

EFFAST

Polypipe Effast



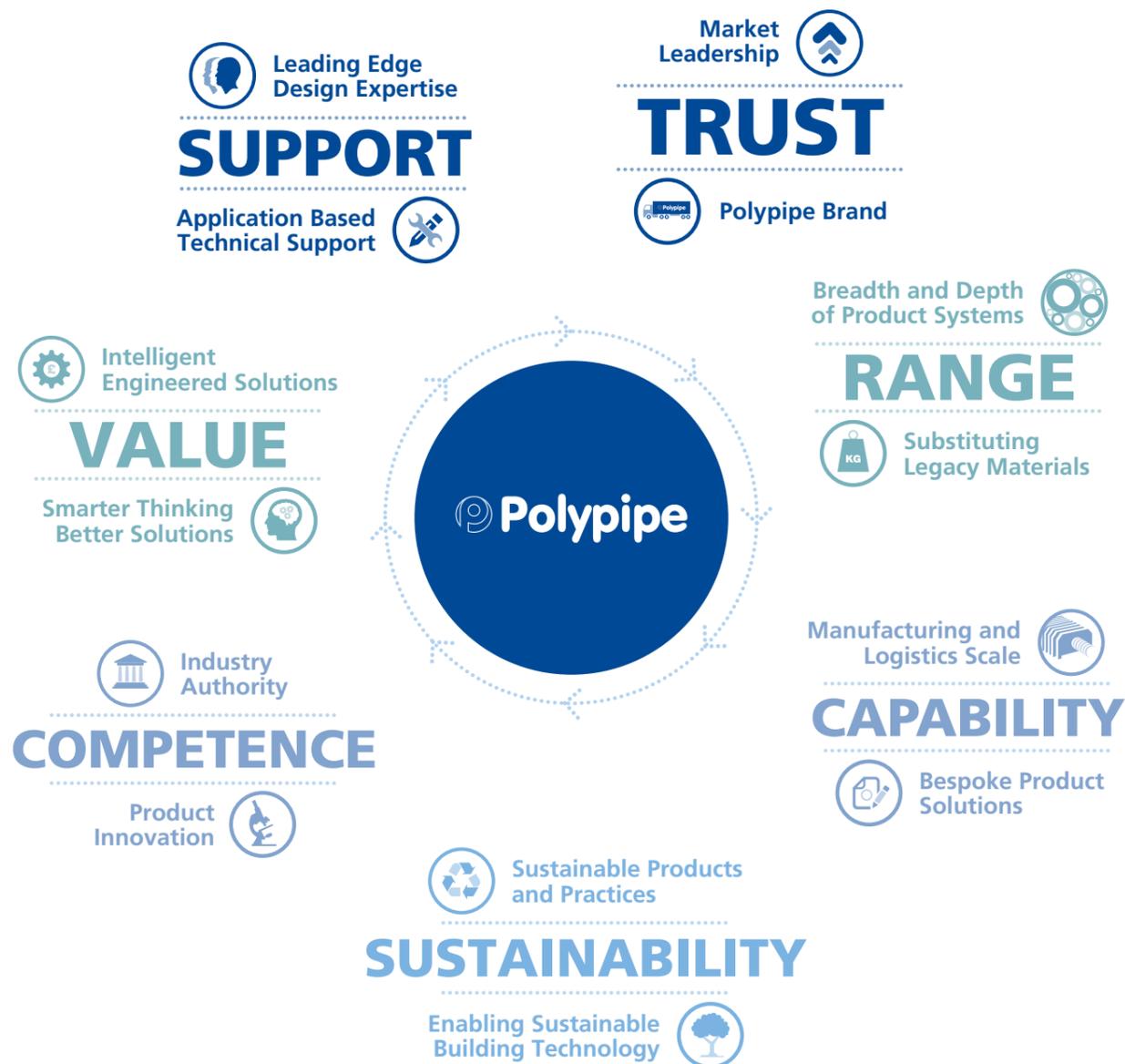
Plastic pressure systems product guide

Welcome to Polypipe

Polypipe is the UK's largest plastic pipe systems manufacturer. With over 20,000 product lines, a fleet of more than 400 vehicles and in excess of 3,000 employees, we have an enviable reputation among installers, contractors, stockists and specifiers.

Intelligent engineering

The earlier you can involve us in your project, the more you can make the most of our expertise and technical knowledge. We can then work with the project team to deliver the most appropriate and cost-effective solutions, supporting them at every stage from design to installation.



Challenging tradition

As one of Europe's largest and most innovative manufacturers of plastic pipes and fittings, we're committed to delivering on market-leading quality. From product materials and installation methods, to exploring more intelligent and sustainable alternatives to traditional materials, we never stop challenging tradition.

