



The Art of Pressure Washing

There's no better way to prepare a house for painting, but be careful you're not doing more harm than good

BY JON TOBEY

If you read the label on a few different cans of paint, you'll notice some similarities. One way or another, the instructions will tell you to scrape all loose paint, to repair all damaged areas, and to clean the surface thoroughly. To do the best possible job, I have made pressure washing a regular step for all my finishes.

However, there is an art to pressure washing a house, whether you are doing it to prep for painting or just to clean the siding. It's like the story of *The Three Little Pigs*: Too much, and you could blow your house down; too little, and you could huff and puff all day long to no effect.

A pressure washer is not a paint remover

Pressure washers are for washing. They are not for removing paint. If you manage to use a pressure washer as a paint remover, you're probably washing hard enough to damage the siding, and possibly forcing water inside the walls. The reason to wash the house is to remove dirt, algae, mildew, and oxidation that can cause paint failure. Loose and flaking paint should be scraped and sanded, and damaged siding and trim should be repaired before the house is washed.

Although I tend to wash harder than other contractors, I tailor my technique to each house. On an 80-year-old house, I use less pressure than on a 3-year-old repaint, and I avoid areas that may be prone to leaking. To be sure that water is not getting into walls, I always ask permission to go inside the house, where I check for leakage around doors and windows.

Although a pressure washer is not a paint remover, washing can loosen paint. So when I'm done washing the house, I check for newly loosened or flaking paint before I prime.

Bleach cures the mildew problem

One of the biggest problems with existing paint jobs is mildew. Mildew discolors the paint, causes adhesion problems with new paint, and even can damage the siding. To combat this problem, I apply a 3-to-1 water-to-bleach solution before I pressure wash. I mix the solution in a garden sprayer and apply it to the entire house (photo p. 96). When washing houses, I prefer the garden sprayer to the chemical injector on the pressure washer because the sprayer is easy to move around the house and up and down a ladder.

Be careful with the bleach. I've never had a problem, but I have heard of people experi-

JUST ENOUGH SCRUBBING POWER

Four different tips provide an angle for every job.

Wheels and a frame that creates a handle make it easy to move the machine as you work around the house.

Quick-release connectors make it easy to disconnect the hose and gun and add hose extensions.

An in-line chemical injector allows you to use the machine to apply cleaning products.

To clean a house well, you need a machine that can generate around 2500 psi. Anything less just won't cut it, and stronger machines are overkill. This 2400-psi pressure washer from Porter-Cable (www.porter-cable.com) costs less than \$500. Pressure washers also are commonly available at rental yards.

Pistol-grip handle lets you work comfortably one-handed.

15° tip
15° fan angle

TIPS CONTROL THE FAN ANGLE AND THE WASHING STRENGTH

Most pressure washers come with a set of tips that produce various spray angles. As you would expect, the different angles control the strength of the water stream.

The 0° tip focuses an extremely powerful jet of water at a narrow area. To avoid damaging the siding, I recommend losing this tip. I use the 15° tip for most of my work. This tip works well 4 in. to 4 ft. from the surface. For a light wash, such as to remove sanding dust, the 25° tip works well. I honestly don't find a 45° tip to be much of an improvement over a regular garden hose.

The largest tip is usually a specialty tip to use with the chemical injector. A chemical injector is an in-line T that works like those bottles you attach to a hose to spray gardening chemicals. The end of the T goes into a cleaning solution. The high-pressure water coming into the T siphons the chemicals into the machine and mixes them with the water.



0° tip



25° tip



45° tip



Chemical applicator

POSITION IS EVERYTHING

As you make your way around the house, work from the top down, washing from clean areas to unwashed areas. Instead of shooting water up at the house, work from a ladder and wash downward to avoid forcing water under the siding.

12 in. to 18 in.

A 15° tip 12 in. to 18 in. from the siding creates a fan equal to the width of one lap of siding.

Start with the gun pointing away from the house. Swing the stream into the siding and wash by moving the wand perpendicular to the house.

encing adverse skin reactions to the mist. If your skin is sensitive, wear long sleeves, pants, a respirator, and rubber gloves.

Although the sprayer and pressure washer both are accurate applicators, be mindful of overspray and run-off. I generally don't like to use chemicals on surfaces that are not going to be repainted, but if the house has a deck, I usually wash it anyway. Otherwise, I'm very careful not to let the bleach solution drip on decks or wood-shake roofs because the bleach can leave noticeable clean spots.

In my experience, most plants seem immune to the bleach solution, but to be safe, I cover and uncover them as I go. You also can wet the plants before applying bleach to the house so that any solution that does drip on them is diluted further, and then rinse them again when you are finished with the area.

