



EIOFIT



**Polyethylene
Fittings for
Water and Gas
Under Pressure**

THE COMPANY

In October 2015, **NUPI Industrie Italiane S.p.A.** took over **NUPIGECO S.p.A.** The name change brings with it an 'all-Italian' company that exports its products worldwide!



Headquarters and Production Centre - Busto Arsizio (VA) - Italy

"The height you attend depends on the depth of your roots"



Production and Operations Centre - Castel Guelfo di Bologna (BO) - Italy



Production Centre - Imola (BO) - Italy

NUPIGECO S.p.A. was founded on October 1st 2008 by the merger of two of our companies, **NUPI S.p.A.** and **Geco System S.p.A.** - both founded more than 30 years ago. Combining their many years of experience and constant growth, the two firms decided to create a new flexible and advanced company, ready to play its role to satisfy the demands of the market whilst being environmentally astute.

NUPI Industrie Italiane S.p.A. develops and produces pipe and fitting systems for plumbing, heating, air conditioning, irrigation, water and gas pipelines. **NUPI Industrial Division (NUPI ID)**, which was founded in 1995, is dedicated to the production of the highest quality multilayer pipes specifically designed for the oil, chemical and petrochemical markets.

Today, **NUPI Industrie Italiane S.p.A.** offers a complete range of pipes and fittings, produced using the most modern thermoplastic materials and manufacturing processes. These product ranges are known worldwide by the following trademarks: **NIRON, MULTINUPI, MULTIGECO, ELOFIT, ELOTHERM, ELOPRESS, POLYSYSTEM, POLIETILENE TUBI, SMARTFLEX, OILTECH, SMARTLPG, ELAMID, ELOSMART, SMARTCONDUIT, ECOWAVE** and the **ELOSFERA** range dedicated to alternative energies: **NRGEO** and **ELOWEB**.

These systems are known as real problem-solving systems capable of supplying every kind of installation while reducing costs, avoiding wastes and increasing productivity. Thanks to their quality, these products positively fulfil the most stringent field tests and have obtained the most prestigious certifications, conforming to legislation from around the globe for water, gas networks and for the conveyance of fuels.

Producing better quality and being cost effective is the goal, which is made easier every day by new technology. **NUPI Industrie Italiane S.p.A.** is continuously investing in research and development programs, while strengthening the production systems, operated by a sophisticated technology that guarantees the highest quality of its products. The company's market leadership enforces its role in extremely competitive and technological fields such as the thermo-transformation of plastics and polymers.

THE PRODUCT

ELOFIT is a system of electrofusion and butt fusion fittings made of High Density Polyethylene for conveying water, gas and chemicals under pressure (PN10, PN16, PN20, PN25).

ELOFIT complies with the following standards:

UNI EN ISO 15494

Plastic piping systems for industrial applications - Polyethylene (PE100)

UNI EN 1555-3

Plastic piping systems for the supply of gaseous fuels - Polyethylene (PE80-PE100) - Part 3: Fittings

UNI EN 12201-3

Plastic piping systems for water supply - Polyethylene (PE100) - Part 3: Fittings

Certified by:



It also satisfies the requirements of UNI 9736 standards on tensile stress tests for metal-plastic transition fittings.

NUPI has recently obtained **EPD certification relating to environmental performance throughout the entire life cycle of the HDPE pipe and fitting system**, in accordance with ISO 14025 and EN 15804 Standards.

ELOFIT IS MADE of non-toxic materials, in conformity with National Safety Regulations e.g. Ministerial Decree no.174 (Italy).

