

**Aliaxis Middle East**  
**Infrastructure &**  
**Industry**



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**we  
make  
life  
flow**





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# Infrastructure & Utility:

## delivering expertise and innovation

Aliaxis offers industries and communities a broad range of solutions for water and gas distribution, sewerage, storm-water management and irrigation.

Our tailor-made solutions are the result of industry expertise gathered from all our global businesses. In a rapidly changing world, we offer you security and cost-effectiveness for your networks. Our connection technology for piping systems is the heart of every supply and disposal system whatever connection you need, we have the right solution for you. All products are easy to install, durable and particularly safe.



**Water** - We ensure that you can operate the safest water supply network and save time and money. Thanks to high-quality materials, our products have excellent corrosion protection and hygiene problems are avoided. Our portfolio includes electrofusion joints, mechanical couplings and tools.



**Gas** - We provide you with an extremely secure gas supply network that is particularly economical to operate. You also benefit from comprehensive customer service and training. As a leading supplier of connecting elements for gas pipes, we provide you with a comprehensive product selection for outstanding results.



**Waste Water** - With us you create sewage systems that last for generations. You benefit from the best possible profitability of your investments and extremely low maintenance costs. We offer you a closed system for wastewater that enables safe pipe connections, house connections and shaft connections without root in growth.



# FRIATEC

Electrofusion products





FRIATEC'S world-leading patented electrofusion systems have been used in projects all around the world. These innovative electrofusion products are made in Germany and include many unique features, all of which are designed to improve the speed of installation and use without compromising on quality and longevity.

FRIATEC'S electrofusion fittings offer superior jointing of High Density Polyethylene (HDPE) material. Their unique features and benefits include: durability, safe and easy installation,

superior design with exposed heating coils for improved hold, longer fusion zones for more grip, and larger insertion depths. The fittings are also available in an extensive range of sizes.



Aliaxis Deutschland offer solutions for the connection or repair of pipelines in **water supply, sewage and waste water, gas supply and industry applications.**





## Products' Highlights

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FRIALEN® - safety fittings are the safe jointing technology and matching equipment for gas, water-and industrial piping made of HD-PE and PE-Xa for operating pressures up to 25 bar (water) and 10 bar (gas).

The unique design of FRIALEN electrofusion fittings incorporates exposed heating coils to provide consistent heat transfer during fusion and to achieve maximum bonding between the materials. FRIALEN fittings are lightweight, resistant to corrosion, have excellent chemical durability and exceptional fusibility. The exposed heating coils of FRIALEN fittings provide consistent heat transfer during fusion and also optimum homogenous connection between materials. Fittings also have a large insertion depth for the pipe ends, further aiding reliability and safety of the connections.

### FRIALOC® PE Shut-Off Valve with Innovative Two-Valve System

FRIALOC is the world's first all-fused, homogeneous PE piping system without flange, gaskets, or metal transition fittings. PE also presents additional advantages in the form of long life, reliability, and cost effectiveness for the entire piping network.

Dimensions: d. 90 to d. 250, PE100 SDR 11.  
Maximum operating pressure for water PFA 16 bar.

### Pressure Tapping Valve Dav with Red Snap - Perfect fit onto the pipe & superior long lasting materials

In addition to the fast assembly and simple alignment on the pipe, no further control for the proper clamping needed: Clamping instead of screws, with tools. Fast, easy and safe to install with the RED SNAP - universal for gas- and water use .

Particularly hygienic through to the use of suitable and approved materials. A durable and economical solution, The DAV with RED SNAP offers up to 50% shorter installation times.

Dimensions: d 110 to d 225, PE100 SDR 11.  
Maximum operating pressure for water PFA 16 bar and 10 bar for gas.





# FRIALEN Safety Fittings Range

<b>Electrofusion Couplings PE100</b>	<b>SDR</b>	<b>Diameter</b>	<b>Maximum Operating Pressure</b>	<b>Application</b>
UB Slide-over couplers	SDR 7.4	d 90 - 355	25 bar	Water
	SDR 9	d 400 - 630	20 bar	Water
	SDR 11	d 16 - 1000	16 bar (water) and 10 bar (gas)	Water & Gas
	SDR 17	d 315 - 1200	10 bar (water) and 5 bar (gas)	Water & Gas
MB Couplers with removable stop	SDR 11	d 20 - 160	16 bar (water) and 10 bar (gas)	Water & Gas
FRIALONG Long couplers with removable stop	SDR 11	d 32 - 63	16 bar (water) and 10 bar (gas)	Water & Gas
KM XL Conical Ring couplers	SDR 17	d 355 - 1200	10 bar (water) and 5 bar (gas)	Water & Gas
REM Relining Slide-over couplers	SDR 17	d 110/100 - 315/300	10 bar (water) and 5 bar (gas)	Water & Gas
MV End caps	SDR 11	d 20 - 225	16 bar (water) and 10 bar (gas)	Water & Gas
MR Electrofusion Reducers	SDR 11	d 20 - 225	16 bar (water) and 10 bar (gas)	Water & Gas
FRIASTOPP P Long couplers with integrated Pipelife Gas-Stop system	SDR 11	d 32 - 63	5 bar	Gas
FRIASTOPP M Long couplers with integrated Mertik Maxitrol excess flow valve	SDR 11	d 32 - 63	5 bar	Gas
MR STOPP Electrofusion Reducers	SDR 11	d 50 - 63	5 bar	Gas

<b>Valves PE100</b>	<b>SDR</b>	<b>Diameter</b>	<b>Maximum Operating Pressure</b>	<b>Application</b>
DAV Pressure Tapping Valve and fast clamping lever RED SNAP	SDR 11	d 110 - 225	16 bar (water) and 10 bar (gas)	Water & Gas
DAV Pressure Tapping Valve top-loading w/ extra long outlet spigot	SDR 11	d 250/315 - 355/400	16 bar (water) and 10 bar (gas)	Water & Gas
FRIALOC Shut-off Valve	SDR 11	d 90 - 250	16 bar	Water
KHP Ball valves in HD-PE w/ NBR sealing, 1/4 turn	SDR 11	d 32 - 225	10 bar	Gas
KHP Ball valves in HD-PE w/ NBR sealing, 1/4 turn full port passage	SDR 11	d 20 - 125	10 bar	Gas
KHW Ball valves in HD-PE w/ EPDM sealing, 1/4 turn full port passage	SDR 11	d 32 - 63	16 bar	Water
AKHP Tapping ball valves in HD-PE, 1/4 turn, for side tapping under pressure	SDR 11	d 110 - 225	10 bar	Gas
AKHP Tapping ball valves in HD-PE, 1/4 turn, top lading	SDR 11	d 250/450	10 bar	Gas

<b>Pressure Tapping Tees PE100</b>	<b>SDR</b>	<b>Diameter</b>	<b>Maximum Operating Pressure</b>	<b>Application</b>
DAA Pressure Tapping Tees w/ extra long outlet spigot	SDR 11	d 40x20 - 225x63	16 bar (water) and 10 bar (gas)	Water & Gas
DAA TL Pressure Tapping Tees top loading	SDR 11	d 250/315	16 bar (water) and 10 bar (gas)	Water & Gas
DAP Pressure Tapping Tees with parallel dome and extra long outlet spigot	SDR 11	d 63 - 225	16 bar (water) and 10 bar (gas)	Water & Gas
K Caps for pressure tapping tees	SDR 11	d 50	16 bar (water) and 10 bar (gas)	Water & Gas

<b>Spigot Saddles PE100</b>	<b>SDR</b>	<b>Diameter</b>	<b>Maximum Operating Pressure</b>	<b>Application</b>
SA Spigot saddles	SDR 11	d 63 - 225	16 bar (water) and 10 bar (gas)	Water & Gas
SA TL Spigot saddles top loading	SDR 11	d 250/560x32 - 250/560x63	16 bar (water) and 10 bar (gas)	Water & Gas
SA UNI Spigot Saddles	SDR 11	d 250/280x90 - 450/900x160	16 bar (water) and 10 bar (gas)	Water & Gas
SAFL Spigot Saddles with flange outlet	SDR 11	d 110/80 - 225/100	16 bar (water) and 10 bar (gas)	Water & Gas
SA XL Spigot Saddles	SDR 11	d 400 - 900	16 bar (water) and 10 bar (gas)	Water & Gas
SA XL Spigot Saddles	SDR 11	d 1000 - 1200	10 bar (water) and 5 bar (gas)	Water & Gas



# FRIALEN Safety Fittings Range

Fittings PE100	SDR	Diameter	Maximum Operating Pressure	Application
T-pieces	SDR 11	d 75 - 225	16 bar (water) and 10 bar (gas)	Water & Gas
T-pieces XL	SDR 11	d 250 - 315	16 bar (water) and 10 bar (gas)	Water & Gas
T-pieces reduced XL	SDR 11	d 250 - 315	16 bar (water) and 10 bar (gas)	Water & Gas
T-Pieces with HD-PE/GGG adapter for connection of BAIO® spigot hydrant	SDR 11	d 100/80 - 160/80	16 bar	Water
1/A Elbows 11°	SDR 11	d 110 - 225	16 bar (water) and 10 bar (gas)	Water & Gas
Elbows 30°	SDR 11	d 90 - 225	16 bar (water) and 10 bar (gas)	Water & Gas
Elbows 45°	SDR 11	d 25 - 225	16 bar (water) and 10 bar (gas)	Water & Gas
Elbows 45° XL	SDR 11	d 250 - 315	16 bar (water) and 10 bar (gas)	Water & Gas
Elbows 90°	SDR 11	d 20 - 225	16 bar (water) and 10 bar (gas)	Water & Gas
Elbows 90° XL	SDR 11	d 250 - 315	16 bar (water) and 10 bar (gas)	Water & Gas
Swan Neck Bend	SDR 11	d 232 - 63	16 bar (water) and 10 bar (gas)	Water & Gas
90 Elbows 90° with base unit	SDR 11	d 90 - 110	16 bar	Water
Elbows 90° HD-PE/GGG adapter for connection of BAIO® spigot hydrant	SDR 11	d 110/80	16 bar	Water

