SureFlow[®] Hydronic System Case Study



DISCOVER...

how Kimpton Hotels converts two good hotels into great boutique hotels with IEC's SureFlow® Hydronic Systems.

Project: Kimpton Hotels | Products: SureFlow® Hydronic System | Location: Washington, D.C.





BUILDING ORIGINS

Both the Topaz Hotel and Hotel Rouge were originally constructed during the 1960's as apartment buildings near the Dupont Circle area of Washington, D.C. These buildings have been converted into full service hotels. The 99-room Topaz Hotel and the 147-room Hotel Rouge used two-pipe hydronic fan coil systems.

This two-pipe "changeover" system required shutting down the building's boiler in April and starting up its chiller. Then in November, the chiller would be shut down and the boiler would be started. Due to those system limitations, the occupants could only have heat from November through April, and cooling from May through October.

As the planning began to convert these buildings into luxury boutique hotels, it was apparent that the two-pipe cooling and heating situation would be unacceptable for the discerning guests that would frequent these unique hotels.

SPECIALIZED CONVERSION NEEDS

The challenge was to find a new system that would be a first class, cost effective HVAC system with four-pipe performance.

The building's designers realized that IEC's SureFlow[®] Hydronic System was the perfect fit. This type of system had the lowest first-cost, lowest operating cost, lowest maintenance cost, and the lowest sound levels in the rooms. They realized that there would also be no need to drill holes in the exterior walls or core-drill any new holes for the SureFlow system.

INSTALLATION SPECIFICS

The original riser pipes and console fan coils were removed. SureFlow[®] ceiling-hideaway horizontal units, and SureFlow console-style units were installed. New riser columns were installed using the existing holes in the floors. One riser now supplied each cooling coil while the other riser supplied each heating coil for each unit in each room of the hotel. A total of 99 SureFlow units were installed in the Topaz Hotel, while 154 units were installed in the Hotel Rouge.

Continued on next page.

"Low maintenance and simplicity are two qualities of a SureFlow[®] Hydronic System. This is an older building and we have time to take care of other things because we are not dealing with HVAC stuff."

> – **Scott Bagdasian** Chief Engineer, Topaz Hotel

"The SureFlow[®] Hydronic System has been virtually trouble free for years now. We never get complaints about it unless we fail to change the filters."

> - David Tolson Chief Engineer, Hotel Rouge



This new SureFlow[®] system made it easy for guests to have custom temperature control simply by choosing either heat or cool on the room thermostat with the option of three fan speeds.

The owners of these hotels were even able to utilize existing boilers, chillers, and cooling towers in Hotel Rouge, while the Topaz Hotel only required a new chiller to be installed.

MORE TO COME

The Hotel Rouge, along with the Topaz Hotel aren't the only Kimpton Boutique Hotels to utilize a SureFlow[®] Hydronic System. Kimpton has had the system installed in other hotels in Washington, D.C. including the Hotel Helix, the Hotel Madera, and the Hotel Monaco, for a total of five hotels in Washington D.C. alone. Kimpton has even used this flexible system in other hotels across the nation including the Hotel Monaco in New Orleans, La.

Given the fact that there were already two holes in the floor, and that funds available for the mechanical system are always limited, I chose a SureFlow[®] Hydronic System for the owners. It allowed us to give them the most product for their money."

"SureFlow[®] Systems are very difficult to beat when it comes to operating costs, savings, etc. ... "

"SureFlow[®] Hydronic Systems have become the system of choice for making these conversions work for Kimpton.

Tom Gilbertson, P.E.
Thomas A. Gilbertson & Associates
Mechanical Engineering Firm

THE SUREFLOW® HYDRONIC SYSTEM

The SureFlow[®] Hydronic System is a self-balancing, 1- or 2-pipe, hydronic fan coil system that simplifies central system design. This system utilizes innovative, pre-packaged, 2- or 4-pipe fan coil units that integrate wet-rotor circulators, specially-circuited coils, and controls with flexible, stainless steel connectors that simplify and reduce installation time while increasing overall design flexibility.

Low First Cost

SureFlow[®] Hydronic Systems use common units and standard pipe sizing throughout your building. With a selfbalancing, quick-connect fan coil unit and simplified system design, a SureFlow Hydronic System lowers installation labor and material costs of a normal fan coil system to within 16% to 24% of a PTAC system.

Lower Operation and Maintenance Costs

SureFlow[®] Hydronic Systems cut utility costs up to 70% and maintenance costs up to 62% when compared to a typical PTAC system.

Higher Levels of Guest Satisfaction

SureFlow[®] Hydronic Systems makes for quieter rooms with lower equipment sound levels inside the room. Other systems like PTACs allow noise to penetrate from adjacent highways and airports into each room. PTAC designs include compressors which generate additional noise that transfers into each room.

More Space and Higher Levels of Comfort

SureFlow[®] Hydronic Systems give guests total control over temperature, air flow, and overall air comfort in a room. It also lessens the risk of mold and mildew within a room. The secret is matched wet-rotor circulators, coils, and fans that are more effective at controlling temperature and humidity when compared to a PTAC system. A SureFlow Hydronic System also allows for increased open floor space because the units are installed out of the way, and out of sight.

Bottom-Line Economics

Let us show you how a SureFlow[®] Hydronic System can pay for itself in just a short time, and be the smartest choice when compared to other system alternatives like split systems, or PTAC systems.

SureFlow

IEC Part Number: I100-90002107 CS-230 Revision 5 (5/2021) ©2004-2021 International Environmental Corporation (IEC)



5000 W. I-40 Service Rd. Oklahoma City, OK 73128 P: 405.605.5000 F: 405.605.5001 www.iec-okc.com