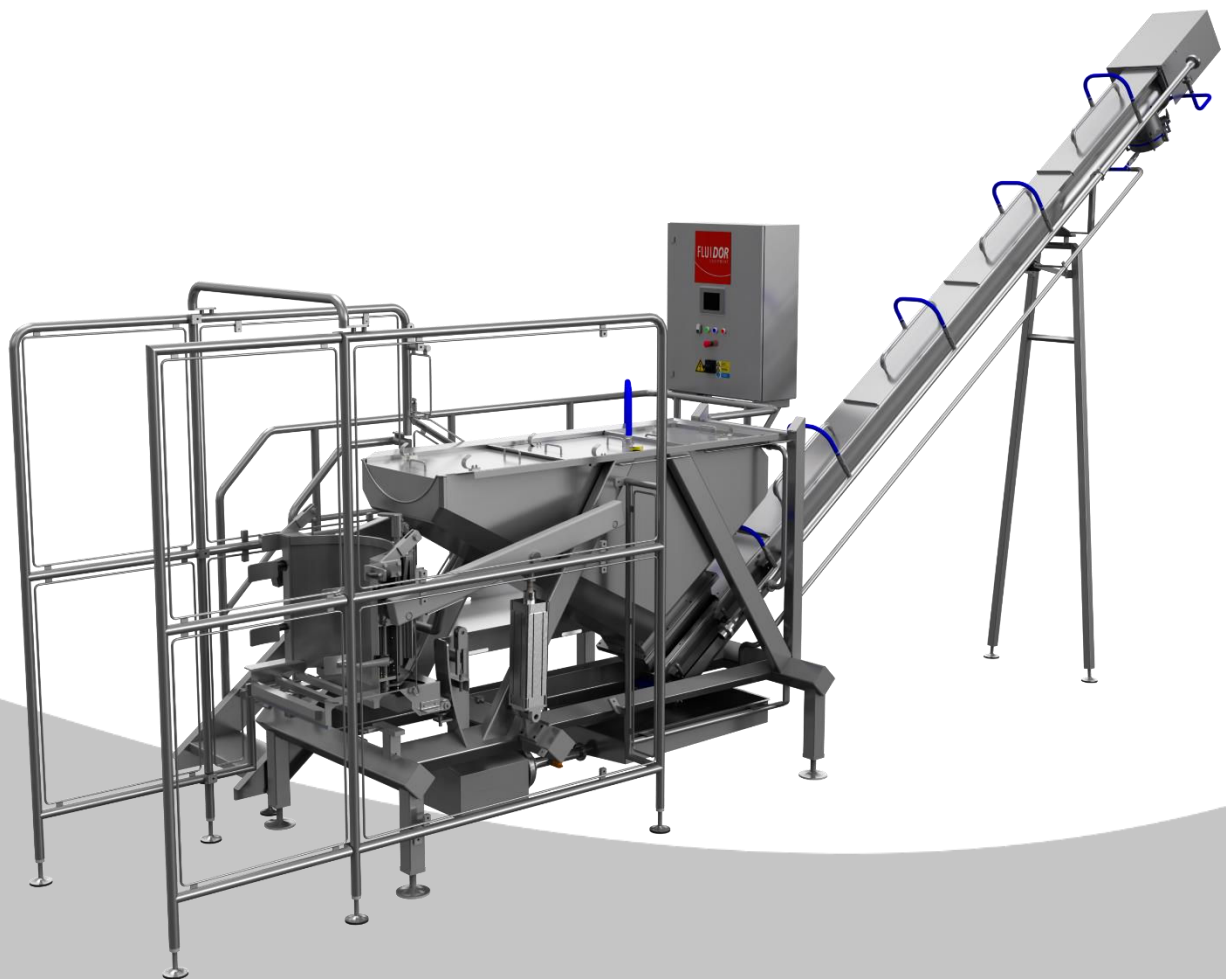


# MACHINE SPECIFICATION

## DRUM DUMPER DAPS SPECIAL



Machine name	DAPS-Special	Manufacturer	Fluidor Equipment B.V.
Publication date	20-02-2024	Address	Ramgatseweg 25, 4941VN Raamsdonksveer, The Netherlands
Version	0.1	Telephone	+31(0)162 581 450

## DESCRIPTION

The Drum dumper (DAPS Special) is designed for an efficient emptying of 200 liter open top drums containing liquid products like fruit juice with fruit pieces. This machine is developed especially for the production of "RANI"-products. Drums are placed on the roller conveyor section, at (optional) Drum Opening Station lid will be removed and liner(s) will be opened. The drum is lifted and tipped pneumatically, product will fall into the collecting hopper, flows into the hopper and is fed to a screw conveyor for separation of the fruit pieces (pulp) and the fruit juice.

