



SISTEMA
NIRON[®]



**Polypropylene
Pipes and Fittings
for Plumbing and Heating
Installations**

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"

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.



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



Production Centre - Imola (BO) - Italy

THE PRODUCT

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

It is a **piping** system used for **the transport of sanitary hot and cold water** in various types of installations such as risers, 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 **heating systems and 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 **5 continents**. Over **300.000 km of pipes and fittings** have been shipped with complete customer and installer satisfaction.

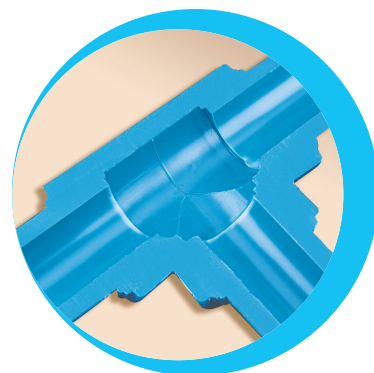
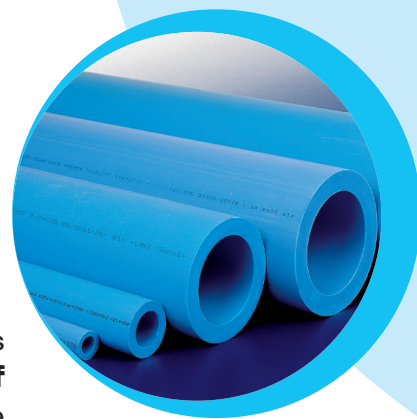
The perfect connection of the parts by means of **thermofusion** guarantees absolute tightness even in the harshest conditions.

■ 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

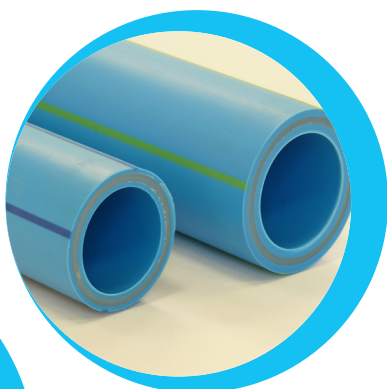
In order to fulfil every requirement, the **wide range** of pipes and fittings - **from Ø16 to Ø630** - has been **further increased** with the introduction of **special parts** designed to solve any installation problem.



■ LOW THERMAL EXPANSION

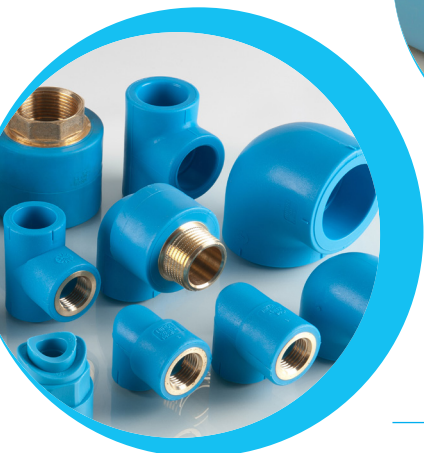
This is obtained thanks to the new composite pipes **NIRON FG** and **NIRON CLIMA** produced with an innovative **coextrusion** technology.

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** is 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 **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 lets the **NIRON** system allow for an **energy saving** of about **10% to 20%** 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

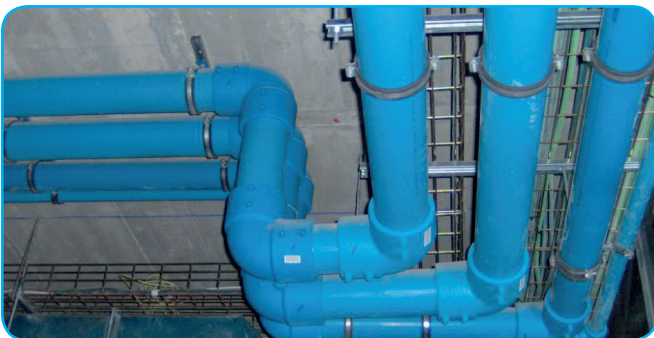
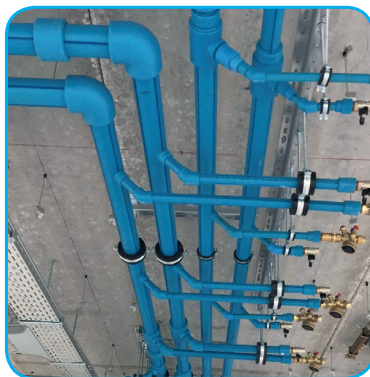
The **high resistance** of **NIRON** pipes eliminates erosion problems and allows **high speed water flow**.

