

CASE STUDY

PLUM CREEK ASSISTED LIVING COMMUNITY BENEFITS FROM A SMARTER PIPING SOLUTION

M. W. Mielke, Inc.
Medina, Ohio
Established: 1984

M. W. Mielke Utilizes Piping Systems from FBC™ Building Solutions to Achieve a Faster, Highly Reliable and Cost-Effective Installation

In many ways, Plum Creek in Brunswick Hills (south of Cleveland) is no different than the many other senior assisted living communities popping up all around the country. It offers a variety of amenities designed to make the residents' lives more convenient and fun, as well as 24/7 access to various medical and personal services.

What is noteworthy about Plum Creek, however, is the way it is piped—for both its plumbing and fire sprinkler systems. The plumbing system at Plum Creek is a FlowGuard® MultiPort Commercial System made possible by the FlowGuard® MultiPort manifold. The unique system combines the benefits of Corzan® and FlowGuard Gold® CPVC pipe and fittings with FlowGuard™ Flex PEX pipe—all from FBC™ Building Solutions of The Lubrizol Corporation. The end result is a system that is rigid where it needs to be (risers and mains) and flexible where it makes sense from a cost and labor-savings standpoint (branch lines to the fixture fittings).

Unlike any other manifold on the market, the patent-pending FlowGuard MultiPort is highly versatile, allowing for any number of ports during installation and easily accommodating future expansion. Because the FlowGuard MultiPort, itself, is also made of CPVC it is joined using irreversible solvent cement welding to create a more reliable, corrosion-resistant piping solution that can be installed in a fraction of the time required for a copper system. As a result of this unique combination of benefits, the product has received a number of awards from various organizations and trade media. It was recently named as one of the "Top 100 Products" by *Buildings* magazine, one of the "50 Most Innovative Products" by *Professional Remodeler* and one of the "10 Most Innovative Products" by *Supply House Times*.



"The FlowGuard MultiPort manifold is truly a great product," said Tom Albers, project foreman for M. W. Mielke, Inc., the mechanical contractor chosen to design the Plum Creek project and handle the piping installation. "This was the first time we had used it, and I thought it produced an excellent way to transition CPVC to PEX pipe. Had we not had the FlowGuard MultiPort, we would have created a manifold from tees, but this way was much easier and resulted in a professional, nice-looking installation."

M. W. Mielke, a mid-sized mechanical contracting firm founded in 1984 in Medina, Ohio (just south of Cleveland), specializes in both commercial and heavy industrial projects. Its work has often been recognized through the receipt of ABC (Associated Builders and Contractors, Inc.) Awards of Excellence.

Mielke has been a loyal user of BlazeMaster® fire sprinkler systems for more than a decade, preferring the corrosion resistance and safety benefits of the CPVC system to a metallic system.

"We have a very close working relationship with the FBC team," said Dave Mielke, president of M. W. Mielke. "I truly believe in the superiority of these CPVC piping products. Metal corrosion is a serious problem—both with regard to pinhole leaks and galvanic corrosion. I think people have a false sense of security with metal. The BlazeMaster CPVC system also offers us a cost advantage, and it's so easy to install."

Despite Mielke's personal preference for CPVC, he admits that some of the institutional markets he serves have been slower to adopt non-metallic technologies. "We see more opportunities for CPVC than PEX, because of the heavier commercial work we do that is not always appropriate for PEX," said Mielke. But for those projects for which Mielke handles the design work or has the chance to recommend a change, his team is quick to suggest a CPVC or combination CPVC/PEX piping system.

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Type of Construction:
Commercial

Installation Type:
New

CORZAN
PIPING SYSTEMS
FLOWGUARD GOLD

FLOWGUARD flex
MULTI-LAYER PIPING SOLUTION

The Plum Creek project presented an ideal opportunity to use not only the FlowGuard MultiPort, but also a combination FlowGuard Gold/Corzan CPVC plumbing system, along with a FlowGuard Flex PEX piping system.

"We knew that the compounds used to make all of these products are of a superior quality," said Mielke. "We don't want to risk using an inferior product. The FBC technical team additionally gives us the support we need. Whether it's a problem or a question, we know they're there to help in a timely manner. And it's reassuring to know they lead the market in their best practices approach, which includes a thorough training program."



So when Phase I of the single-story Plum Creek community broke ground, it was a combination of four FBC Building Solutions products that made up the majority of all piping installed. BlazeMaster fire sprinkler pipe and fittings were installed throughout 60 suites, the community kitchen and the administrative offices.

Corzan CPVC pipe and fittings in diameters in excess of 2" were used for the risers. FlowGuard Gold CPVC pipe and fittings in sizes up to 2" were installed in the hallways.

"We prefer to use CPVC pipe whenever a project is roughed in above ground, because it produces a more professional looking installation," said Mielke. "But we also see a number of cost- and labor-saving benefits with the FlowGuard Flex PEX system. Not only can it sometimes allow for a quicker, less expensive installation, depending on the project parameters, but it allows us to do things differently. At Plum Creek, for example, rather than roughing in water lines in the walls once they were up, we designed a system using the FlowGuard MultiPort manifold with the appropriate number of outlets. We then simply cut to length the PEX pipe, bundled it and installed it beneath the slab. By the time the slab was poured, our baths were already roughed in. That made it easier to coordinate with other trades. We didn't have to route between the walls and the studs; instead, we ran straight under the slab. This saved us time and required less feet of pipe."

The original specs called for all underslab piping to be copper. It was Mielke's team that made the recommendation to switch to FlowGuard

Flex PEX pipe in an effort to reduce cost and installation time. FlowGuard Flex pipe and fittings were also used to connect the bath groups by looping pipe from the bathrooms to a common wall. Each suite also had a shutoff in the hallway to facilitate future maintenance or expansion.

"I had not used this type of hybrid system in the past," said Albers. "I had some limited experience with the FlowGuard Gold and Corzan CPVC pipe and fittings but did not have the opportunity to use them in conjunction with the FlowGuard Flex PEX pipe. The speed of the installation was amazing."

Although Albers had not used FlowGuard Flex pipe in the past, he had used other PEX piping systems. "The FlowGuard Flex pipe felt more durable to me," said Albers. "It could actually take more abuse without concerns of kinking or crushing it."

Mielke also liked the additional protection offered by the multiple layers of the FlowGuard Flex pipe which helped to offset concerns of possible PEX pipe degradation as a result of UV or chlorine exposure. "Trust is important in this business," said Mielke. "You don't ever want to have to second-guess the quality of the product. But we know that FBC Building Solutions is a leader, so there are no worries."

As for Albers, he looks forward to having more projects on which he can use a combination of BlazeMaster, FlowGuard Gold, Corzan and FlowGuard Flex piping systems along with the FlowGuard MultiPort. "These systems are so much faster and easier to use that it makes sense to use them whenever possible."

As the president of the company, Mielke takes a more bottom line-oriented view. "When you have a better product that costs less, it's a no-brainer to switch. Without a doubt, this combination of products represents a superior solution."

Since Lubrizol Advanced Materials, Inc. (as part of BFGoodrich Performance Materials) developed CPVC plumbing systems over 50 years ago, more than four billion feet of CPVC pipe has been installed in homes, condominiums, buildings, apartments and hotels, including more than 12 million homes. For more information on the FlowGuard Gold® plumbing system, including pipes, valves, joining cement, caulks, sealants and tools, call 888-234-2436, x447-7393, or visit www.fbcbuildingsolutions.com.

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