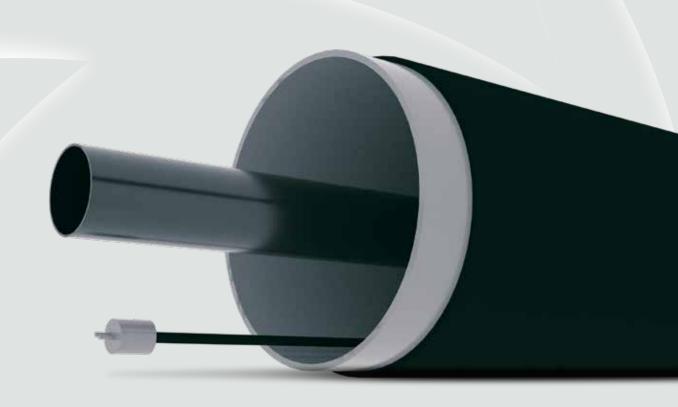


# ENI-GARD CONTAINMENT PIPE SYSTEM



PARTNERS IN EXCELLENCE



# **ENI-GARD** CONTAINMENT PROTECTION

When designing environmental or industrial piping systems for transporting chemical or gaseous fluids to or from storage tanks, in power plants, and in wastewater treatment plants, systems must meet high safety and regulatory standards at the planning stage. A containment piping system is a cost-effective and beneficial way to eliminate risk to the environment when transporting many hazardous substances. A combination of increased federal regulations, concerns over environmental and personal safety, and litigation risks has accelerated the development and improvement of double piping systems into highly engineered systems.

PERMA-PIPE has been the industry leader in engineered containment piping systems for decades.  $ENI\text{-}GARD^{\text{TM}}$  containment pipe system has successfully been installed with confidence across various environmental and industrial applications.

#### **ENI-GARD** PERFORMANCE

ENI-GARD consists of a carrier pipe, a containment pipe coated with urethane, or FRP outer jacket, and an optional PermAlert® cable leak detection system. ENI-GARD is a reliable and safe pipe system that protects against leakage of dangerous liquids and corrosive matters from the inner central pipes.

ENI-GARD is designed to protect against expensive environmental or safety incidents. It is also an efficient way to distribute or confine hazardous fluids and process liquids for underground and above ground applications. ENI-GARD is proven to minimize environmental damage and personnel risks due to accidental leaks or spills from the piping system.

# **ENI-GARD** FEATURES

For long-term quality and performance, minimizing environmental and safety risks, the ENI-GARD containment pipe system is your solution:

- Operating temperatures: 32 °F (0 °C) to 400 °F (204 °C)
- Engineered and pre-fabricated double piping system with a containment pipe in a quality-controlled ISO 9000 facility
- The most energy-efficient piping system available for high-temperature applications
- FRP jacket protects the pipe during construction and prevents corrosion with excellent mechanical strength and moisture resistance
- Optional anti-corrosion coatings applied to the surface of the carrier pipe to prevent corrosion
- Optional PermAlert® cable leak detection system is available to provide early warnings of potential problems or mandatories when it comes to handling and monitoring the transport of highly aggressive substances

# **ENI-GARD** SOLUTIONS

ENI-GARD is an economical and reliable containment pipe system for protecting against leaks of corrosive or hazardous fluids caused by a primary carrier pipe's failure. When appropriately designed, ENI-GARD can have a longer service life with significant cost savings and superior environmental protection.

PERMA-PIPE offers turnkey services to meet operational and project challenges beyond the piping system that our clients have come to trust. We provide project planning, engineering support for system construction, design assistance and calculations, project management, pre-fabrication services, and field service training certification to reduce your installation, environmental, and safety concerns from start to finish of a piping project. Our extensive track record of successful global projects will showcase our experience.







#### **ENI-GARD** OPTIONS

Various Carrier Pipe Materials Containment Pipe FRP Outer Jacket PermAlert® Leak Detection System Optional Anti-Corrosion Coating

# **Carrier Pipe Options:**

Available in Carbon Steel, Stainless Steel, Copper, or FRP materials to meet environmental requirements

# **Applications:**

Above or below ground Environmental Industrial Oil & Gas District Energy

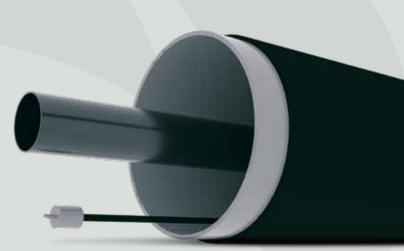
#### PARTNER WITH PERMA-PIPE

PERMA-PIPE International Holdings, Inc. (NASDAQ:PPIH) is a global engineered pipe services company offering core competencies in anti-corrosion coatings, insulation solutions, containment systems, leak detection systems, engineering support, field service, and custom fabrication.

When you do business with PERMA-PIPE, you are partnering with a company that has served the industry for over 100 years and has vast experience in all the markets we serve. You are not just buying a long-lasting, reliable piping system; you are also investing in a partnership with a company that stands behind its products and services while providing lasting peace of mind.

#### TYPICAL ENI-GARD CROSS-SECTION









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