonded with SS316 metal core, and the metal core can be SS 304 or duplex S31803. Because of its exclusive pressure triggered sealing system, the gasket demands far less bolt stress to seal than other gaskets. The VCS insulation gasket inner diameter is just coordinated to the flange bore to remove turbulent flow and flange face corrosion.

#### PTFE Spring Energized Seal

The VCS FIK gasket includes a PTFE (Teflon) spring energized seal, or perhaps rubber elastomeric o-ring, seated in an insulating laminate of the big central gasket retainer

#### Isolation Washers

The isolation washer materials can be G10, G11, Mylar, Nomex, mica or other materials.

#### Metallic Washers

The metallic washers of VCS flange insulation gasket kit can be zinc plated carbon steel washer, XPS, HCS and Stainless steel such as SS 316, SS 304



### Advantages & Benefits

- Extreme high-reliability sealing and insulating solution for all critical services.
- Seals and insulates at all pressures up through ANSI 2500 class and API 15000 psi service.
- Withstands severe service conditions including large bending moments, vibration, temperature and pressure cycling.
- Designed to withstand corrosive environments, including high concentrations of CO<sub>2</sub>, H<sub>2</sub>S, produced water, etc.
- Gasket is sized to the bore to protect flange faces from media-induced corrosion and flow-induced erosion.
- High-strength laminate material resists failure due to excess compression (i.e., over-tightening bolts).
- Pressure-activated seals provide high confidence sealing and eliminate costly leaks.
- Easy installation, make-up and removal

### Data Sheet

Properties	Test Method	Results
Shear strength	ASTM D732	145 mpa
Flexural Strength	ASTM D790	448 mpa
Tensile strength	ASTM D638	344 mpa
Water Absorption	ASTM D229	0.05 %
Working temp.	-	+150 oC

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