



# Mixing smoothies with the Rotary Jet Mixing Technology

Serious Food, UK

Case story

## Mixing smoothies

The challenge when mixing smoothies is to obtain a stable and homogeneous mixture of the high viscosity fruits purées and the fresh-pressed high fibre juice of which smoothies consist.

## Client

The British company, The Serious Food Company, producer of a.o. juice, desserts and smoothies.

## Problem

The Serious Food Company wanted a system which in a few minutes could mix the smoothies to a homogeneous and stable mixture. They were facing problems with unacceptable mixing times, since it took a long time to obtain a homogeneous mix of the high viscosity fruits purées and the fresh-pressed high fibre juice. They also found it difficult to clean the tanks after production of a batch.

## Solution

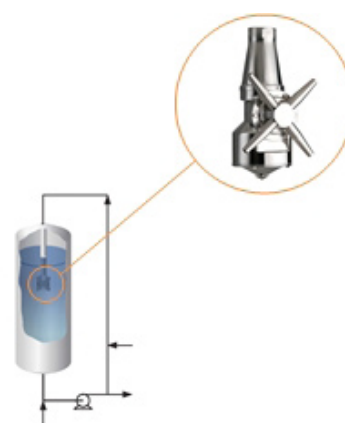
Three tanks with a volume of 15m<sup>3</sup> each equipped with two Rotary jet mixers Iso-Mix. The rotating nozzles on the Rotary jet mixers reach the entire tank volume resulting in a fast and efficient mixing. The complete system is made up of a recirculation loop that feeds the Rotary jet mixer and takes the tank contents from the bottom of the tank through a boost pump and back into the Rotary jet mixer.

## Result

The Rotary jet mixing technology proved to be considerably faster than traditional methods resulting in a greater profit margin. By installing the Rotary jet mixers in the tanks, they obtained a more cost beneficial plant design with low maintenance costs and a higher sanitary level in the tanks, since the Rotary jet mixer can also be used for cleaning the empty tank (CIP).

## Facts

- Savings of 12,000 EURO per tank
- Homogeneous and stable mixture
- Fast and efficient cleaning of the empty tank (CIP)



System data:

Volume: 15 m<sup>3</sup>

Tank diameter: 1.88 m

Tank height: 5.22 m

Mixer type: IM 15 with 4 x 8 mm nozzles

Temperature: 5°C

Pressure, pump: 2-5 bar

Viscosity: 1-8000cP (end-product 20-300cP)