

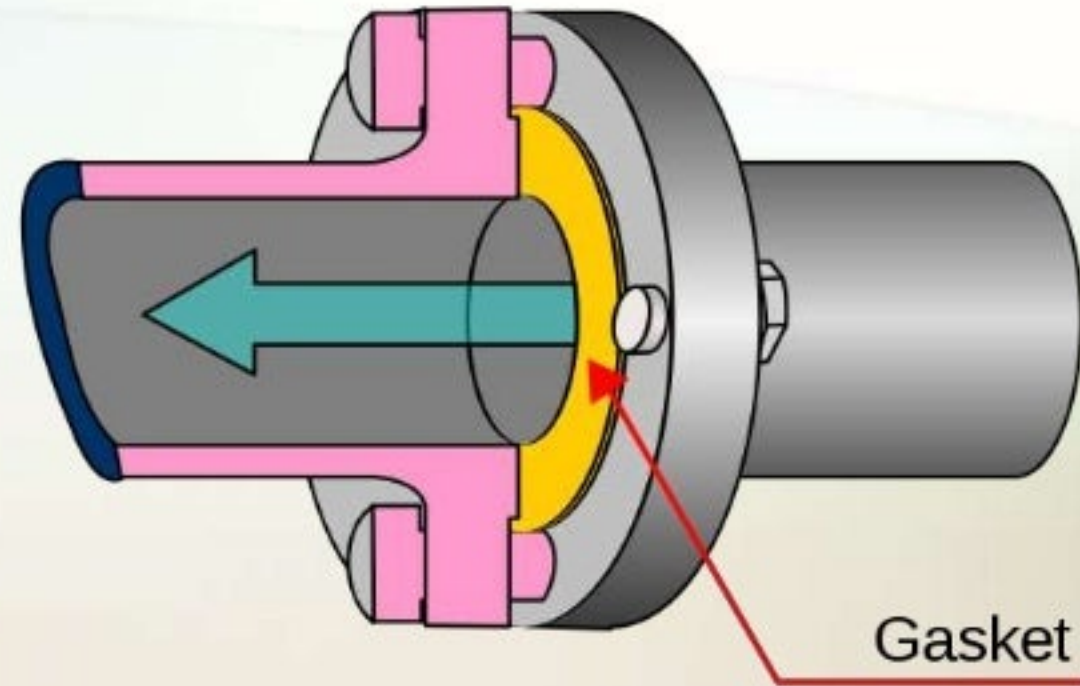


Gasket

By: Varun Patel, B.E- Mechanical, PMP®

Gasket

- Gasket is sealing material placed between connecting Flanges
- create a static seal
- Maintain leakage proof sealing in all operating conditions



Gasket Selection Criteria

- Temperature
- Pressure
- Corrosion resistance
- Types of fluid
- Robustness
- Availability
- Cost



Gasket Types

- Non-Metal
 - Rubber, Teflon, Compressed Non-asbestos Fiber (CNAF)
 - Soft gasket can be full face or inside bolt circle
 - Easily compressed with low tension bolting
 - Used in low pressure class flanged such as 150 or 300 Class
 - Normally used in low temperature services
 - Not used in hydrocarbon services
 - Cheapest and easily available

