OENOFRANCE

Dynamic Infusion System

Use and Maintenance

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Summary

1 : Introduction

To correctly and safely use the machine, you must carefully read this manual and follow all of the instructions in it.
This manual is an integral part of the machine and must be retained to ensure that the operator can easily consult it.

IMPORTANT!
If it is lost, ask for a copy from your local dealer or from DAINESE srl (limited liability company).

IMPORTANT!
DAINESE srl accepts no responsibility for problems caused by non-compliance with the contents of this manual, or negligence or inappropriate use of the machine.

1.1 AIM OF THE MANUAL

This manual was drafted by DAINESE srl and is an integral part of the machine. The instructions provided are intended for persons responsible for the installation, use, cleaning, maintenance, and storage of the machine. Compliance with the recommendations ensures the soundness of operations and the safety of operators

Give a copy of this manual to the person responsible for using and maintaining the machine.

2 : Description

The DYNAMIC INFUSION system was created to improve the use of alternative products. Indeed their position in the vat during maturation is often restricted by the need to have to modify the vats to facilitate their use. In addition, the still frequent requirement to manage contact time in a punctual and timely manner has led to the development of a system which can offer these functions, and others, with a single device: the DYNAMIC INFUSION system.

MORE PRACTICAL TO USE

- The pilot vat can be filled and emptied from the outside without having to install infusion bags inside the vat with the wine to be treated
- Thanks to the homogenisation propeller blades, the drainage system facilitates the removal and elimination of alternative products already used

IIMPROVED USE OF ALTERNATIVE PRODUCTS

- The system makes it possible to manage extraction kinetics in batches or continuously

- The homogenisation system makes it possible to extract alternative products more efficiently

THE OPTION TO MANAGE EXTRACTION KINETICS

- The option to manage the recirculation rate of the wine makes it possible to accelerate or slow down extraction kinetics
- The option to programme pause and work cycles for the pump and homogenisation system makes it possible to control the extraction processes
- The option to prepare highly-concentrated wines

REDUCTION OF OXIDATIVE PHENOMENA

- The possibility of injecting inert gas (N_2/CO_2) helps to eliminate air which will reduce the oxidative impact of wood on the wine to be treated
- The automatic filling system manages the evacuation of air to restrict contact with the wine

FULLY AUTOMATED CYCLES

- Programming all the control settings, on a weekly or monthly basis, makes it possible to establish fully automated extraction processes which make the treatment repeatable and give the user control of it.

MANAGING THE OXYGEN SUPPLY

- The embedded oxygenation unit helps to control the procedures related to polymerisation and the integration of compounds extracted from the wood
- Adding it, in the slow recirculation stage, improves homogenisation and the transfer of oxygen inside the vat with the wine

3: Functions

The user interface on the control panel has a 5" colour touch screen. You can select different system settings and functions.

When you switch it on, the loading page is displayed on the touch screen and then the main control page will appear.

Main page

Settings Cycle Programming
Prewash
Filling
Work Recirculation
Draining
Manual Management

Fig. 1

The main page (Fig. 1) is divided into two sections:

1) on the left the diagram of the vat's synoptic structure, indicating the status of the different settings and values identified by the system.
2) on the right are the keys to access the configuration pages and to start operations. When carrying out an operation, the keys will be replaced by text boxes which indicate the settings for carrying out the operation in progress.

Here are the details about the controls in each of the two parts. For the controls to carry out operations, refer to the relevant paragraphs.

On the diagram of the vat, the following settings are displayed:

- Temperature: temperature of the vat given in °C.
- Pressure: vat pressure given in mbar.
- Flow: flow of liquid which goes through the pipes given in hl/h.

If necessary, other icons will be displayed:

- General alarm: if the emergency stop is activated, the system will interrupt any operation in progress, turn off the pump and the stirrer. A large alarm icon is displayed (red triangle), in a central position on the vat.
- Doors alarm: if 1 or more doors are open, an alarm icon is displayed on the lower door. Any operation in progress is interrupted, and the pump and stirrer (if present) are stopped.
- Active Pump: when the pump is active, a green LED icon is displayed next to the image of the pump.
- Active Stirrer: when the stirrer (if present) is active, a green LED icon is displayed next to the image of the stirrer motor.
- Pump Alarm: when the pump is stopped following an alarm, an alarm icon is displayed next to the image of the pump.
- Stirrer Alarm: when the stirrer (if present) is stopped following an alarm, an alarm icon is displayed next to the image of the stirrer.