PROPERTIES OF THE MATERIAL

ELOFIT fittings are made of High Density Polyethylene by injection moulding. This means they have excellent resistance to:

- **CORROSION** even on aggressive soils. HDPE can be laid underground without any protection
- **STRAY CURRENTS** since HDPE has very poor electrical conductivity
- **IMPACT** even at low temperatures (-20°C)
- **CHEMICAL AGENTS** HDPE can withstand most chemical substances
- **ABRASION** HDPE allows high water speed without erosion problems
- **MICRO-ORGANISMS AND TOXICITY**
- **RELIABLE FOR OVER 50 YEARS**



QUALITY

The quality of **ELOFIT** fittings is guaranteed by the most prestigious international certification marks and laboratories:



The List of NF136 fittings can be consulted on Certigaz website:

https://www.certigaz.fr/downloads/NF-136-APE_t14711.html

FIELDS OF USE

ELOFIT is suitable for the following applications:

- **CONVEYANCE OF DRINKING WATER AND ALIMENTARY FLUIDS**
- **CONVEYANCE OF GASEOUS FUELS (NATURAL GAS, MANUFACTURED GAS, LPG)**
- **CONVEYANCE OF INDUSTRIAL FLUIDS AND COMPATIBLE CHEMICALS**

It can also be used for the following systems:

- **WASTEWATER TREATMENT**
- **IRRIGATION**
- **CHEMICAL PLANTS**
- **PRESSURISED SEWERAGE FOR INDUSTRIAL AND CIVIL USE**
- **UNDERGROUND FIRE PROTECTION**
- **PIPE RELINING (RENOVATION OF OLD NETWORKS)**



ELECTROFUSION

The **ELOFIT** system is based on the electrofusion process

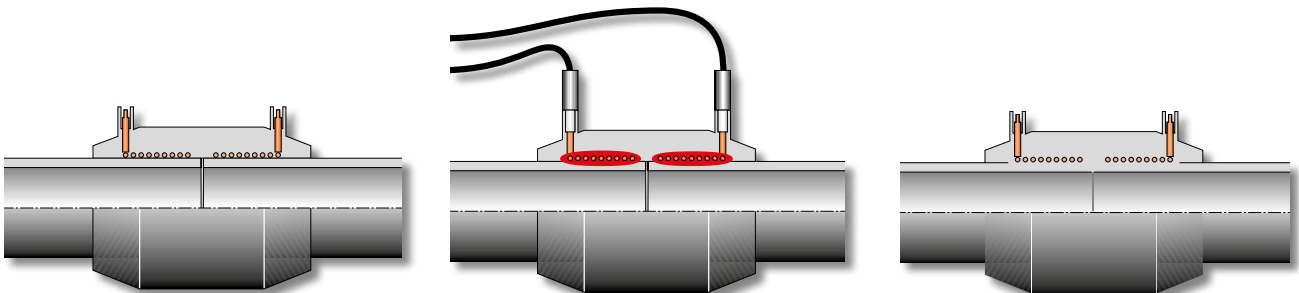
The fittings contain a resistive wire with cable terminals outside, where the welding machine can be connected.

By applying a determined voltage for a stated time, the welding machine runs the electrical current through the resistance, thus generating the heat needed to melt the

polyethylene: the energy is directly transmitted to the contact surface between the fitting and the pipe causing heat welding of the parts.

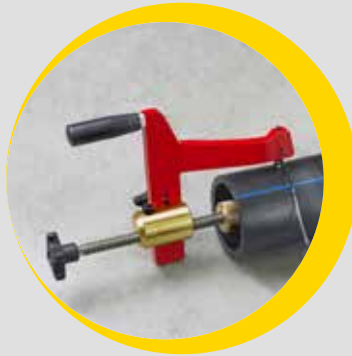
When it cools down, the joint is homogeneous, strong, safe and reliable.

The main feature of ELOFIT fittings is the high quality and reliability of the joint.



INSTALLATION

Use the **ELOFIT** welding units and follow the instructions below to carry out perfect welding.



1 Cut the pipes perpendicularly using the pipe cutter.

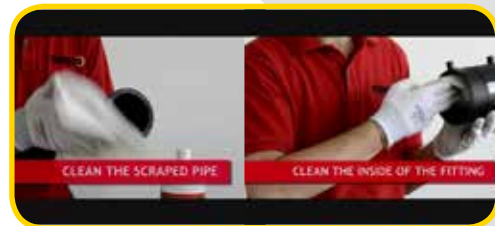
2 Use the appropriate tool to scrape the surface of the pipe uniformly. Make sure you remove the oxidised surface layer completely.



