CASE STUDY | 2023

FLOWCORE SYSTEMS

Multi-Point Pressure Compensation Technology

FlowCore vs. The Competition

FLOWCORESYSTEMS.COM

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OBJECTIVE

To determine what errors would be induced if a multi-point injection system did not use port pressure differential compensation.

PROCEDURE

Inject fluid to different injection points at different pressures and compare the indicated amounts with the actual (measured) amounts. This test was conducted with the FlowCore Raptor system patented compensation technology turned OFF, and then repeated with the FlowCore system patented compensation technology turned ON. Every port was given the same target.

RESULTS

Gross errors occurred when no port pressure differential compensation was used.
The FlowCore Raptor system with the patented port pressure compensation technology turned ON injected well within the specified tolerance level for accuracy. Seven tests were conducted to verify these results.

Perhaps most notably, with FlowCore's compensation technology turned OFF, the total indicated volume was 366.98 mL and the actual was 355.00 mL (all ports combined), for a total system deviation of 3.27%.

Therefore, not only is gross error occurring when no port pressure differential compensation technology is utilized, but the issue is hidden by the fact that tank usage will typically report within tolerance for the system as a whole, while many ports will receive little to no treatment.

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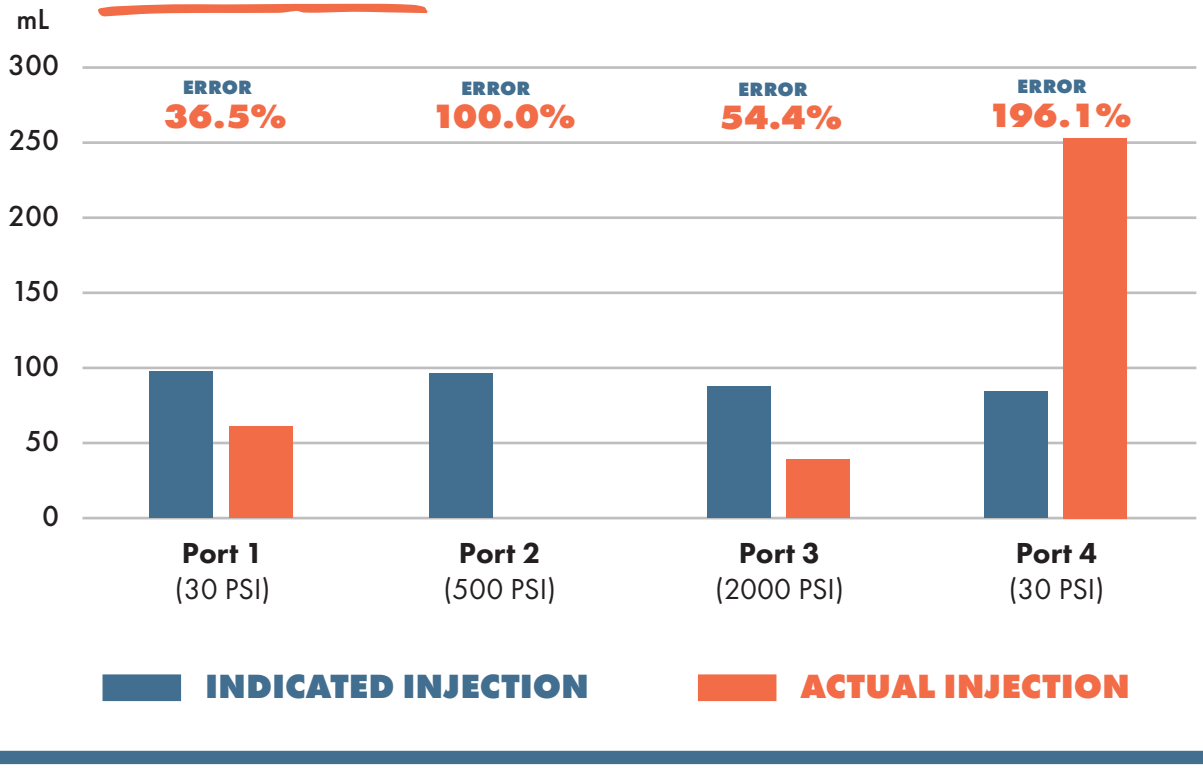
WITHOUT FLOWCORE TECHNOLOGY



