

# TECHNICAL REPORT

## WATER BORNE PAINT CONSIDERATIONS THE PLUSES AND MINUSES OF NEW-AGE PAINT TECHNOLOGY

With insurance company contracts "appearing" to favour accident repair shops that are running a water based paint system, there has been a huge amount of interest in water demonstrations, and installation.

This is, from where I'm standing, a major business decision. It's a decision that requires careful research by the shop owner.

I will outline a few things you need to consider:-

Is your workshop infrastructure up to all of the requirements?

You need clean, abundant compressed air. The two air amps used to dry the water consume around 800 litres a minute. This may require a new (rotary screw) compressor, or at the very least, a thorough check of your existing air lines to remove any potential restrictions in the delivery of air to the spray booth. With the new health and safety laws, you will require this much air delivery anyway, (an HVLP spray gun and an air fed hood will consume around 800 litres/min as well, (note, the air amps, or Venturi blowers don't get used at the same time). You're either spraying, or drying. The purity of the air is also critical. As a guide... less than fourteen percent moisture at the booth.

Consider the optimal water drying system for your shop. Generally, for smash repairs the two air amps on a stand will suffice. If your main type of work is larger, for example repaints, you may want to look at a quad blower system that draws warm air from the roof of the booth, and blows it over the car from multiple points in the booth. These

"quads" save a heap of hard work for your compressor because they push their own air. There are other drying systems available, not widely used yet in NZ that you may want to internet study, or ask our neighbours in Australia.

Also, consider your entire painting process to optimise your profit. Generally, saving fifty dollars on a tin of cheap generic primer, that's not the correct grey shade, or value shade, then blowing five coats of expensive red pearl over the repair to achieve coverage, in my view, is false economy and hinders production. You need to look at correctly shaded primer. You will have to rethink the way colour is checked, as latex water can't be "stick matched", a colour library is a good idea.

If you're paint shop is not running optimally, water will just add to the burden. The whole panel and paint process needs to be slick, the quoting needs to accurate. In a modern repair facility, a "sick" paint shop will drag the profit out of the overall business. With the high cost of running heated booths, paint etc, the booth is KING. This means that the entire shop, office, scheduling, panel, paint works around optimising the use of the spray booth. Often I see a booth fired up for one bumper, at a running cost of around \$60 an hour, and about \$220 total for the job, you do the math. Now put three or four bumpers in at once....... Big profit! Your painters need enough spray guns to cope with multiple colours. Food for thought. I hope this enlightens it a little....

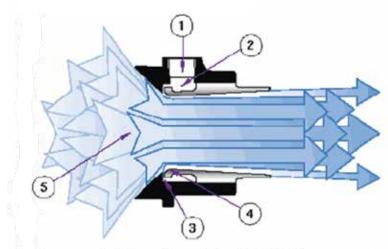
This article has been compiled by Steve Loney (Windows) of Linkup Paints





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### AIR AMPLIFIERS - PRINCIPLES OF OPERATION



Compressed air flows through the inlet (1) into an annular chamber (2). It is then throttled through a small ring nozzle (3) at high velocity. This primary airstream adheres to the Coanda profile (4), which directs it toward the outlet. A low pressure area is created at the center (5) inducing a high volume flow of surrounding air into the primary airstream. The combined flow of primary and surrounding air exhausts from the Air Amplifier in a high volume, high velocity flow.

# **HAND HELD - PORTABLE UNITS**



# I-CAR® TECHNICAL REPORT

