TETRA PAK® FOOD PROCESSOR

Gentle blending, heating and cooling of food products

APPLICATION

The Tetra Pak® Food Processor achieves efficient processing of low to high viscous and smooth to particulate products including fruit preparations, tomato preparations, soups, sauces, desserts and puddings.

The unique blending technology ensures an even temperature distribution as well as gentle treatment, making it ideal for processing products containing delicate particles such as fruit pieces and rice grains.

The Tetra Pak Food Processor can handle particles up to Ø 25 mm.

HIGHLIGHTS

- Uncompromised food safety
- Gentle treatment and perfect blending for high consistent product quality
- Excellent particle integrity also for mechanically sensitive products
- The geometry of the horizontal tank is designed in such a way that the ratio between product volume and heating area is optimized. This is valid irrespectively of the actual product volume used, 1/2, 3/4 or full.
- Minimized air incorporation due to the helix-shaped agitator design
- Uncompromised product and production safety
- Robust and durable with low maintenance
- Tailor made for optimal work environment

WORKING PRINCIPLE

The Tetra Pak® Food Processor handles batch production or pre-treatment in a continuous production line. The PLC control system may be interlinked to an overall system. The fully equipped unit carries out the following operations:

FILLING

Liquid ingredients e.g. dissolved powder can be pumped in through the inlet valve, while solids ingredients are added using a lift and tilt device or manually through the manhole.

BLENDING

The revolving helix-shaped agitator can be set to optimal speed and blend ingredients with minimal air incorporation. The gentle blending also preserves particle integrity throughout the process.

HEAT TREATMENT AND COOLING

The jacketed tank enables gradual heating and cooling to the required temperature. The agitator scraper blades minimize fouling and improve heat transfer.

VACUUM TREATMENT

Vacuum treatment enables evaporation, deaeration and flash cooling. Vacuum control is also used for enhancing sugar penetration of particles.

EMPTYING

The tank is emptied through over-pressure or with an external pump. (External pump not included in standard offer).

CIP

The Tetra Pak Food Processor is cleaned by an external CIP system. The tank body is equipped with CIP nozzles. Option is a CIP outlet to clean the tank separated from the emptying pipe.

STANDARD DESIGN

- Horizontal pressure vessel tank body
- Helix-shaped horizontal agitator, with flushed seals
- Split pillow jacket
- Heating with steam
- Manhole with safety switch
- High and low level probes
- Temperature probe
- CIP nozzles
- Valve cluster
- Stainless steel cabinet, including:
  - Siemens S7-1500 control system
  - PC based HMI
  - Motor Control Centre
  - Solenoid valves
- Cables in open stainless steel trays
- Frame in stainless steel
- Pre-assembly and water test before delivery
- Technical documentation
- Internal finish, Ra<0.8

AUTOMATION

- Automation enables process control, work tracking and traceability connected with supervisory system.

MATERIALS

- Parts in contact with product in stainless steel are according to AISI 316
- Scraper blades in PEEK

OPTIONS

- Stainless steel platform with falling protection
- Separate product and CIP outlet
- Huhnseal agitator shaft seal
- Tank body prepared for evaporation, deaeration and aroma recovery
- Extra sight glass
- Liquid inlet 2, manual cleaning
- Cooling with water
- Heating with hot water
- Heating with hot water or with steam
- Direct steam injection into tank vessel for fast heating
- Deaeration and evaporation including aroma recovery
- High hygienic design
- Spring-assisted manhole cover
- CE-marking
- Prepared for lift and tilt device
- Control panel air cooling
- Uninterupted Power Supply (UPS) buffer block 24 V DC
- Tetra Pak® PlantMaster

TECHNICAL DATA

Consumptions - example of approximal consumption data per model

Tetra Pak Food Processor Model	300	600	1200	2500
CIP (l/h)	10 000	15 000	20 000	20 000
Steam, indirect heating (kg/h)	250	700	850	850
Cooling water, indirect cooling (l/h)	8 000	15 000	15 000	15 000
Electrical power (V/Hz)	400/50	400/50	400/50	400/50
Instrument air (Nl/min)	50	50	50	50

