



**Innovate Service Perform**

8140 Quality Drive Prince George, VA 23875  
800-334-6013 vsptechnologies.com

## RAFF™

**Reduced Area Full Face Gaskets  
for Light Load Flanges**

**Only 100% PTFE Gasket Designed for FRP,  
API Manways and other Light-Load Flanges**

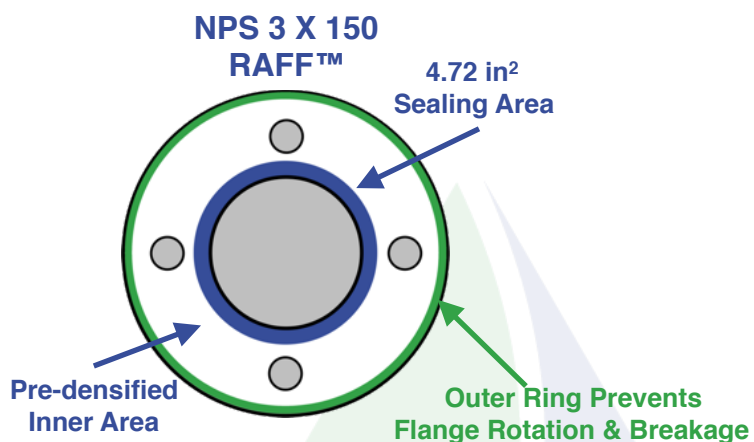
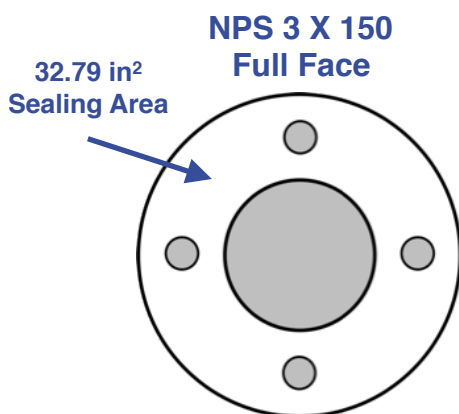
### VSP RAFF™ Gasket

#### Reduced Area Full Face

- Rigid, solid one-piece ePTFE construction
- Lowest torque to seal PTFE gasket design available
- Full face design to safeguard against flange breakage
- Sealing ring area designed to achieve full compression with available bolt load
- Inner & outer sealing rings are mechanically engineered to compress to the correct gasket height to prevent flange rotation & cracking
- Lower relaxation and torque loss compared to current alternatives for FRP, API Manways, and other Light-Load flanges



\*U.S. Patent # 6,682,081



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



Prince George, VA  
Kingsport, TN | Houston, TX | Parkersburg, WV | Lake Charles, LA | Baton Rouge, LA

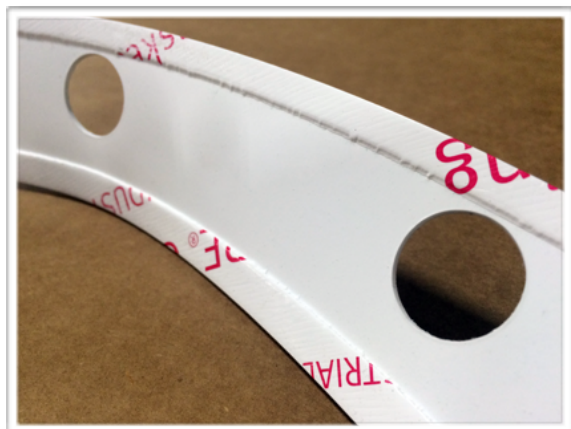


**Innovate Service Perform**


8140 Quality Drive Prince George, VA 23875  
800-334-6013 [vsptechnologies.com](http://vsptechnologies.com)

## RAFF™

**Reduced Area Full Face Gaskets  
for Light Load Flanges**



**43" ID RAFF™ for Dual Laminate  
FRP Process Vessel**  
*Required Only*  
**44 Ft-Lb Assembly Torque**

						
RAFF™ Flange Assembly Instructions						
Class 150 NPS	Target Assembly Torque (Ft-Lb)	Preparation	Star Pattern Assembly			Final Rotational Passes Until No Further Nut Movement
			1st Pass	2nd Pass	3rd Pass	
2	25	Finger Tight	10	15	25	25
2-1/2	25	Finger Tight	10	15	25	25
3	30	Finger Tight	10	15	30	30
4	25	Finger Tight	10	15	25	25
6	40	Finger Tight	10	25	40	40
8	50	Finger Tight	10	30	50	50
10	60	Finger Tight	10	30	60	60
12	75	Finger Tight	15	40	75	75
<b>Assembly Torque Sequence:</b> Torque lubricated bolts, in a star pattern sequence, in (3) successive increments as shown above. After the 3rd pass, continue tightening the bolts in a circular pattern, at the final torque value, until no further movement of the nuts occurs.						
© Copyright 2013 - 2015 VSP Technologies						

## Standard Flange Assembly Instructions

### Technical Data/Specifications

#### Standard Construction

1/8" 100% Premium ePTFE

#### Available Sizes

NPS 1/2 - NPS 24, Class 150 and Class 300

#### Custom Shapes and Sizes Available

Call VSP Technologies  
800-334-6013

#### Temperature Limits

450° F Continuous



\*U.S. Patent # 6,682,081

Prince George, VA

Kingsport, TN | Houston, TX | Parkersburg, WV | Lake Charles, LA | Baton Rouge, LA

© VSP Technologies 2013 - 2015  
RAFF™ and OPRA™ are Trademarks of VSP Technologies