

SHERATON STAMFORD / STARWOOD HOTELS

Emme Controls Case Study



“After watching our utility bills we were pleasantly surprised when the system paid for itself after only 9 months, that’s a great return on investment.”

JOSEPH ZUMMO
Director of Engineering, Sheraton Stamford Hotel

PROBLEM

The Sheraton Stamford Hotel is a 389 room, full-service hotel with over 18,000 square feet of meeting space. Three, 30 ton heat pumps provide heating and cooling to the lobby area and conference rooms. The hotel experienced very significant discomfort problems because the system was impossible to control. The lobby would be too cold while the conference rooms were too warm, or vice versa. The hotel lost revenue when customers demanded refunds or when they would take their business elsewhere. The hotel had a full time engineer dedicated to trying to keep the lobby and conference rooms comfortable, but there were still dozens of complaints every day.

The Sheraton Stamford was also striving to reach Starwood’s company-wide environmental goal of reducing energy consumption by 30% by 2020. Due to its inability to properly control temperature, the existing system wasted energy by over-conditioning many areas of the hotel. Energy was also wasted when hotel personnel would forget to turn down thermostats when rooms were not in use.

EMME SOLUTION

The engineers at Emme installed 3 Emme Room-By-Room systems –one for each 30 ton heat pump. They placed at least one wireless temperature sensor in every room and a rugged, inflatable damper in every duct run. This converted what was essentially a 3 zone system into 60 zone system that allowed for very precise control of air flow and temperature. The Emme system was installed without making any openings in walls or ceilings, and was completed without disrupting the hotel’s operation.

The Emme system allowed every room to operate within two degrees of set point while reducing labor costs associated with having hotel engineers trying to manually balance the system on a daily basis. Customer complaints were completely eliminated. The heating and cooling set points for each room are now scheduled in advance through the web-enabled Emme portal. When a room is unoccupied, conditioning is greatly reduced thereby saving energy.

Since the Emme system provided very precise temperature control in key areas, the Sheraton Stamford was also able to install a Demand Limiting Control (“DLC”) system developed by Save Energy Systems. In order to eliminate high electricity demand charges, the DLC system’s server coordinates the activity of all of the hotels 17 heat pumps. By preventing multiple heat pumps from starting up at the same time, the DLC prevents demand spikes and helps to lower utility demand charges. The combined Emme and DLC systems qualified for a 17% energy rebate from Eversource, the local electric utility.

THE RESULTS

“Starwood’s goal is to satisfy every guest, every time - but we just couldn’t do it.” Temperature control in the conference rooms was so poor that customers would demand refunds. I used to have an engineer work full time going from room to room trying to keep all the conference rooms comfortable, but it just didn’t work. The complaints and dispatch requests were constant. With Emme, I no longer have any complaints, and if I did, I could resolve them through the Emme portal on my iPhone. Just the savings from not needing a full-time engineer to babysit the system will pay for itself in under two years.”

“With Emme, we went from having basically 3 zones to over 60 zones! The comfort and energy control is now unbelievable. What is most remarkable is that they retrofitted the system without putting a single hole in any wall and without any ceiling penetrations.”

“Last week, Emme sent me an alert on my iPhone that the temperature in the supply plenum for HP-5 was 5 degrees too high. When I investigated, I found the 2nd stage compressor had burned out. Because of Emme, I was able to schedule the replacement at a lower cost. I avoided the costs of an emergency repair as well as any interruption to the business.”

“Instead of having an engineer disrupting a conference to adjust a thermostat, I can now change the temperature with my iPhone. Just think about that – incredible!”

“Everyone used to have access to the thermostats, so the AC was on all the time – even when the rooms were empty! That was a big energy waster. With Emme, authorized personnel now pre-schedule all the rooms, so we are saving big on energy.”

“The knowledge and service provided by the Emme Engineering team was way beyond my expectations. During the break-in period, I could call them any time of day or day of the week and they would remotely tweak the program so that it functioned exactly as I wanted it to.”

“Emme is a very intelligent system. It’s always thinking, always adjusting. It’s a well-written and well-designed system. The installation team was a pleasure to work with – most people in the hotel did not know the project was going on.”

“Emme solved our major discomfort issue. We now have full control 24/7/365 from any smart device. We are saving a ton on labor and energy costs while meeting our goal of 100% customer satisfaction. I strongly recommend it.”

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