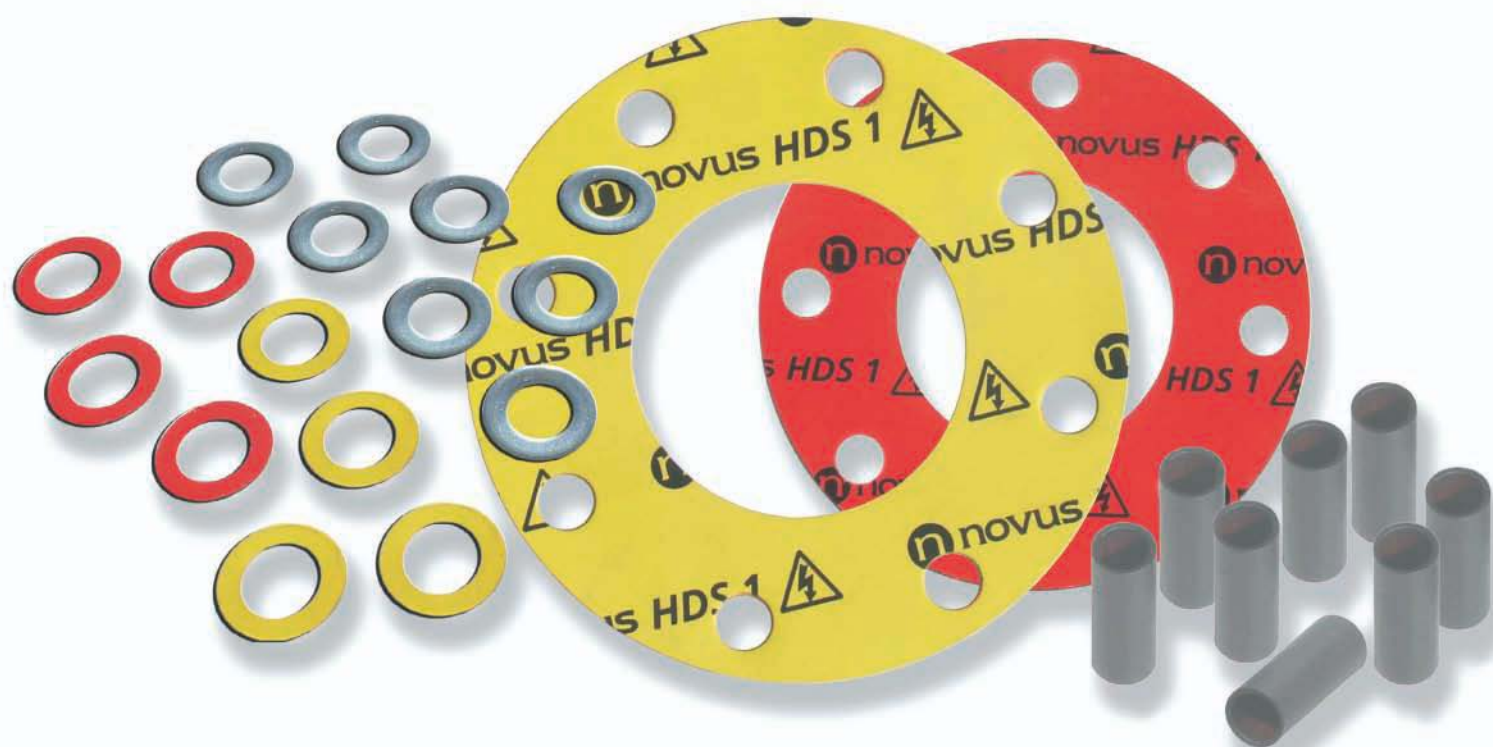


Flexitallic®

HDS-1

**Dielectric Gasket Material for
Flange Insulation Kits**



**Provides the perfect seal,
protects flanges, valves and pipelines against corrosion
whilst improving safety and reducing the risk of fire.**

 **novus**[™]
a Flexitallic brand

HDS-1

Dielectric Gasket Material for Flange Insulation Kits

Novus Flange Insulation Kits are typically used on offshore installations, sea water environments, chemical installations, oil refinery pipelines where galvanic corrosion protection and electrical insulation is required.

Novus Flange Insulation Kits are designed for electrical flange insulation. They are used as an insulator between dissimilar metal flanges or to electrically isolate sections of pipework in cathodic protection systems, preventing the flow of electrostatic charge along the pipelines.

