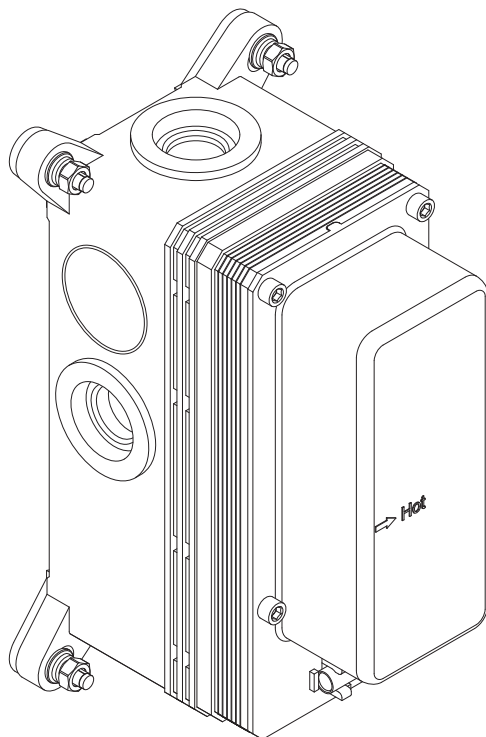




COALBROOK



C-BOX INSTALLATION

CO3001 | CO3002 | CO3003

IMPORTANT INFORMATION

Installation

We recommend that Coalbrook products are fitted by a fully qualified professional plumber. They should be installed correctly and in accordance with all local water regulations. All products and connections should be accessible for routine servicing.

System suitability

This Coalbrook product is potentially suitable for every possible application, type of boiler and water supply pressure. However, for full 'power' shower performance it is advisable to fit a water pump if the supply pressure is below 1 bar. For systems with combination boilers, it is not advisable to fit pumps (refer to boiler manufacturer).

Recommended supply temperatures

HOT - 55/60°C

COLD - 10/15°C

Water quality

In hard water areas, a suitable water treatment system should be provided to prevent limescale deposits (calcium deposits) which may effect the long term performance of the thermostatic cartridge and ceramic cartridge. Exterior surfaces should be gently wiped with a dry soft cloth after use to minimise water stains and limescale deposits.

Servicing

We recommend periodic servicing to help maintain the best performance from your shower.

Flushing system

It is most important to flush out all pipework thoroughly before connecting the product. Failure to do so is the single most common cause of ceramic cartridge and thermostatic cartridge failure.

Supply connections

The hot water supply must be connected to the left port and cold water to the right port as viewed from the front.

Balancing flow

If there is a significant difference in water pressures between hot & cold supplies, we recommend an in-line flow suppressor/regulator (not supplied) be fitted. This should be fitted to whichever has the greater flow rate, in an accessible position close to the valve.

Safety/Anti-scald

This thermostatic valve not only maintains a constant temperature to approximately plus or minus 1°C, but will automatically shut down completely on failure of hot or cold supplies.

Temperature setting

Once the installation has been completed the 'safe temperature' must be checked and set. The valve is factory set, but the working temperature may differ subject to the hot & cold water temperatures being supplied to the valve.

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Making connections

Parallel fittings (direct to valve)

Direct connections to the valve inlets and outlets should only be made using 3/4" BSP parallel fittings.

Tapered fittings (use adapters)

Parallel to tapered adapters must be used to convert the connections when using tapered fittings. These should be securely fitted to the valve using a suitable thread sealing compound to make a watertight joint.

Tapered fittings must NOT be connected directly to the valve without the use of adapters.

Fixing valve to wall

Secure the valve to the wall using suitable screws and wall plugs. All connections should be pressure tested before the valve is sealed behind the wall.

Non-return valves

To protect your water system, non-return valves are fitted. These can be removed and cleaned if required.

Access

It is important to leave suitable clearance and access to the valve and connections for future servicing.

Setting the 'safe temperature'

To avoid damage, when setting the 'safe temperature', the thermostatic cartridge spindle must be turned by hand only. The spindle will require only minor adjustment. **Turning the spindle to the end of its travel and forcing it beyond this point will cause internal damage to the thermostatic cartridge.**

Always fit the black plastic 'temperature stop' before fitting the thermostatic control handle. One of the functions of the temperature stop is to prevent the thermostatic cartridge spindle being turned beyond the end of its travel. **Not fitting the temperature stop will result in damage to the thermostatic cartridge.**

Duty of care

Legislation

Legislation dictates recommendations and guidelines on health and safety, including safe hot water temperatures. The emphasis is on regulatory and design criteria, with responsibility for meeting such guidelines being that of a suitably appointed responsible person.

