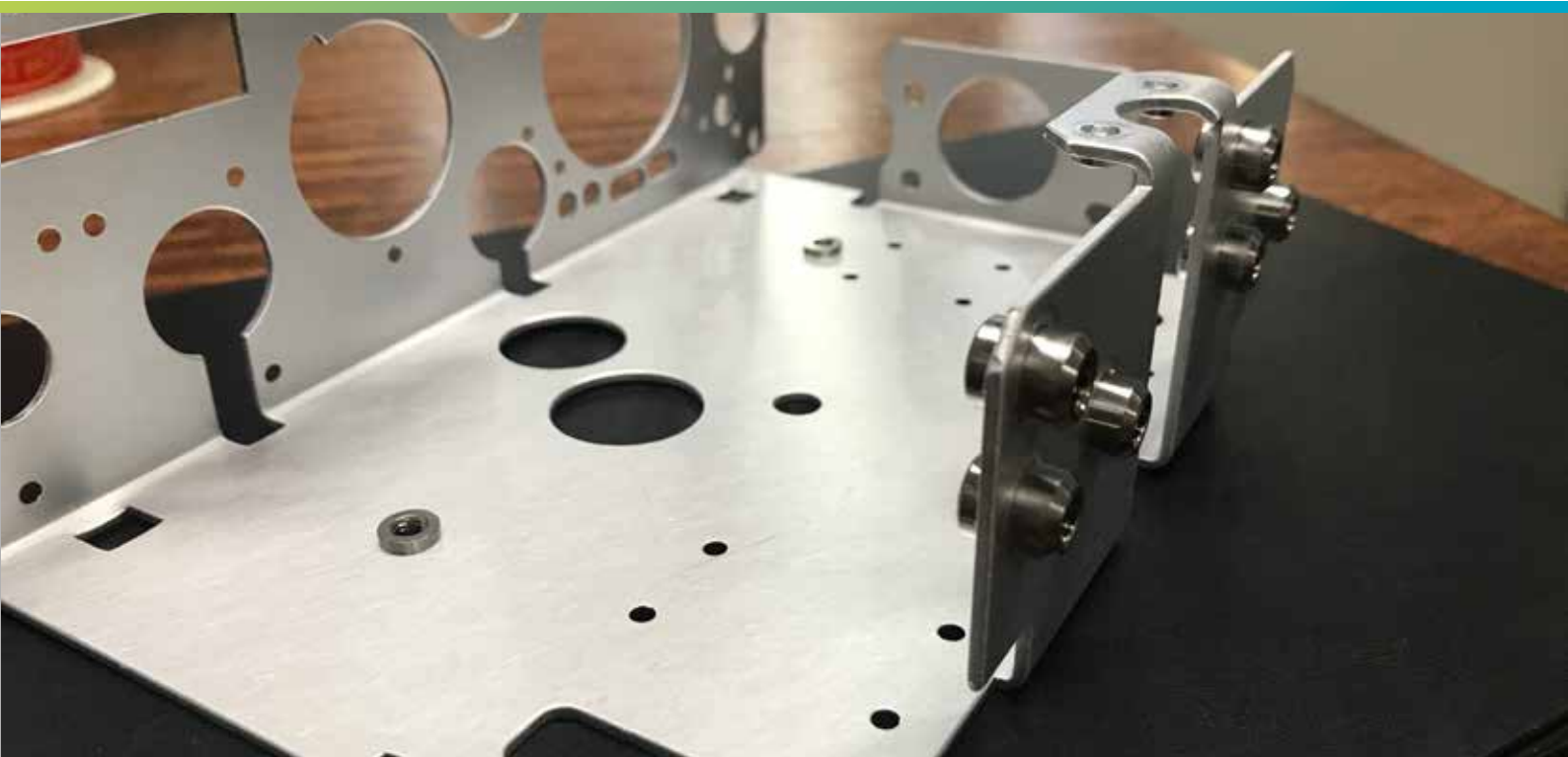


A Month's Work in Days to Combat COVID-19

RADAN helps HV Wooding prototype and manufacture essential ventilator parts



HV Wooding Ltd

A company making heater plates for medical ventilators, suddenly found its annual order of around 160,000 doubled immediately, as the Coronavirus crisis took hold.

HV Wooding Ltd have produced heater plates for ventilator humidification chambers since 2004. Then in the fight against COVID-19, their customer, Intersurgical, increased the order substantially.

And, at the same time, they were also asked to prototype three components for a ventilator for the Ventilator Challenge UK Consortium. HV Wooding's Sales Director Paul Allen says while their core business is in the energy sector – making parts for renewable energy, power generation, conversion and distribution, and electrical switchgear – they have also manufactured components for the medical sector for 30 years.



Laser

So, when they were asked to take part in the UK Consortium, their expertise in CNC laser cutting, programmed with RADAN sheetmetal software, meant they were ready to join the battle to save lives.

The consortium of significant UK industrial, technical and engineering businesses from the aerospace, automotive and medical sectors came together to prototype and manufacture two agreed designs of much-needed ventilators, based on existing technologies.

Wooding's customer Williams Advanced Engineering were working on prototyping the ventilator and required three aluminium components for the chassis and front plate of the ParaPAC 300 ventilator. "We created and produced five off, over the weekend," says Paul Allen. "They were very well received, and we then moved to the next stage, which was to get the parts to conform 100 per cent to requirements and into full production.

Rolls Royce was managing the supply chain for the additional ParaPAC 300 ventilators, which are a Smiths Group Medical division's product, to ramp up production from hundreds to thousands a month and assembled at a dedicated duplicate production line at Smiths' Luton plant. Several companies were working on the production of vital components, as Smiths expanded its supply chain capability through the consortium, to ensure a speedy response to the crisis.

"RADAN meant we could quickly condense all the necessary up-front work which would normally take at least a month, into just a few days, and we successfully manufactured and delivered 2,000 sets of each of the three components in a very short time frame."

The parts had to be laser cut and formed, then treated with inserts put in and sent on to the assembly line at Luton. And he says RADAN played a major role in meeting the challenge. "We run Trumpf fibre laser technology and use RADAN for assisting with our quotation process, as well as producing the parts from the DXF facilitating the programming, nesting and cutting.

"It meant we could put multiple parts into the program, and it nested everything in the most cost effective and efficient way."

HV Wooding have been able to keep their factory open and operational throughout lockdown, but Paul Allen says a number of measures were put in place to ensure the health and safety of their workforce, including rigorous social distancing and daily temperature testing. "A lot of effort's gone into making sure our shop floor workers have the correct equipment and space, while a number of the office staff are working from home."



RADAN Software

Case Study Summary

Company name: HV Wooding Ltd

Business: Engineering subcontractor

Website: www.hvwooding.co.uk

Key benefits achieved

- Prototype ventilator parts produced over a weekend to help fight COVID-19
- Multiple parts nested in the most cost-effective and efficient way
- Up-front work for full production completed in a few day
- 2,000 sets of vital ventilator components manufactured and delivered in a short time frame



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