

# MACHINE SPECIFICATION

## FLUIVAC



Machine name	Fluivac	Manufacturer	Fluidor Equipment B.V.
Publication date	08-03-2024	Address	Ramgatseweg 25, 4941VN Raamsdonksveer, The Netherlands
Version	2.1	Telephone	+31(0)162 581 450

## DESCRIPTION

Fluivac is designed for efficient emptying of liquid and viscous products from process lines up to Ø100mm. This compact build unit with integrated Siemens or Allen Bradley HMI control panel consists of a complete configuration of high quality components like compressor, pressure vessels, (control-)valves and sensors. The system can automatically clear up to 300 different production and CIP process lines by programmed recipes. User-friendly by simple parameter settings for easy process operation and once set up, can be integrated in automatic production process using PROFINET or Ethernet/IP. This innovative, patented system recovers and saves valuable utilities and turns waste into sellable product. Integrate FLUIVAC into your production process and save up to **98%** of usable product that's left in your pipes and components.

FLUIVAC cleans your systems in 4 steps, with sterile filter air and a minimum amount of water:

1. **First step: PUSH**  
FLUIVAC pushes the product out of the pipes in a controlled manner, with compressed air. This saves 60-70% of your product.
2. **Second step: BLOW**  
FLUIVAC blows the rest of the product out of the pipes with an internal compressor, which saves 90 to 98% of your product.
3. **Third step: RINSE**  
FLUIVAC uses a small amount of water to flush out the last product from the inner surface, for a visually clean pipe.
4. **Last step: DRY**  
FLUIVAC dries the pipes, ready for new production. The next production doesn't mix with water or other product, so there's no waste from the start.

When you combine FLUIVAC with your CIP system, you will also save extra water and detergent.

FLUIVAC helps you achieve your sustainability goals. With FLUIVAC, you recover up to **98%** of valuable produce and save up to **96%** of water plus a lot of energy and time.

## 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
- Machine control by HMI
- Control cabinet IP55 / NEMA 12 (VX25.....,various sizes, AISI 304)
- Module for remote internet access
- Construction parts AISI304
- Piping parts AISI 316
- Pressure vessels and filter housing AISI304, will be build according the pressure Equipment Directive (PED 2014/68/EU). With a design standard according EN 13445, ASME VIII, category 4 working Pressure 7 bar and design pressure 10 bar
- Filter housing AISI304, will be build according the pressure Equipment Directive (PED 2014/68/EU). With a design standard according EN 13445, ASME VIII, category 2 working Pressure 7 bar and design pressure 10 bar
- Piping parts AISI 316, will be build according the pressure Equipment Directive (PED 2014/68/EU). With a design standard according EN13480, ASME B 31.1, category Art 4, par. 3 working Pressure 7 bar and design pressure 10 bar
- Outlet air filtered by 0,2 µm air filter
- 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	: 1700 kg	3750 lbs
· CIP temp	: 5 - 90 °C max 60 minutes	41 - 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	
· Adjustable machine support legs	: 80 -160 mm	3.15 - 6.3 inch
· Dimensions h*w*d:	: 2210*1240*2065 mm	87*49*81 inch
· Installed power	: 50 kW	68 HP

## CLEANING

- We recommend regularly cleaning part of the piping system within the Fluivac and from the Fluivac to the product routes using a Clean-in-Place (CIP) method.
- The Fluivac can be manually cleaned both internally and externally, which can be performed in combination with the maintenance frequency, every 6 months or 500 operating hours

## MACHINE EXECUTIONS

- One standard execution

## POWER SUPPLY / CONTROLES

- 3 Phase 400V 50Hz 125 A+ neutral + earth, Siemens controls
- 3 Phase 480V 60Hz 125 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

- 3 Phase 200V 50Hz + earth, Siemens controls

## MACHINE PICTURES



## ANNEXED DOCUMENTS

- Machine Lay-out
- Machine P&ID
- Fluidor standard components
- Fluivac integration
- Fluivac route document
- Communication IO, Time chart and Flowchart

## GENERAL INFORMATION

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