



HOW TO SIZE WATER HEATERS TO NEEDS

Nothing is more annoying than running out of hot water in the middle of a shower. One should be certain to select the correct size in both storage and recovery capacities when purchasing a new water heater.

Element wattages have been increased tremendously over the years greatly improving the operation of water heaters. Sometimes, a smaller tank can be recommended than was anticipated by the buyer. On the other hand, water demands have increased so use caution before selecting a smaller size heater. Special consideration should be given to periods when high demand for hot water is present, such as early morning showering and when laundry and dishwashing equipment is in use.

Due to the rising cost of energy and the increasing demand for more hot water, it is important to carefully weigh all the facts when purchasing a new water heater. One should select the size which will provide adequate storage and recovery capacities for present and future needs.

Recovery capacities will greatly vary depending on the size of the element used. There is a direct relationship between the length of time it takes a volume of water to reach a desired temperature and the element wattage. For example, a 52-gallon

tank will take twice as long to reach 120 degrees F when heated with a 2,000 watt element than if a 4,000 watt element is used. Therefore, the larger the element wattage used, the quicker the water is heated.

Recovery capacity alone may not be adequate for periods of high demand such as the early morning rush, when filling a large soaking tub, or when multiple showers are being taken. Also, washing machines and dishwashers consume large amounts of hot water when in operation.

One way to compensate for heavy hot water draws is to store more heated water in a larger capacity tank.

The insulation qualities of water heaters has been greatly improved. Poured-in foam up to 3" thick has replaced fiberglass used in older tanks and efficiency ratings can be as high as 95 percent.

Additional features to consider when selecting water heaters are: the warranties on the tank and electrical components, long-life elements which are designed for hard water, and self-cleaning systems that reduce harmful mineral and sediment build-up inside the tank, increasing the life of the tank.

The following table (5-1 2003 UPC) recommends the MINIMUM water heater capacity. Large jetted tubs and performance showers may require larger water heaters.

# Bathrooms	1 to 1.5			2 to 2.5				3 to 3.5			
# Bedrooms	1	2	3	2	3	4	5	3	4	5	6
First Hour Rating, Gallons	42	54	54	54	67	67	80	67	80	80	80