INTEGRA II SSAID®

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OTHER PRODUCTS AVAILABLE

• Flange Isolation Gasket Kits
• Kleerband® Flange Band Protectors
• Radolid® Nut & Bolt Protection Caps
• UBolt-Cote® and Atlas Pipe Support® Pads
• Casing Spacers and End Seals
• Innerlynx® Modular Mechanical Seals
• Colvo-glast® & Infinity® Wall Sleeves
• Foreman Nite Caps, temporary pipe plugs

TO ORDER PLEASE SPECIFY THE FOLLOWING

1. Flange Specification
   (ANSI/ASME, API, MSS SP44, BSI or Din Standard)
2. RTJ or Raised Face
3. Nominal Pipe Size, Pressure Rating and Bore Size
4. Teflon or Viton Secondary Spring Seal, if applicable
5. Operating Pressure, Temperature and Media
6. G-10, G-11, or Mylar Sleeve Material

APS Warranty

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REV 062118
INTEGRA II SSAID®

WHAT IS INTEGRA II SSAID® GASKET & WHY IS IT USED?

The Patent Pending SSAID Gasket Kit provides a reliable PTFE seal at the flange bore. PTFE is well known for having excellent chemical resistance. By placing this seal at the bore, it enables the gasket retainer material to be impervious to the most aggressive media within the pipe. This extends the range of applications for the standard 316SS core, G10 and G11 laminates in aggressive environments, and eliminates the use of exotic core materials in the retainer, saving time and money.

The seal has a unique, patent pending method of being secured in the retainer that prevents the seal from dislodging during handling or operation. The seal fits tightly on the retainer ID, and wraps around both sides. The edge groove on one side is equipped with Kammprofile grooves. The PTFE is compressed into these grooves when installed between two flanges. This provides radial retention of the seal during operation, preventing the seal from being sucked into the pipe bore. The SSAID is available with a secondary seal such as a Teflon Spring Seal or Viton O-Ring seal. The gasket is suitable for sizes and pressure classes ranging from ½" to 42" and Class 150 ANSI to 10,000# API. For other gasket sizes, please contact APS Sales.

FEATURES & BENEFITS:

1. Exceptionally dependable for isolating and sealing purposes for Severe Service applications.
2. Extends the range of applications for the standard 316SS core, G10 and G11 laminates in aggressive environments.
3. Specifically, suitable for applications with high Chloride content or other highly corrosive media.
4. Zero-free leaks for high sulfur content crude oil or H2S gas fugitive emissions, proven through multiple applications.

APPLICATIONS:

1. Flange isolation with true cathodic protection.
2. Isolating between flanges of dissimilar metals to prevent galvanic corrosion.
3. Wellhead isolation from inter-connected flow lines.
4. Mating mismatched dissimilar flanges.
5. Eliminate turbulence and flow-induced erosion between ring-joint (RTJ) flanges.
6. Accommodates for potential irregularities in the flange face near the bore, such as pitting from corrosion from prior service.
7. To seal between flanges subjected to vibration/cavitation.
8. Eliminate corrosion from forming in the cavities between RTJ flanges where intense modes of hostile chemicals may be present.

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INTEGRA II SSAID®

G-10 Standard SSA S/S Retainer Material Specifications

<table>
<thead>
<tr>
<th>Material Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compressed Strength</td>
<td>66,000 PSI</td>
</tr>
<tr>
<td>Dielectric Strength</td>
<td>800 VPM</td>
</tr>
<tr>
<td>Max. Continuous Operating Temp</td>
<td>310°F (155°C)</td>
</tr>
<tr>
<td>Water Absorption</td>
<td>0.04%</td>
</tr>
<tr>
<td>Flexural Strength</td>
<td>65,000 PSI</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>51,000 PSI</td>
</tr>
<tr>
<td>Bond Strength</td>
<td>2,200 lb.</td>
</tr>
<tr>
<td>Shear Strength</td>
<td>22,000 lb.</td>
</tr>
</tbody>
</table>

INTEGRA II SSAID®

G-11 Optional SSA S/S Retainer Material Specifications

<table>
<thead>
<tr>
<th>Material Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compressed Strength</td>
<td>58,000 PSI</td>
</tr>
<tr>
<td>Dielectric Strength</td>
<td>550 VPM</td>
</tr>
<tr>
<td>Max. Continuous Operating Temp</td>
<td>400°F (205°C)</td>
</tr>
<tr>
<td>Water Absorption</td>
<td>0.08%</td>
</tr>
<tr>
<td>Flexural Strength</td>
<td>58,000 PSI</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>41,000 PSI</td>
</tr>
<tr>
<td>Bond Strength</td>
<td>2,200 lb.</td>
</tr>
<tr>
<td>Shear Strength</td>
<td>21,200 lb.</td>
</tr>
</tbody>
</table>

INTEGRA II SSAID®

PELLETS MATERIALS:

1. Stainless Steel - Stainless Steel washers cut to standard SAE washer dimensions.
2. Inconel - Inconel washers cut to standard SAE washer dimensions.
3. Phosphate - Phosphate washers cut to standard SAE washer dimensions.

INTEGRA II SSAID®

ISOLATING SLEEVE OPTIONS:

1. PTFE (Spring Energized): A radial load is provided by the helical wound spring. Encapsulation in the seal groove eliminates creep and cold flow. Temperature Range: -250°F to +450°F
2. Mylar or Spiral wound Mylar is a general-purpose material recommended for bolting applications with flange temperatures below 300°F. This material has generally fair resistance to cracking, breaking and thread pinch.

