



***VENUS/ LM70***



***Instruction  
manual***



|                                                                          |          |
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# 1 GENERAL INFORMATION

## 1.1 EU Declaration of conformity

### 1. THE AUTOMATIC WEIGHING INSTRUMENT

|                                               |                            |
|-----------------------------------------------|----------------------------|
| <b>TYPE</b>                                   | <b>VENUS 300</b>           |
| <b>Serial number</b>                          | -----                      |
| <b>Capacity (Max</b>                          | <b>6.0 kg</b>              |
| <b>interval (e)</b>                           | <b>0.002 kg</b>            |
| <b>Accuracy class</b>                         | <b>R51 XIII (1) / Y(a)</b> |
| <b>N° of the EC type-approval certificate</b> | .....                      |

2. Manufacturer: **SOCIETÀ COOPERATIVA BILANCI AI CAMPOGALLIANO**  
**Via S. Ferrari, 16 - 41011 Campogalliano MO ITALIA)**

3. This declaration of conformity is issued under the sole responsibility of the manufacturer.  
Object of the declaration: see 1.

4. The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

2014/32/EU (MID): Recommendation OIML R51-1:2006

2014/35/EU (LVD): Norm EN 60950-1:2006

2014/30/EU (EMC): Norm EN 61000-6-3:2007 61000-6-4:2007

2006/42/EC (MD): Norm EN 12100:2010

5. The Notified Body Kiwa Cermet Italia N°0476 has carried out the conformity of the Production quality assurance assessment and issued the certificate: MID\_7\_D\_1.

6. Additional information:

All the instructions given in the Use and maintenance handbook supplied with the instrument must be followed during the utilization, as well as the safety and accident-preventing norms in force in the country of installation.

The CE mark has been applied on the product.

The terminal is also suitable for the creation of automatic weighing instruments approved with the "CE Type Approval Certificate" in conformance with the requirements of Directive 2014/32/EU (MID).

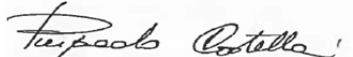
If the instrument is installed in a system, it is PROHIBITED commissioning before the plant, in which the instrument is intended to be incorporated, It is placed in a safe condition and to comply with the requirements.

In addition we declare that the authorized person to set up the technical file of this machine is: Mirco Ing. Valmori

Signed for and on behalf of:

Place and Date of issue:

Campogalliano, 02/05/2016

BILANCI AI GROUP  
Direttore Operations  
Ing. Pierpaolo Castellani  


## 1.2 Introduction

- ***In compliance with the standards in force, persons in charge of the company departments where this machine is to be installed must read the contents of this document carefully and ensure that the operative and maintenance staff read the parts which regard them. The time taken to do this is worth while since you will be able to achieve correct and safe machine operation.***
- The aim of this manual is to provide the operator, through the use of text and illustrations, with essential information regarding the installation, safe operation and maintenance of the weighing system.
- This manual must be kept in a safe place where it is readily available for consultation! Always follow the instructions it provides!
- Safe operation of the system is the responsibility of the operator, who must be fully familiar with it.
- The user is responsible for ensuring that the installation conforms to the applicable regulations.
- The equipment must only be installed by specialised personnel who have read and understood this manual.
- The term "**specialised personnel**" means any personnel who, by virtue of the training they have received and their professional experience, have been explicitly authorised by the "System safety supervisor" to install, operate and service the system.
- Contact your nearest Service Centre if problems occur.
- Any attempt on the part of unauthorised personnel to dismantle or modify the terminal is prohibited. Any such attempt shall invalidate the warranty and relieve the manufacturer from all liability for any damage or injury to persons or property.
- It is also forbidden to alter or remove the data plates and seals on the terminal. Make sure that all plates and seals are present and legible, if not contact the After-Sales Service.
- The manufacturer shall not be liable for any damages caused by incorrect handling of the terminal.
- The information and illustrations contained in this manual were up to date at the time of publication.
- The manufacturer is committed to a policy of continuous product improvement and parts of the system may therefore be subject to modification.
- All the technical information contained in this manual remains the exclusive property of the manufacturer and may not be disclosed to third parties.

- No part of this document may be reproduced or transmitted in any form, including publication in computerised form or on the World Wide WEB, without the explicit written permission of the manufacturer.
- This manual may not be used for purposes other than those directly related to installation, operation and maintenance of the terminal.
- In order to more clearly describe certain maintenance or adjustment operations, some of the illustrations in this manual show the weighing system with the safety guards removed. **Under no circumstances may the system be operated in these conditions. The safety guards may only be removed for the time strictly required to carry out the required repairs or maintenance work after which they must be fitted back in place.**
- This manual is to be considered an integral part of the machine.
- This document is based on the assumption that rules in force for safety and hygiene at work are strictly observed.
- If modifications are made to this document by the Manufacturer, the customer has the responsibility of ensuring that only the updated version of the manual is actually available.
- This manual must be kept with care throughout the entire service life of the machine for future consultation, even in the event that the same is sold on.
- The manual will remain in good condition for a longer time if it is handled carefully, with clean hands, and if it is not placed on dirty surfaces. Keep the manual in a place protected against damp and heat.
- Do not remove, tear out or arbitrarily modify any parts of the manual.
- Upon demand, the Manufacturer can supply further copies of the manual, to be paid for.
- If any modifications are made to the machine installed in the customer's factory, which have been agreed upon with the Manufacturer and which involve modifications to one or more chapters of the Instruction Manual, the Manufacturer, making reference to the distribution list in its records, will send the following items to the holders of the Instruction Manual in question: the chapters affected by the modification with the new revision level, the new cover page and the new introduction, giving the new overall revision level for the Instruction Manual, according to the revision level of its component chapters.
- Following the instructions accompanying the updated documentation, the user is responsible for replacing the former chapters with the new ones and for replacing the cover page and

introduction with those bearing the new revision number in all copies owned.

- Before carrying out any operations on the machine, the trained operators and technicians must carefully read the instructions contained in this manual (and attached documents) and follow them whilst carrying out the various operations. IF YOU HAVE ANY DOUBTS CONCERNING THE INTERPRETATION OF THESE INSTRUCTIONS, CALL OUR AFTER-SALES ASSISTANCE SERVICE FOR THE NECESSARY EXPLANATIONS.
- **The official languages of the Manufacturer are Italian/English.** No responsibility is assumed for translations in other languages, which do not correspond to the original meaning.
- This manual reflects the state-of-the-art the moment the machine was supplied and cannot be considered inadequate if there have been subsequent modifications according to further experience. The Manufacturer reserves the right to update its products and manuals without being obliged to inform the users of machinery previously supplied of these modifications. The provision of information concerning updates of the machine and manual is to be considered as a form of courtesy.
- The Customer Assistance Department is at your disposal to provide, upon demand, all information concerning upgrades applied to the machine.
- Read the instructions given in this manual and follow the recommendations provided before starting the machine.
- In designing this machine, the manufacturer has made every effort to ensure that it is, as far as is possible, INTRINSICALLY SAFE. The machine has been fitted with all guards and safety systems deemed necessary. The manufacturer has also provided sufficient information to enable its safe and proper use.
- For this purpose, in each chapter, and whenever necessary, the following information is given for each MAN-MACHINE INTERACTION:
  - Minimum operator qualification level
  - Number of operators needed
  - State of machine
  - Residual risks
  - Personal protective equipment, mandatory or recommended
  - Human reliability
  - Restrictions/obligations relating to reasonably predictable improper behaviour
- The user may integrate the information provided by the manufacturer with additional operating instructions that must not be

in contrast with the indications given herein, in order to contribute to the safe use of the machine.

- For instance, particular attention must be paid towards the clothing worn during machine operation:
  - avoid wearing loose-fitting garments that may get caught up in parts of the machine;
  - avoid wearing ties or other items that hang loosely;
  - avoid wearing large rings that may cause hands to get caught up in moving parts of the machine.
- The following recommendations must be scrupulously followed:
  - It is absolutely forbidden to run the machine in automatic mode with its fixed and/or mobile guards removed.
  - It is strictly forbidden to disable the safety devices installed on the machine.
  - It is prohibited to perform any operation with the safety devices deactivated.
  - Washing must be carried out with electrical or pneumatic isolating devices cut out.
  - Never modify any part of the machine for any reason whatsoever. In the event of malfunctioning due to failure to observe the above, the manufacturer cannot be held liable for any consequences. Any modifications should preferably be made by the manufacturer directly.
  - Clean the outer casings, panels and controls of the machines using a soft dry cloth or a soft cloth dampened with diluted and mild detergent; do not use any type of solvent such as alcohol or petrol since it may damage the surfaces treated;
  - the machines must be positioned as established by the order; see the layouts provided by the manufacturer; on the contrary, no liability will be accepted for any problems which may arise.
- These instructions fall within standard working practices that operators must observe towards the system. Therefore, during design and construction, the manufacturer has considered them known to the operator.
- **The user must inform persons in charge in order to enable these instructions to be passed on to all those working on the machine.**
- If a safety selector or lock with key is provided, the maintenance personnel and operator must remove the key and keep it with them or in a place that may be accessed only by them or by authorised personnel.

- **To prevent slipping, clean any oil or grease stains on the floor as soon as possible.**
- Do not allow unauthorised personnel to work on the system.
- **DO NOT ATTEMPT TO START THE SYSTEM UP IF IT IS FAULTY.**
- Before using the system, make sure that any dangerous condition has been appropriately eliminated.
- Make sure that all guards and other protections are in place and that all safety devices are present and in working order.
- Make sure there are no foreign objects in the operator control area.
- When there is a risk of being hit by projected or falling parts, both solid or in other form, use goggles with side shields, as well as hard hats and gloves if necessary.
- Wear personal protective equipment whenever prescribed.
- **ELECTRICAL EQUIPMENT. Connection work, starting, maintenance, measurements or adjustments of the electrical equipment and components must be entrusted to qualified electricians. Remember that frequency converters (also known as 'inverters') generate dangerous voltage levels that could seriously harm operators. Before working on these devices, if present, read the technical literature provided by the manufacturer of the device. When working on live electrical components, strictly observe the provisions in force.**
- Manual version **2.0** of **31/12/2009**

### 1.3 Symbols



Below is a list of the symbols used in this manual to alert the reader to the various hazards associated with the operation and maintenance of the instrument.

## DANGER

*Information or procedure where failure to observe the instructions **will result in** death or serious personal injury.*

## ATTENTION

*Information or procedure where failure to observe the instructions **could cause** death or serious personal injury.*

## WARNING

*Information or instructions on how the system is to be operated correctly in order to maximise its service life or prevent loss or damage of programmed data or to optimise operation with regard to metrological standards.*

Text and messages displayed on the terminal are printed in this manual using special characters.

Messages:

*Display messages appear like this.*

Menu pathways:

*Home\Process\Data Modification\Product*

The "\" character indicates the transition from one menu option to the next.

The following initials are used in this manual: **PE** means **weighing and labelling line**, **ET** means **labelling** and **SP** means **weight selector**.

The suffix **.A** refers to the version with air jet applicator.

The numbers show how many belts are installed, e.g. PE110 stands for an automatic Venus with one belt and pivoting applicator.

## **1.4 How to care for the manual**



Take care to prevent the pages, drawings and annexes from being spoilt when the manual is consulted. You are advised to procure a spare copy of the original and to keep it in a safe and protected place.

### **WARNING**

*The contents of this document can be duplicated in their unabridged form and only when the copy is to be exclusively used within the proprietor company.*

*It is forbidden to disclose the contents of this manual to third parties without prior written authorisation from the manufacturer.*

This manual is supplied with a CD-ROM containing information about how to program the archives as well as operating, setting up and servicing instructions for the weighing-pricing machine.

## **1.5 Consulting the manual**



This manual has been organised in such a manner as to facilitate retrieval of information by the user.

It has been divided into chapters as described below.

### **ATTENTION**

*The user must read this manual carefully before proceeding with any operation.*

*If the manual is missing, damaged or not complete, ask the Manufacturer for a copy.*

### **1.5.1 General information**

Contains important reference matter and descriptions about the machine, its identification and the manufacturer. Summarizes the basic characteristics of the line.

### **1.5.2 Safety rules**

Contains information about rules of conduct in relation to safety.

### **1.5.3 Delivery and installation**

Contains information about how to handle and install the line.

### **1.5.4 Controls, indications, turning on and off**

Description of the display-keyboard unit and the user interface.

### **1.5.5 Using the line - programming**

Detailed description of data entry mode.

### **1.5.6 Using the line - process**

Detailed description of the operating modes of the line and the various possible configurations.

### **1.5.7 Maintenance**

Describes the procedures and frequencies with which the routine maintenance operations must be carried out.

### **1.5.8 Options**

Description of non-standard options.

### **1.5.9 Troubleshooting**

Simple instructions about how to resolve the most probable faults.

### **1.5.10 Glossary**

Gives the meanings of the technical terms used in this manual.

## **1.6 Description of the system - general notes**



Venus is a range of products that can be fitted with a different number of belts, with a scale and a printing/application unit. The product range is identified by the name VENUS SR. 100N for the Italian market and Venus 300 for models to be exported.

The machine can be fitted with a transport system running from right to left or vice versa.

For marketing purposes, the machines can have the following names:

### **Single-belt line**

Venus AC110: with a steel frame.