Kit Contents

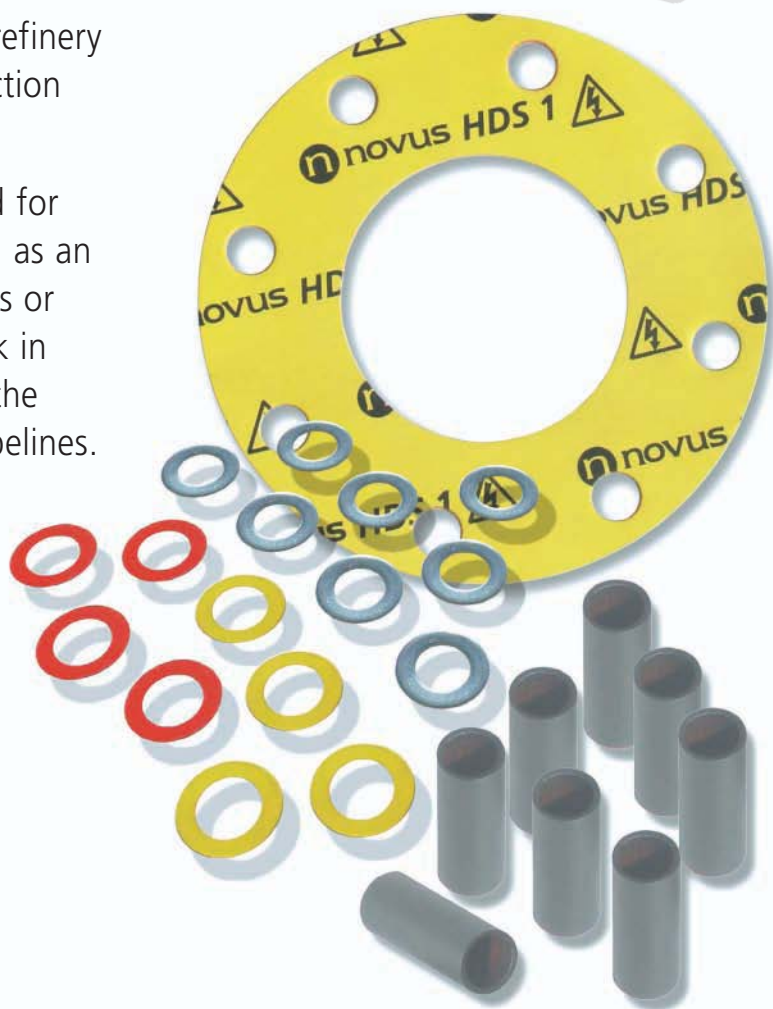
We supply three standard types of Flange Insulation Kits; designed to suit either raised face, flat faced for ring grooved flange assemblies.

Each kit comprises HDS 1 flange insulating gasket plus the following :

Sleeve choice G11 or Mylar

Two HDS-1 washers per bolt

Two plated steel washers per bolt



**Provides the perfect seal,
protects flanges, valves and pipelines against corrosion
whilst improving safety and reducing the risk of fire.**

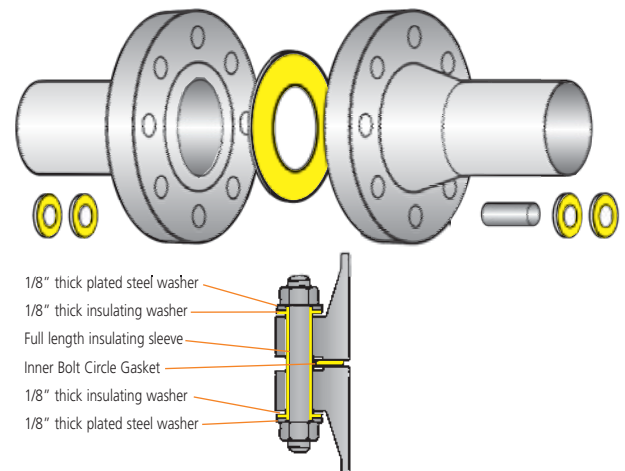
Now with the unique double layer construction for increased strength, improved sealing reliability and galvanic protection

Novus Flange Insulation Kit Type F - Inner Bolt Circle (IBC) Gasket

Inside Bolt Circle insulation kit utilises a central gasket which locates within the bolts. The outer diameter of the gasket fits tightly into place assuring a well centered position. The illustration shows how the opposite flanges are totally insulated from each other.

For use on full face and raised face flanges.

Choice of Sleeve Material - G11 or Mylar

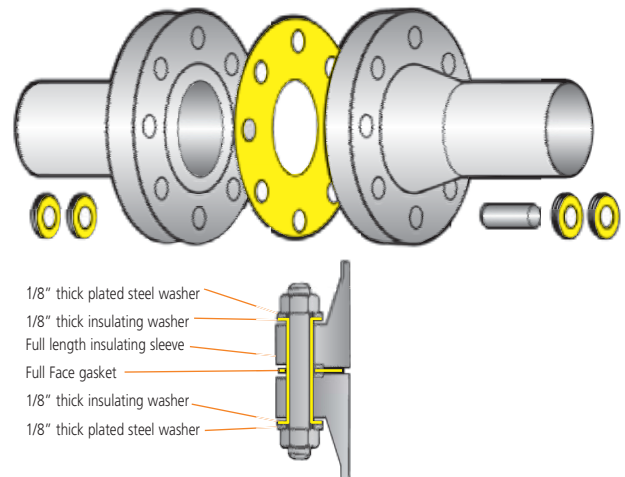


Novus Flange Insulation Kit Type E - Full Face

Full Face insulation kits are suitable for flat face and raised face flanges. This assembly minimises the ingress of conductive foreign matter between the portions of the flanges outside the raised faces and reduces the risk of bridging. The illustration shows how the opposite flanges are totally insulated from each other.

