Future Pipe Industries Group (FPI)

- At A Glance

Market Segments And Applications

	Oil & gas	Water distribution	Infrastructure & municipal	Industrial	Petrochemical	Desalination & power
Examples						
Key uses	• Crude oil transmission • Flowlines • Injection lines • Marine vessel piping • Refinery / offshore platform piping • Storage • Sub-sea piping	• Cross country transmission • Irrigation • Municipal distribution • Potable water	• District cooling and heating • Irrigation networks • Pipe rehabilitation and slip lining • Sewers • Storm and surface drainage • Urban fire-water networks	• Cooling water systems • Fire mains • Industrial manufacturing applications • Industrial sewers • Process piping • Storage tanks	• Brine disposal piping • Chemical wells • Cooling water systems • Fire-water systems • Process piping	• Cooling water and intake systems • Flue gas desulphurization • Process and utility piping • Salt water systems
Key end-users	• Oil and gas exploration and production companies	• Governments • Municipalities • Utilities companies	• Governments • Municipalities	• Industrial companies (e.g. mining, dredging, sugar refineries, resin plants, etc)	• Petrochemical companies (typically downstream)	• Governments • Power companies • Desalination companies

Product Offering Specifications

Overview of core offering				
Product	**Brand**	**Diameter range** (mm)	**Pressure range** (barg)	**Temperature** (ºC)
GRP pipe	Fiberstrong	80 – 4,000	Up to 24	Up to 50º C
GRV pipe	Fiberstrong	80 – 4,000	Up to 24	Up to 82º C
GRE pipe (including high pressure)	Fibermar Wavistrong Wavistrong H_2O Red / Yellow Box Blue Box[(a)]	Up to 1,600 25 – 1,600 350 – 2,000 50 – 600 50 – 600	Up to 15 Up to 97 Up to 60 Up to 234 Up to 234	Up to 100º C Up to 100º C Up to 100º C Up to 100º C Up to 100º C
SRC pipe	Boa, Cobra, Python	25 – 100	Up to 151	Up to 99º C
Plastic supports	Wavifloat	300 – 1,200	n/a	n/a
uPVC pipe	n/a	12 – 315	n/a	Up to 50º C
PE pipe	n/a	16 – 250	Up to 19	Up to 50º C
Glass-reinforced tanks	Fiberstrong	Up to 4,000	Atmospheric[(b)]	Up to 65º C
Concrete pipe	n/a	300 – 2,400	n/a	n/a
Fiber cement pipe	n/a	50 – 1,800	n/a	n/a
Rubber gaskets	n/a	Up to 4,000	n/a	n/a

(a) Under registration
(b) Capacity of up to 115,000L

Technology Leadership

- First to receive major accreditations - Received the first ever Kitemark award for GRP pipe systems
- Leader in developing own technology - Developed 5 core brands since 1998 (Wavifloat, Wavistrong, Fiberstrong, Fibermar and Blue Box)
- Strategic technology acquisitions in the USA and Holland
- Sole ownership of technology
  - ✓ Manage our know-how and manufacturing technologies
  - ✓ Do not license or share or know-how and manufacturing technologies
- Extensive portfolio addressing many end markets – providing single source solutions

Why Glassfiber Pipe?

- Totally corrosion resistant
- Low life cycle cost
- Smooth bore resulting in low internal friction and lower pumping cost
- Maintenance free
- Light weight (1/4 of ductile iron – 1/10 of concrete), ease and economy of installation
- Versatile material properties allowing spools and complex configurations within a wide range of pressure, temperature, loading and chemical resistance parameters
- Variety of joints and fittings for both underground and aboveground applications

Advantages Of Fiberglass Pipe

	Fiberglass	Competitive attributes
High strength-to-weight	✓	• Low transportation / installation costs
Durable	✓	• Survives harsh conditions / low replacement needs and longer life
Non-corroding	✓	• No leakage from corrosion
Efficient carrier	✓	• Better hydraulic performance / energy efficient transmission
Wide end-market applicability	✓	• “One-stop-shop”

TESTING AND QUALITY MANAGEMENT

- We have established a “Quality Management System” that applies to all management production and services offered at our various factories globally.
- We have our own long-term testing facility at our Abu Dhabi factory, used to test new products for higher pressure, hire temperature and fire resistance applications.
- Every step of the manufacturing process at our factories, including raw materials procurement, product inspection and testing, is routinely subjected to inspection both internal and external by spot check and quality control procedures.
- Each of our factories is ISO certified.

