A guide to Water Pressure

Changing a bathroom or kitchen tap can bring a new lease of life to that room. There are many different styles of tap available from ultra modern stainless steel minimalist monobloc mixer taps to more traditional gold finish pewter pillar taps.

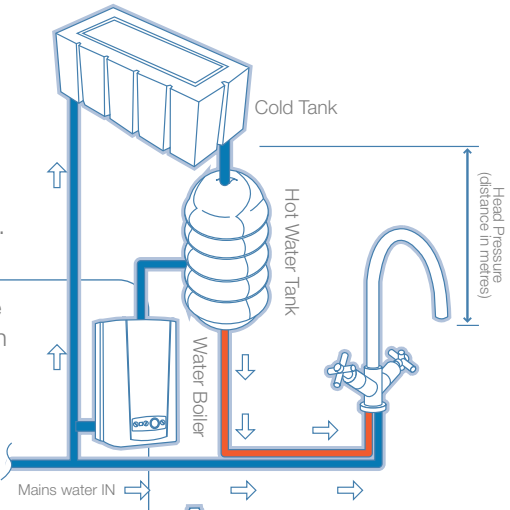
One important factor to consider before buying and fitting a new tap is the water pressure needed in order to make the tap function satisfactorily. The cold water pressure shouldn't present a problem as this should be at mains pressure, however the pressure of the hot water must be considered when deciding which tap style to choose.

Choosing a new tap

1. First of all, before choosing the desired tap it is important to know the **current pressure** of the hot water system. Water pressure can be measured in three common units, bar, psi and Head (m).

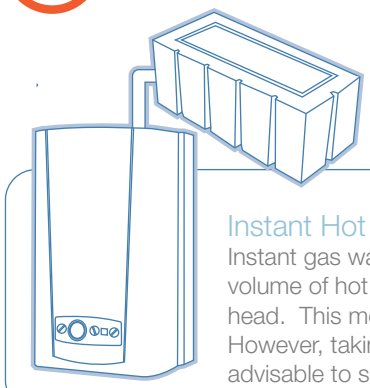
1 bar = 10 metres Head = 14.5 psi.

For example if the vertical distance was 5m this would roughly equate to 0.5 bar maximum available pressure. **Note:** if the route the pipes take is not direct, has lots of bends or long horizontal runs the available water pressure will be reduced.



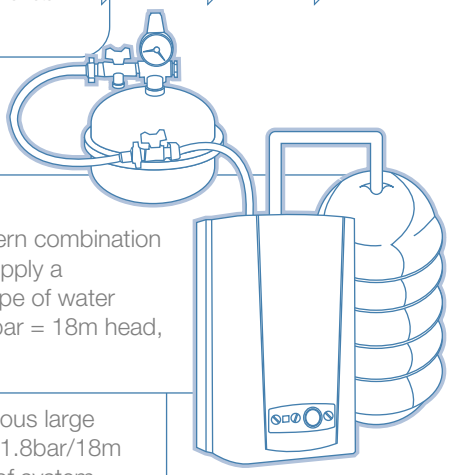
2. **The diagram shows a simplified stored hot water system**, These tend to take the form of older systems that have a cold water storage tank that is often kept in the loft. This cold water would then be then heated by a separate water heater often on a lower floor of the house. The water pressure gained from an un-pressurised water heaters works on the vertical distance between the cold water tank and the tap outlet. Horizontal or corners in the piping will reduce the water pressure. It is important to note that if an un-pressurised system is fitted into a bungalow then a low pressure tap may be required.

3. There are **two types** of hot water system available pressurised and non-pressurised, it is important to find out which type of system is in place.



Pressurised water heaters -

These tend to take the form of modern combination heaters or gas water heaters that supply a continuous flow of hot water. This type of water heater tends to expel 20 psi = 1.8 bar = 18m head, which is a healthy water flow rate.



Instant Hot Water System -

Instant gas water heaters or modern combination boilers deliver a continuous large volume of hot water. With this type of system the output is typically 20psi/1.8bar/18m head. This means most taps should give good flow rates using this type of system. However, taking into account the age of the system and its overall condition, it is advisable to seek advice to confirm the actual flow rate before purchasing a new tap.

4. As different styles of tap require varying pressures of hot water supply, it is important to consider the different styles when choosing a new tap. **The following is a list of tap styles that range from taps specifically for low water pressure to tap styles available for high water pressure.**

Low water pressure taps » High water pressure taps

Pillar taps with quarter turn valves / Pillar taps with compression valves

Two hole Deck or bridge mixertaps with quarter turn valves / Two hole Deck or bridge mixertaps with compression valves

Two handled monobloc mixertap with quarter turn valves / Two handled monobloc mixertap with compression valves

Single lever mixertaps

Single lever mixertaps with spray or pull out functions

No matter which tap style you choose sinks-taps.com has a tap to match every requirement.
See sinks-taps.com's easy step by step guides on how to fit wall mounted or base mounted taps.