

# FOOD HOMOGENIZATION STATIC MIXERS

Ways to improve operations and profitability

## CASE STUDY #54

PRIMIX sanitary mixers can be used to homogenize product flows in the food industry to ensure a homogeneous composition or stable temperature measurement.

### THE RESULT

- CIP suitable
- Reliable measurements
- Maintenance free

**PRIMIX**<sup>TM</sup>  
PERFORMANCE BY DESIGN

## Background

In many production plants for liquid food products large heat exchangers are used for cooling or heating of the products. Due to the viscosity of the product, laminar flow patterns can occur resulting in a non homogeneous composition of the product. This results in difficult process control or quality problems. Examples can be found in tomato ketchup lines, in ice-cream preparation or in the chocolate industry.

## The Challenge

Design a static mixer to homogenise a product flow combined with optimal cleaning possibilities.

## Design

The housing of the static mixer is designed according common practice in the food industry where the type of couplings depends on the specification. The element-chain is removable for inspection purposes and electro-polished with several retaining methods available. Surface roughness of the mixer is typically below  $Ra < 0.8\mu m$

## Solution

Directly after the heat exchanger a PRIMIX static mixer is installed. The type of mixing element and the number of mixing elements is determined by the PRIMIX engineers based on the application

The cleanability of the mixer is ensured due to round element edges, electro-polished mixing elements and a removable element chain.



**PRIMIX**

Nijverheidsweg 17-F  
3641 RP Mijdrecht  
The Netherlands

T +31 (0) 297 28 77 78  
E [info@primix.com](mailto:info@primix.com)

[www.primix.com](http://www.primix.com)