How hot water temperatures affect the skin

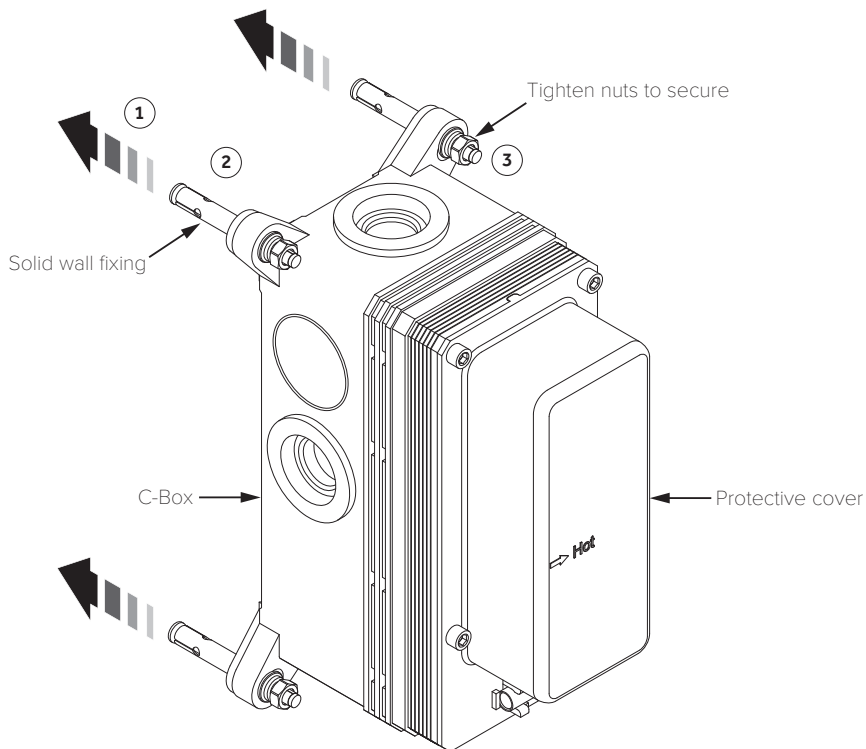
- 65°C – A partial thickness burn in about 2 seconds
- 60°C – A partial thickness burn in about 5 seconds
- 55°C – A partial thickness burn in about 15 seconds
- 50°C – A partial thickness burn in about 90 seconds

Safe temperature

The age, mental and physical capabilities of persons occupying the property will effect the 'safe temperature' setting of the thermostatic valve. For specific details please refer to local building regulations, current legislation, relevant standards and codes of practice.

C-BOX INSTALLATION (STEPS 1 - 4)

SOLID WALL



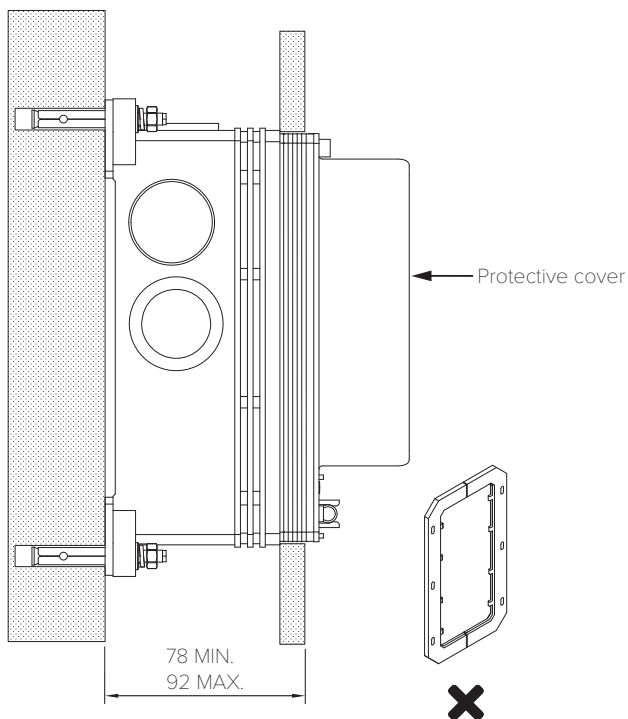
1. Before continuing with the installation, ensure that the distance from the mounting surface to the outside of the finished wall is as shown in the diagram on the next page. The two piece fixing frame is not required for solid wall installations.
2. For solid wall installations, offer the thermostatic shower valve to the mounting surface and mark the desired hole locations.
3. Drill holes using a 6mm drill bit.
4. Insert the solid wall fixings into the holes, then secure the thermostatic shower valve by tightening the nuts of the solid wall fixings. There is a spirit level at the lower front of the thermostatic shower valve. Ensure that the thermostatic shower valve is horizontal before tightening the nuts.