Venus AL110: with an aluminium frame.

### **Two-belt line with first belt for loading and second belt for weighing.**

Venus AC115 with steel frame

Venus AL115 with aluminium frame

### **Two-belt line with first belt for weighing and second belt for labelling.**

Venus AC120 with steel frame

Venus AL120 with aluminium frame

### **Three-belt line**

Venus AC130: with a steel frame.

Venus AL130: with an aluminium frame.

### **Four-belt line**

Venus AC140: with a steel frame.

Venus AL140: with an aluminium frame.

The Venus Series 100 series comprises automatic high-performance weighing-pricing lines suitable for the most different fields of use.

Created with latest generation electronics and controlled by the very highest level, flexible software, they allow users to operate by means of the keyboard and 10.4" graphic display in a simple and intuitive way in order to achieve operating rates of up to 70 weighing operations/minute.

Thanks to their modular design, the Venus Series 100 lines are able to comply with any weight, product shape, frequency and size requirement.

The different types of belt (flat, "V" shaped, mobile), the different application systems (arm, air-jet), make this an absolutely versatile machine.

A series of optional functions and devices such as ejectors, the metal-detector and totalizers complete the range.

A list of the main technical features is given below:

- Conveyor with 1, 2, 3 or 4 flat or "V" shaped belts
- Static or dynamic weighing with frequencies of up to 70 packages per minute according to the dimensions, weight and shape of the package and the length of the labels
- Alphanumeric-functional keyboard with 99 keys
- Ethernet network with TCP/IP protocol
- Printing width up to 102 mm
- Air-jet application system or with motorized arm
- AISI 304 stainless steel or aluminium structure
- Labelling "on top", in front or at the side

The Venus Series 100 automatic weighing line is a system that handles, weighs, labels and unloads the product in a fully automatic way.

Cigiemme machines are equipped with systems that receive and transmit signals to enable the actual line and machines upstream to operate.

When the enabling signals are disabled by the machines downstream, the weighing system stops after having concluded its weighing and labelling cycle. A package may therefore be unloaded after the signal has been disabled.

The line comprises a series of conveyors (belt types, roller types, etc...) which handle the product, electronic devices to control and monitor all the handling, weighing, labelling and unloading phases, which receive and process the information concerning the weight of the product and transmit it to the printer, and a printing and label application system which affixes a label to the weighed product giving the relative weight, price, amount, data about the lot, batch, client, etc.

The control for lifting the printing unit is the only one installed below the 600 mm mark. However, it is only used infrequently and the operator need never access hazardous zones to operate it.

## **1.7 Prohibited uses**



The instrument is a weighing system and has been designed and built for this purpose. The instrument is primarily intended for weighing goods.

- It is forbidden to use the terminal without taking the necessary precautions for safe use.
- Use of the terminal in places with potentially explosive atmospheres or in areas where there is a risk of fire is strictly prohibited.

The automatic weighing line has been designed and built to handle and weigh loads in compliance with the maximum capacity indicated.

It is absolutely forbidden to use the line for transporting and weighing persons.

It is also forbidden to handle and weigh loads exceeding the maximum capacity indicated on the line itself.

It is forbidden to use the line for conveying unpacked food products.

Any other use shall only be permitted if explicitly authorised by the manufacturer.

## **WARNING**

*The conditions in which the VENUS SERIES 100 automatic line are used are governed by the metric and safety standards in force in the country of use.*

*Use in conditions not complying with these standards is prohibited.*

## **WARNING**

*Scale for internal use by companies. It is forbidden to use the scale for direct sales to the public or in the presence of the purchaser.*

*Please consider this manual as an integral part of the line.*

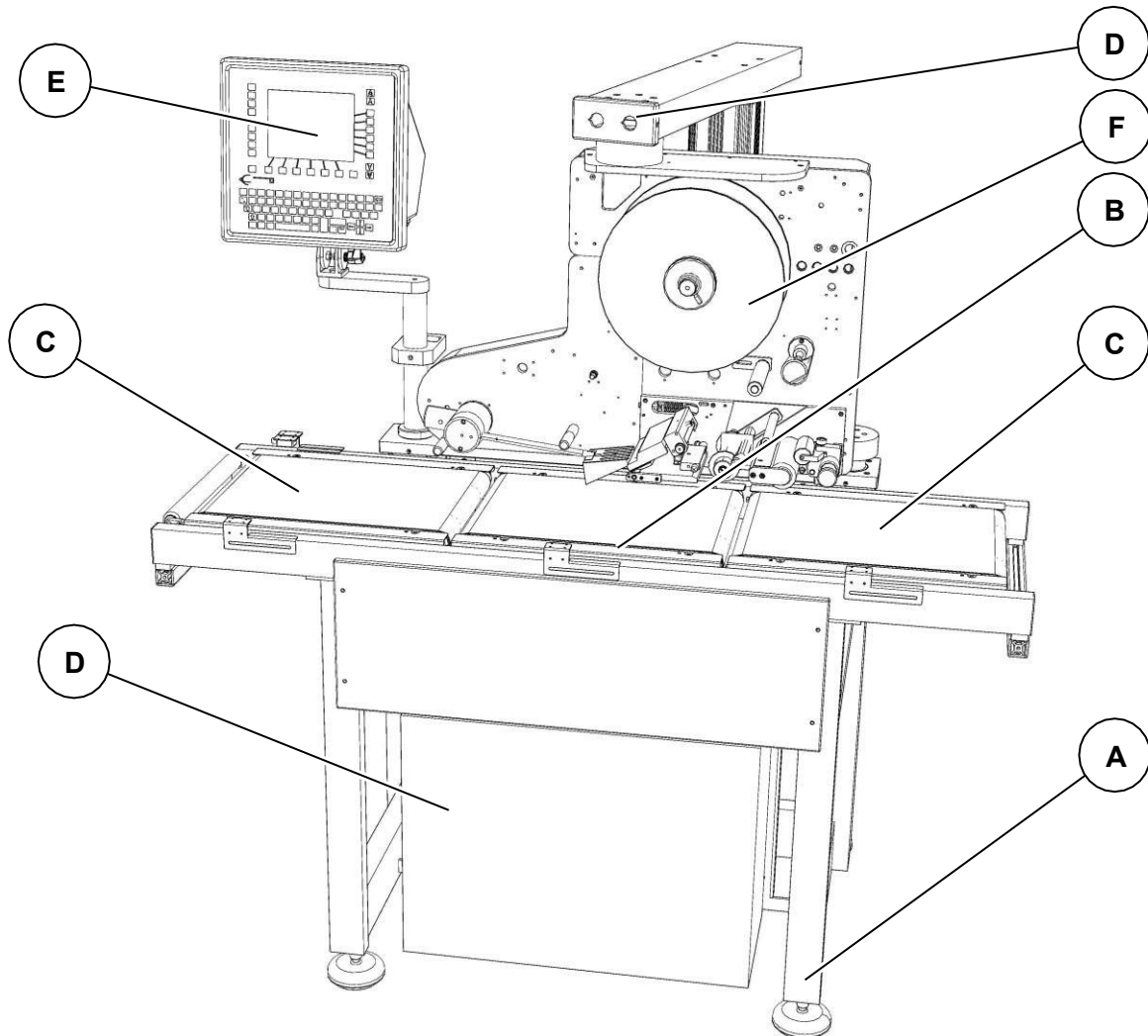
*This manual must be kept for the entire life of the machine. Make sure that all updates are attached to the already existing copies.*

## **1.8 Prescriptions for use**



- Strictly comply with the instructions in this manual during use.
- Always observe the indications given on the warning and danger plates on the terminal.
- Make sure that all the safety guards are in place and that the connection cables are in good condition and connected correctly.
- Make sure that the terminal is connected to an electrical outlet socket equipped with an efficient earth connection. Make sure that the line complies with the applicable regulations. Make sure that there is no difference in potential between the earth and neutral conductors.
- If the terminal is to be connected to other devices (e.g. a computer or other), these devices must be disconnected from the electricity main before connection to the terminal.
- All maintenance work and/or repairs must be carried out by authorised personnel only.
- Always disconnect the terminal from the electricity main and wait a few minutes before accessing the internal components.

## 1.9 Main units



### 1.9.1 Main Module (A)

This is the main structural module supporting all other modules. It is composed of a frame (steel or aluminium, depending on the version), switchboard, air treatment unit and control terminal. Electricity and compressed air are supplied to the main module. The ON/OFF switch is on the switchboard.

### 1.9.2 Scale Module (B) (optional)

The scale module is installed on the scale belt (see conveyor unit). There are three standards versions of scale: 3 kg – div. 1 g, 6 kg – div. 2 g, 12 kg – div. 2 g. Weighing is performed statically with a maximum flow rate of 70 pieces per minute.

### 1.9.3 **Conveyor Module (C)**

The conveyor module has the purpose of conveying the pieces to weigh and, if necessary, label. There are many possible combinations of belts, depending on the requested production rate and line loading mode, which can be either manual or automatic. The main belt is installed on the scale. It has the purpose of transporting the product to the scale, so that it may be weighed, and then to the subsequent belt or to the exit of the machine. A 'pre-scale' belt can be added to this belt, to prevent several products from reaching the scale at the same time hence leading to false weighing results. A labelling belt can be installed downstream to the scale to convey the product to the labelling zone where the label is printed and applied. At the entrance of the machine, upstream to the pre-scale belt, a spacer/separator belt can be fitted to separate products that may be travelling too close to each other. Downstream to the line, an ejector belt can be installed, with the purpose of ejecting non-compliant products or products that do not fall within the range, by means of air or a piston.

Maximum speed of the conveyor module is approximately 70 m/min.

Depending on the version and capacity, the mod. VENUS SERIES 100 lines can be equipped with various conveying systems with capacities going up 12 kg.

#### 1.9.3.1 Conveyor belt

The conveyor belts can be of the following types:

- the flat, full belt type;
- the flat, separate belt type;
- the slanting 'V' type for round or irregular products;

#### 1.9.3.2 Roller conveyor

Roller conveyors can be of the following types:

- the gravity type;
- the motor driven type;

#### 1.9.3.3 Conveyor belt

Multiple strap (or belt) conveyors can also be used during the weighing stage. They can be formed by two or more parallel straps guided by driven pulleys.

The stages forming the system always have the same function, regardless of the type of conveyor, which is supplied to suit the type of product conveyed and weighed.

#### 1.9.3.4 Entry (or loading) conveyor

This is the first stage in the product advancement direction. Its function is to receive the products coming from either a conveyor or feeding system of the manual type. The speed of this stage is always lower than that of the following ones to enable the products to be separated. This stage can also be omitted if the prior feeding system guarantees that the products are separated by at least 40 mm.

### **IMPORTANT (version with three belts)**

*In this case, incorrect feeding could result in several products being loaded into the weighing system at the same time, thus generating a weighing error which, once detected by the system, would halt the process and thus slow the production rate.*

#### 1.9.3.5 Separator conveyor

The purpose of the stage immediately prior to the weighing one is to stop the product conveyed if the scale or belt prior to the labelling machine is occupied.

#### 1.9.3.6 Weighing conveyor

The product transits through this stage in order to be weighed. The belt is stopped for the weighing operation (static weighing mode).

#### 1.9.3.7 Labelling conveyor

This is the stage that allows the product to be positioned under the printing/application system, thus enabling the label to be applied. The belt is stopped for the labelling operation (static application mode).

#### 1.9.4 Electronic control devices (D)

The electronic control devices are positioned in the part underneath the conveying system, in a panel that can be accessed so that maintenance work can be easily carried out if faults occur.

### ATTENTION!!

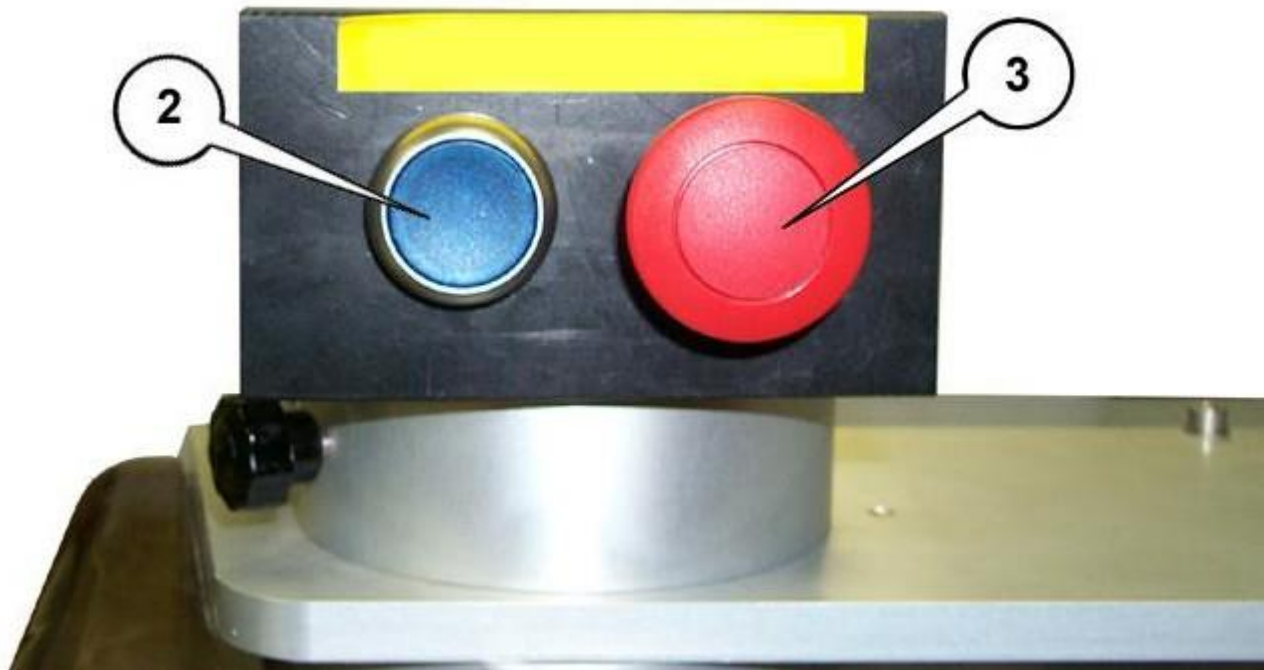
*Before powering the panel and starting the line, the operator must check to make sure that there are no persons standing or working nearby.*



**Figure 1- 1 - Switchboard layout**

**Key:**

1. Main switch



**Figure 1- 2 - Pushbutton panel**

**Key:**

- 2. Reset button
- 3. Emergency stop button

1.9.4.1 Main switch

This powers all the devices, with the exception of the actuators (motors, solenoid valves, etc.), which can therefore NOT be activated without further action from the operator, thus granting safe conditions for the persons in direct contact with the machine.