■ NO TOXICITY

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

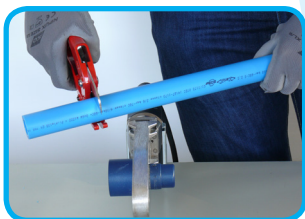
■ LONG-TERM WARRANTY

The **NIRON** system is covered by a **third party liability insurance**.



THE INSTALLATION

POLYFUSION WELDING



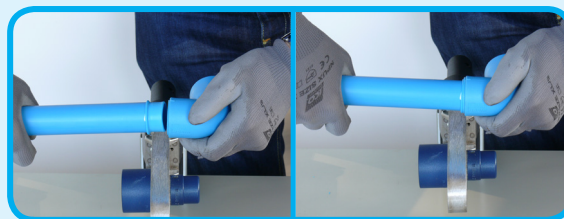
Cut the pipe perpendicularly with the appropriate pipe cutter.

Make sure that the parts to be welded are clean and dry before starting the welding procedure.

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



Wait for the welder to reach the operating temperature of 260°C and gently push the pipe and fitting simultaneously into the inserts.



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

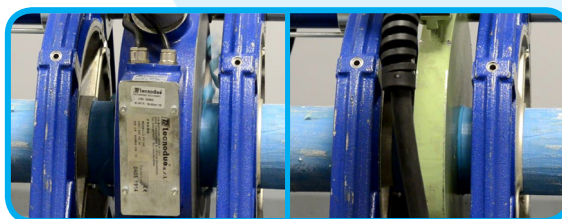
This type of molecular thermo-fusion connection guarantees perfect tightness even in harsh conditions.

BUTT FUSION WELDING



Before positioning the parts to be welded, clean the welding area to remove any dust, grease or dirt.

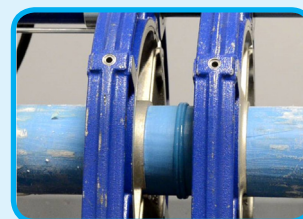
The pipes and/or fittings must be locked in the clamps so that the contact surfaces to be welded are aligned between them.



The ends of the two components to be welded shall be milled to ensure adequate parallelism and to remove any trace of oxide.

Position the heating element and proceed with the heating of the ends.

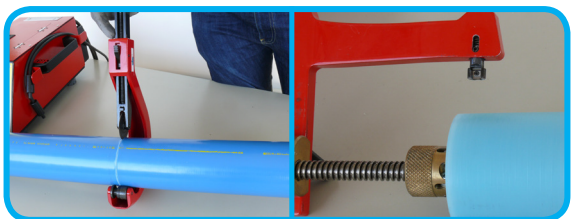
Once the bead has formed, remove the heating element, making sure not to damage the edges of the two parts to be welded.



Once the heating element has been removed, bring the edges into contact and gradually increase the pressure.

Respect the pressure contact time and remove the welded element from the welding machine.

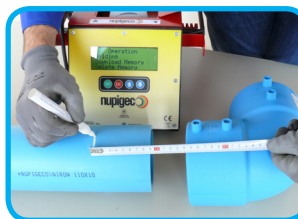
ELECTROFUSION WELDING



Cut the pipe perpendicularly with the appropriate pipe cutter.

Scrape the pipe surface and the fitting spigot uniformly at least 1 cm beyond the insertion length of the fitting to completely remove the oxidized polypropylene layer.

Thoroughly clean the parts to be welded using isopropyl alcohol and a soft clean wiping cotton cloth.



Measure the insertion length of the pipe inside the fitting and mark it with the appropriate marker.

Insert the pipe or spigot ends into the fitting up to the marked insertion length.



Make sure that the pipe and fitting to be welded are lined up without any possibility of movement.

Connect the welding cables to the fitting connectors, scan the barcode and start the welding procedure following the instructions shown on the machine screen.

