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EasiHeat systems from Spirax Sarco save Catalent thousands

Catalent Pharma Solutions is reaping the rewards, thanks to the company's decision to swap its old shell-and-tube calorifiers for compact Spirax Sarco EasiHeat™ steam-to-hot water systems. Spirax Sarco calculated that Catalent could save £6,500 a year in energy costs by replacing a single 540kW calorifier with an EasiHeat.

Catalent has been gradually replacing its old heat exchangers over that past five years, and now has nine EasiHeat systems in place. The biggest saving for Catalent is in downtime and maintenance costs, according to Engineering Manager Arthur Burnett: "The main thing is that we now have no summer shutdown, when it used to take two weeks. Also, we can look after the heat exchangers with one utility engineer instead of four, so it frees up time for our maintenance team. Previously, there was so much work involved with the calorifiers that we sometimes had to bring in contractors to service them, which was obviously another expense."

Shell-and-tube heat exchangers are pressure vessels and must therefore be dismantled annually for an insurance inspection. EasiHeat systems instead rely on stainless steel plate heat exchangers (PHEs), which eliminate the need for stripping down. PHEs are also extremely compact and energy efficient.

Catalent's Swindon factory encapsulates various products in soft gel capsules. Between them, the new heat exchangers serve two hot water systems, one at 80°C for process water and air conditioning, and the other at 60°C for hand washing.

"The old calorifiers were over 20 years old," says Mr. Burnett. "They were not very efficient, slow to heat up and caused a bottleneck in the process." In contrast, he says that the EasiHeat units are more than equal to the task: "We used to run three large calorifiers for one application and replaced them with two compact EasiHeat systems. Although we always have one on permanent stand-by, for safety and maintenance precautions, we've never even had to use it for an application because they're so efficient."

The Spirax Sarco solution was a logical choice for Catalent, because the two companies already enjoyed a strong working relationship. "They already supplied all our steam trapping and condensate return systems and we have since opened multiple service agreements to maintain our equipment," says Mr. Burnett. "It's good to have such a successful relationship with a contractor and it made sense to stay with Spirax Sarco."