Transition Fittings PE100	SDR	Diameter	Maximum Operating Pressure	Application
USTR Transition Fittings HD-PE/Steel	SDR 11	d 30/25 - 225/200	10 bar	Gas
USTRS Transition Fittings HD-PE/Steel (spigot fittings)	SDR 11	d 20/15 - 630/600	10 bar	Gas
UFLG Transition Fitting for liquid gas HD-PE/Copper	SDR 11	d 32/20	5 bar	Gas
USTN Transition Fittings HD-PE/Steel w/ male thread	SDR 11	d 32 - 63	5 bar	Gas
USTM Transition Fittings HD-PE/Steel w/ female thread	SDR 11	d 32 - 63	5 bar	Gas
MUN Transition Fittings HD-PE/Brass w/ male thread	SDR 11	d 32 - 75	16 bar	Water
MUN V2A Transition Fittings HD-PE/Steel w/ male thread	SDR 11	d 40 - 63	16 bar	Water
MUM Transition Fittings HD-PE/Gunmetal w/ female thread	SDR 11	d 32 - 63	16 bar	Water
UAM ET Universal Adapter HD-PE/Brass w/ travelling nut & female thread	SDR 11	d 25 - 63	16 bar	Water
WUN 90 Transition Elbows HD-PE/Brass w/ male thread	SDR 11	d 32 - 63	16 bar	Water
WUN V2A Transition Elbows HD-PE/Stainless Steel w/ male thread	SDR 11	d 40 - 63	16 bar	Water
UAN Universal Adapter HD-PE/Brass w/ male thread	SDR 11	d 20 - 125	16 bar (water) and 5 bar (gas)	Water & Gas
UAM Universal Adapter HD-PE/Brass w/ female thread	SDR 11	d 20 - 125	16 bar (water) and 5 bar (gas)	Water & Gas

Friatools Electrofusion Units	SDR	Diameter	Maximum Operating Pressure	Application
FRIAMAT Basic			Universal fusion unit without documentation function	
FRIAMAT Eco			Universal fusion unit without documentation function	
FRIAMAT Prime			Universal fusion unit with traceability and documentation function	
FRIAMAT Prime Eco			Universal fusion unit with documentation and traceability function and Bluetooth	
FRIAMAT XL			Large pipe fusion unit with traceability and documentation function	



## FRIAFIT Sewage System Range

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The superior electrofusion technology joins HDPE pipes permanently and longitudinally strong: pipe and FRIAFIT coupler make one inseparable unit. This way water is prevented from entering or leaking out, and the in-growing of roots is prevented.





# FIP

FIP PE100 polyethylene fittings for butt-welding







FIP pressure fittings are manufactured in Europe and have been used for years in areas of application where pipe systems have to meet high standards in durability and reliability. These standards are achieved by combining the excellent material properties of Polyethylene (PE) to create homogeneous welded joints which can withstand significant loads.

The FIP PE100 pressure piping system has optimal thermal stability, high flexibility of use and

robust impact resistance. These features make it suitable for installation in a variety of industrial processes and environmental conditions.



FIP PE 100 fittings are ideal for **water treatment installations, waste water transport, swimming pool construction, industrial process pipe systems, transport of solids.**





## Products' Highlights

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FIP PE 100 fittings for butt-welding offer many benefits:

### Optimal thermal stability

The wide temperature range from  $-40^{\circ}\text{C}$  to  $60^{\circ}\text{C}$  ensures that PE pressure piping system is extremely suitable for the installation in different industrial process and environmental conditions.

### Smooth internal wall

The PE pressure system is suitable for the transportation of solids, grae and sands in dredging and mining industry.

### High flexibility

PE pressure system is suitable for underground pipes through adjustment to local ground movement.

### High impact resistance

The high impact resistance jointed to the good chemical resistance make PE piping system extremely suitable for the transportation of clean water, waste water and light chemicals.

### UV resistant

Application in open air unrestricted through coloring with carbon black.





# FIP PE 100 Product Range

Short fittings for butt-welding	SDR	Diameter	Working Pressure	Application
Stub flanges	SDR 33	d 110 - 800	3.2 bar	Water
	SDR 17	d 50 - 800	10 bar (water) and 5 bar (gas)	Water & Gas
	SDR 11	d 20 - 800	16 bar (water) and 10 bar (gas)	Water & Gas
Stub flange short for FIP butterfly valve type FE and FK	SDR 17	d 50x40 - 200x400	10 bar	Water
	SDR 11	d 50x40 - 160x400	16 bar	Water
Stub flange short & extended for entrance side FIP check valve type CR and FR	SDR 17	d 50x40 - 50x280	10 bar	Water
	SDR 11	d 50x40 - 50x280	16 bar	Water
Tee & Bend 90° short	SDR 33	d 110 - 500	3.2 bar	Water
	SDR 17	d 50 - 500	10 bar (water) and 5 bar (gas)	Water & Gas
	SDR 11	d 20 - 500	16 bar (water) and 10 bar (gas)	Water & Gas
Tee 90° reduced short	SDR 17	d 140x63-225x125	10 bar (water) and 5 bar (gas)	Water & Gas
	SDR 11	d 90x32-180x125	16 bar (water) and 10 bar (gas)	Water & Gas
Reducer concentric DIN short	SDR 33	d 200x140 - 315x280	3.2 bar	Water
	SDR 17	d 50x32-900x800	10 bar (water) and 5 bar (gas)	Water & Gas
	SDR 11	d 25x20-630x560	16 bar (water) and 10 bar (gas)	Water & Gas
Reducer eccentric short REBE	SDR 17	d 160x90 - 315x280	10 bar (water) and 5 bar (gas)	Water & Gas
	SDR 11	d 160x90 - 315x280	16 bar (water) and 10 bar (gas)	Water & Gas
	SDR 17	d 63 - 800	10 bar (water) and 5 bar (gas)	Water & Gas
End cap long/short CBE	SDR 11	d 20 - 630	16 bar (water) and 10 bar (gas)	Water & Gas

Large range of unions and adaptors available.

Long fittings for butt-welding and electrofusion	SDR	Diameter	Maximum Operating Pressure	Application
Stub flange long	SDR 17	d 50-800	10 bar (water) and 5 bar (gas)	Water & Gas
	SDR 11	d 20 - 710	16 bar (water) and 10 bar (gas)	Water & Gas
Tee 90° long	SDR 17	d 50-630	10 bar (water) and 5 bar (gas)	Water & Gas
	SDR 11	d 20 - 630	16 bar (water) and 10 bar (gas)	Water & Gas
Tee 90° reduced long	SDR 17	d 63x50 - 315x250	10 bar (water) and 5 bar (gas)	Water & Gas
	SDR 11	d 63x50-315x250	16 bar (water) and 10 bar (gas)	Water & Gas
Tee 45° long	SDR 17	d 50 - 225	10 bar (water) and 5 bar (gas)	Water & Gas
	SDR 11	d 40 - 225	16 bar (water) and 10 bar (gas)	Water & Gas
Elbow 45°/90° long	SDR 17	d 50 - 315	10 bar (water) and 5 bar (gas)	Water & Gas
	SDR 11	d 20 - 315	16 bar (water) and 10 bar (gas)	Water & Gas
Reducer concentric long	SDR 17	d 63x50 - 630x560	10 bar (water) and 5 bar (gas)	Water & Gas
	SDR 11	d 25x20 - 630x560	16 bar (water) and 10 bar (gas)	Water & Gas



# STRAUB

Swiss premium pipe & repair couplings

***straub***   
  
***the original***





STRAUB products are manufactured in Switzerland and the company has over 50 years of experience in the design and production of first-class mechanical coupling and repair solutions. It is considered “the original” in its field.

The STRAUB range of products offer a simple means of mechanically joining plain-end pipes in any material, including metal or plastic. The repair couplings provide efficient pipe damage control in a variety of piping systems, including those under pressure. The benefits include simple and rapid

installation without the need for specific tools or pipe preparation. In addition, the products are lightweight and save space.



STRAUB pipe couplings are approved for virtually all piping systems in all sectors for example: **water management, industry, ship building, offshore, civils, chilled water lines for both above and below ground.**



## Products' Highlights

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### Universal Use

Compatible with almost any traditional jointing system, join pipes of the same or dissimilar materials, quick and simple repairs of damaged pipes without service interruptions.

### Economical

Pre-assembled design ensures simple and rapid installations, for use on plain-end pipes without the need for costly pipe end preparation, no special assembly tools and set-up times.

### Durable

Progressive sealing and anchoring effect, corrosion and temperature resistant, long life service.

### Reliable

Stress-free, flexible pipe joint, compensates axial movements and angular deflection, pressure-resistant and leak-proof even in inaccurate pipe assembly.

### Easy handling & Space saving

Detachable & reusable, maintenance-free, no time consuming alignment and fitting work. Compact design for space-saving installation pipes, allow to use a low profile pipe insulation, low weight compared to traditional methods such as flanges.

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### STRAUB-GRIP Axial Restraint

STRAUB-METAL-GRIP and STRAUB-GRIP pipe couplings are pipe connections with axial restraint for all metal pipes and rigid plastics. There are countless possible uses on almost all pipe systems due to the universal connection solution. The installation is performed on smooth-ended pipes without any pipe end machining.

#### Dimensions:

STRAUB-METAL-GRIP outside diameter 30.0 up to 609.6 mm, with temperature from -30°C up to +100°C.

STRAUB-GRIP outside diameter: 25.0 up to 711.2 mm, with temperature from 20°C up to +180°C.



### STRAUB-FLEX Axially Flexible/Non-axial Restraint

All pipe materials can be reliably connected with STRAUB-FLEX couplings. STRAUB-FLEX pipe couplings enable pipe connections for practically all conceivable pipe diameters, for the same or different types of pipe materials, various media and temperatures as well as for a wide range of the operating pressure values. The sealing sleeve separates the coupling casing from the pipe surface so that sound, vibrations and oscillations are optimally damped.

