Paper Manufacturer Implements ZGF Spring Filter On Vacuum Pump Seal Water

On Vacuum Pump Seal Water With 1-Year Payback Based Only on Energy & Water Savings

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



Pulp and Paper



Each Pod contains (7) proprietary ZGF
Spring Filter elements with a 75
micron absolute gap



EZ Clean EC700S Filtration System

Customer Challenge:

A manufacturer of fine writing papers was evaluating the feasibility of reusing its pump seal water. The manufacturer was discharging the relatively clean water to sewer. The motivation was that the water was heated from approximately 55°F when entering the seal cavity to greater than 100°F when leaving. Significant energy savings were attainable if this heated water were to be reused elsewhere in the plant. To enable water reuse, filtration was necessary to ensure all contaminants introduced from the seal area (small cellulose fibers) were removed.

ZGF Solution:

ZGF conducted a feasibility study to determine the removal efficiency of the proprietary ZGF Spring Filter element at different micron ratings and the ability to effectively remove the small cellulose fibers during the backwash cycle. On-site testing proved the capability of ZGF technology utilizing 75µ Spring Filter elements.

Based on the results of the feasibility test, two ZGF EC700S, filter systems were installed.

Results:

The plant has been able to reuse approximately 500,000 gallons of 100°F water per day per machine. The payback was less than 1-year.

As the cost of energy continues to rise and with increased pressure to reduce water consumption, the value of the ZGF EC700S filtration systems continues to grow.