**USE OUR PRODUCT RANGES
FOR SPECIAL APPLICATIONS**

SISTEMA
NIRON β

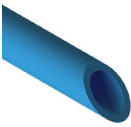
NERO by
NIRON

NIRON
PREISOLATO

PRODUCT RANGE

NIRON FULL PIPE

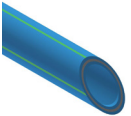
NIRON PIPE STRAIGHT LENGTH 4m



SDR 6	FROM Ø16 TO Ø125
SDR 7,4	FROM Ø20 TO Ø125
SDR 9	FROM Ø32 TO Ø355
SDR 11	FROM Ø32 TO Ø450
PP-RCT	
SDR 7,4	FROM Ø20 TO Ø32
SDR 9	FROM Ø32 TO Ø355

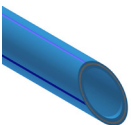
NIRON MULTILAYER PIPE

NIRON FG PIPE STRAIGHT LENGTH 4m



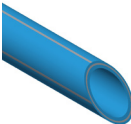
SDR 7,4	FROM Ø20 TO Ø125
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NIRON CLIMA PIPE STRAIGHT LENGTH 4m



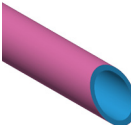
PP-RCT	
SDR 7,4	FROM Ø20 TO Ø25
SDR 11	FROM Ø32 TO Ø400

NIRON FIBER PIPE STRAIGHT LENGTH 4m



PP-RCT	
SDR 7,4	FROM Ø20 TO Ø25
SDR 9	FROM Ø32 TO Ø125
SDR 17	FROM Ø160 TO Ø400

NIRON PURPLE PIPE STRAIGHT LENGTH 4m



SDR 7,4	FROM Ø20 TO Ø25
SDR 11	FROM Ø32 TO Ø160

FITTINGS

90° LARGE RADIUS BEND



CODE	ø mm
NCLR	20 - 25

CROSSOVER PIPE



CODE	ø mm
NSOR	20 - 25 - 32

COMPACT CROSSOVER F/F 2-PIECE TO BE WELDED



CODE	ø mm
NSOFF	20 - 25

COMPACT CROSSOVER F/M 2-PIECE TO BE WELDED



CODE	ø mm
NSOFM	20 - 25

90° ELBOW



CODE	ø mm
NG (POLYFUSION)	FROM 16 TO 125
NG_MM (LONG SPIGOT)	
SDR 7,4	FROM 63 TO 355
SDR 11	FROM 63 TO 500
SDR 17	FROM 63 TO 630

FEMALE THREADED 90° ELBOW



CODE	ø mm
NGF	FROM 16x1/2" TO 63x2"

MALE THREADED 90° ELBOW



CODE	ø mm
NGM	FROM 16x1/2" TO 32x1"

FEMALE THREADED 90° ELBOW WITH HANGER



CODE	ø mm
NTER	FROM 16x1/2" TO 20x1/2"

FEMALE THREADED 90° ELBOW WITH DOUBLE HANGER



CODE	ø mm
NGTF	FROM 20x3/8" TO 20x1/2"

MALE THREADED 90° ELBOW WITH DOUBLE HANGER



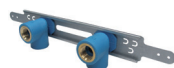
CODE	ø mm
NGTM	FROM 20x3/8" TO 20x1/2"

ADJUSTABLE BATHTUB SET



CODE	ø mm
NGVRF	20x1/2"

COMPLETE BATHTUB SET WITH DISPOSABLE TEMPLATE



CODE	ø mm
NGVF	FROM 20x1/2" TO 25x1/2"

FEMALE THREADED 90° ELBOW FOR BATHTUB SET



CODE	ø mm
NGOF	FROM 20x1/2" TO 25x1/2"

MALE THREADED 90° ELBOW FOR BATHTUB SET



CODE	ø mm
NGOM	20x1/2"

MALE/FEMALE THREADED 90° ELBOW



CODE	ø mm
NGMFF	20x1/2"

MALE/FEMALE 90° ELBOW



CODE	ø mm
NGMF	20 - 25 - 32 - 40

MALE/FEMALE 45° ELBOW



CODE	ø mm
NC45MF	20 - 25 - 32

45° ELBOW



CODE	ø mm
NC45 (POLYFUSION)	FROM 16 TO 125

NC_MM (LONG SPIGOT)	
SDR 7,4	FROM 63 TO 355
SDR 11	FROM 63 TO 500
SDR 17	FROM 63 TO 630

90° TEE



CODE	ø mm
NT (POLYFUSION)	FROM 16 TO 125
NT_MM (LONG SPIGOT)	
SDR 7,4	FROM 63 TO 355
SDR 11	FROM 63 TO 500
SDR 17	FROM 63 TO 630

