



August 2019

## Parker Velcon CDF-X™ - Stage II Robustness Test Update

Parker Velcon CDF-X™ elements are currently going through robustness testing at two major airports in the U.S. This is part of the testing program to determine if the elements will be safe for into-plane field evaluation. Unlike previous new products that have followed EI filtration specifications, the CDF-X is the first to require robustness testing. In our lab, we are able to produce results that indicates extended life expectancy surpassing the current EI1583 specification. Stage II of the robustness test requires a throughput of 650,000 gallons of fuel per element. This type of testing cannot be completed in a laboratory setting and no laboratory can simulate field conditions using real-world fuel at airport facilities. The robustness tests are accelerated flow tests done at the fuel farm and do not completely account for actual fuel conditions at into-plane refueling, either in location or daily throughput.



**Test Site #1 Update:** So far effluent fuel quality for test site #1 has met and/or surpassed all expectations of the EI1588 barrier technology specifications for fuel quality standards. In late July, we received news from the site #1 team that the CDF-X reached changeout pressure. Nearly one (1) million gallons of fuel were processed through the CDF-X before changeout pressure was reached, short of the Robustness Phase II goal. We have received the test elements back and in the presence of an EI representative and our engineering team, we have analyzed the elements. All testing showed the CDFX filters easily met or exceeded effluent requirements from EI 1588. Work is ongoing to conclusively determine the cause for the differential pressure rise. In addition to testing the samples through Parker laboratories, we have also sent out samples of the elements to external labs to determine what contaminants or compounds may be present.

Last week, testing was restarted at site #1 and we are looking forward to collecting additional data that can help us better understand the cause for the differential pressure rise. Stay tuned to future Clarifier for the latest update.

**Test Site #2 Update:** Testing at site #2 is proceeding without issues and the site #2 team has not observed significant pressure rise. So far three (3) million gallons of fuel has been processed through the ten (10) CDF-X elements over a period of four (4) weeks. This is almost at the half way mark toward reaching the 650,000 gallons per element goal. Per CDF-X element, this is 10 times the volume of fuel processed compared to test site #1. We look forward to seeing positive results as the CDF-X finishes the EI Robustness Phase II programming.