In the section on the right, the following keys are displayed:

- *Settings*: by pressing this key, you access the general system settings page.
- *Cycle Programming*: by pressing this key, you access to the work cycle programming page.
- *Prewash*: by pressing this key, you start a prewash operation with nitrogen.
- *Filling*: by pressing this key, you start a filling operation.
- *Work*: by pressing this key, you start a work operation.
- *Recirculation*: by pressing this key, you start a recirculation operation.
- *Draining*: by pressing this key, you start a draining operation.
- *Manual*: by pressing this key, you access the manual controls page.

Settings page

This screen allows you to change the system settings. There are five sections:

1) General: general system settings.
2) Prewash: settings for the prewash operation.
3) Filling: settings for the filling operation.
4) Work: valid general settings for each work cycle.
5) Recirculation: settings for recirculation.
6) Draining: settings for draining.

At the bottom on the right is the key to return to the main page.

Details about all settings in the five sections

General settings

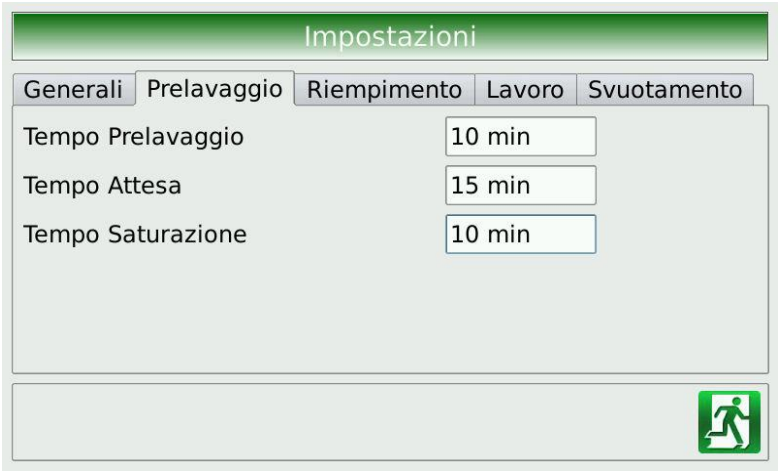
Settings
General
Prewash
Filling
Work
Recirculation
Draining
Language
Date/Time
OxiRight Authorisation
Flow sensor full scale
24 injections/l

Fig. 2

On this screen (Fig. 2) are the following settings:

- Language: by pressing the box it is possible to select the system language
- Date/Time: by using the arrows on the side, you can set the system date (day, month, year), and time (hours, minutes).
- OxiRight Authorisation: by pressing the LED icon you can authorise the use, or not, of oxygenation during work cycles. When the LED is red, oxygenation is not active; when the LED is green, oxygenation is active.

Prewash settings



Settings
General
Prewash
Filling
Work
Draining
Prewash Time
Standby Time
Saturation time

Fig. 3

This screen (Fig. 3) allows you to set the following settings:

- Prewash Time: duration of the first stage of the prewash operation
- Standby Time: duration of the standby stage of the prewash operation
- Saturation Time: duration of the second stage of the prewash operation

Filling settings

Settings
General
Prewash
Filling
Work
Draining
Filling Time
Pump speed in Hz

Fig. 4

This screen (Fig. 4) allows you to set the following settings:

- Filling Time: duration of the filling operation
- Pump speed: speed of the pump during the filling operation

Work settings

Settings
General
Prewash
Filling
Work
Recirculation
Draining
Minimum /Maximum temperature
Minimum /Maximum pressure
Dose in litres
Pump rotation direction straight reverse
Nitrogen Valve - Work /pause time

Fig. 5

This screen (Fig. 5) allows you to set the following settings:

