

Spiral Wound Gaskets — Common Sizes / Applications

1) Flexible / Impregnated Graphite filler (graphite spiral-wound)

Common sizes / specs & applications

Cross-section (mm)	Inner ring	Outer ring	Typical ASME classes / NPS	Typical applications
3.0 mm	Optional (SS inner ring recommended for high pressure)	Optional centering ring advised for large OD	Class 150 - 600 (small NPS ½" - 6")	Heat exchangers, small-to-medium process flanges, vacuum service (thin section for low face load).
4.5 mm	SS inner ring common; SS outer ring common	Outer ring helps centering and controls extrusion	Class 150 - 1500 (NPS ½" - 12")	Steam lines, refinery piping, general petrochemical flanges.
6.0 mm	Inner & outer rings typically used	Outer ring usually carbon steel or matched alloy (coat if needed)	Class 300 - 2500 (larger NPS)	High-pressure steam, large bore refinery flanges, cyclic service where higher bulk is needed.

2) PTFE filler spiral-wound (PTFE as filler)

Common sizes / specs & applications

Cross-section (mm)	Inner ring	Outer ring	Typical ASME classes / NPS	Typical applications
3.0 / 4.5 mm	SS inner ring recommended for mechanical support	Outer ring often used to protect filler	Class 150 - 600	Corrosive chemical lines (acids, halogenated media) at ambient to moderate temp; pumps and valves where PTFE contact surface is required.

3) Ceramic / High-temperature mineral fiber filler

Common sizes / specs & applications

Cross-section (mm)	Inner ring	Outer ring	Typical ASME classes / NPS	Typical applications
4.5 mm / 6.0 mm	Inner ring often stainless or alloy for protection	Outer ring advisable to control extrusion	Class 300 - 2500	Furnace exhausts, high-T service in petrochemical crackers, superheater piping.

4) Metal-laminate / metal-faced spiral-wound (metal cladding + graphite/PTFE)

Common sizes / specs & applications

Cross-section (mm)	Inner ring	Outer ring	Typical ASME classes / NPS	Typical applications
4.5 mm / 6.0 mm overall	Inner ring normally matched metal	Outer ring recommended	Class 150 - 1500	Refinery process lines where oxidation or corrosive deposits are a concern; high-T steam where graphite needs protection.

5) Reinforced / Fire-Safe & API certified designs

Common sizes / specs & applications

Cross-section	Typical rings	Typical applications
4.5 mm, 6.0 mm (fire-safe designs)	Stainless inner ring + metal outer ring + metal-clad filler	Safety-critical vessels, hydrocarbon service where fire-safe certification is required.