



## MASSIVE SAVINGS FOR SPECIALITY CHEMICAL MANUFACTURER UTILISING FREE COOLING



### THE CHALLENGE

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The customer, a leading manufacturer of speciality chemicals, was planning to move their existing bead mill process (comprising 7 mills) to a new manufacturing site that would be suitable for expansion to 16 mills. They had previously been cooling each bead mill with individual ICS Cool Energy chillers but wanted to do this in a more energy efficient way; in the form of a new chilled water ring main served by larger chillers.

## THE SOLUTION

Following a site visit by one of our technically trained Sales Engineers, we determined the process required a maximum design load of 358kW of cooling and pressure independent control valves at each bead mill connection to allow for precise flow control.

ICS Cool Energy's detailed & comprehensive design brief recommended we provide three off iC 660 air cooled i-Chillers (capable of managing the total load on a Duty/Duty/Assist operation) with a 360KW free cooler system, with the overall aim of improving efficiency and saving energy. We were also pleased to manage the mechanical installation and commissioning of said systems.



## THE RESULT

Because of this cooling upgrade and the addition of the free cooler, our customer is using less power during lower ambient conditions, which they are very happy about.

Some further benefits of this solution include far lower plant running costs, lower carbon footprint of their production facility, higher coefficient of performance, large long term savings, return on investment within 6-9 months and prolonged chiller lifetime as a result of 1) reduction in use and 2) planned preventative maintenance contract taken out at point of purchase.

	CHILLER	CHILLER + FREE COOLING	% ENERGY SAVING
ANNUAL ENERGY COST IN £	£52,577.00	£30,667.00	-
ANNUAL ENERGY (KWH)	504,096	294,027	42

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