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C-BOX INSTALLATION (STEPS 5 - 8) (mm)

SOLID WALL

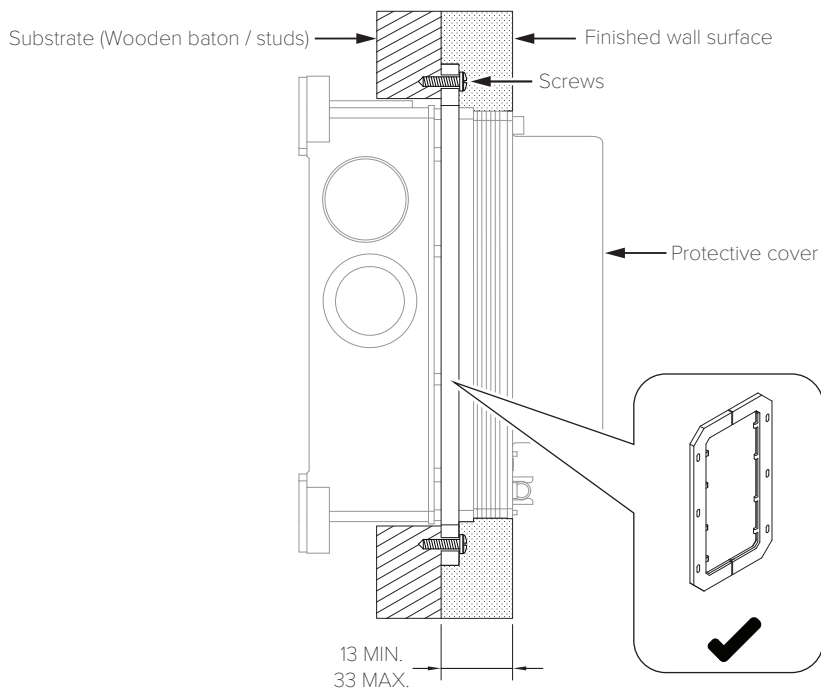


5. Connect the hot and cold water supplies to the 3/4" BSP inlets of the thermostatic shower valve. The hot connection must be made on the left hand side port, the cold connection on the right hand side port.
6. Connect outlets to the 1/2" BSP inlets as required. See connection diagrams for details.
7. Check all connections for leaks and ensure the dust cover is securely assembled before concealing pipework and continuing installation. Do not remove the protective cover until wall finishing is complete.
8. The thermostatic valve can now be concealed by the finished wall.

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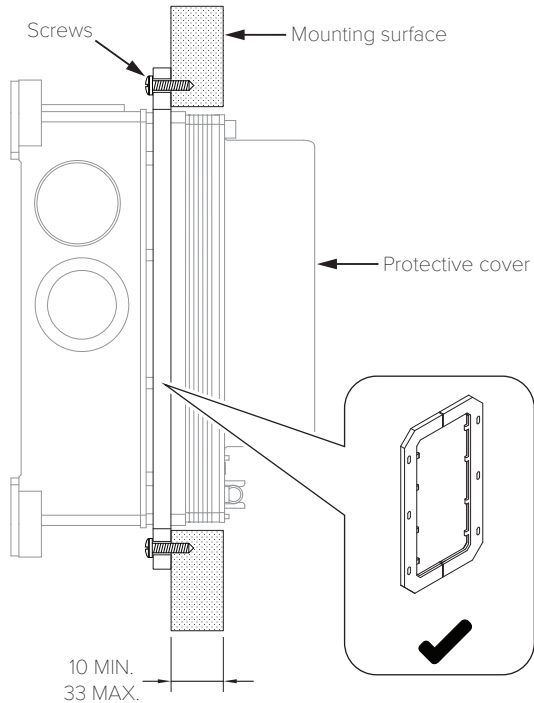
CAVITY WALL



7. For a cavity wall installation, secure the thermostatic shower valve directly onto the installed substrate. The two-part fixing frame must be assembled to the thermostatic shower valve. This can be achieved by clipping the two halves into the required grooves present on the outer perimeter of the thermostatic shower valve housing.
8. Once fixed in place, connect the hot and cold water supplies to the 3/4" BSP inlets of the thermostatic shower valve. Connect appropriate outlet connections to the 1/2" BSP outlets. See connection diagrams for details.
9. The thermostatic valve can now be concealed by the finished wall. Ensure that the depth that the valve is positioned in the wall, complies with the minimum and maximum measurement, shown in the diagram above.

