

How Do I Size a Boiler for My House?

Boilers are known as hydronic or radiant heating systems because they use hot water to heat your home. In the U.S., boilers are less common than furnaces, but many homeowners use them all throughout the country.

If you're using a boiler to heat your home and need to upgrade or if you're switching from a furnace to a boiler, you'll probably have a lot of questions and considerations on your mind.

One of the most important considerations about [boiler installations](#) is the size of your home. To get the correct boiler size for your house, it's important not to pick a boiler that's too small or too large for your home. If you pick one that's the wrong size, you could end up not having enough power or wasting energy.

If Your Boiler Is Too Small

First, let's discuss what happens if you select a boiler too small for your home. You may be tempted to go with a smaller option during your search because the price point is much lower. However, there are consequences of picking a boiler that's not large enough for your home.

If you go with a smaller boiler, it could struggle to heat your home to the desired temperature. This can result in uneven heating or a home that's not as warm as you like.

Additionally, you'll be asking too much of your small boiler, and it will need to run constantly to try to meet your needs. This means your energy bill will be higher each month than if you went with an appropriately-sized boiler.

Even though you'll save money on the initial cost, you'll inflate your bills each month. If your small boiler is working overtime trying to heat your home, it will run through its lifespan more quickly and you'll probably need more frequent repairs than if you went with a larger size.

If Your Boiler Is Too Large

Oftentimes, people think the biggest heater is the best option, but that couldn't be further from the truth. Just like a boiler that's too small, one that's too large can cause problems, as well. Sizing the boiler for your home is all about finding the perfect fit.

If your boiler is too large for your home, it will produce more heat than the system can dissipate. This means your boiler will have a short burning time each time it's needed, which results in decreased efficiency.

So even though you'd think a larger boiler would be more efficient, if it's too big, you'll actually be wasting energy. Not only that, but the temperature in your boiler might get too high because it cycles on and off frequently. This could lead to strain that your boiler is not designed for or leaks.

How to Choose the Right Size for Your Home

You're probably wondering: So how do I size a boiler for my home? To size a boiler, you must start by looking at the boiler capacity in terms of BTUs (British Thermal Units).

The BTU of your boiler is determined by the amount of energy needed to increase the temperature of one pound of water by one degree Fahrenheit.

Your home has a BTU requirement that's based on a few factors. Your geographical location and climate, the number of doors and windows in your home, and the amount of insulation in your walls and ceilings all factor into your home's BTU requirement.

The best way to understand the BTU calculation is to figure that you need about 50 BTU per square foot of indoor space in a cold climate; 35 BTU per square foot if you live in a moderate climate; and 20 BTU per square foot if you live in a warm or hot climate.

Which size residential gas boiler you'll need will depend on the climate you live in and the size of your home. For example, if you have a 2,000 square foot home in an average moderate climate, you'll need a boiler that can produce about 70,000 BTUs.

If you live in a moderate climate with a 3,000 square foot home, you'll need a boiler that can produce approximately 105,000 BTUs.

Boiler sizing is not very complex, but it's important you don't fall into the trap of getting one that's too small for your home to save money. You'll also want to avoid wasting energy on a boiler that's too large for your home, even though you may think it's the best option.

Working with a professional HVAC company can help you determine the right boiler for your home. A professional can ensure you pick one that's the appropriate size, as well.

Expert Boiler Installation Services

Are you looking to upgrade your heating system? Have questions about boiler sizing for your house? Look no further than the team of experts at Paul The Plumber. We offer trusted boiler installation and repair services in Manchester, Nashua, and the surrounding areas. Call us today to get started!