

### **Case History: City Mall, Amman, Jordan**



The complete non-chemical water treatment of Jordan's largest shopping mall











# **The Customer**

Jordan's largest city mall was constructed in 2005 with Alpha Co. Ltd engaged as consulting and mechanical engineers.

Alpha were considering the most environment friendly and cost effective methods of treating water to prevent scale formation in the equipment providing hot water, air conditioning and other vital services to the mall.















# **Original Equipment**

A softener had been specified together with a chemical dosing system which, if implemented, would require additional pipe-work plus space for storage of chemicals and salt.

Another factor considered was the instruction and training of staff in the maintenance and operation of these systems knowing that daily attention would be necessary.



A Conventional Water Softener













# **Fluid Dynamics Solution**

Fluid Dynamics was asked to submit a proposal at the design stage.

After reviewing the water systems it was clear that Fluid Dynamics could eliminate the additional piping for softeners and chemicals.

The selection of the Fluid Dynamics solution eliminated the need for additional storage space and the provisions for maintenance schedules.



#### A selection of Fluid Dynamics products













## **The Installation**

The following recommendation was made:

1 x unit replacing the softener system

2 x units on the hot water supply

2 x units on each calorifier



An 8" Colloid-A-Tron

1 x unit on the cold water supply serving taps/urinals/A.C.













# **Customer Savings since 2005**

The customer has saved tens of thousands of dollars:

- Reduction in initial costs. No additional piping required.
- Reduction in cost of water treatment equipment
- No salt and chemicals to purchase every month
- No maintenance, no labor costs
- No additional space for storage of salt and chemicals
- No health and safety concerns as no handling of chemicals is required
- No waste water from softener backwash
- No energy waste from scale build up







