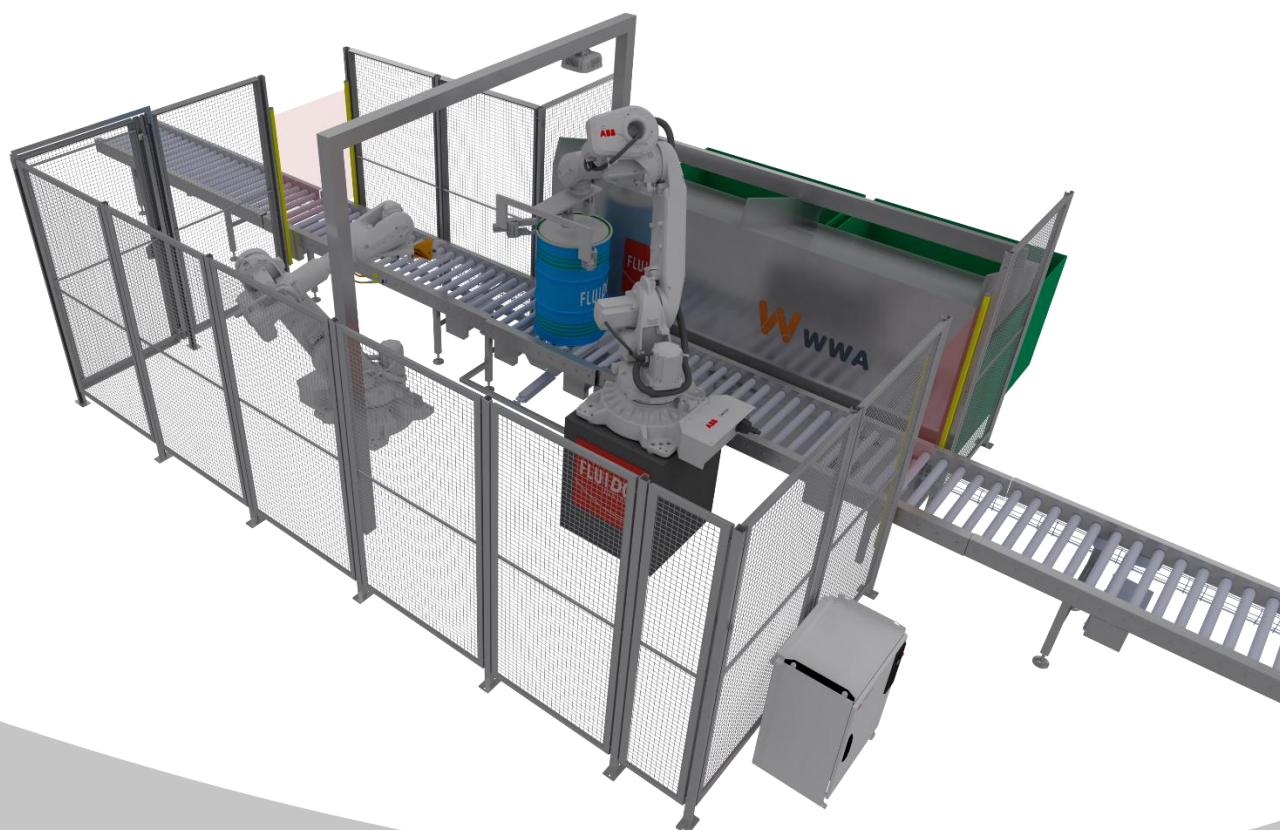


MACHINE SPECIFICATION

Automatic Drum Opening System ADOS



Machine name	ADOS	Manufacturer	Fluidor Equipment B.V.
Publication date	23-12-2025	Address	Ramgatseweg 25, 4941VN Raamsdonksveer, The Netherlands
Version	1.0	Telephone	+31(0)162 581 450

DESCRIPTION

The Automatic Drum Opening System (ADOS) from Fluidor Equipment automates the safe and efficient opening of sealed drums. Using vision technology and standard a ABB industrial robot, the system detects the locking mechanism of the drum, securely grips the lid, and cuts it open. The lid and locking ring are then automatically removed and discharged, keeping the process clean and controlled.

The system can handle various types of drums, closures, and lids. Variations in size, dents, deformation, or misalignment are no issue, allowing the system to operate reliably even with damaged drums.