- Minimum /Maximum Temperature: temperature thresholds that determine the work interval
- Minimum /Maximum Pressure: pressure thresholds that determine the work interval.
- Type of oxygenation: the MICRO and MACRO keys allow you to select the unit of measurement for oxygen dose to use. By choosing MICRO, the doses used are given in mg/l/month, and by choosing MACRO, the doses used are given in mg/l/day.
- Dose: doses of oxygen to use (in mg/l/month or mg/l/day depending on the type of oxygenation chosen)
- Litres: litres of product to oxygenate

- Pump Rotation Direction: direction of pump rotation in Loading and Work operations
- Nitrogen Valve - Work /Pause time: during Work cycles it is possible to open and close the nitrogen injection valve with programmable Pause/Work intervals. Work times are given in seconds, and Pause times in minutes.

Recirculation settings

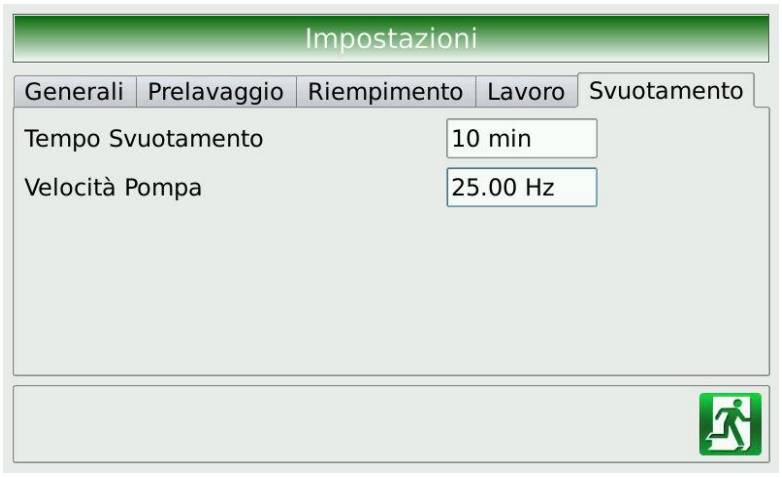
Settings
General
Prewash
Filling
Work
Recirculation
Draining
Recirculation Time
Pump Action Time
Pump Pause Time
Pump speed in Hz

Fig. 6

This screen (Fig. 6) allows you to set the following settings:

- Recirculation Time: duration of a recirculation operation. This setting is only taken into account when you start a recirculation operation by pressing the key on the main page
- Pump Action Time: time during which the pump is active during recirculation.
- Pump Pause Time: time during which the pump is inactive during recirculation.
- Pump Speed: speed of the pump during recirculation.

Draining settings



Settings
General
Prewash
Filling
Work
Draining
Draining Time
Pump speed in Hz

Fig. 7

This screen (Fig. 7) allows you to set the following settings:

- Draining Time: draining time
- Pump speed: pump speed during the draining operation

Cycle programming page

Days
Programme
Type
Wine
Inverter speed (Hz)
Pump pause time

Fig. 8

This screen (Fig. 8) allows you to programme work cycles. There are two parts:

1) Programming days of work: in this part (on the left) you can add the days of work required, and match them with a cycle.
2) Programming work cycles: in this part (on the right) you can change the work cycle settings and add customised cycles.

Programming work cycles

The cycles table is displayed at the top. There are five predefined cycles for each Type/Wine combination; the Type can be Must or Wine, the Wine can be White, Rosé or Red. In total there are therefore thirty predefined cycles. When the device is new, all of the settings for these cycles have the same value. The user can change the settings of the predefined cycles or add new cycles. Each added cycle is a Customised type (and the Wine field remains empty).
The settings that the user can change are as follows:

- Inverter speed (Hz): speed of the inverter (0 Hz to 50 Hz).
- Pump pause time: pump pause time. When the cycle is activated, the pump alternates between periods of activity and inactivity.
- Pump work time: pump work time. When the cycle is activated, the pump alternates between periods of activity and inactivity.
- Stirrer pause time: stirrer (if present) pause time. When the cycle is activated, the pump alternates between periods of activity and inactivity.
- Stirrer work time: stirrer (if present) work time. When the cycle is activated, the pump alternates between periods of activity and inactivity.