SELECTED ACCREDITATIONS

- American Bureau of Shipping (ABS)
- American Petroleum Institute (API)
- The British Standards Institution (BSI)
- Det Norske Veritas (DNV)
- Factory Mutual (FM)
- Industrial Research Institute (IRI)
- KEMA
- KIWA
- Lloyd’s Register Quality Assurance
- National Sanitation Foundation (NSF)
- TÜV Rheinland
- Universal Laboratories (UL)
- Water Regulations Advisory Scheme (WRAS)

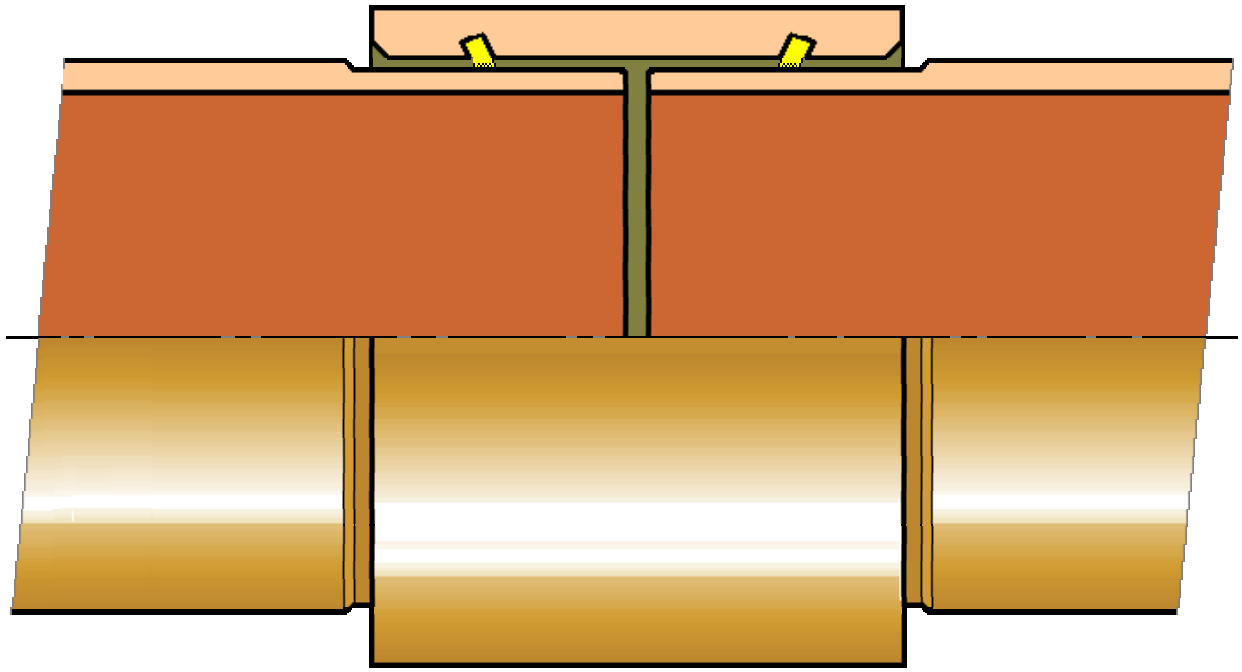
SELECTED EXTERNAL AUDITORS

- BSI
- Bureau Veritas
- Factory Mutual
- M&T
- Mines de Douai
- NSF
- SFS Inspection Services
- Sintef
- TÜV Rheinland
- Underwriters Laboratories

Future Pipe Industries Group (FPI)

