

# Case Study: Milkshake Base

## Application

Dispersing stabilizer made of gums into milkshake base

## Specifications

Mixing 56 lbs of stabilizer into 2000 gallon batches of milkshake base

## Challenge

Disperse stabilizer evenly with no clumping and with no product waste

## Issue

Stabilizer is a mixture of several gums, which can create lumps and stick to the sides of the batch tank

## Products with Similar Challenges

- Flavored milks
- Drinkable yogurts
- Ice cream mix



## Powder Mixer Capabilities

**Models:** 7 configurable

**Max. Induction Rate:** 600 lbs/min (272 kg/min)

**Max. Flow Rate:** up to 350 gpm (80 m<sup>3</sup>/hr)

Part #: 1050000346  
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## Powder Mixer Saves \$32K Yearly

The art of creating the perfect milkshake can be a challenging process. A US food processor was struggling to achieve the perfect consistency when making their milkshake base. Their process entailed mixing a stabilizer made of several gums in a batch tank to thicken the product. Unfortunately, a large amount of the stabilizer was forming clumps that needed to be filtered out and thrown away. The processor realized that their current mixing process was too wasteful and decided to find a more efficient mixing solution.

## Solution

The processor replaced their old system with a Powder Mixer 20-53 to completely disperse the stabilizer on the first pass while achieving the perfect product consistency.

## Why It Worked

The Fristam Powder Mixer was able to control the ratio of liquid to solid and force it through a high-shear mixing zone, allowing the stabilizer to be evenly dispersed on the first pass. By using the Powder Mixer, the amount of stabilizer needed per batch was reduced by over five percent, saving the processor an estimated \$32,000 per year.

To read the complete story, visit: [www.fristam.com/pm-apps](http://www.fristam.com/pm-apps)

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