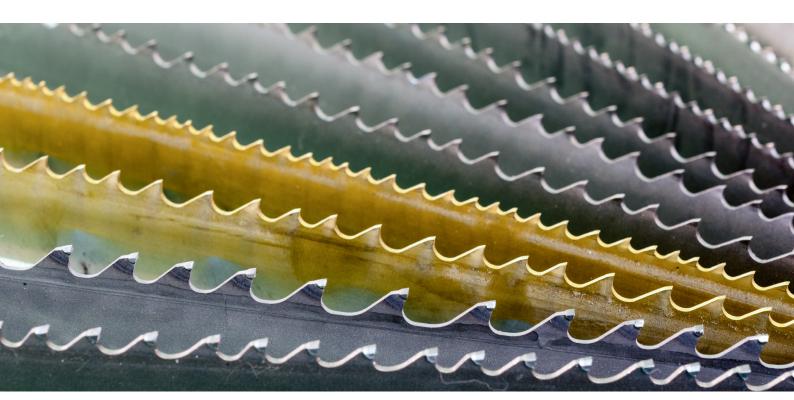


FREE-COOLING OFFERS 59% ENERGY SAVING



THE CHALLENGE

Dakin Flathers is one of Europe's largest bandsaw and bandknife manufacturers and are renowned for their quality and customer service. Their existing temperature control equipment was reaching the end of its life-cycle and was becoming less energy efficient and more costly to operate. The company pride themselves on the quality of their metal works and therefore required more efficient temperature control equipment that could deliver more precise and reliable process temperatures to help them maintain product consistency and quality.

THE SOLUTION

The old system consisted of 2 chilled water systems to provide cooling to their process. 1 of the chillers was situated outside and the 2nd inside. The new system we designed for them combined the 2 systems into 1 much more efficient system comprising of an i-Chiller IC535 with a cooling capacity of 84kW and a free cooler to run alongside the chiller.

The free-cooler makes use of ambient air temperatures to lower energy consumption costs. As the ambient air temperature falls, the amount of process heat taken out of the process fluid by the air increases, reducing the load on the chiller and therefore reducing the amount of energy consumption.

THE RESULT

The energy efficient i-Chiller IC535 and free cooler have a 59% energy saving vs the ageing temperature control equipment. Combing 2 systems into 1 system greatly improves efficiency and reliability of the system. The dependability of the new system means our client can continue to maintain product consistency and quality but at reduced operating costs due to the energy savings being made. With the free cooling element of project costing just under £9k and annual energy savings estimated at £10k, the free cooler has a pay-back period of less than 1 year.



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