MAKING THE CONNECTIONS (STEP 10) (mm)

CAVITY WALL

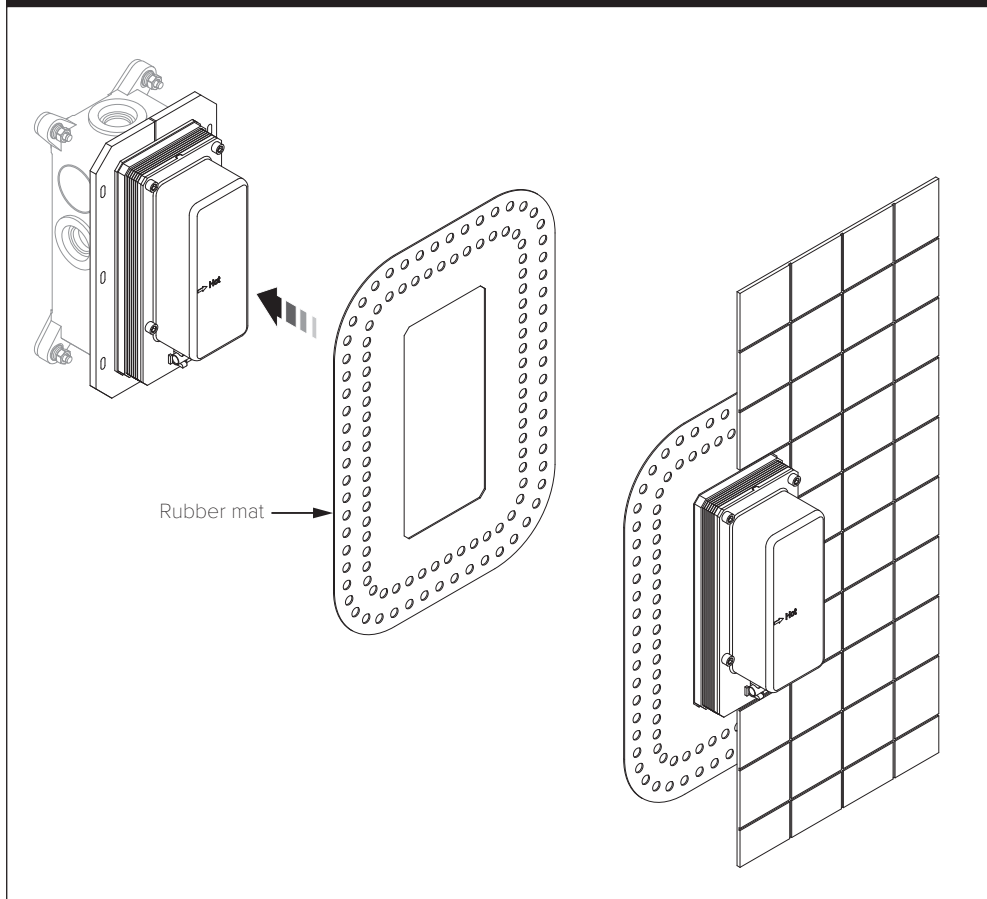


10. If access is available, the thermostatic shower valve can also be secured by screwing into the mounting surface from the rear. The mounting surface needs to have substantial thickness and be load bearing. If the mounting surface has a decorative outer face, it must be thick enough to enable screw fixing without the chosen fixing screws breaking through the decorative surface.

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C-BOX INSTALLATION (STEPS 11 - 12)



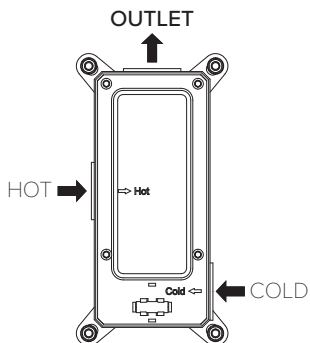
11. Prior to tiling the wall surrounding the thermostatic shower valve, apply a sealing compound and affix the supplied rubber mat around the profile of the exposed thermostatic shower valve. This will prevent water ingress to the shower.
12. Complete any tiling or wall finishings prior to the shower trims being installed onto thermostatic shower valve.