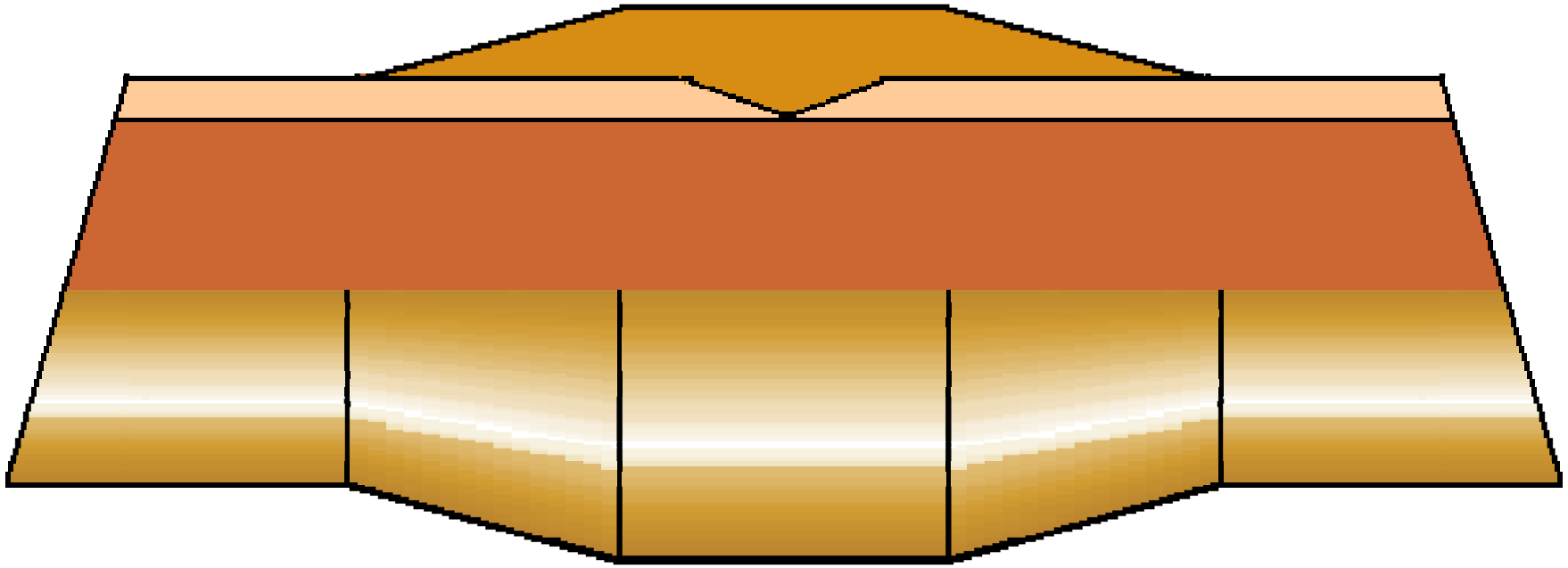
- Jointing System

Double Bell Coupler Joint



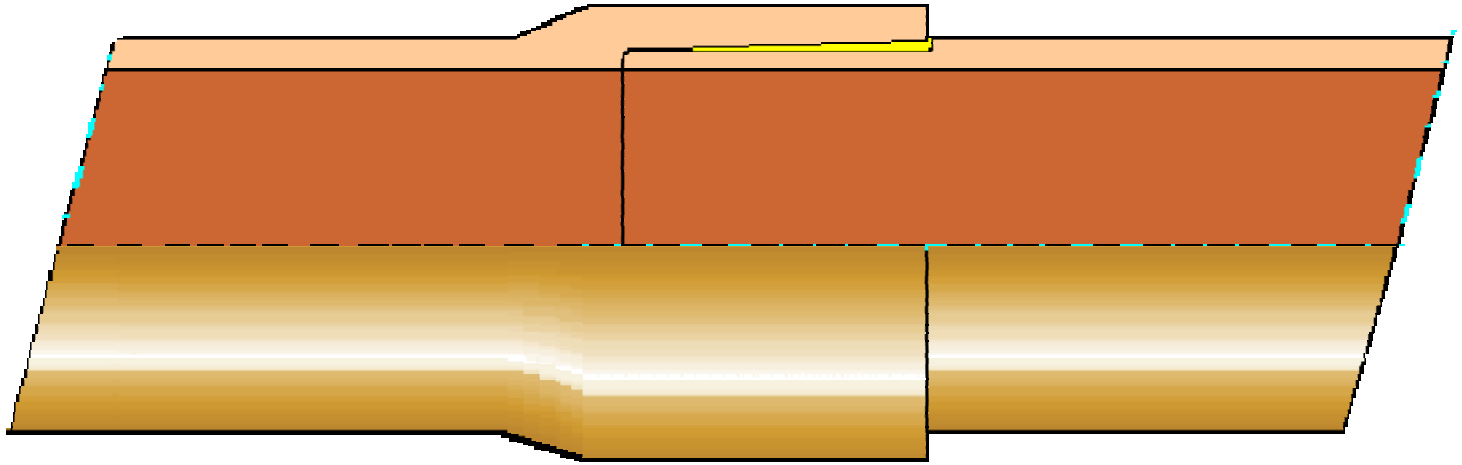
Underground / Subaqueous Applications

