

## HVAC Solution for Printing Company

ICS Air Conditioning have successfully replaced two 22 year old HVAC chillers in a high level plant room with low height restrictions.

### Site Considerations

The redundant chillers were sited during the original building development prior to the installation of the building roof and an adjacent boiler house.



Removal of the existing chillers, via the 7 meter load platform

Since the construction of additional buildings and the fitting of a low roof line, ICS engineers were faced with the challenge of working to a **restricted footprint and low height in the plant room.**

In addition to this, the site had **limited access for the removal of the ageing equipment which consequently further limited the footprint of the new units.**

### A Bespoke Solution

The footprint was a major factor to be considered when selecting appropriate equipment. Following calculations it was clear that no standard units would fit within the size restrictions. To overcome this ICS Air Conditioning were able to offer a bespoke solution, of two purpose-built chillers designed by their sister company ICS Tricool Thermal.

The custom built units were single circuit air cooled liquid chillers, with a cooling capacity of 140kW at 30°C. These units were manufactured to precision to ensure they would fit comfortably in the existing position.

### Precise Installation

The only suitable access to the plant room was via a removable louvered section in the second floor room at a height of 7 metres.



Precision Installation of the new Chillers

Due to the site mechanics a specialist lift and shift company was sourced by ICS Air Conditioning to build a temporary load platform at the 7 metre level. After the louvers were removed the specialist team were able to skate out the chillers individually onto the platform and using a 40 tonne crane lift them down to remove them from site.

The new chillers were installed on the same day, into the plant room in a reverse procedure with a designed 10mm clearance between the top of the chillers and the internal roof steelwork.

A full chemical clean of all existing pipe work was carried out prior to the re-connection of new modified pipe work and up-rated pumps.

New ductwork was installed between the new chillers and existing apertures in the roof prior to commissioning of the whole system by ICS Services.