

Health & Life Sciences, Reading University

An autoclave is a pressure chamber used to sterilize equipment by inactivating all bacteria, viruses, fungi and spores. When these items are placed inside the autoclave they are exposed to high temperature steam (usually around 132°C).

Problem

The new science block required water of a specific hardness to feed the large autoclave unit.

Autoclaves are delicate pieces of equipment with very precise requirements in terms of feed water quality, so it is vital the design of the equipment treating such systems takes everything into consideration to ensure the longevity and efficiency of the plant.

Solution

Goodwater worked closely with Aecom (Bristol), the mechanical design engineers, in order to adequately size the water softener. In this instance a meter controlled duplex unit was necessary to meet the operational demands.

The water quality needed to be a very specific hardness (70ppm CaCO₃) at all times due to the nature of the application in the laboratory.

To overcome this issue we selected a blending valve for the softening system and added a dedicated in-line water hardness analyser to constantly check water hardness whilst the equipment was in operation.



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Conclusion

Goodwater's involvement from the initial design stage of the project right through to the build on site allowed us to ensure the correct solution and plant were put forward for this specialist laboratory site.



Scope of supply:

- ✓ 250/2910 Duplex Water Softener
- ✓ In-line Water Hardness Analyser
- ✓ Assembly
- ✓ Commissioning

Water Hardness Analyser

Should the hardness increase above the set point local and BMS alarms are triggered so that action can be taken by the site team



250/2910 duplex water softener

The equipment detailed in this case study are part of the Pegasus range of water softening plant and accessories.

For more information visit our website –

<https://www.goodwater.co.uk/equipment-ranges/>