The ADOS system can process up to 120 drums per hour. This reduces manual labor and eliminates the need for operators to manually cut or handle sharp lids, improving safety and ergonomics on the production floor. By automating the opening process, ADOS ensures consistent quality, stable cycle times, and increased production capacity.

Safety is ensured through fencing, an access-controlled safety door, and light curtains for safe entry into the robot cell. Additional safety functions can be added depending on customer requirements.

The ADOS system provides a reliable solution for companies that want to optimize drum opening, improve safety, and increase efficiency within their production process.

DESIGN SPECIFICATION

- According actual CE-regulations
- Developed and build according quality system ISO 9001
- Good Manufacturing Practice Regulation (EC) 2023/2006
- Components according Fluidor standard components list
- Machine control by HMI
- Control cabinet IP55 / NEMA 12 (VX25...., various sizes, AISI 304)
- Module for remote internet access
- ABB industrial robot, steel coated, including coated robot pedestal
- Integrated 3D Vision system
- Height roller conveyor system 700 mm
- Safety fences in coated steel
- Equipped with a PILZ safety system including light curtains and safety interlocks
- Machine is designed to be used 24 hours a day 5 days a week and 52weeks 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)

TECHNICAL DATA

	EU	USA
· Total weight	: 5000 kg	11000 lbs
· Ambient temperature	: 5 - 25 °C	41 - 77 °F
· Relative humidity	: 30 - 70%	
· Noise level	: < 85 dB(A).	
· IP value (control cabinets + drives)	: IP54>	
· Dimensions h*w*d:	: different	different
· Installed power	: 8.5 kW	12 HP

CAPACITY

- Depending on drum input: a capacity of 120 drums per hour

CLEANING

- The machine is suitable for regular cleaning. Cleaning frequency depends on the operating environment.

Cleaning can be performed using mild cleaning agents or water within defined limits.

Maximum water pressure is 7 bar, minimum spray distance 0.4 m and spray angle at least 45°. Sensitive components such as joints, seals, connectors, cable inlets and cooling fans must not be sprayed directly. Compressed air is not permitted.

Protective covers remain in place during cleaning. After cleaning, surfaces are wiped dry to ensure reliable operation.

DRUM SPECIFICATION

	EU	USA
· Dimensions drums:	Width: Ø480 to Ø630 mm Height: 810 to 1000 mm	19.0" to 24.8" inches 31.8" to 39.4" inches
	Closed drums	

POWER SUPPLY / CONTROLES

- 3 Phase 400V 50Hz 63A+ neutral + earth, ABB and Siemens controls
- 3 Phase 480V 60Hz 60A + earth, ABB and Allen-Bradley controls, UL prepared

COMMUNICATION

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

OPTIONS

- Robot pedestal AISI304
- Safety fences AISI304
- Different robot brands
- Barcode scanning

PROCESS OPTIONS

The ADOS can be integrated into any drum-handling setup where open top drums need to be open.

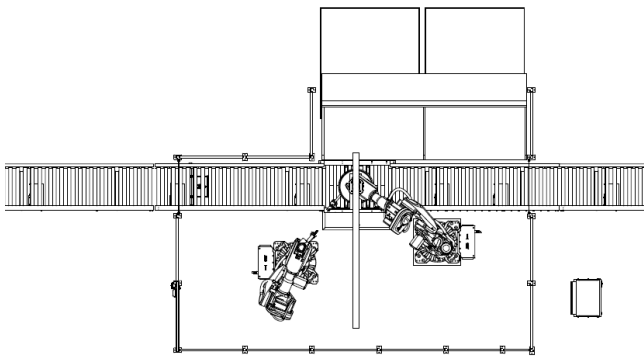
The ADOS can also be connected to a Logistics Management System (LMS) for full track-and-trace functionality. This allows drum identification, movement, and processing status to be monitored throughout the production line.

In addition, the ADLS works seamlessly with other Fluidor machines, such as:

- DPRCS
- DPRICS
- DAPS
- DL-Paste
- ADLS

Machine specifications for these systems are available on request.

PROJECT LAYOUT EXAMPLE



ANNEXED DOCUMENTS

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

GENERAL INFORMATION

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