

AHU upgrade bridges gap for shopping centre

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[AUK Nationwide Heating and Cooling Distribution](#) has designed and supplied a high-efficiency NOVAIR air handling unit (AHU) delivering full ventilation and extraction at the Bridges Shopping Centre in Sunderland.

The project, alongside leading contractor Nationwide Heating and Cooling, involved the installation of a Eurovent-certified NOVAIR CTA 60 stacked AHU solution with airflow of 6.192 m³/h.

The bespoke energy recovery system features a highly-efficient plate exchanger recuperator and is also fitted with energy-efficient EC inverter Plug Fans. To help future-proof the unit, it has also been fitted with a low temperature hot water coil so that an air source heat pump can be added at a later date, potentially reducing power consumption by up to a third.

AUK Managing Director Darryl Smith said: "The previous system was nearing the end of its useful life and the brief called for a more efficient approach. After attending the site with Nationwide's Ian Calderwood, the unit was designed at the NOVAIR factory to our specific requirements.

"We were able to deliver a highly-efficient heat recovery solution in a slightly more compact footprint. The addition of the low temperature hot water coil will bring even more efficiencies further down the line."

Ian Calderwood, Director at Cramlington-based Nationwide Heating and Cooling, said: "The biggest challenge for this job was access, because the plant room door at the shopping centre was only 800mm wide. Both AUK and NOVAIR were absolutely fantastic and it only took a day to come up with an answer; I've never known such a quick turnaround. The biggest section is the heat exchanger, at 800mm, and we were able to get it fitted by taking the plant door off its hinges.

“We matched the three stages of electric heat for the supply air on the previous unit, but the decision to add the low temperature coil means the end user will benefit from a significant reduction in power consumption when we fit an air-to-water heat pump, probably later this year.”

Easy maintenance

The CTA range comprises 36 customisable models with airflow from 1.000 to 112.000 m³/h. Full design flexibility means the units can be placed on one or two levels, side by side, with special dimensions or shapes, or with fully independent sections for air inlet/recirculation.

Construction features a steel base and aluminium frame, with double skin sandwich panels of varying thickness for different profiles.

Once installed, the CTA line-up is renowned for simple maintenance, allowing easy removal of all components and full access to all sections for cleaning and replacement.