To change a setting you need to press the relevant key.

At the bottom there are two keys:

- Add Cycle Key: by pressing the green button with the + symbol, you can add a Customised type cycle to the table.
- Cycle Elimination Key: after you have selected one of the cycles in the table (the corresponding line turns blue) you can eliminate this cycle from the table by pressing the red key with the × symbol. The predefined cycles cannot be eliminated.

Programming days of work

The table of days is displayed at the top. Each line corresponds to a day of work and a defined cycle. The user can add new days or modify those present by changing the associated cycle. To change the cycle associated with a day in the table, you need to press the relevant box and put in the figure that identifies the cycle chosen in the work cycle table.

At the bottom there are two keys:

- Add day key: by pressing the green key with the + symbol, you add a day of work to the table. If the table is empty, the new day will be associated with cycle 0. If one or several days are present, the new day will be added at the bottom of the table and associated with the cycle on the last existing day.
- Day elimination key: after you have selected one of the days in the table (the corresponding line becomes blue) you can eliminate this day from the table by pressing the red key with the × symbol.

At the bottom on the right, there is the key to return to the main page.

Manual functioning page

Manual
Time Pressure Flow
Pump On Pump Reversed Inverter Speed
Bleed Valve Valve In Valve Out
Recirculation Valve Nitrogen Valve
Heating

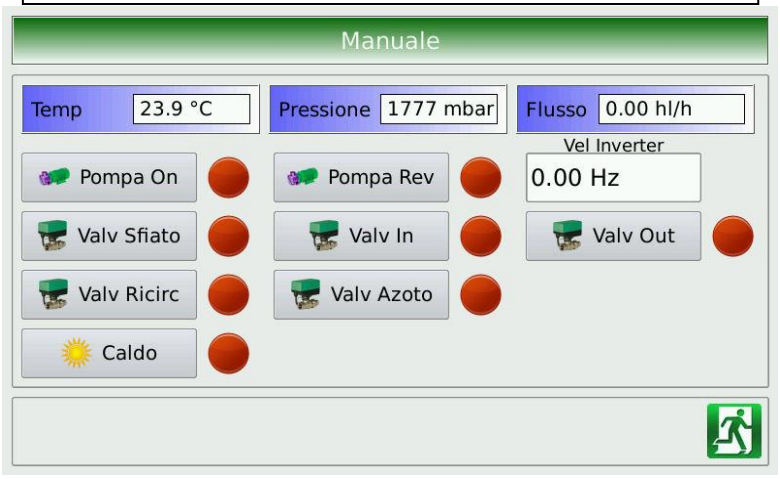


Fig. 9

This screen (Fig. 9) allows you to activate each part of the system
CAUTION: When you activate the system manually, the security controls will not work to avoid any problems with the system and for operators. The only active controls are those for the doors (if open, they will deactivate the pump and stirrer) and the alarm stopper.

The following settings will be displayed in the upper part:

- Temperature: temperature of the vat given in °C.
- Pressure: vat pressure given in mbar
- Flow: flow of liquid which goes through the pipes given in hl/h.

In the centre there are the following controls:

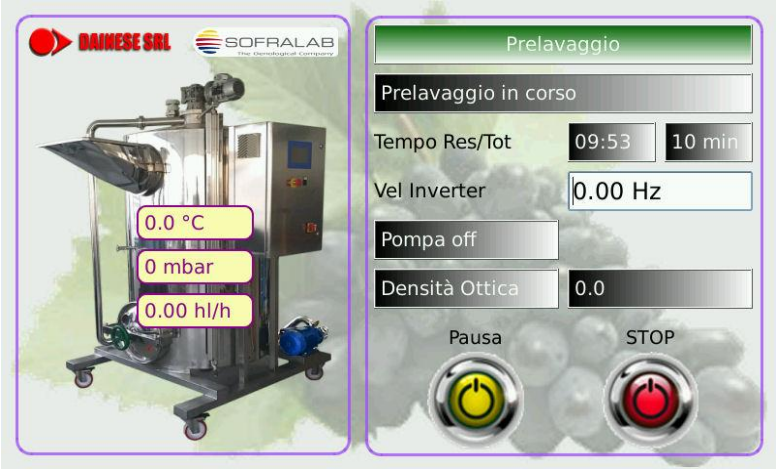
- Stirrer Start/Stop Key: this key activates the stirrer (if present) motor
- Pump On Start/Stop Key: this key activates the pump, with rotation in a clockwise direction. For the pump to work, you need to set an inverter speed which is not 0 in the relevant box.
- Pump Reversed Start /Stop Key: this key activates the pump, with rotation in the opposite direction. For the pump to work, you need to set an inverter speed which is not 0 in the relevant box.
- Inverter speed: allows you to change the speed of the inverter (from 0 Hz to 50 Hz)
- Bleed Valve Start/Stop Key: this key activates the bleed valve.
- Valve In Start/Stop Key: this key activates the inlet valve.
- Valve Out Start/Stop Key: this key activates the outlet valve.

