



Tetra Pak portfolio

Smart ingredient dosing



Discover the value of adding value

As the ice cream market expands, consumers are always on the lookout for innovative products with exciting new flavours and ingredients. Incorporating ingredient inclusions can add more complexity to your production, but it can also add new value for your customers – creating potential to boost your profit margins. It comes down to having the right equipment for the right application.

Applications

Tetra Pak® Ingredient Dosers are designed for continuous, accurate injection of fruit pieces, nuts, jams, candies and other free flowing granulates into ice cream or similar products.

Accurate dosing = profitable production

Thanks to technology for exceptionally accurate, even dosing and the gentlest handling, Tetra Pak® Ingredient Dosers help you get more out of everything you put into your ice cream. Minimise waste of expensive and exclusive food ingredients, while also ensuring highly uniform quality even with fragile and sticky inclusions. The result is both more cost-effective production and a dependable, quality product you can sell at a premium.

Freedom to do more

There is another side to the high accuracy of our dosing technologies: tremendous flexibility. With confidence in reliable results, you can take

your product development to new heights of innovation. Take advantage of the latest market trends by testing ingredients that haven't worked out in the past – or that you have never even dared to try.

A focus on your profitability – and your environmental footprint

The reliably high accuracy of our dosing technologies means much less giveaway. With more uniform results, you save money by limiting the expensive ingredients or product rejects you have to throw away. But there's also a sustainability benefit. Reducing the off-spec products being destroyed means less waste of all the resources you put into your production – from ingredients to energy, water, cleaning chemicals and more. Over time, this can contribute to improving the environmental footprint of your operations.

Setting the standard for accuracy, gentle handling and even distribution

Consumers have high expectations when promised an indulgent ice cream experience – expectations that won't be met if they discover broken, crushed ingredients or uneven lumps. With solutions for gentle handling and accurate, even dosing, you can be sure to give your customers the experience they're after, and keep them coming back to your brand over and over again.

Working principle

Tetra Pak® Ingredient Dosers are self-contained units ready for connection to power and ice cream supply. From the hopper, ingredients are dosed by means of a helical screw into the inlet funnel of primary ingredient feeder, chocolate dip tank or similar device.

Smart design

Each component in the doser is carefully designed based on Tetra Pak's decades of experience in ice cream applications. The hopper accurately measures ingredients, conveying a pre-selected amount to the feed pump, which consists of a rotor with retractable lamellas.

In some models, the hopper is mounted on weighing cells that form part of an intelligent measurement system, providing loss-in-weight control.

A change in weight in the hopper will result in automatic corrections to the speed of the dosing auger, ensuring the right amount of ingredients are added at all times.

The dosing auger feeds ingredients into cavities between the lamellas, gently and evenly incorporating the inclusions into the ice cream flow. The design of the auger, in combination with the hopper outlet, minimises the risk of breaking and lumping, even when working with sticky or very fragile foods, such as berries. This ensures the ingredients are intact as well as evenly distributed, resulting in a higher quality product.



Flexible configurations

Tetra Pak has developed our ingredient dosing technology to make it easier to achieve reliable, consistent results with a huge variety of different ingredients. To enable this flexibility, we offer a range of augers, mixers and auger gearing to match the specific requirements of different ingredients.

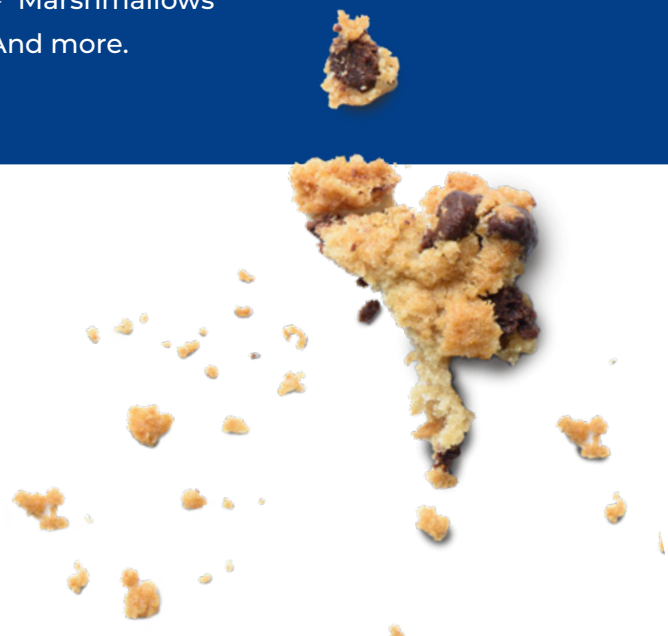
Additionally, we offer an optional double-walled hopper that prevents melting during the process. This can be particularly useful with ingredients like fruit pieces or cookie dough that must be dosed when chilled or frozen.

