

SMOOTH OPERATOR

APPLICATION DETAILS

- Conveying of fruits, e.g., peaches, pineapples, mangos, bananas (max 9 x 9 x 9 mm)
 - Temperature: 55 °C
 - CIP procedure (Cleaning In Place): 80 - 100 °C
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KEY SPECIFICATIONS

- Proven rotor and stator design for gentle product handling
- No damage to the conveyed medium due to low shear and large passage for particles
- CIP for highest hygienic requirements

BACKGROUND

Fruit in a bottle. Fruit smoothies are practical and easy to take on the go. No one had heard of them a few years ago. Originally, they were offered in juice bars in the USA, which had been around since the 1920s. Today, fruit smoothies are found in every refrigerated section and are enjoying increased popularity. This is also due to the wide variety of flavor creations.

But how do bananas, raspberries and pineapples get into those small bottles? Quite naturally – using SEEPEx pumps.

TASK AND TARGET

Smoothies are “whole-fruit” beverages that have become increasingly popular in the convenience market. To meet this demand, one leading food producer started looking for suitable pumps that would gently handle fruit pieces and meet the highest hygienic standards.

The requirements were for a pumping solution which would transfer fruit puree, chunks and juice through various process steps. The pumps had to handle the media under high pressure and without destroying the bits of fruit to achieve a specific consistency of the final product.



Smoothies have become very popular. Fruit puree made of fruit chunks has to be handled gently.

PRESERVING DELICATE INGREDIENTS

SEEPEX PRODUCTS

- Pump type CS, pump range BCSB
- Discharge pressure up to 24 bar (360 psi)
- Capacity up to 10 m³/h

SOLUTION

After carrying out tests with different pump types, it became clear that there was only one pump for the job – the SEEPEX BCSB progressive cavity pump, made specifically for the food industry.

"Our pumps are simply the best when it comes to preserving delicate ingredients.", knows Bernhard Sommer Project Manager Food & Beverage, Pump Applications, SEEPEX GmbH.

The proven rotor and stator design ensures smooth and gentle product handling. Fruits pass the conveying elements without damage and the pumped product keeps its consistency.

The food industry has also set high hygienic standards. Pumps need to be cleaned of any residue after every batch operation. For this, SEEPEX features CIP connections on all of their food pumps.

"CIP allows hygienic cleaning of SEEPEX pumps without dismantling. That saves a tremendous amount of time and eliminates the possibility of accidental (re-) contamination during cleaning.", confirms Jorg Besselse, Area Sales Manager, SEEPEX GmbH.

RESULTS

A smooth process flow and careful hygiene in the production of fruit smoothies were specifications required by the beverage manufacturer. SEEPEX, as a supplier of certified progressive cavity pumps, was able to meet and thus satisfy the high demands of the manufacturer.

The customer's wish to keep the original structure of the fruit pieces, even after the conveying process, also played an important role. Thanks to the state-of-the-art technology of SEEPEX food pumps, a gentle and non-destructive conveying of whole fruits or fruit pieces is possible without any problems and offers the consumer an optimal taste experience while enjoying a smoothie.

BENEFITS

- CIP method saves time and money
- Gentle handling of food products keeps the product quality and reduces food waste