

SISTEMA
NIRON[®]



**Polypropylene Pipes
and Fittings
for Plumbing Installations**

THE COMPANY

On October 1st 2008, two of our companies, **NUPI S.p.A.** and **GECO System S.p.A.** - both founded more than 30 years ago - merged to become **NUPIGECO S.p.A.**



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

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. Today, **NUPIGECO** 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, RACCORDI PVC, ECOWAVE.** These systems are known as real problem solving systems capable of supplying any kind of installation while reducing costs, avoiding wastes and increasing productivity. Thanks to their quality, these products positively fulfil the most varied field

tests and have obtained the most prestigious certifications, conforming to legislation from around the globe.

NUPIGECO has always been respectful of the environment and is economically and socially committed in the research and development of alternative energy through the **ELOSFERA** range, comprising **ELOWEB** (heating and cooling systems) and **NRGEO** (geothermal energy). In order to satisfy even



the most demanding customers, the "**ELOSFERA** division" is made up of engineers and professionals who dedicate themselves to this cause, for a man and nature-oriented future.

NUPIGECO 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.

Customers can rely on the best quality materials and precise manufacture, obtained through completely automated production systems, and continuous on time deliveries that perfectly integrate the business functions in real time.

The company employs several quality systems and is **IQNET/CISQ** certified according to standards **UNI EN ISO 9001** and **UNI EN ISO 14001**.

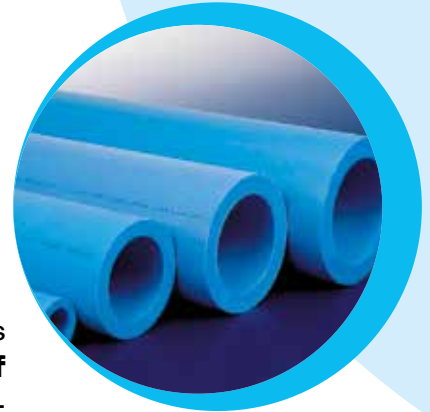
THE PRODUCT

The **NIRON** brand identifies a **Random Copolymer Polypropylene (PP-R and PP-RCT) pipe and fitting system** produced by Nupigeco S.p.A.

It is a **pipng** system used for **conveying sanitary hot and cold water** in various types of installations such as main frames, connections to sanitary ware, iced water conduits for air conditioning systems, etc. The system can be used for housing, large block of flats, hotels, hospitals, malls, churches, schools, gymnasiums, cruise liners and merchant ships.

The NIRON system is also used in **industrial installations** for the conveyance of compressed air and several commonly used chemical substances.

Such a vast usage is possible thanks to the **technological superiority** of the NIRON system.



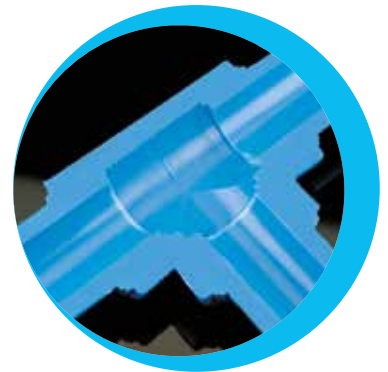
■ ABSOLUTE RELIABILITY

Produced since 1982, the NIRON system has been sold in the **5 continents**. Over **300.000 km of pipes and fittings** have been shipped with complete customer and installer satisfaction.

The perfect connection of the parts by means of **socket-fusion** guarantees absolute tightness even in the harshest conditions.

■ CERTIFIED QUALITY

The NIRON system obtained the most prestigious international quality certificates but to us quality stands for **complete customer satisfaction**. This is obtained exclusively through the supply of products having features that completely fulfil the application requirements.



■ COMPLETE RANGE

In order to fulfil every requirement, the **wide range** of pipes and fittings - **from Ø16 to Ø250** - has been **further increased** with the introduction of **special parts** designed to solve any installation problem. The company also produces bigger diameters upon request.

■ LOW THERMAL EXPANSION

This is obtained thanks to the new composite piping **NIRON FG** and **NIRON CLIMA** produced with an innovative **coextrusion** technology.

