

CASE STUDY

FOOD-GRADE ETHANOL LOADOUT



OBJECTIVE

Re-design an outdated Rail and Truck loadout system to meet the modern requirements for Food Grade Ethyl Alcohol production.

EXISTING

Non-compliant carbon steel filter housings utilizing inefficient pleated cellulose filter elements.

THE PLAN

1

Analyze the Application

While the existing system was satisfactory for fuel-grade ethanol production, None of the components met **FDA requirements**. Additionally, the desired flow rate had increased beyond the capacity of the existing system.

2

Determine the Requirements

Flow Rate: 1500 GPM (1000 GPM existing +50% additional capacity)

Particle Retention: 10-Micron, Absolute Rated

Special Requirements: Stainless Steel Filter Housing with FDA Compliant Filters



3

Select the Proper Filter Media

Strainrite **MADD-MAXX MF**

Polypropylene microfiber, 10-Micron, Absolute Rated, Meeting FDA CFR 21 requirements for food and beverage contact

4

Calculate the Size

A **5-Round x 40-Inch**, High Flow Filter Housing was selected. Each 40-inch filter element can support up to 300 GPM. Five (5) 40-inch filter elements would easily support the current **1000 GPM** flow rate while still allowing for future production increases.

CONCLUSION

The recommended filter housing and filter elements were fabricated and installed to meet the customer's strict timeline. C.C. Day provided initial start-up support to ensure the filters were brought on-line appropriately. The system operates virtually maintenance free, requiring filter change outs every 4-6 months. Final product quality continues to meet specification, without question.

Contact C.C. Day Filtration to learn how we are dedicated to bringing the right solution to every application!

763-541-9711 | sales@ccday.com

C.C. DAY
FILTRATION