You can also choose a dual hopper, which makes it possible to dose two ingredients simultaneously through a single lamella pump. Thanks to built-in software, you can count on stable and accurate ingredient flow with precise inclusion distribution and a very low standard deviation of 3%.

Ingredient examples

- ▶ Chocolate flakes
- ▶ Nuts
- ▶ Jams
- ▶ Cookies
- ▶ Chocolate drops with caramel
- ▶ Fruit pieces
- ▶ Cookie dough
- ▶ Brownies
- ▶ Wine gums
- ▶ Marshmallows

And more.



Tetra Pak[®] Ingredient Doser portfolio

Tetra Pak offers a complete range of ingredient dosers for ice cream and frozen desserts, covering capacities from 10 to 10,000 l/h.

Standard design

Our ingredient dosers are produced from high-quality materials and engineered to meet strict standards of hygiene, reliability and durability, including the 3A Sanitary Standards. All parts that come in contact with ingredients are manufactured from stainless-steel materials.

Standard components

- Frame
- Hopper
- Lamella feed pump
- In-line mixer
- Control panel
- Automatic weighing system
(A3 and A2 models only)

Optional equipment

- Ventilated lamellas
- Magnetic grill
- Insulated hopper
- Line integration





Technical data	Model				
	2000 M3	2000 A3	3000 M3	3000 A3	4000 A2
Capacity range	10-200 l/h (2.6-52.8 gal/h)	10-200 l/h (2.6-52.8 gal/h)	15-700 l/h (4-184.9 gal/h)	15-700 l/h (4-184.9 gal/h)	15-1200 l/h (4-317 gal/h)
Base product range	100-2000 l/h (26-528 gal/h)	100-2000 l/h (26-528 gal/h)	500-3500 l/h (132-924.6 gal/h)	500-3500 l/h (132-924.6 gal/h)	1000-10,000 l/h (264-2642 gal/h)
Automatic system		✓		✓	✓
Manually controlled	✓		✓		
Power connection	3 x 230-400 V, 50/60 Hz	3 x 230-400 V, 50/60 Hz	3 x 230-400 V, 50/60 Hz	3 x 230-400 V, 50/60 Hz	3 x 230-400 V, 50/60 Hz
Power consumption total	3.6 kW (4.83 HP)	3.6 kW (4.83 HP)	3.6 kW (4.83 HP)	3.6 kW (4.83 HP)	4.5 kW (6.03 HP)
Lamella pump	0.75 kW (1.0 HP)	0.75 kW (1.0 HP)	1.5 kW (2.0 HP)	1.5 kW (2.0 HP)	2.2 kW (3.0 HP)
Mixer motor	0.55 kW (0.73 HP)	0.55 kW (0.73 HP)	0.55 kW (0.73 HP)	0.55 kW (0.73 HP)	1.3 kW (1.5 HP)
Dosing auger	0.37 kW (0.5 HP)	0.37 kW (0.5 HP)	0.37 kW (0.5 HP)	0.37 kW (0.5 HP)	0.37 kW (0.5 HP)
Agitator	0.37 kW (0.5 HP)	0.37 kW (0.5 HP)	0.37 kW (0.5 HP)	0.37 kW (0.5 HP)	0.37 kW (0.5 HP)
Max. ice cream pressure	10 bar (145 psi)	10 bar (145 psi)	10 bar (145 psi)	10 bar (145 psi)	10 bar (145 psi)
Hopper filling height	1154 mm (45")	1154 mm (45")	1154 mm (45")	1154 mm (45")	1162 mm (45.7")
Pipe diameters	51 mm (2")	51 mm (2")	63 mm (2½")	63 mm (2½")	76 mm (3") 102 mm (4")

Lowest total cost of ownership

The profit potential of a new equipment isn't about the investment cost. It's ultimately about how much you can save over time, how you can build your market share, and how you can make your pricing more advantageous. Thanks to market-leading Tetra Pak innovations, our ingredient dosers not only give your customers a quality experience, they also give you the lowest total cost of ownership.

It pays to be uniform

Are you getting the most out of your most expensive ingredients, or do they often end up as giveaway or in rejects? Are your customers coming back for more, or do consumers complain about inconsistent product quality?