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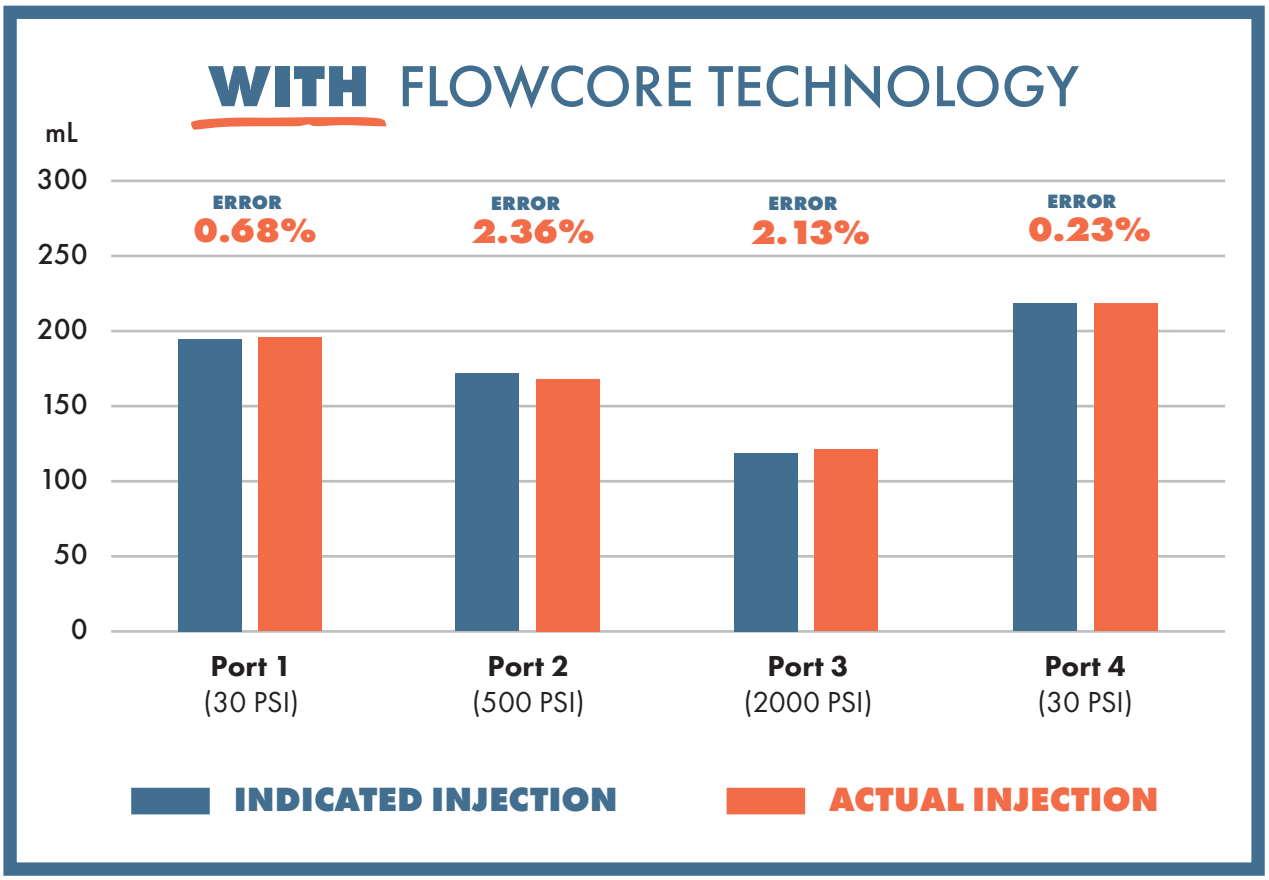

CONCLUSION

Extreme over injection and under injection of chemical will result by a multi-point injection system that does not accurately compensate for port pressure differentials.

Date of Tests: 9/27/2022 & 10/17/2022
Location of Test: FlowCore Systems

For protection of key assets, it is imperative that a multi-point injection system accurately compensates for port-to-port pressure differentials. If you have any questions regarding this evaluation, please contact FlowCore Systems at 701-774-0627.

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