- Recirculation Valve Start/Stop Key: this key activates the recirculation valve.
- Nitrogen Valve Start/Stop Key: this key activates the nitrogen valve.

- Heating Start/Stop Key: this key activates the heating elements.

At the bottom right, there is the key to return to the main page.

Prewash



Prewash
Prewash in progress
Remaining /total time
Inverter speed
Pump off
Optical density

Pause STOP

Fig. 10

By pressing the prewash key, you start the relevant operation.

The Prewash includes the following stages:

- Correct positioning of the valves; if the valves are automatic, the system automatically positions them correctly; otherwise the user will be required to reposition them manually. In any case, the system notifies the user to correctly position the valves and the operation will not proceed until the user confirms this.
- Prewash: the system opens the nitrogen valve and waits for the time defined by the Prewash Time setting (see the Prewash settings paragraph).
- Standby: the system closes the nitrogen valve and waits for the time defined by the Standby Time setting (see the Prewash settings paragraph).
- Saturation: the system opens the nitrogen valve and waits for the time defined by the Saturation Time setting (see the Prewash settings paragraph).

During a prewash, the following data will be displayed on the right hand side of the main page:

- System status: indicates the current stage of the operation.
- Time remaining: indicates the time remaining before the end of the current stage of the operation.
- Total time: indicates the total time set for the current operation.

In the lower part, you will see the following keys:

- Pause: press the yellow key to pause the operation. When the operation is paused, the key turns green (Start). Press it again to resume the interrupted operation.
- Stop: press the red key to stop the operation.

Filling

Filling
Filling in progress
Remaining/total time
Inverter speed
Pump on
Optical density

Pause STOP

Fig. 11

By pressing the Filling key, you start the relevant operation.

Filling includes the following stages:

- Correct positioning of the valves; if the valves are automatic, the system automatically positions them correctly; otherwise the user will be required to reposition them manually. In any case, the system notifies the user to correctly position the valves and the operation will not proceed until the user confirms this.
- Filling: the system activates the pump to fill the vat with liquid. The time this stage takes corresponds to the value of the Filling Time setting (see the Filling settings paragraph).

During filling, the following data will be displayed on the right hand side of the main page:

- System status: indicates the current stage of the operation.
- Time remaining: indicates the time remaining before the end of the current stage of the operation.
- Total time: indicates the total time set for the current operation.
- Pump speed: indicates the speed set on the inverter. The user can modify this speed by pressing the relevant box.

- Pump status: indicates if the pump is active, not active or has set off the alarm.

In the lower part, you will see the following keys:

- Pause: press the yellow key to pause the operation. When the operation is paused, the key turns green (Start). Press it again to resume the interrupted operation.
- Stop: press the red key to stop the operation.

Work

Work
Work in progress
Day 1 of 2 – Programme 1
Inverter speed
Pump on
Heating off

Pause STOP

Fig. 12

By pressing the Work key, you start the relevant operation.

