

OXFORD NANOPORE TECHNOLOGIES HARWELL SCIENCE AND INNOVATION CAMPUS, UK

Project Overview

Project	Oxford Nanopore Technology
Location	Harwell Science and Innovation Campus, Didcot, Oxfordshire
Application	Specialist Device Manufacturing
Walls	M100 (100 & 200mm), 7m high, multiple lifts (under floor plenum barriers, cleanrooms, and plenum walls) all with inert cores, factory formed to suit services and equipment.
Ceilings	Flush walk on plank ceiling with factory formed cuts out for light and HEPA Filters and specialist plenum cap
Doors	Solid, Flush-Glazed, Fire Rated, Single, Double, Emergency Exit and bespoke sizes
Glazing	Flush full-height and flush vision panels with specialist yellow film to protect manufacturing processes.
Miscellaneous	Structural framework to support and integrate sensible cooling coils and built in handrails.
Performance	Operating at better than ISO 4 classification. Non-shedding, smooth and impervious. Demountable wall panels. 60-minute fire rating and Class 0 fire rating to BS 476 Parts 22, 6 & 7. Up to 52dB Rw sound reduction to BS EN ISO 10140-2: 2010

Background

TSquared were selected by Oxford Nanopore Technologies as Main Contractor for their new cleanroom production facility on the prestigious Harwell Campus. The production cleanrooms had to be ultra-clean to manufacture DNA/RNA sequencing devices.

Brief

The production cleanrooms for the sequencing devices required ISO 4 & 7 Classifications and had to meet the stringent requirements for their specialist manufacturing process which are aligned with semiconductor processing. Due to the high level of process services required and strict operating conditions, the cleanroom had to support the specialist services and HVAC solutions to meet the critical operating parameters and production processes.

Solution

MIDDAS designed, manufactured, and installed structural cleanrooms from their proven range (M100) and specialist Walk-on Ceilings/Plenum Cap (MWOC). The M100 framework was engineered to support the sensible cooling coils and HVAC supplies, along with the process utilities used within the facility. The cleanroom wall panels could also be removed to access the services throughout the life of the facility and had inert aluminium cores to ensure the cleanroom classifications were met. A unique feature of the MIDDAS solution was the plenum cap, designed and engineered to support the fan filter ceiling below. Integrated handrails to the walk on ceilings also ensured a safe maintenance platform.



“MIDDAS were able to demonstrate they had the knowledge, experience, and manufacturing capability to deliver this complex project and as primary manufacturers they were able to develop their cleanroom systems to meet the unique requirements required for this world class facility”

Alan Simpson
Director



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