Implementation of Spring Filter Technology Improves Overall Performance & Reduces Operating Costs of HVAC System

The Most Advanced, Automatic, Non-Disposable Liquid Filtration System



HVAC



ZGF Spring Filter technology protects critical HVAC equipment



Phoenix Forced Sedimentation
Filtration System (FSFS) installed on
the condenser closed loop to
remove suspended solids

Customer Challenge:

The HVAC service pipe work and equipment at a large office building was displaying serious symptoms of fouling, including reduced flow rates, impaired performance from pumps, air handling units and heat exchangers, and increased maintenance.

The engineering staff wanted to implement a system that would continuously remove sediment and suspended solids from the system to prevent the performance from declining in the future, reducing maintenance, breakdowns and repairs.

ZGF Solution:

Two ZGF Salisbury automatic, full flow filtration systems were installed on each of the two cooling towers for protection of plate and frame heat exchangers. Separately, a Phoenix forced sedimentation filtration system (FSFS) was installed on the closed condenser water loop.

Results:

The chief engineer provided the following feedback.

"The upgrade to Zero Gravity Filters on our two cooling tower circuits has greatly improved our water quality. Also, the flow rates increased on each circuit from 1,100 gpm to 1,400 gpm without affecting the delta-t across the plate heat exchangers or the cooling tower itself. We have improved on the consumption of chemical treatment and the cooling tower ponds have never been cleaner!"

"The Zero Gravity Forced Sedimentation Filtration System is also working well on the closed loop side of the condenser system. The filters are working efficiently, reliably, and always cleaning back to their original clean differential. The cut-back in required maintenance has given my staff more time to devote to other matters."