TO ORDER PLEASE SPECIFY THE FOLLOWING

- Gasket Type D, E or F
- Flange Size and Pressure Rating
- Single Washer or Double Washer Sets (SW or DW)
- Sleeve Material
- Retainer Material
- Sealing Element (Nitrile®, Viton® or Teflon®)

OTHER PRODUCTS AVAILABLE

- Flange Band Protectors (Stainless Steel or Kleerband®)
- Radold® Nut Protection Caps
- Casing Insulators and End Seals
- Specialty Products Manufactured of Phenolic and other materials
- INNERLYNX™ - Wallpipe Penetration Seals
- ISOJOINT® - Monolithic Isolating Joints
- Foreman® Night Caps
- Duocon® Centralizers
- Safety Spray Shields
- U-Bolt Cote®
- INSPECT-A-LIFT® - Pipe Inspection System
- GAL-VO-PLAST® Wall Sleeves

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Introduction: With the economic and environmental climate of today it is more important than ever to prevent leakage in your carrier system. Flanges, the most common trouble area, need to be sealed properly to prevent this leakage and must also be cathodically insulated to prevent stray currents which cause undue corrosion and eventual breakdown of the metal.

Advance Products & Systems manufactures and maintains a supply of quality products and materials which can help solve most flange sealing problems: preventing leakage and corrosion, and saving the integrity of the pipeline.

FLANGE INSULATING GASKET KITS

Double Insulation Set

Type E Insulating Gasket

Nut | Bolb Stud | Steel Washer

One Piece Insulating Sleeve & Washer

Steel Washer | Nut

Single Insulation Set

Type F Insulating Gasket

Nut | Bolb Stud

Insulating Sleeve | Insulating Washer | Steel Nut

FLANGE INSULATING GASKET KITS

High Temperature Products

FLANGE INSULATING GASKET KITS

Single Insulation Set

Type F Insulating Gasket

Nut | Bolb Stud

Insulating Sleeve | Insulating Washer | Steel Nut

SPECIAL APPLICATION

Advance Products and Systems, Inc. is well equipped to make those special insulation pads and gaskets sometimes required for odd shaped connections. We can manufacture any configuration or design needed.

These applications include special closures, vaults, steel boxes, special connectors, utility and light poles.

If it needs to be sealed...we can be of service.

HIGH TEMPERATURE PRODUCTS

GASKETS: NEMA grades G7 and G10, Durabla, Durlon, JM30840 SLEEVES: Nomex, NEMA grades G7 and G10, Durabla, Durlon WASHERS: NEMA grades G7 and G10, Durabla, Durlon

Other high temperature materials are available upon request. It is recommended that the factory be contacted to discuss technical data on the above referenced products.

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PACKAGING

Each Advance flange insulation gasket kit is packaged individually in durable corrugated boxes. Insulating sleeves and washers are packaged separately and are cushioned within the box to protect them from damage during shipment. Each set is clearly tagged with flange size, pressure rating, type of insulating sleeve and whether it is a single washer or double washer set. A recommended bolt tightening sequence is provided with each kit.
**INSULATING SLEEVES & WASHERS**

Insulating sleeves manufactured of high density polyethylene, NEMA grade LE phenolic, and Mylar are available in a full range of sizes. Also available are one-piece integral sleeves and washers which are made of Minlon, providing superior compression strength. Integral sleeves are available in sizes through 1-1/2”. A variety of high temperature sleeves are also stock items.

**FLANGE PROTECTORS**

Kleerband® and Stainless Steel Flange Protectors and Radolid Protection Caps, two additional ways to further seal flanges from corrosion.

**Material** | **Dielectric Strength** | **Water Absorption %** | **Max. Continuous Operating Temperature**
--- | --- | --- | ---
Polyethylene | 450 | .01 | 105 F 41 C
Phenolic | 400-500 | 1.1 | 225 F 107 C
Mylar | 4,000 | .8 | 300 F 149 C
Minlon | 1,200 | .22 | 250 F 121 C
Nomex | 400 | - | 450 F 232 C
G-10 | 530 | .09 | 285 F 140 C

Type D gaskets are specifically designed to fit into the ring groove of ring-type-joint flanges. They are manufactured of a medium weave, fabric-reinforced phenolic material and are sized to ANSI and API specifications - available in basic oval as well as octagonal shape. Also available are BX gaskets with pressure ratings up to 15,000 PSI.

**TYPE D**

Type D gaskets are specifically designed to fit into the ring groove of ring-type-joint flanges. They are manufactured of a medium weave, fabric-reinforced phenolic material and are sized to ANSI and API specifications - available in basic oval as well as octagonal shape. Also available are BX gaskets with pressure ratings up to 15,000 PSI.

**TYPE E**

Type E is a full-faced gasket with the same outside diameter as the flange and precision cut bolt holes. This design facilitates proper alignment of the gasket during installation and foreign material is prevented from shorting the flange insulation. Type E gaskets are available in plain face or Neoprene face phenolic, as well as a variety of high temperature materials. Standard thickness of 1/8”.

**TYPE F**

Type F gaskets made to fit the raised face portion of the flange only. As there are no bolt holes in the F gasket, the inside diameter of the bolt hole circle is slightly smaller than the outer diameter of the gasket, assuring an exact, automatic positioning of the gasket. Available in the same materials as the type E gasket. Standard thickness of 1/8”.