Their inner layer is made of **PP copolymer reinforced with fiberglass** to reduce the linear thermal expansion up to 73%.



■ SPEED OF INSTALLATION

Unquestionably the most interesting aspect of NIRON lies in the **speed of installation**. Thanks to its **light weight** and **versatility**, installation timing can be reduced by **30 to 50%**.

THE PRODUCT

■ NO CORROSION OR INCRUSTATION

Polypropylene is a **bad conductor of electricity**, so the NIRON system is **cannot be affected by corrosion**. Furthermore, thanks to its smooth inner surface, **any type of lime incrustation is avoided**.

■ ENERGY SAVING

The **low heat conductivity** of polypropylene increases **energy saving** by about 15% if compared to other metallic materials.

■ LOW NOISE INSTALLATION

The **noise absorption properties and elasticity** of this material soften noise and vibrations caused by the water flow and the water hammer effect.

■ RESISTANCE TO HIGH AND LOW TEMPERATURES

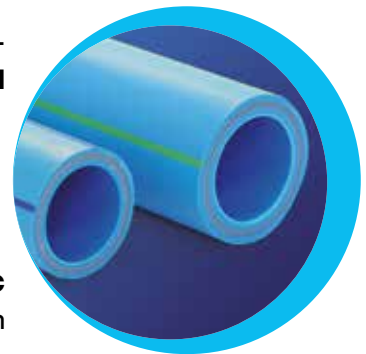
The NIRON system is tested to **resist temperatures up to 95°C** and **freezing conditions**.

■ ABRASION RESISTANCE

The **high resistance** of NIRON pipes eliminates erosion problems and allows **high speed water flow**.

■ NO TOXICITY

The NIRON system is **absolutely non-toxic** and complies with national and international health standards.



■ 10 YEAR WARRANTY

The NIRON system is covered by **third party liability insurance** in accordance to **EC standards no. 85/374** and to D.P.R no. 244 dated 24th May 1988 - Italian law.



THE INSTALLATION

A safe connection between NIRON pipes and fittings is obtained thanks to a simple installation procedure.

1 CUTTING

Cut the pipe perpendicularly with the appropriate pipe cutter.

Clean thoroughly before welding.



2 HEATING

Fix the inserts to the welder. The inserts must be suitable to the pipe diameter.

Connect the welder to a 220 V socket.

Wait for the welder to reach the operating temperature of 260 °C (a LED light will switch on).

Gently push the pipe and fitting simultaneously into the inserts.

Once inserted, heat both parts for the time showed in the table below.



3 SOCKET FUSION

Once heating is over, rapidly push the pipe into the fitting without rotating it and apply light pressure.

Any alignment correction must be carried out immediately after insertion so as to avoid tension in the weld.

This type of molecular thermo-fusion connection guarantees perfect tightness even in harsh conditions.



WELDING PROCEDURES AND TIMING

Ø	HEATING sec	ASSEMBLING sec	COOLING DOWN TIME min	PIPE INSERTION LENGTH mm	WELDING PROCEDURES (AS PER DVS 2207 STANDARD CH. 1-6.1)
16	5	4	2	13	- MANUAL (NSBEP socket fusion machine)
20	5	4	2	14	
25	7	4	3	15	
32	8	6	4	17	
40	12	6	4	18	
50	18	6	4	20	- WITH SPECIAL EQUIPMENT (STL welding machine)
63	24	8	6	26	
75	30	8	6	29	
90	40	8	6	32	
110	50	10	8	35	
125	60	10	8	40	- WITH SPECIAL EQUIPMENT
160					
200					
250					

butt welding or electrofusion fittings

THE RANGE

NIRON SINGLE WALL PIPE

NIRON PIPE SDR6 (PN20) STICK LENGTH 4m

CODE	ø mm
TNIRR16	16 X 2,7
TNIRR20	20 X 3,4
TNIRR25	25 X 4,2
TNIRR32	32 X 5,4
TNIRR40	40 X 6,7
TNIRR50	50 X 8,4
TNIRR63	63 X 10,5
TNIRR75	75 X 12,5
TNIRR90	90 X 15,0
TNIRR110	110 X 18,4
TNIRR125	125 X 20,8
TNIRR160	160 X 26,6