3 Mark the insertion length of the fitting on the pipe using the appropriate marker.



4 Use a clean cloth and isopropyl alcohol to remove any grease and dirt from the ends of the pipes and the inner part of the fittings.



5 Hold the pipes in place using the aligner after inserting the fitting.



6 Connect the plugs of the welding unit to the cable terminals and weld according to the instructions shown on the display of the welding unit.



PRODUCT RANGE

ELECTROFUSION FITTINGS

ELECTROFUSION COUPLER

CODE	Ø
EME PN16	FROM 20 TO 1000
DME PN10	FROM 90 TO 1000
GME PN25	FROM 20 TO 630
FME (SEWAGE)	FROM 110 TO 1000
EMEL (LONG)	FROM 32 TO 75

ELECTROFUSION END CAP

CODE	Ø
ECALE	FROM 20 TO 315

ELECTROFUSION REDUCING COUPLER

CODE	Ø
ERDE	FROM 25-20 TO 315-280

ELECTROFUSION ELBOW

CODE	Ø
ECEM30 (30°)	FROM 90 TO 160
ECEM (45°)	FROM 32 TO 315
EGEM (90°)	FROM 20 TO 315
EGEMS (WITH SUPPORT)	FROM 110 TO 125

ELECTROFUSION TEE WITH SPIGOT END

CODE	Ø
ETCE	FROM 20 TO 315
ETER (REDUCING)	FROM 32-20 TO 250-200

TAPPING TEE

CODE	Ø
EPRES	FROM 40-20 TO 315-63
ALSO AVAILABLE:	
EPRESZ (ZERO-LEAKAGE)	FROM 63-32 TO 315-63
EPREV (WITH PRESSURE VALVE)	FROM 63-63 TO 315-63
FLOW STOP range with automatic safety GAS-STOP device	
EPRESR (35mbar÷5 bar)	FROM 40-20 TO 315-63
EPRESB (100mbar÷5 bar)	FROM 40-20 TO 315-63
EPRESG (1÷5 bar)	FROM 40-20 TO 315-32

BRANCH SADDLE

CODE	Ø
ECOL	FROM 40-20 TO 315-125
ECOLTL ("TOP LOAD" TYPE)	FROM 355-90 TO 630-250

FEMALE THREADED TRANSITION SADDLE

CODE	Ø
ECOLF	FROM 75X2" TO 315X2"

BALLOON SADDLE

CODE	Ø
EPALG	FROM 90 TO 315
EPALTL ("TOP LOAD" TYPE)	FROM 355 TO 630

REPAIR SADDLE

CODE	Ø
ERIP	FROM 75 TO 1000

METER SADDLE

CODE	Ø
ECOLC	63X1/2" - 63X3/4" - 63X1"

VALVES

PE VALVE FOR GAS & WATER FOR UNDERGROUND APPLICATIONS

CODE	Ø
ESTL	FROM 20 TO 40

PE VALVE FOR UNDERGROUND INSTALLATIONS

CODE	Ø
EVS	FROM 20 TO 250

SPIGOT FITTINGS

90° AND 45° ELBOW SPIGOT END (*)

CHARACTERISTICS	Ø
SDR17 PN10	FROM 63 TO 500
SDR11 PN16	FROM 25 TO 500
SDR9 PN20	FROM 63 TO 315
SDR7,4 PN25	FROM 63 TO 315

90° TEE SPIGOT END (*)

CHARACTERISTICS	Ø
SDR17 PN10	FROM 63 TO 400
SDR11 PN16	FROM 25 TO 400
SDR9 PN20	FROM 63 TO 315
SDR7,4 PN25	FROM 63 TO 315
REDUCING TEE SDR17 PN10	FROM 90-50 TO 1000-800
REDUCING TEE SDR11 PN16	FROM 63-32 TO 630-500
REDUCING TEESDR9 PN20	FROM 280-63 TO 500-355
REDUCING TEE SDR7,4 PN25	FROM 280-63 TO 450-355

