



Case Study

Project: High Performance Compute

Sector: Scientific



Background:

Diamond Light Source, a not-for-profit limited company funded by UK Research & Innovation (UKRI) and Wellcome Trust, operates as the UK's national synchrotron facility, which uses special radiation to analyse atom sized details. To maintain the leading-edge capabilities of the facility, they needed to upgrade the HPC data analysis capabilities. The high density processing meant that Diamond needed a much higher powered private data centre.

The Challenge:

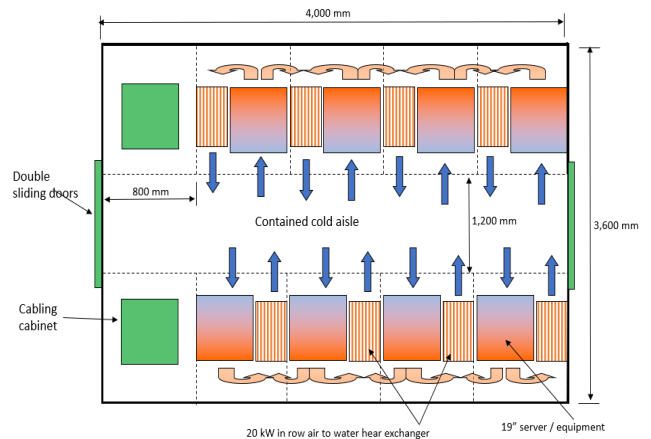
The total cooling power required for the twenty rack CAC pod system was 144 kW, most racks were 20kW, which in 2010 was almost state of the art for the data centre industry.

Our Approach:

In collaboration with cooling experts Schroff, Rainford proposed a complete air containment-based system. Both companies played crucial roles in designing and manufacturing the innovative self-contained system.

The Solution:

A custom designed cold aisle containment system consisting of ten 42Ux800x1200 cabinets, combined with Schroff Varistar LHX 20 air-to-water heat exchangers, with water flowing at 9°C and a flow rate of 2.8m³/H was developed. Installation and commissioning was completed by specialists from both companies working in concert.



Customer Outcome:

The enhanced performance of the new compute infrastructure enabled Diamond to improve the research capabilities to over 14,000 researchers from academia and industry across various scientific disciplines.

The joint bid project exemplifies the effectiveness of partnerships in delivering complex and specialized infrastructure solutions.



For further information on this project, or to discuss your project requirements please visit www.rainfordsolutions.com or email sales@rainfordsolutions.com



Rainford House, Mill Lane Rainford, St Helens, WA11 8LS, UK
Tel: +44 (0) 1744 889886
email: sales@rainfordsolutions.com web: www.rainfordsolutions.com
Registered No: 05061620 VAT No: 860 2309 48