#### Dimensions:

STRAUB-FLEX outside diameter: 48.3 up to 4064.0 mm, with temperature from -20°C up to +180°C (STRAUB-FLEX 3.5 + 4 up to +100°C).





# STRAUB Product Range

Axial restraint pipe couplings	Diameter	Maximum Operating Pressure	Maximum Operating Temperature
STRAUB-METAL-GRIP (Pull out resistant pipe coupling for all metal pipes)	d 30.0 - 609.6	67 bar	-30°C to +100°C
STRAUB-GRIP (Pull out resistant pipe coupling for all metal pipes)	d 21.3 - 711.2	64 bar	-20°C to +100°C
STRAUB-FIRE-FENCE (For use wherever fire protection is required by law)	d 25.0 - 457.2	67 bar	-30°C to +100°C
STRAUB-COMBI-GRIP (Pull out resistant pipe coupling for transitions from plastic to metal piping)	d 40.0/38.0 - 355.0/355.6	16 bar	-20°C to +100°C
STRAUB-PLAST-GRIP (Pull out resistant pipe coupling for plastic pipes)	d 40.0 - 355.0	16 bar	-20°C to +100°C
STRAUB-PLAST-PRO (Axial restraint connection of pressure pipes made of PE)	d 63.0 to 355.0	16 bar	-5°C to +40°C

Non-axial restraint pipe couplings	Diameter	Maximum Operating Pressure	Temperature Range
STRAUB-FLEX 1 (Axially flexible pipe coupling for pipes of all materials)	d 48.3 - 168.3	25 bar	-20°C to +100°C
STRAUB-FLEX 2 (Axially flexible pipe coupling for pipes of all materials)	d 172.0 - 2032.0	25 bar	-20°C to +100°C
STRAUB-FLEX 3 (Axially flexible pipe coupling for pipes of all materials)	d 2191 - 2032.0	25 bar	-20°C to +100°C
STRAUB-FLEX 3.5 (Axially flexible pipe coupling for pipes of all materials)	d 323.9 - 1219.2	25 bar	-20°C to +100°C
STRAUB-FLEX 4 (Axially flexible pipe coupling for pipes of all materials)	d 323.9 - 812.8	25 bar	-20°C to +100°C
STRAUB-OPEN-FLEX 1 (Hinged, axially flexible pipe coupling for the repair of pipes of all materials)	d 48.3 - 168.3	25 bar	-20°C to +100°C
STRAUB-OPEN-FLEX 2 (Hinged, axially flexible pipe coupling for the repair of pipes of all materials)	d 172.0 - 2032.0	25 bar	-20°C to +100°C
STRAUB-OPEN-FLEX 3 (Hinged, axially flexible pipe coupling for the repair of pipes of all materials)	d 2191 - 4064.0	25 bar	-20°C to +100°C
STRAUB-OPEN-FLEX 3.5 (Hinged, axially flexible pipe coupling for the repair of pipes of all materials)	d 323.9 - 4064.0	25 bar	-20°C to +100°C
STRAUB-OPEN-FLEX 4 (Hinged, axially flexible pipe coupling for the repair of pipes of all materials)	d 73.0 - 168.3	25 bar	-20°C to +100°C
STRAUB-OPEN-FLEX 1 GT (Axially flexible pipe coupling for pipes of all materials with side outlet)	d 48.3 - 168.3	16 bar	-20°C to +70°C
STRAUB-STEP-FLEX (Axially flexible pipe coupling for all pipe materials to compensate different pipe diameters)	d 2191 - 812.8	25 bar	-20°C to +100°C
STRAUB-STEP-FLEX 2 (Axially flexible pipe coupling for all pipe materials to compensate different pipe diameters)	d 914.4 - 2032.0	25 bar	-20°C to +100°C
STRAUB-STEP-FLEX 3 (Axially flexible pipe coupling for all pipe materials to compensate different pipe diameters)			

STRAUB Repair Products	Diameter	Maximum Operating Pressure	Maximum Operating Temperature
STRAUB-REP-FLEX (Complete repair coupling for damaged water pipes)	d 46.0 - 429.0	16 bar	-20°C to +100°C
STRAUB-CLAMP SCE (One-piece, axially flexible repair clamp for pipes of all materials)	d 44.0 - 330.0	16 bar	-5°C to +40°C
STRAUB-CLAMP SCZ (Two-pieces, axially flexible repair clamp for pipes of all materials)	d 88.0 - 440.0	16 bar	-5°C to +40°C



# ASTORE<sup>®</sup>

Best solution for water adduction with lightweight,  
cost effective pipework system







ASTORE thermoplastic pipework systems have been manufactured in Europe and used for the pressure pipework requirements of different market sectors for many years. Since 1970 ASTORE has been known worldwide for the cost effective and reliable thermoplastic fittings and valves offer for pressure pipework. The ASTORE range is manufactured from either ABS or PVC-U and is used for a variety of applications where a lightweight, flexible and durable pipework system is required.

Furthermore, ASTORE also offers a wide range of clamp saddles and compression fittings as well as a modular manifold system that can all be used for a wide range of water related applications.



Astore PP compression fittings are joints for PE pipes dedicated to **water adduction systems**. **They can be used both in irrigation field and drinking water systems.**



## Products' Highlights

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### Wide Range of Compression Fittings

ASTORE polypropylene compression fittings are suitable for installations that may require occasional disassembly or partial removal for maintenance. They can be used in both irrigation and drinking water systems, where a quick and simple pressure connection is required.

### Range of Joints

ASTORE joints range includes a large number of items able to satisfy a very wide range of plant engineering installation requirements.

The joints range leaves from d.16 mm up to d.110 mm. The joints provided with threads have a metal reinforcement on the external part of the thread, leaving from r. 1 1/4".





# ASTORE Product Range

Compression Fittings	Diameter	Maximum Working Pressure	Application
Male Adaptor	d 16 x 3/8" - 110 x 4"		
Coupling	d 16 x 16 - 110 x 110		
Reducer Coupling	d 20 x 16 - 110 x 90		
Female Adaptor	d 16 x 3/8" - 110 x 4"		
Plus	d 16 - 110		
Elbow	d 16 x 16 - 110 x 110		
Elbow Male Threaded	d 16 x 1/2" - 110 x 4"		
Elbow Female Threaded	d 16 x 3/8" - 110 x 4"	16 bar - from d 16 to 63 10 bar - from d 75 to 110	Water distribution systems
Tee	d 16 x 16 x 16 - 110 x 110 x 110		
Tee Male Threaded	d 6 x 1/2" x 16 - 110 x 4" x 110		
Tee Female Threaded	d 16 x 3/8" x 16 - 110 x 4" x 110		
Flange Adaptor	d 50 x 1 1/2" - 110 x 4		
Reducing Tee	d 25 x 20 x 25 - 63 x 50 x 63		
Wall Brackets	d 25 x 3/4		
Adaptor with nut	d 25 x 1" & 32 x 1"		
Tightening key	d 40-63 & 75-110		

Clamp Saddles	Branches	Maximum Working Pressure	Application
Single Branch - Coupling with pipes for d 20-110 Provided with 2 or 4 bolts according to the diameters	Threaded Branches from 1/2" - 3"	6 bar	
Single Branch - Coupling with pipes for d 20-315 Provided with 2, 4 or 6 bolts according to the diameters & metal reinforcing ring on the threaded branches	Threaded Branches from 1/2" - 4"	10 bar	Water distribution systems
Double Branch - Coupling with pipes for d 63-315 Provided with 2, 4 or 6 bolts according to the diameters & metal reinforcing ring on the threaded branches	Threaded Branches from 1/2" - 4"	10 bar	

PVC-U Valves	Diameter	Maximum Working Pressure	Application
Ball Valves	d 16 - 110	16bar	Water Application
Butterfly Valve	d 50 - 315	up to 16 bar	Water Application
Single Union Ball Valve	d 16 - 110		Irrigation Application
Double Union Ball Valve	d 16 - 110	16 bar	
Air Release Valve	d 16 - 110		Other Application
Check Valve	d 16 - 110	16 bar	



# Magnum 3G

Next generation compression fittings

**MAGNUM 3G**





MAGNUM 3G is manufactured in Europe & Australia and is a newly engineered compression fitting. It is widely recognized as the most innovative and revolutionary product to connect Polyethylene pipes based on concepts adopted in the Australia and UK markets.

MAGNUM 3G compression fittings are designed to optimize performance and are based on a 'slide & tighten' low interference hydro-mechanical sealing system. This special system guarantees the insertion of pipes into the fittings with very low

manual effort and complete operational safety. They offer a range of advantages over metal threaded fittings which include faster, easier and reliable installation and lower insertion force needed due to lower friction with the pipe.



An ideal solution used worldwide by water companies, civil contractors and plumbers for several applications: **water supply, irrigation, swimming pool systems.**



## Products' Highlights

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MAGNUM 3G is the next generation of compression fittings and include the following benefits:

**Fast & Easy Installation** with the Slide & Tighten technology that requires no pipe preparation and no force. It has a compact design makes it easy to use in small spaces.

**Complete security** with its dynamic sealing method, visual stop to indicate when the nut is correctly tighten, no loose component and is designed to minimized pipe twist.

MAGNUM 3G does not transmit light thus protecting the water quality in potable water pipelines from growth microorganism.



