

OVERMOULD™

OptiMel Equipment



Who We Are

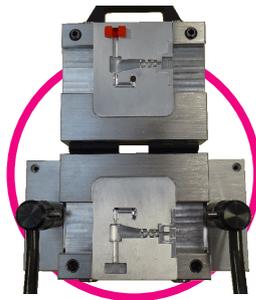
OVERMOULD™

Overmould Ltd is a sub-contract manufacturer specialising in the sealing, encapsulation and protection of electronics using Low Pressure Injection Moulding (LPM) technologies. We work with our customers to provide complete turnkey solutions and support including: design, engineering, tool manufacture, prototyping, assembly, overmoulding and testing.

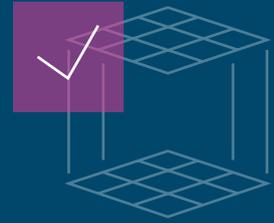
We Safeguard Your Electronics

Using Henkel Technomelt polyamides we are able to provide advanced protection for electronic circuitry in tough environments. In just one or two mould steps, assemblies can be converted from delicate electronic structures to robust, ready-to-market products. The automated processing, throughput and cure time advantages that Technomelt delivers simply cannot be

matched by older-generation encapsulation methods. Low Pressure Moulding provides mechanical integrity, protects solder joints from vibration fatigue and the entire assembly from the atmosphere and liquids that could promote corrosion or conductive paths.



OptiMel BASEline Low Pressure Overmoulding Equipment



Compact design & cost effective automatic overmoulding with easy operation. Suitable for a wide range of projects in Low Pressure Moulding.

From electronic PCB's to cables, backshells and grommets.

The OptiMel BASEline low pressure overmoulding machines combine a compact, benchtop design with easy, convenient operation and enable a range of automatic options for small to medium shot weights and / or throughput volumes.

The Siemens S7-1200 control with touch panel means the series offers the same ease of use and intelligence as the larger series.

The OptiMel adapted melt unit can be fitted with a double-acting piston pump and a capacity of 1kg per hour, enabling efficient processing of small to medium shot weights and / or quantities. There is also an option to upgrade to a precision gear pump for more precise metering of the material injected. The clamping force of up to 9 / 12 kN is suitable for moulding surfaces up to 3000mm.



Features

- Machines for small and medium series production as well as small to medium component sizes
- Clamping force for components with a maximum total moulding surface of approx. 3000mm (at maximum pressure of 40 bar)
- Melting capacity for small to medium shot weights and/or small to medium annual quantities. Different size melt tank options
- Individual components can be selected specific to a project
- Siemens S7-1200 control with touch panel and convenient operation by pictograms
- Integrated melting unit with double-acting plunger pump, or with gear pump.

OptiMel FLEXline Low Pressure Overmoulding Equipment



Designed for medium to large scale production.

The OptiMel FLEXline low pressure overmoulding machines are designed for medium to large scale production. The systems offer maximum flexibility both at the time of purchase and into the future, thanks to the modular structure of the system design, which enables upgrades and add-ons for implementing special functions.

Extensive peripherals and additional options complete the system so that the Flexline can be optimally tailored to the requirements of the particular project. In addition, various application systems including hot runner systems with different nozzle geometries and arrangements are available.

The melting units can be matched to the requirements of the respective project with different melting and conveying systems. In the case of different or changing project requirements, these can be exchanged at any time using OptiMel's innovative "plug-and-play" system.

The adaption or addition of individual components is just as possible as special integration into a complete production line.

Features

- Machines for medium to large serial production
- Flexible project-specific combination of machine components.
- Mass pressure adjustable 5-40/60 bar
- Different melting units with melting capacity for medium to large shot weights and/or medium large annual quantities.
- Clamping force for components with a maximum total molding surface of approx. 9.500mm² (at maximum pressure of 40 bar)
- Siemens S7-1200 control with touchpanel and convenient operation by pictograms

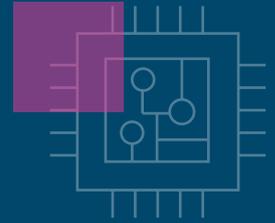


OptiMel's New LPM Technology

The Hot-Melt Extruder

OptiMel have designed and developed a first in the LPM field, a Hot-Melt Extruder system that is designed specifically for use with Hot Melt materials. Their system has been tailored to the requirements of the LPM process, as the pressure spikes that are common with existing extruders are not present with the system. This means that pressure sensitive parts and components can also be processed without issue. In short, the system works by combining the

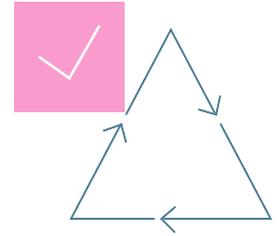
extruder with a piston pump that is located after the extruder. The piston pump is filled via the extruder, meaning that the pump only contains the exact amount of molten material that is required for the next moulding cycles.



The main advantages of this system are:

- Materials can be melted/moulded quickly
- Pressure spikes are avoided
- Higher viscosity LPM materials can be processed
- Only the required amount of material is “melted” and “stored” for each moulding cycle

Materials Designed for the Best Results



Henkel Technomelt® Polyamide

Technomelt is a unique polyamide designed for the electronics industry. It delivers exceptional insulation properties, great physical strength and excellent adhesion to cable sheaths, metals, plastics and other materials. It is extensively used in aerospace, medical and automotive industries and is now readily available through Overmould, Henkel's UK partner. In house design, consultation, pre-production services and demonstration facilities are based in Bedfordshire, England, which is also our centre of expertise for service and support and the sale of LPM equipment and LPM materials. Technomelt is increasingly used in industry to achieve cost and performance advantages. As a robust alternative to traditional potting and encapsulation techniques, Technomelt brings improved reliability, reduced manufacturing times and ultimately superior products.



TECHNOMELT®

SPEAK TO A MEMBER OF OUR TEAM TODAY TO DISCUSS HOW YOU CAN IMPROVE THE ROBUSTNESS OF YOUR ELECTRONIC ASSEMBLIES.



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