

# Driving Operational Improvements To Deliver Cost Savings, Efficiency, and Improve Employee Safety

**WACO PARTNERED WITH A WORLD LEADING CHEMICAL MANUFACTURER TO PROVIDE PROCESS IMPROVEMENTS FOR THEIR FLUOROPOLYMER PROCESS DRIVING MORE THAN \$10.5 M IN COST SAVINGS FOR THE OPERATION.**

Waco was able to evaluate their process, partner with their corporate engineering team, and engineer a technology change for their polymer production. The new polymer screen changer and optimized polymer screen design increased performance providing them more than 30 hours of additional runtime per week.





## THE CHALLENGE

**The plant was experiencing a bottleneck in their production of Fluoropolymer as their current screen technology was underperforming within the process.**

Facing many operational challenges, the plant was seeing a significant delay in producing their Fluoropolymer product as their current screen technology was underperforming and costing them significantly in process downtime and increasing employee risk of exposure to extremely hazardous chemicals.

The screen technology being used was limiting their output potential by only providing enough life of 10-15 hours of production time. This led to an increase in change-out frequency and nearly 20 hours in shutdown time and worker exposure during each screen change-out. With the equipment typically requiring 8 hours to cool down before maintenance could be performed and then requiring approximately 10 hours to heat up to the operating temperature requirements for start-up.

## THE SOLUTION

**Waco partnered with the chemical plant's operations team and our trusted screen supplier to engineer an automated screen changer system along with custom designing higher performing polymer screens to replace their existing older manual technology and screens.**

After evaluating the current process for managing the polymer production line and extruder, Waco, determined that there was a need for a custom solution that would automate the current process. Waco's engineers worked alongside the operations team and with our suppliers for an automated screen changer along with redesigning the screening material to increase the quality of the finished product along with the performance and operation of the polymer extruder. The result was a fully automated custom system and custom pleated polymer screens which significantly decreased the need for additional screen change-outs, exposure to the workforce, and environmental issues with the updated surface area and improvement in screen design.

## THE RESULTS

**Waco's design delivered approximately 30 additional hours of uptime per week and improved employee safety within the plant by eliminating the need for manual change-outs. This significantly reduced operational costs and resulted in a savings of more than \$10.5M.**

Through the technology improvements along with the automation of the system the operations team found they were able to run 24/7, drastically reducing downtime and delivering an additional 30 hours each week in runtime. This reduced the overall maintenance costs and exposure to the workforce along with managing their Fluoropolymer process and delivered a total cost of filtration savings of more than \$10.5M.