NEWS RELEASE

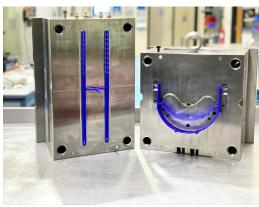
WITTMANN BATTENFELD UK Ltd helps TML Ltd take the fight to the COVID-19 virus

WIBA UK technology has been helping ISO 13485 qualified injection moulder Thornbury Manufacturing Limited (TML) produce Covid-fighting PPE equipment in record time.

The Plymouth-based TML's medical and healthcare work has been steadily expanding to the point where it now comprises some 44% of total business and its ISO 13485 qualification (2016) was renewed some two years ago.

Fast responses were needed in the early days of the pandemic and word would have reached public procurement ears of TML's medical manufacturing reputation. A significant order – via UK Government sources – came in for a new design of face shield; design-for-manufacture and production services were urgently needed. Both TML's material supplier, (Distrupol) and its toolmaker (Mouldtech Solutions Paignton) all put their shoulders to the wheel in the service of the public need. TML's founding experiences on the automotive supply-side immediately came into play in terms of the need for extensive production and process validations, CAP (dimensional) studies and ongoing inspections and other protocols for the new item.





TML Founder and Managing Director, Dick Walsh, says that "the time line for tools for this emergency was set at just 21 days. The material used to make the tools was P20 steel, on the soft side but good enough for our purposes as we were moulding a medical grade of polypropylene."

Walsh says that "Simon Clegg at our material partner, Distrupol, fast-tracked the Mold Flow software operations in order to highlight the best gate size and position, the fill pattern and fill times, cooling and cycle times, all of which proved to be very accurate at the first tool trial. Production there began on time with customer approval on day 21."

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Walsh recalls that six workstations were then set up. Full work instructions and operator training were then achieved within a couple of days. The first 5,000 sets of face shield packs were packed in 4 working days.

Walsh points out that the medical validation process is a necessary and complex part of the whole order.

"All of our medical parts have to go through a mould tool verification process which include the following: Signature Identification; Installation Qualification; Visual Mould Tool Inspection; Test and Reference measuring Instruments; Installation and Start-up; Auxiliaries and Ancillaries; Operational Qualification; Process Optimisation; Shrinkage Study; Process Window/DOE; First Article Inspection; Dimensional Qualification/Capability."

It is here – in this validation aspect – that the accuracy, repeatability and reliability of the WITTMANN BATTENFELD equipment provided additional benefit to the moulder. Walsh explains that "the most time-consuming part of the medical verification consists of the capability studies. This involves measuring various numbers of components that have been produced during three × three hour production runs. Normally we measure up to 125 parts on key dimensions with an acceptance criteria of CPK 1.66."

Walsh says that "having carried over fifty of these medical validations we have found that the repeatability of the new WITTMANN BATTENFELD machines are so good that any variation whatsoever on part dimension can be attributed to operator measuring error rather than machine variation."

TML was able not only to validate and mould key items but to also deploy the six work stations to also assemble the face shields and to then sanitise and double bag them for despatch.



In all TML's manufacturing, WITTMANN BATTENFELD UK machines and ancillaries have been a constant – whether the workhorses of vertical injection moulding machines or the two new **SmartPower** production cells. Reliability and production repeatability have been key areas here.

Founded as a contract moulder nearly twenty years ago the TML business has grown from strength to strength since. The company now employs some 26 people operating on a site footprint of nearly 20,000 sq feet. A prompt and ready delivery service, coupled with machine reliability has been rewarded over the years with repeat business and support for TML's continuing advances into the medical sector. Investment in new WITTMANN BATTENFELD injection moulding machinery and other equipment has helped TML to raise its production volumes in recent months.

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"We value our partnership with WITTMANN BATTENFELD UK", notes Walsh. "Our customers and clients expect continuous and fault free engineering and production from TML – and these are the qualities that we also find in our growing fleet of WITTMANN BATTENFELD injection moulding machines."

Walsh adds that "the overall performance of our WITTMANN BATTENFELD range of machines is extremely high, low maintenance and problem free. When we do need some help the service from WITTMANN BATTENFELD UK is first class."

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The WITTMANN Group

The WITTMANN Group is a globally leading manufacturer of injection molding machines, robots and auxiliary equipment for processing a great variety of plasticizable materials – both plastic and non-plastic. The group of companies has its headquarters in Vienna, Austria and consists of two main divisions: WITTMANN BATTENFELD and WITTMANN. Following the principles of environmental protection, conservation of resources and circular economy, the WITTMANN Group engages in state-of-the-art process technology for maximum energy efficiency in injection molding, and in processing standard materials and materials with a high content of recyclates and renewable raw materials. The products of the WITTMANN Group are designed for horizontal and vertical integration into a Smart Factory and can be interlinked to form an intelligent production cell.

The companies of the group jointly operate eight production plants in five countries, and the additional sales companies at their 34 different locations are present in all major industrial markets around the world.

WITTMANN BATTENFELD pursues the continued strengthening of its market position as a manufacturer of injection molding machines and supplier of comprehensive modern machine technology in modular design. The product range of WITTMANN includes robots and automation systems, material handling systems, dryers, gravimetric and volumetric blenders, granulators, temperature controllers and chillers. The combination of the individual areas under the umbrella of the WITTMANN Group enables perfect integration – to the advantage of injection molding processors with an increasing demand for seamless interlocking of processing machines, automation and auxiliaries.