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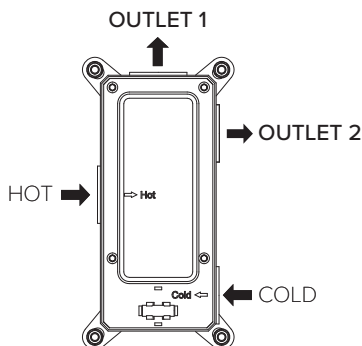
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MAKING THE CONNECTIONS

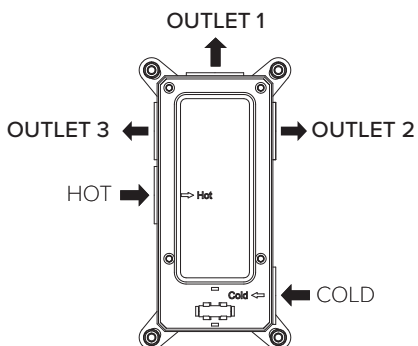
CO3001 (1 OUTLET)



CO3002 (2 OUTLET)



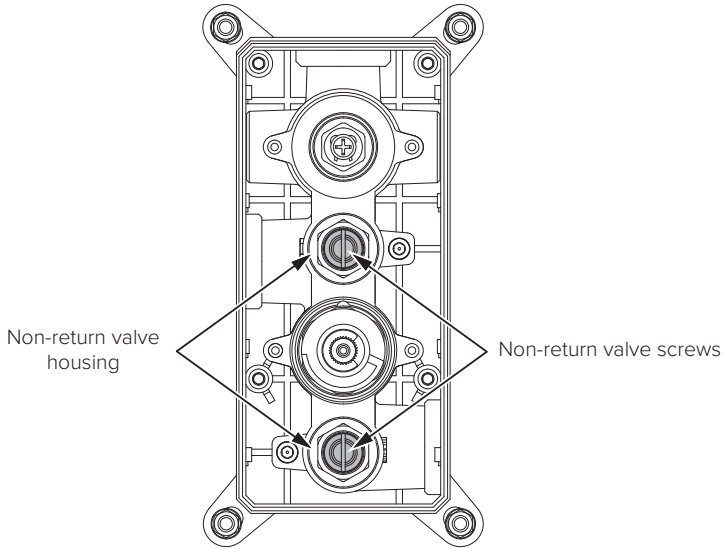
CO3003 (3 OUTLET)



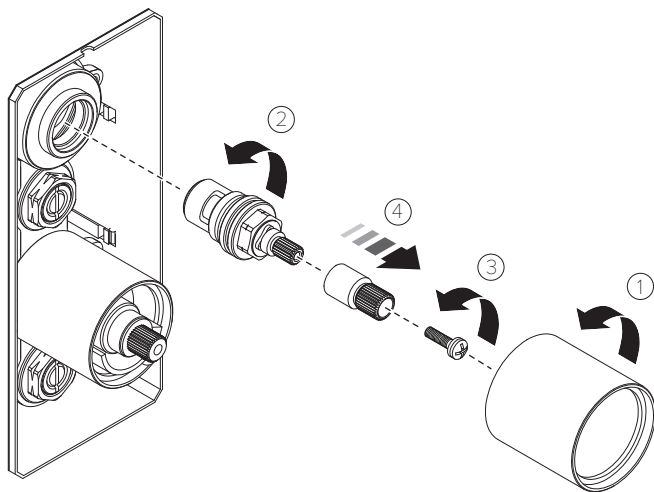
1. The inlet connections on all thermostatic shower valve variants are 3/4" BSP female.
2. The outlet connections on all thermostatic shower valve variants are 1/2" BSP female.
3. The diagrams above show the input and output locations for each variant of the thermostatic shower valve.
4. Check all connections for leaks and ensure to flush out all pipework before finishing installation of any shower heads, handsprays and spouts.