1.9.4.2 Reset button

This activates the power supply to the actuators, thus allowing the conveyors to start and the air-powered controls to be activated. The reset button must be pressed after the main switch has been turned on and after the emergency has activated.

1.9.4.3 Emergency stop button

Stops the line instantly and at any moment (**stopping level 0**), thus cutting off the power supplied to the actuators. The frequency of the operation in progress may be impaired. For greater safety and in certain cases, this command must be duplicated in other positions. However, all the emergency stop commands remain activated.

## **ATTENTION!!**

*After having activated the emergency device, which remains engaged, make sure that the dangerous conditions and faults that caused the emergency have been eliminated and that the safety conditions have been resumed. Before disengaging the emergency button, carefully check to make sure that there are no persons in direct contact with the machine or in its immediate vicinity. Unload the unweighed packages. The reset button must be pressed before the machine can be restarted.*

### **1.9.5 Terminal and operator interface (E)**

The operator interface panel has an extremely reliable membrane keyboard with an optimum tactile sensation topped by a polycarbonate panel with a screen-print of the keyboard which also makes the surface watertight. The keyboard has alphanumerical keys and functional keys with double-function keys with letters and symbols of the most frequently used idioms.

The LCD is installed in the top part of the keyboard. The functions activated by the corresponding keys, appear in the bottom and right-hand margins of the displays. The weighing data and metrological indications appear at the top while the accessory data and messages for the operator appear in the centre part.

The electronic system allows up to 2 thermal or heat-transfer label printers to be connected. These are handled contemporaneously for printing the product label, the summary label (package, etc...) and for the final summary (pallet, general, etc...). An additional printer can also be connected for printing lists, packing-lists and/or reports about the lot of pre-packaged (or prepacked) products.

The following types of label application system can be connected: by air jet and with a pivoting arm so as to cater for all labelling requirements.

The following archives can be programmed and recalled:

- product archive (PLU)
- customised labels archive, where all the data handled can be added to the printout: fixed and variable texts, barcodes, lines, frames, graphic elements (in the monochromatic bmp format) and shaded areas.
- fixed text archive (descriptions and ingredients)
- customised barcode archive
- images archive
- traceability archive
- clients archive
- BCRead archive

- Weight Bounding archive (weight classes)

Management of the handling stages (conveyor belts, applicator, emergencies and enabling signals) with parameter saving (speeds, stopping targets, etc...) in the PLU. This allows the machine to automatically self-program as the product changes.

Automatic updating of the packaging dates, eat-by and start-of-curing dates depending on the number of days programmed in the PLU (TMC).

The program handles the following codes memorized in the PLU:

- PLU code
- client code.
- batch code
- lot code
- product code
- product category code

Up to 15 alphanumerical characters can be used to set almost all the codes.

When the operator enters a code, the program memorises it exactly as it has been entered and it can only be recalled by typing it in the same way. A code that begins with a zero (0) is different from one without (e.g. 0123 is different from 123) and a code with lower case letters is different from one with capitals (e.g. ABC is different from abc and also from AbC).

The program does not carry out "filling" or formatting operations, but the codes are always memorised, printed and indicated exactly as they are entered, even in the barcodes (if requested).

Totalizing with automatic label printout when at least one of the set limits has been reached (by weight, by number of labelled pieces or by amount):

- Carton total
- Pallet total

Totalizing with printout command from the operator:

- Carton total
- Pallet total
- General total
- Partial total
- Total per client code
- Total per product code

- Total per batch code
- Total per lot code
- Total per traceability code
- Total per product category
- Total per PLU code
- Total per lot-product code
- Total per lot-plu code
- Total per traceability-product code
- Total per traceability-plu code
- Total per client-product code

Deduction of amounts, weights and number of pieces from totals

Entry of a processing quantity (weight, amount or number of pieces), which, once reached, allows the instrument to automatically quit the processing cycle.

Selection mode option with entry of the minimum and maximum weight, and, as required:

- labelling of off-range pieces
- stopping of off-range pieces
- ejection of off-range pieces

The two-level selection function enables the following options:

- if the weight is within range, it is totalized but not labelled off-range pieces are rejected;
- if the weight is within range, it is totalized and labelled with fixed weight;
- if the weight is within range, it is totalized and labelled with variable weight;

The range can be freely defined within or beyond the set limits.

The user can choose whether to weigh but not label the products individually, producing one single summarizing label (total of all levels).

Manual application of the summary label with 'label ready' indication and management of the print request button. Automatic management of the label queue.

Automatic application of the package label plus management of the summary line with package stopping/starting (upon demand).

Generously sized data memorising capacity which can also be expanded (upon demand).

Connection to a Personal Computer so that the additional data (descriptions, codes, dates, etc...) can be handled in a better way, thus increasing the memorising capacity for these data and to handle processing orders with links to the company's data processing system.

This connection can be made via the Ethernet with TCP-IP protocol.

#### **1.9.6 Printing and application systems (optional) (F)**

Only the printers supplied by Cigiemme S.p.A. can be connected to the machine. With the exception of the main printer (product), the printing systems for totals can be installed at any time by asking the manufacturer.

The printing system is the of direct thermal type and uses thermal labels. As an option, the user can request printing of the "heat-transfer type" using normal paper labels with transfer foil.

The head can achieve a printing width of up to 104 mm with an 8 dot/mm resolution (12 dot/mm on request) and printing speeds of up to 200 mm/sec.



**Figure 1- 3 - Main printer**

#### 1.9.6.1 Air-jet system

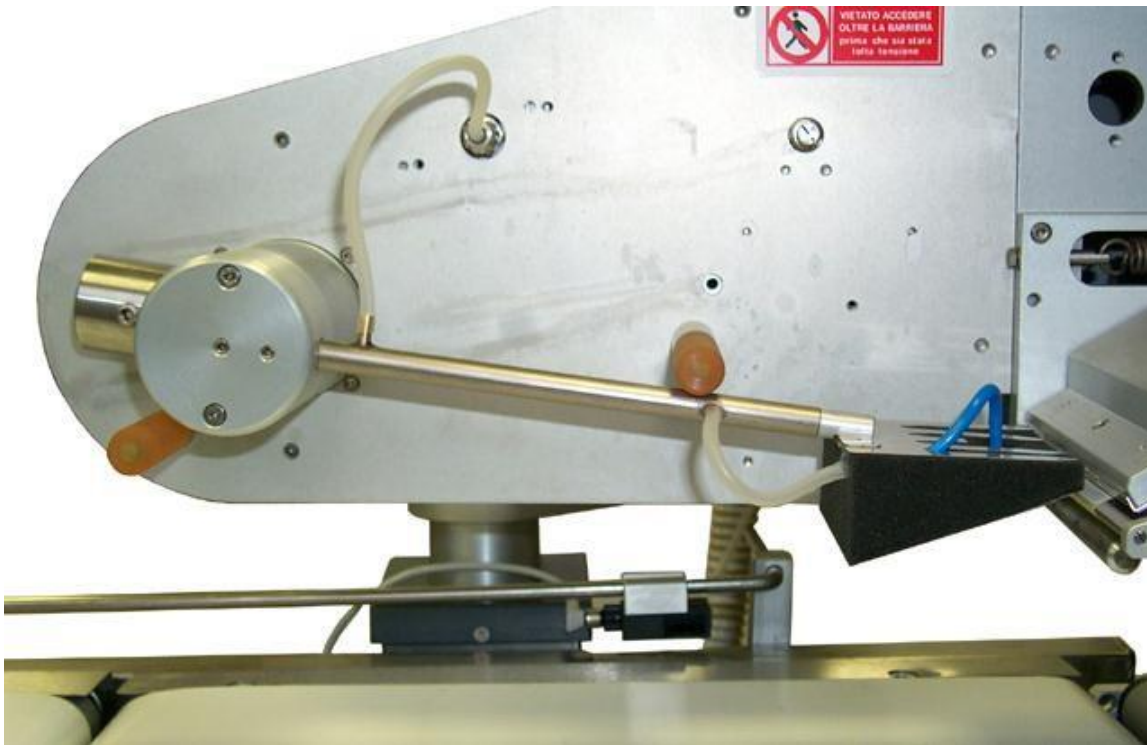
This is the ideal system for high production rates and packages of different heights but substantially regular surfaces (not rounded or ball shaped). Label application on these packs is guaranteed with very high efficiency. Application is still efficient on irregular surfaces but total adhesion of the label is not guaranteed.



**Figure 1- 4 - Air-jet applicator**

#### 1.9.6.2 Pivoting arm system

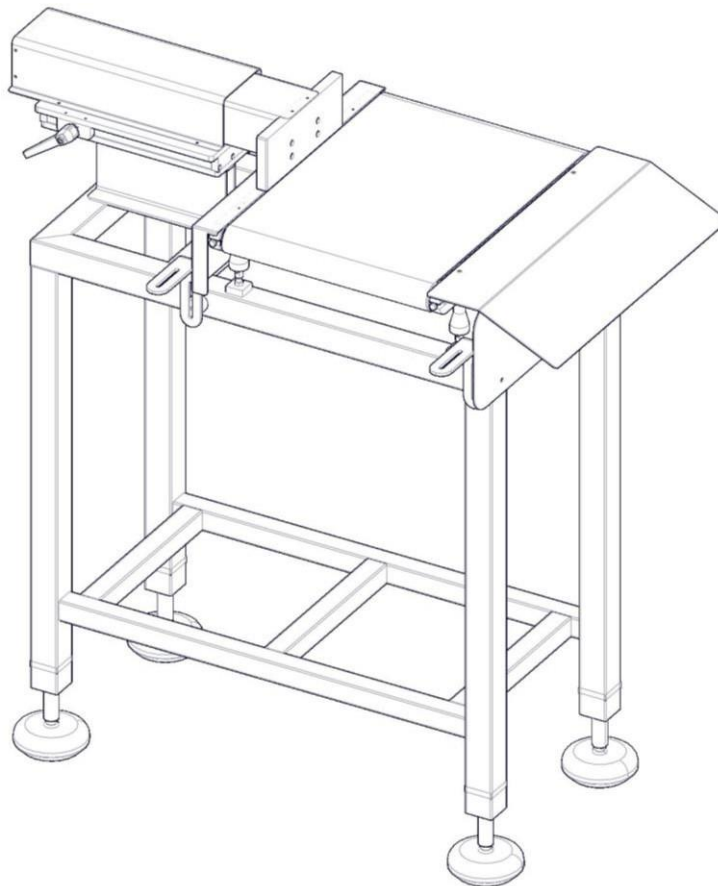
This is the ideal system for labelling irregular shaped products and achieves production rates of up to 70 pieces/min (for the version with 3/4 belts). It also allows the label to be applied on top, on the side or on the front of the product.



**Figure 1- 5 - Pivoting arm applicator**

### 1.9.7 Ejector module (optional)

The ejector module is composed of a bench carrying a conveyor belt and an ejector of the piston or air-jet type. The belt transports the product to the ejector, which - if necessary - ejects the product.



