

Durable Polypipe Effast solution saves injection moulding company 25% of cooling costs



EFFAST

Polypipe's Effast ABS products provide a robust, lightweight system that reduces pressure loss. The pipe and fitting systems offer a safe and secure choice for chilled or potable water, food stuffs and beverage applications in a commercial environment.

Effast ABS deliver more efficient cooling system.



The use of Polypipe's Effast ABS products has helped to deliver a new, more efficient cooling system for a heavy pressure plastic injection moulding business based in the West Midlands. Manufacturing components for the building industry, the company's moulding process relies on effective cooling to ensure that the shape of the products is maintained as the mould is removed.

As a forward-looking business that seeks continuous improvement, the company was keen to invest in a modern and reliable cooling system that would provide long term efficiency for its moulding process.

Advanced Pipeline Supplies was tasked with the installation of a simple, flexible cooling ring main that could serve all injection moulding machines at the site. Based on their experience of previous installations, APS was able to advise on the optimal design and layout for the company's new system.

With the machines being served by a single cooling ring main, system reliability was key to the project as any maintenance downtime would mean production at the facility would have to be halted. This led APS to specify Effast ABS pipes, fittings and valves. These products offer ductility, impact strength and chemical resistance to the corrosion inhibitor used in the moulding process, making them ideal for the new cooling system. As Effast ABS products are also lightweight and easy to install, this helped APS to complete the project quickly and get production up and running as soon as possible.

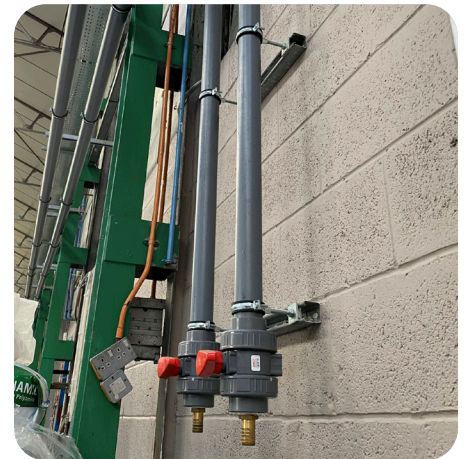
Ensuring the best durability will help to minimise the need for future upgrades. The potential for expansion and contraction of the pipeline was calculated given the ambient and working temperature, taking into consideration likely fluctuations between the seasons. The pipework was then pre-stressed on installation and the bracketing adjusted to allow sufficient movement.

With an eye on future growth, APS selected a 3" pipe bore size. Although oversized for current flow rates, this has left capacity for the addition of further production machines, without the need for expensive, time consuming work to replace the cooling main.

Delivering this reliable and efficient approach has led to a 25% reduction in cooling costs for the company, with a payback period on the system of less than 2 years.

The company's managing director, Naser Khan, commented:

"Many thanks to APS and Effast for their help in the design of our chilled water system. This has turned out to be great value and we've already extended the pipework to accommodate future growth. Clean, lightweight and relatively simple to install, Effast ABS pipework will give us years of corrosion free cooling."



CASE STUDY

Project

Plastic Injection Moulding Cooling System

Application

Injection moulding chilled water ring main

Product

ABS Pipe, Fittings and Valves