



Case Study: BERMAD Helps Optimize Water System for Shenzhen OCT Tower in China



Shenzhen
China

General

The Shenzhen OCT Tower is an office building and commercial complex located in a dynamic business area of the Nanshan district in China. It was designed by Parsons Brinckerhoff Consultants Private Limited and developed by Shenzhen OCT Properties Company Ltd; and is comprised of a main 300 meter high-rise building (60 floors) and a few low buildings.



The trunk main that supplies water from this reservoir passes through a densely populated valley and a major fault line.

The Challenge

During the design and planning of the building, the owner of the Shenzhen OCT Tower turned to BERMAD for help with optimizing the building's water system. The owner was impressed with the professionalism demonstrated by BERMAD, and selected BERMAD as one of three suppliers of hydraulic control valves for the water system.

BERMAD reviewed the original designs and pointed out that the plan to use relief valves and pressure reducing valves of the same size may cause problems. Also, in places where the pressure differential is high, the use of two piloted pressure reducing valves one after the other on the same line can potentially cause hunting problems.



The BERMAD Solution

In order to prevent potential hunting problems in places where the pressure differential is high, BERMAD recommended using a proportional valve before a piloted pressure reducing valve instead of two piloted pressure reducing valves one after the other.

As part of the overall solution, BERMAD supplied pressure reducing valves ([Model 720](#)) and level control valves ([Model 450-60](#)) for the plumbing system and fire protection system of the Shenzhen OCT Tower.

Results

As a result of the water system optimization of the Shenzhen OCT Tower, the water system became more reliable and the total cost of equipment was reduced. In addition to being part of this optimization effort, BERMAD also offered consistent technical support throughout the project and both the owner and the contractor gave positive feedback about the support received.



About BERMAD Buildings & Constructions

The Buildings & Construction industry has unique requirements, which must be taken into account when designing and installing their water supply and distribution systems. BERMAD designs solutions for the building & construction industry with careful consideration to important issues such as constant water supply, noise & maintenance considerations, integration & control and high water consumption.