
High ambitions for Moscow's Tower 2000

THE SITUATION

The prestigious Moscow City project covers 100 hectares in Moscow's central business district, and is due to be completed in 2010. Often described as Moscow's first "smart building", the 34-storey Tower 2000 complex contains offices, retail stores, restaurants, underground parking and an observation platform that provides spectacular views of the city.

The stylish design of this building – with its glass facade, panoramic exterior elevator and computerised rapid interior elevators – is matched by many advanced-technology facilities. In addition to the latest telecommunication and audio-visual systems, the Tower 2000 complex also features a state-of-the-art central air-conditioning system, exhaust ventilation system, cooling and heating systems, smoke detection and sprinkler system, etc. The Tower 2000 complex is owned by Capital City Development Ltd., and the company has plans for building at least five more tower buildings.

THE GRUNDFOS SOLUTION

Capital City Development Ltd. selected Grundfos to supply the equipment necessary to ensure that the different systems installed in the Tower 2000 complex ran smoothly, reliably and safely. These included systems for zone-divided heating, water supply, cooling and air conditioning, domestic water heating, fire-fighting and sewerage.

Heating:

A special challenge for Grundfos was providing the equipment for the largest rooftop boiler room in Europe, used to heat the winter garden in the Tower 2000 complex. The Grundfos CLM 125-264

TOPIC:

Grundfos Hydro 2000 booster systems are installed to cover both water supply, cooling and air-condition applications

LOCATION:

Moscow

COMPANY:

Grundfos

pumps used for heating the main building are switched off during the summer months.

Cold water supply:

The Grundfos proposal was to divide the building into three zones. Zone 1 included the area from the basement to the second floor using Hydro 2000 MF 3 CR32-2 PMU; zone 2 covered floors 3 to 16 using Hydro 2000 MF 3 CR8-100 PMU; and zone 3 covered floors 17 to 30 using Hydro 2000 MF 3 CR8-140 PMU.

Cooling and air conditioning:

Grundfos installed three LPD 125-120 pumps in this system, working alternately. These pumps switch off when the coolant gets warm. For pressure holding, Grundfos installed a Hydro 2000 MES CR4-160 unit. This was supplemented by three CLM 200-290 pumps for use in the air-conditioning system.

Fire protection:

The safety of the Tower 2000 complex was naturally a prime consideration, so Grundfos installed two CR 45-8 pumps for the sprinkler system in zone 1; two NK 80 main and stand-by pumps in the fire-plug system in zone 2, as well as a CR 64 sprinkler system; and two CV125 80 main and stand-by pumps in the fire-plug system in zone 3. Two NK 80 main and stand-by pumps were also installed in the fire-plug and sprinkler systems on the basement floors.

Sewerage system:

There are five Multilift MD stations in the Tower 2000 complex: three of these are located in the basement floors and two in the main part of the building.

THE OUTCOME

Since the opening of the Tower 2000 complex in 2001, Capital City Development Ltd. has been extremely satisfied with the equipment supplied by Grundfos. "We are currently planning five more tower buildings," said a spokesperson for the company, "and will be consulting Grundfos for advice. Our experience has shown that Grundfos equipment is reliable and energy-efficient, and the company's after-sales service is excellent."

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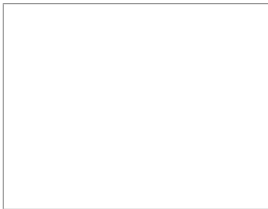
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