



Real world hydronic system technology for Green Building design.

hotel monaco

BUILDING CONVERSION, NEW ORLEANS



systems made **easy**



Taco LoadMatch® Real world hydronic system technology for Green Building design.

historic hotel monaco

LoadMatch® System suits historic New Orleans hotel.

Project Snapshot: A historic building in downtown New Orleans has been transformed into a luxury boutique hotel and its cooling system depends on Taco's LoadMatch® single-pipe system combined with IEC SureFlow fan coils. Opened in late summer of 2001, the 250-room Hotel Monaco, adjacent to the historic French Quarter, was previously a Masonic Temple originally constructed in the 1920's. In retrofitting the building the old steam heating system was removed and the building was reduced to its exterior shell. The new hotel is equipped with a LoadMatch® hydronic cooling system. Taco LoadMatch® circulators and SureFlow fan coils provide excellent heat transfer and superior dehumidification. The mechanical contractor and facility engineer report that the LoadMatch® cooling system has functioned problem-free since start-up and, most importantly, hasn't developed any buildup in humidity in the building.

Hotel Monaco Project:

LoadMatch® System Engineering:

Goldstein & Goldstein, New Orleans, LA

Installation:

MCC, Metairie, LA

Project Consultant:

Gilberston & Associates, Moraga, CA



The Hotel Monaco's interior is a complete reconstruction of a former Masonic Temple dating from the mid-1920's.



Controlling humidity was a major consideration in the design of the system for the hotel.

The Client:

The Hotel Monaco, located along the legendary St. Charles Avenue streetcar line ('Street Car Named Desire'), is a Kimpton Group property. Based in San Francisco the Kimpton Group owns and operates 16 luxury hotels in that city alone, with additional properties in 11 other cities and resort areas in the United States and Canada. A number of the Kimpton Group's hotels are conversions from previous use buildings. Tom Gilbertson, PE, of Gilbertson & Associates in Moraga, California, is the Kimpton Group's representative for mechanical/electrical and fire protection systems.

The Building:

Constructed in 1926, the former Masonic Temple and Lodge was a steel-framed brick and limestone building which, at 17 stories, was one of the Big Easy's earliest skyscrapers. The conversion process started in 1998 and involved the complete gutting of the interior of the building back to its exterior shell. The interior design of the new Hotel Monaco that emerged from the rebuilding reflects the

history and intrigue of old New Orleans.

The Cooling System:

Working with Tom Gilbertson and using a design-build project approach, Mechanical Construction Co. (MCC) of Metairie, Louisiana selected Goldstein & Goldstein of New Orleans as the engineering firm to handle the heating and cooling system design. Both the contractor and engineering firms had initial doubts about the feasibility of the LoadMatch® single-pipe approach that Gilbertson specified for the building because it was something they hadn't dealt with before.

Two of their principal concerns centered on dehumidification and whether the fan coils would sustain enough latent cooling. Properly designed, a LoadMatch® system will actually provide better latent cooling in high humidity conditions such as the Midwest and Southeast regions of the country.

The simplicity of a LoadMatch® system allowed Goldstein & Goldstein to design the hotel's cooling system in only 30 days. MCC installed 251 Taco circulators and SureFlow fan coils in the building. The installation was completed in June of 2001, one month prior to the hotel's grand opening.

The Taco LoadMatch® Solution:

Taco LoadMatch® provides better comfort than DX air systems, as

well as conventional 4-pipe hydronic systems. It is self balancing and eliminates the need for most balancing valves and expensive, energy-consuming control valves by replacing them with small, energy-efficient Taco LoadMatch® circulators. The circulators direct water to where it needs to go, as opposed to forcing the water through the system's piping loop).

According to Tom Gilbertson the LoadMatch® approach involves considerably less pipe and insulation and makes for a "simpler system that's appreciably better than just a good application."

It also cuts penetrations in half, reducing safety concerns.

Stanley Fink, of MCC, cites the "ease and installation and start-up." "It's a good system," he says, "providing better heat transfer out of the fan coils" and "excellent dehumidification."

Results:

"The system works fine," says Fink, and provides excellent cooling "If it didn't, we'd be the first ones they'd call." Maintaining a constant 42°F water temperature, energy costs have also proved economical. Somewhat skeptical at first about the LoadMatch® approach, both Fink and Goldstein are very pleased with the results and are now advocates of the LoadMatch® - SureFlow system combination.

You'll be more comfortable.

LoadMatch[®] provides better comfort than all air-systems, as well as conventional hydronic systems. LoadMatch[®] is a self balancing system and assures the required flow to all heating and cooling units at all times. Your heating and air conditioning system will deliver BTU's where they're needed, and when they're needed.

You'll save energy.

With less pipe and the elimination of control valves and most balancing valves, lower pump head and less power is required to move the water.

You'll save money.

Fewer parts, about 40% less pipe and fittings, no control valves and almost no balancing valves reduce first costs. Lower pump head and operation of pumps to match the load reduce operating and maintenance costs. All this adds up to big savings on the system, typically up to 30% of life cycle costs.

Contact Us

Taco engineers are at the forefront of Green Building hydronics, designing components and systems to help you meet the challenges of environmentally sensitive – and budget conscious – design and build. Visit our web site at taco-hvac.com or e-mail greenteam@taco-hvac for more information or to talk to a Taco Green Building professional.