INTEGRA II SSAID®

WASHING OPTIONS:

1. Zinc Steel - Zinc-Plated Steel washers cut to standard SAE washer dimensions.
2. Stainless Steel - Stainless Steel washers cut to standard SAE washer dimensions.

INTEGRA II SSAID®

TECHNICAL SPECIFICATIONS:

1. Flange Isolation with true cathodic protection.
2. Isolating between flanges of dissimilar metals to prevent galvanic corrosion.
3. Wellhead isolation from inter-connected flow lines.
4. Mating mismatched dissimilar flanges.
5. Eliminate turbulence and flow-induced erosion between ring-joint (RTJ) flanges.
6. Accommodates for potential irregularities in the flange face near the bore, such as pitting from corrosion from prior service.
7. To seal between flanges subjected to vibration/cavitation.
8. Eliminate corrosion from forming in the cavities between RTJ flanges where intense modes of hostile chemicals may be present.
**What is Integra II SSAID® Gasket & Why is it used?**

The Patent Pending SSAID Gasket Kit provides a reliable PTFE seal at the flange bore. PTFE is well known for having excellent chemical resistance. By placing this seal at the bore, it enables the gasket retainer material to be impervious to the most aggressive media within the pipe. This extends the range of applications for the standard 316 SS core, G10 and G11 laminates in aggressive environments, and eliminates the use of exotic core materials in the retainer, saving time and money. The seal has a unique, patent pending method of being secured in the retainer that prevents the seal from dislodging during handling or operation. The seal fits tightly on the retainer ID, and wraps around both sides. The edge groove on one side is equipped with Kammprofile grooves. The PTFE is compressed into these grooves when installed between two flanges. This provides radial retention of the seal during operation, preventing the seal from being sucked into the pipe bore. The SSAID is available with a secondary seal such as a Teflon Spring Seal or Viton O-Ring seal. The gasket is suitable for sizes and pressure classes ranging from ½” to 42” and Class 150 ANSI to 10,000# API. For other gasket sizes, please contact APS Sales.

**Features & Benefits:**

1. Exceptionally dependable for isolating and sealing purposes for Severe Service applications.
2. Extends the range of applications for the standard 316 SS core, G10 and G11 laminates in aggressive environments.
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**Applications:**

1. Flange isolation with true cathodic protection.
2. Isolating between flanges of dissimilar metals to prevent galvanic corrosion.
3. Wellhead isolation from inter-connected flow lines.
4. Mating mismatched dissimilar flanges.
5. Eliminate turbulence and flow-induced erosion between ring-joint (RTJ) flanges.
6. Accommodates for potential irregularities in the flange face near the bore, such as pitting from corrosion prior to service.
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**Materials:**

- **Flange Isolation with true cathodic protection.**
- Pressure energizing, concaved ID to enhance sealing at higher pressures. Resists creep for a higher sealing pressure over time. High compression rate at installation accommodates for potential irregularities in the flange face, such as pitting from corrosion prior to service.

**Secondary Seal Material (Optional):**

- PTFE (Spring Energized): A radial load is provided by the helical wound spring. Encapsulation in the seal groove eliminates creep and cold flow.  
  - Temperature Range: -250°F to +450°F
  - Viton (O-Ring): Designed for general Oil and Gas applications
  - Temperature Range: -79°F to +400°F

**Insulating Sleeve Options:**

1. 6-10 G-11 - Glass Reinforced Epoxy tubing is suitable for continuous exposure to 350°F/400°F for G11. This material is an epoxy laminate that offers excellent resistance to crushing, cracking, breaking and thread pinch.
2. Mylar - Spiral wound Mylar is a general-purpose material recommended for bolting applications with flange temperatures below 300°F. This material has generally fair resistance to crushing, cracking, breaking and thread pinch.

**Steel Washer Options:**

1. Zinc Steel - Zinc-Plated Steel washers are cut to standard SAE washer dimensions.
2. Stainless Steel - Stainless Steel washers are cut to standard SAE washer dimensions.

**Compression Glass-Reinforced Epoxy Laminate Material:**

- **Compression Strength**: 66,000 PSI
- **Dielectric Strength**: 800 V/PM
- **Max. Continuous Operating Temp**: 310°F (155°C)
- **Water Absorption**: 0.04%
- **Tensile Strength**: 65,000 PSI
- **Bond Strength**: 2,600 lb.
- **Shear Strength**: 2,200 lb.

**Secondary Compression Glass-Reinforced Epoxy Laminate Material:**

- **Compression Strength**: 58,000 PSI
- **Dielectric Strength**: 550 V/PM
- **Max. Continuous Operating Temp**: 400°F (205°C)
- **Water Absorption**: 0.08%
- **Tensile Strength**: 58,000 PSI
- **Bond Strength**: 4,100 lb.
- **Shear Strength**: 2,200 lb.
**APS Warranty**

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- Casing Spacers and End Seals
- Innerflex® Modular Mechanical Seals
- Cal-v-o-plast® & Infinity® Wall Sleeves
- Foreman Nite Caps, temporary pipe plugs

ID SEAL ISOLATION GASKET

**Patent Pending**

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E-Mail: sales@apsonline.com • Website: www.apsonline.com

Made in USA

ISO 9001:2015 Quality Management

ID SEAL ISOLATION GASKET

Severe Service Cathodic Isolating Gaskets

**Patent Pending**

Rev. 06/21/18