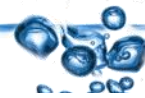


Case Study 2



Water softening at the Crouchers Hotel, Chichester

In early May 2009, we were asked to quote for the replacement of a water softener at the Crouchers hotel. This charming hostelry, set in open countryside, is three miles south of Chichester, West Sussex. Originally a 1900's farmhouse it has been converted into a luxury bedroom complex utilising the original coach house, barn and stables. It has an award winning 80 seater restaurant and bar. Unfortunately, the hardness of the water is 340ppm of carbonate hardness

With the number of bedrooms recently increased to 26 the original softener was not coping with demand. It was the decision of Leslie Wilson, the owner, to install a higher capacity unit in the new boiler room, an annexe to the 'studio' which is a separate building close to the main entrance. The original softener was located within the 'studio' building under the stairs.



The original softener installed in a cupboard under a staircase

This softener was a 25 litre metered duplex machine.

It was estimated that the hotel, restaurant and kitchens were now using around 16,000 litres of water a day. However, with further expansion likely it was agreed to install a 100 litre metered duplex softener capable of producing up to 33,000 litres a day.

We started the day and a half replacement job later in May and found a

Aqua-Nouveau's commercial water treatment expertise

Our involvement in commercial water treatment goes back to the early 90's and since then we have undertaken many different projects for a number of local and regional organisations. A short list appears on Aquafact sheet No.1. The diversity of requirements has taken us into restaurants, hotels, residential homes, company offices, hospitals, pubs, hairdressers, laundries & dry cleaners, sporting establishments and fitness centres, to mention a few.

The range of equipment we have available involves systems for private water supplies to equipment for laboratory water purity. We handle most services in-house.

As a starting point we usually require knowing the amount of water being used and needing to be treated. To assist in establishing this figure we have provided a chart overleaf which highlights various businesses etc., and the amount of water we estimate is being consumed in a 24 hour period. We hope this helps you. By discussing this with us we should be able to put forward suggestions as what type and size of equipment you may require.

number of issues. The original plant was not plumbed correctly and this created problems in isolating the water supply. The width of the doorway into the boiler room also prevented us lifting a standard salt tank into the boiler room. A suitable slim line tank was eventually

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Water consumption in various locations

LOCATION	LITRES	CALCULATION
Restaurant		Seats x 90 litres
Hairdresser		Basins x 500 litres
Laundrette	275	Per hour per machine
Guest house	160	Per head per day
Hostel	91	Per bed space
Hotel	200	Per bed space
Office & canteen	45	Per employee
Nursery school	15	Per pupil
Primary school	15	Per pupil
Secondary school	20	Per pupil
Grammer school	20	Per pupil
Comprehensive school	20	Per pupil
Technical school	20	Per pupil
Boarding school	91	Per pupil
Children's home	137	Per bed space
Nurses home	121	Per bed space
Nursing home	137	Per bed space
Residential home	137	Per bed space
Domestic home	160	Per person
Very large house	100	Per bedroom

The figures above refer to daily usage unless stated otherwise

acquired.

The location of the new softener was some distance from the staircase cupboard. This required us to run the incoming water supply to and from the softener externally along the outside of the 'studio' building and into the boiler room. This was done in 28mm, lagged copper pipe work (see below). This will eventually be reinsulated and boxed in to match the



The new 100 litre metered duplex softener, in its final position, in the boiler room with the slim-line salt tank in the foreground.

adjacent brick work.

The removal of the old softener and reconnection of the softened water supply, to the hotel, was undertaken in an afternoon when it was necessary to disconnect the water supply for three hours. On final link up the softener was flushed several times to eradicate any contamination, within the system, before being finally commissioned.

We would like to thank Leslie and her staff for their assistance during the installation and for allowing us to publish this project as a case study.