FEMALE THREADED TEE



CODE	ø mm
NTF	FROM 16x1/2" TO 32x1"

MALE THREADED TEE



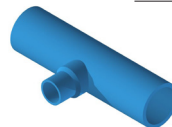
CODE	ø mm
NTM	FROM 16x1/2" TO 32x1"

REDUCING TEE



CODE	ø mm
NTR	FROM 16-20-16 TO 125-110-125

REDUCING TEE WITH LONG SPIGOT



CODE	ø mm
NTR_M	
SDR 11	FROM 160-63-160 TO 500-450-500
SDR 17	FROM 160-63-160 TO 630-560-630

REDUCING TEE WITH FEMALE OUTLET



CODE	ø mm
NTR_F	FROM 90-40-90 TO 355-90-355

ELBOW THREE OUTLETS



CODE	ø mm
NCTV	20

REDUCING CROSS



CODE	ø mm
NCR	FROM 40-20-20-40 TO 40-25-25-40

REDUCING SOCKET



CODE	ø mm
NR	FROM 20/16 TO 125/110

MALE/MALE REDUCING SOCKET



CODE	ø mm
SDR 11 - 17	
NR_MM (LONG SPIGOT)	FROM 75-40 TO 200-160
NRCC (SHORT SPIGOT)	FROM 250-160 TO 630-560

PRODUCT RANGE

COUPLER

CODE	ø mm
NMAN	FROM 16 TO 125



FEMALE THREADED COUPLER

CODE	ø mm
NRFF	FROM 16x½" TO 125x4"
NRFF11	
SDR 11	FROM 63x2" TO 125x4"



MALE THREADED COUPLER

CODE	ø mm
NRFM	FROM 16x½" TO 125x4"
NRFM11	
SDR 11	FROM 63x2" TO 125x4"



WELDING SADDLE WITH SOCKET FUSION OUTLET

CODE	ø mm
NGS	FROM 40/20 TO 500/630



FEMALE THREADED WELDING SADDLE

CODE	ø mm
NGSF	FROM 40x½" TO 630x1"



END CAP

CODE	ø mm
NCC (POLYFUSION)	FROM 16 TO 125
NCC_M (LONG SPIGOT)	
SDR 11	FROM 63 TO 200
SDR 17	FROM 63 TO 200
NCC_M (SHORT SPIGOT)	
SDR 11	FROM 250 TO 500
SDR 17	FROM 250 TO 500



WELDING STUB END

CODE	ø mm
NCOSA (POLYFUSION)	FROM 32 TO 125
NCRT (LONG SPIGOT)	
SDR 11	FROM 63 TO 315
SDR 17	FROM 63 TO 315
NCRT (SHORT SPIGOT)	
SDR 11	FROM 315 TO 630
SDR 17	FROM 315 TO 630



EXTRACTABLE BALL VALVE

CODE	ø mm
NRS	FROM 20 TO 32



STOP VALVE

CODE	ø mm
NRA	20 - 25



EXTENDED STOP VALVE

CODE	ø mm
NRAPRO	20 - 25



INCLINED STOP VALVE

CODICE	ø mm
NRAIN	20 - 25 - 32



PPR BALL VALVE FOR EXTERNAL USE

CODE	ø mm
NRSPP	FROM 20 TO 75



NRSPPRCT (POLYFUSION)	FROM 20 TO 110
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NRSPPRCTS (LONG SPIGOT)	FROM 20 TO 40
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STRAIGHT UNION THREE PIECES

CODE	ø mm
NBRF	FROM 20 TO 40



F/F COUPLER THREE PIECES

CODE	ø mm
NCSJ	FROM 20-20 TO 63-63



UNION WITH SWIVEL ADAPTER

CODE	ø mm
NBD	FROM 20x¾" TO 63x2½"



FEMALE THREADED 90° ELBOW WITH SWIVEL ADAPTER

CODE	ø mm
NBC	FROM 20x¾" TO 32x1¼"



FEMALE THREADED TRANSITION COUPLER THREE PIECES

CODE	ø mm
NTCFT	FROM 20x¾" TO 63x2"