Lamination Joint



Underground And Aboveground Applications

Adhesive Joint

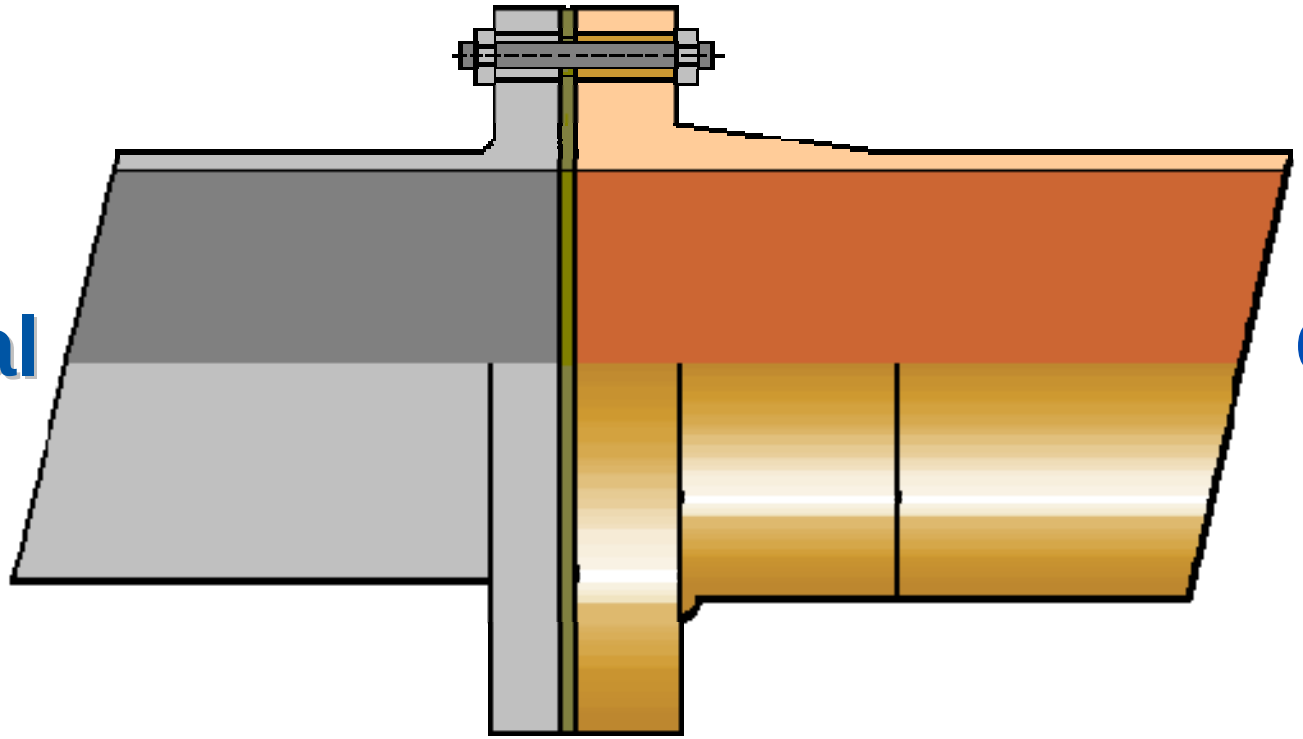


Underground And Aboveground applications

Threaded Joint

