



case study



**HILTON AMERICAS -
HOUSTON CONVENTION HOTEL**

Nailor/Engineer Comfort Product:
Vertical Hi-Rise Fan Coil Units

Location: **Houston, Texas**

Year: **2003**

Size/Stories: **1,235,146 sq. ft./24 floors**

Category: **Hotel, High-Rise Building**

Development Manager: **HINES**

Architect: **Arquitectonica/Gensler**

Sale Rep.: **Vicon Equipment, Inc.**

**VERTICAL HI-RISE FAN COIL UNIT
Model Series: 39VH**

In late 2000, Hines was selected to develop the expansion of Houston's George R. Brown Convention center. The 1.2MM ft² expansion to the convention center included a 24-story hotel that ultimately became the Hilton Americas. The entire project was delivered in 27 months and under budget. The project received several awards for the overall development as well as the architecture.

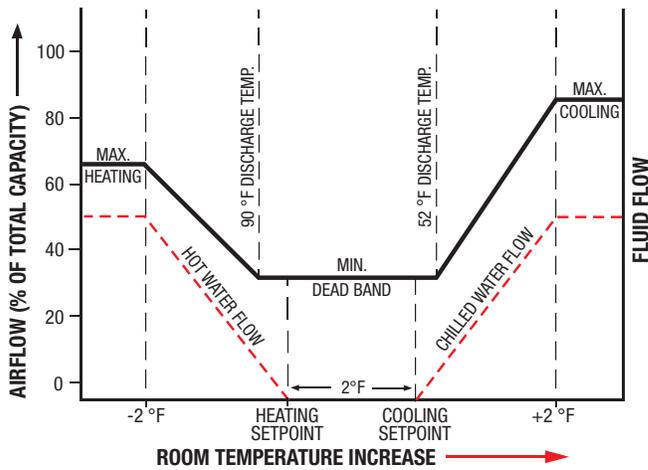
Hines challenged the industry to develop the most advanced fan coil unit for use in the 1,200 room hotel. Nailor answered the challenge. Being the experts in fan powered VAV technology, Nailor worked to design a fan coil that could be controlled in the same manner as a VAV system. The result is the 39V Vertical Stack Fan Coil Unit with EPIC motor technology and modulating valves. This first of its kind technology, provides pressure independent control of the airflow to the room along with modulated chilled and hot water valves to control the comfort in the room better than any previous product on the market. Also, the unit saves a large amount of energy by only providing the energy required for instantaneous loads and taking building diversity out of the water and air supply.



The 39V Fan Coil Units installed at the Hilton Americas all utilize the control sequence shown below. Independent of the pressure seen by the fan, the control will choose the right amount of air and water flow to maintain the room demand calculated by the fan coil controller. Ultimately, the most efficient combination of air and water flow will be continuously supplied to maintain comfort within the room. This delivers the most efficient fan coil system for the building, the most comfortable temperature-controlled space for the occupant, as well as the quietest hotel room fan coil experience. The fan coil unit is so quite compared to other rooms, even almost 20 years later reviewers highlighting how quiet their rooms are at the hotel.

This project is a good example of how Nailor is willing to go above and beyond for customers to deliver the best possible solution.

Control Sequence



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