

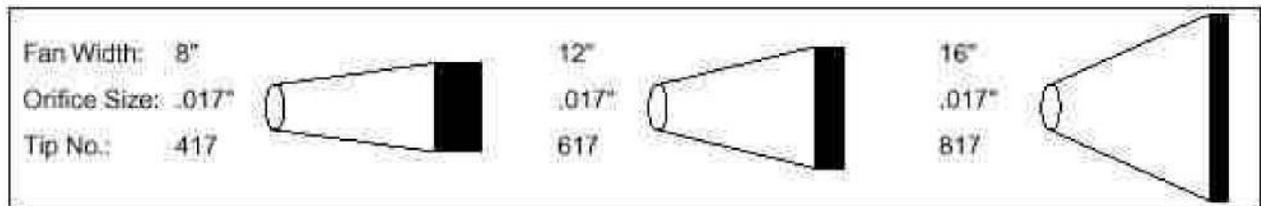
## Technical Tip

# Airless Spray Tips

Many professional applicators and an increasing number of homeowners prefer to use airless sprayers when applying exterior finishes. One of the reasons that our log home finishes are so popular with professionals is that we formulate our Lifeline log home stains and topcoats with a low viscosity which makes them easier to apply using an airless sprayer.

Everyone who plans to use an airless sprayer for applying our finishes should have a basic understanding of airless spray tips and the consequences of using the wrong size tip. U.S. manufacturers typically use three numbers such as 415 or 213 to designate airless sprayer tip sizes. The first digit refers to fan width and is one-half the number of inches of the working fan width when the tip is held one foot away from the surface. So a 415 tip will result in an 8" fan pattern at a 12 inch spraying distance and a 213 tip will produce a 4" wide spray pattern at one foot away from the surface.

The second and third digits refer to orifice size in thousandths of an inch. Thus, the 15 in a 415 tip refers to an orifice size of .015 inches and the 213 tip has an orifice size of .013 inches. The larger the orifice the more product will be applied to the surface. However, there is a kicker. If you are using a 417 tip (8" fan pattern, .017 inch orifice) to spray squared logs and then change to a 817 tip to spray a log on log wall you will end up applying a thinner coat of product to the surface because a given amount of material is distributed over a larger area (see below). You need to know how to adjust your spraying technique to compensate for this.



So what do we recommend and what are the consequences of using the wrong tip size? For all of our Lifeline log home stains and topcoats we recommend the use of spray tips with a .015 or .017 orifice. Thus the tip numbers would be x15 or x17, x being up to you depending on what width spray pattern you want.

Since our products are low viscosity, using a tip with a .019 or larger orifice may produce drips and runs that will need to be brushed out. On the other hand, the use of a .013 or smaller orifice tip results in a very fine mist which can significantly reduce product drying time making back-brushing difficult, if not impossible. The tiny droplet size produced by a small orifice tip increases the product's surface area to the extent that it may dry in a matter of seconds, especially in warm, dry weather.