

Showerhead and Faucet Aerator Water Flow Calculator*

Background/Perspective:

Low flow showerheads and aerators address three environmental issues: water conservation, energy use, and sewage treatment. By reducing flow water is conserved, less energy is used to heat hot water, and the amount of water flowing to the sewage treatment plant is reduced. In 1992 the Energy Policy Act set a maximum flow for a showerhead of 2.5 gallons per minute (gpm) and for a faucet aerator of 2.75 gpm. Prior to that time, a showerhead could have a flow as high as 5.5 gpm and a faucet as high as 10 gpm. There are low flow fixtures available on the market today that can effectively reduce flow by 40% to 60% from the 1992 standard. In most cases, the investment of buying the new fixture pays for itself in less than a year in energy savings, water savings, and sewage fees.

Measure the Flow of Your Fixture:

For this exercise, turn on your showerhead or faucet at full flow for 10 seconds into a container so you can measure the amount of water. Then multiply the amount of water in the container by 6 to get the flow in gallons per minute. You can then decide whether installing a low-flow fixture is appropriate.

Tools:

- Timer, stopwatch, or secondhand on a watch
- Gallon bucket, quart container or other device to measure water

| Record Data: | Reading |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| Turn on faucet or showerhead to full flow for 10 seconds and catch flow in a gallon bucket (or other container). Typical units of measure are gallon, quart, cup, or pint. | Quantity = _____ Units = _____ |
| Convert units to gallons if needed. 128 ounces to a gallon 16 cups to a gallon | Gallons in 10 seconds = _____ units ÷ conversion factor |

| | |
|-------------------------------------|---------------------------------|
| 8 pints to a gallon | |
| 4 quarts to a gallon | |
| Convert to gallons per minute (gpm) | Gpm = gallons in 10 seconds × 6 |

Example:

| | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Record Data: | Reading |
| Turn on faucet or showerhead to full flow for 10 seconds and catch flow in a gallon bucket (or other container). Typical units of measure are gallon, quart, cup, pint, or ounce. | Quantity = 47 Units = ounces |
| Convert units to gallons if needed. 128 ounces to a gallon 16 cups to a gallon 8 pints to a gallon 4 quarts to a gallon | Gallons in 10 seconds = 47 ounces ÷ 128 ounces/gallon = 0.37 gallons |
| Convert to gallons per minute (gpm) | gpm = 0.37 × 6 = 2.2 gpm |

*Funding for the preparation of this fact sheet came from the U.S. Department of Energy.