## Copper Alternative Joining Systems: A+

## "Solderless" copper systems offer longevity, quick and easy installations

In today's economy, educational districts and facilities are facing tough choices in providing programs and facilities that offer better educational opportunities at lower costs. When it comes to facilities construction and maintenance, that decision doesn't have to come at the sacrifice of quality. Lower overall construction materials costs and new technologies can deliver reliable, long lasting facilities to serve them long into the future.

Do you remember standing on your tiptoes for a drink from that water fountain in the hallway? Copper has long been the preferred piping material chosen to deliver safe, potable water for that and many other uses within a school building. For new construction or repairs, copper is still the benchmark for plumbing and heating systems due to its reliability, long life, and overall value. With today's new joining methods, copper can continue to offer school districts a lifetime of safety and value while cutting down on installation, labor and future repair costs.

Alternative "solderless" joining systems rely on push-connect or press-connect mechanical fittings, or similar fittings that utilize a structural adhesive joining system, all of which are suitable for most plumbing applications and are capable of withstanding the pressure and temperature ranges common to both residential and commercial building systems. Another advantage of solderless joining systems is the ability for "wet-repairs," which can be done immediately, without draining the system.

"When it's time to install a copper system, it's not just soldering and brazing anymore," said Andy Kireta Jr., vice president of the Copper Development Association (CDA)."Between the quality of copper, and the advantages that these alternative joining systems offer, it's hard not to choose copper for any construction project, especially for facilities as valuable to our communities as schools. We want these facilities to last a lifetime, or more' and we need to use quality materials like copper piping to insure that they do."

Robert Hall is the national technical consultant for Viega, which specializes in plumbing and heating technology, and acknowledges the role of copper in commercial buildings, including educational facilities. "Copper has the track record, and it's still a mainstay in construction in the U.S.," Hall said. "Copper has always been known for its performance."



Copper system installation, courtesy of Viega, LLC)

The principal advantage of solderless joining for many commercial projects, especially educational facilities, is faster installation. When you have a scheduled project that has a deadline quickly approaching, copper can offer the quick high-quality fix.

"[Alternative joining systems] bring projects in on time and there are very few callbacks after the installation," Hall said. "Contractors learn pretty quickly that callbacks hurt the bottom line. It's attractive to them and the engineers when they are looking for value that will reduce the overall costs."

Glen Urquhart Private Elementary School, in Beverly, MA, broke ground in November 2006 and had problems completing the plumbing and heating portion of the project by October 2007 — the scheduled deadline. They turned to an alternative press-connect joining system for speed of installation, while feeling assured that the overall copper system was a product they can rely on for decades to come.

"When you have a flameless system, there is no need for burn permits, especially in renovation and repair applications," Hall said. "It's fast, clean and green. These are highly-engineered systems, but at the same time, very simple. It revolutionizes joining technology."

And the longevity, sustainability and workability of copper remain unmatched when talking about alternative joining systems.

"When designers want a building to last 100 years," Hall said. "Copper will be their product of choice."

To learn more about alternative joining systems, please visit www.copper.org. HPN