

Providing a flexible,  
agile and rapid  
response from  
concept, design and  
development to  
manufacture.

# The AirCare ventilator

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## Jon Penny - Head of Manufacturing at BAE Systems Maritime Services

“The AirCare ventilator project is a clear testament to the ingenuity of our people and the innovation within BAE Systems. Maritime Services is proud to have played a key part in responding to the challenge.”

In March 2020, during the early stages of the Covid-19 pandemic in the UK, the British Government announced its national ventilator challenge to industry, asking for help to ramp up the production of ventilators, estimating that up to 30,000 ventilators would be required. BAE Systems wanted to do everything possible to help achieve this number and protect lives.

A collaborative team from across BAE Systems sprang into action, starting work immediately on an innovative idea for an entirely new ventilator (AirCare ventilator) that could be built from readily available parts and rapidly manufactured. Drawing on our high-tech electronic manufacturing expertise in Broad Oak, Portsmouth and Hillend, near Edinburgh, our engineering team helped transition the design into a production ready state within just three weeks.

The Hillend team worked on circuit boards and electronics for the ventilator, while their colleagues in Broad Oak, who specialise in complex electronic assembly and sub assembly, led the supply chain activities and set up the high-volume production capability that would allow us to build more than 1,000 units per week. In a rapid response to this critical situation, our team had the flexibility and agility to go from concept through design and development within a very tight time-scale.

The production line in Portsmouth was ready and our employees were proudly starting to build multiple units of the AirCare ventilator. By mid-April AirCare had completed initial technical testing. Staff from Naval Ships and the Air business were also seconded to support with specialist skills in systems engineering and test and evaluation.

## Ben Hudson, Chief Technology Officer of BAE Systems:

“Thanks to an incredibly dedicated and talented team who worked day and night to draw on the incredible advanced engineering and manufacturing expertise we have in BAE Systems, we went from a concept to a functioning design in just a few weeks. The combined effort from everyone involved, including our suppliers and small to medium-sized enterprises (SMEs), has been truly inspirational.”

## David Mitchard, Managing Director, Maritime Services:

“All those that have worked so very hard have done incredible things. They’ve innovated. They worked across team boundaries, within the company and with our supply chain. They have shown amazing resilience. And they have represented our company and Maritime Services brilliantly.”

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