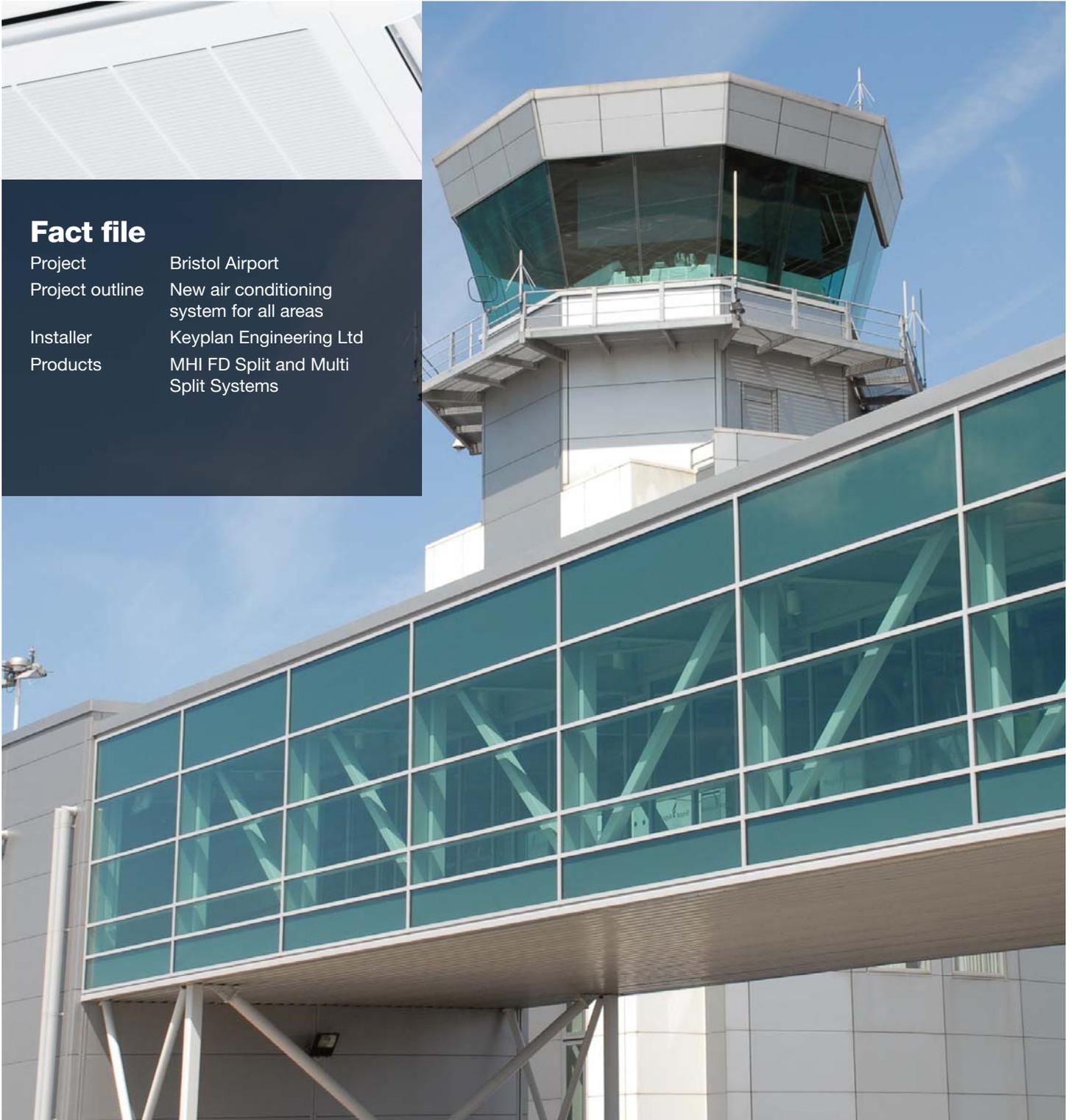


Case study: Commercial

MHI air con system recovers waste energy at Bristol Airport

Fact file

Project	Bristol Airport
Project outline	New air conditioning system for all areas
Installer	Keyplan Engineering Ltd
Products	MHI FD Split and Multi Split Systems



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A 375kW air conditioning installation from Mitsubishi Heavy Industries (MHI) has just checked in at Bristol Airport. Twenty multi-split systems from MHI's FD Micro Inverter range and 33 SAF fresh air heat exchange units service a hub of pre-boarding and arrivals areas plus a new two-storey walkway connection to the terminal building. MHI's FD Split and Multi Split Systems feature a cutting edge inverter controlled compressor that adjusts automatically to meet the precise demands of the indoor unit to save energy and reduce temperature fluctuations.



The equipment package for the main walkway includes sixteen 20kW FDC outdoor units, connected to 31 FDT 4-way ceiling cassettes, with a cooling range of 4.0 – 11.2kW. In addition, twin-split systems from MHI are installed in the area designated for arrivals, consisting of eight 7.1kW FDEN ceiling suspended indoor units driven by four 14.0kW FDC outdoor units. Bristol-based installer Keyplan Engineering Ltd carried out the installation project.

The installation design also includes 33 SAF fresh air heat exchanger units from MHI to recover waste energy and reduce heating/cooling requirements in accordance with Building Regulations Part L2. A combination of SAF 1000m³/hr and 500m³/hr air handling units has been installed. The air conditioning systems and SAF units are linked directly to the airport's BMS via a BACnet gateway interface to enable centralised climate control of all areas.

Bristol Airport's Head of Airport Development, Andrew Goodenough, says the new western walkway eliminates the hassle of bus transfers for the majority of passengers. He comments: "With direct covered access between aircraft and the terminal building, staff and passengers are protected from inclement weather, and MHI's air conditioning systems will ensure they stay comfortably cool in the summer. This whole investment reflects our commitment to improving the airport experience for departing and arriving passengers."

MHI's air conditioning systems will ensure passengers stay comfortably cool in the summer

Located on its current site since 1957, Bristol Airport has grown to become one of the UK's major regional airports. The terminal is expected to handle its 50 millionth passenger by the end of 2010.