

# Plastics processing machinery

The UK plastics machinery sector is typified by efficient, innovative and flexible companies that are operating at the cutting-edge of technology



**A**s such they are able to respond quickly to their customers' new requirements and ensure that they remain highly competitive in the global market. Customer service and support is also widely acclaimed. UK companies tend to be environmentally conscious and the design and manufacture of their products is to the highest environmental standards.

The 120 small to medium-sized plastics processing machinery equipment manufacturers operating in the UK have evolved away from the production of mainstream processing equipmen. The national effort is now behind control and ancillary equipment, small-scale processing machines and testing equipment. The industry has responded to the implementation of stringent recycling legislation in the UK by developing a range of reprocessing technologies and equipment and it is now a world leader in this field. The focus across the sector is on high-quality, bespoke equipment servicing niche markets around the globe.

## UK – THE LEADERS

UK companies are responsible for many ancillary innovations which can add significant value to the manufacturing process by improving quality and performance and reducing cost. Firms such as Cinpres Gas Injection lead the world in the application of assisted moulding technology - an important technique that is pushing the boundaries of plastics applications. Gas-assisted

moulding enables the production of shapes that were previously thought impossible. The process, which can now be more accurately controlled through gas-phased pressure controllers, also allows components to be made significantly lighter than before. Meech Static Eliminators provide technology that leads the way in process improvement. Moreover, the company focuses on solutions to address four principal areas: static control, ESD/ESA, air technology and surface cleaning, each supported by a team of trained and experienced technical staff.

The UK is at the leading edge for high value-added manufacture in areas such as medical or optical components, controlled environment and clean room technology; strenghts that build on the UK's reputation for design and quality.

Joining technology from companies such as Phasa Developments and MSA Engineering is also a notable UK strength. Plastic Hot Air Stake Assembly (PHASA) re-forms extensions on mouldings to create multiple fixings simultaneously without additional parts or their associated costs. Thermoplastic assemblies produced by this method are strong, tight and stable.

There are a range of machines available with tooling for most applications in the automotive, electrical and white goods industries, as well as other niche requirements.

In terms of processing machines, companies such as MCP are providing all-electric mini-moulding machines that rival the best in the world, while the innovative processing of ➤

**The sector's particular strength lies in what it can offer in terms of high-quality, bespoke processing, test, process measurement and ancillary equipment**





The technology gives manufacturers a controlled and cost-effective process to produce a high-quality, highly engineered range of products



composite materials is supported by Plastech Thermoset Tectonics. Plastech TT develops and supplies leading-edge machinery, equipment and tooling technology solutions to manufacturers using materials such as fibre-reinforced plastics. The technology gives manufacturers a controlled and cost-effective process to produce a high-quality, highly engineered range of products from simple, general mouldings to components for clients in the aerospace industry.

The UK boasts a strong materials testing sector serving the plastics industry, as well as rubber, composites and associated textile manufacturers. Test equipment companies such as Hounsfield, Instron and Tinius Olsen have excellent reputations in providing accurate measurement of the physical properties of plastics products down to very precise detail. Test equipment is manufactured to meet the needs of materials engineers, quality managers and those involved in research and education. UK specialists also lead the world in the development of new testing methods at ISO and ASTM

standards, as well as providing engineering, service, training and front-line support.

Overall, UK plastics machinery design is well regarded. It is recognised for the particular emphasis that is placed on adding value to the product through the design process as well as a strict adherence to specification. The sector relies heavily on exports and, indeed, it puts its expertise and technological know-how to highly effective use in enhancement and re-export. This means that, in general, more machinery is actually exported than produced. UK machinery manufacturers are working with some of the world's finest research establishments situated in the UK's universities to improve the efficiency and capability of plastics processing. ■

**i FOR MORE INFORMATION**

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