Flange Joint

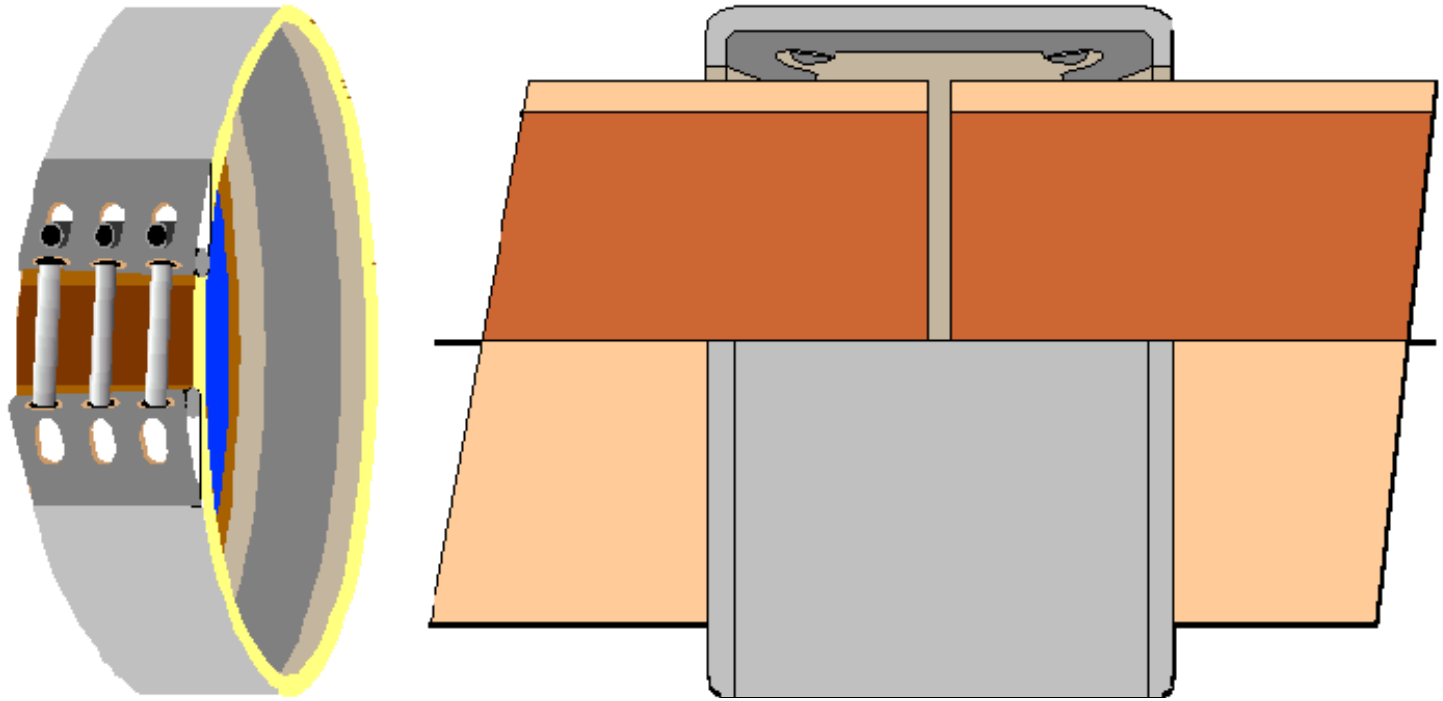
Metal



GRP

Aboveground And Underground Pits

Mechanical Coupler



Underground Applications

Rubber Seal Lock Joint