

UTS Broadway Building



Also known as the Information Technology and Engineering (ITE) Building, this new 27,000m² facility opens in 2014 and is designed to accommodate 500 staff and 4,300 students. The 14-level building was conceived as a single sculptural object and has a facade punctuated with a binary code and 'gill' creases.

The building targets a minimum 5-Star Green Star rating and is designed to deliver a 30%- 45% energy saving over benchmark tertiary educational buildings with similar functional spaces. ACS worked with the engineers to develop an underfloor air distribution system to provide ventilation air, cooling and heating. To keep supply-air volumes to an absolute minimum the fan coils draw air from the space, cool or heat it via a heat exchange coil and then discharge the conditioned air back into the space, usually adjacent to a facade or perimeter wall. The 100% fresh ventilation air is delivered via the cast aluminium swirl diffusers which are also integrated into the raised floor.

The type BFD underfloor fan coils were specially adapted by TROX to meet the stringent capacity and acoustic requirements. The units were tested to work with the TROX FBA250 vertical discharge floor swirls to create optimal comfort; extensive as-built mock-up tests were conducted at TROX's climate laboratories in Germany to validate the design to the satisfaction of the client.

Location Sydney, Australia

Product Underfloor FCU's and Floor Swirl Diffusers

Scale 1370 FCU's and 2140 Swirls

Client Fredon Air

Engineer Waterman AHW