

## CASE STUDY: VERTICAL AEROSPACE

# THE ENVIRONMENT FROM WHICH TO LEAD AN AVIATION REVOLUTION

Vertical Aerospace is a modern, exciting company, looking to change the way people travel with the creation of ground-breaking eVTOL aircraft. When they looked to develop their design and manufacturing facilities in Bristol, they approached Dura to deliver a solution that would serve to inspire the right culture and behaviours within their highly-advanced team.



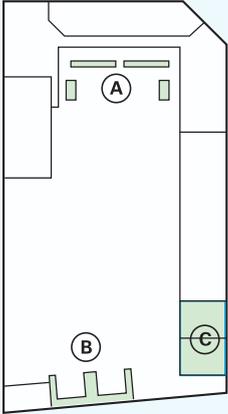
*A clean, clinical and efficient workspace*

## THE BACKGROUND

Vertical Aerospace are building technology to revolutionise how people fly, by making air travel personal, on-demand and carbon free. In 2019 Vertical Aerospace launched their second aircraft, the Seraph, becoming the first company worldwide to release footage of an eVTOL aircraft in flight capable of carrying 250kg.

Stephen Fitzpatrick, founder of Vertical Aerospace, had a vision of how he wanted the workbays to look. Taking inspiration from his previous role as a Formula 1 team owner, Stephen wanted a clean, clinical and efficient workspace ...a workspace which would inspire the right work ethic, way of thinking and behaviours.

# THE PLAN



Continuous span workstations within the assembly area

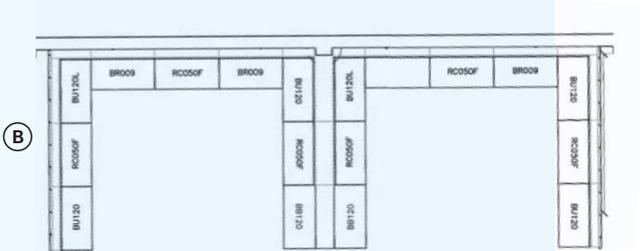
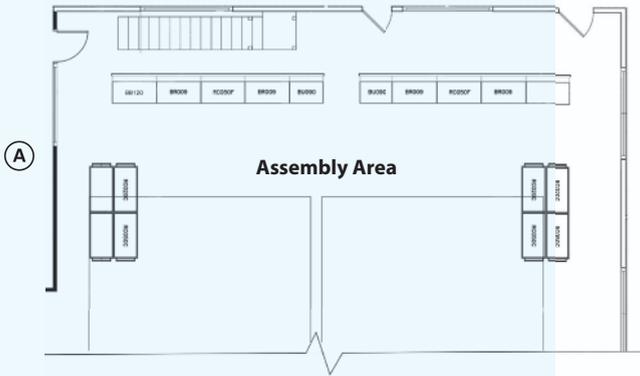
# THE DESIGN

Owen Thompson Cheel (Senior Aero Systems Engineer) and Matthew Reeds (Senior Aircraft Technician) took on the responsibility of creating the right working environment. Taking the brief given by Stephen Fitzpatrick, Owen and Matthew also wanted to ensure the environment was safe and organised, with the procedures and practices in place you'd expect to find within a modern aviation workshop. It was also key the new workshop had the flexibility to adapt to the rapidly-changing needs, as the business moves from prototype to aircraft manufacture.

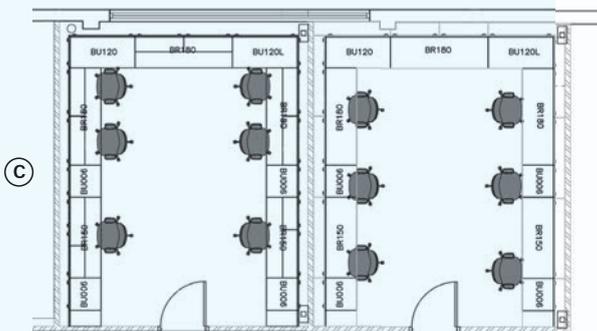
Working closely with Owen and Matthew, Dura produced an initial design by using the architect's drawings to create an environment which considered all the requirements from Vertical Aerospace, whilst taking into account all other aspects of the build.

During the consultation period, the design was adapted to coincide with changes made to the overall project. This also presented an opportunity for Dura to design a further two workshops for the clean electronics lab and metal workshop.

Once the design had been agreed upon, it was down to Owen and Matthew to secure the budget. This was achieved with the aid of 3D renders that Dura created, which gave Owen and Matthew useful material to present their vision to the CEO.



Two Bay Workspace



Electronics and Metalworks Workshops



Inside the electronics workshop



The two bay workspace



Working on a scale model

“ **The installers were really great. They showed professionalism throughout and their attention to detail was brilliant. Dura are a really good partner for Vertical Aerospace, a British manufacturer who we will look to work with again on future modifications. It was a pleasure working with everyone involved at Dura** ”

**Owen Thompson Cheel**  
Senior Aero Systems Engineer

## THE RESULTS

Dura designed and installed four separate workspaces for Vertical Aerospace, each created specifically for the environment it was intended, whilst complementing the overall project aesthetically.

Vertical Aerospace now have the clean, organised environment they desired. Giving Owen and Matthew the base to promote the right culture, behaviours and ethics needed in a modern aerospace company to inspire future growth.



Mobile workstations to bring 'tools-to-task' for efficient working



## PROJECT NOTES

This project included the following key features

### ASSEMBLY AREA

- **Low-level furniture consisting of:**
  - Drawers for tool storage
  - Cupboard space for larger items
  - Network and 240v sockets on back panels
  - Partition wall
  - Compact resin worktops
- **2 x mobile workstations each with:**
  - 2 x large drawer units for large tools
  - 2 x multi drawer units for mobile tool sets
  - Compact resin worktops

### TWO BAY WORKSPACE

- **2 x workbays consisting of:**
  - Drawers for tool storage
  - Cupboard space for larger items
  - Network and 240v sockets on back panels
  - Space for engineers to sit at the workbench
  - Compact resin worktops

### CLEAN ELECTRONICS WORKSHOP

- **Individual work stations for 5 engineers**
  - Drawers for tool storage
  - Cupboards for larger items
  - Shelving
  - Network and 240v sockets on back panels
  - 2 metre high back panels
  - ESD (electrostatic dissipative) worktop

### METAL WORKSHOP

- **Individual work stations for 5 engineers**
  - Drawers for tool storage
  - Cupboards for larger items
  - Network and 240v sockets on back panels
  - NVT worktop



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