

Plumbing Installations

Arxx™ Form Sizes

The Arxx™ High Performance Wallsystem is manufactured in four concrete core widths, and each width has a different foam thickness. Knowing the available foam thickness in which to run piping, will lead a plumber to the appropriate maximum allowable pipe/fitting diameter, and sleeve length.

Through Wall Penetrations

Prior to concrete placement, install PVC or metal pipe sleeves one size larger than the pipe being run through the wall is the best practice. This allows tolerance in pipe alignment from the inside and backfill settlement on the outside. The annular space between the sleeve and the pipe is filled with water plug or an expanding foam and waterproofed with a foam compatible membrane or caulk. The sleeve length can be the same as the form width so that it is flush with the inside and outside face of the form. To make the hole for the sleeve, use the sleeve as a template and pencil mark the circumference on the foam. A handheld keyhole saw is the preferred cutting tool for a snug fit. Recognize that the most likely location for horizontal rebar is a few inches above the form units centreline, so the best location for a penetration is right near the horizontal joints between courses.

Pipe Chases

After the concrete has been placed in the Arxx™ walls, pipe chases can be cut into the foam to permit running small diameter pipe beneath the gypsum wallboard. Consider the increased diameter of pipe-fittings when calculating the maximum size pipe to fit within the foam. Of the many tools used to cut a pipe chase, the three fastest and cleanest are a chainsaw, hot knife, and side grinder.

- **Chainsaw:** To make a depth stop on a small electric chain saw, measure depth of chase back from the tip of the chain, drill a hole in the bar and install a 3/8"Ø x 3" long all thread rod, and nut each side of the bar.
- **Hot Knives:** often come with a depth stop clamping plate.
- **Side Grinders:** simply go back in and nick the concrete.

On horizontal cuts there is less interference with the black plastic webs near the horizontal joints between courses of forms. The pipe can be held in the chase with a perforated metal strap screwed back into the concrete or the black plastic webs.

Embedded Pipe

For maintenance reasons, it is not a good practice to embed pipe directly in the concrete core, it also creates a weak spot in the wall that may require an engineer to specify extra steel reinforcing. To suspend larger diameter pipe within the core, simply lash it to the black plastic webs with wire or tape, and stub out through the foam with elbows and pipe nipples. In most every case, the best alternative to embedding pipe in the core is to build out a pipe chase with wood or metal studs to hide the pipes for easy maintenance.



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Installation of
Plumbing Service
In Arxx Forms

Sources

HOT KNIVES AND BLADES

Avalon Concepts Corp. 1055 Leisz's Bridge Road, 800.636.8864
 Leesport, PA www.avalonconcepts.com
 19533

Windlock Select 877-468-5643
 www.windlockselect.com

EXPANDING FOAM

Flexible Products Company Richmond Hill, ON 800.567.4447
 L4B 1E4 www.flexibleproducts.com

Windlock Select 877-468-5643
 www.windlockselect.com

APPLICATOR GUNS

Flexible Products Company Richmond Hill, ON 800.567.4447
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Tips!

“Knowing the available foam thickness in which to run piping will lead the plumber to the appropriate maximum allowable pipe fitting diameter and sleeve size.”

TABLE 1

Core Width	Available Foam Thickness	Total Thickness of Form
10"	2 ³ / ₈ "	15 ¹ / ₂ "
8"	2 ¹ / ₄ "	12 ¹ / ₂ "
6 ¹ / ₄ "	2 ³ / ₈ "	11 ¹ / ₂ "
4"	1 ³ / ₄ "	8"