

High-pressure composite pipes

FLOXY-HP®



BKA Industrial Group
RTP, GRE, Fitting & Cladding

FLOXY®
High Pressure Pipe & Fitting
Oil, Gas & Petrochemical

About Behesht Kavir Ariana

Behesht Kavir Ariana commenced its operations in 2008 and specializes in the supply of composite pipes, fittings, and coatings for various industries, including oil, gas, petrochemical, and water and wastewater management sectors. With a strong commitment to environmental protection, quality enhancement, and raising industry standards, BKA established a state-of-the-art manufacturing facility and successfully transferred the latest European technologies to Iran.

The factory is located in Qazvin Province, 100 kilometers west of Tehran, strategically located along the primary transportation corridor connecting the western regions of the country. The company operates under an Integrated Management System (IMS), ensuring consistent quality and compliance with international standards.



High-Pressure Composite Pipes

FLOXY® pipes and fittings, designed for high-pressure oil & gas field and industrial applications, are manufactured in nominal sizes ranging from 40 to 250 mm (1.5 to 10 inches), and are suitable for nominal pressures up to 250 bars and service temperatures up to 95°C.

Design Standards

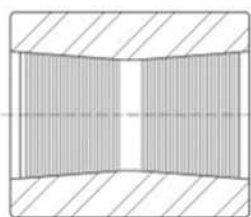
FLOXY® high-pressure GRE products comply with the requirements of API 15HR and ISO 14692 standards. The long-term performance of the pipes and fittings is evaluated according to ASTM D2992 (Method B), ensuring a 20-year design lifespan.

Manufacturing Process

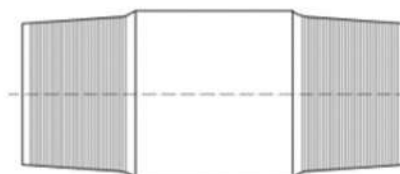
GRE high-pressure products are manufactured using a fully automated filament winding process. In this method, high-strength continuous glass fiber rovings impregnated with corrosion-resistant epoxy resin are precisely wound onto a steel mandrel. Through advanced engineering, the material composition and winding angle are carefully selected to ensure that the fiberglass pipes offer optimal mechanical strength, thermal stability, and corrosion resistance.



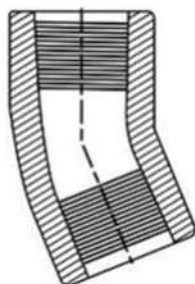
Types of Pipe Joints



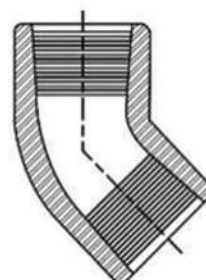
Coupling



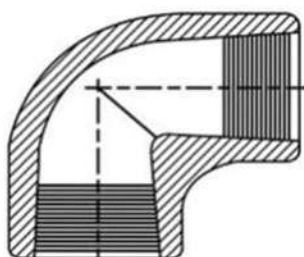
Nipple



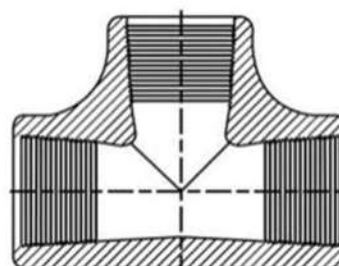
Elbow 22.5°



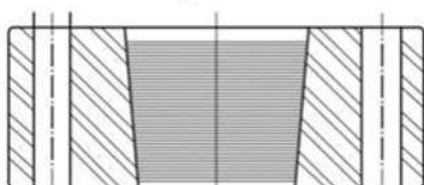
Elbow 45°



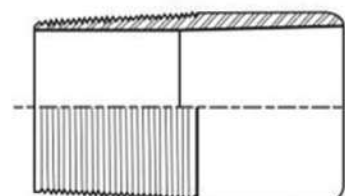
Elbow 90°



Tee



Flange



Tapered bond-on field thread



High-Pressure Pipe Joints

High-pressure pipes employ threaded joint compliant with API 5B, available in two configurations:

- Male-Female Threaded Joint
- Threaded Coupling Joint

Main Advantages

- Corrosion resistance (chemical & seawater)
- No need for coating or cathodic protection
- High strength (up to 250 bar)
- Long service life with minimal maintenance
- Excellent hydraulic performance (Hazen-Williams coefficient: 150)
- Low head loss (reducing pumping requirements)
- Lightweight and cost-effective (easy transport & installation)

Applications

- Water transmission lines
- Crude oil flow-lines (including H₂S and CO₂ environments)
- Tubing and casing in wells
- High-pressure lines in desalination systems