



Haikou International Duty-Free City, Haikou City, Hainan, China

According to Forbes, Haikou International Duty-Free City is the biggest duty-free mall in the world.

The new shopping complex, Haikou International Duty-Free City (or CDF Haikou), is impressive in size. The whole project covers an area of 930.000 m² and consists of six plots, including duty-free commerce, taxable commerce, high-end offices and hotels, and leisure like a museum, a theater, and a green atrium. It is located in Haikou on the duty-free island Hainan in the south of China. The duty-free mall itself covers 280.000 m² and is found in the fifth plot - it is "the largest single duty-free shop in the world". More than 800 well-known international and domestic brands are showcased with around 25 claimed to be firsts for the island, and some exclusive to CDF Haikou. It is expected to become a driver for both national and international tourism to Hainan.

Application

FlowCon has supplied HVAC valves for the CDF Haikou, located in plot five. The main reason why the customer selected FlowCon as the sole supplier of PICVs and balancing valves was brand reputation, reliability, comprehensiveness of products and ease of commissioning.

The chilled water for air conditioning comes from the refrigeration room located on the second underground floor and is supplied by 4 centrifugal chillers, each with a cooling capacity of 7 MW and 2 screw chillers with a cooling capacity of 1.5 MW each. The cooling load is 31 MW during summer - with a cold index of 110 W/m². The two-pipe system's design temperatures for supply- and return waters are designed to be 6/12°C resulting in a ΔT of 6°C.

The plot five project includes both static flow balance valves and pressure independent control valves with modulating control. Fresh air units and air handling units are commissioned to be controlled and balanced by PICVs, FlowCon Green and FlowCon SM. The static flow balance valves, FlowCon FSB and FlowCon DRJT are installed at the junction between risers and main pipe to control the FCU zones. With this, FlowCon helps ensure good indoor climate for shop employees and happy duty-free shoppers.

Project Configuration:

Project name:

Haikou International Duty-Free City Co., Ltd

Project management:

China National Travel Service (Haiko) Investment Development Co., Ltd.

Architect: China Academy of Building Research

Consultant: BON Engineering Consultants

Contractor:

China Construction First Engineering Bureau

Valve model and quantity:

270 x PICVs: FlowCon Green (DN20-50) and FlowCon SM (DN50-100) on AHUs and Fresh Air Units, FAUs

112 x Static balancing valves: FlowCon FSB (DN20-50) and FlowCon DRJT (DN65-250) on FCU zones

Application: New building

FlowCon distributor:

Hongkong Building Technology (Shanghai) Co., Ltd.



Date of inauguration:

Q4/2022



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