# MAGNUM 3G Product Range

Compression Fittings	Diameter
Couplings	d 16 - 110
Slip Couplings	d 20 - 63
Reducing Couplings	d 20 - 110
45° Elbow	d 32 - 63
90° Elbow	d 16 - 110
Male Threaded 90° Elbow	d 16 - 63
Female Threaded 90° Elbow	d 16 - 110
Tee 90°	d 16 - 110
Slip Tee 90°	d 20 - 63
Male Threaded Tee 90°	d 25 - 63
Female Threaded Tee 90°	d 16 - 110
Reducing Tee 90°	d 25 - 63
Wall Plate Elbow 90°	d 20 - 25
Flanged Adaptor	d 50 - 110
Male Adaptor	d 16 - 110
Femal Adaptor	d 16 - 110
Tank Connector	d 25 - 32
End Cap	d 16 - 110

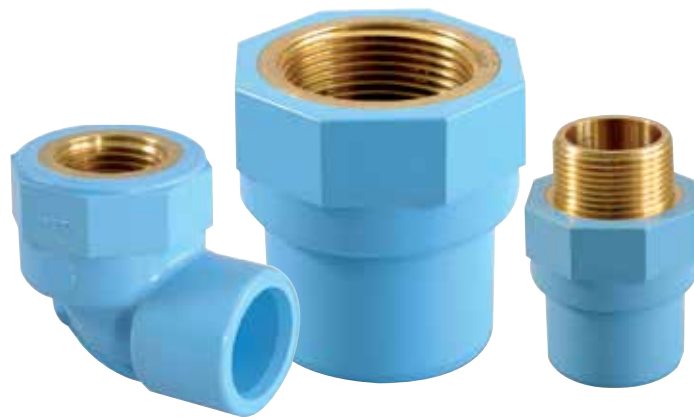




# GIRPI GIRAIR®

Pipes, fittings and valves for compressed air





GIRAIR® is manufactured in France by GIRPI who specializes in the design and fabrication of pipework systems. GIRPI's GIRAIR® offers a complete piping system for compressed air distribution networks and meets the demanding requirements of the building industry.

The GIRAIR® system has been on the market for more than 30 years and is recognized for its reliability which extends from compressor outlet to wall plate connections. The system is designed to withstand maximum working pressures of up to 12.5 bar at 25°C, and to meet the vast majority

of compressed air distribution requirements. GIRAIR® is corrosion resistant, energy saving and recyclable. It is also resistant to impact, even at very low temperatures, and has a "best in class" fire reaction rating of Bs1 d0 according to Euroclasses.



An ideal solution for **compressed air distribution, neutral gas distribution, centralized vacuum networks.**





## Products' Highlights

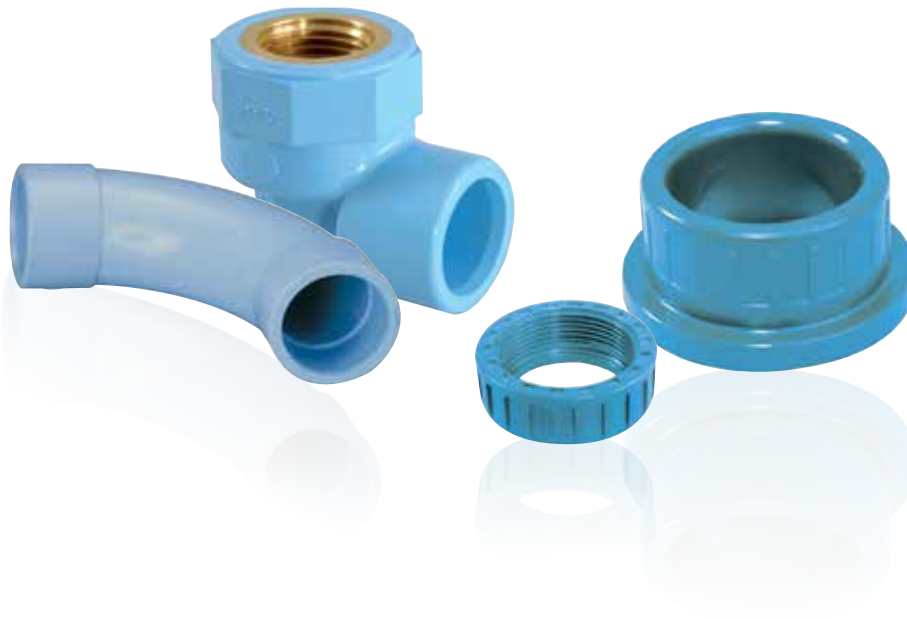
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GIRPI GIRAIR® pipes, fittings and valves for compressed air offer many advantages such as:

No leak, no corrosion, installation time under control, reliable and durable joints, low head losses, high impact resistance due to its ductile

vinyl material, clear network identification, enhanced fire safety, dedicated bracketing solutions, recyclability.

It also has a high compatibility level with most compressor oils.







# GIRPI GIRAIR® Product Range

Pipes & Fittings	Diameter
Pipes	d 16 - 110
90° Elbows	d 16 - 110
45° Elbows	d 16 - 110
Serrated Stub Flanges	d 50 - 110
90° Bends	d 50 - 110
Couplings	d 16 - 110
Caps	d 16 - 110
Reducing Bushes Long Pattern	d 25x16 - 110x63
Equal Tees 90°	d 16 - 110
Reducing Tees 90°	d 20x16 - 110x32
Reducing Bushes Short Pattern	d 20x16 - 110x90
Threaded Adaptors (Male Brass Thread)	d 16 - 63
Adaptor Nipples	d 16 - 63
Threaded 90° Elbows	d 20
Equal Threaded Tees 90° w/ metal reinforcing ring	d 16 - 25
Ring Threaded 90° Elbows w/ metal reinforcing ring	d 16 - 25
Ring Adaptors Nipples (Male Thread)	d 16 - 75
Reducing Adaptors Nipples (Male Thread)	d 16 - 50
Threaded Saddles (1/2" Thread)	d 40 - 63
Threaded Saddles (3/4" Thread)	d 25 - 63
MONOKLIP Brackets	d 16 - 110

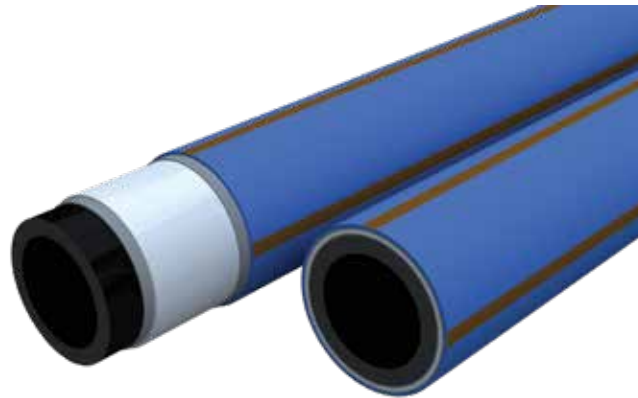
Valves	Diameter	Maximum Operating Pressure	Temperature Range
Double Union Ball Valves w/ cemented socket ends	d 16 - 63	12.5 bar	maximum +40°C
Flanged Ball Valves w/ cemented socket ends	d 75 - 110	12.5 bar	maximum +40°C



# Protecta-Line

Barrier pipe and fittings system

 **PROTECTA-LINE**



Protecta-Line is the UK leading, award winning fully integrated barrier pipe and fittings system for safe transportation of water through contaminated land. Its tough multi-layer construction ensures that any contaminants remaining in brownfield sites and former industrial land cannot permeate into the water supply. The Protecta-Line system is one of the most comprehensive PE barrier pipe system available, incorporating a full range of pipes and dedicated, approved fittings.

For over 20 years, water companies, contractors and self-lay organizations have trusted Protecta-

Line with maintaining the long term safety and quality of the water supply. It is an established favorite in the UK and abroad, and with a wealth of approval, installation and cost benefits.



Protecta-Line is ideal for **drinking water distribution in contaminated land (brownfield sites) as well as drinking water distribution in sites with potential future contamination issues (i.e.: new petrol station forecourts).**





## Products' Highlights

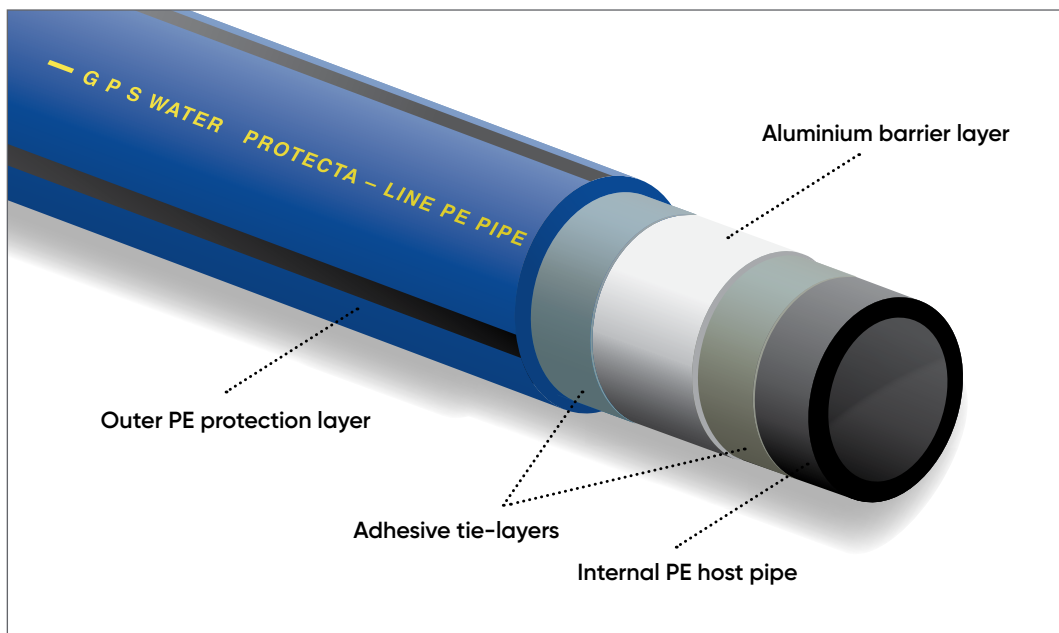
Protecta-Line offers many advantages:

- Prevents the tainting that can be caused by through-wall permeation by hydrocarbons and related chemicals that might be present in contaminated land
- Proven protection against all recognized brownfield contaminants, both organic and inorganic, even in their maximum reported concentrations
- Reduced leakage
- Second-to-none approval status for total peace of mind to the highest standards of safety demanded by water companies and other installers

- May be used for trenchless installations or subjected to cold bending as standard polyethylene pipes

Lightweight and flexible for ease of handling and efficient logistics; supplied in longer lengths for fewer joints and with no requirement for thrust blocks, Protecta-Line is easier and faster to install than its metallic alternatives.