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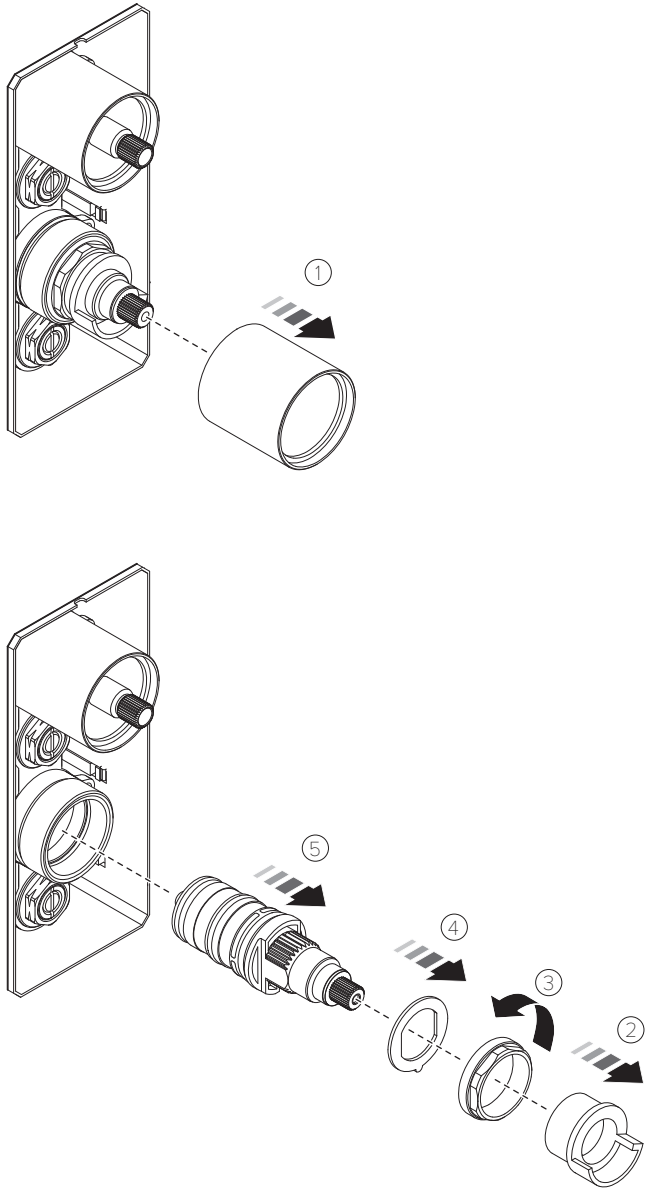
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1. The thermostatic shower valve has two non-return valves. They are both factory set in the open position.
2. When servicing the thermostatic shower valve the water supplies must be isolated. The non-return valve housings have a screw in the centre. Use a flat bladed screwdriver to turn the screws in a clockwise direction until they reach their stop. This will isolate the water supplies. Do not over tighten the screws as this may damage the non-return valves.
3. After servicing, unscrew the screws until they are level with the hexagonal surroundings. Do not unscrew any further than this.

