

# MACHINE SPECIFICATION

## CARTON SQUEEZER BMPS



Machine name	BMPS	Manufacturer	Fluidor Equipment B.V.
Publication date	12-09-2023	Address	Ramgatseweg 25, 4941VN Raamsdonksveer, The Netherlands
Version	0.1	Telephone	+31(0)162 581 450

## DESCRIPTION

The Fluidor Carton Squeezer, type BMPS, is designed for processing cartons with or without plastic screw caps.

Purpose of this machine is to recover product by separating the liquid product from its packing.

For controlled loading of cartons we advise our Loading Conveyor but loading can also be done manually or by connecting to other automated conveyor systems.

The cartons drop on a driven belt conveyor and are pressed open by a pneumatic operated press plate. After opening the remaining product in the cartons is squeezed out by an electric driven hygienic squeezer.

Empty cartons fall into a container or discharge conveyor and are ready for a paper compacting press.

The product is collected, filtered and discharged by a centrifugal pump for next process steps.

## DESIGN SPECIFICATION

- According actual CE-regulations
- Developed and build according quality system ISO 9001
- Clean design according actual EN1672-2 and HACCP-regulations
- Food contact materials according EC 1935/2004 and FDA
- Good Manufacturing Practice Regulation (EC) 2023/2006
- Components according Fluidor standard components list
- Machine prepared for integration into existing C.I.P.-system (CIP covers included) or the machine can perform an stand-alone CIP, with some manual actions
- The CIP supply is not equipped with a mix-proof valve solution
- The machine can be fully drained by a drain valve under the machine
- Machine control by HMI
- Control cabinet IP55 / NEMA 12 (VX25....., various sizes, AISI 304)
- Module for remote internet access
- Construction AISI304
- Piping parts + product contact parts AISI 316
- Hygienic stainless steel hopper
- Electric driven carton squeezer with finger protection, hygienic design, consisting out of knurled AISI 316 lower roller and natural rubber upper roller
- Frequency controlled centrifugal product pump
- Built-in filters for product and C.I.P with a 1.5 mm mesh.
- The machine is prepared for connecting a loading conveyor.
- Machine is designed to be used 12 hours a day 5 days a week and 52 weeks a year with proper maintenance and an expected service life of 20 years



## REQUIREMENTS

- Layout (dimensional, utility & requirements drawing) available upon request
- Earthquake area extra fixation needed (Anchors option)
- Machine is designed for indoor use in a medium hygiene wet area

## TECHNICAL DATA

	EU	USA
· Total weight empty	: 900 kg	1985 lbs
· Total weight Full	: 1000 kg	2200 lbs
· Product / CIP temp	: -20, +90 °C max 60 minutes	-4, 194 °F max 60 minutes
· Ambient temperature	: 5 - 25 °C	41 - 77 °F
· Relative humidity	: 30 - 70%	
· Noise level	: < 85 dB(A)	
· IP value (control cabinets + drives)	: IP55	
· Product hopper volume	: 140 L	37 gal
· Adjustable machine support legs	: 80 -160 mm	3.15 - 6.3 inch
· Dimensions h*w*d:	: 1635*1435*2120 mm	64*56*83 inch
· Installed power	: 9 kW	12 HP

## CAPACITY

Depending on infeed & product: up to 4.000 cartons per hour.  
 Pump capacity 4 - 15 m³ product per hour (17 - 66 gpm)  
 Pump pressure max. 4 bar (58 psi)

## PRODUCT INFORMATION

- Product type : Fruit juices, milk (liquid products)
- Product viscosity max : Dynamic viscosity 1000 cP

## CLEANING

- Cleaning depends on the product and company guidelines, the values below are guide values
- CIP cleaning after each production batch or before each production run after 12 hours of downtime
- Manual cleaning +- 10 min

CIP Time (sec)

CIP Step	Caustic	Caustic + Acid	Temperature (°C)	Concentration (%)
Pre Rinse	600	600	45	fresh water
Caustic (Organic soils)	1200	1200	75	0,5 - 2 % (Caustic soda)
Intermediate Rinse		600	20	fresh water
Acid (Inorganic soils)		600	65	0,5 - 1% (Acid)
Final Rinse	600	600	20	fresh water
<b>Total CIP time (min)</b>	<b>40</b>	<b>60</b>		