The fruit pieces are discharged from the top of the screw conveyor for next process steps, the fruit juice is collected and pumped by a centrifugal pump to the next process step. After production CIP covers can be placed for integration into the customers CIP process.

## 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)
- Machine control by HMI
- Control cabinet IP55 / NEMA 12 (VX25....., various sizes, AISI 304)
- Module for remote internet access
- Construction parts AISI304
- Product contact materials (hopper + piping parts) AISI 316
- Hygienic stainless steel hopper with integrated level detection
- Screw conveyor for separation of fruit pieces (pulp).
- Operator platform along right hand side of the machine
- Pneumatic loading and tilting device with pneumatic actuated clamping device, aluminum cylinders in a Clean design
- Frequency controlled twin screw product pump with seal flush and pressure relief valve set on 12 bar
- Pressure transmitter behind the pump
- Height roller conveyor system 860 mm
- CIP supply can optionally be supplied with a mix-proof valve.
- 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

	<b>EU</b>	<b>USA</b>
· Total weight empty	: 2500 kg	5510 lbs
· Total weight Full	: 3000 kg	6610 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	: 500 L	132 gal
· Adjustable machine support legs	: 80 -160 mm	3.15 - 6.3 inch
· Dimensions h*w*d:	: 2400*1850*4250 mm	94*73*167 inch
· Installed power	: 7 kW	9,5 HP

## CAPACITY

- Depending on drum infeed & product: up to 4 m<sup>3</sup>/h (600 kg/m<sup>3</sup>) fruit pieces per hour.
- Pump capacity 4 - 15 m<sup>3</sup> product per hour (17 - 66 gpm)
- Pump capacity 30 m<sup>3</sup> CIP liquid per hour (132 gpm)
- Pump pressure max. 3 bar (43 psi)

## PRODUCT INFORMATION

- Product type : Fruit juices with pieces
- 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 +/- 20 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

	<b>EU</b>	<b>USA</b>
· Dimensions drums:	Width: Ø480 to Ø630 mm Height: 810 to 1000 mm	19.0" to 24.8" inches 31.8" to 39.4" inches
· Max weight drum:	300 kg	775 Lbs

## **MACHINE EXECUTIONS**

- One standard execution

## **POWER SUPPLY / CONTROLES**

- 3 Phase 400V 50Hz 20 A+ neutral + earth, Siemens controls
- 3 Phase 480V 60Hz 15 A + earth, Allen-Bradley controls, UL prepared

## **COMMUNICATION**

- PROFINET connections pre- installed at Siemens controls
- Ethernet/IP connections pre- installed at Allen Bradley controls