The system provides cost and ease of installation advantages with a comprehensive range of fittings and, thanks to PE's corrosion resistance, maintenance is minimized too, making it cost effective at the installation level and throughout its lifespan.



# Protecta-Line Product Range

Protecta-Line Pipes & Fittings	SDR	Diameter	Maximum Working Pressure	Application
Protecta-Line Pipe	11	d 25 - 630	16 bar	PE barrier pipe for water distribution through contaminated land
	17	d 63 - 630	10 bar	
Protecta-Line 3C and 3CTH Coils	11 & 17	d 63 - 180	10 - 16 bar	Clean, capped and coiled PE barrier pipe for installation without pre-chlorination
Mechanical Compression Fittings		d 25 - 63		Mechanical compression fittings for service connections
Mechanical Fittings		d 63 - 180		Mechanical compression fittings for mechanical jointing without the need for pipe preparation or welding
Ferrule Off-Takes (outlet sizes 25 & 32mm)		d 63 - 355		Saddle ferrules for live off-takes without any flow restrictions
Ferrule Off-Takes (outlet sizes 63mm)		d 90 - 355		
Electrofusion Fittings		d 90 - 630		Electrofusion fittings with a bar coding system or rapid and convenient jointing
Pipped Fittings		d 90 - 630		Extended spigots suitable for electrofusion and butt-fusion jointing







# Industry:

## Setting benchmarks across the world

Global mega-trends are forcing industries to evolve at a very high pace. Consequently, engineering requirements become stricter every day. That is why Aliaxis is investing heavily in its leading range of piping and pressure systems for fluid handling and compressed air distribution. Our process piping continually meets the strict engineering requirements of industrial clients for temperature, pressure, chemical resistance, abrasion resistance and more.



### **Water Treatment**

With our solutions, you are able to build cost-effective, low-maintenance and durable water treatment plants. Our products are resistant to aggressive media and easy and safe to install. As a leading supplier of industrial valves, we offer you a fast delivery service for automatic valves and an in-house production of special components.



# FIP

Thermoplastic valves, fittings and instrumentation  
for pressure piping systems





FIP has been an Italian pioneer of top-quality polymer valves, pipes and fittings for more than 60 years. It is renowned for the design and manufacture of valves, measurement and control instruments and pressure piping systems which offer greater plant efficiency.

The FIP product portfolio, manufactured in Italy, provides effective solutions for pressure pipeline industrial systems. FIP products are also ideal for dealing with fluids at high temperatures, chemically aggressive conditions and in industrial situations that demand reliability and long lasting performance. FIP-FLS instrumentation line

offers solutions for flow, pH/ORP, conductivity and pressure/level monitoring. This product line includes a wide selection of systems ideal for measuring and controlling industrial processes as well as for monitoring in water supply network.



An ideal solution for process pipework including aggressive, corrosive and fluids. This encompasses **desalination plants, water distribution systems, civil and industrial water treatment and the chemical industry. It also includes swimming pools, irrigation, sports facilities, marine and more.**







## Products' Highlights

Taking advantage of thermoplastic resins versatility, FIP valves and fittings are suitable to various needs according to the application required.

FIP focuses on offering proper solutions for industrial systems in chemical, textile, pharmaceutical, food, electronic, mining and other fields by producing high efficient products operating in environment where high temperatures and aggression of fluids demands reliable and long lasting products.



### **VKD DUAL BLOCK® 2-Way ball valve**

FIP has developed a VKD DUAL BLOCK® ball valve to introduce a high reference standard in thermoplastic valve design. VKD is a True Union ball valve that meets the most stringent needs required by industrial applications.

- Ergonomic HIPVC handle equipped with removable tool to adjust the ball seat carrier.
- Handle lock 0° - 90° SHKD (available as an accessory) ergonomically operable during service and padlockable
- Robust integrated bracket for valve anchoring, for easy and quick automation even after valve installation on the system (optional)
- DUAL BLOCK® patented lock system that ensures union nut tightening hold even in severe conditions such as vibrations or heat dilation



### **FK DN 350-400 The new large diameter Butterfly valve**

The FK is a butterfly valve for shutting off or regulating flow, with structural characteristics that make it ideal for water treatment processes as well as for industrial applications requiring high performance and longterm reliability. It is now available from DN 40 to DN 400.

### **DK DIALOCK DN 15-65 - manual and actuated version**

The DK DIALOCK® diaphragm valve is particularly suitable for shutting off and regulating abrasive or dirty fluids. The new internal geometry of the body optimised fluid dynamic efficiency by increasing the flow rate and ensuring an optimum linearity of the flow adjustment curve. The DK/CP is extremely compact and very light.



### **FLS F3.00.W Wireless Paddlewheel Flow Sensor**

The new FFLS F3.00.W Wireless Paddlewheel Flow Sensor is an innovative system for flow monitoring based on Bluetooth® Low Energy transmission technology. The paddlewheel flow sensor is provided with an integrated transmitter that communicates with the receiver. The FLS B.L.E. F3.00.W is a reliable solution for every kind of solid-free liquid. Easy and quick to install, it is suitable for pipes in different materials, sized from DN15 to DN600 (0.5" to 24"). It can cover also long operating distances (up to 100 meters) and work in presence of electromagnetic interferences generated by devices like pumps or inverters. Also, the auto-diagnostic system keeps updated about a possible signal loss and alerted about low battery status.



# FIP Valves & Fittings Product Range

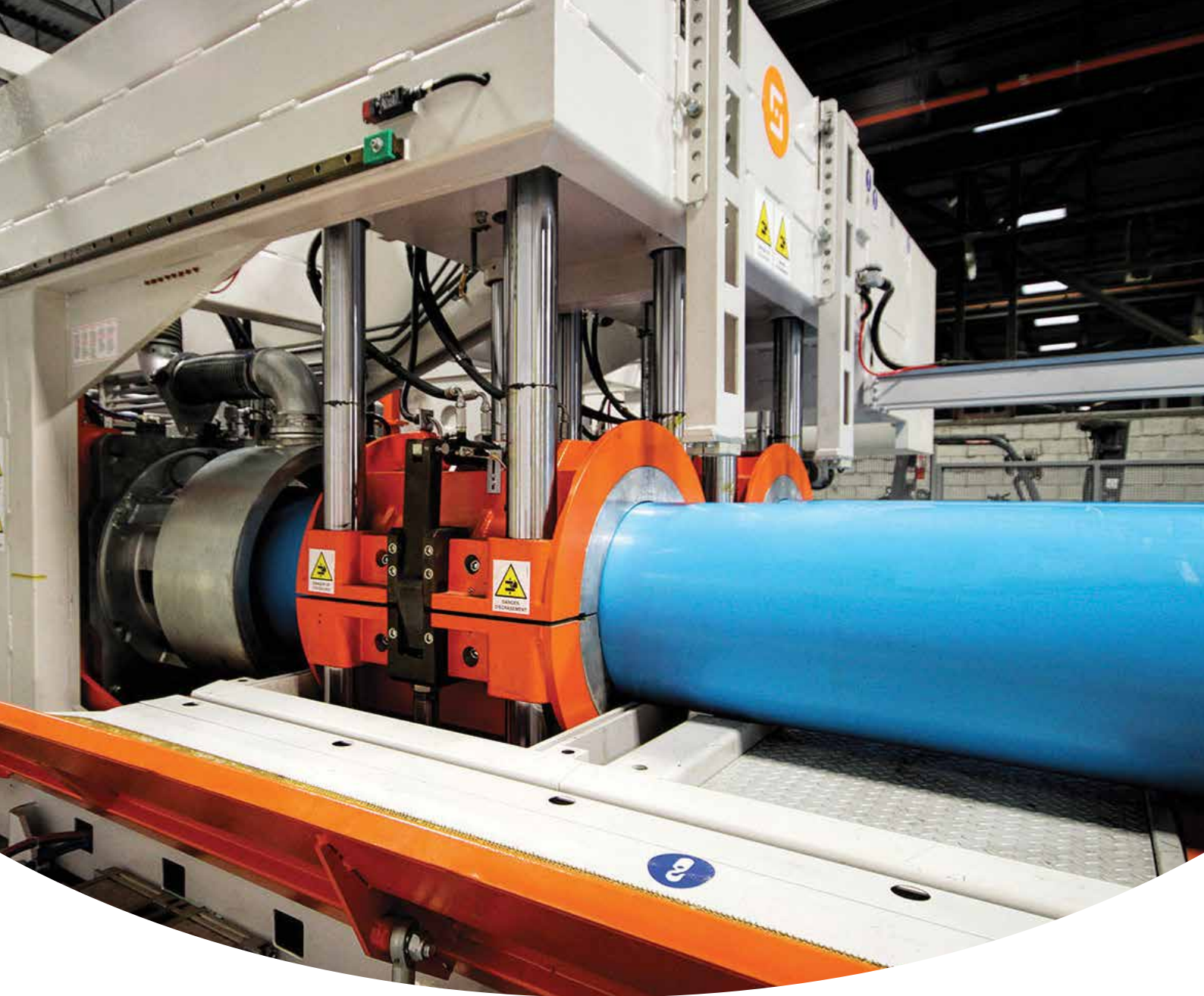
PP-H Pipes, Fittings & Valves (Beige)	Diameter	Temperature Range	Maximum Working Pressure	Application
Ball Valves	d 16 - 110	0 °C to 100 °C	10 bar	High chemical resistance, Optimal thermal stability, ideal application in industry guaranteeing excellent mechanical and impact resistance with high safety factors.
Butterfly Valves	d 50 - 400			
Diaphragm Valves	d 16 - 110			
Check Valves	d 20 - 315			
Sediment Strainer	d 20 - 110			
Butt Welding	d 20 - 400			
Socket Fusion	d 20 - 110			
Threaded	R 1/2" - 2"			
Pressure Pipes	d 20 - 500 (SDR 11) d 20 - 800 (SDR 17)		6 bar - 10 bar	