## 1.10 Technical data



|                 | PE 110<br>AL 110                                                                                    | PE 115<br>AL 115                                                                                    | PE 120<br>AL 120                                                                                    | PE 130<br>AL 130                                                                                    | PE 140<br>AL 140                                                                                    |
|-----------------|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Dimensions      | Length 650 mm, width 980 mm<br>Height 1500 mm                                                       | Length 1138 mm, width 980 mm, height 1500 mm                                                        | Length 1138 mm, width 980 mm, height 1500 mm                                                        | Length 1589 mm, width 980 mm, height 1500 mm                                                        | Length 2039 mm, width 980 mm, height 1500 mm                                                        |
| Weight          | 136 kg                                                                                              | 140 kg                                                                                              | 140 kg                                                                                              | 165 kg                                                                                              | 175 kg                                                                                              |
| Volts           | 230 V<br>+10% -15%<br>50/60 VAC, Hz                                                                 | 230 V<br>+10% -15%<br>50/60 VAC, Hz                                                                 | 230 V<br>+10% -15%<br>50/60 VAC, Hz                                                                 | 230 V<br>+10% -15%<br>50/60 VAC, Hz                                                                 | 230 V<br>+10% -15%<br>50/60 VAC, Hz                                                                 |
| Power draw      | 715 VA                                                                                              | 715 VA                                                                                              | 715 VA                                                                                              | 915 VA                                                                                              | 915 VA                                                                                              |
| Amperes         | 3.25 A                                                                                              | 3.25 A                                                                                              | 3.25 A                                                                                              | 4.15 A                                                                                              | 4.15 A                                                                                              |
| Bar             | 6 ATM                                                                                               | 6 ATM                                                                                               | 6 ATM                                                                                               | 6 ATM                                                                                               | 6 ATM                                                                                               |
| Air consumption | 40 litres/min.<br>for pivoting<br>arm applicator<br><br>60 litres/min.<br>for air-jet<br>applicator | 40 litres/min.<br>for pivoting<br>arm applicator<br><br>60 litres/min.<br>for air-jet<br>applicator | 40 litres/min.<br>for pivoting<br>arm applicator<br><br>60 litres/min.<br>for air-jet<br>applicator | 40 litres/min.<br>for pivoting<br>arm applicator<br><br>60 litres/min.<br>for air-jet<br>applicator | 40 litres/min.<br>for pivoting<br>arm applicator<br><br>60 litres/min.<br>for air-jet<br>applicator |

### Ejector

|                 | EJECTOR                                    |
|-----------------|--------------------------------------------|
| Dimensions      | Length 450 mm, width 750m<br>Height 900 mm |
| Weight          | 55 kg                                      |
| Volts           | See machine                                |
| Power draw      | See machine                                |
| Amperes         | See machine                                |
| Bar             | See machine                                |
| Air consumption | Depending on how much machine is used      |

### 1.10.1 Electrical characteristics

#### 1.10.1.1 Electrical connections

Line installation requires the following connections:

- 230 VAC single-phase with ground (PE)
- 50 Hz / 60 Hz
- max power input 4.5 A
- industrial plug conforming to IEC309-2

## **ATTENTION**

*To ensure that the servicing and assistance operations are carried out in complete safety, it is essential to install an isolating switch (with padlock) on the supply side of the line.*

## 1.10.1.2 Electrical ratings table

|                                   |                                                          |
|-----------------------------------|----------------------------------------------------------|
| Power supply:                     | 230+10%-15% Vac 50/60 Hz                                 |
| Load cells that can be connected: | up to four 350 Ohm analogue cells on the 9-pin connector |
| Analogue load cell power:         | 10 VDC                                                   |
| Resolution:                       | up to 10000 divisions                                    |
| Maximum input signal:             | 23 mV                                                    |
| Sensitivity:                      | 0.75 $\mu$ V/division (version with analogue cells)      |
| Full scale stability:             | < 5 ppm/°C                                               |
| Zero stability:                   | < 5 ppm/°C                                               |
| Compensated temperature range:    | 0 + 40 °C                                                |
| Operating range:                  | 0 + 50 °C                                                |
| Humidity:                         | 85 % @ 40°C                                              |

**Figure 1- 6 - Electrical ratings table**

| Version                        | Panel  | CGM printing unit | Venus Terminal | Optional compressor | Optional CGM Totalizer |
|--------------------------------|--------|-------------------|----------------|---------------------|------------------------|
| PE 110<br>AL 110               | 300 VA | 170 VA            | 75 VA          | 0.42 kW             | 170 VA                 |
| PE 115-PE120<br>AL 115- AL 120 | 300 VA | 170 VA            | 75 VA          | 0.42 kW             | 170 VA                 |
| PE 130<br>AL 130               | 500 VA | 170 VA            | 75 VA          | 0.42 kW             | 170 VA                 |
| PE 140<br>AL 140               | 500 VA | 170 VA            | 75 VA          | 0.42 kW             | 170 VA                 |

**Figure 1- 7- Power draw table**

## **WARNING**

*Remember that the transformer's primary circuit accepts three voltage ratings, i.e. 220 V, 230 V and 240 V. It is important to connect to the primary circuit with the correct value otherwise then upstream components could be damaged*

Ensure the following conditions:

- the voltage and frequency of the electricity main that powers the terminal correspond to the indications on the warning plate affixed to the rear side and that the power socket to which the terminal is connected has a grounding pin;
- the warning and safety plates are affixed to the casing of the instrument. failing this, notify your maintenance personnel or contact our Assistance Service directly.

The terminal complies with the European Directive governing electromagnetic compatibility (directive 89/336 EEC). However it is good practice to provide a power supply line that is separate from the power drives.

## **WARNING**

*Do not route the terminal connection cables alongside power cables, as these could cause interference that could prevent the terminal from operating correctly. Only use the connection cable supplied with the terminal. If the cable supplied is too short, do not attach an extension lead but contact the Manufacturer.*

### 1.10.2 **Pneumatic connections**

Line installation requires the following connections (filtered and dehumidified compressed air):

- from 400 to 600 kPa (4-6 bar)
- flow rate 40 litres/min. with pivoting applicator
- flow rate 60 litres/min. with air-jet applicator
- quick coupling

### **1.10.3 Mechanical specifications**

Structure made of ANTICORODAL 100 ALUMINIUM, STAINLESS STEEL X 5 CrNi 1810 UNI EN 10088-1 and plastic materials. Weighing system with load cell of the OFF-CENTER type, IP65 protection rating.

Bearing stands the height of which can be regulated from 870 mm to 970 mm (product conveyor surface).

Product conveyor with 1, 2, 3 or 4 belts, optionally equipped with "V" belts that can be tilted in the advancement direction (excluding versions PE110, PE110A and SP 110).

#### **1.10.3.1 Speed of transport**

Variable from 0 to 65 m/min depending on the value entered in the PLU. The production rate of the weighing line can reach a maximum 70 pieces/min. in optimum conditions. This rate decreases depending on the weight and dimensions of the items conveyed.

#### **1.10.3.2 Capacity of conveyor system**

Depending on the version and capacity, the mod. VENUS SERIES 100 lines can be equipped with various conveying systems with capacities going up to 12 kg

#### **1.10.3.3 Printing system**

### **TECHNICAL SPECIFICATIONS**

#### **Printing method**

Direct thermal printing method (Thermal transfer with normal paper and foil upon demand):

#### **Printing resolution**

8 dots/mm

#### **Print width**

102.0 mm

#### **Paper routing width**

110.0 mm

#### **Printing speed**

up to 200 mm/s

**Graphics** bit image mode

**Types of barcode available**

- 2/5 family
- EAN and EAN + add-on family
- 3/9 family
- CODABAR family
- UPC family
- Code/EAN 128 family
- PDF417

**Check Digit:** automatic calculation

**Wide/narrow ratio:** programmable

**Programmable height.**

**Suppression of legible characters.**

**Adjustable printing intensity.**

**Key for repeating the last label printed.**

**Automatic monitoring of the temperature of the thermal head.**

**CHARACTER DIMENSIONS**

With 8 dot/mm head

minimum 0.62 x 0.66 mm

maximum 99.00 x 105.30 mm

**MINIMUM AND MAXIMUM PRINTABLE DIMENSIONS**

**Minimum label dimension**

Width 30 mm, pitch 10 mm

**Maximum label dimension**

Width 110 mm, pitch 315 mm

**Maximum dimension of label + siliconed paper**

Width 120 mm

**Space between labels**

Pitch 2 mm, min. depth from int. margin 7 mm

**RECOMMENDED TYPES OF PAPER****Print backings:**

Labels

**Paper specifications:**

Pigmented white paper without wood and with a glossy finish

weight: 65-90 g/m<sup>2</sup> (ISO536)

thickness: 0.075-0.083 mm (ISO534)

**Adhesive specifications**

adhesiveness on detachment (90°C): 430 N/m

operating temperature: -20°C - +70°C

**Siliconed paper specifications**

BG 40 BROWN (supercalendered glossy paper)

weight: 65 g/m<sup>2</sup> (ISO536)

thickness: 0.057 mm (ISO534)

transparency: 45%

**Recommended models**

Fasson Fasthermal NT

Kanzaki KPT 86-H

Fasson Fastransfer MP - S470 (TT models)

Fasson Fastransfer Extra - S470 (TT models)

**RECOMMENDED TYPES OF FOIL****Thermal tape specifications**

film thickness: 4.5-6 micron

int. diameter: 25 mm

external diameter: max. 58 mm

width: min. 70 mm - max. 110 mm

length: approx. 220 m

outer inked surface

**Recommended models**

Armor AWR 406 (for mat paper)

Armor AWR 470 (for mat paper)

Armor APR (for coated or polypropylene paper)

Armor AXR7 Plus (for plastic backings)

Ricoh B110 a

NCR S 1

**STORAGE**

Keep the tapes and labels in a dry, sheltered place at a temperature of less than 40°C and do not expose them to sunlight.

**DIMENSIONS OF THE ROLL OF LABELS**

Maximum reel diameter: 280 mm

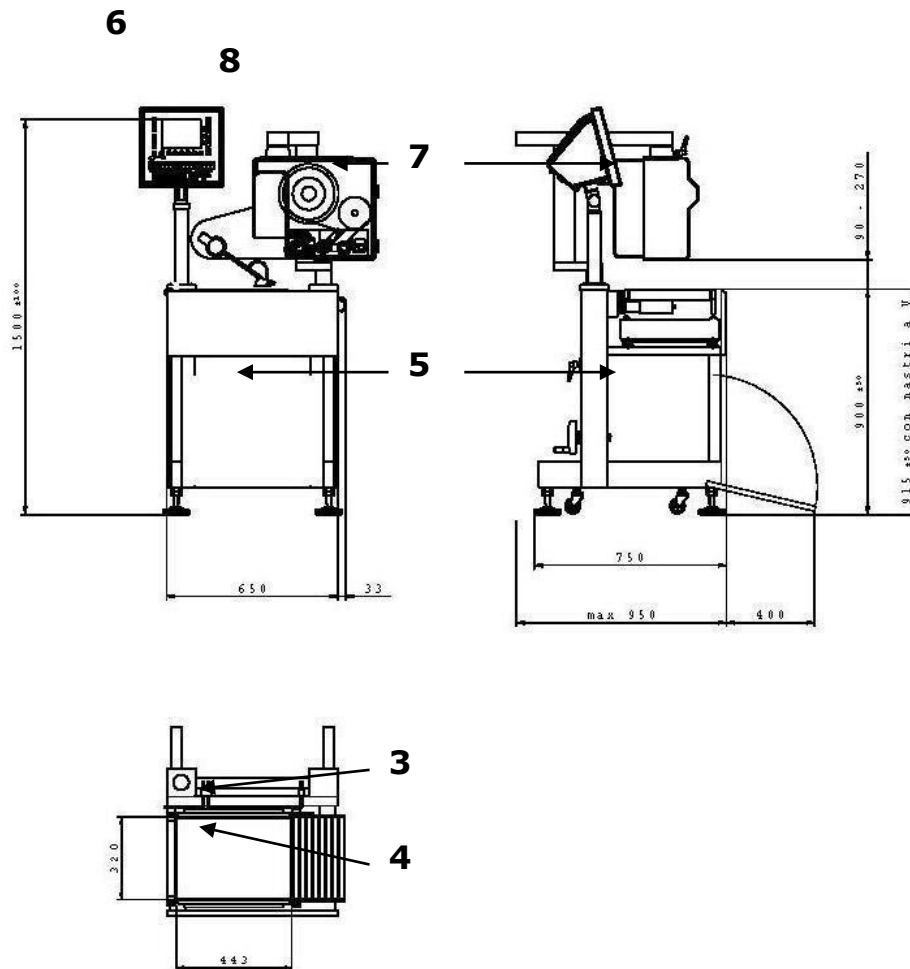
Inner reel diameter: **RECOMMENDED** 76.

