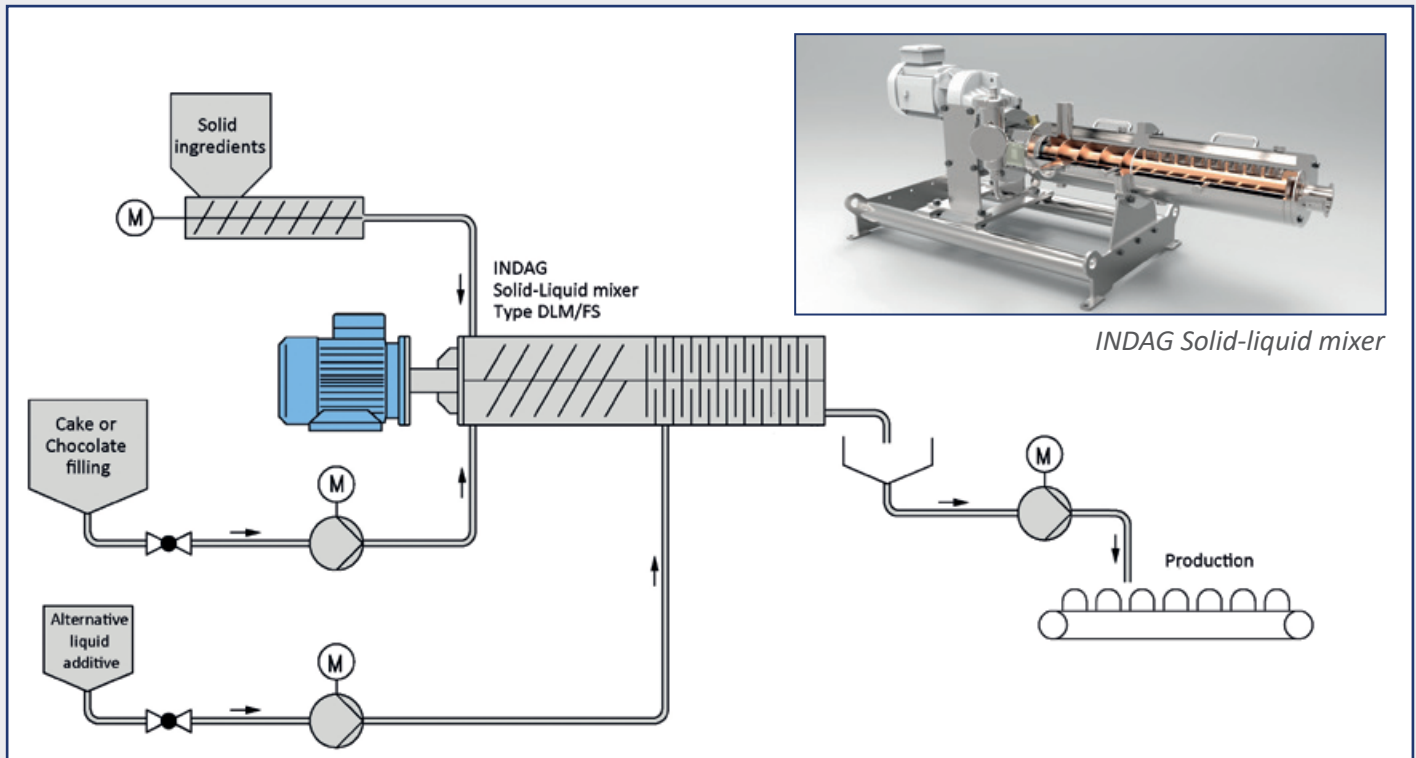


Case No. 103A

Cake or chocolate filling with solid ingredients



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Flow diagram „Example for cake or chocolate filling production“

Process Description

The liquid product with high fat and sugar content is fed via an external pump into the inline solid-liquid mixer. Often the product has a gas content of a few percent to make the product creamier. The solid ingredients are fed by a loss in weight feeder (dosing scale) into the INDAG inline solid-liquid mixer. The rotating mixer feeds the product through a helical screw and mixes by rotor and stator elements at the same time. The mixing process is very gentle. The fat and sugar based mass is very temperature sensitive, so that a temperature increase above 1°C during mixing is not permissible. Liquid additives such as aroma or color can optionally be pumped into the mixer via additional inlets.

The product leaves the mixer on the face side. It is mixed gently, homogeneously and almost pressureless. The rotor-stator clearances are designed according to the particles. This ensures the perfect mixture for every application.



