



Tetra Pak® Ingredient Doser 2000/3000 M3

Manually-controlled ingredient doser



Highlights

- Robust design for low maintenance costs and high uptime
- Gentle handling and even distribution of ingredients
- Complies with all latest safety regulations
- Easily upgrade from 2000 to 3000 model

Application

The manually-controlled Tetra Pak® Ingredient Doser 2000 M3 and Tetra Pak® Ingredient Doser 3000 M3 are designed for the continuous injection of fruit pieces, nuts, candies, jams and other auger-conveyable ingredients into ice cream or similar products.

Working principle

The ingredient feeder is a self-contained unit ready to be connected to power and ice cream supply. Ingredients are dosed from the hopper by a helical dosing auger into the lamella pump. This gently delivers the ingredients into the ice cream stream. Further mixing is performed in the in-line mixer before the ice cream passes through the outlet of the feeder.

Standard design

Frame

The frame is a fully welded stainless steel construction with sloped surfaces ensuring drainage after cleaning. Three detachable stainless steel side panels ensure easy access to all parts of the machine for easy maintenance. The frame is mounted on wheels for easy relocation and positioning.

Hopper

The hopper has a capacity of 40 litres (10 US gallons) for the 2000 model and 75 litres (19 US gallons) for the 3000 model. The hopper is equipped with a dust cover, a safety grid and an agitator that ensures a constant supply of ingredients to the dosing auger mounted at the bottom of the hopper. The dosing auger metres a constant flow of ingredients into the inlet funnel of the lamella feed pump.

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Lamella feed pump

The inlet funnel leads the ingredients into the cavities between the lamellas of the pump. As the pump rotates and the lamellas reach the ice cream stream, the lamellas retract and the ingredients are distributed into the ice cream stream. When the ice cream flows into the lamella pump, it forms a U-shape that allows the ingredients to be laid gently in the centre of the ice cream. The design of the lamella feed pump provides:

- Gentle treatment of ingredients
- Easy and efficient cleaning
- Quick and simple assembly/disassembly

In-line mixer

Effective mixing of ingredients and ice cream is carried out in the in-line mixer, obtaining a homogeneous distribution of ingredients in the ice cream. The in-line mixer is placed directly at the outlet of the lamella feed pump and before the outlet of the ingredient feeder.

Control panel

The Tetra Pak® Ingredient Doser M3 series is equipped with an operator-friendly control panel consisting of buttons and potentiometers.

The buttons are used to start and stop the following functions:



- Dosing auger
- Lamella pump
- In-line mixer
- CIP cycle
- Agitator (optional)

The potentiometers are used to set the speed of the following functions:

- Dosing auger
- Lamella pump
- In-line mixer
- Agitator (optional)

Capacity

Tetra Pak Ingredient Doser 2000 M3

| | |
|--------------------------------------|---------------------------------------|
| Hopper capacity | 40 l (10 US gal) |
| Throughput capacity of base product* | 100 to 2 000 l/h (26-528 US gal/h) |
| Throughput capacity of ingredients** | 10 to 200 l/h (3-53 US gal/h) |

Tetra Pak Ingredient Doser 3000 M3

| | |
|--------------------------------------|--|
| Hopper capacity | 75 l (19 US gal) |
| Throughput capacity of base product* | 500 to 3 500 l/h (132-924 US gal/h) |
| Throughput capacity of ingredients** | 40 to 700 l/h (10-185 US gal/h) |

* Ice cream or base product capacities may differ from the indicated values depending on viscosity.

