

# Transmission and Distribution Scale Pipeline Innervated Tubular Composite

## ITC-PL



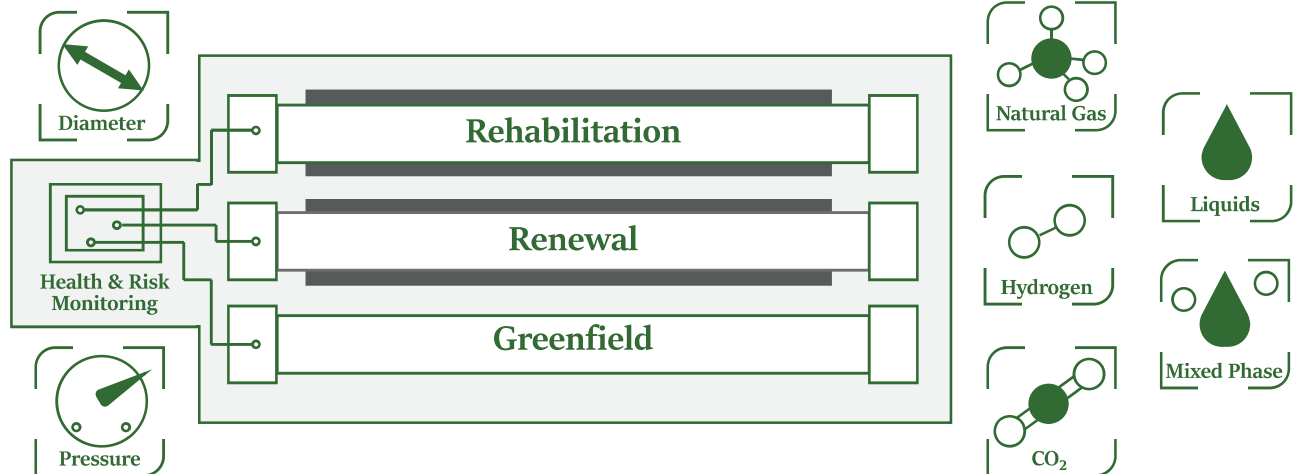
**BrainDrip™**  
Patently True Innovations



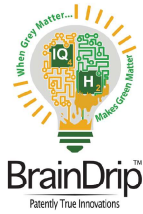
**16" ITC-PL  
High Pressure  
Construction**

- Diameter Range**  
6 - 36 inch
- Pressure Range**  
Exceeding 3,500 psig
- Continuous Lengths**  
Exceeding 10 miles
- On-site Manufacturing**  
8-10 feet per min
- Compatibility With a  
Wide Range of Gases  
and Liquids**

**Designed for pipeline renewal, rehabilitation, and greenfield applications.  
Fluid compatible now and in the future, with embedded continuous health monitoring for  
operational confidence over the lifetime of the product.**



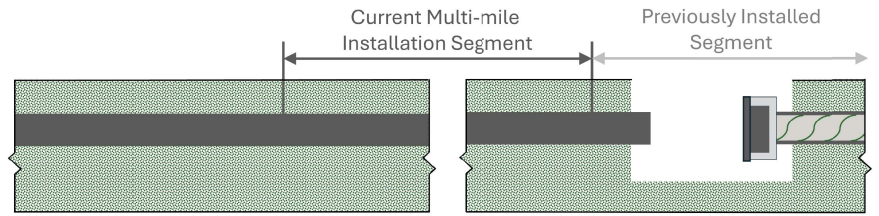
## ITC-PL Product Advantages



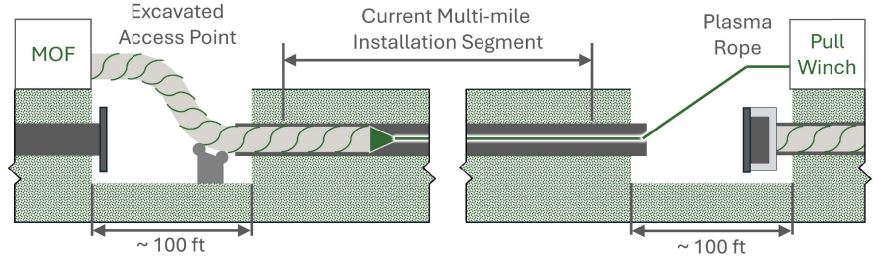
- **On-site manufacturing method provides continuous installation segments of up to 10 miles long, dramatically reducing renewal access requirements.**
- **Novel carbon fiber materials and manufacturing enable a low cost while attaining high pressure and cycle performance.**
- **Reinforced carbon fiber composite and novel liner eliminates corrosion risk and hydrogen embrittlement.**
- **Continuous health and risk monitoring with distributed fiber optic sensing is fully embedded and integrated into the product assembly.**
- **Future-proofed design allows for interchangeability of fluids to adapt to market changes.**

# ITC-PL Installation

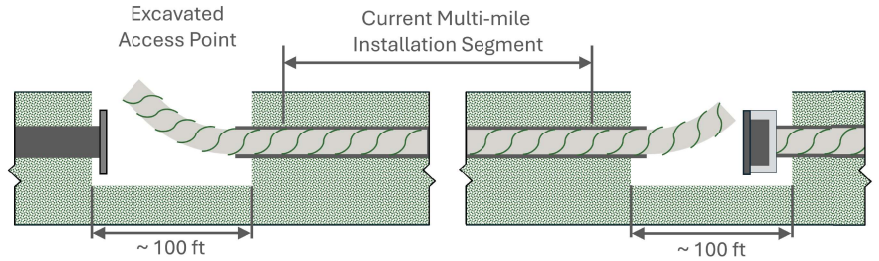
*Pipeline segment to be rehabilitated with ITC-PL*



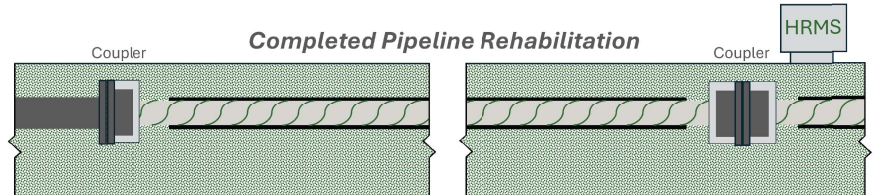
*On-site manufacturing and pull-through of ITC-PL segment*



*Completion of ITC-PL segment pull-through*



*Finalization of coupler connections and HRMS tie-in*



## ✓ Requirements and Certifications

- ✓ ITC-PL manufacturing follows ISO 9000 series methodologies
- ✓ ITC-PL follows API-15S Spoolable Composite Pipeline Systems for requirements and test specifications aside from spool specific elements since ITC-PL is not a spoolable product.
- ✓ As a composite pipe, ITC-PL requirements are specified in 49 CFR 192.9(e)(1)(i) for Type C gathering applications.
- ✓ For regulated transmission applications, ITC-PL requires a special waiver.