For more than 40 years, our expertise has driven innovative developments in traditional draining, plumbing, water management and ventilation systems – supplying our partners in the Residential, Commercial and Public Buildings, Civils and Infrastructure sectors.



Product materials

Our product offering not only challenges conventional systems made from legacy materials such as clay, cast iron and concrete, but malleable iron and carbon steel products typically used in pressure systems.

Made from high quality plastic, our products are engineered to deliver on performance and reliability. They are lighter in weight than traditional materials so they not only meet the demands of modern construction, but are safer to handle and quicker to install thereby reducing costs. What's more, they have high chemical resistance and are 100% recyclable at the end of their useful life.

Research and development

Our continual innovation is due to our unwavering commitment to research and development. Employing some of the most respected teams in the industry, we're uniquely equipped to challenge convention to improve products, services and manufacturing technology to meet the changing needs of the modern construction industry.

Manufacturing

We're proud to lead the market in piping technology, manufacturing long-lasting products engineered to meet and exceed environmental, industry and regulatory standards. At the same time, our focus is on investing in new and innovative manufacturing methods to solve problems our clients face every day.

We also have one of the largest off-site manufacturing facilities in the UK, allowing us to fabricate systems off-site to meet the exact needs of virtually any project.

Technical service and support

From design to installation, our unrivalled Design and Technical teams are dedicated to partnering with professionals at all levels of the construction industry to achieve the best solutions for every project.

We're also committed to raising industry standards through training and technical support. Professionals from all over the UK come to our purpose-built Professional Development Centres to get the hands-on product training they need from our team of trusted specialists.

Pressure systems for Industrial and Commercial buildings

Effast plastic pressure systems are a modern, light in weight and durable alternative to pressure systems made from traditional materials, but with the benefit of equivalent lifecycles.

Our systems are made from materials with different temperature ranges to work to and with different joining techniques. No matter what your Industrial or Commercial building project, we can advise on the right system for your application.

You can also be sure that Polypipe Effast Pressure Systems carry WRAS approval and the relevant BSI Kitemark where applicable.

With any pressure system, it's very important to control the thermal movement as well as the temperature and pressure relationship.

PE100

- Light in weight
- Operating temperature -40°C to +60°C subject to pressure requirement
- Comprehensive system including full range of pipes and fittings
- Fusion weld or mechanical installation
- Excellent impact and chemical resistance
- Fabrication Service is available

EFFAST PVCu

- Operating temperature from 0°C to +60 °C subject to pressure requirements
- Available in metric sizes 16-315mm and imperial sizes ½"-8"
- Smooth bore pipe reduces pressure loss
- Chemical and high abrasion resistant
- Solvent weld system
- Class 7 range of pipe and fittings available

EFFAST POLYPROPYLENE

- Operating temperature from -10°C to +90°C subject to pressure requirements
- Suitable for socket fusion, butt fusion and electro-fusion jointing
- High abrasion resistance
- Good chemical resistance
- Ideally suited to many industrial processing applications

EFFAST ABS

- Operating temperature -40°C to +60 °C subject to pressure requirements
- Smooth bore pipe reduces pressure loss
- Solvent weld system
- Suitable for mains water and chilled water applications
- Class T range of pipes and fittings available



Effast PVCu



This system has high chemical resistance and good flow characteristics, making it a safe and secure choice for potable water and food products supply. It's especially well suited to industrial process applications. What's more, it becomes a full bore system when used in conjunction with our extensive range of PVCu engineered ball valves.

Features and benefits

- Available in metric sizes 16-315mm and imperial sizes ½"- 8"
- Operating temperature from 0°C to +60 °C subject to pressure requirements
- Pressure up to 16 bar
- Range of PVC Pressure Class 7 pipes and fittings available
- Light in weight
- No specialist tooling required
- Smooth bore pipe reduces pressure loss
- High abrasion resistance
- Solvent weld system
- Wide range of applications to transport fluids
- Chemical resistance

Effast PVCu

The PVCu pressure system has a high chemical resistance and good flow characteristics. This makes it especially well suited to the following applications:

- Process systems
- Water treatment and chemical dosing
- Food and beverage processing
- Swimming pools and spas
- Cold water systems

Effast ABS



The Effast ABS (Acrylonitrile Butadiene Styrene) pressure system can tolerate temperatures as low as -40°C and has good flow characteristics, making it a safe and secure choice for chilled or potable water, food stuffs and beverage applications. What's more, it is a full bore system when used in conjunction with our extensive range of ABS engineered ball valves.