Work includes the following stages:

- Correct positioning of the valves; if the valves are automatic, the system automatically positions them correctly; otherwise the user will be required to reposition them manually. In any case, the system notifies the user to correctly position the valves and the operation will not proceed until the user confirms this.
- Work: the system carries out the programmed work cycles. The work stage will end at the end of the time set. During a work cycle, the pump and the stirrer (if present) get activated separately based on the pause/work time set (see the Cycle Programming page). It is even possible to activate the oxygenation to supply the quantity of oxygen set; oxygenation will not take place unless the pump works. You can even activate the nitrogen injection valve by setting the pause/work times on the Work Settings page.

When a Work operation is paused, the recirculation Pause/Work cycles alternate based on the time set on the relevant page.

When the pump is active in the recirculation stage and if the temperature is lower than the value of the setpoint, a heating element will be activated to heat the liquid.

During Work, the following data will be displayed on the right hand side of the main page:

- System status: indicates the current stage of the operation.
- Cycle in progress: indicates the current work day, the total number of days set and the cycle currently in progress
- Time remaining: indicates the time remaining before the end of the current stage of the operation.
- Pump speed: indicates the speed set on the inverter. The user can modify this speed by pressing the relevant box.
- Pump status: indicates if the pump is active, not active or has set off the alarm.

- Pump remaining time: indicates the time left before the pump is activated again (if inactive) or deactivated (if active).
- Stirrer (if present) remaining time: indicates the time left before the stirrer is activated again (if inactive) or deactivated (if active).
- Heating status: indicates if the heating element is active or not.
- Setpoint temperature: indicates the temperature to be maintained. The user may modify this value by pressing the relevant box.

In the lower part, you will see following keys:

- Pause: press the yellow key to pause the operation. When the operation is paused, the key turns green (Start). Press it again to resume the interrupted operation. When the Work operation is paused, it is possible to modify the cycle programming by selecting the key at the top right to access the relevant page (the cycles will be taken into account from the cycle after the one in progress onwards).
- Stop: press the red key to stop the operation.

Recirculation

Recirculation work
Recirculation
Remaining/total time
Inverter speed
Pump on
Heating off

Pause STOP

Fig. 13

By pressing the Recirculation key, you start the relevant operation.

Recirculation includes the following stages:

- Correct positioning of the valves; if the valves are automatic, the system automatically positions them correctly; otherwise the user will be required to reposition them manually. In any case, the system notifies the user to correctly position the valves and the operation will not proceed until the user confirms this.
  To carry out the recirculation operation, the inlet and outlet valves remain closed and the recirculation valve will be open so that the wine circulates inside the vat.
- Recirculation: the system activates and deactivates the pump by alternating the pause/work time based on the values programmed on the Recirculation Settings page. During recirculation work, the pump is activated with reverse rotation in order to stop it taking in air from the top of the vat. The recirculation time depends on the value of the Recirculation Time setting (see the Recirculation Settings paragraph).

When the pump is active and if the temperature is lower than the value of the setpoint, a heating element will be activated to heat the liquid.

During Recirculation, the following data will be displayed on the right hand side of the main page:

- System status: indicates the current stage of the operation.
- Time remaining: indicates the time remaining before the end of the current stage of the operation.
- Total time: indicates the total time set for the current operation.
- Pump speed: indicates the speed set on the inverter. The user can modify this speed by pressing the relevant box.

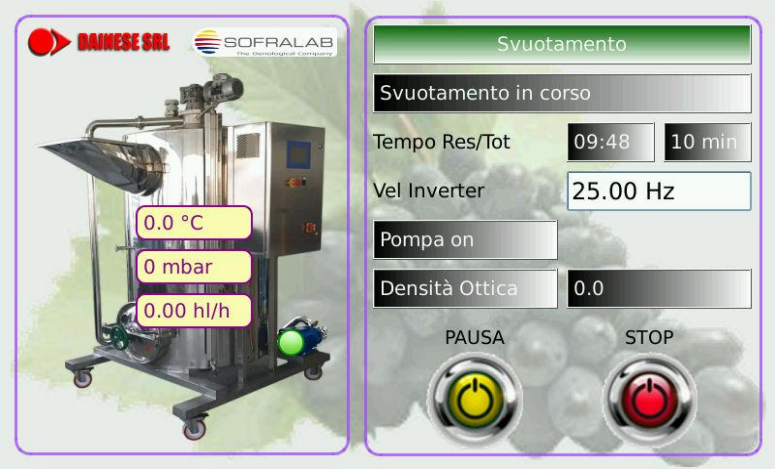
- Pump status: indicates if the pump is active, not active or has set off the alarm.
- Pump remaining time: indicates the time left before the pump is activated again (if inactive) or deactivated (if active).