SPIGOT CAP

CHARACTERISTICS	Ø
SDR17 PN10	FROM 63 TO 710
SDR11 PN16	FROM 20 TO 630
SDR9 PN20	FROM 63 TO 500
SDR7,4 PN25	FROM 63 TO 450

SPIGOT REDUCER (*)

CHARACTERISTICS	Ø
SDR17 PN10 (LONG)	FROM 75-63 TO 500-400
SDR11 PN16 (LONG)	FROM 32-25 TO 400-355
SDR9 PN20 (LONG)	FROM 63-32 TO 400-355
SDR7,4 PN25 (LONG)	FROM 63-32 TO 400-355
SDR17 PN10 (SHORT)	FROM 200-160 TO 710-630
SDR11 PN16 (SHORT)	FROM 200-160 TO 630-560
SDR9 PN20 (SHORT)	FROM 200-160 TO 500-450
SDR7,4 PN25 (SHORT)	FROM 200-160 TO 450-400

SPIGOT STUB END (*)

CHARACTERISTICS	Ø
SDR17 PN10 (LONG)	FROM 63 TO 630
SDR11 PN16 (LONG)	FROM 25 TO 630
SDR9 PN20 (LONG)	FROM 63 TO 500
SDR7,4 PN25 (LONG)	FROM 63 TO 450
SDR17 PN10 (SHORT)	FROM 110 TO 1000
SDR11 PN16 (SHORT)	FROM 110 TO 800
SDR9 PN20 (SHORT)	FROM 110 TO 500
SDR7,4 PN25 (SHORT)	FROM 110 TO 450

FLANGES AND GASKETS

CHARACTERISTICS	Ø
ALUMINIUM, EPOXY COATED, CAST IRON PPR COATED, GALVANIZED STEEL FLANGES	
FOR PN10 AND PN16	FROM 25 TO 1000
GASKETS	FROM 25 TO 1000
REINFORCED GASKETS	FROM 50 TO 500

SEGMENTED FITTINGS

CHARACTERISTICS	Ø
PE100 PN6,3 PN10 PN16	
30° BEND	FROM 140 TO 1000
45° BEND	FROM 140 TO 1000
60° BEND	FROM 140 TO 1000
90° BEND	FROM 140 TO 1000
90° TEE	FROM 140 TO 1000
45° TEE	FROM 140 TO 500

SWEEP BENDS

CHARACTERISTICS	Ø
90°, 60°, 45°, 30° 22°, 11°	
SDR17 PN10 S8	FROM 110 TO 630
SDR11 PN16 S5	FROM 110 TO 630

(*) MOLDED OR FABRICATED

PRODUCT RANGE

TRANSITION FITTINGS

PE/STEEL THREADED TRANSITION FITTING

CODE	Ø
ERPEAF PN16	FROM 25X3/4" TO 125X4"
GRPEAF PN25	FROM 32X1" TO 125X4"



PE/STEEL THREADED LONG TRANSITION FITTING

CODE	Ø
ERPEALL PN16	FROM 25X3/4" TO 63X2"



PE/GALVANIZED STEEL PLAIN TRANSITION FITTING

CODE	Ø
ERPEAL PN16	FROM 32X25 TO 315X300



PE/STEEL COATED THREADED TRANSITION FITTING

CODE	Ø
ERPEARC	FROM 25X3/4" TO 110X4"
GALVANISED PE/STEEL	
ERPEARCZ	FROM 25X3/4" TO 110X4"



PE/STEEL THREADED CURVED TRANSITION FITTING

CODE	Ø
ERTCF	FROM 25X3/4" TO 90X3"
GALVANISED PE/STEEL	
ERTCFZ	FROM 25X3/4" TO 90X3"