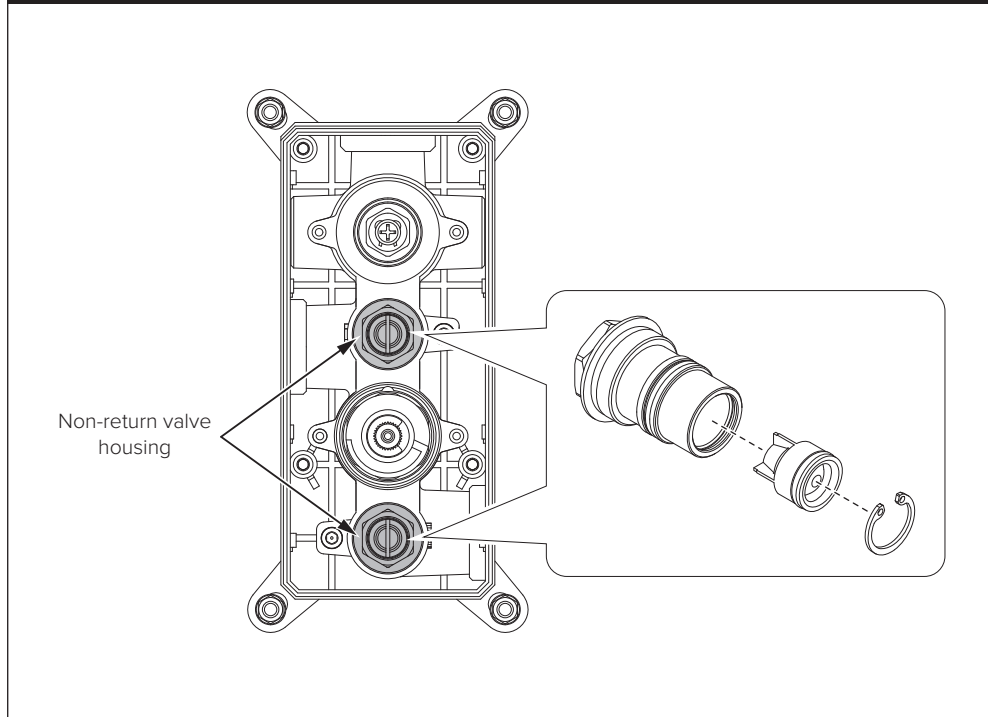


SERVICING - THERMOSTATIC CARTRIDGE REMOVAL



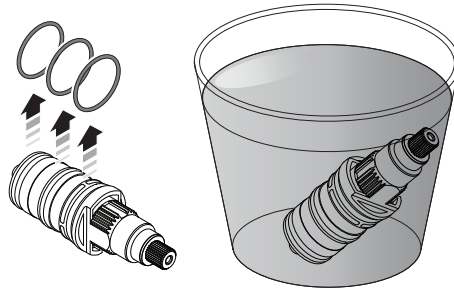
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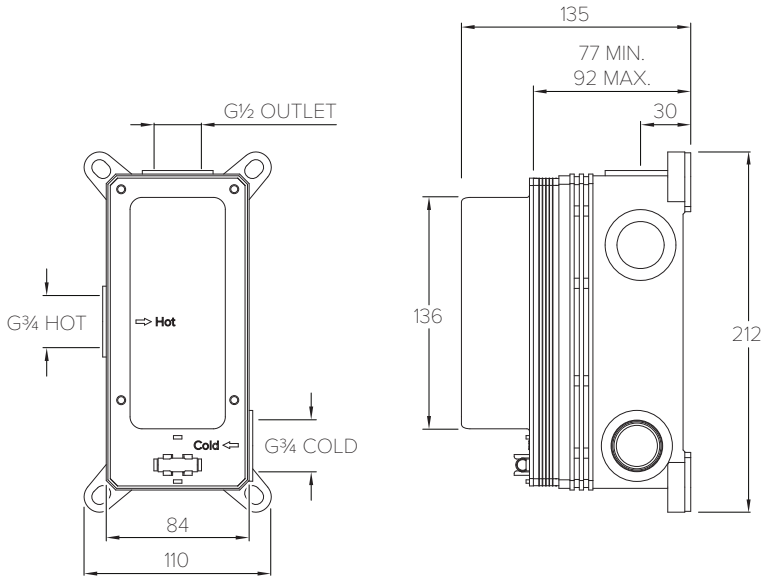
1. The thermostatic shower valve has two non-return valves. These can be removed for replacement or cleaning.
2. Isolate the hot and cold mains water supplies **before the shower valve**.
3. Unscrew and remove the non-return valve housing.
4. Remove the circlip from the rear of the housing.
5. Remove the non-return valve from the housing.

SERVICING - DE-SCALING THE THERMOSTATIC CARTRIDGE



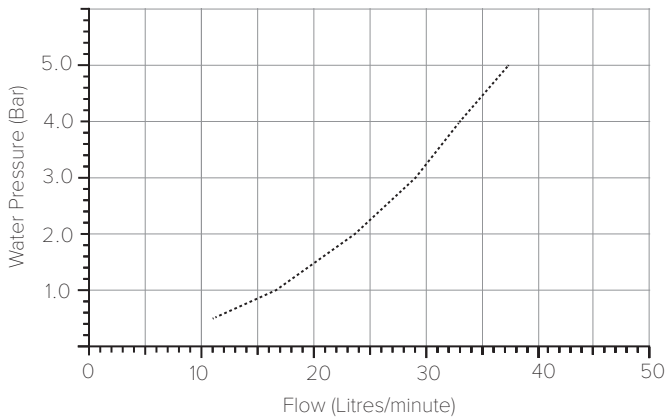
1. After removing the thermostatic cartridge check the 'O' rings for damage (i.e. cuts or tears). Gently remove the 'O' rings before soaking the cartridge in de-scaling fluid. Soak the cartridge according to the instructions on the de-scaling fluid packaging. Rinse under cold water before fitting.
2. Carefully replace the 'O' rings before fitting the cartridge.

SPECIFICATION – ONE OUTLET (CO3001) (mm)



TYPICAL FLOW RATES (CO3001)

Flow rates shown are free-flowing and may vary subject to restrictions created by installation, pipework layout or application.

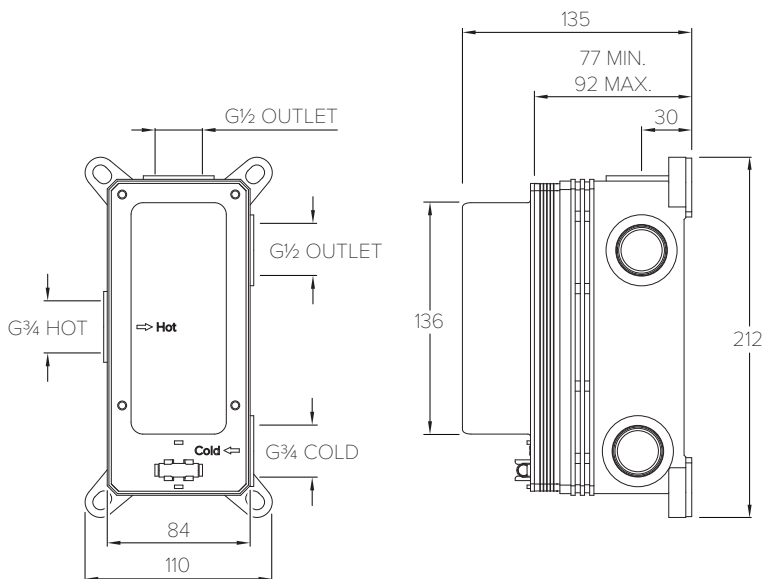


Water Pressure (Bar)	Outlet (Litres/minute)
0.5	11.1
1.0	16.4
2.0	23.4
3.0	29.3
4.0	33.0
5.0	37.2

