



Common Tap Valves

COMMON VALVES ASSOCIATED WITH KITCHEN TAPS

COMPRESSION VALVE:

This is the original valve design, the valve must be turned many times to allow the water to flow, this valve has a rubber seal at the base which moved up and down to adjust the flow. This can wear over time, causing the tap to start leaking, and a replacement seal will be needed. The rubber seal may expand and contract with large volumes of hot water, this valve is not ideally suited to pressurised water systems.



QUARTER TURN CERAMIC DISC:

This is the modern replacement for the compression valve, turning the valve slides ceramic plates against each other, when the holes in the plates align the water can pass through the valve. The valve only requires a 1/4 of a turn from on to off. These valves are more reliable than compression valves but are more susceptible to limescale build up and damage from dirt in the mains water supply.



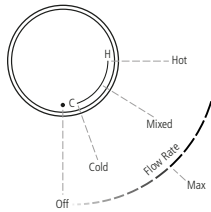
SINGLE LEVER VALVE:

A more recent development in domestic taps is the single lever valve, the single valve is used to control both the hot and cold water supply. This ceramic single control can alter the temperature and flow rate of the water. Typically the handle moves left to right to control the heat, up and down alters the flow rate.



PROGRESSIVE VALVE:

The most recent development in domestic tap is the progressive valve. This ceramic single control valve normally operates through 90 or 180°. From off the valve turns through cold to mixed to hot water. Once the cold flow reaches the maximum rate the flow remains at maximum as it converts through to hot. As can be seen in the diagram to the right the hot flow cannot be reduced as you can with the cold or a standard single lever valve.



NON RETURN VALVE / CHECK VALVE:

The non-return valve is placed between the water supply and the tap; it is used to only allow the water to flow one way through a pipe. This is particularly useful for single flow taps; it prevents hot water, which may harbour bacteria from mixing with the cold drinking water. The construction of these valves may slightly reduce the flow of the tap. Non-return valve may be required to comply with local water bylaws. The arrow on the valve indicates the direction the water is allowed to flow in and normally points toward the tap.



ISOLATION VALVE:

Placed typically just before the non-return valve, it is recommended that isolation valves should be fitted to all taps. By turning the control on the valve, the water supply can be slowed or stopped. This is very useful if the tap needs to be repaired or replaced in the future as the water can still be used in the rest of the house while the work is being done. It also means that all the hot water that may be stored does not have to be drained to allow work to commence.

