PAINTING WITH NITROGEN...
The Secret Is Out!

For those of you who were not in on the secret, painting with nitrogen technology in place of compressed air will allow three important things to happen in your paint shop:

1. Your wet materials usage (per vehicle) will drop significantly;
2. Your booth through-put will increase dramatically; and
3. Your booth exhaust filter cost will nearly be cut in half.

Those are some strong claims. However, once you are exposed to nitrogen technology, it all adds up, and it adds up BIG! Just ask Bobby Glaize, body shop director for JM Lexus, the world's largest Lexus dealer. He has been able to bring his gross profit on paint materials from 33 percent up to an impressive 72 percent in 90 days. Aggressive shop managers and owners like Bob McSherry of North Haven Auto Body in North Haven, CT, Mike Bachiochi of Fathers & Sons in West Springfield, MA and George Mastrodimos of Class A Auto Body in Hackensack, NJ heard the word and were quick to jump on board.

These systems have a one-two punch. Here's how it works. ***Nitrogen*** is in the air we breathe, and it's free. A common air molecule is made up of 78 percent nitrogen. The trick is separating the nitrogen from the other gases that make up an air molecule - mainly oxygen, a little argon and some other trace gases. To get the nitrogen, a nitrogen "extractor" machine is installed in the shop's air line near the booth to separate the nitrogen from the shop's compressed air supply. Here's what happens. An air supply from the shop's existing compressed air line is connected to the inlet side of the nitrogen extractor machine. The machine separates the nitrogen out from the supplied compressed air via a "nitrogen stick" (a membrane type

filter) and the nitrogen is expelled from the outlet side of the machine and into the painter's hose. There are no moving parts, merely a series of "top quality" filters to thoroughly clean and align the air molecules prior to entering the nitrogen stick membrane. Being a "membrane" as opposed to a filter (which needs replacing), the nitrogen stick has an indefinite life span.

So where's the benefit? Nitrogen is an inert gas, which means it will not expand or contract as compressed air will. Why is that important? Using nitrogen, all the paint molecules are uniformly aligned and there is no uncontrollable variation; no expansion or contraction...not even with high humidity. (Waterborne users, pay attention!) It means the paint being dispersed from the gun will be delivered to the vehicle with extremely finer atomization (it's like putting your HVLP gun on steroids), and that means better coverage using far less material and thereby faster cycle times. How much less?

Bobby Glaize has reduced his wet materials cost by 28 percent, which is astounding. However, even a conservative 10 – 15 percent reduction is substantial if your shop is spending $10,000 or more per month. That's $1,000 to $1,500 less in wet material bills at the end of the month. You do the math! And this applies to all wet materials... primer/sealer, color and clear.

Mike Bachiochi commented, *This is a game changer.* He and his head painter Wyatt said they could see a significant material reduction immediately. Wyatt performed an "in shop" reality test. He painted one side of an overall with compressed air and the other with nitrogen. You could clearly see a sharper, deeper "light line" on the nitrogen side. The compressed air side was more "muted," "mottled" and defused. Not as crisp...not as sharp.

We have discussed the nitrogen, so let's move on to the second component: ***HEAT.*** The air discharged from the machine is also heated, which allows better "Post Flow" (how the paint flows out once it reaches the panel), again accelerating coverage and shorting cycle time. Ever heard of "slow as molasses?" Well, warm up the syrup and see how fast molasses can *really* flow. This system allows delivery temperatures upwards of 160 degrees (depending on the paint product being applied). Heat has always been the painter's friend. (You may be too young, but some may remember Hot Plates.)

So let's review. More paint transferred to the vehicle equates to better coverage, shorter cycle times, less overspray, cleaner paint work, less filter change outs and lower paint bills...which equates to higher profits, and so on, and so on…

In conclusion, this new technology is not for the "faint of heart." A cost of $30,000 per booth is not uncommon. That being said, ask any of the users and they will tell you the ROI on a system is an impressive 12 to 15 months. Even more impressive: The paint shop's ***"operational cost reduction"*** is ***immediate!***

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