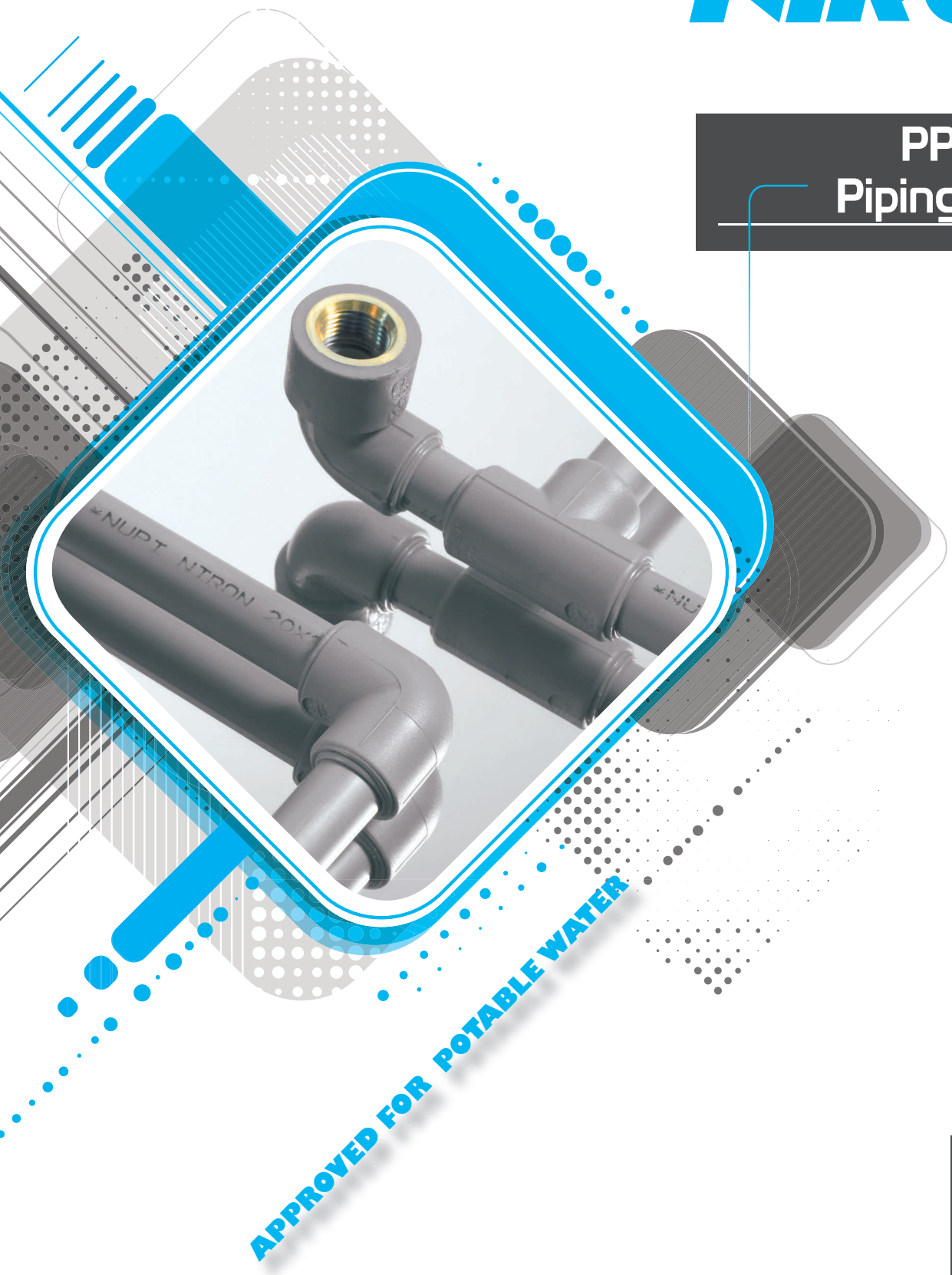
NIRON®

PP-RCT Piping Systems



APPROVED FOR POTABLE WATER

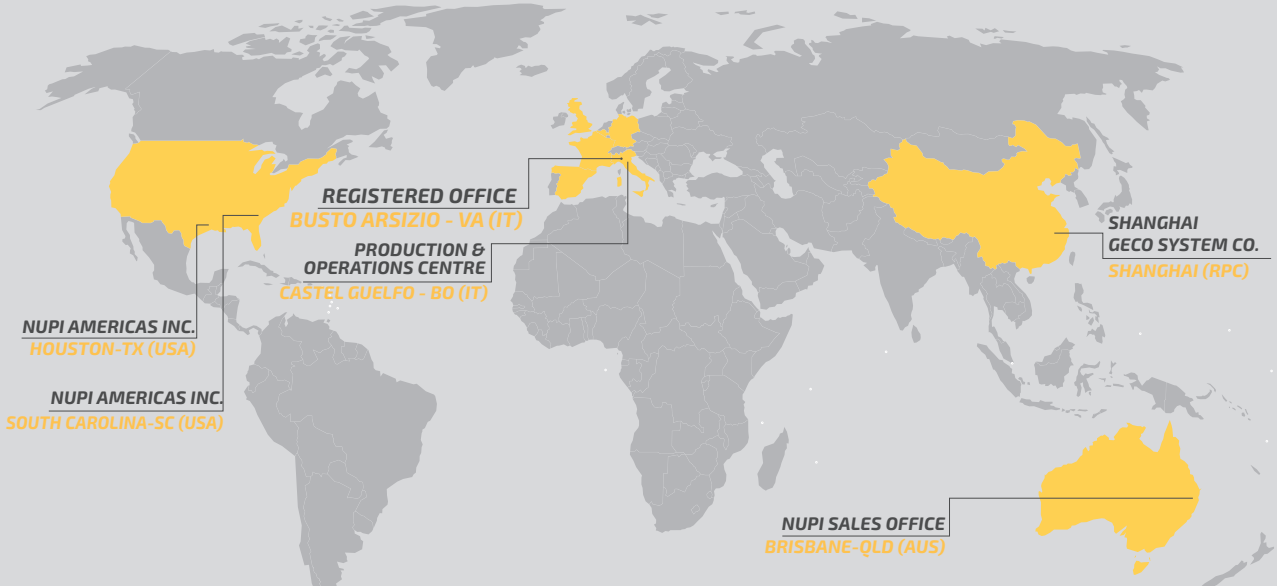
nupi AMERICAS

THE COMPANY

NUPI AMERICAS Inc. was founded in 2001 and is based in Houston, TX where it established a warehouse and production facility. Another warehouse is located in Early Branch, SC.

NUPI AMERICAS has its roots in NUPI Industrie Italiane S.p.A., born in 2015 to replace NUPIGECO S.p.A. that was founded in 2008 by the merger of NUPI S.p.A. and GECO System S.p.A. – two companies with more than 40 years of experience in the field.

NUPI Industrie Italiane S.p.A. and NUPI AMERICAS together develop and manufacture piping systems for use in industrial, sanitary (plumbing), HVAC applications, 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.



