



Installation Specifications

The Installation (see diagrams on p. 2)

When installing the **CalciumGuard** in a stainless, mild (black) or galvanized steel or copper piping system the device must be electrically bridged using suitable bonding wire.

When installing the **CalciumGuard** in a plastic piping system – 2 sections of piping of a metallic nature at least twice the length of the **CalciumGuard** must be inserted into the pipeline before and after the **CalciumGuard**.

In those cases, a grounding wire must be also connected to a **physical grounding** point.

The **CalciumGuard** should be installed as close as possible to the individual pieces of equipment to ensure their protection (e.g. heat exchangers, pumps etc.).

Electrical Grounding

Electrical grounding is essential to enhance the performance of **CalciumGuard** in addition to providing a safe continuity of grounding for other purposes. When plastic pipes are used be sure to bond the actual **CalciumGuard** to a grounding point and be aware that the lacquer/nickel plated finish may be required to be pierced to achieve an effective ground.

NOTE: The Teflon tape (or liquid) doesn't create a seal, it reduces friction so you can tighten more with the same turning force.

Torque

These are the recommended torque for the threaded **CalciumGuard** models:

½" (all models)	65 Nm (+/- 10%)
¾" (all models)	90 Nm (+/- 10%)
1" (all models)	150 Nm (+/- 10%)

Caution!

During installation in a copper piping system the **CalciumGuard** must not be exposed to the heat from the soldering. The **CalciumGuard** must not be levered or turned against the screw joint ends or flange couplings. Pipe wrench or spanners should only be used on the couplings and never on the **CalciumGuard** itself. The **CalciumGuard** must be installed with zero potential (good grounding).

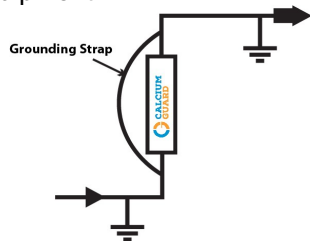
Filter

If a fine filter is present, then the **CalciumGuard** should always be installed downstream (after) of the fine filter – even in a circulation flow system.

Electrical Grounding

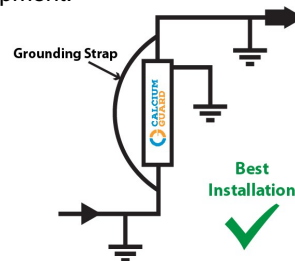
Option A

Where pipework is metal, properly grounded and with no feedback from any stray currents from electrical equipment.



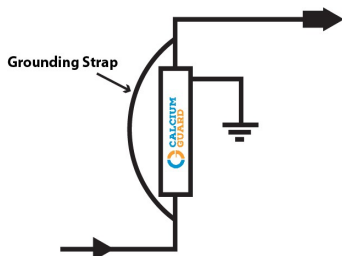
Option B

Where pipework is metal, properly grounded but with the potential/actual feedback of stray currents from electrical equipment.



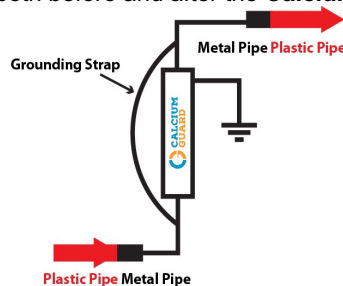
Option C

Where pipework is not adequately grounded.



Option D

Where **CalciumGuard** is installed into plastic pipework it is important that metal pipe-sections are installed both before and after the **CalciumGuard**.



The ideal length of **METAL** pipe sections **before** and **after** the **CalciumGuard** should be twice (x2) the **CalciumGuard**'s length wherever possible.

For a successful Installation of the CalciumGuard®

1. If in doubt use a qualified installer (Check with your local **CalciumGuard** Distributor).
2. Care must be taken to ensure that connecting joints requiring applied heat (Welding/soldering) must not be used in the vicinity of the **CalciumGuard** because the conducted heat will damage the unit's interior, causing possible failure of the **CalciumGuard**.
3. Always connect earth/earth (grounding) bridge across The **CalciumGuard** making sure a good earth (ground) connection is achieved. When the piping isn't properly earthed (grounded) – it is recommended to connect the bridge to an actual grounding point.
4. **CalciumGuard** is designed for the use with potable water as well as industrial purposes.
5. **CalciumGuard** is best installed in the cold water feed supply lines. In certain instances, such as central heating, hot water returns and cooling towers, **CalciumGuard** should be installed in the cool end of the recirculating system if possible.