For use on full face and raised face flanges.

Choice of Sleeve Material - G11 or Mylar



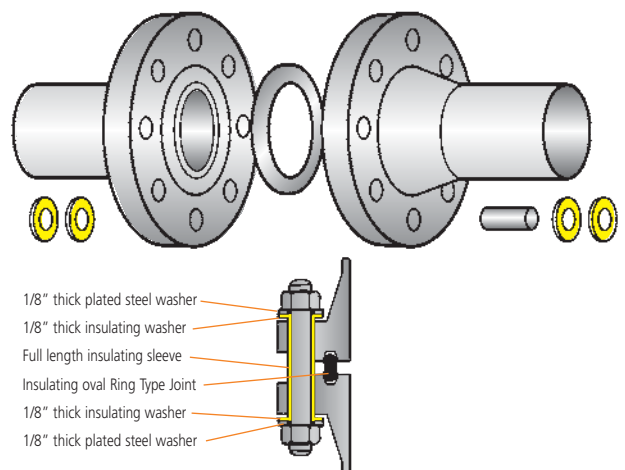
Novus Flange Insulation Kit Type D-RTJ

Ring Type Joint insulation kits includes an oval insulating ring type joint gasket that is suitable for standard RTJ flanges.

The illustration shows how the opposing flanges are totally insulated from each other.

For use on standard Ring Type Joint Flanges.

Choice of Sleeve Material - G11 or Mylar



HDS-1

Dielectric Gasket Material for Flange Insulation Kits



Installation Procedures

In order to ensure the optimum service life of the Novus HDS1 Flange Insulation Gasket, it is important to not only choose the correct material for the application but to install and maintain it correctly.

The following guidelines are designed to assist the end user in the assembly of these gasket materials.

Flange Condition

Remove the old gasket and check that the joint faces are clean and free from indentations and scoring. Radial (cross face) scoring is a particular concern and can lead to joint leakage.

For most applications a surface finish of between 3.2µm to 6.3µm Ra (125 to 250µinch) is recommended. Use a surface finish comparator eg. Novus comparator to check flange finish.

Check that the flange faces are parallel or that the pipework is sufficiently flexible to allow the flanges to be pulled parallel and concentric without undue bolt loads.

Gasket

Always use a new gasket insulating material.

The gasket material should be as thin as possible. Out of flat or pitted flanges may require thicker gaskets to accommodate the imperfections.

To ensure optimum performance a minimum thickness/width ratio of 1/5 is required (ideally 1/10).

Check that the insulating gasket is in good condition and that the dimensions are correct for the class and size of the flange.

Do not use jointing compounds, grease or lubricants with our gasket materials. These compounds can affect the friction between the insulating gasket and the flange which may lead to premature failure of the joint flange.

If there is a requirement to fix the insulating gasket to the flange prior to assembly (eg. large vertical flanges) then a light dusting of spray adhesive eg. 3M 77 spray may be used. The adhesive should be applied sparingly and in isolated areas.

Bolting

Ensure the bolt and nut threads are clean. Apply bolt lubricant to the bolt and nut threads and to the face of the nuts to be tightened. Do not apply grease or bolt lubricant to the joint face. After cleaning and lubrication it should be possible to run the nut along the full length of the bolt by hand. If this is not possible the bolts and nuts should be refurbished or replaced.

Preparation

Scrape, wire brush or file as necessary the back face of each flange where the bolt heads or nuts are to sit, ensuring that the surfaces are clean and flat.

Installation

Ensure that the gasket is installed centrally.

It is recommended that the bolts are tightened using a controlled method such as torque or tension. If using a torque wrench, ensure that it is accurately calibrated.

Tightened bolts in a star-like crossing pattern in the following sequence:

Finger tighten nuts.

Tighten to 30% of the final load.

Tighten to 60% of the final load.

Tighten to full load.

Make a final tightening sequence, working around the flange tightening each bolt in turn until the specified torque is applied.

After Installation

Check that the flange faces are parallel using a suitable tool eg. **Novus Flange Gap Tool**.

**Installation Training Programmes are available -
contact our Technical Team for full details.**



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