

TROX AIR HANDLING UNITS CHOSEN FOR AWARD-WINNING UNIVERSITY OF HUDDERSFIELD OASTLER BUILDING

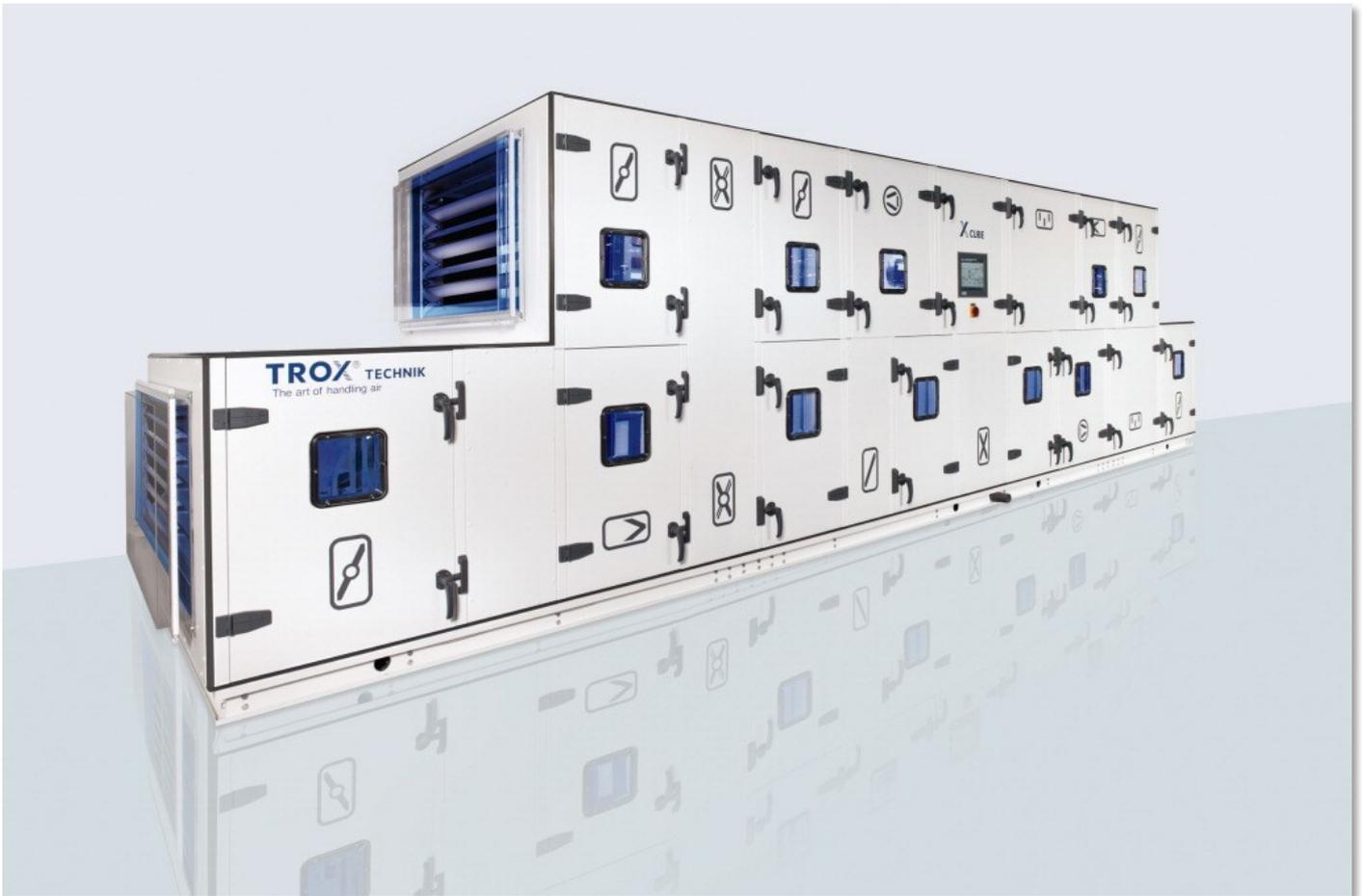


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TROX X-CUBE air handling units have been chosen to deliver outstanding environmental performance in an award-winning new building belonging to the University of Huddersfield. Sustainability was a key priority for the £28 million Oastler Building, and the high-efficiency TROX air handling units at the heart of the HVAC system are contributing to the energy efficiency of the building, which has achieved a BREEAM Excellent rating.

Forming part of the Queensgate campus, the new Oastler building houses the University's Law School and parts of the School of Music, Humanities and Media. It includes four 300-seat lecture theatres, tutorial spaces, offices, language labs and a mock court room, in addition to large open plan communal spaces. Designed by AHR, the building features a curved frontage facing out onto Huddersfield's ring-road with a 3.5m cantilever across six storeys, defined by 42 fins rising over the upper levels. Its striking design acts as a beacon for the university in the town centre, and its impressive levels of environmental performance have secured its place in the 2017 Local Authority Building Control Grand Finals, following its triumph in the regional competition.

The architectural design of the different zones, and the diversity of usages throughout the Oastler Building, creates a significant air management challenge. Air handling and ventilation demands vary from dynamic social spaces and lecture rooms, to long, tall corridors and individual study booths for language students requiring sound attenuation.



The outstanding energy efficiency of the TROX X-CUBE air handling unit was a key factor in its selection for this project. The X-CUBE's integral variable flow control technology facilitates room-by-room air management, adjusting automatically to requirements. Designed to connect seamlessly to a centralised BMS (via Modbus TCP, Ethernet or BACnet), the X-CUBE's built-in control technology (available as standard) avoids the need for complex or expensive bespoke programming of the BMS. Estates management professionals and building services engineers can interface with the air handling unit via touchscreen, remote control or web browser, and the AHU's control capabilities make integration easy throughout the air distribution system, monitoring and controlling dampers, duct sensors, volume flow controllers and fire dampers with a greater degree of precision and immediacy than is typically possible using BMS control alone.

The quality of manufacture of the X-CUBE was another key factor in its selection. Its enclosure incorporates a number of special construction and insulation features to ensure low leakage and optimised heat recovery. In addition, the TROX attenuators, with aerodynamically profiled frames achieve 30% less pressure drop than conventional silencers. Distance pieces in variable widths can be used to individually adjust the distance between the splitters. These also function as handles to enable the splitters to be removed when the casing requires cleaning. Intelligent control and highly-efficient IE4 motors also contribute to outstanding energy performance.

Mike Gosling of TROX commented, “This is a landmark building for the University of Huddersfield, and for the town as a whole. From the outset, the project targeted excellence, not just in aesthetic impact, but in sustainability.”

“The TROX X-CUBE has been designed with uncompromising levels of quality, and soon demonstrated its ability to contribute to the ambitious environmental performance targets set by the University and each of the partners in the supply chain. We are extremely proud to have played a part in bringing this building to fruition, and congratulate all those involved on their success in the regional LABC awards”.

Further information about X-CUBE, the AHU from TROX, is available on our website (www.troxuk.co.uk) and in the X-CUBE brochure.



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