## BIN AND DRUM SPECIFICATION

	EU	USA
· Max volume :	1,5 L	0,4 gal
· Min volume :	0,2 L	0,05 gal

## **MACHINE EXECUTIONS**

- BMPS With loading conveyer

## **POWER SUPPLY / CONTROLES**

- 3 Phase 400V 50Hz 25 A+ neutral + earth, Siemens controls
- 3 Phase 480V 60Hz 25 A + earth, Allen-Bradley controls, UL prepared

## **COMMUNICATION**

- Various product filter sizes from 0,5 – 6 mm
- Loading conveyor like shown on picture, for dosed loading of cartons

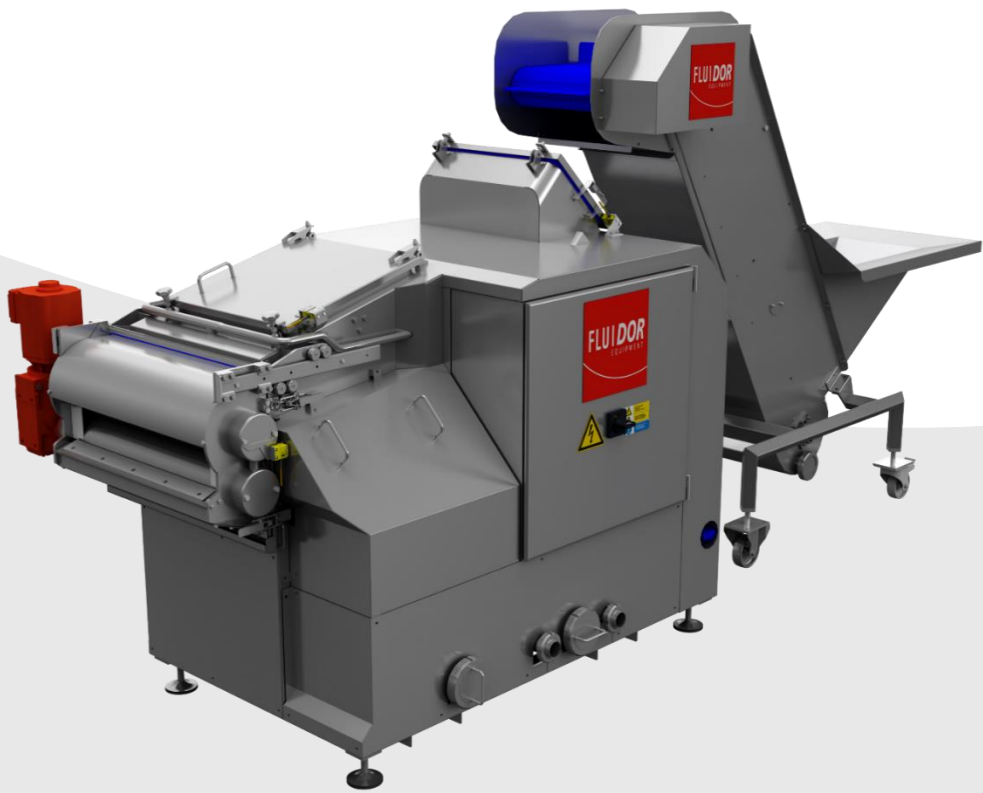
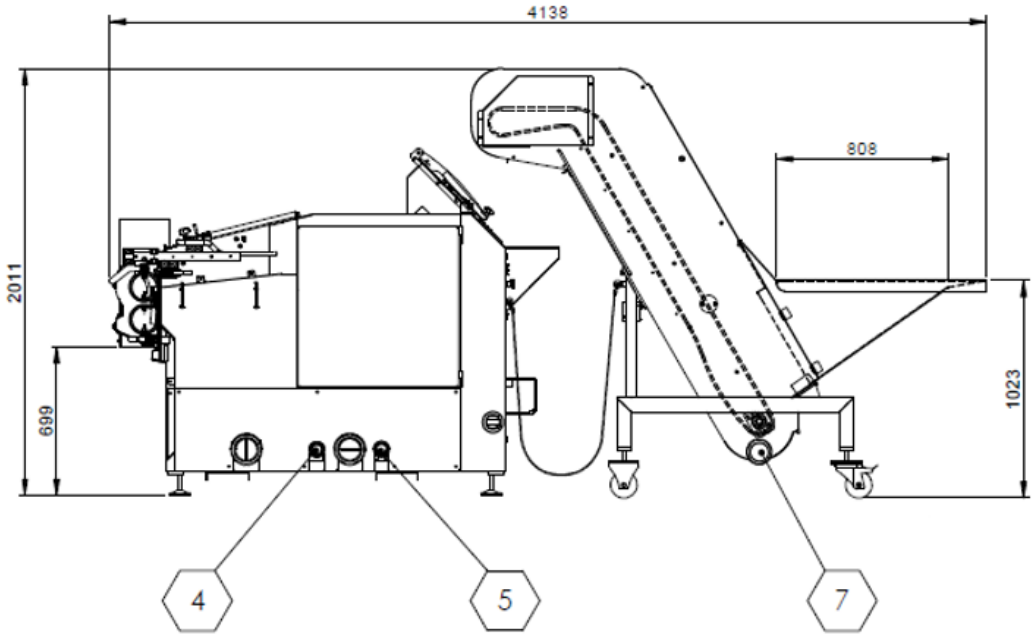
## **OPTIONS**