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.

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.

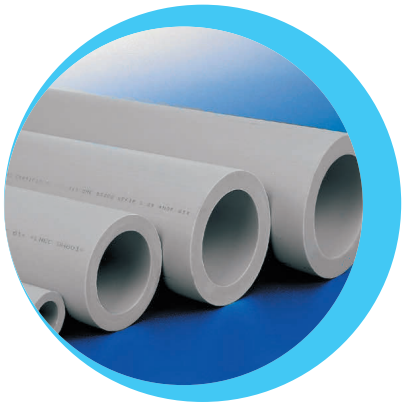
On these solid foundations NUPI Industrie Italiane S.p.A. and NUPI AMERICAS demonstrate leadership throughout the thermoplastic piping industry. Our customers can rely on the best quality materials and precise manufacture, obtained through completely automated production systems resulting in timely deliveries.

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 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

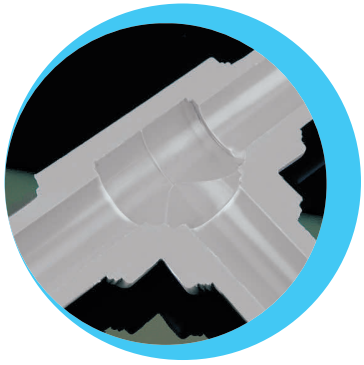
NIRON is manufactured from 100% Beta PP-RCT material, a highly crystalline form of PPR which allows for up to twice the pressure rating at higher temperatures and superior chlorine resistance.

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.

