

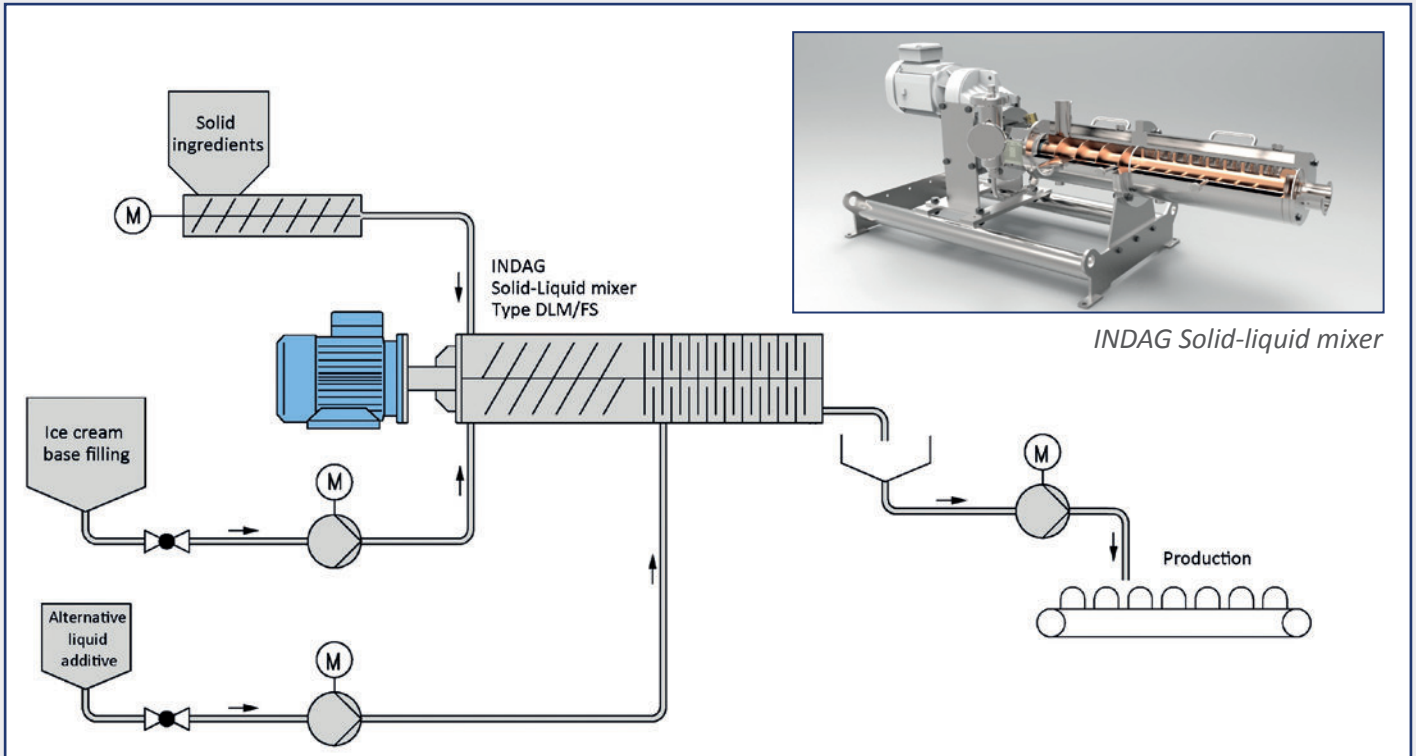
# Case No. 107A

## Ice cream

### with various solids and liquids



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Flow diagram „Example for ice cream and solids mixing“

### Process Description

A big advantage for the customer is the „END OF PIPE MIXING“. The mixing solution allows the customer to make the ice cream special by adding flavors or solid ingredients at the very end of the process. The ice cream from the freezer could more or less always be the same.

The semi-solid ice cream with high fat content is fed by the pump of the freezing unit (inline freezer) into our INDAG Solid-liquid mixer at  $-4$  to  $-8^{\circ}\text{C}$ . The product often has a gas content of a few percent to make the product creamier. The solid ingredients such as fruit sorbet, choc mix, peanuts / hazelnuts, coconut flakes, strawberries, cornflakes or solid chocolate drops are fed by a loss in weight feeder (dosing scale) into the INDAG Solid-liquid mixer. The rotating mixer is feeding the product by a helical screw and mixing by rotor and stator elements at the same time. With additional inlets, liquid additives like aroma or coloring could be pumped into the mixer optionally.



### Advantages

- Highest flexibility for customers with changing recipes;
- Best way to mix solids into a high viscous mass continuously;
- Temperature increase below  $0.5^{\circ}\text{C}$  while mixing;
- Very gentle mixing mixer is even suitable to handle aerated products;
- Closed hygienic design, easy to clean, suitable for CIP cleaning;
- Highly efficient mixing within seconds;
- Mixing of allergens at the very end of the process.