Advance Flange Insulation Gasket Kits are manufactured according to ANSI B16.5 specifications up to 24”. Above 24”, please provide the specifications of your flange using our convenient worksheet. Technical assistance is available upon request.
TROJAN SEALING GASKETS

Trojan gaskets are state-of-the-art in near zero leakage static sealing. The elastomer sealing element is encapsulated in the electrically insulated retainer. Our most popular sealing element materials are Nitrile® (-60°/240°F min./max. operating temperature), Viton® (-75°/400°F), and Teflon® (-100°/450°F). The encapsulation of the sealing element permits only micro-exposure of the actual seal to hostile environs of fire, chemicals and corrosive fluids.

ADVANTAGES OF THE TROJAN

- Can be used in place of RTJ rings
- Little initial torque required
- No re-torquing required
- Sealing ring cannot be left out
- Seal design tested for high pressures
- Please consult factory for specific pressures.
- Reusable
- Competitive price
- Limited area of seal exposed (long life)
- Compensates for pressure fluctuations, vibrations, temperature, etc.
- Greatly reduces human error during installation
- Large selection of materials available
- Three to four times the dielectric strength necessary
- Low installation and maintenance costs
- Gaskets through 144”

The cross section of APS’s Trojan Sealing Gasket (A) shows the elastomer sealing element as it appears before compression between flanges. This compression causes the seal to effectively fill the void of the groove and encapsulate, (B) permitting only micro exposure of the actual seal to hostile elements either from within or without.

QUAD SEAL TROJAN

Four seals on the Quad-Seal Trojan further insures the integrity of the sealing capability of an already-proven reliable gasket. For areas where absolute zero leakage is a must, the Quad-Seal Trojan works twice as hard.

Sealing Elements Available In:

<table>
<thead>
<tr>
<th>Material</th>
<th>Min. Operating Temperature</th>
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<tbody>
<tr>
<td>Nitrile®</td>
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- Can be used in place of RTJ rings
- Little initial torque required
- No re-torquing required
- Sealing ring cannot be left out
- Seal design tested for high pressures
- Please consult factory for specific pressures
- Reusable
- Competitive price
- Limited area of seal exposed (long fire life)
- Compensates for pressure fluctuations, compression changes, vibrations, temperature, etc.
- Greatly reduces human error during installation
- Large selection of materials available
- Three to four times the dielectric strength necessary
- Low installation and maintenance costs
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The cross section of APS’s Trojan Sealing Gasket (A) shows the elastomer sealing element as it appears before compression between flanges. This compression causes the seal to effectively fill the void of the groove and encapsulate, (B) permitting only micro exposure of the actual seal to hostile elements either from within or without.

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Insulating Sleeves and Washers

Insulating sleeves manufactured of high density polyethylene, NEMA grade LE phenolic, and Mylar are available in a full range of sizes. Also available are one-piece integral sleeves and washers which are made of Minlon, providing superior compression strength. Integral sleeves are available in sizes through 1-1/2". A variety of high temperature sleeves are also stock items. With each insulating washer a 1/8" thick S.A.E. electro-plated steel washer is provided to protect the insulating washer from damage by the nut. Advance flange insulation sets are available in single or double washer kits.

Flange Protectors

Advance flange protectors and corrosion inhibitor grease are recommended on all insulated flanges. By encapsulating the flange cavity with the flange protector and injecting our corrosion inhibitor grease, you can rely on your cathodic protection system to provide you with years of trouble free service. This system totally eliminates any possibility of foreign material lodging between the faces of your flange or corrosion bridging across and creating a short.

Material | Dielectric Strength (VPM) | Water Absorption % | Max. Continuous Operating Temperature |
---|---|---|---|
Polyethylene | 450 | .01 | 105 F 41 C |
Phenolic | 400-500 | 1.1 | 225 F 107 C |
Mylar | 4,000 | .8 | 300 F 149 C |
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FLANGE PROTECTORS

Kleenband® and Stainless Steel Flange Protectors and Radolid Protection Caps, two additional ways to further seal flanges from corrosion.

Advance Flange Insulating Gasket Kits

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Radolid Protection Cap

Radolid Protection Caps from APS protect nuts and bolts from destructive corrosion. Caps are easily pressed onto the bolted joints by hand, snapping into place when in position. We recommend loading caps with APS’s high melt corrosion inhibitor grease.

Advance Flange Insulation Gasket Kits

Type D

Type D gaskets are specifically designed to fit into the ring groove of ring-type-joint flanges. They are manufactured of a medium weave, fabric-reinforced phenolic material and are sized to ANSI and API specifications - available in basic oval as well as octagonal shape. Also available are BX gaskets with pressure ratings to 15,000 PSI.

Type E

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Material Dielectric Strength volts/mil Water Absorption % Max. Continuous Operating Temperature
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Type | Water Absorption % | Tensile Strength PSI | Compression Strength - PSI | Dielectric Values VPM | Max. Continuous Operating Temp. |
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CE | 3.5 | 12,000 | 34,000 | 400 | 257 F 125 C |
G7 | .09 | 22,000 | 40,000 | 400 | 400 F 204 C |
G10 | .01 | 40,000 | 66,000 | 800 | 248 F 140 C |
G11 | .20 | 43,000 | 63,000 | 900 | 347 F 175 C |
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