Depending on your answer to these questions, you may already understand the importance of accurate, even and reliable inclusion dosing. Every ingredient saved is money in your pocket and – after payback – pure profit. And improved customer satisfaction helps build your brand, translating into greater profitability over time.



20%

***Smaller footprint
than other comparable
solutions on the market***

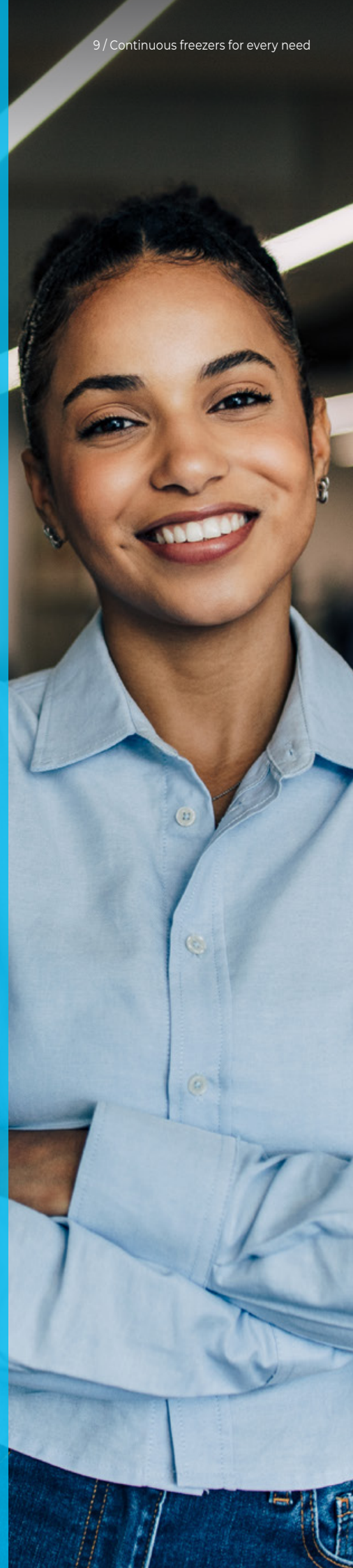


Smooth installation, smooth operation

Tetra Pak® Ingredient Dosers are designed to fit easily in your processing line and make life simple for your operators. A small footprint prevents installation challenges, even when existing floor space is at a minimum. In fact, our largest capacity machines have a footprint that's nearly 20% smaller than other comparable solutions on the market.


We have also developed our dosers to give you the longest possible uptime, with long service intervals thanks to durable wear parts like a lamella designed for up to 3000 hours of operation. Smart automation further prevents human error to minimise unplanned stops and make maintenance tasks like cleaning-in-place (CIP) go more quickly. The control panel's intuitive HMI also makes all functionality easy to manage for even less experienced operators.

3000h





Complete solutions, customised to your needs



Tetra Pak® Ingredient Dosers are available as stand-alone units. But they are also ready for full line integration, either as a replacement for an existing line or as part of a complete new solution.

Market-leading expertise

When you partner with Tetra Pak, you have over a half century of ice cream knowledge and experience at your disposal, along with experts who are dedicated to understanding the specific needs of your operation. This unique combination goes into every solution we deliver. Perhaps that's why you'll find our name on more than half of the world's installed ice cream equipment.

Our scope is comprehensive, covering everything from mix preparation, freezing, shaping, cooling, hardening, coating and wrapping, and we have solutions for filled, moulded and extruded frozen dessert products.

Unique – but proven

No two ice cream production solutions from Tetra Pak will ever be identical. But while you can count on a solution customised to your needs, you can also count on all of our equipment to provide uncompromising food safety, smart solutions for optimising production, high flexibility, and upgradability to grow and change along with your business.

Ongoing optimisation

Based on decades of application expertise, we work with you to understand your recipes and optimise production according to your specific needs. We also support trials for new products at our dedicated **Ice Cream Product Development Centre**, where you can consult our experts on how to achieve the best results with your set-up.

We make it our motto

At Tetra Pak, our promise is to protect what's good – and our ice cream solutions are designed to do just that. From accurate, even and gentle dosing that helps you build and protect your brand, to efficient, waste-reducing solutions that help improve the environmental footprint of your operations. From designs for maximum safety that protect your operators, to exacting hygienic standards that protect your customers. And of course, unique innovations that protect your profits, giving you outstanding lifecycle economy and the lowest possible cost per ice cream product.

