How to check your water pressure

What is water pressure?

- Water pressure refers to the measure of force to get water through the mains and into your pipework. It is measured in bars, where one bar is the equivalent to the force required to push water up to the height of 10 metres.

- Depending on where you live though, water pressure can vary greatly. Surprisingly, water pressure can even vary from room to room or at different times of the day. Early in the morning, between 7 am and 9 am, you may find your mains water pressure is quite low as other people in your area will be having showers and baths to start the day just like you. Warm summer evenings may also mean a lack of water pressure as people water their gardens.

- Your water pressure will also vary depending on where your home is situated to the nearest reservoir or water supply network. So if you live on top of a hill, for example, your water pressure is likely to be weaker as the water is fighting against gravity to reach your house. On the other hand, if you live at the bottom of a hill, your water flow is likely to be much stronger because gravity is helping to pull it down the hill to your property.

- If you want to know where your water supply is coming from, check your local water authority online who will be able to point you in the right direction. From there you will be able to determine whether your property is higher or lower than the water supplier, indicating whether you are more likely to have high or low water pressure.

- What is the difference between water pressure and water flow?
  As we discussed above, water pressure is the measurement of the force that it takes to get water through your mains and into the pipework of your home.
  Water flow refers to a measurement of volume, i.e. how much water is flowing through your pipes and outlets like taps and showers at one time. Water flow is measured in litres per minute.

How is water pressure measured?

- Water pressure is measured in bars against how far the water is needed to be pumped around your house. The base measurement for this is that one bar is the force required to push water up to the height of 10 metres. Generally speaking, anything 0.3 bar or below requires a low water pressure tap or shower, and anything at 1.0 bar or above requires a high water pressure tap or shower.

- It is against the law for your mains water supplier to provide you with less than a statutory 1 bar of normal mains water pressure to your home. To measure this, you can test this where the pipework enters your property, usually at your home's boundary, for example.

How to check your water pressure?

- The easiest way to check your water pressure is to get in contact with your water supplier or plumber as they will have the trade standard tools to be able to check your water pressure.

- Alternatively, you could have a rough guide by measuring the distance or drop between your water tank and the tap in metres (One metre = 0.1 bar) or buy a pressure gauge tool and fix it to a tap for a more accurate reading.

How to test your water flow rate - a 3 step guide:

Checking your water flow rate doesn't take long at all and can help you determine if you have a problem with your water pressure. Simply follow our 3 step guide below to understand what the water flow rate is for your home.

- **Collected equipment**
  Get a water jug of 1 or 2 litres in size, a stopwatch and a calculator (these last two you will most likely be able to get on your mobile phone).

- **Time the output of water in 6 seconds**
  Put your water jug under your bathroom tap or shower and turn it on for six seconds. Once your stopwatch shows 6 seconds, turn off your tap or shower

- **Calculate your litres per minute**
  Take the amount of water in the jug in litres (e.g. 0.7 litres) and multiply this by 10. This will give you your flow rate in litres per minute (e.g. 0.7 litres x 10 = 7 litres per minute).
  Some consider a flow rate that is less than 10 litres per minute to have low water pressure. Anywhere between 10 and 15 litres per minute is acceptable but can be improved. A flow above 15 litres per minute is considered good.

What is good water pressure for a house?

- Normal water pressure is generally between 40 and 60 PSI but most homeowners prefer to have it set somewhere in the middle around 50 PSI. Once you measure your home's water pressure, you can adjust it to a setting that is ideal for all family members and household uses.

Tips to increase water pressure in your house:

If you feel like the water pressure in your home is not as high as you would like it to be, there are several things you can do to improve it.

- One really simple way to increase your water pressure is to ensure your shower head is at the right level. Your shower will not perform as expected unless there is a minimum height of one metre between the showerhead and the water level in your property's water tank. Known as the head of water, the higher the head, the greater your water pressure will be.

- Another simple trick is to ensure you frequently clean your showerhead, taps and pipes to remove limescale, rust or dirt. Like your drains becoming blocked and leading to sinks or toilets being slow to drain, the same can happen for water supply if not regularly cleaned, causing lower pressure.

Remember though, each house's water pressure will be different depending on the home water system you have.
For more specific tips for your shower or taps, check out the helpful tips we have pulled together for you below.

How to increase hot water pressure:

You could be experiencing low hot water pressure for a variety of reasons, from a buildup of sediment and scale inside the water heater to too many bends in the plumbing lines. Luckily some simple fixes will increase the hot water pressure throughout your home.

- Have a plumber clean and flush out hard water scale, mineral deposits and sediment build-ups inside the water heater and plumbing lines.
- Replace old pipework and water heaters over 8 years old with new ones to ensure heat is being transferred efficiently.
- If you have several kinks or bends in the water supply intake and outtake lines before the water reaches your taps and outlets, this could be severely affecting your hot water pressure. You could have your plumber re pipe the plumbing lines to the areas of the home that have problems with reduced hot water pressure or, if the entire home is affected, a pressure regulator can be installed to adjust the water pressure.
- Finally, double-check your shutoff valve (also known as a stop tap) is completely open, even a partial closure will reduce your hot water pressure.

How to increase water pressure from your shower head:

Depending on which water pressure system you have, several different routes could be taken to increase your water pressure from your shower head.

- One solution could be to change the head of your current shower or replace the whole unit with a power shower which can increase your flow by three times.
- Alternatively, if you don't want to install a new unit, you could install a shower pump that is fitted to the water system and activated when you switch the shower on. The water travels through the pump first before coming out of the showerhead. These are particularly useful for gravity-fed systems and older properties.

How to increase water pressure from your tap:

If you do decide to install a shower up as mentioned in the previous system, these will also be able to help you increase the water pressure from your taps throughout the rest of your home.
Also, if you have a combi boiler system, be sure to check if your shut-off valve is obstructed or even closed.
If it is, it will be severely affecting the pressure of your water. Usually found under your kitchen sink, the valve can become obstructed by debris so make sure to clean and check on this often for it to not become clogged.

How to fix high water pressure in your house:

If you find your fixtures are leaking, pipes are banging or your appliances keep failing, it may be due to having high water pressure in your home. To understand whether the high water pressure is the cause of these problems there are a few steps you can take.

- **Test with a water pressure gauge**
  To test whether your water pressure is too high (or even too low) a water pressure gauge can be used to measure the applied force of the liquid when it's at rest. Residential water pressure shouldn't exceed 80 psi so if your gauge is showing above this, you should call a plumber to get it looked at by a professional.

- **Use a pressure reduction valve**
  Fitting a pressure reduction valve could also help with your high-pressure water problems. For a novice at DIY, it may be advised to get the help of a professional to install it for you as it can be quite tricky to do if you don't know your way around the pipework.
  The pressure reduction valve will take a high inlet pressure and reduce it to a lower outlet pressure to balance out your pressure problems. Make sure you don't turn down the mains stopcock when you install this though, as it may cause reduced flow and a noisy plumbing system.

- **Contact your water company**
  Call your water company if you notice that your water pressure is immensely above normal standards. When the force exceeds 100 psi or more, this could indicate a problem in the water supply network. It's the suppliers responsibility to make sure that your home receives normal levels of water so if you feel like it is too high it is worth getting in contact with them to see if anything can be done.