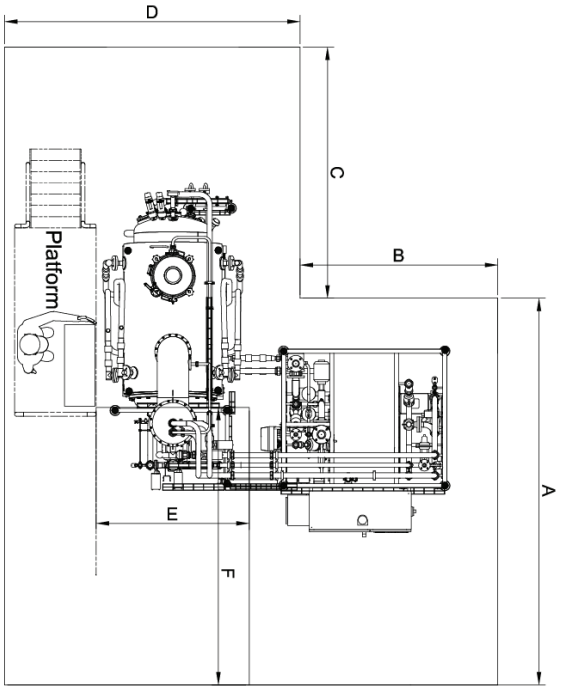
MODELS

Model	Max operating volume (product properties dependent) (litres)	Tank volume (litres)
Tetra Pak® Food Processor 300	150 - 300	400
Tetra Pak® Food Processor 600	300 - 600	830
Tetra Pak® Food Processor 1200	600 - 1 200	1 550
Tetra Pak® Food Processor 2500	1 250 - 2 500	3 000

Pressure vessel	Tank body
Pressure Operating	300 kPa (g)
Vacuum	-100 kPa (g) (100%)
Product temperature	-5/+140 °C

Pressure vessel	Pill jacket
Pressure Operating	600 kPa (g)
Vacuum	-100 kPa (g) (100%)

TETRA PAK® FOOD PROCESSOR 300 / 600 L



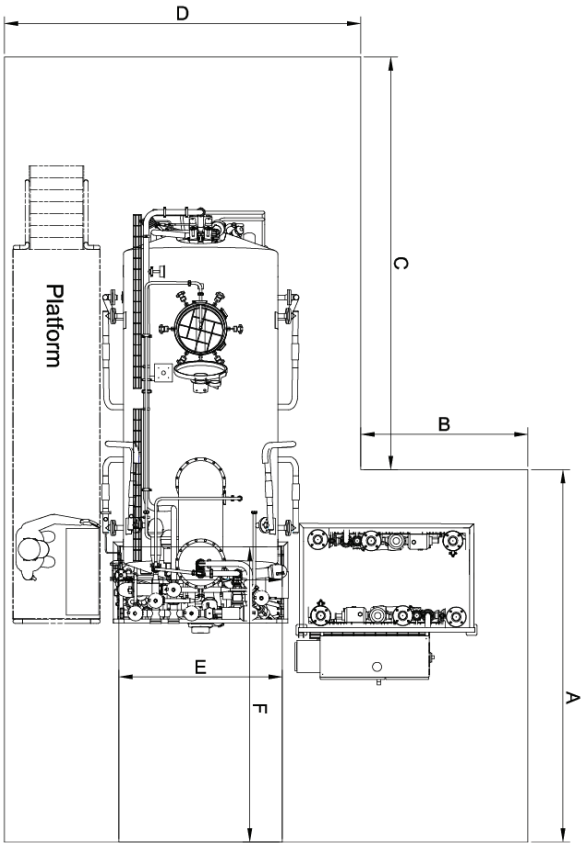
Model	A	B	C	D	E	F	J*
Tetra Pak® Food Processor 300	3800	2000	2500	2900	1500	2800	2700
Tetra Pak® Food Processor 600	3800	2000	2500	2900	1500	2800	3500
Tetra Pak® Food Processor 1200	3500	2000	3800	3300	1500	2800	4330
Tetra Pak® Food Processor 2500	3500	2000	3800	3300	1500	2800	4350

* Height of equipment measured in mm

Shipping data

Model	Volume, m3	Gross weight, kg
Tetra Pak® Food Processor 300	25	2 100
Tetra Pak® Food Processor 600	25	3 200
Tetra Pak® Food Processor 1200	25	3 900
Tetra Pak® Food Processor 2500	27	4 300

TETRA PAK® FOOD PROCESSOR 1 200 / 2 500 L



Tetra Pak®