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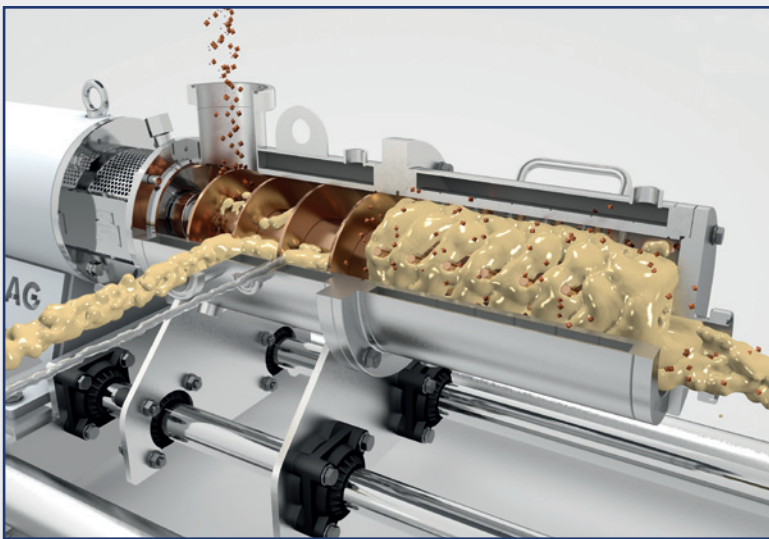
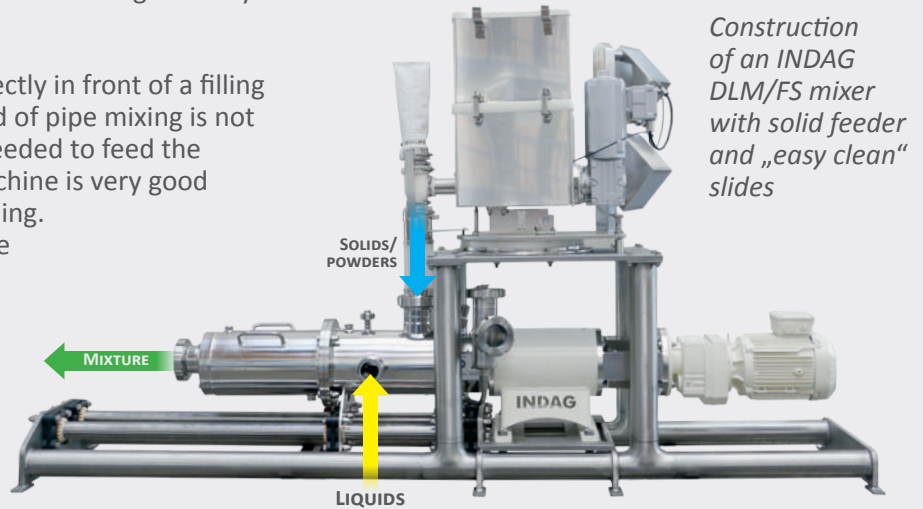


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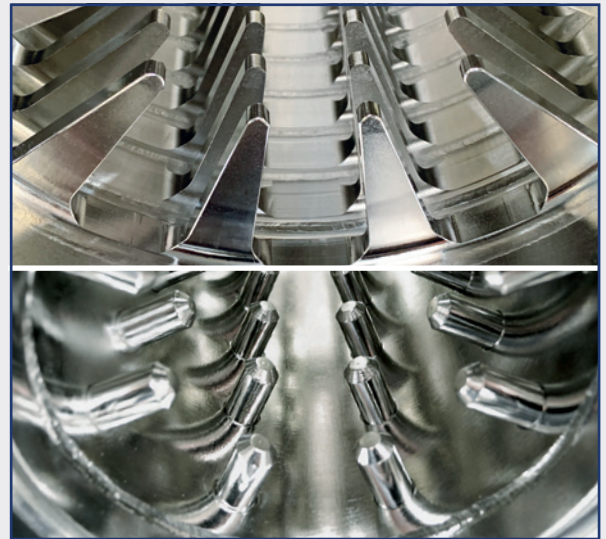
→ The product leaves the mixer on face side. It is homogeneously mixed and almost pressureless.

The installation of the mixer is mostly directly in front of a filling line. We call it „end of pipe mixing“. If end of pipe mixing is not applicable, a pump behind the mixer is needed to feed the product to the next process step. The machine is very good CIP cleanable and in case of manual cleaning. INDAG can offer „Easy clean“ slides for the mixer casing. This enables a very short and very easy cleaning procedure.

The clearances between the mixing elements are designed according to the particles. This insures the perfect mixture for each application.



INDAG Solid-liquid mixer during a mixing operation



Alternative mixing elements

#### Comparable applications with a similar processes and same mixer

- Tempered chocolate with nuts, dry fruits or chocolate pieces
- Marshmallows 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

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# INDAG

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