



Luxury living upgraded with Grundfos smart solutions

The Situation

Nestled on a prestigious man-made island in Dubai, a luxurious residential complex blends modern design with natural elements, providing residents with a unique island lifestyle through its spacious, elegantly designed suites that epitomize luxury and comfort.

This luxurious residential complex faced significant challenges with its water boosting system. Oversized 75 kW end-suction pumps led to severe water hammering, sudden pressure surges leading to frequent pipe breakage. The aging infrastructure and mismatch between pump capacity and water demand in the complex resulted in excessive energy waste and frequent disruptions. The focus was on improving energy efficiency and mitigating pressure control issues for reliable and cost-effective water distribution.

Proud to deliver a solution that improved both operational efficiency and energy savings, highlighting the value of tailored, innovative approaches.

Velon Leon Saldanha
Aftermarket Sales Engineer
Grundfos Gulf Distribution

The Solution

After a detailed energy check and pump audit by Grundfos, it became clear that downsizing the oversized pumps and redistributing the load across smaller, more efficient pumps would significantly improve energy efficiency and resolve operational issues.

Grundfos introduced the Hydro MPC intelligent boosting system with 11 kW and 7.5 kW pumps, replacing the five large end-suction pumps with smaller capacity vertical multistage pumps equipped with in-built Variable Frequency Drives (VFDs). The installation process was precisely planned to minimize downtime and allow for a seamless transition.

The re-designed system now operates with proportional pressure control rather than the previous constant pressure setup, significantly reducing energy consumption and ensuring consistent water pressure throughout the complex. In addition, soft pressure build-up feature inbuilt in Hydro MPC controller was incorporated to eliminate the risk of sudden pressure surges, effectively preventing pipe breakages.

GRUNDFOS 

Possibility in every drop



106.56 mT
CO₂ reduction

53.27% Reduction
energy consumption

3.57 years
ROI

103,375 AED per year
cost savings

The Outcome

By downsizing the system and implementing the Hydro MPC-E solution, the client realized multiple positive outcomes like improvements in reliability, a drop in energy consumption, and stable water pressure throughout the building.

Beyond the energy savings, the new system addressed the frequent failures of the previous setup, significantly cutting down repair costs too.

Grundfos Supplied

Hydro MPC-E 4 CRIE 15-5,11kW with IE5 motors

Hydro MPC-E 4 CRE 32-4-2,7.5kW with IE5 motors



Hydro MPC-E 4 CRE Booster systems

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