

# SlurryICE COLD STORAGE 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 times the cooling capacity.

## CASE STUDY ;

System consists of two identical **30 kW** (9TR) remote condenser SlurryICE packaged units working in conjunction with two identical 10 m<sup>3</sup> ice storage tanks to satisfy a peak load of **290 kW**.

The ice machines are designed to operate overnight periods. The stored energy over off-peak /low load periods is later utilised to satisfy the short & sharp peak loads. Hence, the installed refrigeration machinery is 1/10 of a conventional direct cooling system.

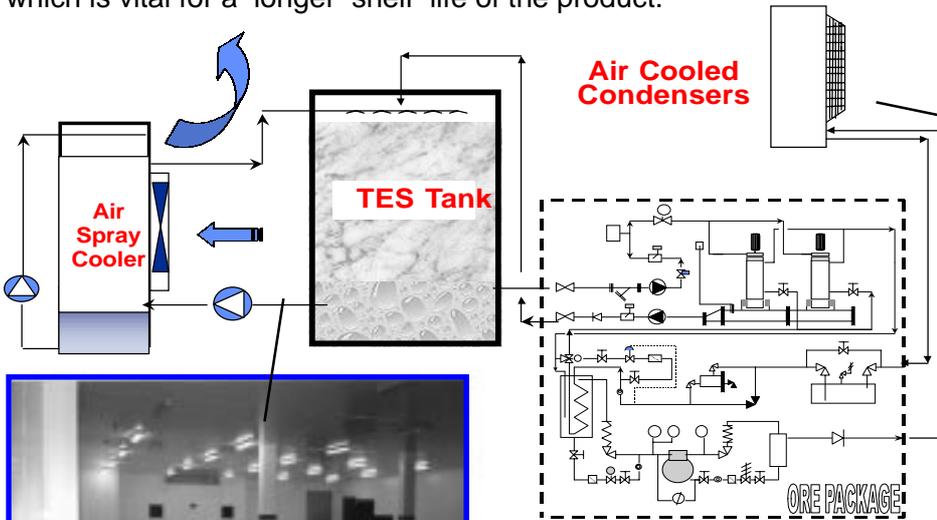
Fresh produce from the packing stations is rapidly cooled in the cold store whereby the energy stored during packing periods is recovered to provide **98% RH, 1 C** air off temperatures for short rapid cooling which is vital for a longer shelf life of the product.



Malaga, SPAIN



Plantroom Layout



Cold Room Layout



Packaged SlurryICE Machine

## BENEFITS;

### COST EFFECTIVE INSTALLATION

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

### REDUCED RUNNING COST

Reduced refrigeration machinery results in reduced maximum demand and availability charges coupled with night time low ambient and off-peak electricity prices offers unmatched overall running cost savings.

### FLEXIBLE SYSTEM

Any future capacity or change of operational patterns can be easily handled without the need for additional refrigeration machinery.

### QUICK RESPONSE

Fine ice crystals offers unmatched heat transfer efficiency. Hence, large peak loads can be handled without effecting the system leaving temperatures.

### FULL STAND-BY CAPABILITY

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

### SUPERIOR QUALITY

Reduced cooling times result in very high quality fresh produce and longer shelf life for the product.

**TECHNICAL SUPPORT** [www.epsltd.co.uk](http://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.



Unit 32 Mere View Industrial Estate, Yaxley, Cambridgeshire, PE7 3HS, UNITED KINGDOM  
Tel. :+44-(0)1733-243400  
Fax.:+44-(0)1733-243344