PE/STEEL PLAIN TRANSITION FITTING

CODE	Ø
S5ERPEAL SDR11	FROM 20X18 TO 315X300
S8ERPEAL SDR17	FROM 90X80 TO 315X300



PE/STEEL TEE TRANSITION FITTING

CODE	Ø
ERTT	FROM 32X25 TO 90X80



PE/GALVANIZED STEEL THREADED TRANSITION FITTING

CODE	Ø
ERMA (MALE GALVANIZED STEEL)	FROM 20X1/2" TO 125X4"
ERFA (FEMALE GALVANIZED STEEL)	FROM 20X1/2" TO 125X4"
ERFMSS (MALE STAINLESS STEEL)	FROM 20X1/2" TO 125X4"
ERFFSS (FEMALE STAINLESS STEEL)	FROM 20X1/2" TO 125X4"



PE/BRASS THREADED TRANSITION FITTING

CODE	Ø
ERFM (MALE)	FROM 20X1/2" TO 125X4"
ERFF (FEMALE)	FROM 20X1/2" TO 125X4"



PE/BRASS TRANSITION FITTING WITH SWIVEL ADAPTER

CODE	Ø
EBD	FROM 20X1/2" TO 63X2"1/2



PE/CAST IRON 3-PIECE TRANSITION FITTING

CODE	Ø
ERPAG	FROM 25X3/4" TO 125X4"



PE/COPPER COMPRESSION TRANSITION FITTING

CODE	Ø
EA (FOR RADIAL COMPRESSION)	FROM 25X18 TO 32X28



PE/COPPER TRANSITION FITTING

CODE	Ø
EAR (RADIAL COMPRESSION OR WELDING)	FROM 25X18 TO 40X28



PE/COPPER CURVED TRANSITION FITTING

CODE	Ø
EARC (RADIAL COMPRESSION OR WELDING)	FROM 20X18 TO 32X28



WELDING UNITS AND TOOLING

MULTIFUNCTION WELDING UNIT

CODE	Ø
E8500	FROM 20 TO 315
E8500L	FROM 20 TO 160
E9001	FROM 20 TO 630
E9001HW	FROM 20 TO 1000
E9001L	FROM 20 TO 160
E9001P	FROM 20 TO 400
E9001LP	FROM 20 TO 160
SMARTWELD	FROM 20 TO 400
SMARTWELD L	FROM 20 TO 160
E9001SL	FROM 20 TO 63



PRESSURE TEST UNIT

CODE	Ø
SENS	FROM 1 MBAR TO 50 BAR



BUTT WELDING MACHINES

CODE	Ø
S10160	FROM 40 TO 160
S10200	FROM 63 TO 200
S10250	FROM 75 TO 250
S10315	FROM 90 TO 315
S10355	FROM 125 TO 355
S10500	FROM 200 TO 500
S10630	FROM 280 TO 630
S10800	FROM 500 TO 800
S101000	FROM 630 TO 1000



ALIGNER

CODE	Ø
ALL063/4 (WITH BELTS)	FROM 20 TO 63
ALL225/4 (WITH BELTS)	FROM 50 TO 225
ALL315/4 (WITH BELTS)	FROM 225 TO 400
AU020063 (WITH METALLIC JAWS)	FROM 20 TO 63
AU063160 (WITH METALLIC JAWS)	FROM 63 TO 160



PIPE SUPPORT

CODE	Ø
TR250	FROM 90 TO 250



REVOLVING SCRAPER

CODE	Ø
RAT	FROM 75 TO 400
RATOR	FROM 20 TO 180
RAT_RIT	FROM 50 TO 800



PIPE CUTTER

CODE	Ø
TT	FROM 16 TO 75
SCUT	FROM 32 TO 180
TA	MAX 315



PIPE SQUEEZER

CODE	Ø
SCH	FROM 20 TO 200



PIPE DRILLING MACHINE FOR NETWORKS UNDER PRESSURE

CODE	Ø
00FP	FROM 90 TO 1000

