

SlurryICE AIR CONDITIONING APPLICATIONS

Slurry-ICE is a crystallised water-based ice solution which can be pumped and offers a secondary cooling medium for thermal energy storage while remaining fluid enough to pump. It flows like conventional chilled water whilst providing 5 ~ 6 times the cooling capacity.



London, UK

CASE STUDY ;

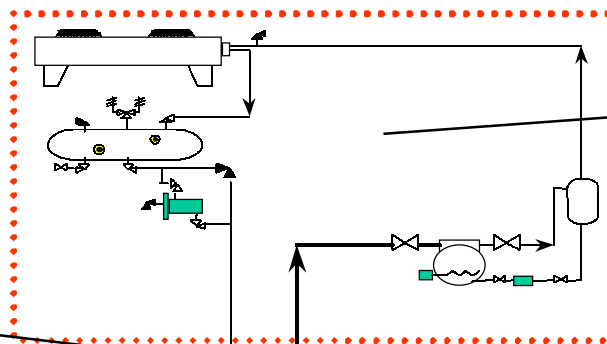
Existing system consisted of three air cooled chillers providing a total cooling capacity of **372 kW** which were approaching the end of their useful life. Middlesex University's strict environmental policy dictated an environmentally friendly & cost effective system to replace the existing machinery.

Following a detailed analysis by their consultant it was established that a **74 kW** SlurryICE machine complete with a **36 m³** ice storage tank was the most cost effective and flexible option. This represented Phase I and covers the existing system load. An identical capacity system is planned as Phase II to cover anticipated future loads. The overall estimated electricity energy saving could be as much as 50% of their existing bills mainly through using the lower night time electricity tariff.



BEFORE

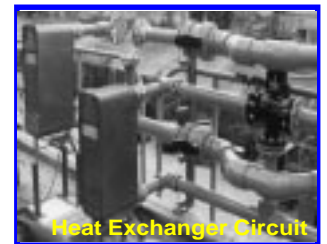
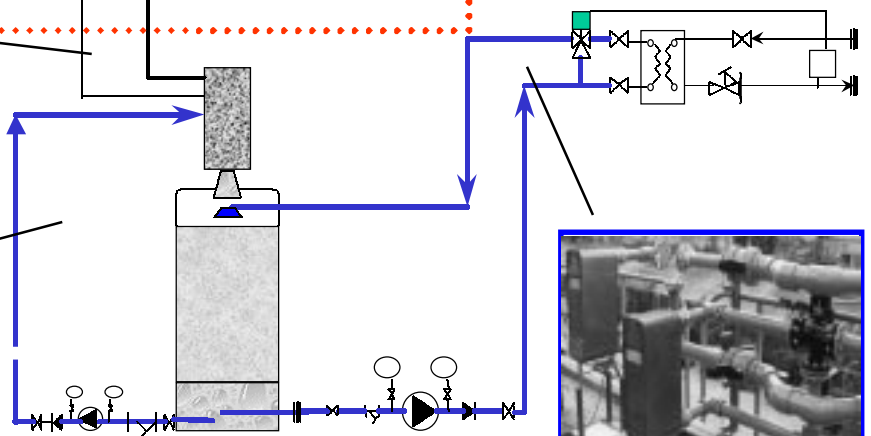
NH₃
Ammonia



Condensing Unit



AFTER



Heat Exchanger Circuit

BENEFITS;

COST EFFECTIVE INSTALLATION

Smaller refrigeration machinery, distribution pipework, flexible storage tank coupled with smaller pump sizes result in lower initial installation cost.

GREEN SOLUTION

Reduced refrigeration machinery together with Ammonia (Primary) and a Urea based SlurryICE (Secondary) solution resulted in minimum direct and indirect Environmental Impact.

REDUCED RUNNING COST

Reduced maximum demand and availability charges coupled with night time low ambient and off-peak electricity prices offers significant running cost savings.

FULL STAND-BY CAPABILITY

The stored energy can be used to operate the system in case of any break down or regular maintenance shut downs.

TECHNICAL SUPPORT www.epsltd.co.uk

PS offers full system design support to assist in proper selection and integration into existing or new installations as part of our customer commitment. Please consult our technical sales team for your specific application.

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