** Ingredient capacities are indicative and may differ slightly for different types of ingredients.



Standard and optional equipment

| | Tetra Pak® Ingredient Doser 2000 M3 | Tetra Pak® Ingredient Doser 3000 M3 |
|---|---------------------------------------|--|
| Base flow | 100 to 2 000 l/h (26-528 US gal/h) | 500 to 3 500 l/h (132-924 US gal/h) |
| Ingredient flow | 10 to 200 l/h (3-53 US gal/h) | 40 to 700 l/h (10-185 US gal/h) |
| Ingredient size | 12 mm (0.472") | 20 mm (0.787") |
| Hopper size | 40 l (10 US gal) | 75 l (19 US gal) |
| Automation control system | | |
| Manual control | Included | Included |
| Hopper with agitator, dosing auger and safety grid | Included | Included |
| Manual control of dosing rate | Included | Included |
| In-line mixer | Included | Included |
| Lamella pump with inlet funnel and manual CIP front cover | Included | Included |
| Lamella pump with inlet funnel and automatic CIP front cover | Optional | Optional |
| Stainless steel dust cover for ingredient hopper | Included | Included |
| Plastic dust cover for ingredient hopper | | |
| Transparent plastic dust cover in lieu of standard SS cover | Optional | Optional |
| Magnetic grid for ingredient hopper | | |
| Additional grid for hopper to trap metallic foreign objects | Optional | Optional |
| Paddle blender | Included | Included |
| Pin blender | | |
| Pin blender for mixer for gentle agitation of fragile ingredients | Optional | Optional |
| Selection of stainless steel or plastic auger: | | |
| Different types of dosing augers are available depending on the ingredients to be used and capacity required | Optional | Optional |
| Bridge breaker | | |
| Pneumatic bridge breaker with vertical movement placed in inlet funnel to prevent product build-up on the sides | Optional | Optional |
| Hopper outlet pipe, plastic | | |
| | Included | Included |
| Hopper outlet pipe, small diameter, plastic | | |
| Used to dose low-viscous and even fluid ingredients like marmalade | Optional | Optional |
| Insulated hopper | | |
| Ingredient hopper with double walls for maintaining ingredient temperature, form and shape in the hopper, when running frozen ingredients | Optional | Optional |
| Set of levelling feet | | |
| Feet for installing the ingredient doser in a fixed location | Optional | Optional |
| Transportation wheels | | |
| For easy moving of ingredient doser in the production room | Included | Included |
| Ventilated lamellas | | |
| Lamellas with ventilation holes to secure that air is released when running large ingredients | Optional | Optional |
| Y connection | | |
| For connecting 2 freezers to the same ingredient doser | Optional | Optional |
| 3-A approval | Optional | Optional |
| CIP program | Included | Included |
| 24/7 spare parts service | Included | Included |

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Manually-controlled ingredient doser

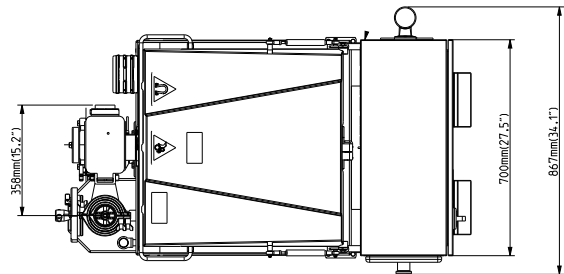
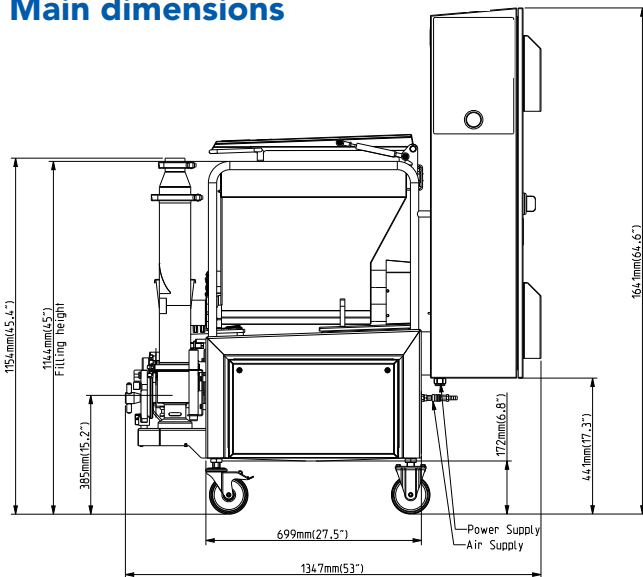
Technical data

| | Tetra Pak® Ingredient Doser 2000 M3 | Tetra Pak® Ingredient Doser 3000 M3 |
|-------------------------|-------------------------------------|-------------------------------------|
| Power connection | 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) |
| Lamella pump | 0.75 kW (1.0 HP) | 1.5 kW (2.0 HP) |
| Mixer motor | 0.55 kW (0.73 HP) | 0.55 kW (0.73 HP) |
| Dosing auger | 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) |
| Max. ice cream pressure | 10 bar (145 psi) | 10 bar (145 psi) |
| Hopper filling height | 1 154 mm (45") | 1 154 mm (45") |
| Pipe diameters | 51 mm (2") | 63 mm (2½") |

Shipping data

| | | |
|--------------|--|--|
| Net weight | 366 kg (807 lbs) | 366 kg (807 lbs) |
| Gross weight | 561 kg (1 237 lbs) | 561 kg (1 237 lbs) |
| Volume | 2.5 m ³ (88 ft ³) | 2.5 m ³ (88 ft ³) |

Main dimensions



Measurements in mm (inches)