

Process Technologies
Refinery Filtration Solutions



Refinery Relies on Jonell Systems to Improve Process Efficiencies

A LARGE CHEMICAL AND PLASTICS COMPANY OPERATES ONE OF THE LARGEST REFINERIES IN THE U.S. THE FACILITY PRODUCES GASOLINE AND FUEL COMPONENTS, LOW-SULFUR DIESEL, JET FUEL AND LUBRICANTS.

A Hydro Desulphurization unit removes sulfur from cat cracker feed. The unit receives feed from a crude unit and feed stream from a coker fractionator, which takes feed stream from heavy coker gas oil. This effectively processes heavy gas oil, heavy vacuum gas oil, medium vacuum gas oil, and heavy coker gas oil.

THE CHALLENGE

The string wound elements used in the filtration process were breaking down and infiltrating the reactor. Jonell System's challenge was to create a solution that would solve the particulate contamination problem and prevent the particulate matter from reaching the reactor. A special cartridge needed to be developed.

THE SOLUTION

Engineers at Jonell Systems, a Process Technologies brand, field and lab tested the exact media layers required in the LiquiPleat series cartridge design to eliminate all contaminants from reaching the reactor. With element design enhancements such as a stainless-steel core, concern for corrosion was substantially diminished. The media variation increased the life of the element and eliminated monthly change-outs.

THE RESULT

By installing LiquiPleat Series filters, the frequency of filter change-outs was reduced. This LiquiPleat Series consists of various grades of performance cotton medias to suit process needs.

This higher quality solutions substantially improved efficiencies within the operation and effectively prevented contaminants from reaching the reactor which improved operations and resulted in lowered costs.