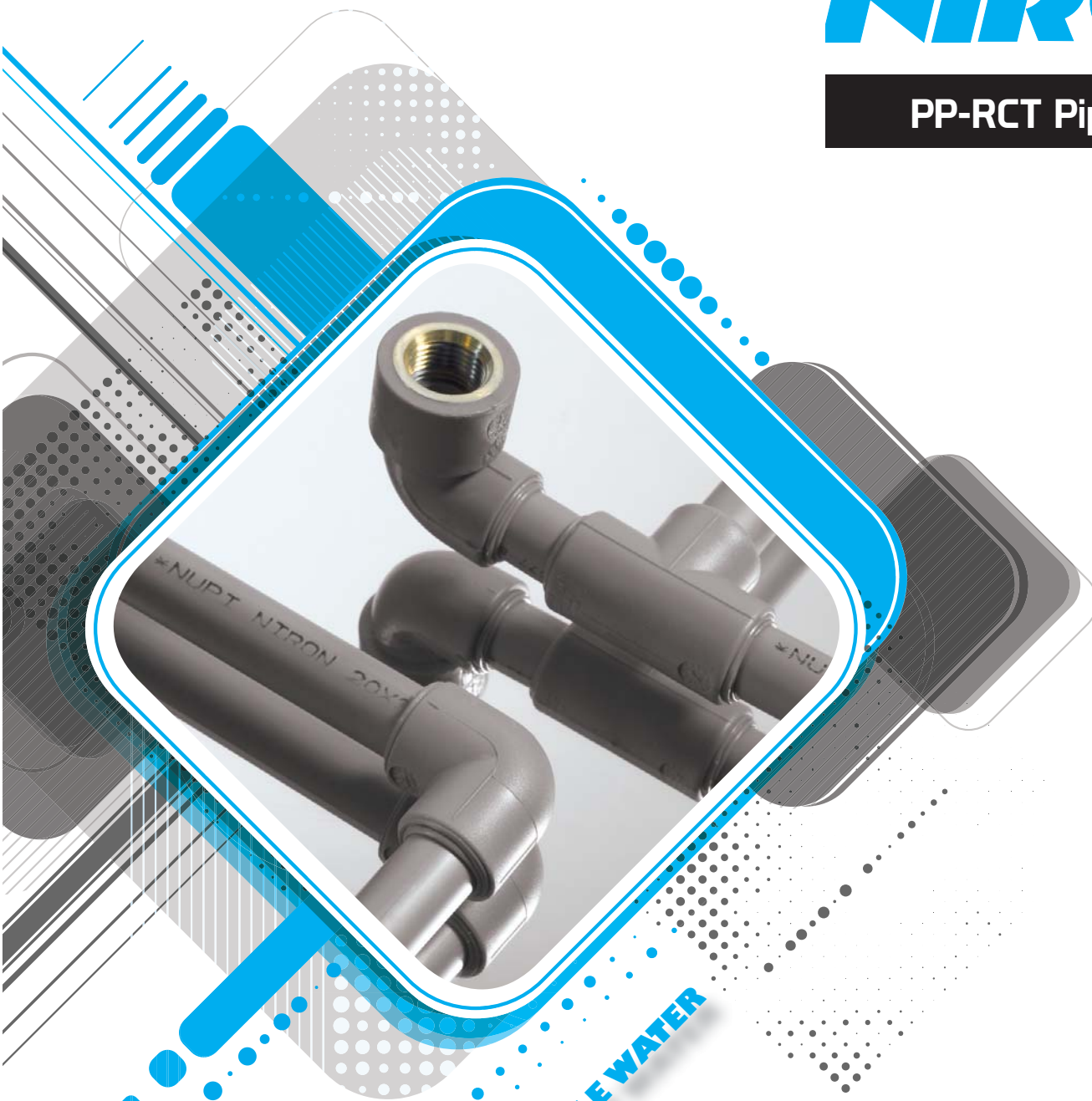


# **NIRON**®

**PP-RCT Piping Systems**



**APPROVED FOR POTABLE WATER**



# OUR COMPANY

NUPI INDUSTRIE ITALIANE S.p.A., the parent company of Nupi Americas, was founded over 40 years ago and today offers a complete range of pipes and fittings, produced using the most modern thermoplastic materials and manufacturing processes.

