

## WYTHE HOTEL BALANCES COMFORT AND ENERGY EFFICIENCY PROJECT AT-A-GLANCE

**Location:**

Williamsburg - Brooklyn, N.Y.

**Engineer:**

Ettinger Engineers

**Lead:**

Don Rathe (Rathe & Associates) and Leo Andreadakis (Danica Group)

**Product Focus:**

QuickSetter™ Balancing Valve

**Challenge:**

Fast, accurate radiant system balancing

**“IT WAS SO EASY - WE COULD HAVE SENT AN APPRENTICE TO GO  
AROUND AND ACCURATELY SET THE FLOWS.”**

**~LEO ANDREADAKIS~**

**Overview:**

What was once a waterfront barrel and rope factory has been thoughtfully transformed into The Wythe Hotel in Brooklyn, New York. As part of the renovation into a premier boutique hotel, it was important to retain the character of the original building, including exposed wood beams, while accessorizing with local artisans flair. One major upgrade that was needed to convert the space from a factory into a cozy hotel was a modern, radiant heating system.

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## THE PROBLEM WITH HOT WATER

Proper flow balancing is key in any hydronics hydronic system, especially when hotel guests could potentially feel hot or cold spots in their rooms, when standing on radiantly heated floors. Traditional balancing valves require installers to connect differential pressure gauges to the pressure test ports of the venturi on each balancing valve. With flow charts in hand for each valve, contractors can balance a system properly through this tedious process.

Don Rathe, owner of Rathe & Associates, is a long-standing Caleffi manufacturers' representative in the New York City area. Don Rathe worked with

Ettigner Engineering to modernize the balancing approach of the project. He suggested using the Caleffi QuickSetter™ balancing valves for the project.

## FIXING THE PROBLEM

Rathe and the group at Ettigner wanted to make sure equal flow was delivered from the boiler room to every guest room. They also wanted to ensure that the commissioning and flow rate verification steps were pain free. Rathe said “even though a lot of engineers call for balancing valves in their projects, they are installed but not set properly.” According to Rathe, “Traditional balancing devices rely on pressure ports and complicated instrumentation to set flow. Though they are often specified, the iterative process for balancing takes skill and balancing contractors with the required knowledge are rarely called in. Instead, the building staff will tweak them on a guess.”

Improper balancing is not only a comfort issue. High-efficiency circulators are best utilized in properly balanced systems, to reduce pumping energy consumed. Rathe continues, “The cost of inefficiency is big here. New York City doesn't exactly have low electrical rates, you know.” The hotel owners wanted to be as green as possible. The Caleffi QuickSetters did their part to help them optimize efficiency.





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The Danica Group was hired as the installing mechanical contractors. Leo Andreadakis, owner of Danica Group, stated about the QuickSetters,



“It was so easy - we could have sent an apprentice to go around and accurately set the flows.” Each room has an access panel with a QuickSetter balancing valve, used to properly balance the hot water circulating through the radiant tubing installed in the concrete floor. They were able to

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*-Don Rathe*

balance all 72 rooms in the building in one day, where traditional balancing would have taken three to four days.

## SETTING UP FOR SUCCESS

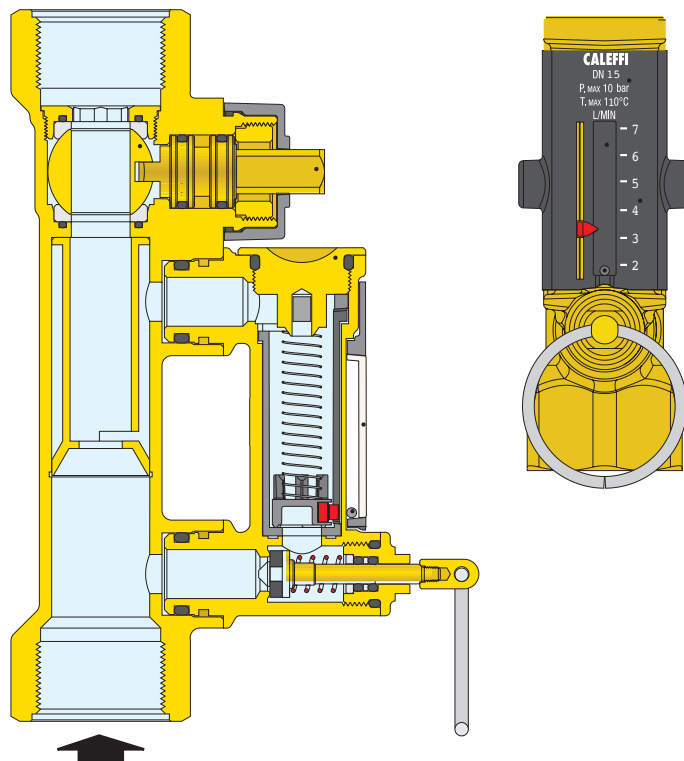
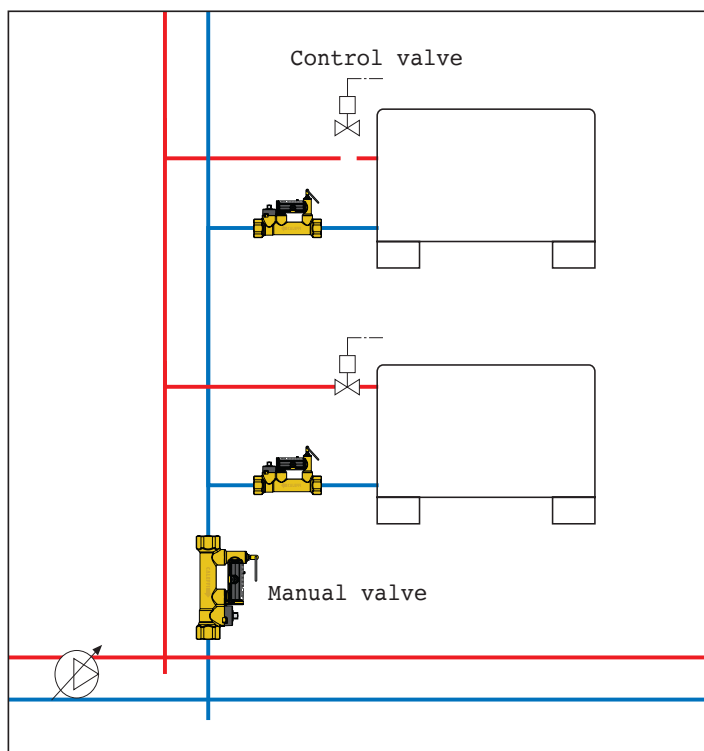
An article in Vogue Magazine about the best hotels in New York City mentions, “The Wythe doesn’t



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feel concrete or cold—the rooms are adorned in bespoke toile wallpaper by Dan Funderburg and contemporary, colorful art hangs in many of the common spaces.” Well balanced radiant heating

shifted the assumption of being cold in a former industrial space into a focus on room décor, which is always a good thing for engineers and installing contractors.



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