

# LAFOOD® FAST FLOAT

*SYSTEM FOR REHYDRATION YEAST AND DRY  
PREPARATION OF PIED DE CUVE IN AUTOMATIC*

**IYEAST®FASTCONTROL 450**

**IYEAST®FASTCONTROL 900**



## **DESCRIPTION**

### **FRAME**

n° 1 Supporting frame for the whole system consisting of a strong structure made with square section AISI 304 stainless steel tubular bars, installed on wheels with brakes.

### **FITTINGS**

Fittings in AISI 316 stainless steel, DIN type ALFA LAVAL LKM, Ø 50 and 40 process hoses, Ø 25 service hoses.

### **PUMPS**

#### **N° 1 RE-CIRCULATION CENTRIFUGAL PUMP**

Low cycles electric pump, with rotating body and AISI 316 stainless steel diffuser, directly coupled to a three-phase 4 poles electric motor of 1450 rpm. V. 380, 1,1 KW, 50Hz.

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## **N° 1 PUMP FOR NUTRIENTS DOSAGE**

Double membrane teflon pneumatic pump. Used for the dosage of the sugar and activator solutions during the rehydration process, and for the dosage of the sanitizing product during the washing cycles.

## **TANK**

### **N° 1 TANK WITH A 900 L CAPACITY (IYEAST®FASTCONTROL 900)**

### **N° 1 TANK WITH A 450 L CAPACITY (IYEAST®FASTCONTROL 450)**

Entirely made of AISI 304 stainless steel, complete with:

- cooling jacket (refrigerating solutions is not included)
- device to reduce foams production during the process;
- device to allow air dissolution;
- minimum level switch;
- fittings for the filling, circulation and total emptying;
- Injection point for nutrient and sugar solution;
- Ø 400 mm upper lid for the introduction of yeast and for visual inspection;
- Spray ball for tank sanitization ;
- Connection to reintegration of the foam on the outlet
- Housing for temperature probe

## **HEATING SYSTEM**

### **N° 2 ELECTRIC RESISTANCES**

for the thermal conditioning of the recirculating solution, made of a thick structure and heating coil directly installed inside the circulation tubing. The system is designed to ensure complete washing and sanitization of the entire exchanging surfaces.

Installed power is 3600 Watt/ each.

## **INSTRUMENTS FOR PROCESS CONTROL**

### **OPERATION CONTROL**

The system for rehydration and for pied de cuve preparation is completely automatic.

The only requested manual operation is connecting the external lines for the transfer of the product.

The machine is operated and controlled by means of a touch-screen display, which allows switching on or off the automatic program intended for the rehydration or for the washing cycles.

The PLC software continuously performs a diagnosis of the instruments on board and checks that all operations are done according to the parameters foreseen.

Where dysfunctions are detected they are signaled and described on the display.

### **MEASUREMENT OF THE AMOUNT OF WATER LOADED**

Sensor made out of a fitting with a built-in rotor and an electronic module, connected via a bayonet fitting. The Hall effect sensor generates a frequency signal which is proportional to the flow, allowing signal transmission. It is installed on the water feed line.

### **TEMPERATURE CONTROL**

n° 1 - PT100 probe for temperature measurement, placed on the circulation tank.

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## AUTOMATION

- n° 1 actuator for the butterfly valve on the circulation line;
- n° 1 actuator for the butterfly valve on the discharge line;

## CONTROL PANELS

### N° 1 ELECTRICAL CONTROL PANEL WITH PLC AND OPERATION SOFTWARE

Consisting of a stainless steel box AISI 316, protection rate IP55, complete with main switch, PLC, TOUCH SCREEN DISPLAY, OPERATION LIGHT INDICATORS, MAIN POWER LIGHT INDICATOR, DIN GUIDES.

