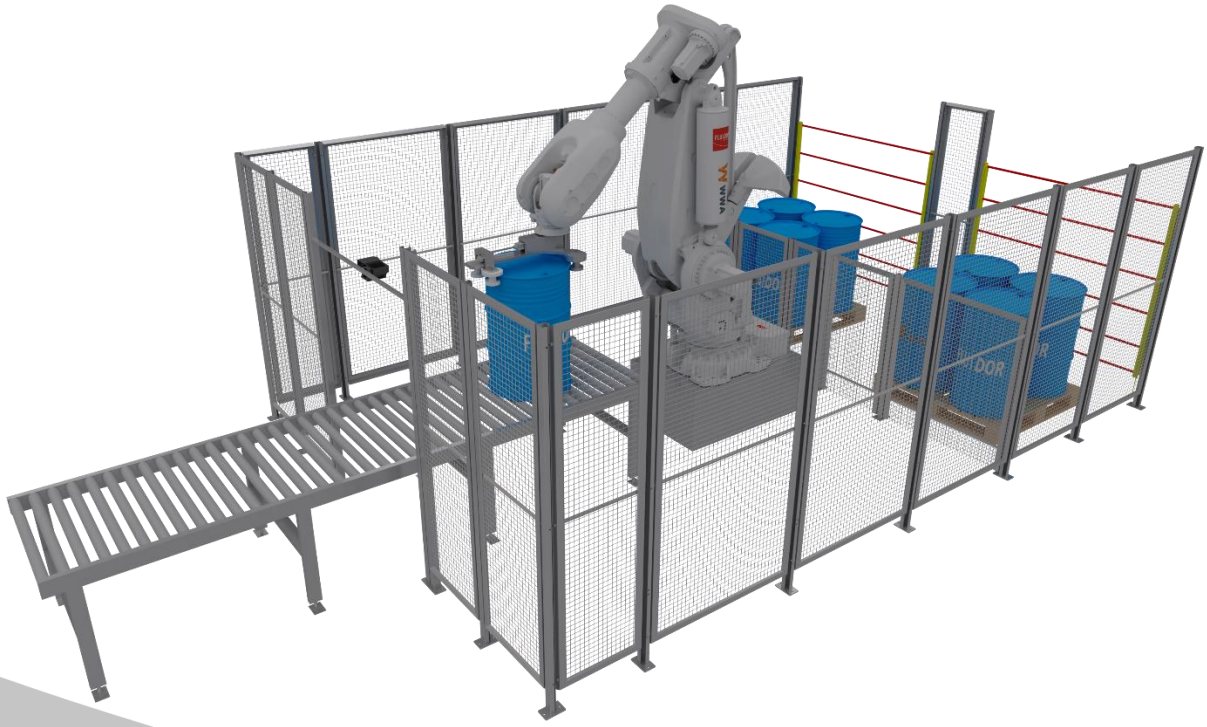
MACHINE SPECIFICATION

Automatic Drum Loading System
ADLS



Machine name	ADLS	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 Loading System (ADLS) from Fluidor Equipment automates the loading of drums onto roller conveyors. The cell uses standard a ABB robot and vision technology to locate drums on pallets, pick them up, and place them in the correct position. The system can handle variations in size, shape, dents, and misalignment. The three-point gripper centers each drum and keeps the outside fully accessible, which allows the optional integration of barcode scanning for drum tracking.

The ADLS processes up to 120 drums per hour. This reduces manual labor and increases safety on the production line. By automating the handling process, the system ensures consistent placement and stable productivity.

Pallet positions are supplied by the operator. By default, the robot removes all four drums from a pallet, but this can be adjusted to customer requirements. While one pallet is being emptied, the next pallet can already be delivered. This results in efficient handling. The station is a standard module, and automatic pallet in-feed is optional. The cell includes entry guides that center the pallet position.

Safety is ensured through fencing, an access-controlled safety door, and light curtains for safe entry into the robot cell.

The ADLS provides a reliable solution for companies that want to optimize drum handling, increase

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

TECHNICAL DATA	EU	USA
Total weight	: 4000 kg	8820 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:	: 3700*5700*4000 mm	146*225*158 inch
Installed power	: 4.5 kW	6 HP

CAPACITY

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

CLEANING

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

  Cleaning can be done using mild cleaning agents or water within defined limits. Maximum water pressure is 7 bar, with a minimum spray distance of 0.4 m and a spray angle of at least 45°. Sensitive components must not be sprayed directly. Compressed air is not permitted.

  All protective covers remain in place during cleaning. Surfaces are wiped dry after cleaning to maintain 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
Max weight drum	300 Kg	775 Lbs
	Closed drums	

POWER SUPPLY / CONTROLES

- 3 Phase 400V 50Hz 32A+ neutral + earth, ABB and Siemens controls
- 3 Phase 480V 60Hz 30A + earth, ABB 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
- Automatic supply and return conveyor
- Barcode scanning

PROCESS OPTIONS

The ADLS can be integrated into any drum-handling setup where drums are loaded, positioned, or processed. The system can be configured to match customer-specific layouts.

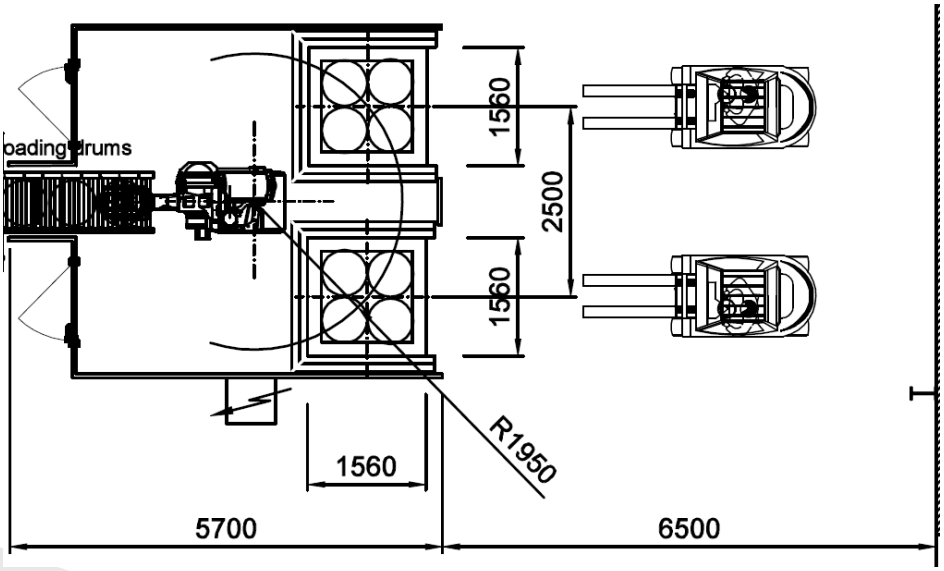
The ADLS can also be connected to a Logistics Management System (LMS) for full track-and-trace functionality. This allows drum identification, movement, and processing status to be monitored throughout the production line.

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

- DPRCS
- DPRICS
- DAPS
- DL-Paste
- ADOS

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

Website : www.fluidor.com
Telephone : +31 162 581450

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

Spares : Mr. Wing Ho Kwok
Telephone : +31 162 581468
Email : wh.kwok@fluidor.com

Service : Service department
Telephone : +31 162 581466
Email : service@fluidor.com