These systems solve many known problems of traditional materials, and can be installed in a wide range of installations while reducing costs, avoiding waste and increasing productivity.



***"The height  
you attain  
depends on  
the depth of  
your roots"***

systems, and continuous on-time deliveries for the success of every project.

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

NUPI AMERICAS, Inc. was founded in 2001 in Houston, TX by NUPI INDUSTRIE ITALIANE S.p.A. as its North American subsidiary for production and sales of its Oiltech, Smartflex, Elofit, Elopress, Elamid and SmartConduit systems. Today, NUPI AMERICAS is proud to introduce our Niron Polypropylene piping systems.

Thanks to their quality, these products pass the requirements of a wide variety of national and international standards and have obtained numerous certifications and listings around the globe.

NUPI INDUSTRIE ITALIANE S.p.A. is continuously investing in research and development programs, while upgrading production systems with sophisticated technology that guarantees products of the highest quality.

Customers can rely on the best quality materials and precise manufacture, obtained through fully automated production



Since 2001 NUPI AMERICAS produced more 20 million feet of pipe, with over 4 million feet produced in 2013. With two extrusion lines currently operating, plans to increase production capacity and extensive warehouse space for maintaining a central inventory of fittings, NUPI AMERICAS is positioned to respond quickly to market needs for its unique piping systems. The production of multilayer and monolayer pipe combined with a complete range of electrofusion, heat fusion and mechanical fittings allows NUPI AMERICAS to provide cutting edge solutions to complex technological issues.

NUPI AMERICAS combines high productivity and constant high quality standards while being fully conscious of the environment. The synergy between research, production, quality control and post-sales service allowed the company to obtain many international quality certifications for various product ranges. Its market leadership is well maintained thanks to high quality products and the constant attention to customer's needs and requirements, and by means of an effective team of people in post-sales service, and effective and precise technical assistance and the training of installers.



# THE PRODUCT

The NIRON brand identifies a Random Copolymer Polypropylene (PP-RCT) pipe and fitting system produced by Nupi Americas, manufactured to ASTM F2389 and CSA B137.11 standards.

NIRON is a piping system used for all kinds of water applications including hot and cold potable water applications, hydronic heating applications, and both chilled water and cooling tower circulation pipes. The system can be used for large multi-family residential buildings, 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.

## ■ ADVANCED PP-RCT MATERIAL

Niron is manufactured from 100% Beta PP-RCT material, a highly crystalline form of PPR which allows for up to twice the pressure rating at higher temperatures and superior chlorine resistance.

## ■ ABSOLUTE RELIABILITY

Produced since 1982, the NIRON system has been sold in all 5 continents. Over 150,000 miles of pipes and fittings have been shipped with complete customer and installer satisfaction.

## ■ 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

NIRON pipes and fittings - from 1/2 to 24 inches - are available in a wide range of fittings and joining methods to solve any installation problem.

## ■ LOW THERMAL EXPANSION

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

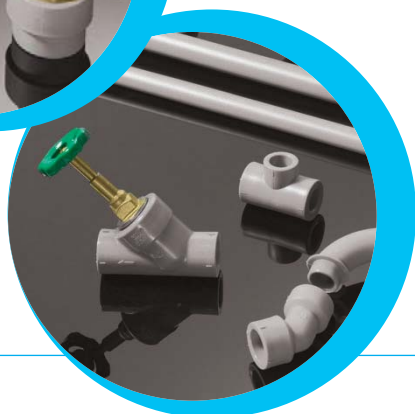
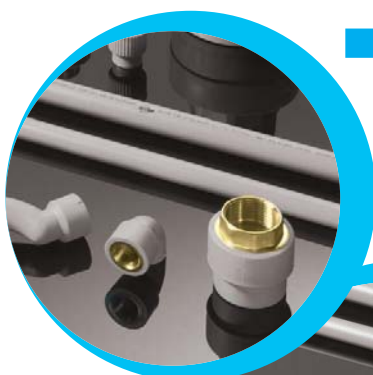
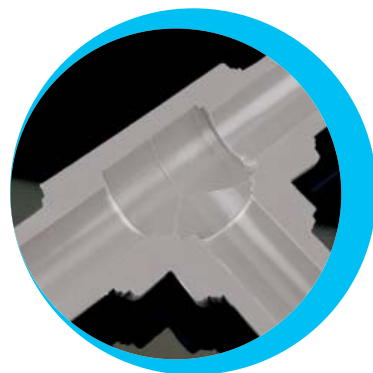
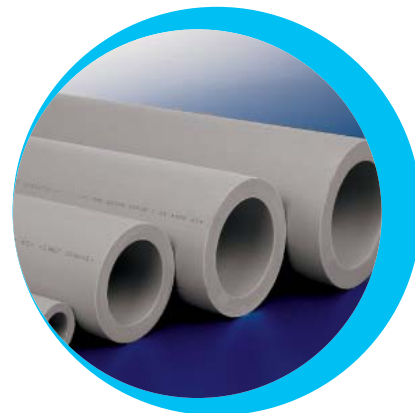
Their inner layer is made of PP copolymer reinforced with fiberglass to reduce the linear thermal expansion up to 73%.