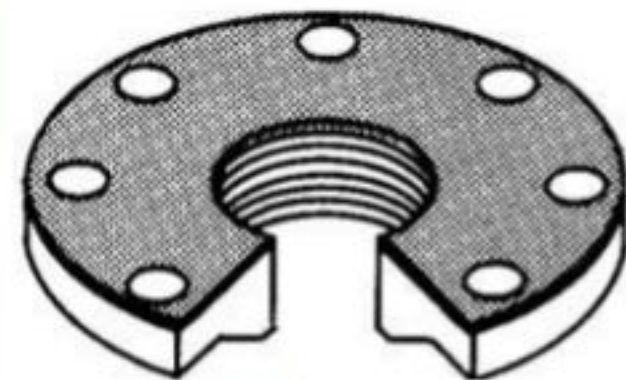
Non-Metal Gasket



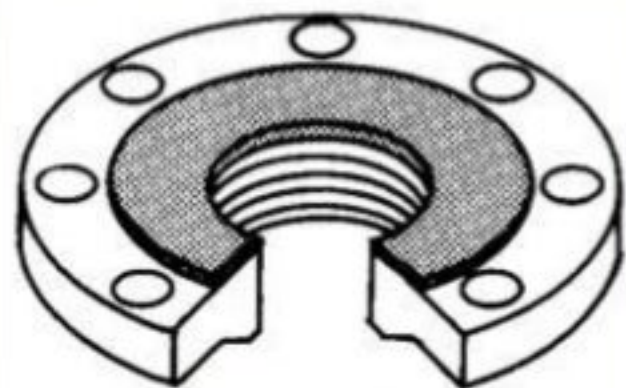
CNAF



PTFE



Full Face



Inside Bolt Circle

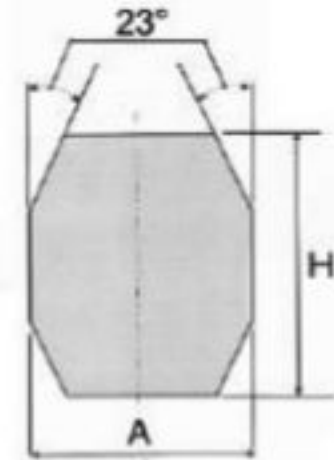
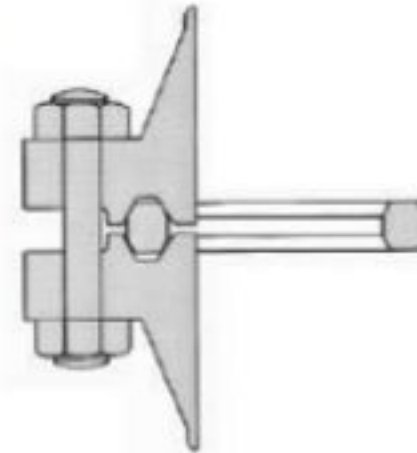
Gasket Types

- Metal
 - Also known as ring gasket or RTJ
 - Soft iron, Low Carbon steel, Stainless Steel, Monel, inconel
 - Used in high pressure class flanges, normally above 900 Class
 - High tension bolting required
 - Very robust
 - Most costly

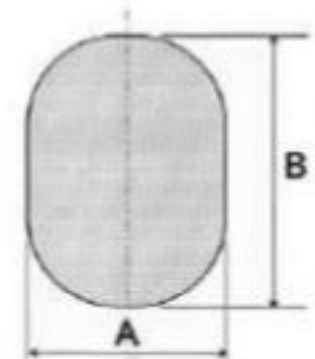
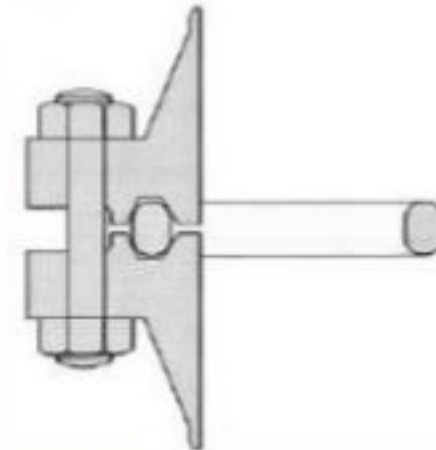
Metallic Gasket R-Type (RTJ)



