

ABQM, MSV Case story

# Energy comfort at record high levels

Prime Tower in Switzerland

The Prime Tower in Zurich is a building of many records. The office building is the tallest building in Switzerland at 414 ft. (126 m.) with 36 floors and 431,000 square feet (40,000 m.). With its more than 6,000 AB-QM valves, it is also one of the biggest heating and cooling installations ever designed and installed by Danfoss.

It is one of the biggest Danfoss hydronic balancing solutions ever with more than 6,000 AB-QM pressure independent balancing and

control valves to achieve the optimum balance in the heating and cooling of the tower. The advanced system ensures a stable temperature and pleasant indoor environment for the thousands of people working in the building every day.

### **The Prime Tower sets new standards for eco-efficiency**

The Prime Tower has been designed and constructed to set new standards in Switzerland in terms of eco-efficiency. The building has



**6,150**  
**AB-QM valves**

AB-QM pressure independent balancing and control valves ensure a stable temperature, pleasant indoor climate and high energy efficiency to heat and cool the Prime Tower.



been certified according to the "greenproperty" seal, a new Swiss sustainability rating measuring real estate and buildings according to five criteria: energy, materials, usage, infrastructure and life cycle. Furthermore, Prime Tower has been certified according to the international LEED Gold standard.

Swiss Prime, the owner of the building, is keen to show the way for environmental responsibility and to meet future tenants' requirements to sustainability. Just like the hydronic balancing specialists at Danfoss, who strive to offer complete solutions that are not only cost efficient but also outstanding when it comes to energy efficiency.

#### Highly efficient solution

The distinctive octagon-shaped building is the winning project of a high-class competition involving top-ranking architects. The heating and cooling solution has been designed by Danfoss in close cooperation with the project's leading designers and engineers. It is a highly energy efficient solution with a 4-pipe system (change-over) with radiant cooling and heating ceilings, 268 manifolds for the pipes and 0-10 volts thermal actuators.

Recently Danfoss supplied a similar solution to Kommerzbank in Frankfurt.



Swiss Prime Tower represents not only an impressive piece of architecture seen from the outside, but also a unique climate and people friendly solution on the inside. The heating and cooling solution ensures high energy efficiency combined with a pleasant indoor climate for the thousands of people working in the building every day.

Swiss sales team



## About Prime Tower

- 436,000 sq. ft. (40,000 m.), mostly used for office space. At ground floor cafés, shops, etc.
- 36 floors, 414 feet high (126 m.), making it the tallest building in Switzerland
- AB-QM 1/2" - 6" Valves with AME actuators
- MSV-F2 Manual Balancing Valves
- Environmental labels: LEED Gold, international standard for energy and environmental design; Minergie, Swiss standard for environmental design; Green Property, Swiss seal of approval for sustainable real estate
- Investor/owner: Swiss Prime
- Architect: Gigon/Guyer, Zürich

## Advantages of the heating/cooling solution

- Simple design
- High balancing efficiency
- Safe operation
- Low operating costs due to hydraulic efficiency
- Low maintenance costs
- High energy efficiency

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