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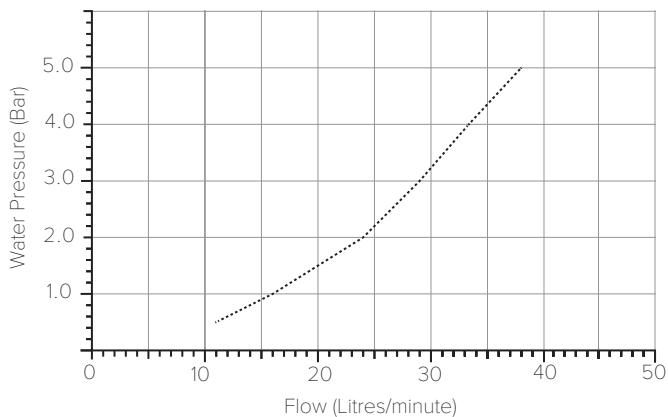
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SPECIFICATION – TWO OUTLET (CO3002)



TYPICAL FLOW RATES (CO3002)

Flow rates shown are free-flowing and may vary subject to restrictions created by installation, pipework layout or application.

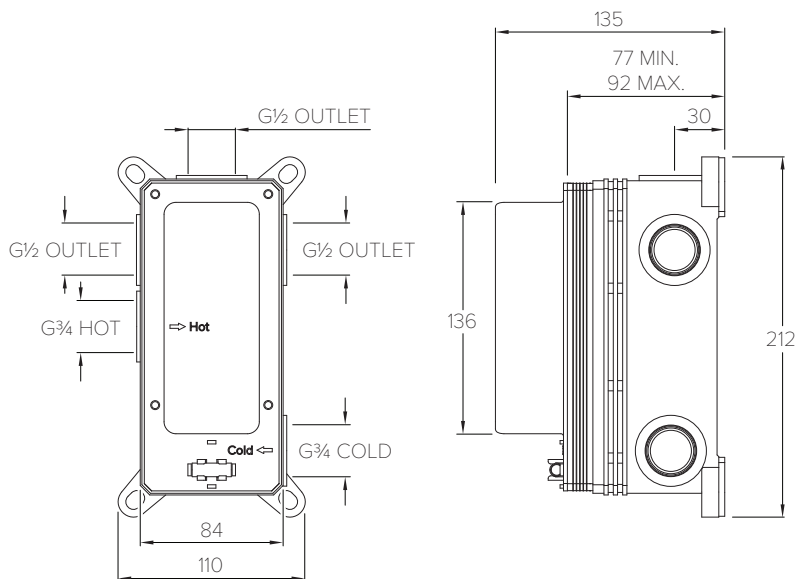


Water Pressure (Bar)	Outlet (Litres/minute)
0.5	10.7
1.0	16.0
2.0	23.9
3.0	29.0
4.0	33.2
5.0	38.0

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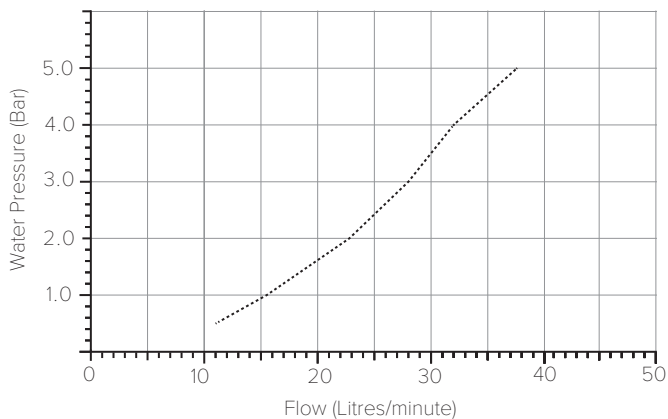
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SPECIFICATION – THREE OUTLET (CO3003)



TYPICAL FLOW RATES (CO3003)

Flow rates shown are free-flowing and may vary subject to restrictions created by installation, pipework layout or application.



Water Pressure (Bar)	Outlet (Litres/minute)
0.5	10.5
1.0	15.6
2.0	22.7
3.0	27.8
4.0	31.9
5.0	37.4

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