



## InterApp isolation valves

for greater efficiency

at the Swiss National Supercomputing Centre

TOTAL AREA OF THE  
MACHINE ROOM



**2,000** m<sup>2</sup>

VOLTAGE



**16,000** v

COMPUTER CAPACITY CAPABLE  
OF BEING EXTENDED TO



**25** megawatts\*

EMERGENCY POWER  
SUPPLY WITH



**960** batteries

LAKE WATER PIPE WITH



**80** cm diameter

\* of which 11.5 MW is already installed

InterApp  
BUTTERFLY VALVES

**DESPONIA**  
+  
**AQUARIA**



Located in Lugano, the Swiss National Supercomputing Centre or CSCS is run by ETH Zurich and is part of the national High Performance Computing and Networking Strategy passed by the Swiss Federal Council and Parliament.

The overarching goal of the new CSCS is to provide all Swiss researchers with the kind of technologies that are becoming increasingly important to their work. The computing center was specifically designed with sufficient capacity to accommodate all the supercomputing infrastructure necessary for Swiss scientific endeavor for at least the next 40 years.

Constructing a building in which the national supercomputers will be housed over the coming decades was a complex challenge, not least because the technology in this area is advancing so rapidly. To meet this challenge, the new CSCS building had to be innovative, flexible and environmentally sustainable – requirements which placed considerable demands on all the contractors and suppliers involved.

Alongside the actual operation of the IT hardware, the second greatest consumer of electricity is the computing center's cooling system. As such, it is imperative that the cooling system is run as efficiently as possible using

innovative technologies to reduce the amount of power consumed. In most computer centers, a low temperature in the server rooms is maintained using conventional air conditioning; however the CSCS features a highly energy-efficient water cooling system.

The water is sourced from Lake Lugano to which it is subsequently returned. In between, there's a sophisticated water cooling system with two cooling circuits, whereby the external lake water is used to reduce the temperature of the internal cooling circuit.

Due to their high degree of operational reliability, isolation valves from InterApp were chosen for the control and regulation of the cooling circuits. The system features Aquaria and Desponia butterfly valves, brass ball valves with stem extensions, stainless steel ball valves, Neptunia check valves, as well as Y-strainers.

InterApp is a subsidiary of the international AVK Group and develops, produces and distributes valves and valve systems. As a customer-focused technology and project management company, InterApp supplies the most innovative fluid technology solutions for the most sophisticated applications and industry sectors in the world.

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