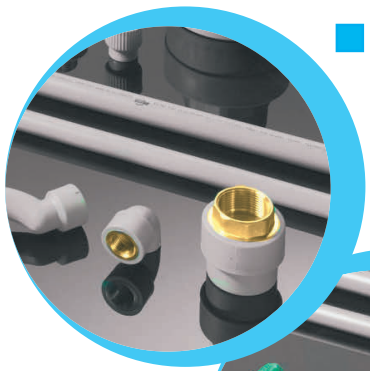
CERTIFIED QUALITY

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

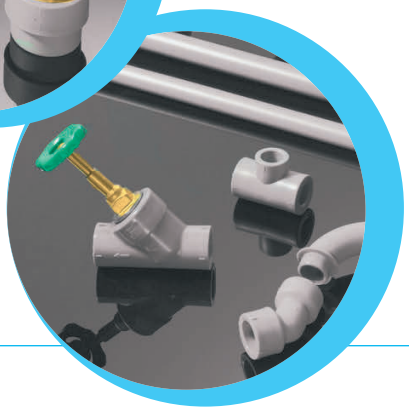
NIRON pipes and fittings - from 1/2 to 24 inches - are available in a wide range of fittings and joining methods to solve any installation problem.



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.

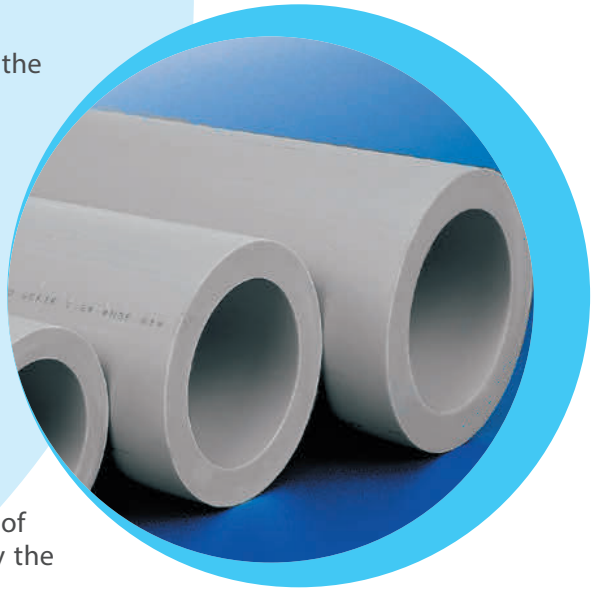
Due to easy joining methods, time of installation can be reduced by 30 to 50%.

NIRON

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

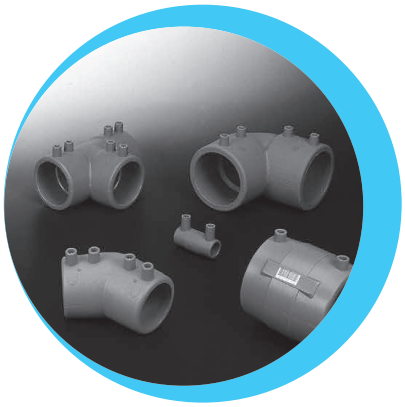
The high resistance of NIRON pipes eliminates erosion problems and allows high speed water flow.

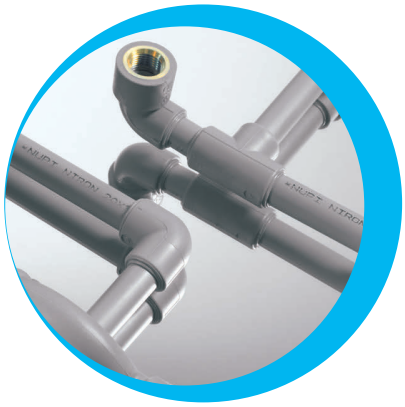
NO TOXICITY

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.



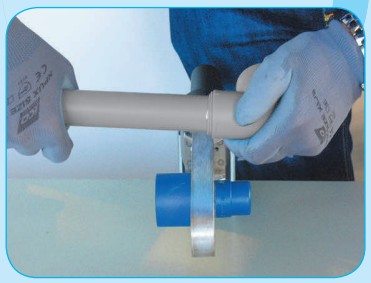


WIDE RANGE OF JOINING METHODS

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 through 24 inch.

