

The Importance of Fine Print

Recently I purchased a food processor. Before using it for the first time, I read the 18-page instruction booklet and watched a 45-minute DVD. I asked myself, “Why do I put so much time and effort into researching how to use a relatively simple device?” The answer came to me immediately: I have been in the product certification business for almost eight years, primarily dealing with NSF/ANSI 61 certifications.

By Amanda Thomas

Checking connector certifications to ensure proper end use

I have seen firsthand how products can be used contrary to the manufacturer’s intentions and ratings—and know this can mean the difference between a compliant and non-compliant product. I receive multiple phone calls each week from manufacturers, consumers and jurisdictional authorities asking for clarification on product certifications.

Each NSF/ANSI 61 product certification is based on the intended end use of the product, the manufacturer’s literature and information provided by the manufacturer to the certification body as part of the application. The certification may include a number of use restrictions, such as surface-area-to-volume ratio, pipe diameter and temperature. These restrictions are included on the certification body’s online certification directory and, depending on the type of product, may also be required on the product literature and label.

In order to highlight how drinking water system components are often used contrary to the manufacturer’s intended use and ratings, I will focus

on connectors used in plumbing systems. Although these products make up a small portion of those covered by NSF/ANSI 61, they are an excellent depiction of how similar products are handled differently by the standard. Connectors include, but are not limited to, regularly repeating fittings, meter couplings, pipe couplings and thread sealants.

Regularly Repeating Fittings

Regularly repeating fittings are used to join two pieces of pipe together, come in a variety of shapes depending on the intended end use and are used repeatedly throughout the system. Examples include tees, wyes, U-branches, elbows, straight fittings, end caps and reducers. These products fall under Section 4, Pipes and Related Products, of NSF/ANSI 61. The assumption in the standard is that these products make up a specific percentage of the piping system based on the size of the product.

It is not a requirement that the literature or listing reference the percentage, nor do certification

agencies expect the end user to focus on keeping the product under this percentage. Instead, the end user should ensure two things. First, make sure these products are intended for use as repeating fittings. If there is any doubt, check the listing to see if it is a Pipes and Related Products-type product. Some products that look like straight fittings or elbows might actually be intended for use with Mechanical Devices or Mechanical Plumbing Devices, which fall under other sections of NSF/ANSI 61 and will be listed as such.

Second, verify that the specific size and style you are using is certified. A 3-in. product may meet the requirements of NSF/ANSI 61 while its 4-in. counterpart does not. Size does matter for these certifications and it is not always intuitive. Check the listing or look for the certification body’s mark to ensure the size and style is in fact certified.

Meter Couplings

Meter couplings are fittings that connect a meter to a pipe or valve. Meter couplings and most other connectors intended to be used with devices fall under Section 8, Mechanical Devices, of NSF/ANSI 61. It is important to note that a number of these products look identical to regularly repeating fittings but should not be used as such.

It is obvious that a meter coupling is a mechanical device when it has a specific nut on the end that can only connect to a meter. However, manufacturers of valves and meters make these products with a variety of end

connections, some of which could be used to connect pipe. A product may pass NSF/ANSI 61 if tested as a regularly repeating fitting, but fail when tested as a meter coupling or vice versa. Because there is no easy rule, it is important to consult the product literature and the listing to ensure the manufacturer's intended use matches the end user's intended use.

Pipe Couplings

A basic pipe coupling consists of a wetted gasket inside a non-wetted housing that bolts to two pipes to connect them. Gaskets often come in different styles. Because the rubber is the only wetted material, a coupling manufacturer might purchase an NSF/ANSI 61 rubber material and assume the coupling is also certified or can be certified without testing, but this is not the case.

Rubber materials are generally certified to a specific surface-area-to-volume ratio. Because coupling gaskets come in different shapes and sizes, the wetted-surface-area-to-volume ratio can vary greatly and may or may not be under the certified surface-area-to-volume ratio of the rubber material. Additionally, a pipe coupling manufacturer may make a gasket style that comes in multiple materials. Oftentimes one of these materials is certified for potable water use but the others are not. For these products, make sure the pipe coupling manufacturer has certified the specific material, diameter and gasket style being used.

Thread Sealants

Thread sealants generally act like a glue to connect male and female threaded ends. Be careful to follow the manufacturer's instructions on how to apply these products. When instructions say to apply the sealant to the two outermost male threads before screwing the products together, do not dip both thread ends into a bucket of thread sealant or use it on unthreaded parts.

When the product was tested, the manufacturer's instructions were followed and any deviation from that procedure could impart additional contaminants into drinking water. If excess uncured sealant is inside the pipe, it will likely work its way into the water. Like fittings, these products are usually approved for use with specific pipe diameters and may be restricted to a maximum number of connections; therefore, one should consult the listing to ensure proper use.

All products have the potential to be used outside of their intended purposes. Because of this, it is important to review the manufacturer's use instructions, label and ratings to ensure the product is being used the way the manufacturer intended. If you are purchasing a part with the assumption

that it is NSF/ANSI 61-certified, look for the certification body's mark on the product to ensure the specific model and size purchased is in fact certified. Finally, if there are any questions related to the ratings, contact the manufacturer or certification body directly to get clarification. *wqp*

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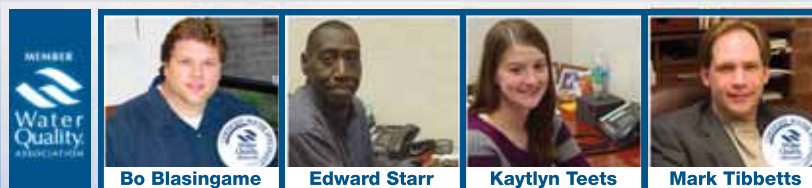
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