



# Tetra Pak® Aseptic Dosing unit F

Flexible and safe in-line dosing for aseptic ingredients



## Application

The Tetra Pak® Aseptic Dosing unit F provides flexible and safe in-line ingredient delivery for enzymes, aromas, colours, lactoferrin, probiotic bacteria and other nutritionals. The system ensures the survival and stability of heat sensitive functional ingredients by dosing them after heat treatment and just prior to filling. This preserves the characteristics of the ingredients. The unique capabilities of the Tetra Pak® Aseptic Dosing unit F, create new product and market opportunities for producers.

## Highlights

- Highest product quality
- Simplified product innovation
- Production flexibility
- Cost-efficient production
- Long operating time
- Reduced environmental footprint

## Working principle

Ingredients are injected into the base product with high precision after the final heat treatment, just prior to filling into the retail packaging. The pump section has two identical stations that enable either single or double dosing depending on capacity and number of ingredients injected. Each station can dose between 0.5 and 15 litres of ingredients per hour. A flow meter, weighing system and bar code reader ensure the correct dosage level and product selection. Ingredients are dosed through a sterile hose connected to the ingredient bag and a sterile needle injects the ingredient into the base product. Steam and sterile condensate barriers maintain the aseptic condition during the process. The liquid ingredient is pre-packed through an aseptic process and kept in ready-to-use 5 or 10 litre bags. The unit's advanced information system provides total traceability. The unit follows the process cleaning and sterilisation process and thus is not equipped with a separate CIP and sterilisation system. The unit is controlled via an operator panel.

## Basic unit

The Tetra Pak® Aseptic Dosing unit F is a compact, platform-based unit that provides flexible and safe in-line ingredient dosing. It is compatible with any filling machine that has a capacity between 1 000 and 20 000 litres per hour with a continuous flow. Even higher capacities are possible on demand. The Tetra Pak® Aseptic Dosing unit F is fully automated, and its unrivalled accuracy make it the most highly recommended unit for installation between processing and one or several filling machines. The unit is pre-assembled, frame-mounted, and factory-tested with water before delivery, for easy installation.

## Main components

- Injection chamber with steam and sterile condensate barrier (aseptic version)
- Two dosing stations with peristaltic hose pumps and weighing system
- Flow transmitter
- Valves, pipe works, steam traps, filters, temperature transmitter, pressure gauge, internal wiring, etc.
- Control cabinet with Rockwell or Siemens PLC system and automation
- Human Machine Interface (HMI) industrial PC mounted in control panel with 15" touch screen in control panel door. Includes a recipe management system and a production record system.

## Options

- Digital paperless recorder
- Air cooler with compressor for control panel
- Uninterrupted power supply (UPS)
- High hygienic design control cabinet
- UL approved control cabinet
- Cabinet cooler
- Product line supervision
- Communication with other objects and supervisory system

## Technical Data

### Processing Parameters

Base Product	
Type	Liquid
Flow (l/h)*	1 000–20 000
Max pressure (kPa)(g)	170
Max pressure variations (kPa)(g) (in order to reach dosing accuracy)	±20

\* Higher base product flow as option

Ingredient	
Type	Liquid
Package size, litres per bag	5 or 10
Dosing range continuous (l/h)	0.5–15
Dosing range intermittent (l/h)	1.0–30

Shipping data and dimensions*	
Net weight, kg	1 000
Gross weight, kg	1 200
Volume, m <sup>3</sup>	3.17
Length, mm	1 670
Width, mm	990
Height, mm	1 960

\* Options not included