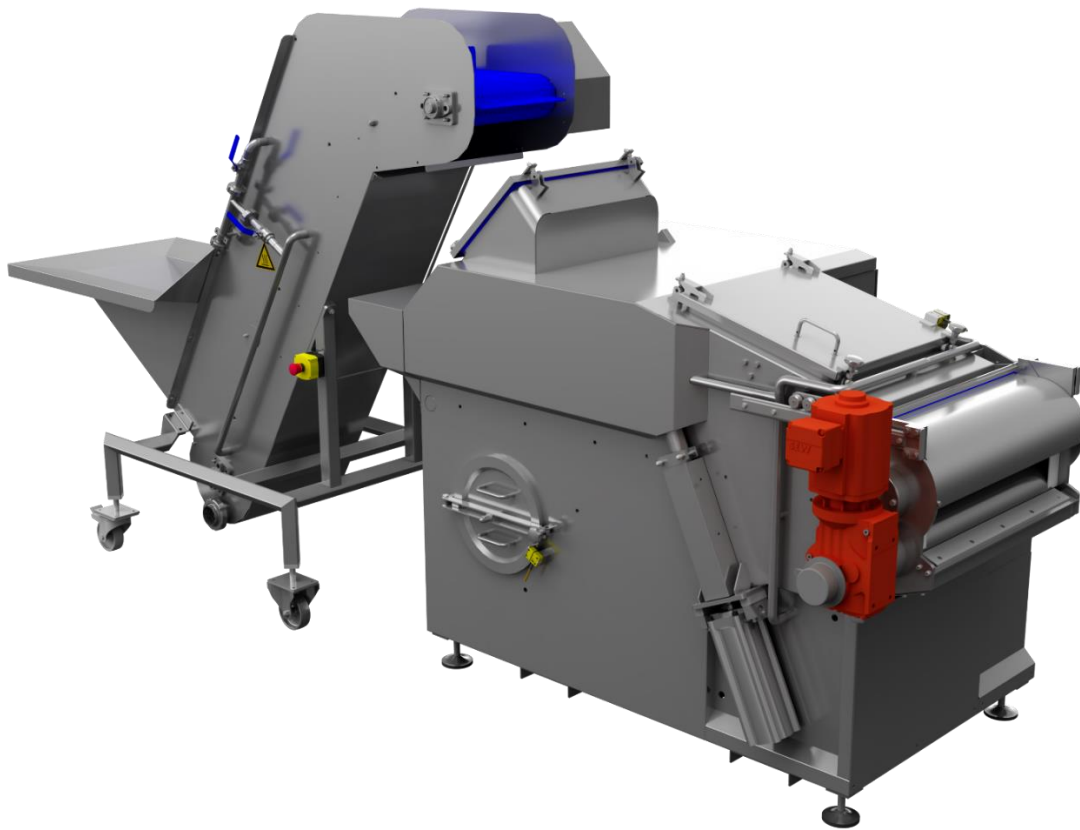
- Product parts in AISI 316
- Water flow meter
- Magnetic trap in front of the pump
- Standing enclosure cabinets, IP66 / NEMA 4x (VX25, basic cabinet 800x2000x600, AISI 304)
- External pump cooling for low product flow rate from 0 to 20 m<sup>3</sup>/h (standard range is from 8 to 20 m<sup>3</sup>/h)

### PROCESS OPTIONS

BMPS can be combined with loading conveyor and discharge conveyor.

### PROJECT LAYOUT EXAMPLE





## ANNEXED DOCUMENTS

- Machine Lay-out
- Machine P&ID
- Fluidor standard components

## GENERAL INFORMATION

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