IP67 Spiral Wound Pipe for Oil and Petrochemical Industry

Overview

Spiral Wound Gaskets We specialize in highly engineered semi-metallic Spiral Wound Gaskets (SWG), indispensable in the most demanding industrial applicatio.

Key Takeaways

IP67-rated spiral wound pipes and gaskets provide robust, leak-proof solutions for high-pressure, high-temperature, and chemically aggressive oil and petrochemical environments.

Spiral Welded Pipes

Spiral welded pipes are manufactured by forming flat steel coils into a spiral shape and welding the seam, producing large-diameter pipes with excellent mechanical properties suitable for oil and gas pipelines. Key features include: High Pressure Resistance: The spiral seam distributes stress evenly around the pipe circumference, enhancing pressure tolerance compared to longitudinally welded pipes. Flexible Diameter Production: Adjusting the forming angle allows a wide range of diameters using the same steel coil, optimizing material usage and cost efficiency.

Material Selection: High-quality steel coils with precise chemical composition and mechanical properties are used, ensuring durability and compliance with API and ISO standards. Advanced Welding Techniques: Digital welding processes like PERFECT arc® improve weld quality, energy efficiency, and productivity, reducing energy costs by over 30% compared to conventional welding. Spiral welded pipes are widely deployed in oil and gas transmission, offshore drilling, and petrochemical pipelines, where reliability under extreme conditions is critical.

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Spiral Wound Gaskets

Spiral wound gaskets (SWGs) complement spiral welded pipes by providing highly reliable sealing in demanding industrial applications. Their construction involves: Metallic Strip and Filler Material: A thin metal strip (stainless steel, Inconel) is wound concentrically with a resilient filler (graphite, PTFE, mica), creating a spring-like structure that adapts to flange movements. Inner and Outer Rings: Inner rings prevent inward buckling, while outer rings ensure proper alignment and prevent over-compression.

High-

Pressure and Temperature Resistance: SWGs maintain leak-proof performance under extreme pressures (up to 2500 lb class) and temperatures (cryogenic to 1000°C+), making them ideal for oil, gas, and petrochemical pipelines. Chemical and Thermal Compatibility: Graphite fillers provide high-temperature resistance, while PTFE ensures chemical inertness in corrosive environments.

SW

Gs are essential for pipeline joints, pressure vessels, and process equipment, ensuring operational safety, long-term integrity, and compliance with ASME B16. 20 and API standards. IP67 Rating ConsiderationsWhile IP67 typically refers to dust-tight and water-immersion protection for electrical enclosures, in the context of spiral wound pipes and gaskets, it implies robust sealing and corrosion resistance suitable for harsh industrial environments, including offshore and petrochemical applications.

Combining spiral welded pipes with SWGs ensures: Leak-proof joints under high pressureResistance to chemical corrosionDurability in fluctuating temperature and pressure conditionsConclusionFor the oil and petrochemical industry, IP67-rated spiral welded pipes paired with spiral wound gaskets offer a reliable, high-performance solution. They provide mechanical strength, flexible sizing, and superior sealing, ensuring safe and efficient operation in pipelines, refineries, and offshore installations. Selecting certified materials and partnering with experienced manufacturers ensures compliance with industry standards and long-term operational integrity.

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Article Content

Spiral Wound Gaskets

We specialize in highly engineered semi-metallic Spiral Wound Gaskets (SWG), indispensable in the most demanding industrial applications.

Spiralweld Pipe | Naylor Pipe Company

Exact LengthsStructural StrengthUniform WallAccurate DiameterInspection and TestingEconomyNaylor Spiral Buttweld Pipe features two welds along the spiral seam. This creates a pipe structure in which the weld is as strong or stronger than the parent metal.See more on naylorpipe FRANK

Spiral pipes made of PE and PP - FRANK GmbH

Here, a homogeneous plasticized tape is wound in a spiral on an inner core (steel core) and connected to one another by overlapping. The fixed inner core ensures a constant inner diameter (DN) even

Understanding Spiral Welded Pipes for Oil & Gas Applications

Spiral welded steel pipes represent a significant advancement in pipeline technology, offering distinct advantages over traditional longitudinal seam welded pipes, particularly for large

Spiral Welded Pipe

Nucor Skyline is SPFA certified and manufactures hydrostatically tested pipe in outside diameters ranging from 10-3/4" – 90". Our production process utilizes a double submerged arc weld process in

Spiral pipe plant (SSAW)

Our SSAW plants and machinery are available for the production of spiral pipes by the conventional 1-stage process as well as the 2-stage process – also known as the offline process.

AMERICAN Spiralweld Pipe

AMERICAN SpiralWeld Pipe supplies steel pipe for line work applications in diameters from 30 to 144 inches and joint lengths up to 50 feet. AMERICAN

Flexpipe | Premium Composite Pipeline Systems for Oil & Gas Industry

Engineered to last the life of your asset, our pipe provides corrosion-resistant pipeline solutions for practical applications, including CO 2 injection, oil and gas gathering, gas distribution, water

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Pipe Suppliers to the Oil & Gas Industry

We specialise in a wide range of commodities from Steel Pipes, Fittings and Flanges, Valves, Structural Steel, Gaskets, Fasteners and Plastic Pipes to the oil & gas and renewables sectors.

Types of Gaskets in the Oil and Gas Industry

These gaskets are common in pipeline flanges, pressure vessels, and heat exchangers in refineries, petrochemical plants, and power generation facilities.

Applications of Spiral Welded Pipes in Different Industries

Due to their enhanced strength and resilience, these pipes can be used in oil refineries, shipyards, petrochemical plants, and natural gas extraction facilities. Conclusion: In conclusion,

Spiral Welded Pipes for Shallow Offshore Applications

The oil and gas (O&G) offshore industry has been interested in spiral welded pipe (SAWH) for some time due to the potential economic benefits and simpler technology involved. This chapter presents

Custom SPIRAL WOUND GASKETS | URGENT Manufacturing

Standard and custom spiral wound gaskets. Guaranteed traceability. Stock and urgent manufacturing. According to ASME B16.20, DIN, EN, and drawings.

Tranos: Thinking Further

Spiral Wound Gaskets These are the common metallic gasket used in industrial applications involving a range of pressure and temperatures. They are popular in the oil and gas, chemical, petrochemical,

Spiral Wound Liners and the Pipe Rehabilitation Industry

Spiral Wound Liners and the Pipe Rehabilitation In This summary will take a broad view of some of the features and benefits of spiral wound liners and insightful tips regarding the usefulness of this

Spiral wound gaskets

Looking for spiral wound gaskets that are durable, reliable, and tailored to your industry? At FraktalSeals, we manufacture high-performance spiral wound

Pipe Manufacture—Spiral Pipe

Spiral welded pipe was first introduced on an industrial basis in the United States in 1880, but the technology used for pipe production today traces back to 1960s when submerged arc welding

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All About Spiral Wound Gaskets Explained

The spiral wound gasket is gaining momentum in the oil and gas industry with its outstanding mechanical properties. In the oil, gas and

Spiral Wound Gaskets: Specifications, Materials, and Applications

The market for spiral wound gaskets is expanding, driven by demand from industries such as oil and gas, petrochemicals, and chemical processing. Additionally, manufacturers are

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