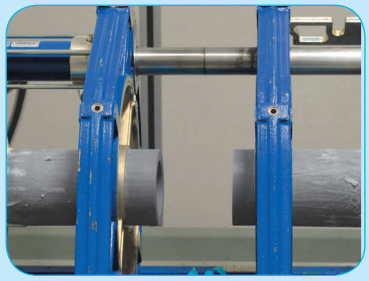
SOCKET FUSION

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

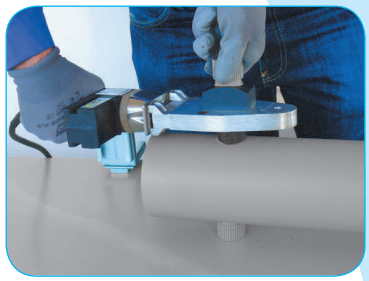
Electrofusion offers a superior and cost effective ability to solve difficult installation challenges. NIRON is the only PPR system available with a full fitting system allowing electrofusion in sizes of ½ through 8 inch. NIRON fittings are manufactured using single wire technology, which means welds 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

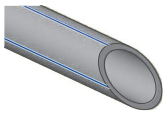
NIRON offers a full variety of saddle fusion fittings that allow small diameter branches to be made into larger pipes without the expense of adding reducing tees. NIRON has saddles available which allow both socket fusion outlets, as well as long spigot outlets (in select sizes). In addition, saddle 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

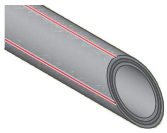


MONOLAYER PP-RCT PIPE
BLUE WITH GREY STRIPES
FOR COLD WATER

SDR 7.3	FROM ½" TO ¾"
SDR 9	1"
SDR 11	FROM 1¼" TO 6"
SDR 17	FROM 2" TO 6"

PIPE LENGTH 20 FT

NIRON FG RED PP-RCT PIPE

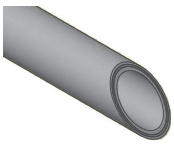


MULTILAYER PIPE
PP-RCT + FIBERGLASS
RED WITH GREY STRIPES
FOR HOT WATER

SDR 7.3	FROM ½" TO 6"
SDR 9	FROM 1" TO 6"
SDR 11	FROM 1¼" TO 6"

PIPE LENGTH 20 FT

NIRON CLIMA PP-RCT PIPE

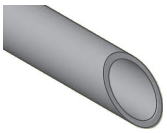


MULTILAYER CLIMA PIPE
PP-RCT + FIBERGLASS
GREY

SDR 7.3	FROM ½" TO 14"
SDR 9	FROM 1" TO 6"
SDR 11	FROM 1¼" 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 ½" TO ¾"
SDR 9	1"
SDR 11	FROM 1¼" 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"
SDR 17	FROM 2" TO 16"

PIPE LENGTH 20 FT

FITTINGS

LONG RADIUS 90° ELBOW

CODE	inches
NCLR	½" - ¾"

CROSSOVER PIPE

CODE	inches
NSOR	½" - ¾" - 1"
NSOFF	½" - ¾"
NSOFM	½" - ¾"

90° ELBOW

CODE	inches
NG (SOCKET FUSION)	from ½" to 5"
NG_MM (LONG SPIGOT)	from 2" to 24"

FEMALE THREADED 90° ELBOW

CODE	inches
NGF	from ½" x ½"NPT to 2" x 2" NPT

MALE THREADED 90° ELBOW

CODE	inches
NGM	from ½" x ½" NPT to 1" x 1" NPT

FEMALE THREADED BACK PLATE 90°

CODE	inches
NTER	½" x ½" NPT

FEMALE THREADED WINGED 90° ELBOW

CODE	inches
NGTF	½" x ⅜" NPT ½" x ½" NPT

MALE THREADED WINGED 90° ELBOW

CODE	inches
NGTM	½" x ⅜" NPT ½" x ½" NPT

MOUNTING UNIT WITH 90° ELBOWS

CODE	inches
NGVRF	½" x ½" NPT

TEMPLATE FOR EXTERNAL BATH TAPS

CODE	inches
NGVF	½" x ½" NPT ¾" x ½" NPT

FEMALE THREADED 90° ELBOW FOR TEMPLATE

CODE	inches
NGOF	½" x ⅜" NPT ¾" x ½" NPT

MALE THREADED 90° ELBOW FOR TEMPLATE

CODE	inches
NGOM	½" x ½" NPT

STREET 90° ELBOW

CODE	inches
NGMF	from ½" to 1¼"

