



MONOLITHIC ISOLATION JOINTS

FLANGE KITS AND GASKETS

CATHODIC PROTECTION

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FLANGE ISOLATION KIT DATA SHEET

Flange isolation kits are used to seal pipelines and guarantee the safe flow of fluids through pipeline systems. They offer a quicker and cheaper alternative to isolation joints, and require little maintenance.

At IJAS Ltd we offer several different types of flange isolation kit to suit different needs and circumstances.

Gasket Types



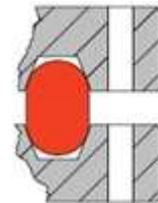
Type E Gasket – Full Face

This gasket extends to the outside diameter of the flange. It has bolt holes that automatically centre it on installation, and offers good protection against foreign objects shorting out the flange.



Type F Gasket – Raised Face

This gasket extends to the inside diameter of the bolt circle. As it sits just inside the bolt circle it will automatically centre itself on installation.



Type D Ring Type Gasket

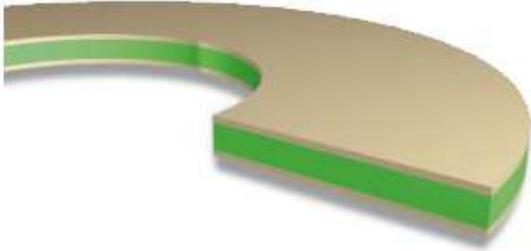
This gasket is used on RTJ flanges. The above illustration shows a cross section of the flange. The flanges are coloured grey, and the gasket coloured red.

Materials

Standard – Neoprene faced phenolic

Non-standard – Phenolic or G10 retainer, with inset seal in various materials (Teflon, viton)

There are several different designs of gasket depending on temperature, pressure and type of fluid in the pipeline.



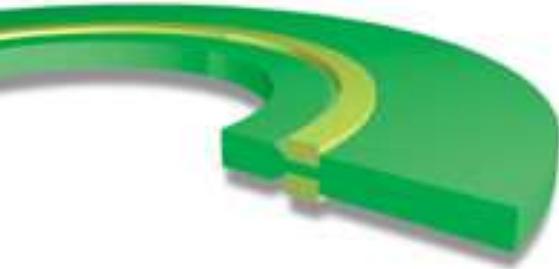
Rubber Faced Phenolic

Our standard flange gasket, suitable for most uses and fluids. Soft neoprene sheets are applied to a laminated phenolic retainer.



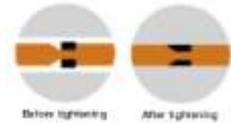
LineSeal

These consist of a stainless steel core with a G10 glass reinforced epoxy laminate bonded to either side. There are PTFE spring energised seals on both sides to ensure an excellent seal. For use on pipelines with corrosive environments, such as high concentrations of CO₂ or H₂S.



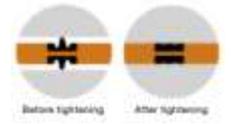
LineBacker

A G10 retainer with a quad ring seal sitting inside grooves on either side of the gasket. The seal can be made of several materials, depending on its use.



GasketSeal

Considered to be the most effective for sealing and isolating flanges. Consists of two moulded 'O' rings mounted in grooves on either side of the gasket. Doesn't need a sealing groove in the flange face, so can be used where there are problems with alignment.



Sleeves

We supply our standard flange kits with Mylar (Spiral wound polyester) sleeves.

In every kit, we supply one sleeve per bolt, with one spare sleeve in case of breakage during installation.

We can also supply sleeves in G10 as well, for higher temperatures.

Washers

We supply our standard flange kits with phenolic washers for insulation. We give two phenolic washers per bolt to ensure double sided protection, as well as one spare washer per kit in case of breakage during installation. Using two washers per bolt means that the bolts are electrically isolated from both flanges, giving more protection from shorting out.

We can also supply G10 washers for higher temperatures

We also supply zinc plated steel washers (two per bolt) with our standard flange kit.

Pressure

We supply flange isolation kits that comply with the ANSI ratings. This ranges from low pressure at ANSI #150, to high pressure at ANSI #2500.

Temperatures

Neoprene faced phenolic gaskets have a temperature range of -40 to 100 degrees Celsius. Anything outside this range needs to be considered on a case by case basis.

In any event we would not recommend flange isolation kits (with any gasket types) for use in excess of 120 degrees Celsius.

When placing an order for flange insulation kits, please specify:

- Quantity required
- Flange diameter
- Pressure rating (ANSI)
- Type of gasket (E, F or D)
- Fluid conveyed
- Temperature

Materials shown are the most commonly used. If you require different materials then please feel free to contact us.

