



ISO DNA™ PITA® Gaskets



Energize your sealing performance with patented **ISO DNA™ PITA®** gasket technology. (DNA™: **DIN** and **ASME**).

Gaskets designed to fit both, DIN and ASME standard flanges – “reduce YOUR inventory”.

- An encapsulated, corrugated stainless steel insert energizes gasket performance
- Specifically designed for the Tank Container Industry
- 100% Expanded PTFE for the widest range of chemical compatibility
- Superior sealing, thermal cycling & pressure resistance
- Minimal torque loss after thermal and pressure cycling
- Seals against corroded pitted flange surfaces
- Lowest life cycle cost possible



Multiple bolt configurations will fit many different valve and flange styles

Protected by one or more of the following U.S. patents; 7,455,301 & 6,682,081

Please contact VSP Technologies or authorized agents for ordering or for more information on the ISO DNA™ gasket; Contact number – Tel. 800-334-6013 **24/7 - after hours, weekends & holidays**
Website: www.vsptechnologies.com

PITA® Capabilities & Performance Specs

Maximum Continuous Temperature	600°F
Pressure Resistance	Full vacuum to maximum flange rating
Chemical Resistance	All chemical services (PH 0-14) except molten alkali metals, elemental fluorine and aggressive tri-fluoride compounds
ASME Gasket Factors	m=2.5 y=1,200psi
PVRC Gasket Factors (PVRC ROTT)	$G_B=263$ psi a=0.299 $G_S=2.93 \times 10^{-10}$ psi
Tightness & sealability (PVRC ROTT)	T_P max=33,749 T_P min=13,454
Stress required to achieve helium Leak rate of $1.02E-04$ ($\frac{cm^3}{sec}$) @ 150psig (NPS 4x 150 Ring Gasket)	T=2,078psi
Hot blow-out performance HOBT2 W/Cycles Blow-out temp @ 1,000psig (3 Tests)	No Cycles=682°F W/Cycling=624°F, 650°F
Safe reserve operating temperature (HOBTZ with cycles)	500°F ASME Class 150 Services 450°F ASME Class 300 Services

Special focus should be given to the PITA® DNA™ as this provides the highest level of performance, chemical compatibility and long term reliability for ISO tank applications.

The reduced area, encapsulated insert- spring technology develops high compressive stresses, at low to moderate bolt loads, resulting in long term seal reliability even in cycling conditions.

Torque Retention

PITA® vs. Graphite:

3 day steam cycling test on clamp style butterfly valve w/ (4) 16mm bolts Temperature Cycling Comparison

Initial Assembly:

A2-70 SS Nuts & bolts @ 65.0ksi yield

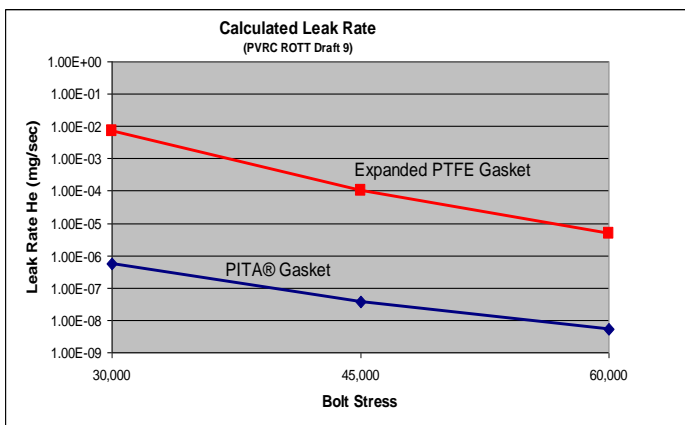
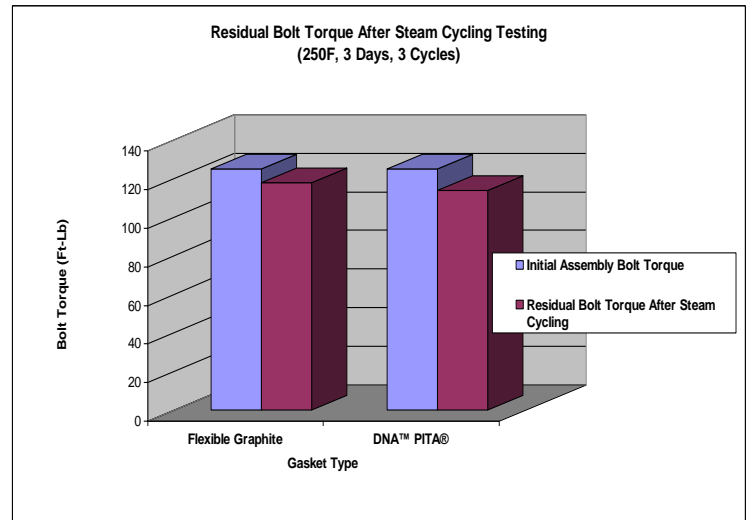
Assembly Torque =	125 Ft-Lb
Assembly Gasket Stress =	4,800 psi

Final torque (Graphite Gasket):

Final Torque =	116 Ft-Lb
Contact Gasket Stress =	4,400 psi

Final torque PITA®DNA Gasket:

Final Torque =	114 Ft-Lb
Contact Gasket Stress =	10,100 psi



Sealability

- Low minimum seating stress
- Lowest leak-rate fluctuation possible with PTFE gaskets
- Increased blow-out resistance
- Better sealing performance at low bolt loads, commonly obtained with A2-70 SS fasteners used on tank container equipment