

ENGINEERING  
TOMORROW



Case story

# Luxury **comfort** for Turkish towers **Lower your costs** with Danfoss

Selenium Twins Istanbul, Turkey

# 222

## Danfoss flat stations

Secure high system performance and supply of heat and domestic hot water for the two 34-storey residential blocks.

[www.districtenergy.danfoss.com](http://www.districtenergy.danfoss.com)

The Selenium Twins are two luxurious 34-storey residential blocks located in Fulya, Istanbul. They reside on a 29,000 m<sup>2</sup> area of land owned by Besiktas JK football club that includes a 10-storey hospital building, 21-storey office building and 16,000 m<sup>2</sup> supermarket.

Asçioğlu Construction Company had high demands for the Selenium Twins' energy system. It selected Danfoss to equip the facility with a solution that boasts low operational and investment costs, and delivers consistent high comfort.

A total of 222 Danfoss flat stations power the supply of heat and hot water to the domestic towers. The flat stations, type Termix VMTD-F, consist of heat meters, motorized valves, balancing valves and pressure reducers.

The buildings are installed with perfect remote meter reading technology, and use M-bus data transmission protocol to obtain data from Danfoss heat meters and water meters in order to generate a combined utility and energy bill for residents.

Based on the success of the Selenium Twins project, Asçioğlu Construction Company has committed to replicate the same solution for two other projects – Selenium Panorama and Selenium City. This will equate to an additional supply of approximately 500 Danfoss Termix VMTD-F flat stations.

### The main challenges:

#### Low Operational Cost

- Increased energy efficiency through improved system operation and low operational temperatures
- Reduced costs for maintenance and service due to simple and reliable system construction

#### Low Investment Cost

- Minimum space requirements for installation in the flat, comprising possible integration in wall construction or shafts
- No need for hot water tank and its space
- Less labour cost
- Reduced pipe and installation time due to system construction with only 3 ascending pipes
- Customer tailored products

#### High Comfort

- Individual setting of room temperature by TP5000 and maximum independent domestic hot water comfort
- Exact and individual energy billing for each flat or tenancy facilitated by central monitoring of consumption by heat-meters
- Minimized risk of legionella bacteria