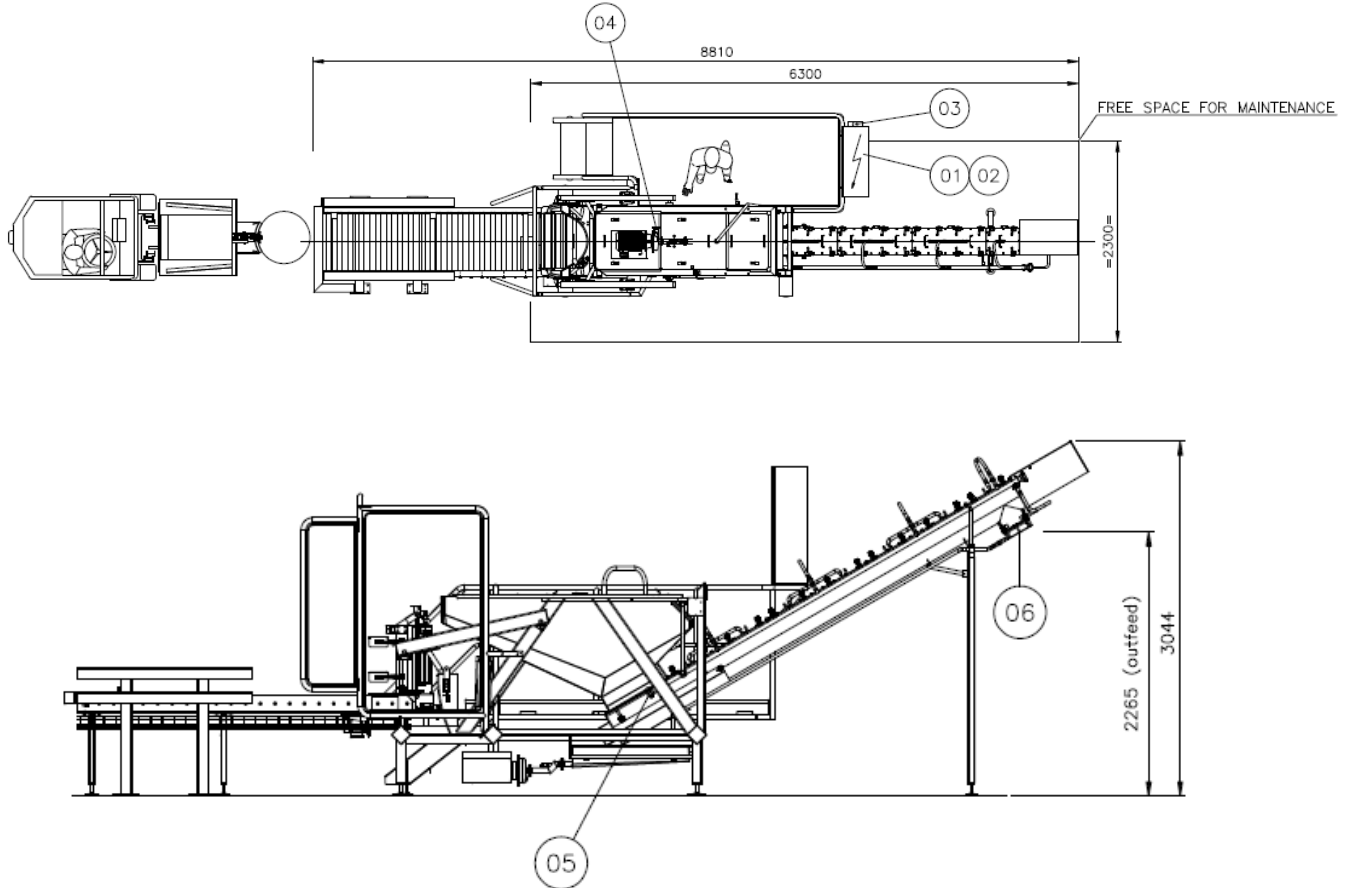
## **OPTIONS**

- Water flow meter
- Standing enclosure cabinets, IP66 / NEMA 4x (VX25, basic cabinet 800x2000x600, AISI 304)

## PROCESS OPTIONS

The DAPS Special can be combined with the following Fluidor conveyor systems: Drum opening station, Drum weighing system, Drum conveyor load/unload, forklift protection, Drum sliding door, Drum washer full or empty drums, Drum crusher etc.

## PROJECT LAYOUT EXAMPLE



## ANNEXED DOCUMENTS

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

## GENERAL INFORMATION

Website : [www.fluidor.com](http://www.fluidor.com)  
 Telephone : +31 162 581450

Sales : Mr. Jan Vermeulen  
 Telephone: +31 162 581457  
 Mobile : +31 6 25009609  
 Email : [j.vermeulen@Fluidor.com](mailto:j.vermeulen@Fluidor.com)

Spares : Mr. Wing Ho Kwok  
 Telephone : +31 162 581468  
 Email : [wh.kwok@fluidor.com](mailto:wh.kwok@fluidor.com)

Service : Service department  
 Telephone : +31 162 581466  
 Email : [service@fluidor.com](mailto:service@fluidor.com)