



INDUSTRY: Automotive

PROJECT: Leak testing & trepanning

CUSTOMER: Bolton Plastics

## THE CHALLENGE

TF Automation has been working with Bolton Plastics, market leaders in the manufacture of blow-moulded automotive components, since 2007, supplying around 75 special purpose machines plus checking fixtures, test equipment and assembly aids. Bolton Plastic's client required HDPE air ducts to cool batteries in their electric vehicles.

The brief for TF was to design and engineer a slave machine to fit Bolton Plastic's host machines to be capable of producing parts to match the blow-mould cycle time. The machine was specifically required to check every part for holes before manufacture, cut the ducts using swarfless cutting technology with no debris being left in the duct, whilst also minimising operator load / trimming time.

## THE SOLUTION

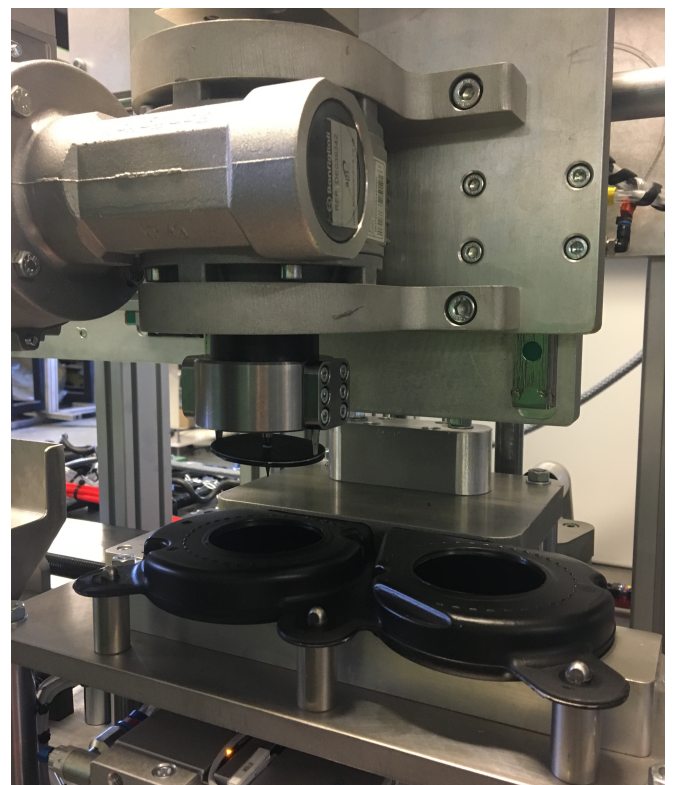
Using the client's CAD data to ensure a perfect fit, TF manufactured a one-station special purpose machine that clamps the parts into CadCam 3D machined nests, for leak testing prior to manufacture.

The waste parts are then removed by careful knifing, ensuring no internal swarf or dust is left in the duct and then twin trepanning of two Ø50mm holes is performed.

The disks are retained on the pin, lifted clear and ejected down a chute with sensors. If the discs are "not seen" the parts are automatically "locked" inside the machine and the operator notified.

The ejected disks and any waste parts are fully recycled back in to Bolton Plastics manufacturing process, ensuring minimal wastage.

The electrical control cabinets were also built in-house and the machine plcs programmed by TF staff, ensuring that any changes can be accommodated quickly and efficiently.



## GET IN TOUCH

TF Automation is a team of dedicated designers and engineers working with manufacturers across a wide range of industries on process automation projects. With over 40 years' experience, we have the ability to assess and understand the needs and requirements of each individual project and customer ensuring the optimum solution.

For more information on this and other projects, please contact us!  
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## INDUSTRY SECTORS

