

By Kevin Farrell

# Steam and “Waterless”

## Cleaning Combo of the Future? Part II

Last month, in Part I of this article, we examined the relatively new polymer-type “waterless” wash products and compared their performance to conventional car washing. In this conclusion of the article, we will consider the use of steam cleaning machines — past, present, and future — and explain how combining a polymer-based cleaner with steam cleaning offers new efficiencies.

### STEAM MACHINES

Many detailers are familiar with using a steam machine to clean the interior of the vehicle. The benefits are many. But steam should be

examined for its ability to clean the exterior of the vehicle. If steam can be an aid in exterior cleaning, the detailer will be environmentally friendly and compliant in those areas where water simply cannot be used in significant quantities to clean a car.

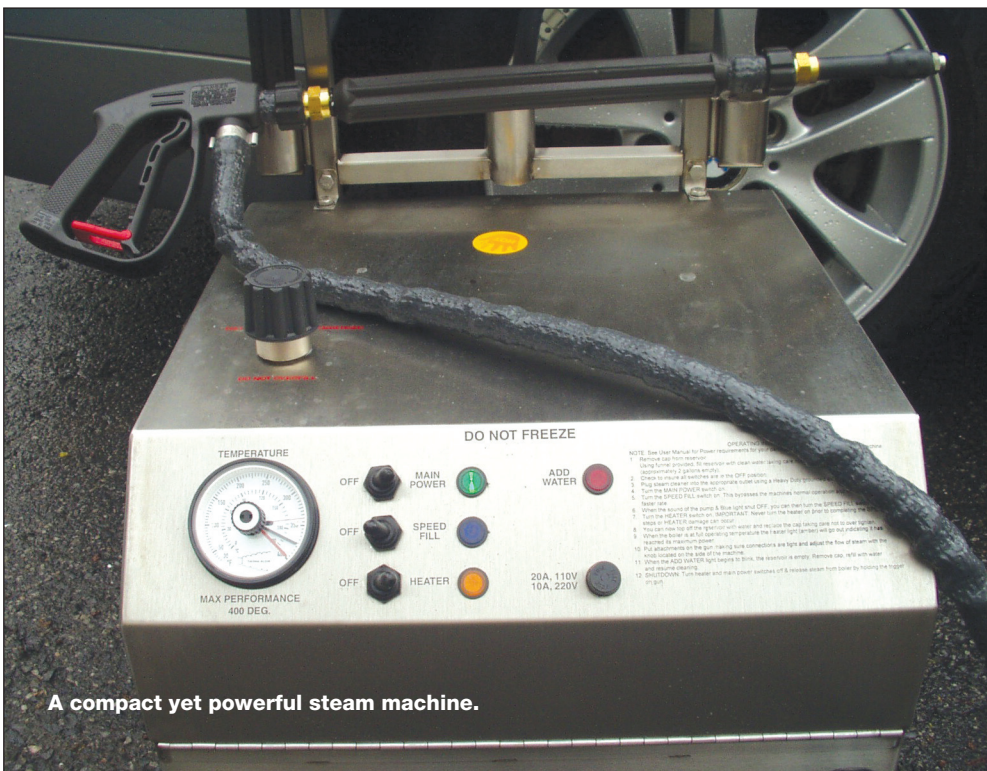
Steam can be a big help in blowing much of the standing dirt and dust off a vehicle. Steam alone will not completely clean a car no matter how powerful the machine is. Dirt and other contaminants bond to a vehicle in a way that steaming alone will not fully resolve. You will need the aid of a polymer cleaner, along with possibly more traditional cleaners such as a wheel cleaner or all-purpose cleaner to

chemically assist in the wash process. Steam can clean the harder to reach areas such as seams, around headlights and taillights, around moldings and trim, doorjamb, wheels, and wheels wells.

On a really filthy vehicle, the aid of hot, high-pressure steam can be a huge help in getting the vehicle as clean as possible in as little time as possible. If a vehicle is caked with mud or full of road salt, the job becomes much more difficult. However, if water is not an option, the chances of getting a car like this clean with only a waterless wash product and a towel would be close to zero, and the time spent cleaning it would be astronomical. Furthermore, the steam machines that are currently available for cleaning interiors of vehicles will not be able to effectively clean the exterior of a vehicle for a few reasons:

### Shortcomings

Many of the smaller steamers have small boilers. The capacities are small and they will run out of steam if you are using the machine for an extended period of time. Also, most steamers do not have sufficient pressure capability. At around 60 to 65 psi, the pressure is generally adequate for the interior but not nearly enough for the exterior. The engineering of the boiler and the components of the machine itself will not be able to produce the extreme pressure needed to help clean the exterior of the vehicle. They also cannot hold pressure for an extended period of



A compact yet powerful steam machine.

time. Also, most steamers have very short hoses, which is problematic for moving around the exterior of the vehicle while cleaning.

So while the thought of steam makes sense for assisting in cleaning the exterior of the vehicle, there are very few machines that are capable of actually doing a good job in a reasonable amount of time. The few machines that have been developed for the exterior of the vehicle are very large and very expensive. However, they may be worth the investment if you will be working in parking lots of large corporate buildings. On most corporate properties the management will not allow any kind of water runoff and demand that a detailer be as environmentally friendly as possible. Having an exterior steam machine will allow you to work in that environment and stay in business if you are exclusively mobile.

