

# Midas touch provides Design Edge for Genevac

TO design its new personal evaporator, Genevac called on the services of Cambridge-based DesignEdge, having worked successfully before with this company. 'Many of Genevac's earlier machines featured sheet metal covers with just a small number of mouldings,' explains DesignEdge co-director Alasdair Barnett, 'but for the Rocket Evaporator they were looking to us to develop something really stylish.'

Genevac personal evaporators are used in drug discovery applications at pharmaceutical research laboratories worldwide, in an environment where high-level functionality is expected to go hand-in-hand with stylish aesthetics. The new Rocket Evaporator has been designed to concentrate and dry the contents of up to six 450ml sample flasks in parallel, very rapidly, and if required, to concentrate the samples directly into small vials, all without any user intervention, thus improving productivity and freeing users to concentrate on other scientific tasks.

After exploring several different aesthetic, material and manufacturing process options, DesignEdge selected the design based on the use of MRIM, a process developed by Midas Pattern Company that entails the manufacture of a composite resin mould tool directly from a CNC machined master model or pattern. This technique enables very complex forms to be produced accurately, quickly and very competitively. MRIM can produce mouldings with square faces, undercuts, metal inserts, bushes and features that would normally need to be



machined. These can now all be cast into PU mouldings. MRIM tooling can also be modified at relatively low cost and with little difficulty in comparison with traditional injection mould tooling.

Barnett explains: 'Using MRIM you get a stylised moulded unit and that proved to be very attractive to Genevac. Furthermore the team at Midas has the ability to create a single moulding, eliminating the need for many smaller components, while colour banding is also easily incorporated. Perhaps the deciding factor, however, was that the anticipated volumes of around 500 a year did not lend themselves

to traditional injection moulding, but were perfectly suited to the faster and more economic MRIM process.

'Midas' advice proved invaluable; this particular project pushed what can be achieved by a single moulding to the limit. For instance, the casing has side actions that require undercuts and holes not on the line of draw. It required plenty of thought in terms of how to break the tooling down to create a single moulding. Moreover, the tolerances required were fairly tight. Because the casing is a single moulding it has to pass down over the top of the chassis during assembly, hence the tolerances need to give a 'slide' fit rather than an

interference or clearance fit. For this reason we decided to include zero draft on certain ribs and fixing bosses. Midas Pattern demonstrated a proactive approach from the outset; they hit all the deadlines and no problem proved insurmountable.'

[www.midas-pattern.co.uk](http://www.midas-pattern.co.uk) [www.designedge.co.uk](http://www.designedge.co.uk) [www.genevac.org](http://www.genevac.org)