



PROJECT CASE STUDY

ON-SITE AHU REFURBISHMENT AT THE NATIONAL GALLERY

The National Gallery has been celebrating its foundation in 1824 with a range of capital projects under the title of NG200, all designed to improve visitor experience some of which are being completed in 2024.

The gallery is the home of the national collection of paintings dating from the 13th to the 19th centuries and is open to the public 316 days a year.

With such a large public building having various levels and galleries, controlling the air quality requires multiple air handling units (AHUs) to deliver climate-controlled and filtered air throughout the museum.

One of the NG200 projects being undertaken at the gallery's Trafalgar Square building included the refurbishment of an existing AHU. AirCRAFT Air Handling was approached to advise on the refurbishment and worked with the international project design consultants ARUP to assist with the AHU plant refurbishment that took place in the sensitive Grade I listed building.

At the order stage, and after an initial survey and approval by our customer, we scheduled our engineer's visit to undertake the work, which included new heating and cooling coils, filters, adiabatic humidifier and the replacement of an ageing centrifugal fan.

To help with energy efficiency savings, the decision was made to replace the old centrifugal fan with an energy-efficient electronically commutated (EC) fan. In most instances, EC fans use 70% less energy than a traditional centrifugal AC fan.

On satisfactory completion of the work, we informed our client that all was good, and the AHU was ready to be put back into service.