



## **L A Maintenance:**

A leading building services maintenance contractor well known for its innovative approach. One of its functions is the maintenance of air-conditioning units for computer suites and other areas where controlled air quality is essential.

### **The Problem**

In order to ensure a controlled air quality the air conditioning units are fitted with humidification units. The humidification unit generates steam by boiling the water in a bottle and as a result the electrodes progressively scale up. Eventually the bottle is packed solid with hard scale and has to be replaced altogether.

L A maintenance reported that on average the humidifier bottle had to be replaced every four months. In addition to the bottle replacement costs there was also an associated labor cost.

Water softeners are one of the options to control scaling in buildings. However, in many buildings there are space constraints which mean that there is either no room for a softener and/or the salt used to regenerate the resin.

Furthermore, a backwash line for the softener has to be installed. Even if these issues were not a problem the humidifier cannot work on softened water as it needs to pass a current through the water in order to function.

### **The Solution**

It was decided to test the Scaleton on a computer suite air-conditioning unit that ran 24hrs a day. A 15mm Scaleton unit was conveniently fitted under the floor tiling on the incoming water line to the humidifier.

The humidifier is fitted with a blow down tray and it was soon evident that additional solids were being collected in the tray. After twelve months the bottle was changed. This means that the operating life after fitting the Scaleton was tripled providing considerable cost savings.

On further examination it was noticed that the scale build-up on the electrodes was not as severe as before and the scale was quite soft with the bottle packed full of soft scale. As a result L A Maintenance decided to take the solution one stage further establishing a procedure to wash the bottles with a mild de-scaling chemical that does not affect the electrodes but extends the bottles life further.