## ■ SPEED OF INSTALLATION

Unquestionably the biggest advantage of NIRON lies in the speed of installation.

Due to easy joining methods, time of installation can be reduced by 30 to 50%.

\* NIRON, grey pigmented PP piping with red outer coating and longitudinal grey stripes, and grey pigmented PP piping with blue outer coating and longitudinal grey stripes are trademarks of Nupi Americas, a subsidiary of Nupigeco, S.p.A.



# THE PRODUCT

## ■ NO CORROSION OR SCALING

Polypropylene is a poor 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 thermal conductivity of polypropylene allows for considerable energy savings compared to metallic materials, and reduces insulation cost.

## ■ 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 EXTREME TEMPERATURES AND THERMAL EXPANSION

The NIRON system is tested to resist temperatures up to boiling water and freezing conditions. NIRON FG piping allows thermal expansion to be reduced to levels similar to copper piping.

## ■ ABRASION RESISTANCE

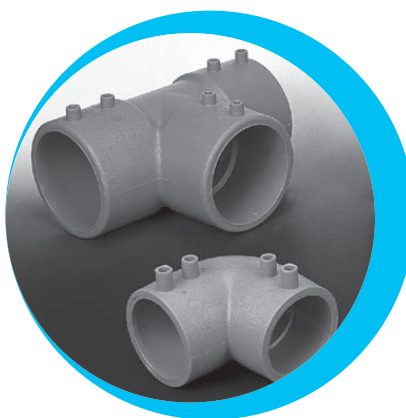
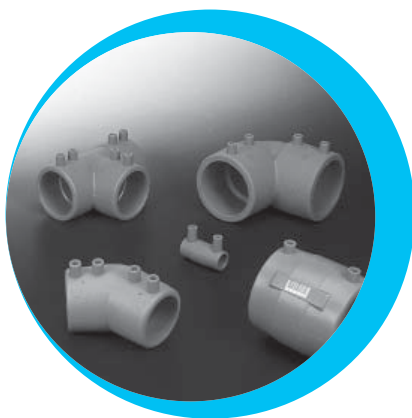
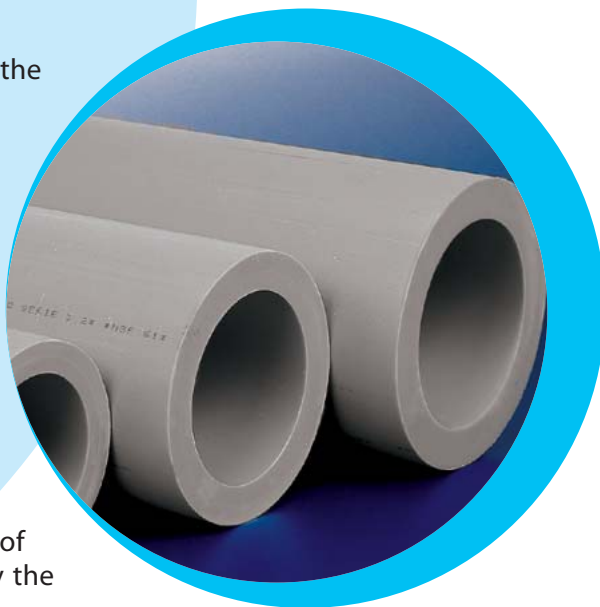
The high resistance of NIRON pipes eliminates erosion problems and allows high speed water flow.