Advantages

- Highest flexibility for customers with changing recipes;
- „End of pipe mixing“ minimizes the cleaning effort while recipe exchange;
- Compact and very efficient mixing head minimizes product losses during product change;
- Temperature increase below 0.5°C during mixing;
- Very gentle mixing mixer is even suitable to handle foam without destroying the foam texture;
- Closed hygienic design, easy to clean, suitable for CIP cleaning;
- Mixing of allergens at the very end of process.

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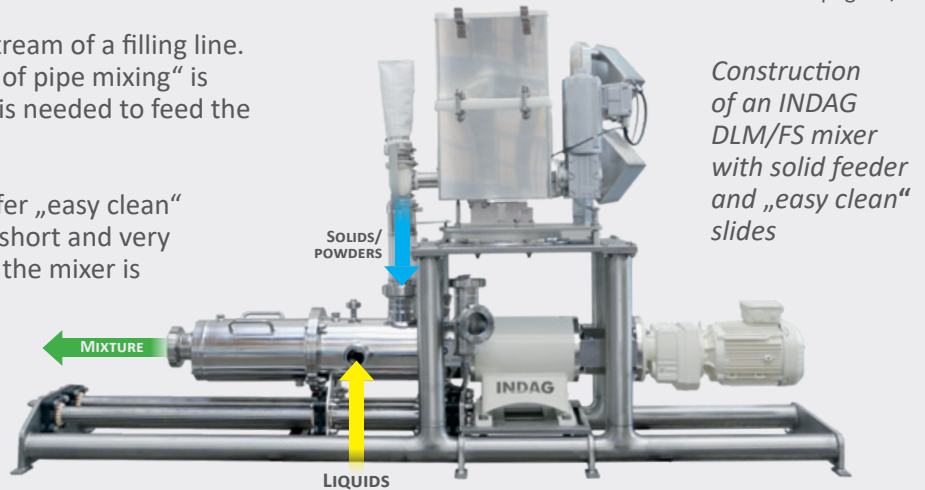


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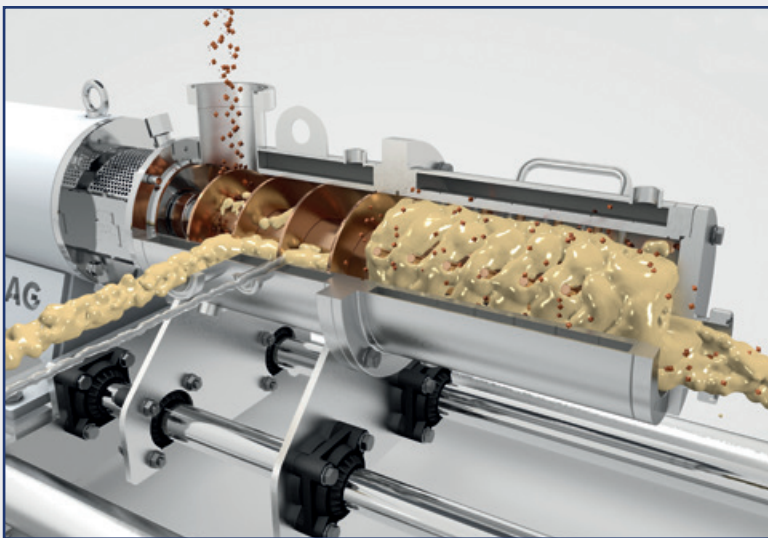
→ The mixer is usually installed directly upstream of a filling line. We call this „end of pipe mixing“. If „end of pipe mixing“ is not applicable, a pump behind the mixer is needed to feed the product to next process step.

In case of manual cleaning, INDAG can offer „easy clean“ slides for mixer casing. This allows a very short and very easy manual cleaning process. Of course, the mixer is also CIP cleanable.

Production capacities vary from a few hundred kilograms per hour up to seven or more tons per hour.



Construction of an INDAG DLM/FS mixer with solid feeder and „easy clean“ slides



INDAG solid-liquid mixer during a mixing operation



Alternative mixing elements

Comparable application with a similar process and the same mixer

- Tempered chocolate with nuts, dry fruits or chocolate pieces
- Marshmallows with nuts, dry fruits or chocolate pieces
- Ice cream with nuts, dry fruits or chocolate pieces
- Nougat with nuts, dry fruits or chocolate pieces
- Sugar-egg-foam with nuts, dry fruits or chocolate pieces
- Peanut butter with nuts, dry fruits or chocolate pieces

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