

Dressing Processor Boosts Output 56% with Admix Rotosolver® High Shear Mixers

Industry

Prepared Foods

Application

High-viscosity dressings and sauces

Equipment

Rotosolver® High Shear Mixer

Challenge

Inefficient batch sizes, inconsistent mixing, downtime, and underutilized capacity

Solution

Tank-mounted Rotosolver® high shear mixers

The Challenge

A leading manufacturer of dressings and sauces was operating with eight 750-gallon (2,839.06-liter) processing tanks. Four 150-horsepower mixers, each mounted on hydraulic lifts, serviced two tanks each. As demand increased, the processor planned to expand with eight additional tanks—but their existing mixing technology posed several limitations:

- **Inconsistent product quality:** To fully incorporate high-viscosity ingredients, operators had to raise the mixer near the surface. This led to variable mixing results between batches and between operators.
- **Reduced capacity:** Despite using 750-gallon tanks, operators were limited to producing only 625 gallons (2,365.88 liters) per batch due to mixing limitations—a 17% capacity loss.
- **Operational bottlenecks:** One mixer served two tanks, causing frequent delays when the second tank sat idle waiting on the shared mixer.
- **Single point of failure:** If the shared mixer went down, both tanks were out of commission, cutting production capacity significantly.

The Solution

The processor evaluated alternative mixer technologies and selected the **Admix Rotosolver®**, a high shear mixer known for its efficient, vigorous mixing and superior batch consistency.

After installing six Rotosolvers on the new tanks, the processor saw immediate improvements:

- **Lower energy consumption:** Horsepower dropped from 150 HP to 100 HP per tank, delivering significant energy savings.
- **Increased batch sizes:** The processor could now run full 750-gallon (2,725.5 liter) batches on every formula, maximizing tank capacity.
- **Improved consistency:** The Rotosolver's high flow and shear performance eliminated the need to raise the mixer for ingredient incorporation, ensuring homogeneity throughout the batch.
- **Reduced capital cost:** Installing one fixed Rotosolver per tank was more cost-effective than purchasing fewer mixers on lifts serving multiple tanks.
- **Increased reliability:** Each tank operated independently. If maintenance was needed, only one tank was affected—keeping production moving.



Case Study:

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The Results

After two years of running the six new Rotosolver-equipped tanks, the processor scrapped their eight existing ram-lift systems and replaced them with eight more Rotosolvers.

Key outcomes:

- **56% more output** per two-tank Rotosolver kitchen compared to their previous generic mixers
- **Eliminated milling** for all dressings
- **Higher percentage of “Right First Time” batches** due to improved batch-to-batch consistency
- **Reduced overall equipment footprint** by switching to a fixed tank system

“Not all high shear mixers are created equal,” the processor noted. “The Rotosolver stands apart with its performance, reliability, and cleanability.”

Why Rotosolver®

The Admix Rotosolver® has set the standard for **high shear mixing** in the food, beverage, and chemical industries. Its patented one-piece mixing chamber ensures **efficient emulsification, powder dispersion, and particle reduction**, while the open design guarantees **hygienic clean-in-place (CIP)** compatibility.

With its **high shear, high flow design**, the Rotosolver delivers:

- Faster batch times
- Energy savings
- Improved product quality
- Unmatched batch-to-batch consistency
- Compliance with **3A sanitary standards**