

# CASE STUDY

## HOTEL CHAIN DISCOVERS BENEFITS OF CPVC PLUMBING IN HISTORIC WATERSIDE NEW ENGLAND CITY

### **MSI Mechanical with Marriott & Wolman Construction**

**Quaker Hill, CT**

*Established: 1985*

The Mystic Marriott Hotel and Spa in Groton, CT, features six floors, 285 guestrooms, 26 suites, and 30,000 sq. ft. of meeting space. The hotel and spa has all the amenities of a vacation spa with the attention to detail and service for the distinctive business traveler.

Wolman Construction, based in Waterford, CT, has managed a broad range of commercial and residential construction projects in Connecticut, including the Mystic Marriott Hotel and Spa, Springhill Suites by Marriott in Waterford, and the Residence Inn by Marriott in Mystic.

In the late 1990s, Wolman Construction selected MSI Mechanical of Quaker Hill, CT, to install the plumbing system in the three-story, 128-suite Residence Inn by Marriott in Mystic. Wolman wanted to install a more efficient plumbing system in the hotel. The installation was a success, and Wolman has continued to partner with MSI Mechanical on additional Marriott projects.



Ken Aspinwall, president of MSI Mechanical, started his company in 1985 and now has 22 plumbers in the field. His company relies largely on commercial work between hotel chains, restaurants and some municipal buildings. Their projects typically range between \$50,000 and \$2.5 million.

#### **Contractor Introduces CPVC in Residence Inn**

According to Aspinwall, there were some water quality issues in the Mystic area, which caused copper plumbing systems to corrode. The costs of maintaining and replacing copper pipe and fittings led MSI Mechanical to consider using an alternative to copper plumbing systems. Before installation began on the Residence Inn, Aspinwall was introduced to FlowGuard Gold® CPVC

plumbing systems by the FlowGuard Gold® piping systems consultant who explained the benefits of CPVC plumbing systems, demonstrating the durability and proven performance of it in commercial, residential and other applications for more than 40 years.

#### **CPVC Passes the Test**

Lubrizol manufactures the FlowGuard Gold® CPVC, which is made into pipe and fittings by specially licensed manufacturers.

"We believed in Lubrizol, who convinced us that FlowGuard Gold® pipe and fittings were quality products that would provide all the benefits we needed without any problems under tough environmental conditions," said Aspinwall.

CPVC plumbing systems also benefit the waterside city of Mystic because the systems can handle the pH levels of the water supply. In environments with aggressive water, pH levels of less than 6.5, copper plumbing may not meet the water quality standard, ANSI/NSF 61. Plus, copper cannot resist certain soil chemistries or compositions and will begin to degrade. In these severe conditions, copper pipes can begin to leach into the water, causing it to not meet the potable water quality standard. With CPVC pipe and fittings, the corrosion, pitting or scaling that occurs with metal piping systems is eliminated.

In addition, CPVC plumbing systems meet all model code approvals, including the International Plumbing Code, International Residential Code, BOCA National Plumbing Code, Standard Plumbing Code, Uniform Plumbing Code, CABO 1- and 2- Family Dwelling Code and Canadian Plumbing Code.

Wolman Construction was convinced that FlowGuard Gold® CPVC was a good quality product that would prove successful in the Residence Inn installation. In turn, it became the first major installation of a CPVC plumbing system in New England.

#### **Benefits to CPVC in Hotel Installations**

Wolman Construction discovered that there are many other advantages of CPVC plumbing systems compared to copper plumbing systems in a hotel installation, including a quieter system, lower material cost and better insulation that results in energy savings for the owners.



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**Type of Construction:**  
Hotel/Motel

**Installation Type:**  
New

**FLOWGUARD GOLD®**  
PIPE & FITTINGS  
**NOT A DROP OF DOUBT.**

# FLOWGUARD GOLD®

Unlike copper piping materials, the insulation properties of CPVC plumbing systems reduce condensation and "sweaty pipes." This virtually eliminates the chance for drip damage to ceilings or personal property that can occur with metal pipe systems. The material helps hot water stay hotter and cold water stay colder than copper, resulting in less energy loss through the wall of the pipe.

Plus, CPVC systems offer a system that is four times quieter than copper, reducing the sound of running water and the potential of the pounding noise of water hammer, which can make hotel guests unhappy.

"Noise abatement was a big factor in the owner's decision to use FlowGuard Gold® CPVC," said Aspinwall. "When the plumbing system is properly installed, there is no water hammer."

## Faster, Easier Installation

MSI Mechanical sent its employees to FlowGuard Gold® University, a training program sponsored by Lubrizol. The two-day seminar is a highly interactive course taught by Joe Hartman, a licensed master plumber with more than 40 years of plumbing experience. Participants experience hands-on training through the classroom, the lab and at a simulated home construction site.

"Our employees learned how to properly CPVC plumbing systems, and they raved about the training program. They saw the state-of-the-art lab and testing facilities, as well as numerous examples of corroded copper failures," said Aspinwall.

According to Aspinwall, the installation of the CPVC system was much easier than a copper plumbing system installation. "We were able to improve our productivity and provide a cleaner installation with less tools," said

Aspinwall. "The installation process is simple; we just cut the pipe with a hand cutter, solvent cement the fittings using the one-step joining system, and move on."

No torches or crimping tools are used given the ease of installation and the ability to make job changes on site. CPVC plumbing system installations are more predictable. Of equal importance, other trades can work in the same vicinity while the plumbing system is being installed.

CPVC plumbing systems also offer benefits to remodeling and maintenance projects. Using FlowGuard Gold® CPVC, remodeling can take place room-by-room instead of floor-by-floor like metal systems. "You can't solder copper joints with water in the pipe, but you can replace or add to the CPVC plumbing system and get in and out of the work site quickly," said Aspinwall.

MSI Mechanical also installed a FlowGuard Gold® plumbing system in the 240,000-sq. ft. Mystic Marriott Hotel and Spa. The plumbing installation for the Mystic Marriott Hotel and Spa totaled \$35 million. "We've used the first installations as showplaces for our customers to demonstrate to them the benefits and lasting performance of pipe and fittings," said Aspinwall. "There is no question that CPVC plumbing systems sell themselves."

Since Lubrizol's development of CPVC plumbing systems over 45 years ago, more than three (3) billion feet of CPVC pipe has been installed in homes, condominiums, buildings, apartments and hotels, including twelve (12) million homes. For more information on the FlowGuard Gold® plumbing system, including pipes, valves, joining cement, caulks, sealants and tools, call 1-888-234-2436, X7393, or visit [www.flowguardgold.com](http://www.flowguardgold.com).

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