NIRON PIPE SDR7,4 (PN16) STICK LENGTH 4m

CODE	ø mm
TNIRR2516	25 X 3,5
TNIRR3216	32 X 4,4
TNIRR4016	40 X 5,5
TNIRR5016	50 X 6,9
TNIRR6316	63 X 8,7
TNIRR7516	75 X 10,4
TNIRR9016	90 X 12,5
TNIRR11016	110 X 15,2
TNIRR12516	125 X 17,1
TNIRR16016	160 X 21,9



NIRON PIPE SDR11 (PN10) STICK LENGTH 4m

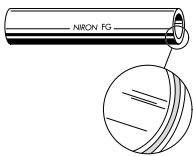
CODE	ø mm
TNIRR2510	25 X 2,3
TNIRR3210	32 X 2,9
TNIRR4010	40 X 3,7
TNIRR5010	50 X 4,6
TNIRR6310	63 X 5,8
TNIRR7510	75 X 6,8
TNIRR9010	90 X 8,2
TNIRR11010	110 X 10,0
TNIRR12510	125 X 11,4
TNIRR16010	160 X 14,6
TNIRR20010	200 X 18,2
TNIRR25010	250 X 22,7



NIRON MULTILAYER PIPE

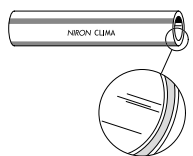
NIRON PIPE FG SDR 7,4 (PN20) STICK LENGTH 4m

CODE	ø mm
TNIRRF2074	20 X 2,8
TNIRRF2574	25 X 3,5
TNIRRF3274	32 X 4,4
TNIRRF4074	40 X 5,5
TNIRRF5074	50 X 6,9
TNIRRF6374	63 X 8,6
TNIRRF7574	75 X 10,3
TNIRRF9074	90 X 12,3
TNIRRF11074	110 X 15,1
TNIRRF12574	125 X 17,1
TNIRRF16074	160 X 21,9



NIRON CLIMA PIPE SDR 7,4 (PN20) SDR 11 (PN16) - STICK LENGTH 4m

CODE	ø mm
TNIRCL2074	20 X 2,8
TNIRCL2574	25 X 3,5
TNIRCL3211	32 X 3,9
TNIRCL4011	40 X 3,7
TNIRCL5011	50 X 4,6
TNIRCL6311	63 X 5,8
TNIRCL7511	75 X 6,8
TNIRCL9011	90 X 8,2
TNIRCL11011	110 X 10,0
TNIRCL12511	125 X 11,4
TNIRCL16011	160 X 14,6
TNIRCL20011	200 X 18,2
TNIRCL25011	250 X 22,7
TNIRCL31511	315 X 28,6
TNIRCL40011	400 X 36,3



FITTINGS

90° LARGE F/F RADIUS BEND

CODE	ø mm
NCLR	20 - 25



CROSSOVER PIPE

CODE	ø mm
NSOR	20 - 25 - 32



COMPACT CROSSOVER F/F

CODE	ø mm
NSOFF	20 - 25



COMPACT CROSSOVER F/M

CODE	ø mm
NSOFM	20 - 25



90° ELBOW

CODE	ø mm
NG	FROM 16 TO 250



FEMALE THREADED 90° ELBOW

CODE	ø mm
NGF	FROM 16 X 1/2" TO 40 X 1"



CODE	ø mm
NGF	FROM 50 X 1 1/4" TO 63 X 2"

MALE THREADED 90° ELBOW

CODE	ø mm
NGM	FROM 16 X 1/2" TO 32 X 1"



FEMALE THREADED 90° ELBOW WITH HANGER

CODE	ø mm
NTER	16 X 1/2" TO 20 X 1/2"