## ■ NO TOXICITY

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

## ■ 30 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.





# WIDE RANGE OF JOINING METHODS

Niron offers the widest range of joining options of any PPR product line with five primary joining methods and a complete range of fitting sizes. Niron can be joined by butt fusion and electrofusion thru 24 inch.

## SOCKET FUSION

Niron offers socket fusion for full pressure joining with a full range of fittings in ½ inch through 5 inch sizes. Joints can be made using hand held tools, and in large sizes with bench-style tools for maximum effectiveness.



## BUTT FUSION

Niron offers butt fusion with long spigot fittings starting at 2 inch and through 24 inch. Butt fusion is often a more fabrication friendly technique compared to socket fusion in sizes of 2 inch through 5 inch, and customers can take advantage of this feature of the Niron system.



## ELECTROFUSION

Electrofusion offers a superior and cost effective ability to solve difficult installation challenges. Niron is the only PPR system available with a full fitting system allowing electrofusion in sizes of ½ through 8 inch. Niron's fittings are manufactured using single wire technology, which means welds are fused simultaneously for every elbow, tee and reducer for highly efficient labor rates. Niron electrofusion may be performed from 10" through 24" using Niron couplings.



## COMPRESSION

Niron can be joined using a compression method, by the hand tightening of compression nuts of fittings and couplings. A full range of fittings are available in sizes of ½" through 4". The system is rated to 150 psi at ambient temperatures, and is rated to 90 psi for temperatures of up to 160°F in sizes through 2 inch and to 90 psi for temperature of up to 140°F in sizes of 2½" through 4 inch. Niron compression fittings and couplings may be disassembled and re-used, which adds versatility. Transition couplings are also available for connection to copper and copper-tube size systems.

## SADDLE WELDING

Niron offers a full variety of saddle fusion fittings that allow small diameter branches to be made into larger pipes without the expense of adding reducing tees. Niron has saddles available which allow both socket fusion outlets, as well as, long spigot outlets (in select sizes). In addition, saddle parts are available with female threaded adapters, as well as, male transition parts to allow for a variety of PEX transitions. Custom headers can be created on site, or in the fabrication shop to prefabricate any kind of header combination that is required. Saddle welding offers substantial labor savings in comparison to installations involving copper piping.



# PRODUCT RANGE

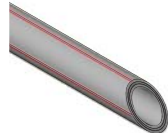
## NIRON PIPING SYSTEM

### NIRON BLUE PP-RCT PIPE



MONOLAYER PP-RCT PIPE  
BLUE WITH GREY STRIPES  
FOR COLD WATER  
SDR 7.3 FROM 1/2" TO 3/4"  
SDR 9 1"  
SDR 11 FROM 1 1/4" TO 6"  
SDR 17 FROM 2" TO 6"  
PIPE LENGTH 20 FT

### NIRON FG RED PP-RCT PIPE



MULTILAYER PIPE  
PP-RCT + FIBERGLASS  
RED WITH GREY STRIPES  
FOR HOT WATER  
SDR 7.3 FROM 1/2" TO 6"  
SDR 9 FROM 1" TO 6"  
SDR 11 FROM 1 1/4" TO 6"  
PIPE LENGTH 20 FT

### NIRON CLIMA PP-RCT PIPE



MULTILAYER CLIMA PIPE  
PP-RCT + FIBERGLASS  
GREY  
SDR 7.3 FROM 1/2" TO 14"  
SDR 9 1"  
SDR 11 FROM 1 1/4" TO 16"  
SDR 17 FROM 2" TO 24"  
PIPE LENGTH 20 FT

### NIRON MONO GREY PP-RCT PIPE



MONOLAYER PP-RCT PIPE  
GREY  
SDR 7.3 FROM 1/2" TO 3/4"  
SDR 9 1"  
SDR 11 FROM 1 1/4" TO 24"  
SDR 17 FROM 2" TO 24"  
PIPE LENGTH 20 FT

### NIRON CLIMA 11 DARK



MULTILAYER CLIMA11 DARK  
PIPE WITH UV RAY BARRIER  
PP-RCT+FIBERGLASS+HDPE  
COVER  
GREY AND BLACK COVER  
SDR 11 FROM 1" TO 16"  
PIPE LENGTH 20 FT