OCTAGONAL



OVAL



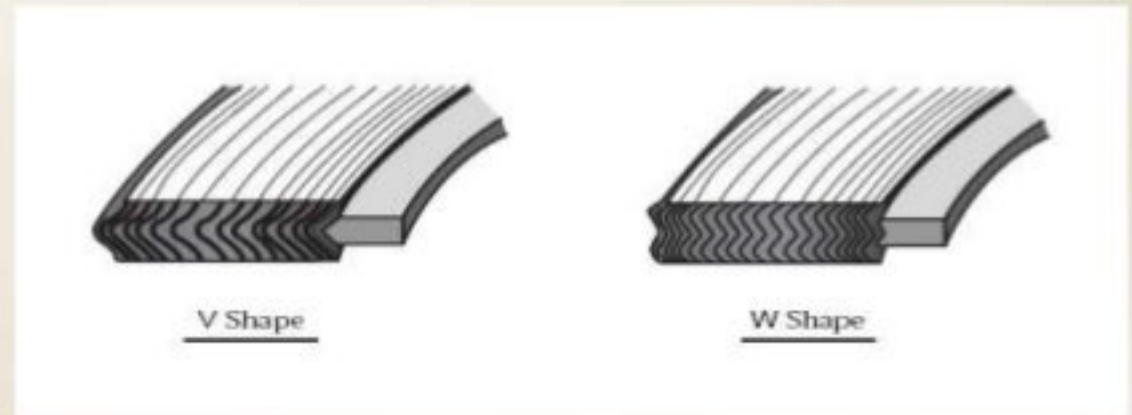
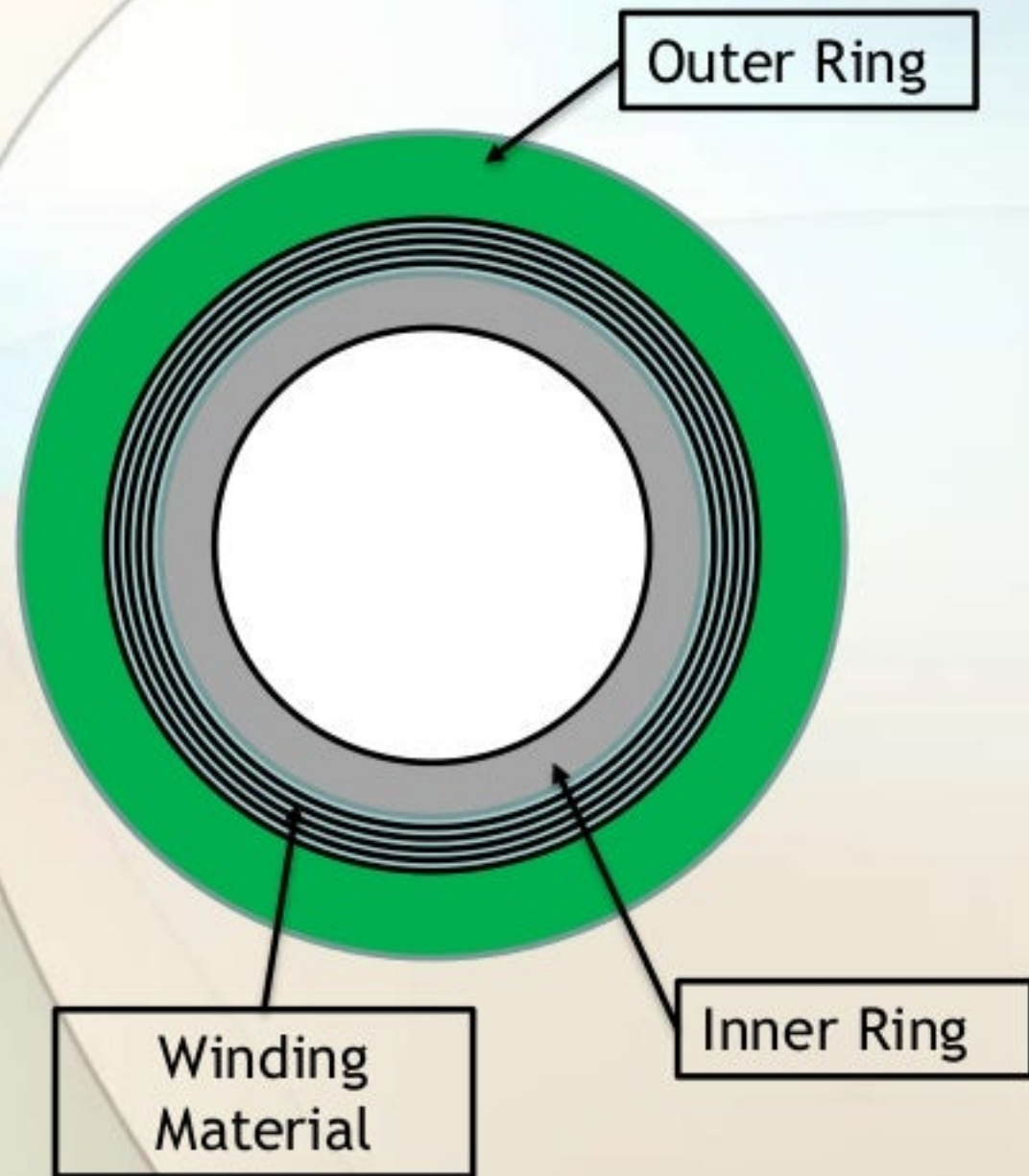
Gasket Types

