UNDERSTANDING UEF

WHAT YOU NEED TO KNOW

Choosing a water heater is easy. And with the new Uniform Energy Factor (UEF) standards, the decision process is even easier.

The Department of Energy has mandated that water heater manufacturers establish new testing procedures that result in a UEF, which:

• More accurately reflect real-world situations
• Enable apples-to-apples comparison across brands
• Simplify the water heater selection process

You may notice new numbers associated with the water heaters you’re considering. The water heaters themselves haven’t changed, but the way we calculate the ratings and other facts and figures associated with them is different.

CHOOSING A WATER HEATER

Choosing a fuel type is important, of course. But perhaps it’s even more important to understand that a water heater should be selected based on its delivery, rather than its storage volume or capacity. A water heater with a nominal 40-gallon capacity, for example, could have a first hour rating of 84 gallons, while a water heater with a 50-gallon capacity might only deliver 81 gallons in the first hour.

Key questions to consider are:

• How many people live in the home?
• What will the hot water be used for?
• Is there an oversized tub in the home?

The answers to these questions have a direct correlation to the First Hour Rating (FHR) of tank-type water heaters and Gallons per Minute (GPM) of tankless water heaters. More people in the home means a larger delivery requirement. Add in washing dishes, washing clothes, etc. and you have a general idea of the amount of hot water that’s needed, and the size and type of water heater best suited to meet these needs.

Still have questions?
Call 1-800-621-5622
WHAT IS CHANGING

The new UEF standard affects more than just the efficiency number itself. There are many facts and figures associated with water heaters that change as well, from the amount of hot water they can produce in a real-world situation to the length of typical showers.

FIRST HOUR RATING (FHR)

FHR, sometimes referred to as First Hour Delivery (FHD), is the amount of hot water the unit can provide in the first hour of operation. The updated testing procedures result in a more accurate, real-world representation of what homeowners can expect. Based on its FHD, each water heater is categorized into a delivery group—referred to as its bin by the DOE—which is used to easily compare like models.

CAPACITY

Previously, capacity was expressed as a single number that didn’t actually represent the storage capacity of the water heater. With the UEF regulations, manufacturers need to let buyers know the nominal capacity of the water heater, essentially the group it belongs in (40, 50, 60 gallon, etc.), in addition to its actual storage capacity (35, 37, 42, 58 gallon).

ESTIMATED YEARLY ENERGY COST

The updated testing procedures enable a more accurate approximation of what it will cost to run a particular water heater.

NEW RULES, NEW NUMBERS, NEW SIMPLICITY

THE UNIFORM ENERGY FACTOR

In 2012, U.S. Congress passed the “American Energy Manufacturing Technical Corrections Act.” The Act required the Department of Energy (DOE) to either revise the Energy Factor (EF) efficiency metric or create a new metric that:

- Covers more home-installed water heaters
- Does not increase the stringency of NAECA-3 efficiency standards

DOE opted to use the mandate to develop a new efficiency metric, Uniform Energy Factor (UEF), and test procedure manufacturers must follow.

Like the EF standard it replaces, UEF is a measure of how efficiently an appliance uses energy.

WHAT UEF DOES

Simply put, the new UEF standard is intended to make it easier to compare one appliance to another. The apples-to-apples comparison factor makes the way manufacturers rate and advertise their products more clear cut. And most important, it simplifies the selection process for consumers.