## FITTINGS

### LONG RADIUS 90° ELBOW



| CODE | inches      |
|------|-------------|
| NCLR | 1/2" - 3/4" |

### CROSSOVER PIPE



| CODE | inches           |
|------|------------------|
| NSOR | 1/2" - 3/4" - 1" |

### 90° ELBOW



| CODE               | inches          |
|--------------------|-----------------|
| NG (SOCKET FUSION) | from 1/2" to 5" |
| NGMM (LONG SPIGOT) | from 2" to 20"  |

### FEMALE THREADED 90° ELBOW



| CODE | inches                              |
|------|-------------------------------------|
| NGF  | from 1/2" x 1/2" NPT to 2" x 2" NPT |

### MALE THREADED 90° ELBOW



| CODE | inches                              |
|------|-------------------------------------|
| NGM  | from 1/2" x 1/2" NPT to 1" x 1" NPT |

### FEMALE THREADED BACK PLATE 90°



| CODE | inches          |
|------|-----------------|
| NTER | 1/2" x 1/2" NPT |

### FEMALE THREADED WINGED 90°



| CODE | inches                             |
|------|------------------------------------|
| NGTF | 1/2" x 3/8" NPT<br>1/2" x 1/2" NPT |

### MALE THREADED WINGED 90°



| CODE | inches                             |
|------|------------------------------------|
| NGTM | 1/2" x 3/8" NPT<br>1/2" x 1/2" NPT |

### MOUNTING UNIT WITH ELBOWS



| CODE  | inches          |
|-------|-----------------|
| NGVRF | 1/2" x 1/2" NPT |

### TEMPLATE FOR EXTERNAL BATH TAPS



| CODE | inches                             |
|------|------------------------------------|
| NGVF | 1/2" x 1/2" NPT<br>3/4" x 1/2" NPT |

### FEMALE THREADED 90° ELBOW FOR TEMPLATE



| CODE | inches                             |
|------|------------------------------------|
| NGOF | 1/2" x 3/8" NPT<br>3/4" x 1/2" NPT |

### MALE THREADED 90° ELBOW FOR TEMPLATE



| CODE | inches          |
|------|-----------------|
| NGOM | 1/2" x 1/2" NPT |

### STREET 90° ELBOW



| CODE | inches              |
|------|---------------------|
| NGMF | from 1/2" to 1 1/4" |

### FEMALE THREADED STREET 90° ELBOW



| CODE  | inches          |
|-------|-----------------|
| NGMFF | 1/2" x 1/2" NPT |

### 45° ELBOW



| CODE                 | inches          |
|----------------------|-----------------|
| NC45 (SOCKET FUSION) | from 1/2" to 5" |
| NC45MM (LONG SPIGOT) | from 2" to 20"  |

### STREET 45° ELBOW



| CODE   | inches          |
|--------|-----------------|
| NC45MF | from 1/2" to 1" |

### 90° TEE



| CODE               | inches          |
|--------------------|-----------------|
| NT (SOCKET FUSION) | from 1/2" to 5" |
| NTMM (LONG SPIGOT) | from 2" to 20"  |

### FEMALE THREADED TEE W/NPT LEAD FREE BRASS



| CODE | inches                              |
|------|-------------------------------------|
| NTF  | from 1/2" x 1/2" NPT to 1" x 1" NPT |

### FEMALE THREADED TEE W/NPT STAINLESS STEEL



| CODE  | inches                              |
|-------|-------------------------------------|
| NTFSS | from 1/2" x 1/2" NPT to 1" x 1" NPT |

### MALE THREADED TEE W/NPT LEAD FREE BRASS



| CODE | inches                              |
|------|-------------------------------------|
| NTM  | from 1/2" x 1/2" NPT to 1" x 1" NPT |

### MALE THREADED TEE W/NPT STAINLESS STEEL



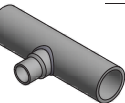
| CODE  | inches                              |
|-------|-------------------------------------|
| NTMSS | from 1/2" x 1/2" NPT to 1" x 1" NPT |

### REDUCING TEE



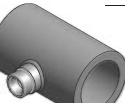
| CODE | inches                      |
|------|-----------------------------|
| NTR  | from 3/4" x 1/2" to 5" x 4" |

### MALE SIDE FUSION REDUCED TEE



| CODE | inches                                    |
|------|---|
| NTRM | from 6" x 2" to 20" x 6"<br>SDR11 - SDR17 |

