SUCCES STORY MARRIOTT HOTEL DUBAI

Five stars for energy efficiency.

Complete range of pressure-independent valves and actuators at Marriott Hotel “Al Jaddaf” in Dubai

The Marriott Hotel chain opened its hotel experience on January 15th 2014 in Dubai, UAE. With its brilliant design and perfect location in Al Jaddaf, this 5-star hotel has an abundance of thoughtful amenities. These include fully automated luxury guest rooms and suite accommodation that encourages relaxation, with luxury bedding, marble bathrooms, high-speed Internet and flat-screen TVs, also providing views of the Dubai skyline. The hotel offers 352 luxury guest rooms and 128 hotel apartments. The Belimo products could be implemented efficiently and enable a sustainable and maintaince-free system.

TYPE OF BUILDING
Hotel

PROJECT
New building

SECTOR
Heating, ventilation and air conditioning (HVAC)

PRODUCTS
Belimo Energy Valves™, electronic pressure-independent characterised control valves (EPIV), pressure-independent characterised control valves (PICCV)

BELIMO®

Requirements.

Initial situation

The 5-star Marriott hotel has been equipped with pressure-independent characterised control valves and modulating actuators for all the Fan Coil units serving the guest rooms. The EPIVs have been installed for the Air Handling Units serving the kitchen and common areas. The Belimo Energy Valve™ have been used for the Heat Exchangers serving the swimming pool and maintaining a constant Delta-T. The BMS contractor Johnson Controls has done the master integration of the units to the BMS using the Metasys Platform, thus providing easy control for the facilities managers and their team in the Marriott.

Project requirements

- The project schedule was critical.
- The customer was looking for the pressure-independent valve technology to eliminate over and under sizing and to ensure maximum control and efficiency.
- The products used should not require any maintenance or recalibrations.
- Flexibility to adapt on-site to the true system conditions.

Belimo solution

The 1,100 pieces of Belimo valves have been specified by the Consultant Arif & Bintoak Consulting Engineers to include pressure-independent characterised control valves (PICCV), electronic pressure-independent valves (EPIV) and Belimo Energy Valves™. All PICCV's were pre-calibrated. These valves are capable of controlling a complex cool-ing system throughout the building, comprising of 10,000 gallons of water. The time-savings inherent in the EPIVs and Belimo Energy Valves™ solution provide significant value over alternative approaches. The time taken for the system to be commissioned was crucial for the installers, who under contractual obligations would have been penalized for delays. By using the Belimo Energy Valve™ the system is not only energy-efficient, through the recording of all data, but also an optimisation potential is given for the facility management. With the Belimo electronic pressure-independent valve EPIV it is easy to adjust the maximum flow rate and thanks to air bubble tight-closing characterised control valve no leakages are possible. With the Belimo valves it is possible to control the system with installation-friendly, versatile, transparent and secure products.

"The Belimo valves are easy to operate, maintenance-free and also offer peace of mind."

Wael Farouk, Director of Engineering
Marriott Hotel "Al Jaddaf", Dubai

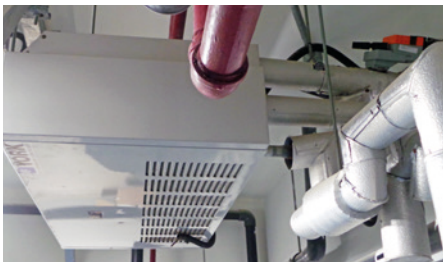
Result.

Customer benefit

- Belimo Energy Valve™ ensures the regulation of flow and heat exchanger output and monitors the Delta-T value.
- Easy selection without k_{vs} calculation.
- Significantly reduced operating costs from the beginning of the project and throughout the entire life of the system.
- Easy integration of the measuring, control and regulation technology.
- Engineers avoid complex sizing at the design stage and gain greater peace of mind that the system will operate correctly from the beginning.
- The Facility Manager is able to control the hotel efficiently from the BMS dashboard.
- Equal percentage flow characteristic leads to system controllability. Constant flow performance significantly reduces actuator movement, providing less hunting and wear on the valve assembly.

Customer satisfaction

Mr. Wael Farouk, Director of Engineering, Mr. Ayman Angalay, Manager of Engineering and Mr. Prashanth Ameen, Technician, operate the 5-star hotel HVAC facilities efficiently. They quote from their experience “The Belimo valves are easy to operate and maintenance-free and also offer peace of mind.” Mr. Farouk also states that “The Belimo Energy Valve™ serving the swimming pool area maintains the temperature, which is critical, and it is a significant energy saving area for improvement. It is maintained in accordance with the international standards of 29°C. The Belimo Energy Valve™ gives us total transparency regarding control, operation and monitoring of the plant. Facility Engineers are also optimistic with the project. This is thanks to the new valve technology from Belimo.”



The Fan Coil Units equipped with the Belimo Pressure-Independent Characterised Control Valves (EPIV).

The Heat Exchangers are equipped with Belimo Energy Valves™.

All inclusive.

Belimo is the global market leader in the development, production, and sales of field devices for the energy-efficient control of heating, ventilation and air-conditioning systems. The focus of our core business is on damper actuators, control valves, sensors and meters.

Always focusing on customer value, we deliver more than only products. We offer you the complete product range for the regulation and control of HVAC systems from a single source. At the same time, we rely on tested Swiss quality with a five-year warranty. Our worldwide representatives in over 80 countries guarantee short delivery times and comprehensive support through the entire product life. Belimo does indeed include everything.

The "small" Belimo devices have a big impact on comfort, energy efficiency, safety, installation and maintenance.

In short: Small devices, big impact.

- 5-year warranty
- On site around the globe
- Complete product range
- Tested quality
- Short delivery times
- Comprehensive support

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