PVDF Pipes, Fittings & Valves (Translucent White)	Diameter	Temperature Range	Maximum Working Pressure	Application
Ball Valves	d 16 - 110	-40 °C to 140 °C	16 bar	Excellent chemical resistance and thermal stability, ideal for all applications where high operating temperature are required, with an extremely low level of fluid contamination, and optimal resistance to ageing under the effect of atmospheric agents & UV radiation. Perfect for ultra-pure water and chemicals where contamination free properties are required. Solef resins guarantee optimal fire resistance.
Butterfly Valves	d 50 - 400			
Diaphragm Valves	d 16 - 110			
Check Valves	d 20 - 315			
Socket Fusion	d 16 - 110			
Pressure Pipes	d 16 - 160 (SDR 21) d 16 - 280 (SDR 33)		10 bar - 16 bar	

C-PVC Pipes, Fittings & Valves (Light Grey)	Diameter	Temperature Range	Maximum Working Pressure	Application
Ball Valves	d 16 - 110	0 °C to 100 °C	16 bar	High chemical resistance especially to strong inorganic acids, bases and alkaline solutions. It also offers total compatibility also for the transfer of treated and untreated drinking water, as well as demineralized water and spa water for therapeutic application. Optimal thermal stability with good rigidity, very low coefficients of thermal expansion and optimal safety factors in service. C-PVC resins guarantee optimal fire resistance.
Butterfly Valves	d 50 - 315			
Diaphragm Valves	d 20 - 110			
Check Valves	d 20 - 63			
Sediment Strainer	d 20 - 63			
Socket Solvent Weld Fittings	d 16 - 225			
Adaptor Fittings	d 16 - 63 : R 3/8" - 2"			
Pressure Pipes	d 16 - 225		10 bar - 16 bar	

U-PVC Pipes, Fittings & Valves (Dark Grey)	Diameter	Temperature Range	Maximum Working Pressure	Application
Ball Valves	d 16 - 110	0 °C to 60 °C	16 bar	Good chemical resistance, totally compatible for the handling of food grade fluids, treated and untreated drinking water as well as demineralized water. Good thermal stability particularly in the intermediate temperature range between 20 °C and 50 °C.
Butterfly Valves	d 50 - 400			
Diaphragm Valves	d 12 - 110			
Check Valves	d 16 - 315			
Sediment Strainer	d 16 - 110			
Socket Solvent Weld Fittings	d 12 - 315			
Adaptor Fittings	d 16 - 125 : R 3/8" - 4"			
Threaded BSP Fittings	R 3/8" - 4"			
Pressure Pipes	d 16 - 315		10 bar - 16 bar	

Automation Range	Diameter
Ball Valves: both electrically or pneumatically actuated	d 16 - 110
Butterfly Valves: both electrically or pneumatically actuated	d 50 - 315
Diaphragm Valves: pneumatically actuated	d 12 - 110
Solenoid Valves: electrically actuated.	d 10 - 20

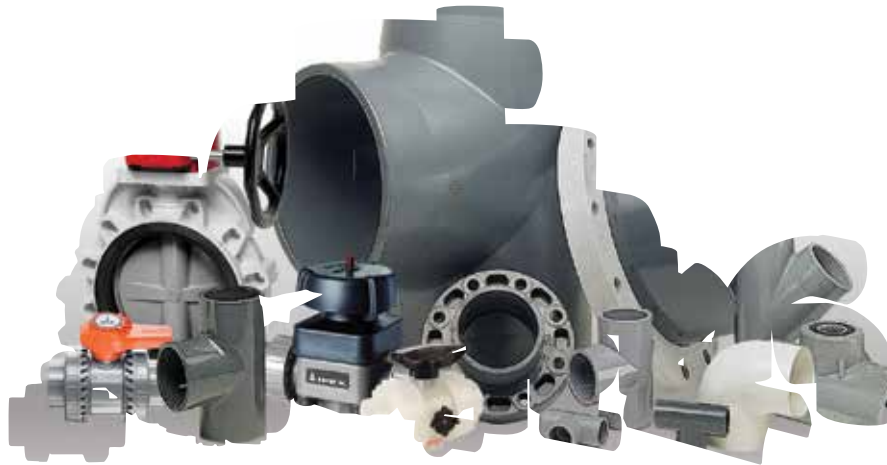


# IPEX

PVC/C-PVC pipes and fittings







IPEX is manufactured in Canada and the USA and offers a comprehensive range of integrated process piping systems in Polyvinyl Chloride (PVC) and Chlorinated Polyvinyl Chloride (C-PVC).

IPEX high-performance vinyl systems are designed to meet the temperature, pressure and size requirements of piping systems used in chemical processes and other industrial applications. It is globally renowned for breaking ground in some of the world's toughest and most demanding environments. IPEX products also offer a low maintenance alternative to common and exotic metal systems.

IPEX supplies PVC and CPVC systems for a broad range of industrial applications:

- **Plant chemical distribution lines**
- **Water & wastewater**
- **Acid systems for refineries, pickling lines and plating shops**
- **Chlorine injection, chlorine dioxide, and chloralkaline plant piping**
- **Pharmaceutical**
- **Cooling water and cooling tower systems**
- **Plant water supply**
- **Brine and seawater systems**
- **Fish farming**
- **Waterworks**
- **Aquariums and swimming pools**
- **Irrigation systems in golf courses, greenhouses, etc.**



## Products' Highlights

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IPEX systems offer the unique combination of light weight, flexibility, durability and exceptional corrosion resistance.

**Lower Installation Costs** - Easy Handling in addition to a lower material cost, Xirtec & Corzan pipe can significantly reduce labor and transportation costs on a typical installation. The reason? They are lightweight, easily handled, stored, cut and joined. And, heavy equipment used to install metallic and other piping systems are not required, thereby reducing project costs.

**Superior Underground Performance** - Xirtec and Corzan CPVC are immune to damage from naturally corrosive soil conditions as well as electrochemical and galvanic corrosion. Non-corroding properties ensure improved flow, lower maintenance costs and longer performance life.

**Exceptional Chemical Resistance** - The IPEX vinyl systems, including pipe, valves and fittings, provide outstanding resistance to a wide range of chemicals such as most acids, alcohols, alkalis, salt solutions, halogens and more.

**Exceptional Temperature Range** - IPEX vinyl systems are designed to meet a broad range of service temperatures. Xirtec has a recommended maximum service temperature of 60°C in pressure, with occasional exposure to boiling water (100°C) in drainage; Corzan has a maximum service temperature of 93°C.

**Lower Thermal Conductivity** - With a low thermal conductivity factor, IPEX vinyl systems have less heat loss or gain, thus sustaining service temperature more efficiently than metal piping. As a result, pipe insulation is often not required.



## IPEX PVC/C-PVC pipes and fittings Product Range

Pipes	Diameter (in.)	Maximum Operating Pressure at 73F (psi)
XIRTEC PVC SCHEDULE 40	D 1/2" - 24"	600 to 120
XIRTEC PVC SCHEDULE 80	D 1/2" - 24"	1,130 to 210
CORZAN CPVC SCHEDULE 40	D 1/2" - 16"	600 to 130
CORZAN CPVC SCHEDULE 80	D 1/2" - 16"	850 to 220

Fittings	Diameter (in.)	Maximum Operating Pressure at 73F (psi)
XIRTEC PVC SCHEDULE 40/80 Injection Molded Fittings	D 1/4" - 12"	Various pressure applications
XIRTEC PVC SCHEDULE 40/80 Fabricated Fittings	D 10" - 24"	
CORZAN CPVC SCHEDULE 80 Injection Molded Fittings	D 1/4" - 12"	
CORZAN CPVC SCHEDULE 80 Fabricated Fittings	D 10" - 16"	

Pipes	Carrier	Containment
XIRTEC 140 PVC (Sch 40 or Sch 80)	1/2" - 12"	2" - 10"
CORZAN CPVC (Sch 40 or Sch 80)	1/2" - 12"	2" - 16"
PVC DWV	1-1/2" - 12"	4" - 18"





# SuperFlo ABS

Chilled and cold water pipework



SuperFlo ABS is manufactured in the UK and has multiple performance and economic benefits. This makes it the ideal solution when there is a requirement for a pipe system to transport low temperature fluids at pressure.

SuperFlo ABS offers a superior alternative to steel options. Firstly, it is made from a durable material, which allows the pipework to remain ductile in temperatures as low as  $-40^{\circ}\text{C}$ .

Furthermore, its limescale and corrosion resistant properties significantly reduce maintenance requirements. Its lightweight nature and easy solvent weld jointing technique also contribute to reduced labor time and costs.

An ideal installation for **buildings, data centers, factories and water treatment facilities for chilled water, boosted cold water, potable water, low temperature cooling, demineralized water, vacuum systems and waste water solutions.**



# Products' Highlights

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SuperFlo ABS combines numerous performance and economic benefits which make it the ideal solution when there is a requirement for a pipe system to transport low temperature fluids at pressure. SuperFlo ABS is a copolymer of Acrylonitrile butadiene Styrene, blended, to give unrivalled properties and benefits over traditional pipework materials such as copper or steel.

### Key product features include:

#### Superior Flow:

Low fluid friction allows higher flow velocities than metal pipes and also inhibits the formation of scale, with consequent savings in pump energy consumption, and reduced pressure drops.

#### Wide Temperature Range:

A major advantage of SuperFlo ABS over other plastic pipework systems is its ability to perform over a wide temperature range from  $-40^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$ .

#### Tough and Durable:

The Butadiene element of SuperFlo ABS affords exceptional resistance to accidental damage, even at sub-zero temperatures. SuperFlo ABS is therefore extremely ductile and performs at temperatures as low as minus  $40^{\circ}\text{C}$ .

#### Corrosion & Limescale Resistant:

The smooth bore lining of SuperFlo ABS pipework prohibits any limescale buildup throughout the life of the system, maintaining consistent flow rates. Furthermore, SuperFlo ABS is extremely corrosion resistant even with a range of moderate chemicals which can mean less maintenance costs and no costly system replacement.

