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HEAVY INDUSTRIES**

AIR CONDITIONING  
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MITSUBISHI HEAVY INDUSTRIES

# Case Study: MHI equipment bowl s over customer expectations

**CASE STUDY:  
ENHANCING SUSSEX COUNTY  
CRICKET CLUB'S COMFORT**



**Sussex County Cricket Club (SCCC) is the oldest of eighteen first-class county clubs within the domestic cricket structure of England and Wales.**



It represents the historic county of Sussex with its 'limited overs' team called the Sussex Sharks. The club was founded in 1839 as a successor to the various Sussex County cricket teams, including the old Brighton Cricket Club which had been representative of the county of Sussex since the 1720s. The club has always held a first-class status with Sussex having competed in the County Championship since the official start of the competition in 1890 and have played in every top-level domestic cricket competition in England.

**“Their dedication to quality and proactive approach made a significant impact on the project's success. We're grateful for MHI's exceptional support and superior air conditioning solutions”**

TSS TEAM MEMBER

When TSS Facilities were approached to provide an efficient heating and cooling solution for the club, they sought a top-tier HVAC solution for SCCC (based at the 1st Central County Ground in Brighton) that reflected the first-class status the club requires. They turned to MHI Direct for support with the project design and proposal. MHI Direct offer a design service that covers a range of products including Variable Refrigerant Flow (VRF) equipment. MHI Directs track record of outstanding service, prompt response times, and competitive pricing, meant that MHI Direct was the natural choice.

Collaborating closely with TSS to understand the specific needs of the project, MHI Direct presented a range of affordable options for consideration until arriving at the perfect fit for the club's needs. The chosen design utilised 24 standard indoor cassettes split between 3 separate systems, all using the latest VRF heat pump technology. These are complemented by 6 off SAF1000 Heat Recovery Ventilation units, and the whole system was to be seamlessly controlled through one central interface.

MHI's VRF systems feature patented variable temperature and capacity control (VTCC) technology, which is specifically designed to maximise performance and energy savings at part load conditions. These, linked to the FDT cassettes used, resulted in an effective yet efficient system.

The FDT cassettes used incorporate MHI's latest draft prevention panel which prevents occupants experiencing hot or cold drafts of air against their skin, resulting in improved comfort. These cassettes also have a built in condensate pump that can pump water to a maximum lift of 850mm which, when combined with the units shallow design, allows them to be installed in very narrow ceiling voids.

In addition, the use of SAF fresh air heat recovery ventilation units meant that heat energy would be recovered that would otherwise be exhausted to the atmosphere, and uses this energy to warm the air entering the building. The reverse happens in warmer ambients, where the exhausted cool air is used to partially cool the incoming air. Capturing the waste energy means the heating/cooling requirements are reduced, so smaller size plant can be selected. By utilising SAF units SCCC will improve the indoor air quality of their club whilst reducing their energy consumption and carbon emissions.

Recognizing the project's coastal location, TSS wisely requested a design change (after the initial order had been placed) adding Blygold coating for the VRF outdoor unit condensers to shield against corrosion—a service MHI Direct routinely provides to safeguard investments near marine environments. MHI Direct worked closely with Blygold to get the condensers coated in time so that the project didn't suffer any delays.

The culmination of everyone's efforts resulted in a flawlessly executed installation, and final commissioning took place jointly by both HVACR (MHI Commissioning service) and TSS Facilities.

The result? The club now offers optimal comfort for their players and visitors, thanks to reliable equipment and a smooth installation carried out by TSS. The management team at SCCC were extremely happy with the professional and stress-free experience from the initial proposal through to delivery.

**When we caught up with TSS about their experience, their satisfaction spoke volumes. A member of their team stated:**



**“Working with Mitsubishi Heavy Industries and using their air conditioning units for our project at Sussex Cricket Ground was great. Despite challenges, MHI's expertise and innovative units exceeded our expectations and made our engineer's job easier.”**

**If you would like more details about our range of VRF air conditioning systems, then please contact MHI Direct or your local Beijer Ref branch today.**