## What you can expect to learn

Hospital AP(V)	Mechanical Engineer / Design Engineer
Why do we ventilate?	Considerations for design (How the UCV works within the system).
How AHU's function and work.	An example of how the systems you design are commissioned, validated and serviced.
Your responsibility under Part B.	A cross-section of the AHU's available to you.
Understand how to witness test.	How the hospitals of the future will look.
Understand Howorth and how we work.	A discussion on Net Zero and sustainability in healthcare.
Understand why we use UCV systems.	Turnkeys and how a designer can make the space more ergonomically friendly.
Understand the changes of HTM 03 (2007 & 2021).	Considerations of the OR – low level out paths, remote and integral UCVs.
An explanation of the greenhouse – the very first UCV system designed by Howorth.	An assessment of the VSG and how it fits in / should be managed.
Assessment of HTM 03 and HTM 00.	Understand the changes of HTM 03 (2007 & 2021).
How you are / should be supported by your VSG.	How a project should be delivered to commissioning.
How the project should be delivered to commissioning.	Theatre control panels – what should you specify at design.
Understand the different methods of filter testing and how we quantify (DOP & DPC).	An understanding of Part B and what happens once handed over.
Demonstration of airflow measurements on UCV canopies and how to assess them.	An understanding of microbiological sampling.
Demonstration of non-entrainment testing.	Light and noise levels required at design and an assessment of LG2.
Smoke visualisation of the UCV system in a pressurised room.	
An understanding of microbiological sampling.	
How we support our people and mental health awareness.	
Net Zero – and how you can help.	

A snapshot of our Pharma business unit.

# Don't just take our word for it...







"Enjoyable and well delivered course."

- "The walk around and example of commissioning was great and helped to explain the slides well."
- "The history of the UCV and developments in HTM 03 were very interesting."
- "Very informative and up-to-date presentations, really well structured day, well worth the commitment." Associate, Wallace Whittle.
- "Very Informative, will be helpful for future designs." Senior Mechanical Engineer, CAD 21.

"Very informative and thank you all for your hospitality." Mechanical Engineer, CAD 21.



For more information visit: howorthgroup.com



Clean air pioneers since 1858

Howorth

Air Tech

# Ventilation Training

For all healthcare professionals.

# Learning Outcomes



Howorth pride themselves on supporting the critical ventilation industry.



- An understanding of HTM 03 01 Part A, Design & Validation.
- An understanding of HTM 03 01 Part B, Operational Management & Verification.
- Understand how a UCV canopy functions.
- For witness testing, understand DOP, Airflow Velocities & Non-Entrainment Testing (with demo's).
- Understand the importance of why we ventilate critical areas.

Contact one of our team to sign up for a 1-day, CPD accredited ventilation workshop. service@howorthgroup.com

Our ventilation workshops give you an insight into the specialist equipment noted in HTM 03 and used within our industry including:

- Smoke Visualisation



### About the workshops

- Smoke Generators
- Aerosol Photometers
- Thermal Anemometers
- Particle Counters

All demonstrated as part of the CPD sessions delivered within our product development operating theatre at our HQ in Bolton, Lancashire.

You will gain an understanding of what we are trying to achieve, but more importantly what you are looking for.

We cover many areas in a short space of time. So, if your responsibility is to design a full new operating theatre block, or to manage, maintain and keep the critical ventilation systems functioning – our CPD Days are for you.