### N° 1 ELECTRO-PNEUMATIC PANEL

Consists of a water-proof polycarbonate box, protection rate IP56, complete with:

- 1 pressure reducer, for compressed air and nitrogen
- 1 minimum pressure reducer for compressed air and nitrogen
- electrical valves for the control of the machine's overall automation.
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## REQUIRED SERVICES

Power supply, 380V 3F + E, 50 hz, stabilized;

Maximum installed power around KW 8,5;

Washing water with a hardness not higher than 15° Fr, with insignificant mg/L O<sub>2</sub> oxidability, free from suspended or sedimentable solids; flow rate 1.000 L/h;

Compressed air at 8 bar, oil and humidity free (consumption 1-2 N/m<sup>3</sup>/h);

## TECHNICAL CHARACTERISTICS OF THE PLANT (IYEAST®FASTCONTROL 450)

Width	850 mm
Length	1400 mm
Height	1650 mm
Weight	250 kg

## TECHNICAL CHARACTERISTICS OF THE PLANT (IYEAST®FASTCONTROL 900)

Width	850 mm
Length	1400 mm
Height	1950 mm
Weight	300 kg

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## **ITYEAST®FASTCONTROL 150**

Per la reidratazione fino a 7 Kg di lievito secco attivo



### **FRAME**

n ° 1 Support frame appliance built in robust stainless steel structure AISI 304 in tubular frame mounted on rotating wheels equipped with brake.

### **FITTINGS**

Fittings in stainless steel AISI 316 ALFA LAVAL LKM type DIN, process pipes Ø 50 and 25, service pipes Ø 20.

### **PUMPS**

n ° 1 centrifugal recirculation pump

Low revolving electric pump with rotating body and diffuser in stainless steel AISI 316, coupled directly to 1450 rpm three-phase four-pole electric motor. V. 380, 0.25 KW, 50Hz.

### **N ° 1 NUTRIENT DOSING PUMP**

Teflon double diaphragm pneumatic pump. Used for the dosing of the sugar and activator solution during the rehydration phases and the sanitizing product dosage during the washing phases.

Tank

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## NO. 1 RECIRCULATING TANK OF 150 L CAPACITY

Completely made in 304 stainless steel, complete with:

- forced circulation biomass coolant pocket, suitable for refrigerant fluids provided by the cellar.
- Rehydration foam abatement system;
- oxygen dissolving system
- minimum level float;
- fittings for filling, recirculation and total drainage;
- Activator injection point;
- upper Ø 400 cover for yeast insertion and inspection;
- Spray ball for sanitizing the tank;
- Temperature probe housing.

### RESISTANCES

No. 1 electric resistors for the thermal conditioning of the recirculating solution, made of a thick structure and heating coil directly installed inside the circulation tubing. The system is designed to ensure complete washing and sanitization of the entire exchanging surfaces.

Power installed 10000 watts.

### PROCESS CONTROL EQUIPMENT

Operational control

The management of the rehydration plant is carried out in semiautomatic mode.

The manual intervention required by the operator consists of:

- connection of external lines for product transfer
- water line connection, loading water for rehydration
- yeast loading
- preparation of nutrient solution
- Biomass emptying after rehydration

The operation of the system during rehydration is controlled and controlled by means of a touch-screen display, which allows you to start or stop the automatic program for rehydration or washing phases.

The PLC software continuously performs diagnostics on the onboard instrumentation and checks that all operations are carried out in accordance with the parameters provided.

Intercepted abnormalities are reported on the screen with descriptive messages.

### MEASURE THE LOADED VOLUME

It will be the operator who will act on the appropriate manual valve. To check the correct amount of water inserted, there is a graduated level rod on the tank of the plant, which allows to check when the loaded water corresponds to value indicated by the control panel during the output of the yeast quantity to rehydrate.

### TEMPERATURE MEASUREMENT

No. 1 temperature sensor type PT100, located on the recirculation tank;

### AUTOMATION

- n ° 1 actuation for plate valve for water or glycol cooling circuit;

### ELECTRICAL CABINET

n ° 1 electrical cabinet with plc and management software

Made of PVC box, IP55 degree of protection, complete with general line switch, touch screen PLC display, operating lights, voltage indicator light lamp, DIN rail and terminal blocks.

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n ° 1 electropneumatic frame

Made of a polycarbonate waterproof casing, IP56 degree of protection, complete with:

- 1 compressed air and nitrogen pressure reducer
- 1 minimum compression pressure switch for compressed air and nitrogen
- solenoid valves for the control of:
  - needle valve on the reservoir cooling circuit
  - nutrient dosing pump
  - injection rate injection compressed air into the tank

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The instructions correspond to the current state of our knowledge and experience, so do not absolve the user from complying with the standards of safety and security or misuse of the product. Also, they should not be considered an express or implied warranty or condition for the sale of this product.

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