FEMALE THREADED 90° ELBOW WITH DOUBLE HANGERS

CODE	ø mm
NGTF	20 X 3/8" TO 20 X 1/2"



MALE THREADED 90° ELBOW WITH DOUBLE HANGERS

CODE	ø mm
NGTM	20 X 3/8" TO 20 X 1/2"



TEMPLATE

CODE	ø mm
NGVRF	20 X 1/2"



TEMPLATE

CODE	ø mm
NGVF	20 X 1/2" TO 25 X 1/2"



FEMALE THREADED 90° ELBOW FOR TEMPLATE

CODE	ø mm
NGOF	20 X 1/2" TO 25 X 1/2"



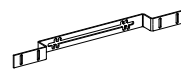
MALE THREADED 90° ELBOW FOR TEMPLATE

CODE	ø mm
NGOM	20 X 1/2"



MOUNTING UNIT

CODE	ø mm
OODIMA	-



MALE/FEMALE 90° ELBOW

CODE	ø mm
NGMF	FROM 20 TO 40



MALE/FEMALE THREADED 90° ELBOW

CODE	ø mm
NGMFF	20 X 1/2"



45° ELBOW

CODE	ø mm
NC	FROM 16 TO 250



MALE / FEMALE 45° ELBOW

CODE	ø mm
NCMF	20 - 25



TEE

CODE	ø mm
NT	FROM 16 TO 250



FEMALE THREADED TEE

CODE	ø mm
NTF	FROM 16 X 1/2" X 16 TO 32 X 1" X 32



MALE THREADED TEE

CODE	ø mm
NTM	FROM 16 X 1/2" X 16 TO 32 X 1" X 32



REDUCING TEE

CODE	ø mm
NTR	FROM 16 X 20 X 16 TO 250 X 125 X 250



REDUCED CROSS

CODE	ø mm
NCR	40-20-20-40 AND 40-25-25-40



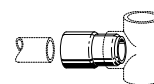
SIDE ELBOW THREE OUTLETS

CODE	ø mm
NCTV	20



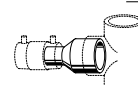
REDUCING SOCKET

CODE	ø mm
NR	FROM 20/16 TO 160/125



REDUCER MALE/MALE PN10 FOR ELECTRIC FITTINGS

CODE	ø mm
NRMM	FROM 75/40 TO 200/160



SOCKET

CODE	ø mm
NMAN	FROM 16 TO 125



THE RANGE

FEMALE THREADED PIPE UNION

CODE	ø mm
NRFF	FROM 16 X 1/2" TO 32 X 1"



NRFF	FROM 40 X 1" TO 125 X 4"
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MALE THREADED PIPE UNION

CODE	ø mm
NRFM	FROM 16 X 1/2" TO 32 X 1"

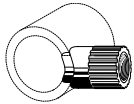


NRFM	FROM 40 X 1" TO 125 X 4"
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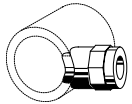
FEMALE THREADED SADDLE

CODE	ø mm
NGSF	FROM 40/25 X 1/2" TO 110/25 X 1/2" FROM 50/25 X 3/4" TO 110/25 X 3/4" FROM 63/32 X 1" TO 110/32 X 1"



WELDING SADDLE

CODE	ø mm
NGS	FROM 50/25 X 20 TO 110/25 X 20 FROM 50/25 X 25 TO 110/25 X 25 FROM 63/32 X 32 TO 110/32 X 32



EXTENDED PLUG

CODE	ø mm
00TUN	1/2" - 3/4"



PLUG

CODE	ø mm
00TF	1/2" GAS 3/4" GAS



END CAP

CODE	ø mm
NCC	FROM 16 TO 200



UNION - THREE PIECE

CODE	ø mm
NBRF	FROM 20 TO 40



STRAIGHT UNION

CODE	ø mm
NBD	FROM 20 X 3/4" TO 63 X 2 1/2"



90° UNION

CODE	ø mm
NBC	FROM 20 X 3/4" TO 32 X 1 1/4"



