

# Fristam FKL - 'Seamless Switching' between High Fructose Corn Syrup & CIP pumping

Improving H&S & Saving 3-4 hours of Production Per Week.

## Application:

### High Fructose Corn Syrup

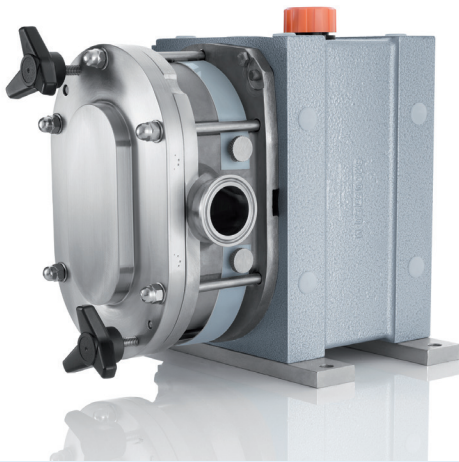
Viscosity: (500cP)  
Flow rates: 11.5 - 17 m<sup>3</sup>/h  
Pressure: 3-5 bar  
Temperature: 27-32 °C

### CIP Solution

Viscosity: >1cP  
Flow rates: up to 600 m<sup>3</sup>/h  
Temperature: 60-85 °C

## Challenge:

Struggles to find a pump to effectively pump thick product gently and CIP at high speeds.



FKL  
Max discharge pressure: 35 bar  
Max flow rate: 203m<sup>3</sup>/h  
Max Temperature: 135°C

## Customer brief:

A new directive from a leading Cola Manufacturers Global Central Procurement Team advised that all new pumps must be able to pump both product and CIP. The directive aimed to tackle several issues caused by manual cleaning of pumps. Challenges included:

### 1. Labour Intensive:

Skilled engineers were spending 3-4 hours per week disassembling & reassembling pumps to clean them.

### 2. Damaged Parts:

Manual handling of the pumps parts led to frequent damage, as parts were dropped or reassembled incorrectly.

### 3. Health & Safety:

Exposing engineers to the harsh chemicals used to clean the pumps, was flagged as a significant H&S risk.

Finding a pump that could handle both high-viscosity fructose syrup and low-viscosity CIP solutions proved challenging.

## The Solution:

To overcome these challenges, the manufacturer implemented the FKL Circumferential Piston Pump with double mechanical seals. By maintaining tight tolerances for optimal efficiency, gentle product handling and minimal shear, the pump was the perfect solution for handling both product and CIP!

## Conclusion:

By upgrading, the manufacturer saved over 200 hours of production time annually, reduced the cost of their spare parts and improved plant Health & Safety, as staff no longer came into direct contact with chemicals.



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**Fristam**  
Hygienic Pumping Experts