Features and benefits

- Available in metric sizes 16-315mm and imperial sizes ½"- 8"
- Robust system at low temperatures down to -40°C
- Pressure up to 15 bar
- Operating temperature -40°C to +60 °C subject to pressure requirements
- Light in weight
- Smooth bore pipe reduces pressure loss
- Solvent weld system
- Suitable for mains water and chilled water applications
- Range of ABS Class T pipes and fittings available

Effast ABS

The ABS (Acrylonitrile Butadiene Styrene) pressure system can tolerate extremely low temperatures which makes it a safe and secure choice for the following applications:

- Chilled water
- Boosted cold water
- Food stuffs
- Beverage applications
- Plant rooms
- Chemical and pharmaceutical

Effast Polypropylene (PP)



Light in weight with high impact strength and reliable heat fusion welding, the Effast Polypropylene System offers good abrasion resistance and is widely used in industrial processing.

Features and benefits

- Operating temperature from -10°C to +90°C subject to pressure requirements
- Suitable for socket fusion, butt fusion and electro-fusion welding
- Light in weight
- High abrasion resistance
- Good chemical resistance
- Ideally suited to many industrial/processing applications

Effast Polypropylene

Light in weight with high impact strength and reliable heat fusion welding, the Effast Polypropylene system offers good abrasion resistance and is widely used in industrial processing including:

- Chemical process systems
- Metal finishing
- Chemical dosing

PE100



This versatile and durable high-density polyethylene system provides a reliable solution to the challenges presented by modern supply systems and is available in a wide range of sizes, in both SDR 11 and 17 (PN16 & PN10).

Features and benefits

- Operating temperature -40°C to +60°C subject to pressure requirement
- Light in weight
- Comprehensive system including full range of pipes and fittings
- Fusion weld or mechanical installation
- Excellent impact resistance
- Excellent chemical resistance
- Polypipe Terrain's Fabrication Service is available

PE100

The PE100 system is a versatile, fast and durable high density polyethylene supply system for Industrial and Commercial applications including:

- Water supply and Distribution
- Water treatment
- Cooling water
- Pressurised waste water systems
- Transportation of chemicals

What's more, with Polypipe Terrain's Fabrication Service, systems can be made to the exact requirements for a bespoke solution – also easier, safer and quicker to install, reducing on-site installation costs and on-site waste in the process.

Effast valve range

Polypipe Effast provides the widest selection of valves across a range of materials including ABS, PVCu and Polypropylene. They are suited to a wide range of Commercial and Industrial applications and are available electrically or pneumatically actuated if required.



Our ball, check and butterfly valves are available in different sizes to fit a variety of applications – from shopping centres and supermarkets to hotels, pharmaceuticals, factories and mines. Our range of Effast valves include:

- Ball Valve
- Check Valve
- Wafer Check Valve
- Air Release Valve
- Diaphragm Valve
- Pressure Relief Valve

Butterfly Valve

This high-performance butterfly valve is ideal for shut-off or flow regulation applications. It has greater flow rates and reduced pressure drop across the valve, along with fine control, integral seal and ease of actuation.

Economy vs Industrial

Our industrial valves are individually tested, have extra seals providing an additional barrier and have full traceability using a unique serial number.

	Economy	Industrial
Testing	Batch tested	Each valve is tested for leaks (100% testing)
Valve handle stem	Moulded	Machined (improved accuracy)
Seals	No extra seals	Extra seals under the PTFE seats
Traceability		Each valve has a unique serial number on the valve body
Valve seats material	Mix of PTFE and polyethylene	PTFE
Seal material availability	Available in EPDM only	Available in a choice of either EPDM or FPM

Effast accessories

We've developed a range of accessories to work seamlessly with the Polypipe Effast range including bracketry, backing rings and seals as well as solvent weld and cleaning fluid. Polypipe Effast also offers a selection of accessories to complement our PE100 pressure supply system, from anti-static wipes through to electro-fusion machines.



- Galvanised and PVCu Backing Rings
- Full Faced and Stub Flange Gaskets
- EPDM Gaskets for Tank Connectors
- Pipe Clips
- PVC and ABS Cements
- Cleaner
- Brushes
- PTFE Tape
- PVC and ABS Valve Spares
- Actuator Brackets
- Valve Handles
- Seal Kits for Valves
- O-Rings for Unions
- PVC and ABS Union Spares
- Ball Valve Locking Cap

Product comparison



GENERAL OVERVIEW AND COMPARISON OF THE FOUR SYSTEM MATERIALS

Material	Sizes available	Minimum operating temperature	Maximum operating temperature	Joining methods†	Colour
PVCu	Metric 16mm - 315mm Imperial ½" - 8"	0°C	60°C	Solvent Weld	Dark grey
ABS	Imperial ½" - 8"	-40°C	60°C	Solvent Weld	Light grey
PP	20 - 110mm	-10°C	95°C (short term 110°C)	Socket Fusion	Beige-grey
PE100	32 - 1200mm SDR 17 (10 bar) 20 - 630mm SDR 11 (16 bar)	-40°C	60°C	Butt Fusion and Electro-Fusion Welding	Black

The operating pressure of plastics is reduced with increases in operating temperature.

