CASE STUDY: **KP CLUB, UK**

BOWMAN®

Energy efficient hot tub heating for luxury golf resort

BOWMAN HEAT TRANSFER TECHNOLOGY IN ACTION

Project

The KP Club is a prestige golf and leisure resort, set in 180 acres of the Yorkshire Wolds. The club recently opened 24 new luxury woodland lodges which offer its guests privacy, combined with the facilities of a boutique hotel. Each of the lodges has its own hot tub, supplied by Urban Cedar, who specialise in the design, build and installation of contemporary cedar wood hot tubs.

When the KP Club approached Urban Cedar to investigate a greener way of heating the hot tubs, they approached E J Bowman for advice. As a result, an innovative new heating solution, using Bowman heat exchangers, linked to the KP Club's centralised Biomass heating system, has helped the club substantially reduce energy costs, by using this sustainable heating system in place of conventional electric heaters.

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Solution

Urban Cedar contacted Bowman because of its reputation for producing the most thermally efficient swimming pool heat exchangers available. Bowman EC100-5113-2S stainless steel heat exchangers were recommended for the application and samples sent for Urban Cedar to test at its USA manufacturing facility. The units not only passed, but produced remarkable improvements in heat-up times and thermal efficiency compared to previously used electric heaters.

Back in the UK, Urban Cedar fitted the hot tubs with the Bowman units – a simple process requiring just standard plumbing components. The compact heat exchanger is hidden behind the skin of the hot tub, so is neither visible nor affects the design.

The energy savings of the new system are nothing short of remarkable. On average, using conventional electric heaters, each hot tub would cost around £500 annually in electricity. However, by using Bowman heat exchangers linked to the main Biomass boiler system, the hot tubs are now heated at no extra cost – saving the KP Club approximately £12,000 a year.

Another major benefit of the system is that the electric heaters typically raised the water temperature by just 1-2ºC an hour, taking up to 24 hours to heat a tub from cold. The Bowman heat exchangers raise the water temperature by 12ºC an hour – so the tub reaches temperature in just 2-3 hours, giving the hotel greater flexibility when servicing the tubs between guest changeovers and ensuring the tubs are ready immediately when new guests arrive.

"The KP Club is leading the way by using Bowman heat exchangers linked to a Biomass boiler to heat its hot tubs. This is the first time we have come across this method and it offers huge potential to commercial, leisure and domestic hot tubs users," says Antony Perry, Managing Director of Urban Cedar, explains.

"Bowman heat exchangers, used in conjunction with the Biomass boiler, create the opportunity to significantly reduce hot tub heating costs, by using a more energy efficient and sustainable method of heating," adds Antony Perry.

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