



Frequently Asked Questions

WaterSense® Labeled Showerheads

What is the WaterSense Specification for Showerheads?

The WaterSense specification applies to showerheads that have a maximum flow rate of 2.0 gallons per minute (gpm) or less. This represents a 20 percent reduction in showerhead flow rate over the current federal standard of 2.5 gpm, as specified by the Energy Policy Act of 1992.

In addition to the water-efficiency criteria, WaterSense labeled showerheads must meet three key performance attributes that were identified through consumer testing: flow rate across a range of pressures, spray force, and spray coverage. These requirements are designed to ensure a high level of performance and user satisfaction with high-efficiency showerheads.

How was the specification criteria developed?

WaterSense worked in collaboration with the American Society of Mechanical Engineers/Canadian Standards Association Joint Harmonization Task Force on water-efficient showerheads to develop the criteria. This task force represented a cross-section of stakeholders including showerhead manufacturers, water and energy utilities, testing laboratories, consultants and other water-efficiency and conservation specialists.

The specification development process involved consumer testing to identify key performance attributes, and the development of laboratory test protocols that can effectively evaluate those attributes.

What types of products can earn the WaterSense label under this specification?

This specification applies to fixed showerheads and hand-held showers. Fixed showerheads are devices that direct water onto a user for bathing purposes. Hand-held showers are a subset of showerheads with moveable devices for directing water onto a user, usually a hand-held nozzle at the end of a hose.

Multiple showerhead units are also eligible to receive the WaterSense label provided they are sold in combination in a single device intended to be connected to a single shower outlet. Further, each showerhead must meet all of the requirements of the specification and the entire device must meet the maximum flow rate requirement in all possible operating modes.

Body sprays are excluded from this specification because their function and design are wholly different than that of a showerhead or hand-held shower. Retrofit devices, including aftermarket flow control devices, are also excluded because the intent of the specification is to recognize and label complete, fully functioning fixtures or fittings, and not individual components.

How did you settle on the specific performance levels for flow rate across a range of pressures, spray force, and spray coverage?

To ensure performance and user satisfaction under a variety of household conditions, WaterSense has established minimum flow rates at 80, 45, and 20 pounds per square inch (psi) of pressure (the upper, mid, and lower range of potential household pressures). These minimum flow rate requirements are defined as a percent deviation from the maximum flow rate of the showerhead. For instance, the showerhead's flow rate at 20 psi cannot be less than 60 percent of the maximum flow rate (i.e., a showerhead with a maximum rated flow rate of 2.0 gpm will not flow at less than 1.5 gpm even in a home with very low water pressure).

For shower force and spray coverage, WaterSense conducted consumer testing on several different showerheads to determine user preferences for these characteristics. These same showerheads then underwent laboratory testing to determine the quantitative range of performance, and the two data sets were then compared. Based on the characteristics of the showerheads that consumer testers liked least, WaterSense identified what poor performance traits needed to be weeded out and set the specific minimum acceptable levels for force and spray coverage. In using this approach, the WaterSense program intends to exclude those showerheads with poor performance in these areas.

How much water will WaterSense labeled showerheads save my household?

By installing high-efficiency showerheads, the average household could save more than 2,300 gallons per year. Since these water savings will reduce demands on water heaters, households will also save energy. In fact, a household could save 300 kilowatt hours annually, enough electricity to power its television use for about a year.

Are WaterSense labeled showerheads any more expensive than standard models?

Showerheads are available at a variety of price points and ranges in cost may be due to a number of factors including style or functional design.

Assuming the average showerhead costs \$30 retail, the payback period for replacing two standard showerheads per household with WaterSense labeled models would be approximately 14 months for those with electric water heating and about two years for those with natural gas water heating.

Who will certify that products meet the specification?

All WaterSense labeled showerheads must be tested and certified by an independent, EPA licensed certifying body. Manufacturers can only use the WaterSense label to identify showerheads that are certified to conform to WaterSense criteria for both efficiency and performance through this process.

I've heard that water can sometimes get hotter unexpectedly when using a high-efficiency showerhead.

This issue of potential shower water temperature fluctuation involves the entire plumbing system, not only the showerhead. Variations in how a bathroom is plumbed, including the installation and design of valves and the hot water delivery system, can impact the performance of any showerhead. Since all types of showerheads can be prone to fluctuating water temperatures, not just high-efficiency ones, U.S. plumbing code contains requirements that help to mitigate the potential risks.

This specification was developed with the best thinking and input of industry research and development staff who have dealt with product-related issues for many years and stand by the safety of the products they sell. All WaterSense labeled products must meet current health and safety standards.

WaterSense encourages consumers who are concerned about their home's hot water delivery system to hire a plumber to evaluate the system and install the showerhead.

How can consumers ensure they installed a WaterSense labeled showerhead properly?

As with all WaterSense labeled products, EPA encourages consumers to follow manufacturer instructions and work with plumbing professionals to ensure proper installation, system setup, and use of the product.

All showerheads, including high-efficiency ones, need to fit into a properly designed plumbing system to provide maximum performance and safety. Again, if consumers have any concerns, they should consult a plumbing professional.

Has WaterSense taken any extra steps to educate consumers about plumbing system safety?

Usually showerhead product packaging lists the flow rate at 80 psi, while most mixing valves (i.e., products that are installed as part of the shower system to adjust for temperature and pressure fluctuations) are rated at 45 psi, making it difficult to match these components. By requiring manufacturers to mark showerhead product packaging with the minimum flow rate at 45 psi WaterSense has taken this extra step to make it easier for consumers and plumbers to identify compatible shower system components. To provide maximum safety, purchase a showerhead and automatic-compensating mixing valve that are marked with the same flow rate at a pressure of 45 psi.

EPA will continue to communicate with the appropriate standards-setting bodies so that plumbing standards address the compatibility of showerhead components (i.e., showerheads and mixing valves), to ensure that these products provide the maximum safety to consumers.