FEMALE THREADED STREET 90° ELBOW

CODE	inches
NGMFF	½" x ½" NPT

45° ELBOW

CODE	inches
NC45 (SOCKET FUSION)	from ½" to 5"
NC45_MM (LONG SPIGOT)	from 2" to 24"

STREET 45° ELBOW

CODE	inches
NC45MF	from ½" to 1"

90° TEE

CODE	inches
NT (SOCKET FUSION)	from ½" to 5"
NT_MM (LONG SPIGOT)	from 2" to 24"

FEMALE THREADED TEE W/NPT LEAD FREE BRASS

CODE	inches
NTF	from ½" x ½" NPT to 1" x 1" NPT

FEMALE THREADED TEE W/NPT STAINLESS STEEL

CODE	inches
NTF_SS	from ½" x ½" NPT to 1" x 1" NPT

MALE THREADED TEE W/NPT LEAD FREE BRASS

CODE	inches
NTM	from ½" x ½" NPT to 1" x 1" NPT

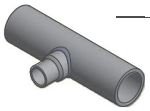
MALE THREADED TEE W/NPT STAINLESS STEEL

CODE	inches
NTM_SS	from ½" x ½" NPT to 1" x 1" NPT

REDUCING TEE - SOCKET FUSION

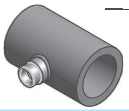
CODE	inches
NTR	from ¾" x ½" to 5" x 4"

MALE BRANCH REDUCING TEE - LONG SPIGOT



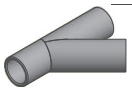
CODE	inches
NTR_M	from 6" x 2" to 24" x 22"

SOCKET BRANCH FUSION REDUCING TEE



CODE	inches
NTRF	from 3" x 1¼" to 14" x 3"

45° LATERAL WYE - LONG SPIGOT



CODE	inches
NWYE	from 3" x 20"

REDUCED CROSS - SOCKET FUSION

CODE	inches
NCR	from 1¼" x ½" x ½" x 1¼" to 1¼" x ¾" x ¾" x 1¼"

SLIDE ELBOW THREE OUTLETS - SOCKET FUSION

CODE	inches
NCTV	½"

REDUCING BUSHING - SOCKET FUSION

CODE	inches
NR	from ¾" x ½" to 5"x 4"

MALE CONCENTRIC REDUCER - LONG SPIGOT

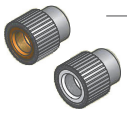
CODE	inches
	SDR 11 - 17
NR_MM (LONG SPIGOT)	from 2½" x 1¼" to 8"x 6"
NRCC (SHORT SPIGOT)	from 10" x 6" to 24"x 22"

COUPLING

CODE	inches
NMAN	from ½" to 5"

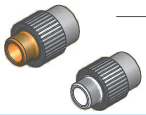
PRODUCT RANGE

FEMALE THREADED ADAPTER - SOCKET FUSION



CODE	inches
NRFF (W/LEAD FREE BRASS) NRFF_L (STANDARD BRASS) NRFF_SS (W/NPT STAINLESS STEEL)	from ½" x ½" NPT to 5" x 4" NPT

MALE THREADED ADAPTER



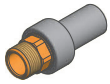
CODE	inches
NRFM (W/LEAD FREE BRASS) NRFM_L (STANDARD BRASS) NRFM_SS (W/NPT STAINLESS STEEL)	from ½" x ½" NPT to 5" x 4" NPT

FEMALE THREADED ADAPTER - LONG SPIGOT

CODE	inches
NRFF11 (W/LEAD FREE BRASS)	from 1¼" x ½" NPT to 5" x 4"NPT

SDR 11

MALE THREADED ADADPTER - LONG SPIGOT



CODE	inches
NRFM11 (W/LEAD FREE BRASS)	from 1¼" x ½" NPT to 5" x 4"NPT

SDR 11

GROOVED MECHANICAL COUPLING ADAPTER

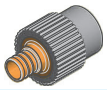
CODE	inches
NRV_SS (STAINLESS STEEL)	from ½" to 1¼"

SDR 11

PEX ADAPTER (COLD EXPANSION - ASTM1960)

