



A First Downflow Booth in Nano Powder Production

The Containment Division has recently supplied a high tech Vitalair Downflow Booth to QinetiQ Nanomaterials Ltd based in Farnborough. Installed in its nanopowder production facility, it is thought to be one of the first installations of its kind in this revolutionary field.

QinetiQ Nanomaterials is a wholly owned subsidiary of QinetiQ Group plc, Europe's leading science and technology organisation, formed from the majority of the UK Governments Defence Evaluation and Research Agency, which specialises in providing technology solutions across many different and varied fields.

Nano material technology is an exciting field at the leading edge of powder and particle science and has applications in its fields as far apart as aero technology and medicine.

The Downflow Booth forms part of the powder handling system for QinetiQ Nanomaterials and according to Dr A J Shakesheff of QinetiQ, 'enables powders to be handled in a safe manner in a semi-enclosed environment and prevents release of powders into the rest of the production facility'.

The Vitalair Downflow Booth fully conforms to cGMP and FDA manufacturing standards with flush internal and external panel construction designed to minimise crevices and facilitate easy cleaning. Designed in the downdraft, recirculating airflow format with vertical laminar airflow having approximately 600 air changes per hour the Downflow Booth provides a safe operator environment, essential in nanomaterial production, by using proven Hosokawa Micron booth technology.

To handle these particular powders the booth layout was specifically designed and engineered to have an external fan/filter plenum, incorporating explosion relief venting.

The Downflow Booth also contains a sink and static/mobile work benches with an overhead mounted, sliding, clear polycarbonate screen for additional operator protection whilst handling powders to very high containment level.



'Our choice of supplier was heavily influenced by Hosokawa Micron's experience with powder handling and expertise in the design of laminar flow booths', concluded Dr Shakesheff.