



Advanced Hydro Ltd

# Installation Guidelines ACP65 to ACP150

## THIS PRODUCT MUST BE EARTHED TO FUNCTION PROPERLY

#### How to properly install your Advanced Crystallisation Process (ACP)™

#### The Water

An analysis of the water should preferably be submitted when proposing to use the ACP with industrial or well water. The use of the ACP with water at a temperature over 60°C may cause a reduction in the effectiveness of the ACP.

#### The Advanced Crystallisation Process (ACP)™

The ACP is a physical device for inline installations only, once installed it must be kept wet and free from air contact. The model and size of ACP to be selected should be determined by the maximum flow rate through the unit.

#### Installation

Installation should be made by certified engineers from a specialist plumbing company. Installation of the Advanced Crystallisation Process ACP<sup>™</sup> should only be carried out after carefully reading the installation instructions. Failure to comply with the installation instructions may invalidate the warranty, prevent the ACP working and cause personal injury.

#### **Electrical Earth Bonding**

The system must be earthed in accordance with BS7671.

Ensure the body of the ACP unit has an earth lead connection – this is essential to the operation of the ACP. This is normally best taken from a bolt securing one of the flanges and attached to the inside of the flange of the ACP.





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Ensure the pipework has continuity earth bonding across the installed ACP to the pipework each side of the unit. Operation of the ACP without an earth connection is unacceptable and may prevent the unit operating. No continuity earth bonding may cause personal injury.

Please see schematic at end of the installation instructions.

## Fitting

It is recommended that a company specialising in plumbing should install the Advanced Crystallisation Process ACP<sup>™</sup>. Depending on the length and model of ACP to be installed, a section of the pipework should be removed and two compatible PN16 flanges fitted to the pipework to match the mating flanges of the ACP to be installed.

Ensure the flow through the ACP is in the direction of the arrow on the label fixed to the body of the ACP unit and that the ACP is positioned a minimum of 2 meters prior to the water being heated.

To ensure the correct installation only standard DN flange seals should be used. Bolts should be the appropriate size for the PN16 flanges and must be secured using plain washers with spring washers. The ACP flange and body have alignment strips fitted which must not be tampered with. The warranty becomes void if one or both of the strips are damaged through rotation of the flange due to levering or other similar activity. Under no circumstances should the ACP be pulled apart using attachment bolts to make the unit fit.

## Fitting Notes:

During installation the ACP must not be exposed to the heat from soldering or welding. The ACP must not be levered or turned against the flange couplings. Wrenches or spanners should only be used on the couplings and never on the ACP. The ACP must be installed with zero potential (good EARTH grounding).



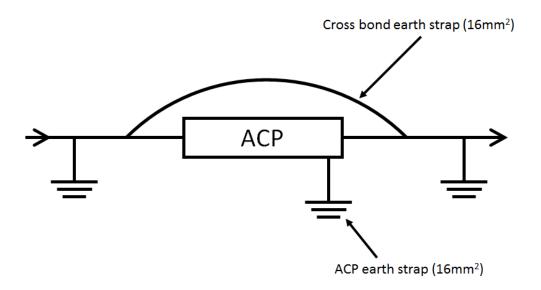


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If heating equipment that is to be protected by the ACP contains a warm water circulation loop an additional ACP incorporated in the circulation loop will provide additional protection against scale and corrosion.

### For a successful Installation of the ACP

- 1. If in doubt use a qualified installer (refer to your local ACP distributor).
- 2. Install with the correct flanges, gaskets and fixings for the particular installation.
- 3. Care must be taken to ensure that connecting joints requiring applied heat (welding/soldering) must not be used in the vicinity of the ACP because the conducted heat will damage the unit's interior, causing possible failure of the ACP.
- 4. Check the orientation of the installation flanges on the pipeline is correct so as not to cause Radial Displacement of the flanges or other stresses.
- 5. The water pressure must not exceed the maximum pressure stated on the ACP Label.
- 6. The temperature of the water should not be higher than 140°F (60°C) for optimum performance.
- 7. Always earth / earth bridge across the ACP making sure a good earth (ground) connection is achieved. (see schematic below).
- 8. Always run a separate earth from the ACP to secure local earth point. (see schematic below).
- 9. The ACP is designed for the use with potable water as well as industrial processes.



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