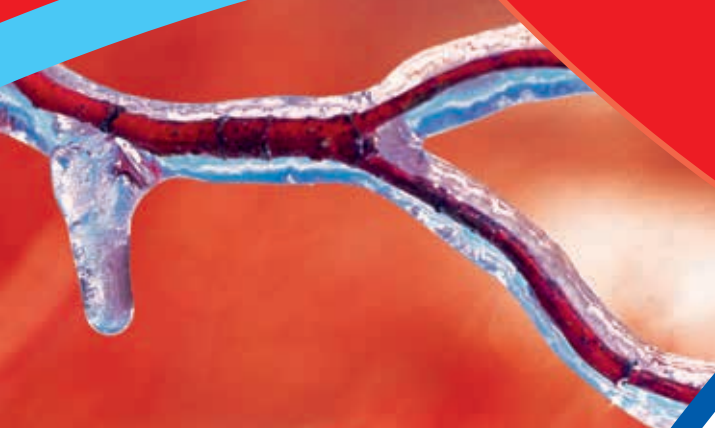


**Ice cream
homogenization
for sound performance**

Tetra Pak® Homogenizers



Pioneering design for high profitability

Tetra Pak delivers reliable homogenization solutions that enable you to meet your customers' demands on high ice cream quality and food safety. Our Tetra Pak® Homogenizers combine pioneering design with engineering excellence to enable you to achieve greater cost efficiency, lower environmental impact and higher profitability. We call it sound performance.

Our continuous R&D work focuses on offering new homogenization solutions that match your present and future requirements on quality, efficiency and flexibility.

Moreover, our local presence in most countries worldwide ensures fast service whenever and wherever you need it.



Make your ice cream more delicious than ever!

Homogenization with Tetra Pak Homogenizers takes ice cream to a new level of quality – one that consumers will recognize and go for.

The right homogenization improves the binding of water and air, giving a final product that is less icy. Furthermore, homogenization gives ice cream a dry appearance, the right consistency and slow melting properties, in combination with smoother texture and creamier appearance.

But homogenizing efficiency depends on several key factors, e.g. the fat content of the ice cream and the homogenizing pressure. It is important to find the right homogenizing pressure for each ice cream mix in order to achieve the optimum homogenization effect.

The right process for the best ice cream

Homogenization is a must for any ice cream mix containing fat or oil. The main purpose of homogenization is to achieve a stable emulsion of the fat by reducing the size of the fat globules.

Dairy-based hard ice cream can be homogenized either upstream or downstream. With the Tetra Pak Homogenizer placed downstream, it will still be configured as a non-aseptic machine.

For optimum results, Tetra Pak recommends two stages of homogenization for all ice cream mixes.

Low-fat ice cream

For low-fat ice cream, the pressure is often around 200 bar, (2 900 psi). The high pressure creates a more stable emulsion and smaller fat particles. The smaller the fat particles, the more

surface area is obtained. This results in more fat networks that will stabilize more air, which in turn slows down ice re-crystallization.

High-fat ice cream

For high-fat ice cream, the pressure has to be quite low. Especially for an ice cream mix of more than 15% fat, it is important to reduce the pressure to minimize the risk of cluster formation. Pressures as low as 100 bar, (1 450 psi) might be sufficient.

Made for ice cream

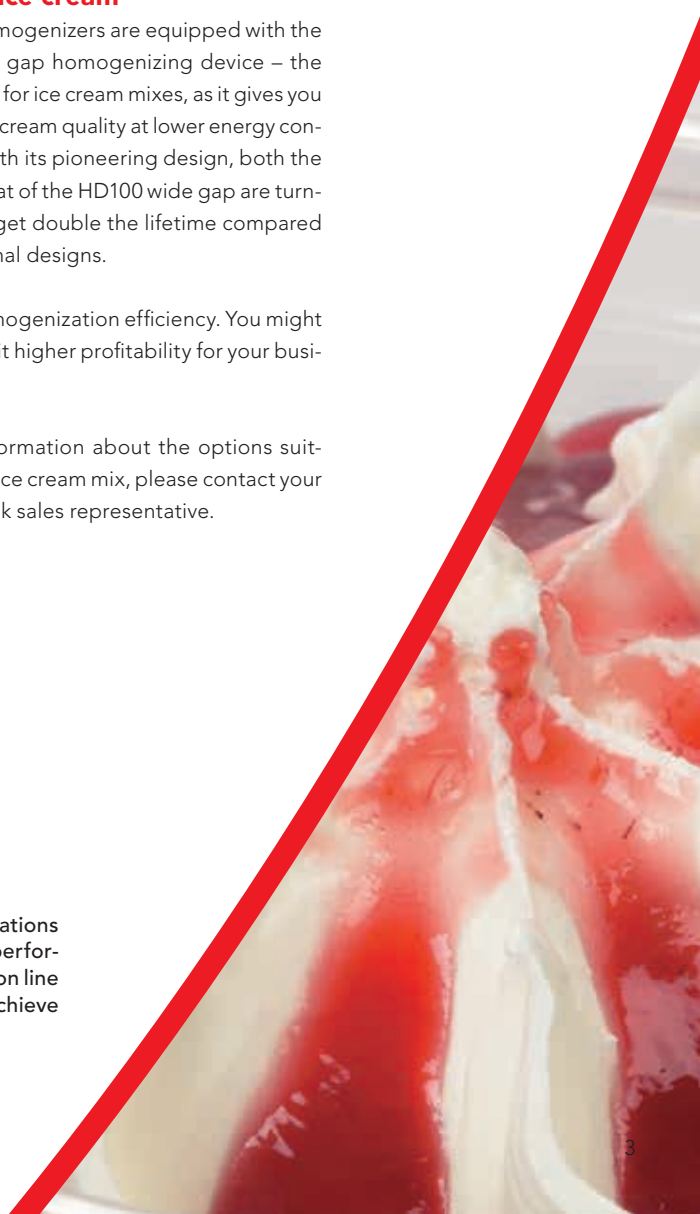
Tetra Pak Homogenizers are equipped with the HD 100 wide gap homogenizing device – the ideal solution for ice cream mixes, as it gives you improved ice cream quality at lower energy consumption. With its pioneering design, both the forcer and seat of the HD100 wide gap are turnable, so you get double the lifetime compared to conventional designs.

We call it homogenization efficiency. You might prefer to call it higher profitability for your business!

For more information about the options suitable for your ice cream mix, please contact your local Tetra Pak sales representative.

Tetra Pak knows ice cream

Tetra Pak represents extensive knowledge of ice cream applications from installations all over the world. Whether you need a high-performance Tetra Pak Homogenizer or an entire customized production line based on our well-known components, we can enable you to achieve maximum efficiency.



Sound processing performance

Our job is to enable you to develop and improve your products and production.

The component solutions we deliver are specifically designed to:

- treat your products gently
- be as economical with resources as possible
- meet high demands on flexibility – in your present production and via future upgrading possibilities

That's what we call sound performance.