- Composite
 - Combination of metal and non-metal
 - Spiral wound, Metal Jacketed, Kamprofile
 - Graphite or PTFE used as filler material
 - Stainless steel or other exotic material can be used as winding material
 - Used in wide range of pressure and temperature
 - Careful handling required
 - Cost effective

Spiral wound Gasket

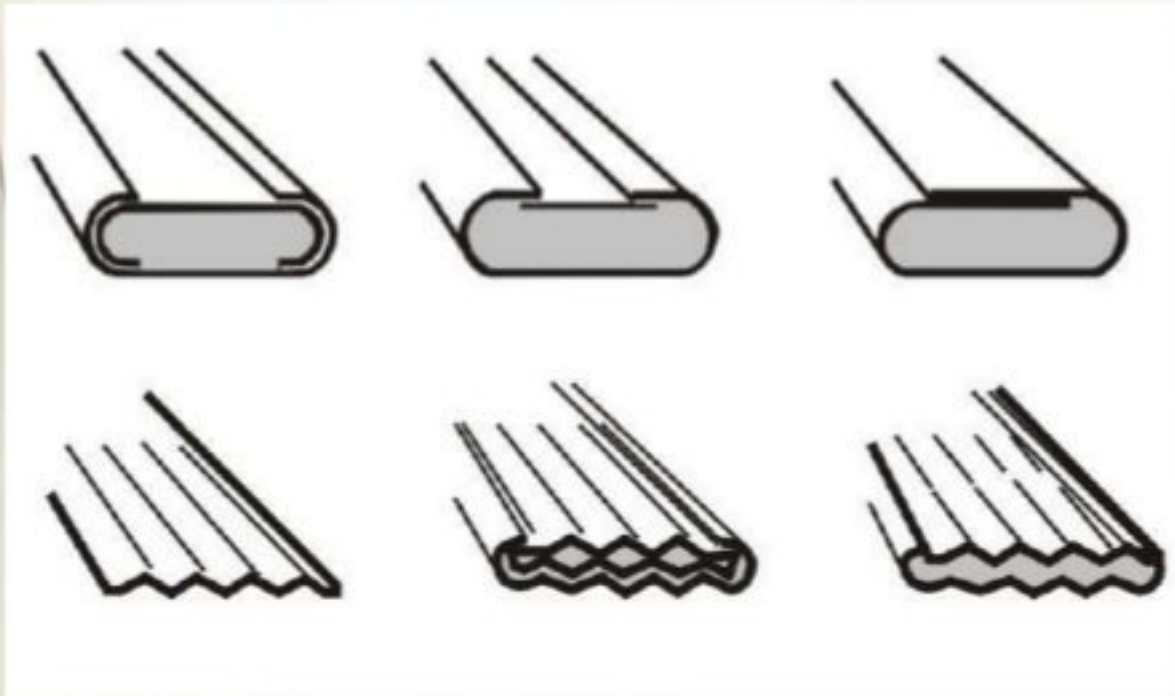
- Composites of metal and non-metallic materials
- Graphite or PTFE used as filler material
- Stainless steel or other exotic material can be used as winding material
- Most widely use type gaskets. Suitable for wide range of pressure and temperature class.

Spiral Wound Gasket



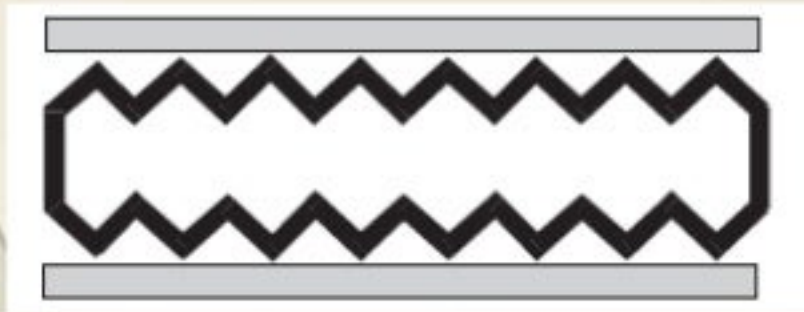
Metal Jacketed Gasket

- Composites of metal and non-metallic materials
- Soft filler material are enclosed in outer metal sheet jacket



Kamm/ Cam profile Gasket

- Metal core with concentric grooves
- Sealing layers of either graphite or PTFE
- Costlier than Spiral wound but provide better blowout resistance easy to handle even in large diameters



What we have learned?

- Types of Gasket
- Various Construction



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