### FEMALE SIDE FUSION REDUCED TEE



| CODE | inches                       |
|------|------------------------------|
| NTRF | from 3" x 1 1/4" to 14" x 4" |

### REDUCED CROSS



| CODE | inches  |
|------|---|
| NCR  | from 1 1/4" x 1/2" x 1/2" x 1 1/4" to 1 1/4" x 3/4" x 3/4" x 1 1/4" |

### SLIDE ELBOW THREE OUTLETS



| CODE | inches |
|------|--------|
| NCTV | 1/2"   |

### REDUCING BUSHING



| CODE | inches                      |
|------|-----------------------------|
| NR   | from 3/4" x 1/2" to 6" x 4" |

### MALE CONCENTRIC REDUCER



| CODE                            | inches                            |
|---------------------------------|-----------------------------------|
| SDR 11 - 17<br>NR (LONG SPIGOT) | from 2 1/2" x 1 1/4" to 24" x 20" |
| NRCC (SHORT SPIGOT)             | from 2 1/2" x 1 1/4" to 24" x 20" |

### COUPLING



| CODE | inches          |
|------|-----------------|
| NMAN | from 1/2" to 5" |

# PRODUCT RANGE

## FEMALE THREADED ADAPTER

| CODE                     | inches                                |
|--------------------------|---------------------------------------|
| NRFF (W/LEAD FREE BRASS) |                                       |
| NRFF/L (STANDARD BRASS)  |                                       |
|                          | from 1/2" x 1/2" NPT<br>to 5" x 4"NPT |



## FEMALE THREADED ADAPTER

| CODE                    | inches                                |
|-------------------------|---------------------------------------|
| NRFFSS                  |                                       |
| (W/NPT STAINLESS STEEL) |                                       |
|                         | from 1/2" x 1/2" NPT<br>to 5" x 4"NPT |



## MALE THREADED ADAPTER

| CODE                     | inches                                |
|--------------------------|---------------------------------------|
| NRFM (W/LEAD FREE BRASS) |                                       |
| NRFM/L (STANDARD BRASS)  |                                       |
|                          | from 1/2" x 1/2" NPT<br>to 5" x 4"NPT |



## MALE THREADED ADAPTER

| CODE                    | inches                                |
|-------------------------|---------------------------------------|
| NRFMSS                  |                                       |
| (W/NPT STAINLESS STEEL) |                                       |
|                         | from 1/2" x 1/2" NPT<br>to 5" x 4"NPT |



## ALL-PLASTIC UNIONS WITH SOCKET FUSION ENDS

| CODE | inches          |
|------|-----------------|
| NBRF | from 1/2" to 2" |



## WELDING SADDLE W/SOCKET FUSION OUTLETS

| CODE | inches                            |
|------|-----------------------------------|
| NGS  | from 1 1/2" x 1/2"<br>to 12" x 2" |



## MALE SIDE FUSION WELDING SADDLE

| CODE | inches                      |
|------|-----------------------------|
| NGSM | from 2" x 8"<br>to 6" x 12" |



## FEMALE SIDE FUSION WELDING SADDLE

| CODE                     | inches                                  |
|--------------------------|---|
| NGSF (W/LEAD FREE BRASS) |   |
| NGSF/L (STANDARD BRASS)  |   |
|                          | from 1 1/4" x 1/2" NPT<br>to 4" x 1"NPT |



## FEMALE SIDE FUSION WELDING SADDLE

| CODE                          | inches               |
|-------------------------------|----------------------|
| NGSFSS (W/NPT STAINLESS TEEL) |                      |
|                               | from 1/2" to 14" NPT |



## END CAP

| CODE                 | inches          |
|----------------------|-----------------|
| NCC (SOCKET FUSION)  |                 |
|                      | from 1/2" to 5" |
| NCCM (LONG SPIGOT)   |                 |
| SDR 11 - 17          | from 2" to 8"   |
| NCCMS (SHORT SPIGOT) |                 |
| SDR 11 - 17          | from 6" to 24"  |



## STUB FLANGE

| CODE                  | inches          |
|-----------------------|-----------------|
| NCOSA (SOCKET FUSION) |                 |
|                       | from 1" to 5"   |
| NCRT (LONG SPIGOT)    |                 |
| SDR 7.3-11-17         | from 1" to 12"  |
| NCRTS (SHORT SPIGOT)  |                 |
| SDR 11-17             | from 12" to 24" |



