Case Study: HaMa'apil Swimming Pool

Client: Kibbutz HaMa'apil
System installed: AquaKLEAR P160
Installation date: June 2012

Application:

- 500 cubic meters (132,000 gallon) swimming pool (recently built)
- A 6" circulation pipe connecting to two 10 cubic meters filters, circulating 120 cubic meters per hour
- Automatic chemical injection system

Installation description:
AquaKLEAR P160 system was installed before the circulation pumps.

AquaKLEAR P160

Testing method:

The AquaKLEAR system was installed on June 2012. On September 2nd the system was disconnected and on September 16th it was reconnected. Chemical usage and backwashes frequency was documented for 6 weeks, starting on September 2nd. Documenting was done by Yoram Strull, who is in charge of the swimming pool.

Findings:

While the system was disconnected, an average daily usage of 34.3 kg chlorine and 4.3 kg acid was documented. After reconnecting the system, average daily usage reduced to 18.1 kg chlorine and 1.3 kg acid.

Chlorine reduction was by approx. 47% and acid reduction was by approx. 70%.

While the system was disconnected, 3 backwashes were made within 2 weeks (average 1.5 per week). After reconnecting the system, 2 backwashes were made within 4 weeks (average 0.5 per week). This corresponds to a two-thirds reduction that saves approx. 48 cubic meters per month (as each backwash uses 12 cubic meters of water).

According to Yoram Strull, maintaining a certain level of acidity contributes to a better and more effective influence of the chlorine. Furthermore, keeping a low level of combined chlorine prevents the strong smells that are typical to swimming pools.

In summation:

Using AquaKLEAR systems allows:

- Chlorine reduction by 47%
- Acid reduction by 70%
- Saving 48 cubic meters of water per month

Note that reducing chemical usage and backwash frequency is reducing the overall maintenance of the swimming pool.