- Heating status: indicates if the heating element is active or not.
- Setpoint temperature: indicates the temperature to be maintained. The user may modify this value by pressing the relevant box.

In the lower part, you will see following keys:

- Pause: press the yellow key to pause the operation. When the operation is paused, the key turns green (Start). Press it again to resume the interrupted operation.
- Stop: press the red key to stop the operation.

Draining



Draining
Draining in progress
Remaining/total time
Inverter speed
Pump on
Optical density

Pause STOP

Fig. 14

By pressing the Draining key, you start the relevant operation.

Draining includes the following stages:

- Correct positioning of the valves; if the valves are automatic, the system automatically positions them correctly; otherwise the user will be required to reposition them manually. In any case, the system notifies the user to correctly position the valves and the operation will not proceed until the user confirms this.

- Draining: the system activates the pump with reverse rotation to drain the vat of the wine that has been accumulated. The draining time depends on the value of the Draining Time setting (see the Draining Settings paragraph).

During Draining, the following data will be displayed on the right hand side of the page:

- System status: indicates the current stage of the operation.
- Time remaining: indicates the time remaining before the end of the current stage of the operation.
- Pump speed: indicates the speed set on the inverter. The user can modify this speed by pressing the relevant box.
- Pump status: indicates if the pump is active, not active or has set off the alarm.

In the lower part, you will see following keys:

- Pause: press the yellow key to pause the operation. When the operation is paused, the key turns green (Start). Press it again to resume the interrupted operation.
- Stop: press the red key to stop the operation.

4 : Components

The DYNAMIC INFUSION SYSTEM is made up of the following parts (Fig. 1) :

- Stainless steel vat on a trolley with four rotating and braked wheels
- IP65 electric panel with 7" colour touch screen.
- Loading spout
- Removable pipes (if any)
- Automatic valves (if any)

5 : Condition on delivery

The DYNAMIC INFUSION SYSTEM is supplied with accessories, in line with the agreements made at the time of purchase. Delivery of the machine is generally handled by a third party. Unloading and moving the machine must be done with a forklift truck or manually and are the sole responsibility of the recipient.

DAINESE srl accepts no responsibility for damage which may occur during shipping, unloading and commissioning; therefore we recommend that all operations are done in strict compliance with the standards in force.

6 : Safety devices

- **Braked wheels :**
  - This helps the stainless steel vat to remain in position during operations.
  - **To control, from the start of each operation, the wheels and ensure they are in the brake position and that the trolley is on a horizontal floor.**

- **Door :**
  - Opening one or several doors deactivates or interrupts operations in progress (e.g. impossible to get the stirrer working)

- **Emergency stop :**
  - By pressing the button you deactivate or interrupt the operations done on the system (e.g. impossible to get the stirrer working)

7 : Technical characteristics

- Stainless steel vat on a trolley. Total volume: 225 cm height, 145 x 142 cm base
- Three doors with safety door stops
- Automatic or manual valves
- Automatic valve for nitrogen
- Motorised stirrer (if there is one)
- Pump with inverter
- Heating element
- Temperature sensor
- Pressure sensor
- Flow sensor
- OxiRight micro-oxygenation system
- Stainless steel control panel with 7" colour touch screen
- 380 V AC power supply