A pressure washer scrubs and rinses

Applying the chemicals and washing the house always are two separate steps, so after I have made a complete lap around the house applying the bleach solution with a garden sprayer, I fire up the pressure washer and start over.

Most often I use a 15° tip to scrub and rinse the house, removing dead mildew spores and any accumulated dirt and rinsing the chemical residue from the siding. A larger angled nozzle doesn't have enough scrubbing power, and a lower angled nozzle can damage the siding and trim. I wash the entire house with the nozzle 12 in. to 18 in. from the surface. This distance produces a fan about the width of a clapboard. I make sure to rinse the house thoroughly because any chemical residue left behind may affect the new paint's adhesion to the surface.

If the house is new or if I'm stripping the surface, I skip the bleaching, but I still pressure wash the house to remove any construction dirt or dust before I paint.

I never begin or end with the pressure washer pointing at the house because the force of the water can throw off my balance and damage the surface. Instead, I start with the wand pointing away from the house.



A garden sprayer makes a great chemical applicator. Prior to washing, a bleach-and-water solution is mixed in a garden sprayer and applied to the entire house to remove stains and to kill mildew. A garden sprayer is a lightweight alternative to the in-line chemical injector on the pressure washer.

Cleaning-solution formula

- 1 part bleach
- mixed with
- 3 parts water



Then I bring it toward the house, keeping it perpendicular to the siding until I am done with the area. At the end of my reach, I finish with the stream again shooting away from the house. I pressure wash from the top down, working from a clean surface into a dirty one, and always keep the gun perpendicular to the house rather than swinging it in an arc.

You can buy extension poles for washing the higher areas of siding, but I find them exhausting to use and tough on my back. You also never want to shoot water up at the house because doing so can force water underneath the siding. Instead, I wash the house from a ladder so that I can see what I'm doing. Most machines come with a wand that has a pistol-grip handle, which means I can wash one-handed from a ladder. It takes a little practice

to get comfortable, but once you are used to working from a ladder, it is a real time-saver.

I avoid working from wood-shake or metal roofs because my life depends on it. In Seattle, most of the roofs are made of wood shakes, and getting them wet activates a fine layer of algae that can be treacherous.

Drying takes time

The only drawback to pressure washing as part of preparing a house to be painted is that the house then needs time to dry. While the average two-story house takes me about four hours to bleach and wash, it may take several days of warm weather to dry, possibly up to a week if the surface has a lot of bare wood. But a surface that is in good condition may be dry enough to caulk in 24 hours and be ready for paint the next day.

Without a moisture meter, there is no fool-proof way to know when the siding is dry. You have to make an educated guess. Bare wood is darker when wet, so one thing to note is the color of the dry siding before it is washed; then you will be able to gauge its moisture content by watching the wood lighten as it dries. You also can feel if the wood still has water in it. On a warm day in particular, you can feel the coolness of the water evaporating from the siding. If you don't feel any temperature change as you move your hand along the siding, the house is ready to go.

Just cleaning?

A pressure washer can be used to clean the exterior of a house even if it is not going to be painted, but the technique is different. On a painted or stained exterior, you need to be careful. I mentioned earlier that I don't like to use chemicals on a house that I am not going to repaint. This is because the chemicals can discolor and, more important, degrade the existing paint by removing any sheen it has.

For the same reason, I don't like to use excessive pressure against a house that I'm not going to repaint. If a house simply is dirty or dusty and needs a good rinsing, I use a 25° nozzle, stand back, and let the water do the work. If a house has algae, mildew, or oxidation on it that needs to be removed, and chemicals are the only choice, the house probably should be repainted. □

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continued

ONLINE CONNECTION

Pressure washers are a great way to clean a surface before painting, but they are not good paint removers because the power required to strip paint can damage the house. To learn the right way to strip paint from siding, visit www.finehomebuilding.com to read Jon Tobey's article "Removing Exterior Paint."

Reader Response

Pressure-washer tips mislabeled

There is a reason why the 0° tip for a pressure washer is red: because it creates a powerful spray that can damage your house. In “The Art of Pressure Washing” (*FHB* #162, pp. 94-96), we mislabeled the pressure-washer tips. Most pressure washers that come with different tips for different spray angles use the same color-coding. The correct tips and labels are shown at left. The 0° tip is red, the 15° tip is yellow, the 25° tip is green, the 40° (not 45°) tip is white, and the chemical, or soap, applicator is black.

—THE EDITORS

Pressure-washer tip colors and spray angles



0° tip



15° tip



25° tip



40° tip



Chemical or soap tip