MALE THREADED TRANSITION COUPLER THREE PIECES

CODE	ø mm
NTCMT	FROM 20x¾" TO 63x2"



ELECTROFUSION FITTINGS

ELECTROFUSION COUPLER

CODE	ø mm
SDR 11	FROM 20 TO 500
NME	
SDR 17	
NME_17	FROM 315 TO 630



90° ELECTROFUSION ELBOW

CODE	ø mm
SDR 11	FROM 32 TO 110
NGEM	
NGE	FROM 160 TO 200



45° ELECTROFUSION ELBOW

CODE	ø mm
SDR 11	FROM 32 TO 110
NCEM	
NCE	FROM 160 TO 200



ELECTROFUSION TEE

CODE	ø mm
SDR 11	FROM 20 TO 200
NTCE	
NTE	90



WELDING UNITS

AUTOMATIC MULTIFUNCTION WELDING UNIT WITH BARCODE SCANNER

CODE	WELDING RANGE
00E9001	20 ÷ 630



AUTOMATIC MULTIFUNCTION WELDING UNIT WITH BARCODE SCANNER - LIGHT VERSION

CODE	WELDING RANGE
00E9001L	20 ÷ 160



AUTOMATIC MULTIFUNCTION WELDING UNIT INCORPORATED IN SUITCASE WITH BARCODE SCANNER

CODE	WELDING RANGE
00E9001P	20 ÷ 400



AUTOMATIC MULTIFUNCTION WELDING UNIT INCORPORATED IN SUITCASE WITH BARCODE SCANNER AND APP

CODE	WELDING RANGE
00SMARTWELD	20 ÷ 400



AUTOMATIC MULTIFUNCTION WELDING UNIT INCORPORATED IN SUITCASE WITH BARCODE SCANNER - LIGHT VERSION

CODE	WELDING RANGE
00E9001LP	20 ÷ 160



AUTOMATIC MULTIFUNCTION WELDING UNIT INCORPORATED IN SUITCASE WITH BARCODE SCANNER AND APP - LIGHT VERSION

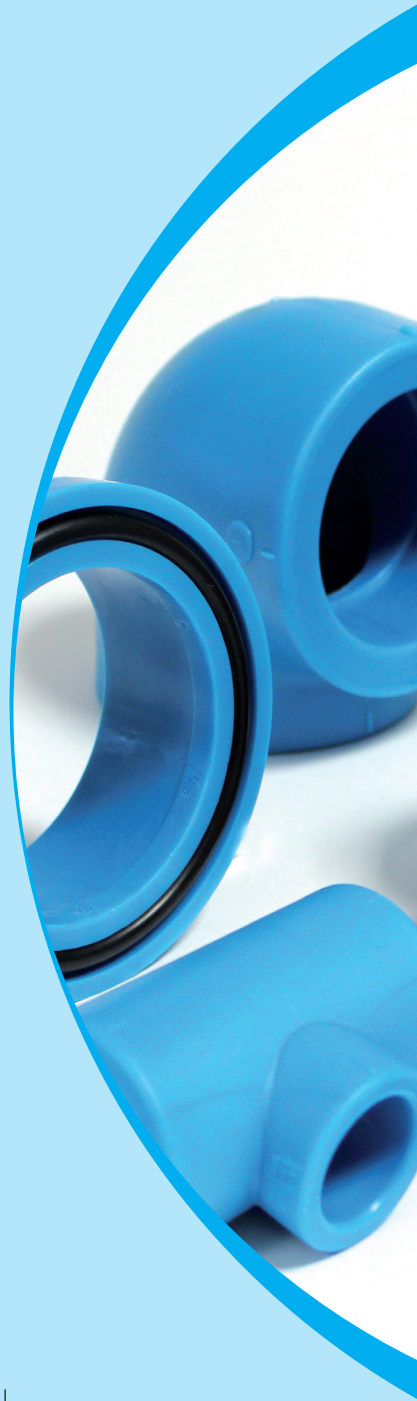
CODE	WELDING RANGE
00SMARTWELDL	20 ÷ 160



AUTOMATIC MULTIFUNCTION WELDING UNIT WITH BARCODE SCANNER - SUPER LIGHT VERSION

CODE	WELDING RANGE
009001SL	20 ÷ 63





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