8 : Caution

- **Follow the instructions in this manual carefully during the installation, use, cleaning, maintenance and storage of the machine.**
- **DAINESE srl accepts no responsibility for harm to persons, things, or animals which occur following non-compliance with the provisions in this manual.**
- **Electric connections must be done by qualified staff.**
- **The efficiency of the machine must always be checked, especially after prolonged storage.**
- **Clean the machine before and after it is used each time.**
- **It is forbidden to start up the machine before all of the components are properly attached and in position.**
- **Before any operation on the machine, during the installation, cleaning, maintenance and storage stages, check that it is electrically isolated.**
- **It is forbidden to move the machine when it is operating.**
- **If any of the controls stops working, get them repaired immediately.**
- **It is forbidden to remove any accessory when the machine is operating. Before removing any accessory, turn off the machine and isolate it electrically.**
- **Opening the electrical panel must only be done by staff who are qualified and trained to work on such machines. For any requirements, contact the local dealer or DAINESE srl.**
- **The operator using the machine must be informed of and know the contents of this manual.**
- **The operator using the machine must :**
    - not wear clothes which are too baggy or have cuffs that might catch on the machine
    - wear safety (non-slip) shoes
    - ensure that children, animals or unauthorised persons do not get close to the machine
    - avoid putting the machine on a mezzanine or upper floor

9 : Cleanliness of the machine

The machine must be cleaned before and after each work cycle. This is necessary to ensure optimal efficiency of the machine and that it is clean.

Any cleaning operations must be done when the machine is completely isolated electrically.

9.1 CLEANING

Use only detergents and disinfectants which are compatible for use on agri-food machines and comply with the user instructions given on the product packaging.

CAUTION !
Do not use high-pressure cleaners or jets of hot water directly on the machine or on the electric panel; the electrical part must be properly protected during cleaning to avoid water getting on it and dampness.

10 : Assembly

The machine supplied is generally already assembled, but the following items need to be assembled:

- Wood chip loading spout
- Pipes with automatic valves (if any)

If necessary assemble the spout to load wood chips.

Attach the pipes to the DYNAMIC INFUSION system and the vat with the wine to be treated by using the appropriate connections. Before opening the valves, check that the connections are tight.
Connect any automatic valves to the inlet and outlet pipes for the wine to the connectors for the nitrogen.

11 : Electric connection

The DYNAMIC INFUSION system is powered by 380 V AC.

The electric connection and any inspections must be done by qualified staff.

12 : Start-up and usage

When moving the machine ensure that you do not bump into any obstacles when moving it and put it near the vat with the wine to be treated.
Check the stability of the machine after it has been put in the work area, and then block all the wheels with the breaks.
Then assemble the accessory parts required.
Carefully clean the machine.
Start up the system by turning the light switch on the electric panel.

CAUTION !
Tubes must not be flattened or folded under any circumstances when operating the machine.

CAUTION !
If during an operation dangerous situations or serious problems arise, stop the work. Eliminate the cause of danger or get a qualified technical member of staff to carry out any repairs required.

13 : Maintenance

The DYNAMIC INFUSION system does not require any particular maintenance operations apart from being kept constantly clean (see the relevant paragraph).
However, to ensure that the machine is efficient and lasts a long time, it is important to refer to the instructions given in this manual as regards its use and cleanliness.

CAUTION !
All repairs or replacements of parts of the machine must be done by qualified staff or an authorised centre (e.g. local dealer's workshop).

CAUTION !
Before any operation, ensure that the machine is off and disconnected from the mains.

14 : Storage

Having carefully cleaned and rinsed the machine, ensure that it is completely dry as well.
Cover the machine with nylon or equivalent to avoid the accumulation of dust or any extraneous matter getting inside the machine.
If in doubt, contact a qualified technical member of staff or the local dealer.

15 : Scrapping

If you decide to decommission the machine, we advise that you make it unusable and dispose of it in accordance with the rules in force on recycling waste.
The machine is made up of 90 % recyclable ferrous parts and so must be taken to a rubbish dump which is appropriate for ferrous waste. There are no parts or materials which are considered dangerous for recycling.

16 : Warranty conditions

The machine is under warranty for a period of one year from the date of purchase. A purchase document which is valid for tax purposes shall provide proof of the date.
The warranty covers the free supply of parts if they had manufacturing defects originally.
Labour and shipping costs shall be paid for by the user.
The warranty shall not cover defective parts caused by negligence, inappropriate installation, poor maintenance, damage during shipping, or indeed defects which are not the result of manufacturing defects.
The warranty shall no longer be valid if the machine is used inappropriately.