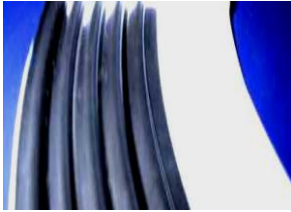




Enhanced gasket recovery & thermal cycling performance by inserting a spring inside the gasket



Ring & Full Face Gaskets

- ASME B16.20 flanges < NPS 14
- Non-standard flanges, & manways

OPRA® Style

- FRP & plastic, flat face flanges

PITA® FEATURE/BENEFITS:

- Completely encapsulated insert
- Increased gasket resiliency – more than any other PTFE gasket
- Truly universal gasket

Eliminates drawbacks/limitations of conventional PTFE & Expanded PTFE gaskets

- Creep resistance & compressibility - **Without being flimsy**
- Universal chemical inertness - **With high recovery/springback**

For additional information or to place an order call:

Phone: (800) 334-6013 or (804) 541-0812
8140 Quality Drive, Prince George, VA 23875
E-Mail: www.vsptechnologies.com
REV: 11 01-06-11

CYCLETIGHT® PITA® Gasket: PITA® U.S. Patent #7,455,301

The only fully encapsulated corrugated insert ePTFE gasket

- ❖ No process contamination
- ❖ No adhesive volume/torque loss

Superior sealing, thermal cycling and pressure resistance

- ❖ Low minimum seating stress
- ❖ Lowest leak-rate fluctuation during cycling
- ❖ High blow-out resistance/reserve temperature

A truly universal gasket technology for Class 150-300 metallic and lined piping systems

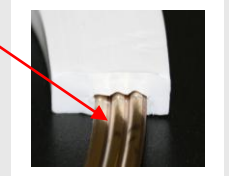
- ❖ Performance, handle-ability, size/design flexibility
- ❖ Site/process gasket standardization
- ❖ 100% expanded PTFE skin allows complete chemical inertness

CYCLETIGHT® PITA®, the ID & OD of the corrugated metal insert is encapsulated within an ePTFE gasket, and is completely isolated from the process media and external environment utilizing a proprietary process developed by VSP Technologies.

Unlike other similar designs there is no adhesive layer compressed between the flange raised faces. Bolt load is not affected by adhesive volume loss. **There are no adhesives of any sort used in the manufacturing process.**



Conventional corrugated insert expanded PTFE gaskets
Note: Expanded metal insert @ ID & OD
- Glue layers on both sides of insert



PITA®

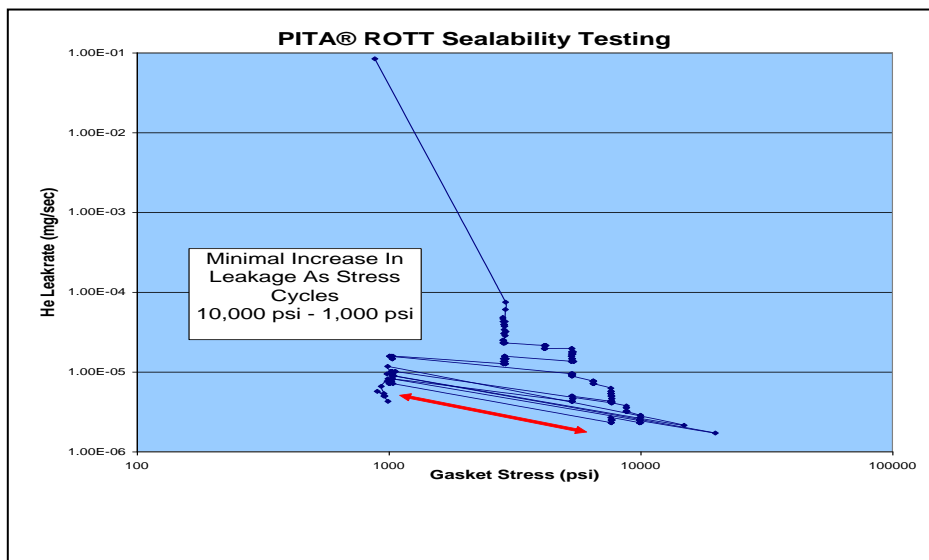
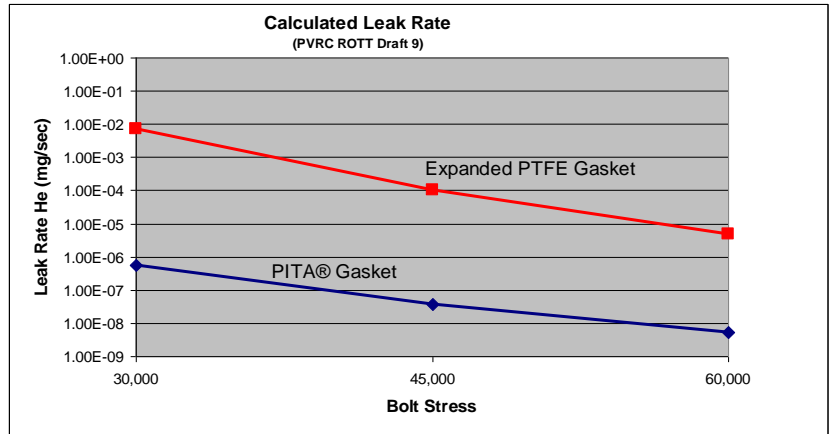
- ❖ **316SS corrugated insert**
Provides dynamic response to compensate for thermal cycling & gasket creep
- ❖ **Robust metal reinforced design**
Increased blowout resistance
- ❖ **High compressibility expanded PTFE (TEFLON®)**
Seals against uneven & rough flanges
- ❖ **Lower stress to seal than conventional Virgin or Filled PTFE gaskets**
Effective sealing at lower bolt loads
- ❖ **Available in standard ASME/ANSI B16.21 Class 150 & 300 ring & full face**
- ❖ **Non-standard vessel & manway gaskets also available**
- ❖ **Proprietary ePTFE facing properties & insert design**
- ❖ **Completely unique gasket design & performance**



CYCLETIGHT® PITA® Gasket - Broad, universal chemical services, low bolt loads & extreme thermal/pressure cycling

Increased Blow Out Resistance & Reserve Temperature

Material	Blow-Out Temp (w/Cycles)	Class 300 Safe Reserve Temperature
1/8" ePTFE Sheet	554 °F	312 °F
Conventional Corrugated Insert ePTFE	602 °F	200 °F
PITA® Gasket	650 °F	444 °F



PITA® Capabilities & Performance Specifications

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 (PRVC ROTT)	G _B =263psi a=0.299 G _S =2.93x10 ⁻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 (mg/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 (HOBT2 with cycles)	500°F ASME Class 150 Services 450°F ASME Class 300 Services