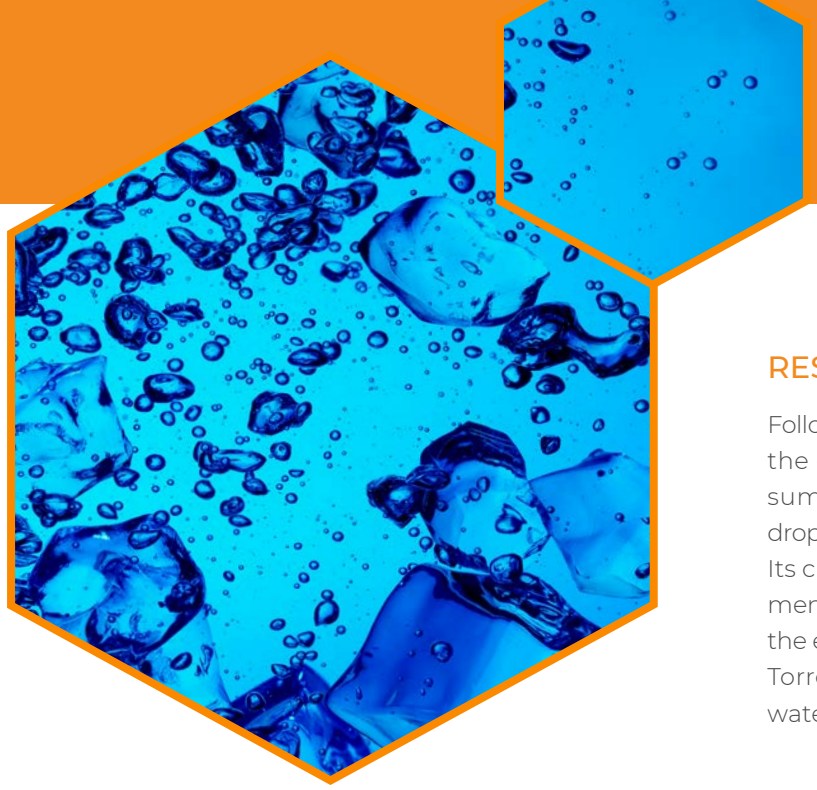
FTC Torrent™ provides savings and efficiency for west coast data center's chilled water closed loop system

PROBLEM

A west coast engineering company was chosen to design and build a chilled water closed loop system for a large new data center. Its customer for the project was a global cloud-based web services provider that specified chilled water closed loop systems instead of cooling tower systems, as cooling towers evaporate a lot of water, require large amounts of make-up water due to evaporation, and involve high maintenance costs.

Chilled water closed loop systems require multiple cleanings during construction and before final commissioning, with millions of gallons of water involved to complete the task. After completion of system construction, the engineering company encountered many obstacles when trying to complete final commissioning activities, including high iron levels in the water, limited water supply, and strict wastewater discharge regulations.



ANALYSIS

The engineering company's method for cleaning chilled water closed loop systems involved horizontal high flow skids (60"), variable flow rates, and #2 nominal bag filters. The process required many cumbersome, messy filter changeouts, which in turn lead to more down time, solids bypass, higher disposal and shipping costs, and more water usage. Hoping for a better solution, the company contacted FTC.

SOLUTION

FTC recommended changing filters and using FTC Torrent™ 600 high flow elements for the next system cleaning. These elements carry a BETA 5000 (99.98%) efficiency rating. With the Torrent™ 600's higher dirt holding capacity and higher efficiency, FTC was confident the engineering company would see an immediate process improvement, as well as overall cost savings. FTC worked alongside the engineering company's team to ensure a seamless transition from the #2 bag filters to the Torrent™ 600 filters, while providing them with customized analysis provided by FTC on the benefits this upgrade would have on their OPEX associated with water cost, change-outs, disposal, and labor.

RESULTS

Following the transition to Torrent™ 600 filter elements, the engineering company saw required water consumption for system cleaning and commissioning drop from 750 million gallons to only 150 million gallons. Its customer was delighted with the positive environmental impact on the local water supply. Additionally, the engineering company was happy to note that with Torrent™ 600 filters the measured iron levels in the water dropped to just .21 ppm.

TORRENT 600™ LIQUID-SOLIDS HIGH FLOW FILTRATION

FTC's Torrent™ 600 Series High Flow filters are designed to meet a wide range of solids removal needs in fluid processing industries. Many applications require higher flux rates, which require a unique cartridge design. Torrent™ High Flow filters are engineered to deliver low pressure drops and high dirt loading capacity. These filters are ideal for low viscosity fluids and low solids loading fluids were higher flux rates are acceptable. They are also recommended for standard fluids and solids loading applications where inside-to-outside flow is desired. The Torrent™ 600 Series High Flow element is designed to fit inside existing housings without housing modification, as well as within FTC's Torrent™ 600 Series vessels.

ABOUT FTC

Since 1987, Filtration Technology Corporation (FTC) has built a reputation for developing and delivering innovative products at the forefront of filtration technology. We engineer and deliver the highest quality process solutions, training, testing, and cutting-edge technology with unparalleled service and support. Through the ongoing development of new, game-changing products, FTC continually redefines success for our customers.

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