**MINIMUM** 40 mm internal diameters can be used, with consequently inferior performance.

#### 1.10.4 Types and overall dimensions

The types of machines depend on the length of the belts and the number and type of printers. Several significant examples are described on the following pages:

##### 1.10.4.1 Venus AC110 model SR 100N (ITALY)– Venus 300 (EXPORT VERSION)

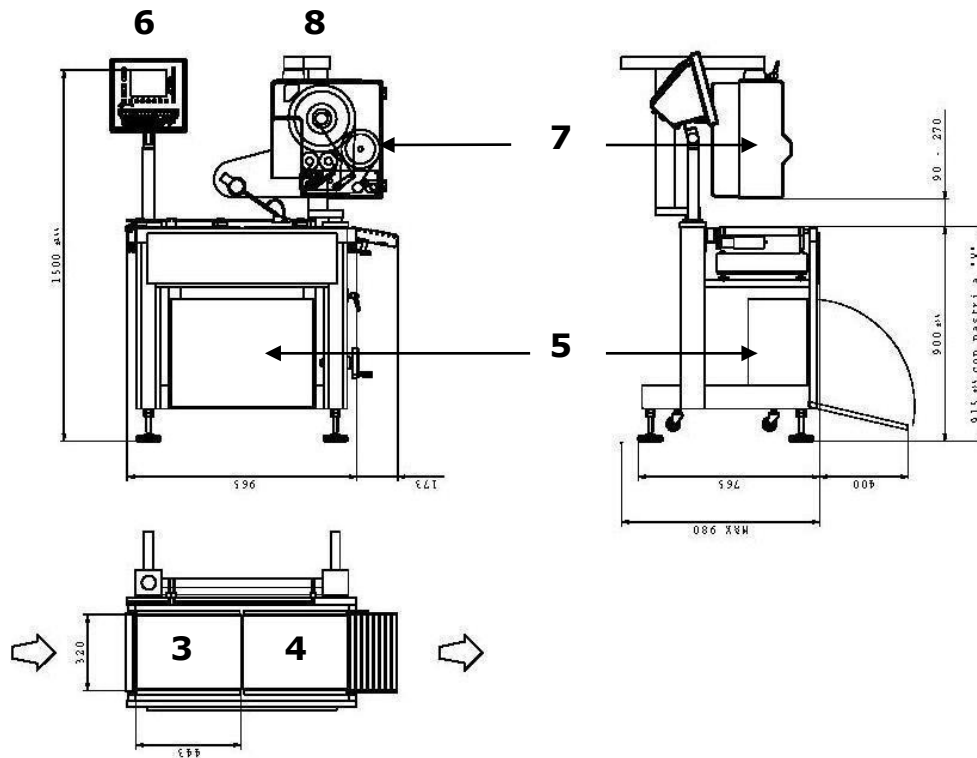


**Figure 1-12 – Venus AC110 model SR 100N (ITALY) – Venus 300 (EXPORT VERSION)**

**Key:**

- 3. Weighing conveyor
- 4. Labelling conveyor
- 5. Control and monitoring panel
- 6. Display
- 7. Label printing and application system
- 8. Pushbutton panel on the machine

1.10.4.2 Venus AC115/120 – AL115/120 model SR 100N  
(ITALY)– Venus 300 (EXPORT VERSION)

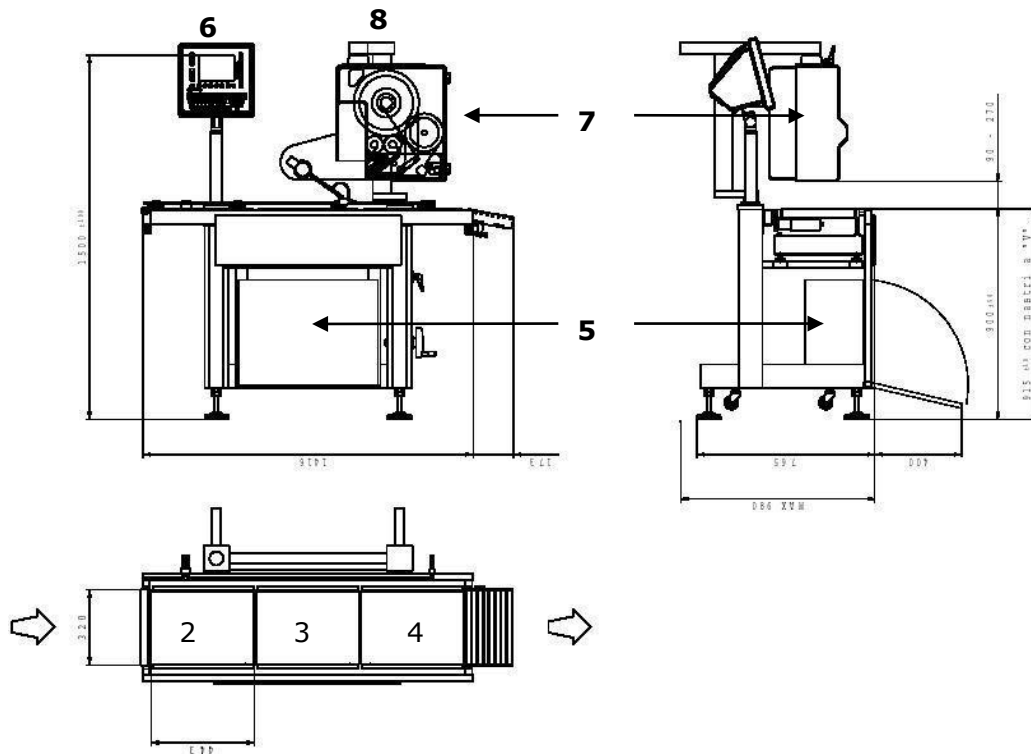


**Figure 1-13 - Venus AC115/120 – AL115/120 model SR 100N  
(ITALY) – Venus 300 (FOR EXPORT)**

**Key:**

- 3. Weighing conveyor
- 4. Labelling conveyor
- 5. Control and monitoring panel
- 6. Display
- 7. Label printing and application system
- 8. Pushbutton panel on the machine

1.10.4.3 Venus AC130 - AL130 model SR 100N  
(ITALY)- Venus 300 (EXPORT VERSION)

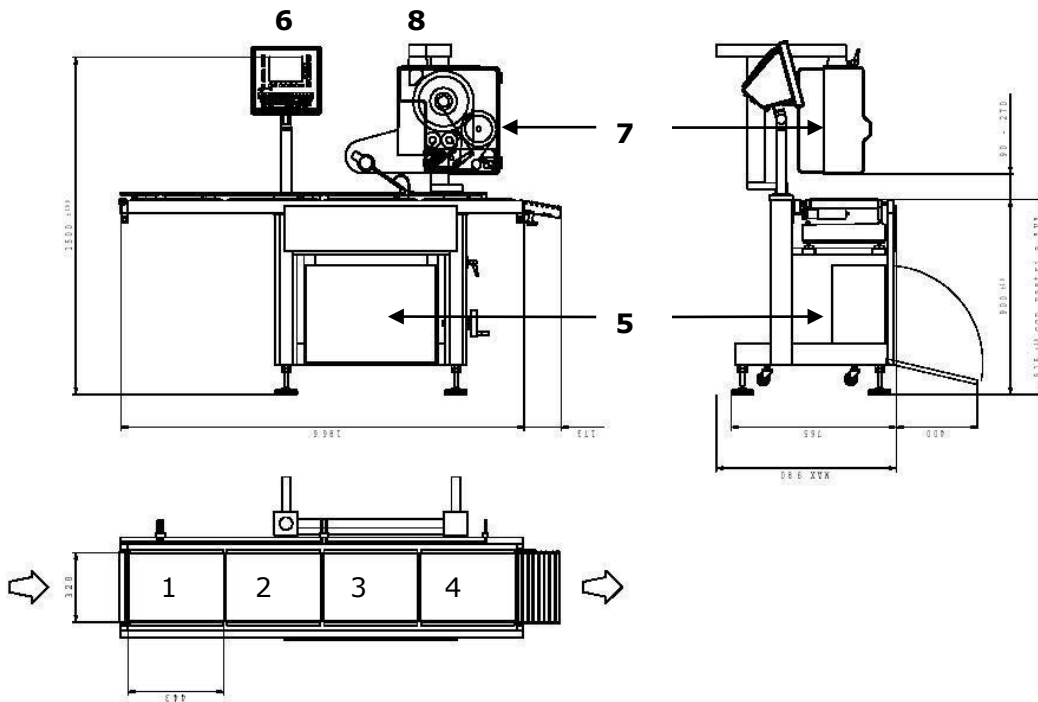


**Figure 1-14 - Venus AC130 – AL130 model SR 100N (ITALY) – Venus 300 (FOR EXPORT)**

**Key:**

2. Separator conveyor
3. Weighing conveyor
4. Labelling conveyor
5. Control and monitoring panel
6. Display
7. Label printing and application system
8. Pushbutton panel on the machine

1.10.4.4 Venus AC140 - AL140 model SR 100N  
(ITALY)- Venus 300 (EXPORT VERSION)



**Figure 1-15 - Venus AC140 – AL140 model SR 100N (ITALY) – Venus 300 (FOR EXPORT)**

**Key:**

1. Entry conveyor
2. Separator conveyor
3. Weighing conveyor
4. Labelling conveyor
5. Control and monitoring panel
6. Display
7. Label printing and application system
8. Pushbutton panel on the machine

#### **1.10.5 AIRBORNE NOISE**

Sound pressure level: 78.7 dB(A)

#### **1.10.6 ELECTROMAGNETIC COMPATIBILITY**

The systems used to minimise disturbance to the equipment from other sources are described here below:

- ground (earth) connection of all metal parts;
- shielding of signal leads less than 30 Volts;
- filters for frequency converters;
- shielding of power supply leads of motors controlled by frequency converters.

To guarantee correct operation of the above, the end user must provide a correct ground connection of the switchboard and correct shielding of all signal leads with a voltage lower than 30. All leads are insulated with fire-retardant material of type N07V-K with a level of insulation not lower than 1200 Volts.

Cable trays are also made of insulating and fire-retardant material.

#### **1.10.7 VIBRATIONS**

The machine does not create vibrations that put the health of operators at risk or that disturb machines installed nearby.

### 1.11 Identification plates

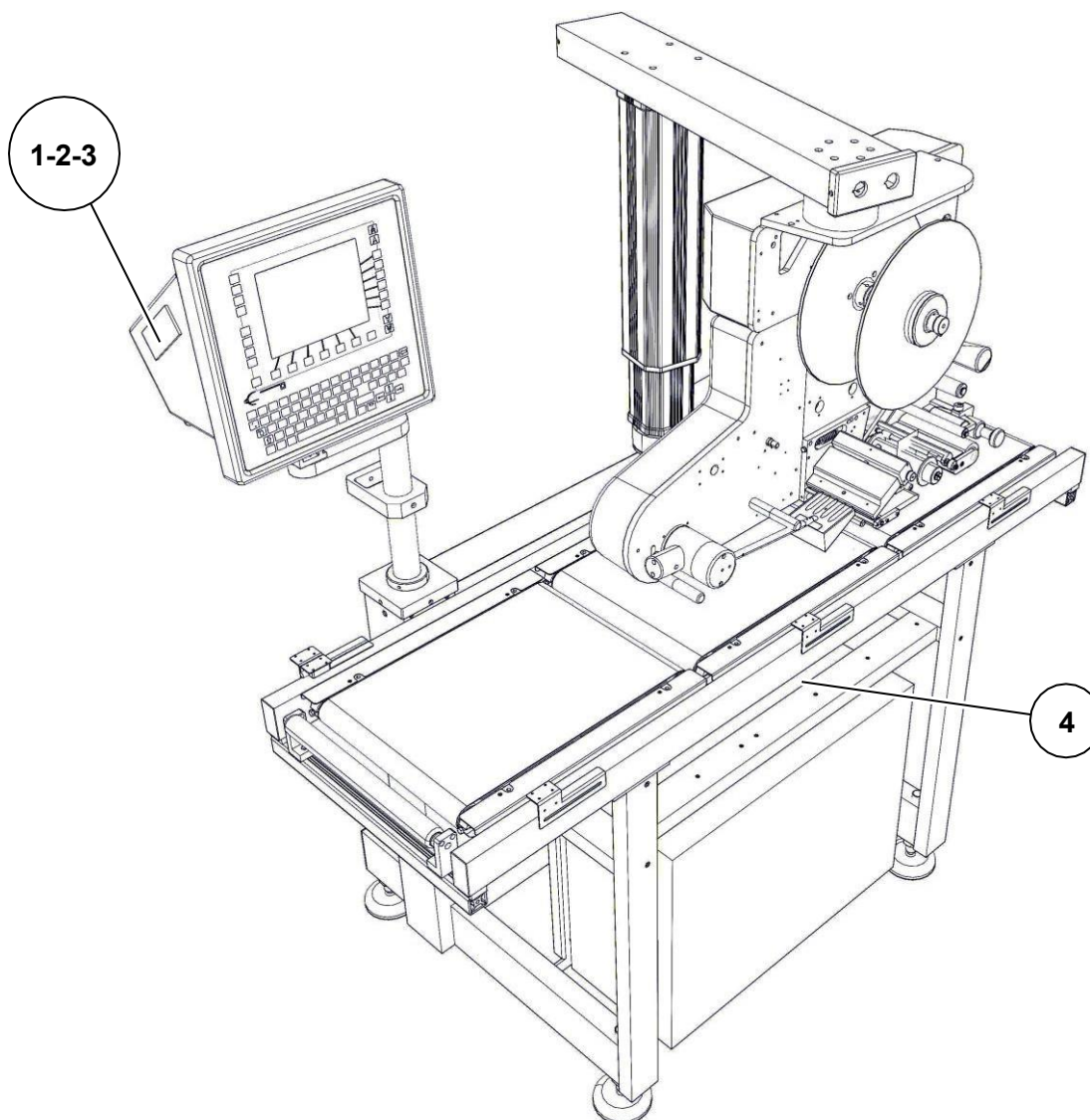


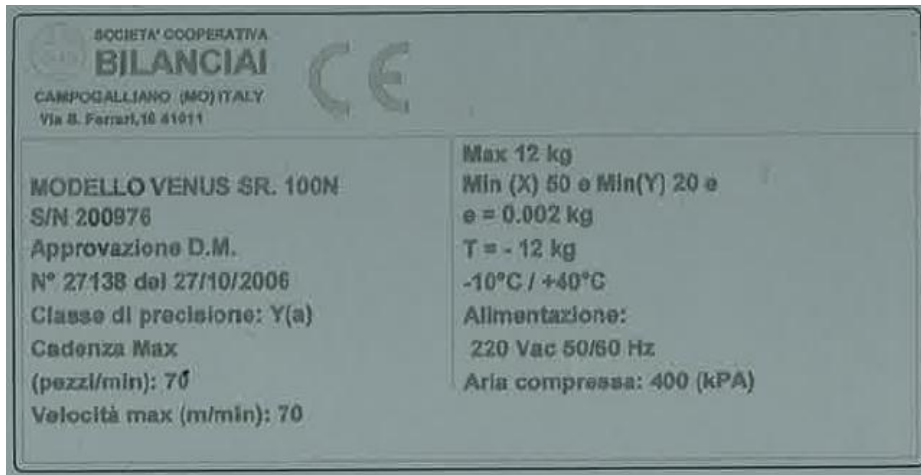
Each instrument has a data plate giving the metrological and CE data of the machine. There is also another data plate for the platform used in conjunction with the terminal.

