#### **SMARTFLEX**<sup>™</sup>



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**.

More product ranges marketed by Nupi Americas are **ELOPRESS** - a complete range of PP fittings for the distribution of drinking water and alimentary fluids.

SMARTCONDUIT - designed to contain electrical and communication cables in high groundwater or hydrocarbon- rich environments.

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 and Nupi Americas demonstrate leadership throughout the thermoplastic piping industry.

Our customers can rely on the best quality materials and precise manufacture instead, obtained through completely automated production systems and continuous on-time deliveries, resulting in timely deliveries which allow planning to be done in real time.

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 company

Nupi Americas has its roots in Italy through NUPI S.p.A. and GECO System S.p.A. – companies both founded in the early 1970s – that merged to become NUPIGECO S.p.A. in 2008. In October 2015, NUPIGECO S.p.A., changed its name to NUPI INDUSTRIE ITALIANE S.p.A.

NUPI INDUSTRIE ITALIANE and Nupi Americas together **develop** and manufacture piping systems for use in industrial, sanitary (plumbing), HVAC, 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.









- 1 Production Operations & Administration Center Early Branch (SC)
- 2 Registered Office and Headquarters Busto Arsizio (VA)
- 3 Production Facility Borsano di Busto Arsizio (VA)
- 4 Production Facility Imola (BO)
- 5 Production Facility Castel Guelfo di Bologna (BO)





### **HDPE Pipe and Fitting System**

FOR THE TRANSFER OF FUEL



#### Nupi Americas, Inc.

314 Commerce Parkway
Early Branch - SC 29916 - U.S.A.
ph. +1 803-398-3579
fax: +1 803 398 3639

info@nupiamericas.com www.nupiamericas.com







The product

**SMARTFLEX™** is a multi-layer piping system manufactured by NUPI AMERICAS Inc. for the transfer of automotive and aviation fuels, biofuels and hazardous fluids.

**SMARTFLEX™** is produced using the latest technopolymers that are biocompatible and fully recyclable.

All products are available in a wide variety of sizes and configurations making the system suitable to various kinds of installation.

Cutting-edge technology and cost-reduction installation.

The key material employed in the production of SMARTFLEX is high-density polyethylene (HDPE-PE100), a material with high durability and working benefits to the user.

Moreover, HDPE can be a more cost-effective solution than more traditional materials such as metal.

# **Application**

The **SMARTFLEX™** system has been optimised to be used in underground applications and for the conveyance of the widest range of the most common fuels available on the market. It is also compatible with mixtures of these

Here are some examples:

- 98 UNLEADED GASOLINE
- 95 UNLEADED GASOLINE
- 95 UNLEADED GASOLINE WITH NON-SULPHUR DIESEL OIL 8 TO 10% ETHANOL (SE95-E10)
- METHANOL
- TOLUENE
- KFROSFNF
- ALCOHOL FUELS UP TO 100%
- DIESEL FUELS

- JET FUEL A
- E85 ETHANOL

All **SMARTFLEX™** primary piping consists of a multi-layer composite wall lined product pipe that combines the excellent mechanical properties of HDPE with the low permeability and high resistance to hydro-carbons of a new class of polymers used in the lining material and creates a level of hydro-carbon compatibility unattainable by other fuel pipes available on the market today.

## HAS A 30 YEAR **GUARANTEE**

fuels combined in the most varied percentages.

#### AVIATION FUELS

- DIESEL OIL
- NAPHTHA
- DOM FUEL
- BIO DIESEL



**FULL SINGLE WALL RANGE** 



#### **FULL DOUBLE WALL RANGE**

Primary ø 1"½ - Secondary ø 2" Primary ø 2" - Secondary ø 2"1/2 Primary ø 3" - Secondary ø 5"



**SMARTFLEX™** products are available in various dimensions and configurations, making the system suitable to any kind of installation.

The most common applications for **SMARTFLEX™** pipes and fittings, both in suction and pressure installations, are as follows:

- ROAD AND MOTORWAY SERVICE STATIONS
- HARBOR AND MARINE SERVICE STATIONS (MARINAS)
- FUEL DISTRIBUTION IN AIRPORTS
- FUEL STORAGE TANKS
- GENERATOR CONNECTIONS TO FUEL TANKS

#### The range

**SMARTFLEX™** has a vast range of pipes and fittings including:

- Single-wall lined pipes for both product lines and vent/vapor and filling lines
- Double-wall lined pipes for more demanding containment and monitoring requirements
- A full range of electro-fusion fittings for safe, corrosion-proof joints
- Spigot and riser fittings
- Mechanical fittings
- Flexible and electro-fusion entry boots for positive sealing of sumps
- Leak monitoring systems HDPE tank sumps and dispenser sumps
- Welding units and tooling



#### Approvals

The SMARTFLEX™ system is certified by 85 prestigious international quality control institutions such as:





- KIWA The Netherlands BRL K 552
- IP UK Institute of Petroleum

Just to mention some...

#### 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.

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.



