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OILTECH

Product Overview
Company Profile

Oilfield Pipes and Fittings
for the Conveyance of Liquid Hydrocarbons

nupi
AMERICAS

THE COMPANY

NUPI AMERICAS Inc. was founded in 2001 and is based in Houston, TX where it established a warehouse and production facility. Another warehouse is located in South Carolina.

NUPI AMERICAS has its roots in NUPI Industrie Italiane S.p.A., that has its origin in NUPI S.p.A. and GECO System S.p.A. – two companies with more than 40 years of experience in the field.

NUPI Industrie Italiane S.p.A. and NUPI AMERICAS together develop and manufacture piping systems for use in industrial, sanitary (plumbing), HVAC applications, waterworks, gas and irrigation markets. Relying on experience and constant growth, our companies have proven to be cutting edge manufacturers, ready to meet the needs of the market while also protecting the environment.

In 1995, following the completion of an extensive Research and Development program, we introduced a new range of revolutionary piping systems specifically designed for petroleum, chemical and petrochemical applications. Since then, two special piping systems made of High Density Polyethylene (HDPE) have been marketed worldwide: SMARTFLEX for the downstream and OILTECH for the upstream.

Our trademarked systems are real system solutions, covering a wide range of applications, reducing costs, avoiding waste and increasing productivity. Thanks to their quality, these products have passed many different tests and have obtained the most prestigious certificates and listings, in line with the regulations of the five continents for the construction of water and gas networks and systems for the transport of fuels.

Producing better quality and being cost effective is the goal, which is made easier everyday by new technology. Our companies are continuously investing in research and development programs, while strengthening our production systems, operated by a sophisticated technology that guarantees the highest quality of products.

Our facilities use modern, state-of-the-art computer controlled production equipment and methods that guarantee products of the highest quality together with continuous quality control systems.

On these solid foundations NUPI Industrie Italiane S.p.A. and NUPI AMERICAS demonstrate leadership throughout the thermoplastic piping industry. Our customers can rely on the best quality materials and precise manufacture, obtained through completely automated production systems resulting in timely deliveries.

Customer satisfaction is pursued through high quality products and the constant attention to our customers' needs and requirements and by means of an effective team of people in post-sales service, effective and precise technical assistance and intensive training of installers.

THE PRODUCT

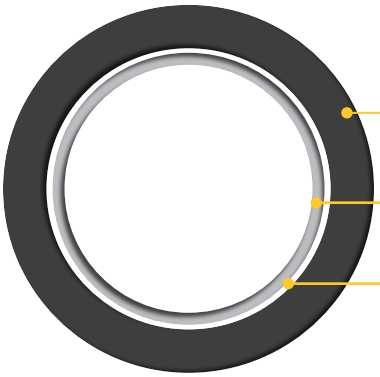
Featuring zero permeation to hydrocarbons, the Oiltech Series is the elective choice whenever environmental issues are at the stake.

The pressure rating of **300psi** allows OILTECH to find its best operating conditions in a wide variety of Oil & Gas applications: produced fluids, salt water, disposal and transmission lines.

OILTECH pipes are extruded as an advanced multilayer structure consisting of a base of HDPE piping that is internally lined with a chemically resistant liner and bonded together in unitary fashion using a tie layer.

It can be used in a wider temperature and pressure range than ordinary HDPE and can guarantee better compatibility to chemicals and lower permeation to hydrocarbons.

Multilayer thermoplastic pipes are the **ideal solution for high & low temperature pressure application and for lining and rehabilitation of existing pipelines**.



Multilayer PIPE structure

Outer Layer in HDPE

Provides Mechanical Strength and Outer Chemical Protection

Inner Layer in Modified Polyamide

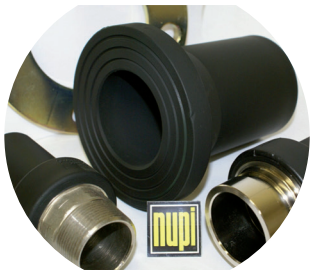
Provides Chemical Resistance and Permeation Barrier