## WARNING

*For no reason may the information printed on the plate be altered.*

*Never remove the plates and check their condition regularly.*





**Figure 1- 8 – CE Plate**



**Figure 1- 9 – Metrological data plate - M.D. type approval**

| VERIFICA PERIODICA<br>SCADENZA |               |      |
|--------------------------------|---------------|------|
| MESE                           | ANNO          | MESE |
| 1                              | 2014          | 7    |
| 2                              |               | 8    |
| 3                              |               | 9    |
| 4                              |               | 10   |
| 5                              | CCIAA<br>MO 1 | 11   |
| 6                              |               | 12   |

**Figure 1- 10 – Periodic Test.**

S/N

Zone di Gravità di Utilizzazione

ITALIA

☐ Zona: A: EMILIA ROMAGNA, LIGURIA, FRIULI VENEZIA GIULIA, LOMBARDIA, MARCHE, PIEMONTE, TOSCANA, TRENTINO ALTO ADIGE, UMBRIA, VENETO

☐ Zona: B: ABRUZZO, CAMPANIA, LAZIO, MOLISE, PUGLIA

☐ Zona: C: BASILICATA, CALABRIA, SARDEGNA, SICILIA 1 (ME, PA, TP)

☐ Zona: SICILIA 2  
AG, CL, CT, EN, RG, SR

Provincia di:

Comune di:

**Figure 1- 11 – Gravity Area.**

## **1.12 How to obtain technical assistance**



In the event of any operating faults requiring the intervention of specialised technicians, contact your nearest service centre or the manufacturer.

To have your problem solved as quickly as possible, you are advised to state the data plate data (**serial number**) on the weighing instrument, a complete and detailed description of the defect and any operations you may have carried out in order to overcome it. Also provide information about the system in which the terminal is installed.

## **WARNING**

*The manufacturer shall not be held responsible for faulty operation or damage to the machine if modifications have been made without the explicit written permission of the manufacturer itself*

### **1.12.1 Registration data**

An exact description of the model, serial number and the year of manufacture will make it easier for our After-Sales Service staff to provide rapid and efficient answers to any queries (see last cover page)..

Always state this information whenever you contact our Technical Assistance staff.

As a memo, we advise you to write down the identification data of your system below:

**Serial n°**

**Model**

**Year of manufacture**

**Maximum capacity Max =**

**Division e =**

### **1.13 Warranty**



The warranty conditions are specified in the sales contract.

## 2. SAFETY RULES

### 2.1 General safety information



The machine must only be used by persons who have attended an adequate training course, which must be arranged when the equipment is installed.

### ATTENTION!!

*Persons, who may come into contact with the machine for any reason, must be able to read and understand this manual and all the indications and messages on the machine itself. They must also be informed and be aware of all the risks described, i.e. those relating to moving components, potentially dangerous voltage and compressed air.*

### 2.1.1 Personal protective equipment

Extract from article 40 of law 626/94, Heading IV:

The term personal protective equipment (PPE) means any piece of equipment designed to be worn or held by the worker so as to protect him or her against one or more risks liable to be a threat to the safety or health during work, as well as any additional item or accessory designed for that purpose.

Use of particular PPE is not necessary unless they are required for treating the products loaded on to the machine. The use of gloves, accident-prevention footwear and overalls (ear defenders if necessary and a protective mask if there is a risk of object projection during maintenance) is however recommended when performing maintenance.

|                                                                                     |                                                                                                                                                        |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <b>Always wear protective gauntlets:</b><br>this symbol means that operators should be wearing protective gauntlets for electrical/thermal insulation. |
|   | <b>Always wear accident-prevention footwear:</b><br>this symbol means that the operator must be wearing accident-prevention footwear.                  |
|  | <b>Always wear accident-prevention garments:</b><br>this symbol means that approved accident-prevention garments must be worn (e.g. overalls).         |
|  | <b>Always wear a protective visor:</b><br>this symbol means that operator must be wearing a visor for face protection.                                 |
|  | <b>Always wear ear defenders:</b><br>this symbol instructs operators to use ear defenders since there is a risk of exposure to loud noise.             |

### 2.1.2 Definitions

- Status of the machine: meaning the operating mode necessary for carrying out the required operation (machine off, on, in manual mode, in automatic mode);
- Number of operators: meaning the number of workers required to carry out the operation.

## ATTENTION

*Use of fewer or more operators could prevent the required result from being obtained or endanger the operators themselves. The Manufacturer shall not, therefore, be liable for dangerous situations caused by failure to comply with these regulations.*

- Qualification level of the operator: required for successful use.

Besides the matters specified above, information concerning residual risks, which cannot be overcome, will be given where applicable, as well as indications about the precautions the operator must take when this particular work is carried out.

The manufacturer shall not be liable for damages to persons or property caused by failure to comply with these suggestions and precautions.

### 2.2 Standards

The operating conditions for the electronic terminal are subject to the regulations in force in the country in which the terminal is used. Use in conditions not complying with these standards is prohibited.

## 2.3 Professional profiles



In view of the absence of particular, intrinsically dangerous devices and the consequent simplicity of the protection systems, the professional profiles of the persons who work with the machine can be the following:

|                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <b>Machine operator</b> , who is entrusted with operations that include powering the line, starting, stopping, correctly feeding in the products, unloading the products, replacing the labels and removing the silicone-backed paper.                                                                                                                                                                            |
|    | <b>Machine programmer</b> , entrusted with the machine programming phase, which does not entail hazards for persons or property. The person who deals with this task must be particularly careful and diligent as some of the programming operations can destroy the previously memorised data. He/she must also be familiar with the productive organisation of the company so as to enter adequate information. |
|  | <b>Lifting and transport equipment operator:</b> operator trained for driving and using material and machine lifting and transport gear (the instructions of the manufacturer of these must be scrupulously followed) in accordance to the laws in force in the machine user's country.                                                                                                                           |
|  | <b>Mechanical servicing technician</b> , entrusted with making sure that the mechanical components are clean and in a good condition, as well as adjusting and servicing them: with the exclusion of any operation involving the electrical system with which the machine is fitted.                                                                                                                              |
|  | <b>Servicing electrician</b> , entrusted with the task of organising the maintenance work and dealing with any electrical faults, possibly with the ability to work inside the control panel.                                                                                                                                                                                                                     |
|  | <b>After Sales Service</b> , which deals with all the complex adjustments, servicing, repairs or other operations to be carried out in particular conditions.                                                                                                                                                                                                                                                     |

## WARNING

*Reference will be made to the qualifications described above in all future descriptions about operations involving the machine.*

### 2.4 GUARDS



## DANGER

*It is strictly prohibited to start or run the machine without its protective equipment and safety devices.*

In order to prevent accidents, of a mechanical nature or relating to heat and noise, the machine is fitted with guards that ensure safe working conditions.

## ATTENTION

*Both the fixed and movable guards must be fixed with the original screws provided. It is strictly forbidden to use screws or knobs that can be removed manually, that is, without using special tools.*

There are two types of guard depending on the area of the machine to protect, namely:

FIXED AND SHAPED GUARDS.

## ATTENTION

*No responsibility is assumed by the manufacturer for damage and/or injury caused to the machine, property and/or people in the event that the safety devices, fitted to the machine originally, have been modified, tampered with or eliminated.*

### **2.4.1 Fixed shaped guards**

These are guards that can be removed by means of special mechanical tools.

These do not feature safety devices for checking that they are closed since they must always be fitted before and during machine operation.

## **ATTENTION**

*Before turning on the machine, make sure all fixed guards are correctly fitted. Failure to respect this rule may lead to serious consequences involving operators and/or third persons.*

Here below is a list of guards:

**1** - Stainless steel guard.

**2** - Plexiglas guards

## **ATTENTION**

*Never remove the fixed guards when the machine is running. Always refit fixed guards after performing maintenance.*

*Stop the entire machine before removing these guards.*

*Guards that are removed with tools are not protected by micro switches. Opening them does therefore not stop machine operation. Before attempting to open these guards, always stop the machine by pressing an emergency button and by disconnecting the machine from the power supply.*

*It is strictly prohibited to tamper with or electrically disable the safety devices installed on mobile guards. Failure to respect this rule may lead to serious consequences involving operators and/or third persons.*

## ATTENTION

*Note for maintenance staff:*

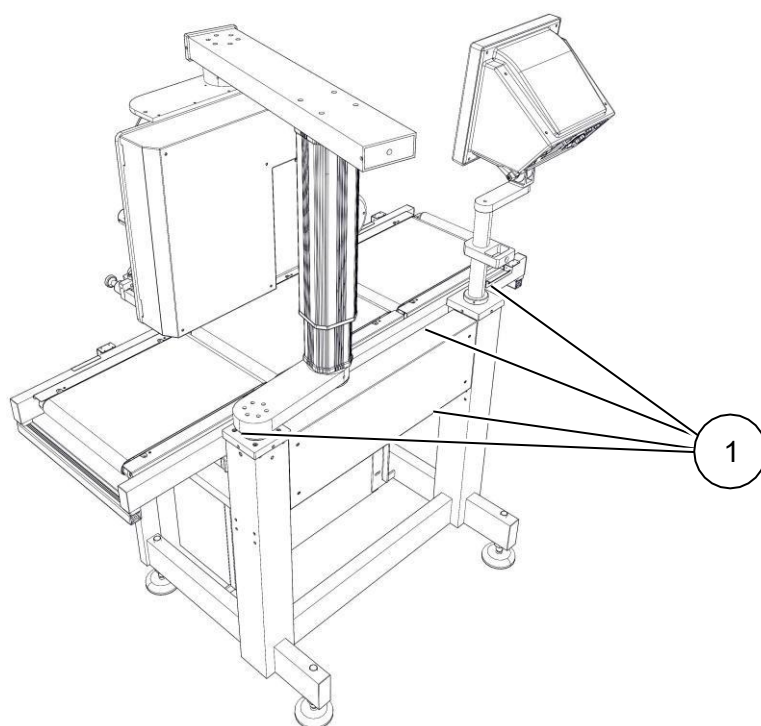
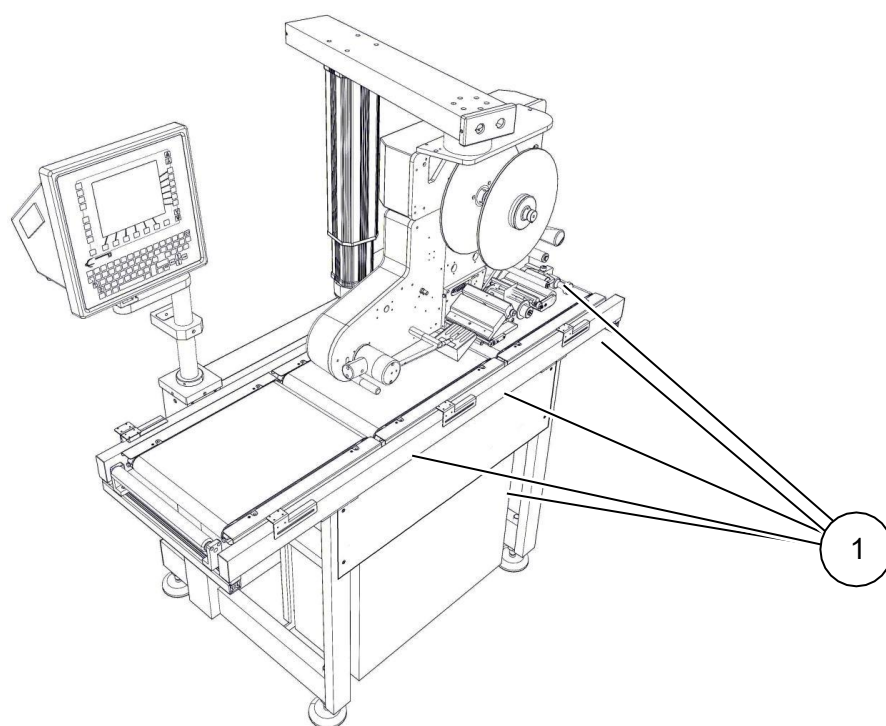
*All vertical and horizontal fixed guards fitted to the machine are not electrically interlocked and therefore do not feature safety devices.*

