

Case Study: Ice Cream

Application

Dosing a variety of inclusions (fruits, nuts) into ice cream premix

Specifications

Flow: 35 GPM (8m³/hr)
Pressure: 116 PSI (8 bar)

Challenge

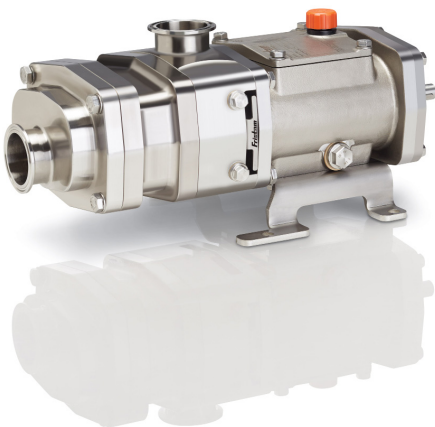
Gently pumping a wide array of food products without crushing or degrading them

Issue

Multiple pumps are needed when switching ice cream ingredients

Products with Similar Challenges

- Yogurt
- Soups



FDS Capabilities

FDS Models: 5

Max. Discharge Pressure: 363 psi (25 bar)

Max. Flow Rate: 793 gpm (180 m³/hr)

Max. Viscosity: 1,000,000 cps



FDS Twin Screw Pump Eliminates Need for Additional Equipment

A large, international ice cream processor needed a pump that could add a wide range of ingredients into their premix. Because the company produces so many varieties, batch changes occur several times a day. With every batch change comes the challenge of pumping different food inclusions, each with a different viscosity, density and shape and size than the last batch.

Solution

Fristam FDS size 3 twin screw pumps each fitted with a variable frequency drive (VFD), allowing the manufacturer to change the pump speed as needed.

Why It Worked

FDS pumps have a high suction capability and can easily and efficiently handle a wide viscosity range. The gentle axial flow of the FDS allows the manufacturer to pump products such as whole, cooked fruit without crushing them, and prevents inclusions such as seeds and nuts from getting caught in the pump and causing equipment damage. Bonus benefit: because the FDS has high suction capability and can run at higher speeds, this eliminated the need for CIP return pumps, air-bleeding systems, bypass lines, and instruments, saving the company thousands of dollars.

To read the complete story, visit: <http://www.fristam.com/fds-apps>
Call Fristam to discuss your application today: 800-841-5001.