

Spray Tip Selection

Selecting the best tip size for the job ensures that you stay within your budget and get the finish you're after.

Understanding tip size:

Tip sizes are measured in thousandths of an inch and are designed to produce optimum results at a 300mm distance from the work surface.

The number on the tip will tell you the spray fan, angle and orifice size.

Example: Tip 413

The first number: **413** refers to the angle of spray (i.e 40 degrees) and tells you the width of the spray in inches. To calculate the fan multiply the number with 2 (4 x 2 = 8inches)

The last two numbers **413** are denoting the orifice size, in this case 13 thou or .013"

The tip size matches the viscosity of the material and standard matches are:

Varnishes, Lacquers non pigmented 7-9 thous

Urethanes, Alkyd enamel gloss 9-11 thous

Acrylic/Urethanes Alkyd semi-gloss 11-13 thous

Waterbased Enamels, Acrylic, PU Coatings (airless grades) 13-15 thous

Alkyd Flat/UC Acrylic Roof and Exterior PVA's 15 -19 thous

Acrylic Hi-Builds, Fibre Rich Waterproofing, Fire Retarders 19 -25 thous

Ceramic Coatings, Hi-Solids Epoxies 21-35 thous

The line filter size must match the tip size (this is a common fault - mismatched filters). Usually tips are quickly changed without downtimes and are reversible for self-cleaning.

Tip Wear:

Yes, airless tips do wear out! How fast the tip will wear depends on many factors, from how old the tip is to what type of material is sprayed though it, even the way the tip is cleaned can reduce its life expectancy.

To ensure you get the most out of your tips we recommend the following:

1. Spray at the lowest pressure needed to get a good spray fan.

2. Don't use metal brushes to clean the tip, rather use a soft brush or some cloth.
3. Strain gritty material with a strainer bag
4. Clean your gun filters!
5. Clean the tip and filters after every use.

How to identify a worn tip:

As the tip wears, the spray fan changes from a long tight line to a more oval shape. The fan will keep getting rounder and shorter till it looks like you are spraying a circle. This means that as the tip wears, the fan width reduces and you need to make more passes over the same area to get the desired coverage. The worse the wear, the more paint is used to cover the same area.



New Tip:
Creates a long and sharp line, optimal paint usage and work speed.



Slightly worn:
Line becomes "fatter" and you may need an extra pass for the same coverage. Still usable but starting to cost extra paint and labor



Worn Tip:
At this point you may see that the finish is not optimal, and you may require multiple passes to get adequate coverage.



Completely worn:
You will need to do multiple passes and the finish will be compromised.