#### Reduced Installation Costs:

Due to the ease of jointing & installation, the lightweight nature of SuperFlo ABS and the fact that no special tools or hot works permits are required, pipework installation time is reduced considerably.



# SuperFlo ABS Product Range

Pipes & Fittings	Diameter	Maximum Operating Pressure
SuperFlo ABS pipes	d 16 – 315	10 bar
Sockets	d 16 – 315	10 bar
Reducing Bushes	20x16 – 315x250	10 bar
Reducing Sockets	d 25 – 225	10 bar
Elbows 45° & 90°	d 16 – 315	10 bar
Tees 45° Plain	d 20 – 63	10 bar
Tees 90° Equal	d 16 – 315	10 bar
Tees 90° Swept Plain	d 32 – 110	10 bar
Tees 90° Reducing Plain	25x20 – 110x90	10 bar
Bends 90° Short Radius	d 20 – 110	10 bar
Bends 90° Long Radius	d 125 – 225	
End Caps Plain	d 16 – 110	10 bar
Socket unions Plain	d 16 – 110	10 bar

For adaptors, the range includes imperial/metric socket adaptors from 20mm to 160mm, male and female threaded adaptors, hose adaptors 16mm to 32mm. Female and male composite unions are available from 16mm to 63mm as well as flexible hoses and wall brackets.

Fittings	Diameter	Maximum Operating Pressure
VKD Double union ball valves	d 16 – 110	16 bar
TKD 3-way ball valves (T-Port & L-Port configuration)	d 20 – 63	16 bar
VXE Easyfit double union ball valves	d 16 – 63	16 bar
VKR Metering ball valves	d 16 – 63	16 bar
SX Easyfit ball check valves	d 16 – 63	16 bar
SA Easyfit air release valves	d 16 – 63	16 bar
RV Y-Type strainers	d 20 – 63	16 bar
Dialock® diaphragm valves	d 20 – 63	10 bar
LR Pressure loading/relief valves	d 16 – 63	10 bar
FK Butterfly valves (Lever Operated)	d 50 – 225	16 & 10 bar
FK Butterfly valves (with Gear Box)	d 75 – 315	10 bar



# PLX

Safe pipework for fuel

# PLX



PLX is manufactured in the UK and offers a complete range of dedicated fusion-welded pipework technology facilitating the safe transfer of fuels and their vapors in pumped or vacuum applications. The system fulfills the specific needs of various fuel applications in retail, commercial and industrial markets around the world.

The range represents a major innovation in pipework technology as it offers the ultimate in environmental protection with maximum protection against permeation and leakage. This is achieved through unique product features

which include corrosion-resistant single wall and secondary contained pipework with fusion welding for robust joint integrity.



An ideal installation for **forecourts, commercial and public vehicle refueling, critical power, AdBlue / Diesel Exhaust Fluid (DEF), hydrocarbon drainage, buried or above ground.**



EN 14125, DIN8074/8075,  
BS EN 1555, BS- 21/ISO- 7



# PLX

## Products' Highlights

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Consisting of both, a single wall and a secondary contained pipe and fittings range, PLX is specifically designed for the safe transfer of all fuel-based liquids and their vapors. PLX has a track record of proven performance and product innovations since 1993.

PLX Safe pipework for fuel is suitable for use with leaded, unleaded petroleum, including ethanol rich alternative fuels (E85), diesel, bio-diesel and fuel oils. The pipework system is suitable for pressure and vacuum applications, it resists to fuel permeation, it is corrosion resistant

and it is easy to install. It also has the following benefits: Maintenance Free, Resists Permeation, Quick, Clean & Easy Electrofusion Jointing and Installation, Dedicated range of fittings, UV Resistant, Full range of accessories and jointing tools and Allows for Interstitial Monitoring & Leak Detection.

PLX above & below ground pipework is perfect for supplying fuel to UPS systems. It has a 30 year design life, it is safe and durable!

The PLX range comprises of 3 systems:



### Single Wall:

Used for below ground suction systems and available in straight lengths or coils.

### Secondary Contained Close-Fit:

Used for above and below ground sections of the system and available in straight lengths or coils.

### Pipe-in-Pipe:

Used for above and below ground fuel transfer applications.

PLX pipes are co-extruded with a permeation barrier using the latest extrusion technology, resulting in a consistent and technically superior performance.

Size range from 32mm – 315mm

## PLX Product Range

Single Wall Pipes & Fittings	SDR	Diameter	Maximum Working Pressure
Pipe straight	11	d 32 – 315	10 bar
Pipe coil	11	d 32 – 63	10 bar
Gravity Fill & Vent pipe	17	d 63 – 110	4 bar
Couplers, 45° & 90° Elbows		d 32 – 315	10 bar
Equal Tee (Spigot branch)		d 32 – 110	10 bar
Equal 3-Way EF Tee		d 160 – 315	10 bar
Reducer		d 32x50 – 110x160	10 bar
Spigot End caps	Various SDR	d 32 – 315	depending on SDR (10 bar / 4 bar)

**A wide range of PLX Transition Fittings are available**

Close-fit Pipes & Fittings	SDR	Diameter	Maximum Working Pressure
Pipe straight	11#26	d 32#40 – 63#75	10 bar primary, 4 bar secondary
Pipe coil	11#26	d 32#40 – 63#75	10 bar primary, 4 bar secondary
Fill & Vent pipe	17#26	d 90#110 – 110#125	4 bar primary, 4 bar secondary
Joiner		d 32#40 – 110#125	10 bar
Secondary Contained 45° & 90° Elbows		d 32#40 – 110#125	10 bar
Secondary Contained Equal Tee		d 32#40 – 63#110	10 bar
Secondary Contained Slip Closure & Slip Closure with 1/8" Access Port		d 32#40 – 125#160	4 bar
One-Weld Secondary Contained Couplers		d 63#75 – 110#125	
One-Weld Secondary Contained 90 Deg Elbow		d 63#75 – 110#125	

**A wide range of PLX Transition Fittings are available**

Pipe-in-Pipes Pipes & Fittings	SDR	Diameter	Maximum Working Pressure
Pipe straight		d 110#160 – 225#315	10 bar primary, 4 bar secondary
Secondary Contained Primary Coupler w/ Leads		d 110#160 – 225#315	10 bar
Secondary Slip Coupler		d 110#160 – 225#315	4 bar
Secondary Contained 45° & 90° Elbows		d 110#160 – 225#315	10 bar
Secondary Contained Equal Tee		d 110#160 – 225#315	10 bar
Secondary Contained Reduced Branch Spigot Tee		160#225 x 110#160	10 bar
Secondary Contained Interstitial Access Saddle		d 160 – 315	4 bar
Secondary Contained Interstitial Access Saddle with 1/8 Access Port		d 160x3/8 BSP – 315x3/8 BSP	4 bar

**A wide range of PLX Transition Fittings are available**



# Philmac

Specialist fittings and valves for polyethylene pipelines



by aliaxis





Philmac is a global leader in the design and manufacture of specialist fittings and valves for polyethylene pipelines. With a strong pedigree in product innovation, Philmac revolutionized how to connect polyethylene (PE) pipes by developing the world's first all plastic compression fitting back in 1968.

cost-effective solutions for the transfer, control and application of water. Long-lasting, corrosion resistant and easy to install, Philmac fittings have proven themselves in irrigation and commercial applications all over the world.



Manufactured in Australia, Philmac's product range consist of compression fittings, threaded fittings, valves and micro irrigation providing

Philmac pipe connection solutions are ideal for **irrigation, mains water supply, gas and mining applications.**



**WRAS**

## Products' Highlights

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Since its establishment, the brand's success has been achieved through a commitment to continuous improvement in quality, product design, innovation, manufacturing and customer service.

Philmac has developed a worldwide reputation for innovative manufacturing, a reputation built on decades of experience and investment in cutting-edge technology.



**Philmac Metric/Imperial™ compression fitting** is a revolutionary step forward for PE pipe jointing. Connections can now be made to both Metric and Imperial PE pipe from the one fitting from either end. And, the innovative design means that inserts are no longer required to connect imperial pipe. Metric/Imperial™ provides the ultimate in flexibility, reducing both inventory and complexity.



**Safelok® Metric compression fittings** are the fitting of choice for industrial applications, where Metric PE pipe is carrying media with chemical, compressed air or dirty water. While the Safelok® Metric range has been designed for industrial applications it works equally well in any application where Metric PE pipe is used in sizes up to 110mm including irrigation and civil applications. It has a Slide and Tighten® mechanism for a reliable connection.



**Philmac UTC® (Universal Transition Coupling)** is a unique range of mechanical compression fittings that provides the ultimate in pipe connection flexibility. Without modification the same fitting connects to a variety of materials including PVC, copper, galvanized iron, ABS, lead, stainless steel and polyethylene. Each size fitting covers a range of pipe diameters providing a "Universal" solution.



**Philmac Micro Irrigation** range ensures water delivery is done as efficiently and effectively as possible to its intended destination. Philmac's quality range includes products that suit almost every application, from domestic watering, through to landscape and horticulture.