## PP BACKING RING ENCAPULED ASA 150

| CODE    | inches        |
|---------|---------------|
| FLAACPP | from 1" x 10" |



## GASKET LOW - STRESS EPDM

| CODE | inches        |
|------|---------------|
| GRET | from 1" x 18" |



## ELECTROFUSION FITTINGS

### ELECTROFUSION COUPLING

| CODE | inches          |
|------|-----------------|
| NME  | from 1/2" x 24" |



### ELECTROFUSION REDUCER

| CODE | inches                      |
|------|-----------------------------|
| NRDE | from 1/2" x 3/4" to 8" x 6" |



### ELECTROFUSION 90° ELBOW

| CODE | inches          |
|------|-----------------|
| NGEM | from 1/2" to 8" |



### ELECTROFUSION 45° ELBOW

| CODE | inches        |
|------|---------------|
| NCEM | from 1" to 8" |



### ELECTROFUSION TEE

| CODE | inches          |
|------|-----------------|
| NTCE | from 1/2" to 8" |



## VALVES

### COMPLETE STOP VALVE

| CODE | inches      |
|------|-------------|
| NRA  | 1/2" - 3/4" |



### ANGLE VALVE

| CODE  | inches          |
|-------|-----------------|
| NRAIN | from 1/2" to 1" |



### EXTENDED STOP VALVE

| CODE   | inches      |
|--------|-------------|
| NRAPRO | 1/2" - 3/4" |



### CONCEALED (EXTRACTABLE) BALL VALVE

| CODE | inches          |
|------|-----------------|
| NRS  | from 1/2" to 1" |



### PPR TRUE UNION BALL VALVE

| CODE     | inches          |
|----------|-----------------|
| NRSPPVKD | from 1/2" to 4" |



## PP-RCT COMPRESSION FITTING

### COUPLING

| CODE  | inches          |
|-------|-----------------|
| NKMAN | from 1/2" to 4" |



### 90° ELBOW

| CODE | inches          |
|------|-----------------|
| NKG  | from 1/2" to 4" |



### REDUCER

| CODE | inches                  |
|------|-------------------------|
| NKR  | from 3/4"x1/2" to 4"x3" |



### 90° TEE

| CODE | inches          |
|------|-----------------|
| NKT  | from 1/2" to 4" |



## EQUIPMENT

### PIPE CUTTERS

| CODE       | inches              |
|------------|---------------------|
| SHEAR      | from 1/2" to 1"     |
| CIRCULAR   | from 1/2" to 1 1/4" |
| GUILLOTINE | max 4"              |
| CIRCULAR   | from 1/2" to 4"     |



### SCRAPERS

| CODE    | inches             |
|---------|--------------------|
| MANUAL  |                    |
| TURBO   | from 2 1/2" to 16" |
| ORBITAL |                    |



### ALIGNER

| CODE             | inches         |
|------------------|----------------|
| FOR E/F FITTINGS | from 2" to 10" |



### SOCKET FUSION TOOLS

| CODE   | inches          |
|--|-----------------|
| HAND HELD SOCKET FUSION TOOL WITH BUSHINGS AND CASE        |                 |
|  | from 1/2" to 1" |
| SOCKET FUSION TOOL WITH SUPPORT                            |                 |
|  | from 1/2" to 4" |
| BENCHTOP SOCKET FUSION TOOL SUPPORT WITH BUSHINGS AND CASE |                 |
|  | from 1/2" to 4" |



### BUTT WELDING MACHINE

| CODE   | inches           |
|--|------------------|
| COMPLETE MANUAL BUTT WELDING MACHINE WITH CASE |                  |
|  | from 1/4" to 10" |



### AUTOMATIC WELDING UNIT FOR E/F FITTINGS

| CODE          | inches           |
|---------------|------------------|
| LIGHT VERSION | from 1/2" to 6"  |
| W/BLUETOOTH   | from 1/2" to 24" |





## **Nupi Americas, Inc.**

1511 Superior Way,  
Houston - TX 77039 - U.S.A.  
ph. 281 590 4471  
fax 281 590 5268  
[info@nupiamericas.com](mailto:info@nupiamericas.com)  
[www.nupiamericas.com](http://www.nupiamericas.com)