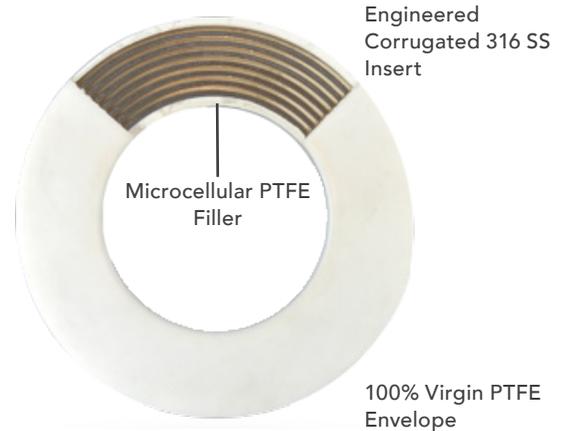




VSP NonVeloTM
 for Corrosive & High Purity Services on
 Glass-Lined Steel Equipment
 Patent Pending

NonVeloTM

Builds on the strengths of the standard envelope gasket while eliminating common weaknesses. NonVelo is constructed using an engineered corrugated stainless steel insert fully encapsulated within microcellular PTFE fillers and bonded to a 100% virgin PTFE envelope for the best available chemical resistance, compressibility, ease of installation and performance.



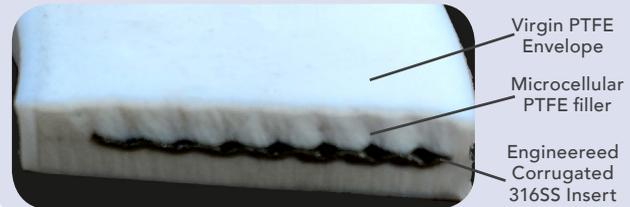
NonVelo Improves upon the Conventional Envelope Gasket

Conventional Envelope Gasket



- ▶ PTFE envelope is chemically inert making it ideal for use in corrosive applications
 - ▶ Envelope's loose, flared leaves often "fold back" making installation difficult and potentially leaving filler and insert open to chemical attack and gasket failure
- ▶ Filler reduces cold flow and increases compressibility
 - ▶ Fillers often do not provide compressibility necessary for wavy GLS flange surfaces
 - ▶ Filler materials often become brittle above 250°F causing loss of physical properties
 - ▶ Fillers are not chemically inert and can be corroded/degraded by ambient atmospheres
- ▶ Metal insert provides metallic barrier between flanges in case of "cut-through"
 - ▶ Metal insert exposed at the gasket OD and subject to external corrosion

VSP NonVelo



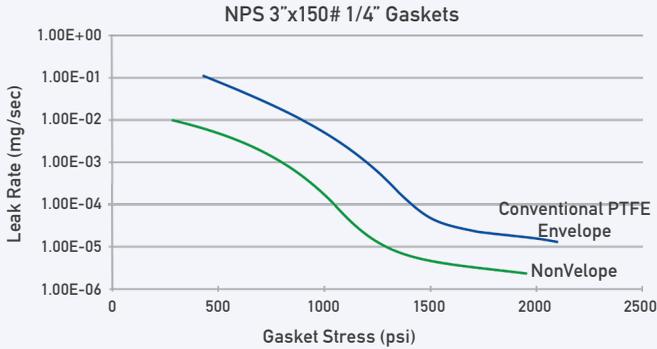
- ▶ Virgin PTFE envelope bonded to PTFE filler, providing a unitary construction eliminating installation issues
- ▶ Fully encapsulated corrugated 316SS insert is engineered to enhance sealability & recovery and protects against glass to glass contact
- ▶ Adapts and conforms easier to wavy GLS surfaces due to enhanced compressibility of the PTFE filler
- ▶ Microcellular PTFE filler encapsulates the insert and provides complete chemical resistance of the gasket at ID & OD
- ▶ Maximum Temperature Rating: 500°F

VSP Technologies deploys a team of Engineers and Fluid Sealing Specialists who provide engineered solutions for your unique sealing requirements.

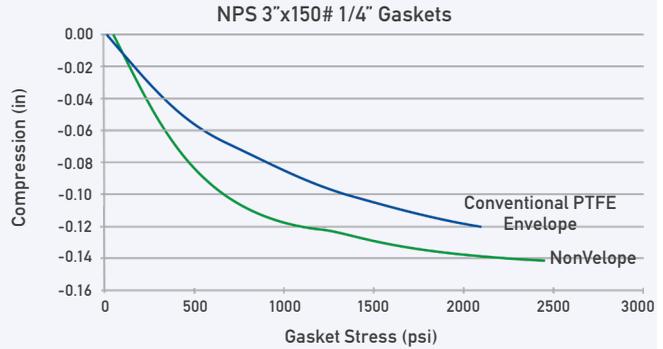
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NONVELOPE PERFORMANCE

NonVelope seals tighter and at lower stresses than conventional envelope gaskets

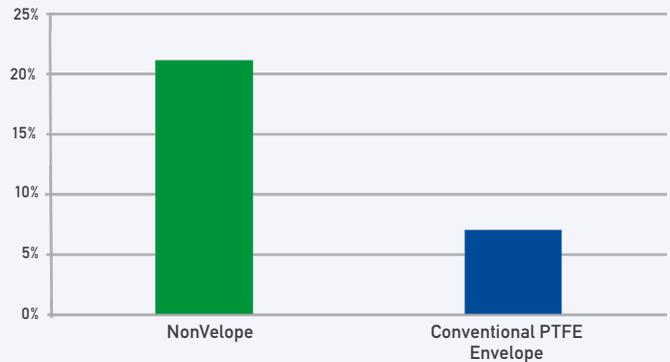


NonVelope offers greater compressibility/adaptability than conventional envelope gaskets



Gasket Recovery in Glass-Lined Steel Flanges

NPS 3"x150# 1/4" Gaskets
Percent recovery/springback after
3,000 psi compression



Product Specifications

Temperature Limit	Max= 500°F Min= -330°F
Maximum Compression	Full vacuum to maximum flange rating
Chemical Resistance	All chemical services (pH 0-14) except molten alkali metals, elemental fluorine and aggressive tri-flouride compounds
Materials of Construction	Virgin PTFE Envelope Virgin Microcellular PTFe Filler 316SS Corrugated Insert
Standard Sizing/Thickness	1/4" Thickness Old Standard NPS Sizing Other thickness and sizing available upon request

Ensure complete mechanical and specification and compliance with VSP's NonVelope Torq-Kit



All Flange rework components in one box with assembly instructions to ensure reliable performance

Contact VSP for ordering information

NonVelope in GLS Flanges

Molded or sheet ePTFE gaskets are sometimes used in glass-lined steel flanges but:

- offer little recovery and poor cycling performance
- easily cut or sheared which can cause damage to the glass flanges
- require high assembly torques to fully densify the fibrous matrix

NonVelope offers:

- ▶ Greater recovery to handle cycling than traditional envelope or ePTFE gaskets
- ▶ Protection from cut-through and shearing through use of premium PTFE envelope and filler and corrugated insert
- ▶ Lower assembly torques to conform to wavy glass flange surfaces and effectively seal