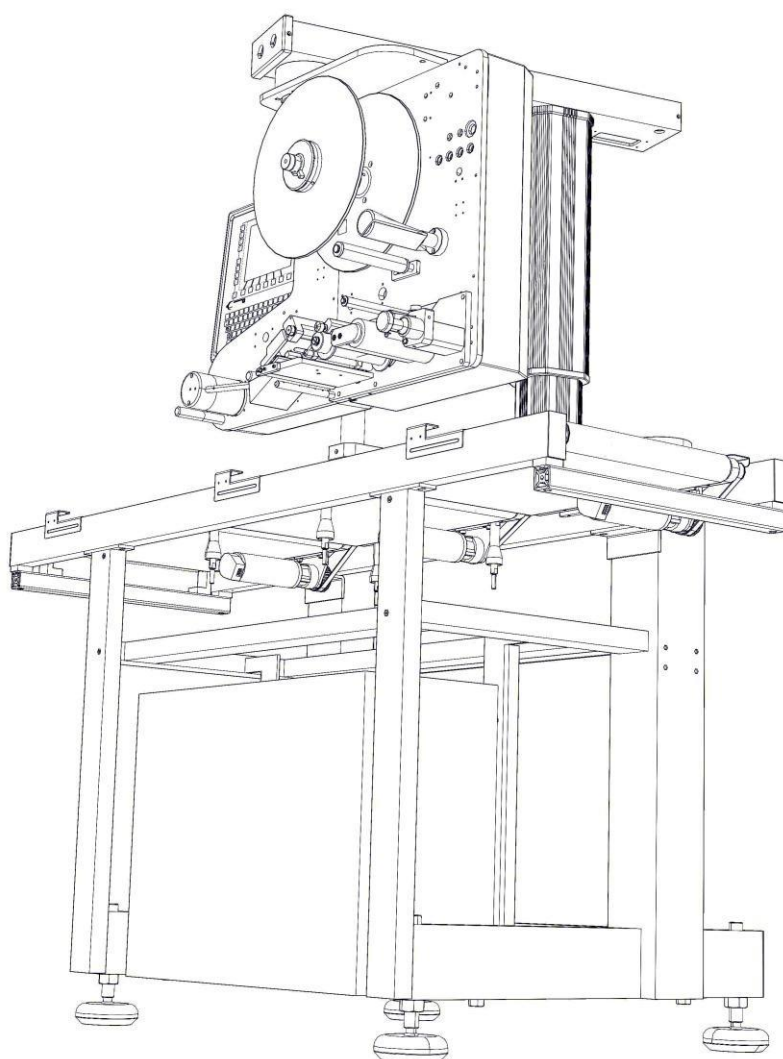
*Every time they must be removed for performing checks or maintenance, it is mandatory to isolate the machine from the power supply by means of the main power switch.*

*It is prohibited to start the machine without its fixed guards.*

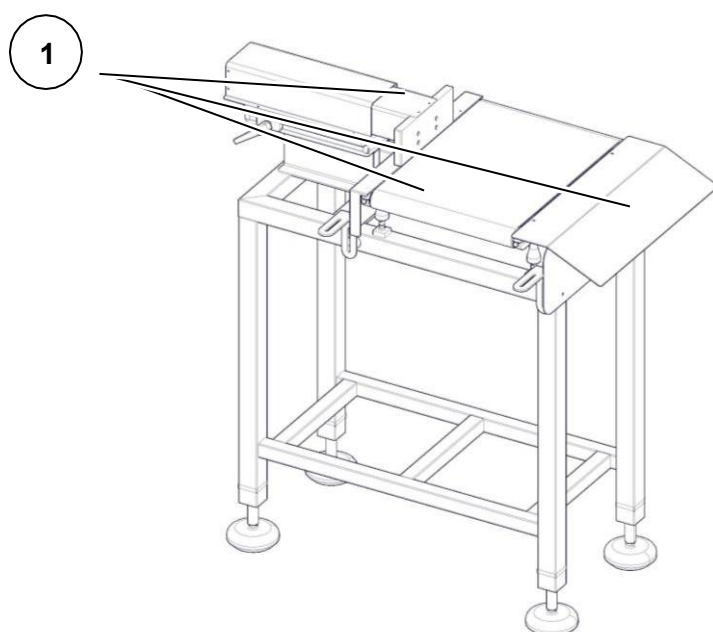
*During all maintenance operations, repair work or adjustments, it is MANDATORY to lock the interlocked switch IN "0" POSITION by means of the padlock provided for this purpose. Apply a sign to the control panel on board the machine or to the main power supply switch (as requested); this sign can bear the following indication:*

**WARNING! DO NOT TOUCH - MAINTENANCE UNDERWAY.**





**Ejector unit (available upon demand)**



### **2.4.2 Power switch (with padlock)**

The machine must be connected to a switchboard and equipped with a power switch installed on the outer side of cabinet for isolating the machine from the power supply.

The main switch must be put in its "0 - OFF" position in the event of:  
electrical hazards;

electrical or mechanical maintenance on the machine (padlock the switch);

impending danger of mechanical accident;

fires;

machine inactivity.

Turning the power switch from its "0-OFF" to its "1-ON" position powers up the electrical power supply line downstream.

With the switch in position "1-ON", the cabinet doors remain closed and locked to prevent access to the live electrical equipment.

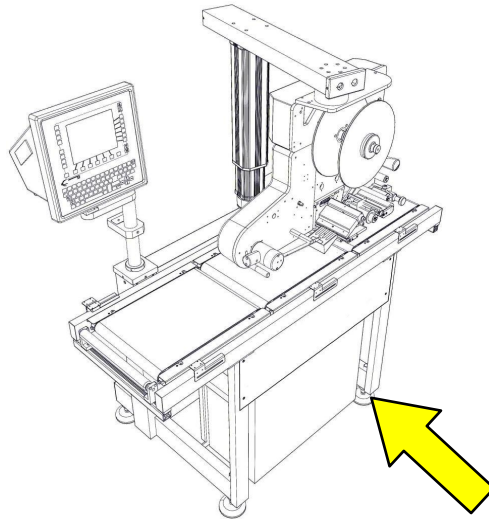
With the power switch in "0-OFF" position the following operations are possible:

removing actuators that have jammed at the machine entrance;

removing fallen objects.

## ATTENTION

*The isolating switches may be padlocked to keep them in 0 position and to prevent any unauthorised person from supplying energy while the safety guards are still open. The key of the padlock must be kept by the person in charge of mechanical and electrical maintenance of the factory.*

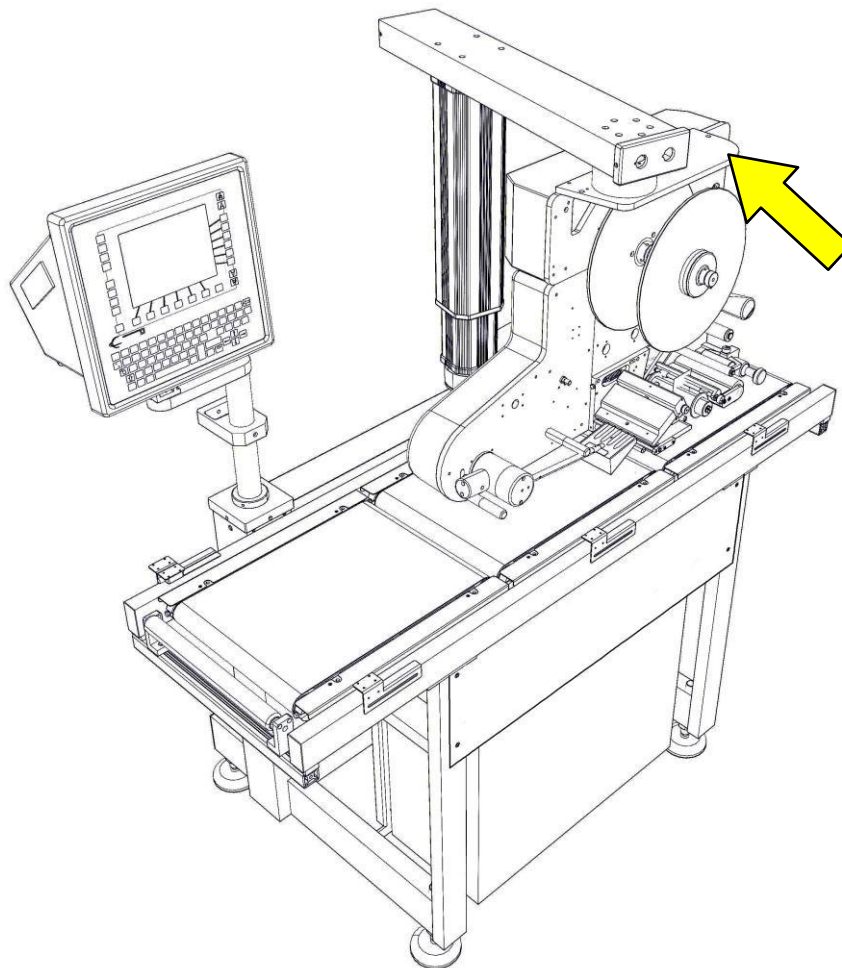


### **2.4.3 Emergency stop button**

Red mushroom-shaped button on a yellow background, with sustained action, located on one side of the machine; the machine can be stopped at any moment by pressing this button.

## **ATTENTION**

*The button should be only used to stop the machine in emergency situations. The continuous and improper use of this button could cause unpredictable damage to the mechanical and electronic system.*



## 2.5 RESIDUAL RISKS



### A. Personal protective equipment (PPE)

Should it be necessary for operational or servicing reasons to work on the system manually, operators must wear the necessary Personal Protective Equipment, namely:

- Overalls
- Ear defenders
- Non-slip footwear
- Cut-proof gloves

### B. Unexpected/accidental machine starting

The relevant risk is avoided by instructing the operator concerning the practices to follow in this event:

- isolate the electricity supply by acting on the power switch and by applying a padlock on it;
- in the event of any maintenance work, inform the person in charge so as to prevent any accidental starting of the machine;

### C. Noise

Even if the noise emission levels fall within the thresholds established by the relative standard, the use of ear defenders is recommended owing to the sound pressure level in the environment where the machine is installed.

### D. Danger of electrocution

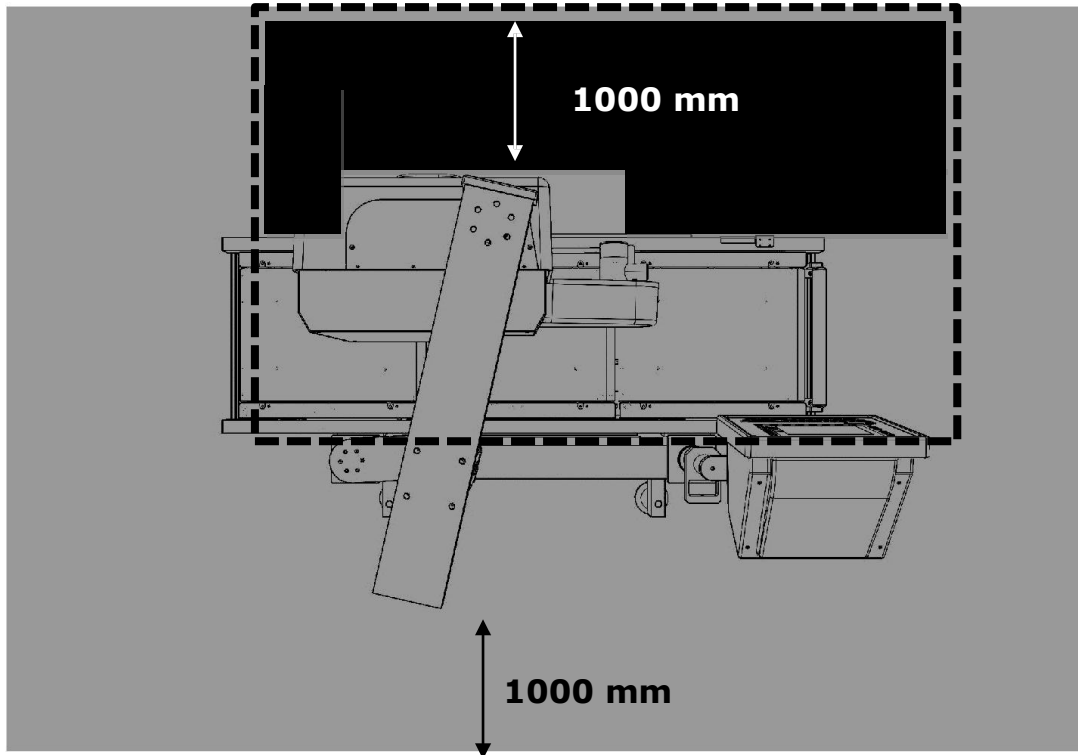
During operation, the machine is live. Before performing any work, turn off the switchboard.

Only authorised personnel (electrician) are allowed to work on the machine when it is live.

### E. Danger of collision

In the event of access during operation of the ejector (optional), keep at a safe distance from the work area to prevent contact.

## 2.6 WORKSTATION



### **Work area**

#### **A. Control area**

In this area, the operator adjusts the speed of the frames.<sup>1</sup>

#### **B. Work area**

In this area, the operator loads/unloads the carriages.<sup>2</sup>

### **Machine maintenance area**

Work area in which the operator performs manual operations for maintenance purposes only. It is strictly prohibited to gain access to this area when the machine is running and/or on (MOVING PARTS).

