

# The M.O.D's choice of Water Treatment

ETC is playing a valuable role in the success of Defence Estates' multi-million pound SLAM project to upgrade Single Living Accommodation for members of the Armed Forces. Currently, four hotel-standard barrack buildings per month are being equipped with electronic water treatment units. This 10-year project will eventually supply 30,000 much improved en-suite bed spaces to SLAM sites across the UK.

The **Scalewatcher™ENiGMA** units will be used to protect hot and cold water systems from deterioration and loss of performance due to limescale. It is estimated that the installations will save £millions over the life of the buildings.

While there are no figures available for military establishments, it is estimated that limescale costs UK industry over £1billion a year in descaling alone. Further £billions are wasted through lost production, higher energy bills, and early renewal of capital equipment. There are also environmental costs linked to the higher fuel consumption necessary when pipes and heat exchangers are heavily fouled with limescale.

Prime Contractor, Debut Services Ltd, (jointly owned by Bovis and Babcock), designs, constructs and maintains the SLAM buildings. They became concerned about the damage to

water systems due to limescale as they are required to hand over SLAM buildings in an 'as new' condition after seven years. Not wishing to incur the considerable cost of replacing hot water systems, they first considered conventional means of water treatment, using salt-fed softeners,



however **Scalewatcher™ENiGMA** proved to be more convenient, more compact and better value. It was doubly attractive because ETC focuses on product and service quality and high standards of


installation, commissioning and long term monitoring.

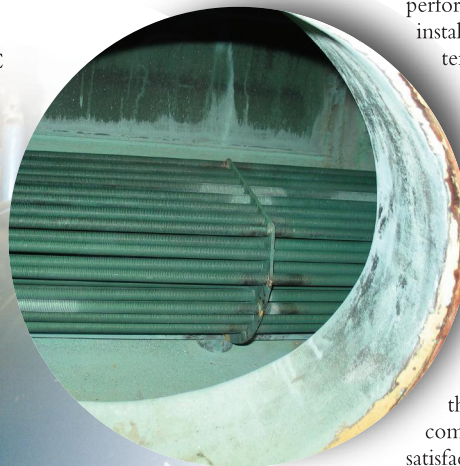
The system was chosen because of ETC's unrivalled success in providing a real and effective alternative to base exchange salt softeners. This would have cost around £188,000 over the design life of each building. In comparison the whole life cost (WLC) of the non-chemical method was estimated to be just 1.6% of that amount, with the added benefit of it not destroying the potability of the drinking water. When looked at in terms of the overall project, Debut's figures indicate a saving of some £75million.

## SLAM update!

Despite carrying out 'due diligence' enquiries, there often remain a few people who are still sceptical, which is why ETC has developed successful techniques for performance monitoring of its installations, using sophisticated temperature data logging etc.

However, there is nothing quite like 'the mark-1 eyeball' for confirming the efficacy of the treatment. In the case of SLAM, this was achieved by opening up one of the first installations, at Royal Marine Poole, after 9 months in operation in one of the UK's hardest water areas. To the delight of the SLAM compliance team, and the quiet satisfaction of ETC, the calorifier and its heat exchanger had remained exceedingly clean.

The successful working relationship with the MOD, developed since 1989, and the more recent success with the SLAM team has led to many other installations at prestigious military sites in the UK, saving the taxpayers many millions of pounds. In addition to significantly reducing CO<sub>2</sub> emissions, other environmental benefits have been realised, such as reduced use of chemicals and not having to replace water-fed appliances and equipment so often. 



Inspection of the calorifier's heat exchanger