CODE	inches
NPR	from ½" x ½" to 1" x 1"

PEX ADAPTER (CRIMP RING - ASTM1807)

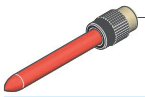


CODE	inches
NPRCR	from ½" x ½" to 1" x 1"

COPPER ADAPTER

CODE	inches
NCUA_L	from ½" x ½" CTS to 1" x 1" CTS

COPPER STUB OUT TRANSITION FITTING



CODE	inches
NCUT_L	from ½" x ½" CTS to 1" x 1" CTS

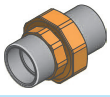
COPPER STUB OUT ELBOW TRANSITION FITTING

CODE	inches
NCUTC_L	from ½" x ½" CTS to 1" x 1" CTS

ALL-PLASTIC UNIONS WITH SOCKET FUSION ENDS

CODE	inches
NBRF	from ½" to 1¼"

UNION W/STANDARD BRASS NUTS AND SOCKET FUSION ENDS



CODE	inches
NCSJ	from ½" x ½" to 2" x 2"

INSTABRANCH™ WELDING SOCKLET W/SOCKET FUSION OUTLET

CODE	inches
NGS	from 1½" x 1¼" to 2" x 24"

INSTABRANCH™ WELDING SOCKLET W/SOCKET FEMALE OUTLET

CODE	inches
NGSF (W/LEAD FREE BRASS) NGSF_L (STANDARD BRASS) NGSF_SS (W/NPT STAINLESS STEEL)	from 1¼" x 1½" NPT to 24" x 1" NPT

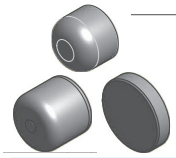
INSTAHEADER™ PEX ADAPTER (COLD EXPANSION - ASTM F 1960)

CODE	inches
NPGS	from 1¼" x ½" to 5" x 1"

INSTAHEADER™ PEX ADAPTER (CRIMP RING - ASTM F 1807)

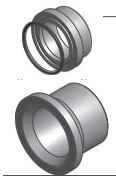
CODE	inches
NPGSCR	from 1¼" x ½" to 5" x 1"

END CAP



CODE	inches
NCC (SOCKET FUSION)	from ½" to 5"
NCC_M (LONG SPIGOT)	
SDR 11 - 17	from 2" to 8"
NCC_MS (SHORT SPIGOT)	
SDR 7.3-11-17	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"
NCRT_S (SHORT SPIGOT)	
SDR 11-17	from 12" to 24"

BACKING RING ANSI/ASA 150

CODE	inches
FLAACPP	from 1" to 10"
FLAVN	from 12" to 22"
FLAAC	24"

GASKET LOW - STRESS EPDM

CODE	inches
GRET	from 1" x 18"

ELECTROFUSION FITTINGS

ELECTROFUSION COUPLING

CODE	inches
NME	from ½" to 18"
SDR 11	
NME_17	from 12" to 24"

ELECTROFUSION REDUCER

CODE	inches
NRDE	from ½" x ¾" to 8" x 6"
SDR 11	

ELECTROFUSION 90° ELBOW

CODE	inches
NGEM	from ½" to 8"
SDR 11	

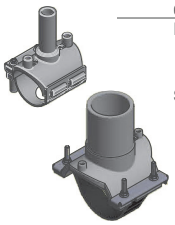
ELECTROFUSION 45° ELBOW

CODE	inches
NCEM	from 1" to 8"
SDR 11	

ELECTROFUSION TEE

CODE	inches
NTCE	from ½" to 8"
SDR 11	

ELECTROLET™ BRANCH FITTINGS



CODE	inches
NCOL	from 1¼" x ¾" to 12" x 5"
SDR 11	

VALVES

PPR TRUE UNION BALL VALVE

CODE	inches
NRSPPVKD	from ½" to 4"

PPR BALL VALVE

CODE	inches
NRSL	from ½" to 1"

TRUE UNION BALL VALVE

CODE	inches
NRSFN	from 1¼" to 2"

PP-RCT COMPRESSION FITTING

COUPLING

CODE	inches
NKMAN	from ½" to 4"

90° ELBOW

CODE	inches
NKG	from ½" to 4"

REDUCER

CODE	inches
NKR	from ¾"x½" to 4"x3"

90° TEE

CODE	inches
NKT	from ½" to 4"

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