

Case Study: Salad Dressing

Application

Emulsify salad dressing

Specifications

600 lb batches of salad dressing, 5-10 times a day

Challenge

Mix the ingredients to a small enough droplet size so the product didn't separate on the grocery shelf

Issue

Lack of stable emulsion resulting in product separation and inadequate shelf stability

Products with Similar Challenges

Sauces and dips with an emulsified oil or fat



FS Capabilities

Models: 12

Max. Tip Speed: 44m/s

Max. Flow Rate: 375 gpm (85 m³/hr)

Part #: 1050000358

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FS Produces Perfect Shelf-Stable Emulsions

A US food manufacturer was making a dressing that needed to stay thoroughly mixed while in storage and on the grocer's shelf. They were using another brand, in-tank high-shear mixer to make 600 lb batches of the dressing. All the ingredients were loaded in the top of the tank and the mixer would run until the emulsion reached its final consistency. However, as with most in-tank mixers, portions of the product didn't experience the same amount of mixing as others and as a result some of the finished product stayed mixed on the shelf while other bottles separated out.

Solution

A Fristam FS 3522 was inserted after their positive displacement (PD) pump that is used to empty the batch tank. By simply installing a Fristam FS shear blender after their PD pump, they were able to achieve their goal without having to make a change to their overall process or current equipment.

Why It Worked

By controlling the flow rate of the PD pump and the rpm of the FS 3522, they customer is able to dial in a perfect particle size on every batch. As the product flows through the FS Shear Blender, 100% of it must pass through the high shear rotor-stator combination. This means all of the product is blended the same.

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

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