COMPOSITE PIPING SYSTEMS

TS&M Supply is the exclusive Canadian Oilfield distributor of Star™ Super Seal, Fiberspar LinePipe™ and Bondstrand® fiberglass corrosion resistant products, including line pipe, downhole tubing/casing, spoolable line pipe and low pressure facility piping. In house machining, fabrication and testing capabilities allows TS&M to provide integrated solutions and efficient completion of material supply. TS&M'S technical expertise, products and commitment to service and safety ensures we will meet your fiberglass requirements. TS&M field supervisors have solid industry experience and are CSA qualified to provide training and supervision on the product and installation procedures; available 24 hours a day.

APPLICATIONS IN CANADA
• Flow / Emulsion lines
• Injection / Disposal lines
• Group lines
• Gas gathering & transport lines
• Low pressure battery & facility piping
• Acid / Polymer facilities
• Water processing
• De-watering lines
• Liners for linepipe & tubing
• Injection / Disposal tubing
• Production tubing
• Cement stingers
• Coal bed methane
• Casing
• CO₂, H₂S

FEATURES
• Corrosion resistant to commonly found corrosion elements in oil and gas applications (internal and external)
• CSA compliant
• Environmentally friendly option
• Can tie into any product: steel, spoolable, and fiberglass systems
• Supervision & technical services available
• Linepipe with operating pressures up to 3000 PSI in sizes 2”-12”
• Prevents paraffin and scale build-up
• Flow characteristics 1½ times better than steel
• At ¼ the weight of steel, handling and installation costs are reduced substantially
• Fast, reliable, make-up; industry standard and premium end connectors available
• Can be assembled in any weather
• Tubing and casing with deep hole capabilities of more than 10,000 ft with pressure up to 2500 PSI
• STAR™ SS (SP/SPH), SSS and SS-HP available
• Temperature range up to 100°C (212°F)
• Facility piping operating pressures of up to 450 PSI in sizes 2”-16”

For more information on fiberglass products and services or for a customized solution, please contact your local TS&M representative.
FIBERGLASS LINEPIPE – STAR™ SS (SP/SPH), SSS AND SS-HP
- Large diameter linepipe products are manufactured in sizes ranging from 2” – 12”
- Pressure capabilities up to 3000psi, depending on size and temperatures up to 100 °C
- Typically used to transport highly corrosive produced water and CO₂ gas
- Used in lower to medium pressure oil and gas flow lines where corrosive flow is encountered
- The epoxy resin systems are anhydride and aromatic curing agents with each providing slightly different chemical and temperature resistance
- Fiberglass reinforcement provides the structural strength
- Manufactured to a minimum design life of 20 years at rated temperature and pressure according to the ASTM D2992 Procedure B and industry standards, such as API 15HR

FIBERGLASS TUBING/CASING – CENTRON DH/DHC, STAR ACT
- NOV Fiberglass Systems is the leading downhole GRE producer in the industry due to its unique proprietary fiberglass layering sequence, which provides superior tensile performance
- Tubing is offered in 1 ½” – 9 5/8” with pressure ranges up to 3250 psi
- Available in 4 RD and 8 RD-EUE thread
- Used in a variety of highly corrosive applications such as:
  - Saltwater and CO₂ injection/disposal wells - for corrosion control
  - Observation wells - for monitoring
- An excellent option in the oilfield for water handling, vapor recovery, production gathering, and inner battery lines where corrosion of steel pipe is an issue.

FIBERGLASS FACILITY PIPING – BONDSTRAND
- Available in diameters of 2” to 16” and in pressure classes of 450 psig
- Pipe sections are assembled using the Taper/Taper adhesive joint
- Provides significant savings due to its light weight and easy installation features
- Little to no heavy handling equipment is required
- Superior corrosion resistance to oilfield fluids
- Large diameters in pipe and fittings for handling high volume flow rates
- Long service life, light weight, corrosion resistance, and improved flow characteristics

FIBERSPAR SPOOLABLE LINEPIPE
- Fiberspar is a patented spoolable LinePipe system available in up to 6” NPS and rated up to 3500 psi and 95°C
- Fiberspar is compliant with all applicable design standards and specifications worldwide (API 15S, CSA Z662, AS 2885, Shell DEP, etc.) and is API monogrammed
- Embedded in an epoxy resin matrix, premium E-glass fibers are protected from both mechanical and chemical degradation during handling, installation and operation of Fiberspar LinePipe
- Thermoplastic liner is chemically bonded to structural glass/resin layer improving liner collapse resistance
- Thermoplastic liner offers superior internal corrosion resistance eliminating need for costly in-line inspections (ILI) as well as corrosion inhibition chemical programs
- Robustly engineered continuous, longer reel Fiberspar LinePipe systems significantly reduce overall installed and operating costs, especially in remote locations
- Fiberspar compression slip connectors are fast to install and are re-usable