# Philmac Product Range

3G Metric Imperial Compression Fittings	Diameter	Maximum Working Pressure
Couplers	d 20 (1/2") - 63 (2")	16 bar
Slip Couplers	d 20 (1/2") - 63 (2")	16 bar
Reducing Couplers	d 25 (3/4")x20 (1/2") - 63 (2") x 50 (1 1/2")	16 bar
Reducing Tees	d 25 (3/4")x20 (1/2") - 63 (2") x 50 (1 1/2")	16 bar
Tees	d 20 (1/2") - 63 (2")	16 bar
Tees (MI BSP)	d 25 (3/4")x 1/2" - 25 (3/4")x 3/4"	16 bar
Tees (FI BSP)	d 20 (1/2") x 1/2" - 63 (2") x 2"	16 bar
End Connectors - Male adaptors	d 20 (1/2") x 1/2" - 63 (2") x 2"	16 bar
End Connectors - Female adaptors	d 20 (1/2") x 1/2" - 63 (2") x 2"	16 bar
Elbows (poly x MI BSP)	d 20 (1/2") x 1/2" - 32 (1") x 1"	16 bar
Elbows	d 20 (1/2") x 1/2" - 63 (2") x 2"	16 bar
End Caps	d 20 (1/2") x 1/2" - 63 (2") x 2"	16 bar
Wall Plate Elbows	d 3/4" x 1/2"	16 bar

3G Metric Compression Fittings	Diameter	Maximum Working Pressure
Couplers	d 16x16 - 63x63	16 bar
Slip Couplers	d 20x20 - 63x63	16 bar
Reducing Couplers	d 20x16 - 63x50	16 bar
Reducing Tees	d 25x25x20 - 110x110x63	16 bar
Tees (MI BSP)	d 25x25x1/2" - 25x25x3/4"	16 bar
Tees (FI BSP)	d 16x16x1/2" - 63x63x2"	16 bar
Slip Tees	d 20x20x20 - 63x63x63	16 bar
End Connectors - Male adaptors	d 16x1/2" - 63x2"	16 bar
End Connectors - Female adaptors	d 16x1/2" - 63x2"	16 bar
Elbows (MI BSP)	d 20x1/2" - 63x2"	16 bar
Elbows (FI BSP)	d 16x1/2" - 63x2"	16 bar
Elbows	d 16x16 - 63x63	16 bar
End Caps	d 16 - 63	16 bar
Wall Plate Elbows	d 20x1/2" - 25x3/4"	16 bar

Safelok Metric Compression Fittings	Diameter	Maximum Working Pressure
Joiner	d 15-21 x 20 - 59-61 x 63	
Elbows	d 15-21x20 - 27-34x32	
Repair Coupling	d 15-21x15-21 - 59-61x59-61	
Reducing Repair Coupling	d 21-27x15-21 - 39-43 x 27-34	
Elbows (Copper/GI/PVC)	d 15-21x15-21 - 21-27x21-27	
Tee	d 15-21	
End Connectors	d 15-21x3/4" - 27-34x1 1/2"	
Tee (Copper/GI/PVC)	d 15-21x3/4" - 21-27x1"	

Micro Irrigation	Flow	Diameter / Size
Stakes		
Jets - Fixed Flow	up to 100 L/h	
Jets - Adjustable Flow	0 - 80 L/h	
Mini sprinklers	up to 300 L/h	
Static Fittings		d 10 - 32
Drippers - Fixed Flow	up to 8 L/h	
Drippers - Fixed Flow Pressure Compensating	up to 8 L/h	
Drippers - Adjustable Flow	0 - 40 L/h	
Micro Fittings		d 10 - 25
Valves		d 4 - 5





# Jimten Filtmaster

Discs Filters and air vent valves







Jimten Filtmaster is manufactured in Spain and uses the most advanced technology to achieve efficient water filtration in the industrial and agricultural fields. Its modular filter system with filter media, screen and disc filters has a wide molecular capacity which means it is versatile and suited to any kind of water.

Furthermore, the patented disc system allows a real micron gap along the filtering surface. Jimten Filtmaster offers several unique benefits which

include simple installation, adaptation to a variety of water types and ease of cleaning. This makes it one of the most efficient, versatile and profitable filtration tools on the market.



Filtmaster automatic filtration stations can be used in a wide range of applications as: **cooling tower protection, nozzle protection, pre-filtration to protect UF/RO membranes, filtration of wastewater for reuse and filtration for irrigation.**





## Products' Highlights

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### Filtmaster "Easy-fit Skids"

The most efficient, versatile, and profitable filtering tool. With a 30% improvement on height, Filtmaster "Easy-fit Skids" is compact, easy to install, and maintain.

**Effective:** The application of the most advanced technology results in a high level of filtering performance.

**Versatile:** A wide modularity of the components allows an ideal use for any type of water and in agricultural and industrial areas.

**Profitable:** The design of its components allows optimizing the cycles between cleaning with lower energy costs.







# Jimten Filtrmaster Product Range

Discs Filter	20 Microns Filter	25 Microns Filter	50 Microns Filter	100 Microns Filter	130 Microns Filter	200 Microns Filter
Anti-algae Disc Filter (¾" & 1" filters)					X	
3" & 4" double body disc filter with stainless steel clamp	X		X	X	X	X
3" & 4" compact double body disc filter with stainless steel clamp	X		X	X	X	X
3" & 4" super compact double body disc filter with stainless steel clamp	X		X	X	X	X
2" standard disc filter with PAFV clamp	X		X	X	X	X
2" & 3" disc filter with PAFV clamp	X		X	X	X	X
2" long disc filter with PAFV clamp	X		X	X	X	X
2" & 3" standard hydrocyclonic disc filter with stainless steel clamp	X		X	X	X	X
2" hydrocyclonic disc filter with stainless steel clamp	X		X	X	X	X
2" long hydrocyclonic disc filter with stainless steel clamp	X		X	X	X	X
3" & 4" compact hydrocyclonic double body disc filter with stainless steel clamp	X		X	X	X	X
2" standard hydrocyclonic disc filter with PAFV clamp	X		X	X	X	X
2", 3" hydrocyclonic disc filter with PAFV clamp	X		X	X	X	X
2" long hydrocyclonic disc filter with PAFV clamp	X		X	X	X	X
3" & 4" hydrocyclonic double body disc filter with PAFV clamp	X		X	X	X	X

Screen Filter	20 Microns Filter	25 Microns Filter	50 Microns Filter	100 Microns Filter	130 Microns Filter	200 Microns Filter
2" screen filter (S cartridge)				X	X	
2" long screen filter (M cartridge)				X	X	X
3" screen filter (M cartridge)				X	X	X

Filtration Stations	20 Microns Filter	25 Microns Filter	50 Microns Filter	100 Microns Filter	130 Microns Filter	200 Microns Filter
Manual Backwash Filtration 2x2", 3x2", 4X2", 5x2", 6x2"	X		X	X	X	X
MasterONE automatic filtration station 1x2"		X	X	X	X	X
single body automatic filtration stations 2x2", 3x2", 4X2", 5x2", 6x2"		X	X	X	X	X
single body automatic filtration stations 2x3", 3x3", 4X3", 5x2", 6x3", 8x3", 10x3"		X	X	X	X	X
double body automatic filtration stations 2x3", 3x3", 4X3", 5x2", 6x3", 8x3", 10x3"		X	X	X	X	X
horizontal double body automatic filtration stations 2x3", 3x3", 4X3", 5x2", 6x3", 8x3", 10x3"		X	X	X	X	X

Automatic Discs Filter	20 Microns Filter	25 Microns Filter	50 Microns Filter	100 Microns Filter	130 Microns Filter	200 Microns Filter
2" & 3" automatic disc filter		X	X	X	X	X
3" & 4" double body automatic disc filter		X	X	X	X	X
2" single body automatic filtration stations		X	X	X	X	X



# IPEX Guardian™

Double Containment





IPEX Guardian™ Systems are manufactured in the US and have been the benchmark in double containment for more than 25 years. Made from Polyvinyl Chloride (PVC) and Chlorinated Polyvinyl Chloride (C-PVC), these systems offer a complete line of pipes, fittings, valves and leak detection which is unmatched in the industry.

The product range includes a complete selection of pre-tested modular components which are extremely easy to install. Its Centra-lok™ patented

design allows IPEX to offer vinyl systems which average up to 60% fewer overall joints and up to 10% fewer field joints.



Ideal for **leak contention and detection, pipe protections and condensation mitigation. Can be used with use with a wide range of acids, alcohols, salts and halogens.**







## Products' Highlights

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Guardian systems offer a complete selection of pretested modular components which are extremely easy to install.

The patented ingenuity and simplicity of the Centra-lok design also reduces the purchase cost of IPEX systems, making Guardian the industry's most cost-effective vinyl system.

Each contained piping system shall consist of Xirtec®140 PVC primary piping system supported within a Xirtec®140 PVC secondary containment housing. Each system shall be provided with suitable drains and vents and be designed to provide complete drainage of both the primary and secondary containment piping.

# IPEX Guardian™ Systems Product Range

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Pipes	Carrier	Containment
XIRTEC 140 PVC	1/2" - 12"	2" - 18"
CORZAN CPVC	1/2" - 12"	2" - 18"

Larger sizes are available

# References



Dubai Harbour Cruise Terminal, UAE



Atlantis Hotel, Water Line Maintenance, UAE



SEWA Distribution Line, UAE



Water Connections to the New Al Ain Hospital at Al Mutaredh, UAE



Upgrade Firefighting Network at Safaniyah Petrochemical Plant, KSA



Ma'aden - Civil Works Project, KSA



Water Services - Emirati Housing Project Al Hayer, UAE



Water Network & House Connections - MBZ City in Fujairah 1100 Housing Units, UAE



Gas Network Dammam University, KSA



Al Ghadeer Villas, UAE



DMCC - Jumeirah Lake Towers, UAE



Akoya Oxygen Golf, UAE



Al Thumama Stadium, Qatar



Bahrain International Airport, Bahrain



Data Center Eindhoven, Netherlands



# References



Maintenance Jebel Ali Power Plant, UAE



BorWin-3 - Fire Fighting Network Repair, UAE



Riyadh Water Tower Refurbishment, KSA



Dubai Hills Estate (LPG Plant & Network), UAE



Jumeirah Village Circle JVC District Cooling Plant, UAE



Abu Dhabi Airport, UAE



Al Ain Zoo, UAE



Al Dhaid Crocodile Pool, UAE



Jubail phase IV potable water plant, KSA



Yas Island Water Park, UAE



New Acid Line at Hamad International Airport, Qatar



Revamping of WWTP in Ethylene Plant, Qatar



Emirates District Cooling EMICOOL Dubai, UAE



Gas Processing Plant Abu Dhabi, UAE



Khalifa Port Abu Dhabi, UAE



Sea World Abu Dhabi, UAE

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