### EXTERIOR STEAM MACHINE

There are only a few exterior steam machines currently available. While most of them are imported machines from either Korea or Italy, there is a new machine made in the USA that was developed for the mobile car wash and detailer. Most exterior steam machines have pressure of about 110 to 115 psi, which is good to help clean the exterior, though even more pressure would be helpful. These exterior steamers also have longer hoses of about 25 feet to help get around the vehicle more easily. They have higher-capacity boilers so that they don't run out of steam too quickly. With higher capacity and higher pressures, these machines can be used effectively to help clean the outside of a vehicle provided you are also using a new polymer type cleaner along with the steamer.

Many of these machines are very

large and very heavy. They are really not portable even though they have wheels. Their average weight runs around 250 to 300 pounds, which means getting them on and off your vehicle would be very difficult, and you would need to have your vehicle which houses the machine extremely close to the car you are working on. A much smaller unit (around 80 pounds) that actually produces higher pressure of 180 psi is an alternative.

Many do not have brush attachments to help clean the interior, which basically limits the machine to outside use only. You need the agitation of various brushes to effectively clean different interior surfaces. If the machines are 12-volt operated, it can be a plus if you have no access to electricity, but a minus if you do not have a spare battery. Assuming a detailer will have a generator to operate his other electrical equipment such as a vacuum or buffer, an electrically operated steamer is a plus in my opinion. Pricing on these machines generally starts at around \$7000 and goes higher as the options go up.

But in the end, steam is steam, no matter what brand you buy or how much you spend. Once you have a machine that has the right pressure and features for you, this type of steamer will allow you to clean the exterior of vehicles with virtually zero water runoff, keep you in business, and open up more opportunities. But let's look at the time and total costs of operating both high-pressure water systems and high-pressure steam systems to clean vehicles.

### COMPARISONS

If you still have a pressure washer on your truck you may not want to get rid of it and invest in the new steam method just yet. But to continue to use high pressure and a high volume of water, you will need a water containment system.



**Above:** Special soft brush attachments that can be added to the wand to help agitate and scrub dirt and debris from the areas that commonly have more grime built up.

There are various water containment systems available to trap water runoff before it enters sewers or drains. There are mats to catch water runoff. Another containment device is a berm to surround your working area and catch the wastewater while a high-powered vacuum will suck the water up and hold it in a tank for disposal. There are platforms that the vehicle is driven onto with drains and a reclaim tank built in. These containment systems can run into the thousands of dollars and some may take time to set up and time to reclaim the water. While these setups will allow you to contain runoff with a current high-pressure, high-volume system, you have to be working in a non-drought area where there are no water restrictions to make this work. In reality, the combined cost of a commercial power-washer and water-containment system may equal the cost of a high-pressure steamer.

Let's also look at the size and type of vehicle that you will need to hold and transport both systems. You will need a generator no matter which system you use, so cost and space will be equal. If you choose to go with high-pressure, high-volume water, you will need a commercial pressure washer, which is somewhat large and heavy especially if its gas powered. You will also need a large water tank of at least 100 gallons. I see some mobile detailers carry a 200-gallon water tank on their

trucks or vans. This typical setup adds much space and weight. This is why many mobile detailers use a trailer or have large vans to carry all this equipment. A trailer can be very expensive to begin with and the cost of a large van or pickup truck is also up there.

If you chose to use a high-pressure steamer, you can do away with the water containment system, as there will be virtually zero water runoff with steam and the polymer cleaners. Any contamination from the vehicle can be caught with either a small mat or towels placed under wheels to catch brake dust for instance. If you are careful you can prevent any contamination from even hitting the ground. You will use a much smaller water tank as you will be using much less water. A 25- to 30-gallon tank should suffice. This will save a huge amount of space, weight, and money. The steamer will not take up too much space or weight on your vehicle if you choose the machine wisely. You should not need a trailer, which will save money and allow you to easily maneuver your vehicle once you get to the location. You will also improve gas mileage with the weight savings, further saving you money. But what I really like is that you can run a much smaller vehicle. This will impress your customers that you truly are environmentally friendly. Instead of a pickup truck and trailer, you can use just a small pickup truck. You can go from a large van such as an Econoline, which is popular with mobile detailers, to a Honda Element type of van or even a Chevrolet HHR. The smaller vehicle will save you money on the vehicle itself and improve your gas mileage with the weight savings from both the vehicle and equipment.

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### COST VS. TIME

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Costs will basically be even if you incorporate all the factors. You can run a steam setup just as cost effectively as a conventional setup. The key is time spent on this new and unfamiliar way of washing cars. Steam washing will take a bit longer on a dirty car than the conventional method. This is what mobile detailers complain about. However, the “old school” methods may be a thing of the past very soon, and if you are caught employing the “old school” methods you can face hefty fines. Once mobile detailers realize that the old washing methods cannot be used, they can focus on what the best “new school” methods are, and better judge what equipment and products to buy to make it work. This can be an opportunity if it’s looked at with an open mind. The methods will be different and not as quick as what you may be used to. However, being able to advertise that you are washing cars with *steam* and *polymer* wash products and that you are a “green” detailer will surely impress people and open up more business. It also could be the thing that keeps you in business in this ever-changing environment. 📸

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