Tie Layer

Binds Together Inner and Outer Layer

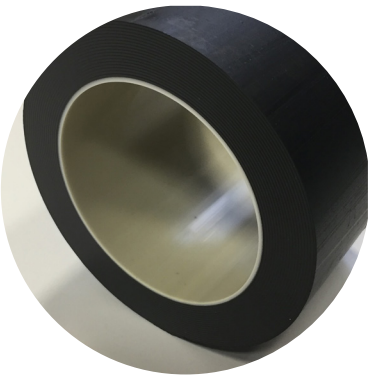
The **OILTECH fitting** range includes:

- **Electrofusion fittings** that guarantee a safe and reliable assembly. The electrofusion principle involves a combination of heat, self-generated pressure and time. All OILTECH 300 electrofusion fittings contain molded-in electrical wires that provide, when energised, the required heat for welding pipe and fittings together. The resulting joint is stronger than the pipe and fittings, so the resulting pressure rating of the joint exceeds the pipes and fittings themselves.
- **Spigot fittings**
- **Spigot transition fittings** manufactured in compliance with ASTM F 1973 Standard specifications for factory-assembled anodeless risers and transition fittings in PEHD, PA11, PA12 fuel and gas distribution systems.



APPLICATIONS

Traditional materials are prone to rapid build-up of paraffin in the pipe requiring aggressive maintenance programs. Continuous seamless OILTECH pipe runs and the use of large smooth bore electrofusion couplers can virtually eliminate paraffin build-up and the need for hot oiling or chemical treatment.



OILTECH pipes can effectively replace steel in high & low temperature pressure applications, instead of more expensive unitary layer alternatives that make use of expensive engineering thermoplastics or piping system made of Reinforced Thermoplastic Piping (RTP).

OILTECH is specifically engineered for conveying hydrocarbons in aggressive environments (e.g. H2S, CO2) where chemical resistance limits the use of conventional plastics as a unitary piping system for hydrocarbon applications due to permeability and compatibility concerns.

By using OILTECH long pipe runs and electrofusion fittings, substantial cuts in maintenance costs can be achieved and **the installation time and costs can be drastically reduced to a minimum.**

OILTECH 300 lines can be installed either above ground or in standard ditches 3 feet deep.

CHARACTERISTICS & BENEFITS

- **Reduced permeation to hydrocarbons**
- **Smoothness of the ID wall**
- **No paraffin build-up**
- **Larger bore**
- **Excellent chemical and abrasion resistance**
- **Ability to resist scale and overall toughness**
- **Excellent flow properties throughout its service life**
- **Easy to install**

OILTECH 300HT

OILTECH 300HT is the new composite piping system specially developed for industrial applications at high temperatures.

The structural layer is made of PE-RT (Polyethylene of Raised Temperature Resistance) that is a new family of PE materials with significantly improved long-term strength at high temperatures.

When compared to standard OILTECH 300, the HT (High Temperature) features better properties as regards temperature.

OILTECH 300HT is the eligible choice in many applications **where the service temperature is between 105°F and 180°F.**

It can be installed and handled in the same way as standard OILTECH 300, even though it is capable of higher pressure performance at elevated temperatures. **It has the same flexibility as OILTECH 300 and can be joined by using the electrofusion or butt fusion technology.**

TRACEABILITY

The installation **technology based on the electrofusion system** is one of the most used connection methods in the installation of polyethylene pipes. Electrofusion is the thermal junction process between pipe and fitting obtained by heating a resistance wire included in the fitting. To be welded, the **OILTECH electrofusion fittings** require maximum voltage of 42 V as requested in international safety standards.

One of the latest proposal by NUPI Americas is **the new SMARTWELD welding machine associated to its NUPI WELDING APP**, an innovative tool that allows installers to jump into the future by eliminating paper and manual management of the information related to the installation of pipes and fittings.

NUPI WELDING CLOUD is an APP designed for the most demanding installers that solves all the problems of welding traceability. It allows a total management of all information regarding construction site, welds, traceability of the products installed, installation mapping by GPS tracking and all subsequent testing activities. The new **SMARTWELD welding machine allows to carry out welds without errors and manage them by using the latest technologies such as communication via WIFI and Internet** for welding control and data management, a Cloud storage area and fingerprint detection for the recognition of the identity of the operator.

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