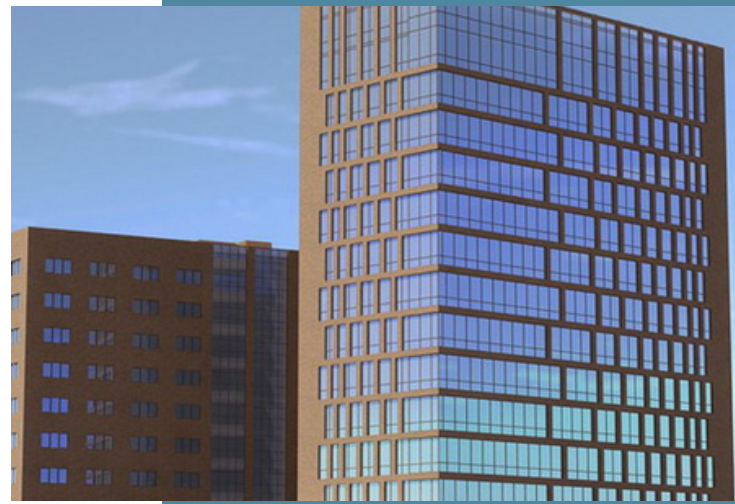


HVAC – PRESIDENZIAL PLAZA



Sector: Building

Year: 2012-2014

Place: Astana, Kazakhstan

Direct client: Renco Spa

OBJECTIVES

The project consists of a 18-storey building in Astana, the capital of Kazakhstan. Two floors are intended as garage space, twelve floors as offices, one floor hosts high quality apartments and the last floor houses a restaurant. In the office space, embassies of various countries will find place, while other areas will be used as a business center.

MAIN ACTIVITIES AND SOLUTIONS

Trillini Engineering was responsible for the design of the thermal-mechanical systems of the entire building.

The temperature regulation systems are connected to the district heating network of the city via suitable heat exchangers housed in the technical room, where the thermal power station is also placed. The heating and cooling of each floor is guaranteed by mutually independent AHU, connected through heat exchangers to the hot and cold risers.

Features:

- Operating Temperatures: $-35^{\circ}\text{C} \div +30^{\circ}\text{C}$;
- 14 AHU with a flow rate of $3450 \text{ m}^3/\text{h}$ each floor, with heat recovery via cross-flow heat exchanger;
- 1 independent AHU with a flow rate of $8.000 \text{ m}^3 / \text{h}$ for the garage heating;
- 10 supply/return risers for hot water line;
- 4 supply/return risers for cold water line;
- 2 chillers, 700 kW each.
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