† A range of flanges and threaded fittings are available within all systems.

Sectors and applications

From shopping centres and supermarkets to factories, apartments, hotels and more, Polypipe Effast is suitable for use in a wide range of sectors. Whether it's required for treating water, delivering cold water services, or moving chemicals, we can advise on the right system for the job.

Commercial

Effast pressure systems, incorporating innovative design characteristics, are the ideal solution where boosted cold water, chilled water and vacuum applications are needed. Shopping centres, care homes, hospitals and high-rise apartment structures benefit from superb flow performance, and, where needed, exceptional pure water delivery. Featuring a light-in-weight design, Effast system components also make for easier and safer installations.

Industrial

From pharmaceutical to marine, petro-chemical to water treatment and food manufacturing, Effast valves provide a vast range of applications to deliver. Thanks to their strong construction qualities and superb chemical resilience, the Effast range of valves will ensure a smooth operation and positive results every time.

Sector	Application	ABS	PVCu	PE100	Polypropylene
Shopping Centres	Boosted Cold Water	✓		✓	
Supermarkets	Chilled Water	✓		✓	
	Boosted Cold Water	✓		✓	
	Vacuum	✓	✓		
Apartments	Boosted Cold Water	✓		✓	
Hotels	Boosted Cold Water	✓		✓	
Care Home	Boosted Cold Water	✓		✓	
Data Centre	Chilled Water	✓		✓	
Hospital	Boosted Cold Water	✓		✓	
	Chilled Water	✓		✓	
	Vacuum	✓	✓		
	Deionised Water	✓			
Chemical Manufacturing	Acid Lines		✓		✓
Brewing	Chilled Water	✓		✓	
	Cold Water Lines	✓		✓	
	Water Treatment	✓	✓		
Factories	Cold Water Services	✓		✓	
	Water Treatment	✓	✓		
	Vacuum	✓	✓		
Marine	Cold Water Services	✓			
	Water Features	✓	✓		
	Bilge Water	✓			
Pharmaceutical	Chemical	✓	✓	✓	✓
	Deionised Water	✓	✓		
	Chilled Water	✓			✓
	Waste Water Treatment	✓	✓		
Water Feature Installers	Boosted Cold Water	✓	✓		
Petro-Chem	Chemical Lines	✓	✓	✓	✓
	Water Supplies	✓		✓	
	External Fire Mains	✓		✓	
Water Treatment Installers	Deionised Water	✓			✓
	Grey Water	✓	✓	✓	
Power Generation	Waste Treatment	✓	✓		✓
	Chemical Production		✓		✓
	Chilled Water	✓		✓	
	Reactor Cooling	✓		✓	
Printing Industry	Ink Conveying	✓	✓		✓
	Deionised Water	✓			✓
Water treatment	Grey Water	✓	✓	✓	
	Chemical Lines	✓	✓		✓
	Aeration Lines			✓	
Water Supplies	Water Mains			✓	
Food Manufacturing	Chemical		✓		✓
	Deionised Water	✓			
Mining Industry	Water Services	✓		✓	
	Slurry Lines			✓	
Renal Industry	Deionised Water	✓			

Polypipe Effast

When you're under pressure to complete your next Industrial or Commercial project, you can rely on Polypipe Effast to deliver on quality, support and performance. It's what you'd expect from a leading UK manufacturer with more than 40 years in the trade.



Support under pressure

When it comes to our plastic pressure systems, you not only get a wide choice of materials, but quality valves designed to maintain optimum flow rates. What's more you'll have the dedicated support of our sales and technical teams at every stage of your project.



Quality under pressure

Our innovative range of plastic pressure systems come with the widest range of materials and choice of valves designed to maintain optimum flow rates. What's more, they consistently achieve quality approvals, including WRAS and BSI Kitemarks.



Performance under pressure

You can depend on our plastic pressure systems for a wide choice of high performance materials and valves. Plus, with our national network, we can deliver next day*.

*On orders submitted on a working day before 5pm

That's **Polypipe Effast**

Plastic pressure systems product guide



Polypipe Terrain

New Hythe Business Park
College Road
Aylesford
Kent
ME20 7PJ

Tel +44 (0) 1622 795200

Fax +44 (0)1622 795263

Email effast@polypipe.com



Printed on 100% recyclable chlorine-free paper. All inks used on this brochure are vegetable based.