EXTRACTABLE BALL VALVE

CODE	ø mm
NRS	FROM 20 TO 32



HANDLE FOR BALL VALVE

CODE	ø mm
00MAS	FOR NRS 20 - 25 - 32



LEVER FOR BALL VALVE

CODE	ø mm
00LRS	FOR NRS 20 - 25 - 32



PP-R BALL VALVE FOR EXTERNAL USE

CODE	ø mm
NRSPP	FROM 20 TO 125



COMPLETE STOP VALVE

CODE	ø mm
NRA	20 - 25



00PROVI	-
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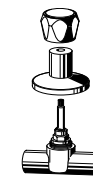
HANDLE FOR STOP VALVE

CODE	ø mm
00MAVI	20 - 25



EXTENDED STOP VALVE

CODE	ø mm
NRAPRO	20 - 25



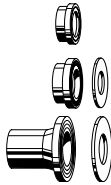
INCLINED VALVE

CODE	ø mm
NRAIN	FROM 20 TO 32



WELDED NIPPLE

CODE	ø mm
NCOSA	FROM 32 TO 75
NCOSA	FROM 90 TO 125
NCOSA	FROM 160 TO 250



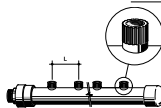
ALUMINIUM BACKING FLANGE FOR NIPPLE

CODE	ø mm
00FLAAL	FROM 32 TO 250



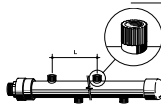
DOUBLE MANIFOLD FOR WATER METER

CODE	ø mm
NBACO	FROM 63 X 1/2 FF TO 90 X 3/4 FF



MANIFOLD FOR WATER METER

CODE	ø mm
NBACOD	FROM 63 X 1/2 FF TO 90 X 3/4 FF



FEMALE THREADED BRASS UNION

CODE	ø mm
BF	FROM 20 X 1/2" TO 110 X 4"



MALE THREADED BRASS UNION

CODE	ø mm
BM	FROM 20 X 1/2" TO 110 X 4"



ELECTROFUSION FITTINGS

ELECTRIC 90° ELBOW

CODE	ø mm
NGE	FROM 40 TO 110



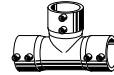
ELECTRIC 45° ELBOW

CODE	ø mm
NCE	FROM 40 TO 110



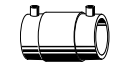
ELECTRIC TEE

CODE	ø mm
NTE	FROM 40 TO 110



ELECTRIC SOCKET

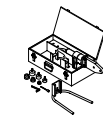
CODE	ø mm
NME	FROM 20 TO 250



TOOLING

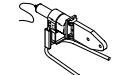
WELDER WITH CASE

CODE	ø mm
00NSBEP	20 - 25 - 32



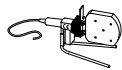
WELDER

CODE	ø mm
00NPCCE	16 - 63



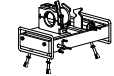
WELDER

CODE	ø mm
00NPCCE125	16 - 125



WELDING MACHINE

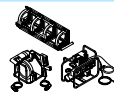
CODE	ø mm
00STL90	FROM 20 TO 90



CODE	ø mm
00STL125	FROM 25 TO 125

BUTT WELDING MACHINE

CODE	ø mm
00S10160	40 - 160
00S10250	75 - 250



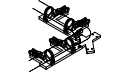
WELDING UNIT FOR ELECTROFUSION FITTINGS

CODE	ø mm
00E9001	20 ÷ 630



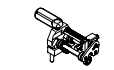
ALIGNER FOR ELECTROFUSION FITTINGS

CODE	ø mm
00ALL063/4	16 ÷ 63
00ALL225/4	50 ÷ 225



REVOLVING SCRAPER

CODE	ø mm
00RAT1	25 ÷ 180



MANUAL SCRAPER

CODE	ø mm
00RAM1	-



PIPE CUTTERS

CODE	ø mm
00TTP	16 ÷ 32
00TT1540	16 ÷ 40
00TT1675	16 ÷ 75
00TA1	16 ÷ 125



N.B. More tools available



nupigeco

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