<sup>1</sup> N.d.T. Questa frase non sembra riferirsi alla macchina in oggetto.

<sup>2</sup> N.d.T. Vedi sopra

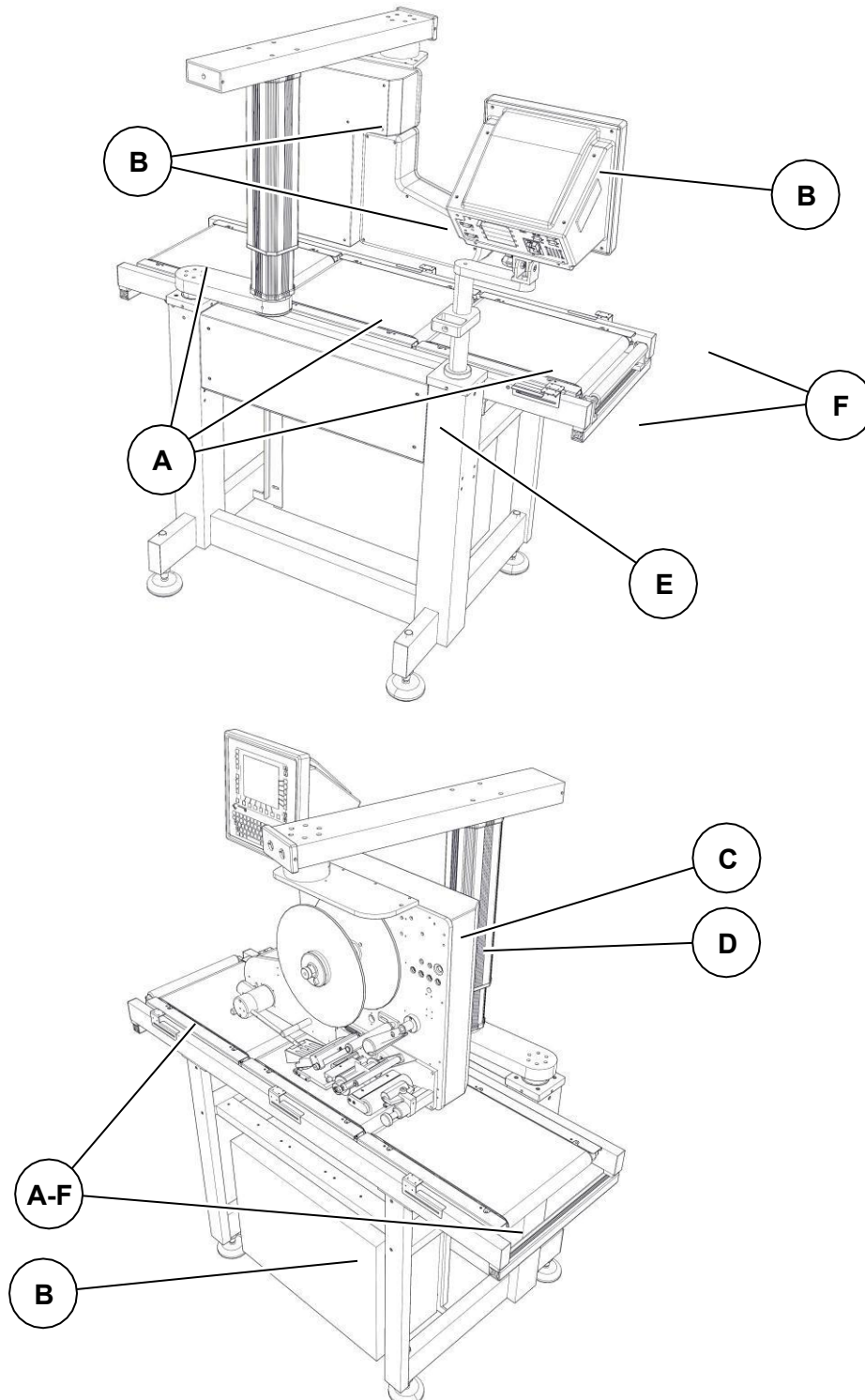
## ATTENTION

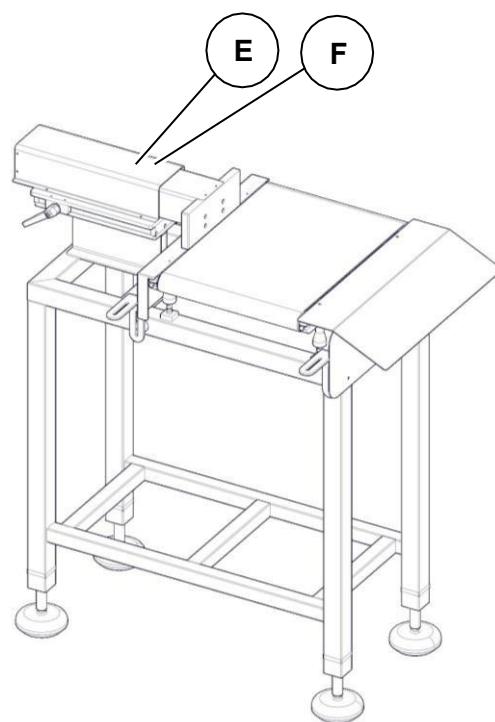
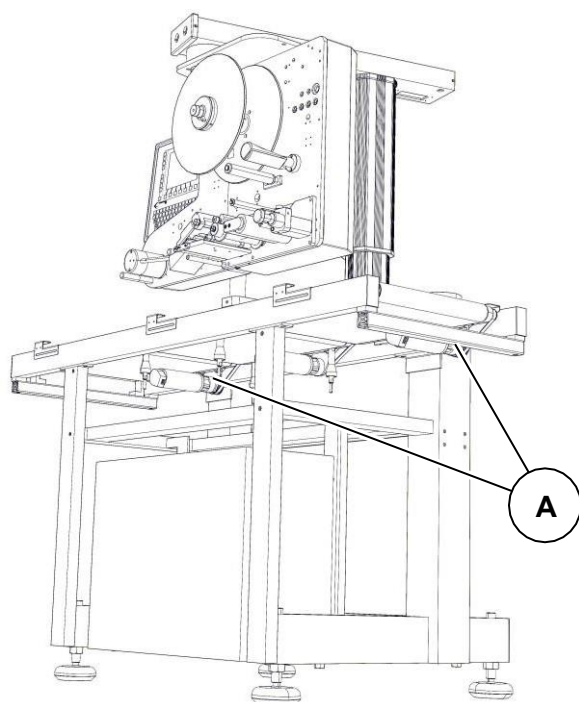
*For safety purposes, prevent access or passage of persons in the areas indicated.*

## 2.7 POSITION OF PICTOGRAPHS



The Safety symbols and signs described below are used on the machines and throughout this manual to draw the Operator's attention to hazards which compromise safety of the machine and persons; to identify hazardous operating conditions which may cause damage to the machine or to the system in general, or to indicate actions to be taken for efficient operation of the machine.





**Figure 2- 1 - Pictograph list**

|   |                                                                                     |                                                                                                                                                                                                                                                                                                    |
|---|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A |    | <p><b>Moving parts</b></p> <p>This warns operators of the presence of moving parts and prohibits them removing the guards when the machine is running.</p>                                                                                                                                         |
| B |    | <p><b>Danger of electrocution</b></p> <p>This is affixed to enclosures containing cables and electrical equipment to warn operators that these components are live.</p>                                                                                                                            |
| C |    | <p><b>Consult the manual</b></p> <p>This informs the operator that it is necessary to consult the manual to ensure safe operation</p>                                                                                                                                                              |
| D |  | <p><b>Danger of entanglement by rotating parts</b></p> <p>This warns of the danger of entanglement in the event of contact with these parts</p>                                                                                                                                                    |
| E |  | <p><b>Never perform maintenance when the machine is running</b></p> <p>This warns operators that it is necessary to stop the machine before performing any maintenance work.</p>                                                                                                                   |
| F |  | <p><b>Danger of hand/arm and leg/foot crushing:</b></p> <p>this symbol instructs operators to pay particular attention towards mechanical components that could cause hand/arm and leg/foot crushing in the event of unexpected movements or imprudent manoeuvres of the operators themselves.</p> |

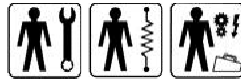
## ATTENTION

*Pictographs and safety labels affixed to the machine must not be altered or removed for any reason whatsoever: they must always be VISIBLE and READABLE.*

*If safety labels are damaged and/or missing, replace them immediately.*

### 3. TESTING, DELIVERY AND INSTALLATION

#### 3.1 Final testing



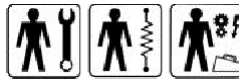
All components of the manufacturer's products are strictly checked and tested.

During this test, the products are subjected to a repetitive series of complete work cycles.

Malfunctions due to defective components are identified during this phase.

This procedure guarantees a product that is reliable and in working order.

#### 3.2 Delivery of line



### **WARNING**

*Strictly comply with the indications on the packaging of the line. Moisture and strong impact will damage the equipment which also contains electronic parts.*

Both transport and storage must be carried out with particular care.

Do not stack the crates.

Always store the equipment in a dry place, protected against infiltrating water and moisture.

All the material shipped by the manufacturer is checked before shipment.

The line is transported duly fixed and protected within a wooden crate, with certain of the more sensitive parts locked in place (terminal, display and printer).

### 3.3 Handling



#### 3.3.1 Handling the package

## WARNING

*Lifting, transport and handling must be entrusted to the maintenance person and to qualified staff (crane operators, etc.), which must be assisted on ground by an expert person that is capable of giving the necessary instructions.*

Such personnel should be perfectly aware not only of the general safety regulations in force in every country but also of the safety regulations relating to the machine, which are provided in this manual.



## WARNING

*The instructions below are to be scrupulously adhered to since such operations entail potential hazards.*

*Make sure that the lifting, moving and handling equipment features an adequate load-bearing capacity that is suitable for the package's weight.*

*Any other system for lifting, transport and handling that has not been recommended by the manufacturer will invalidate the insurance covering damage to the machine and/or any additional ancillary equipment.*

*Should the dimensions of the package prevent the operator from having perfect visibility during the lifting, moving and handling operations, it is advisable that two operators be in attendance on the ground to check for possible hazards or obstacles against which the package could collide.*

The lifting equipment used must have a capacity suitable to the total weight of the package shown on the package itself.

The package must be handled in compliance with the following guidelines:

- No sudden movements.
- Except when stopping and starting, there must be no abrupt acceleration or deceleration.
- Stop before changing direction (if a crane or overhead travelling crane is used).
- As far as possible, when the package is lifted, keep it away from any obstacles and as near to the ground as possible.
- The safest route must be chosen before lifting the machine.

- Never allow anybody to pass under or stand underneath hanging loads.
- Handling speed should be assessed on the basis of the forces of inertia developed by the starting and stopping movements, as these forces cause additional pulling strain on the chains or ropes and create load swinging. This speed does not only depend on the machine's weight, but also on: the type of crane or fork-lift truck, the dimensions and resistance of the slinging tackle and the presence of any obstacles.
- The load must be lowered slowly to the ground to avoid damaging the more delicate components.

## **WARNING**

*When the packs reach their destination, check their condition and the condition of their contents at the presence of the carrier. Compare the supply with the packing list delivered with the machine.*

*Lifting, transport and handling must be entrusted to the maintenance person and to qualified staff (crane operators, etc.), which must be assisted on ground by an expert person that is capable of giving the necessary instructions.*

Such personnel should be perfectly aware not only of the general safety regulations in force in every country but also of the safety regulations relating to the machine, which are provided in this manual.

## **WARNING**

*The instructions below are to be scrupulously adhered to since such operations entail potential hazards.*

*Make sure that the hoisting systems used for lifting, moving and handling the machine are suitable for the latter's overall weight, which is indicated on the technical sheet of this manual.*

### **3.3.2 Handling the machine**

## **WARNING**

*Make sure that the lifting device used for lifting, moving and handling the machine is suitable for the latter's overall weight, which is indicated on the technical sheet of this manual. Any other system for lifting, transport and handling that has not been recommended by the manufacturer will invalidate the insurance covering damage to the machine and/or any additional ancillary equipment.*

*Should the dimensions of the machine prevent the operator from having perfect visibility during the lifting, moving and handling operations, it is advisable that two operators be in attendance on ground to check for possible hazards or obstacles against which the machine could collide. Also ensure that there is nobody standing in the transport areas and that any accessories or cables connected to the machine prevent movement or render transport dangerous.*

### **3.4 Dimensions and weight of the package**



The weights and dimensions may differ if special versions of the equipment are ordered (check the weight and dimensions on the documents provided).

The weight of the packed line is indicated on the pack itself.

The weight and dimensions are provided in the technical data.

#### **3.4.1 List of materials supplied**

Along with the line, the pack contains the following materials:

- 1 (one) plug for the electrical connections
- 1 (one) use and maintenance manual
- 2 (two) rolls of labels (for each labelling machine supplied)
- one set of spare fuses

#### **3.4.2 Handling the package**

The package must be lifted by means of a forklift truck or pallet transfer car by inserting the forks into the openings on the package.



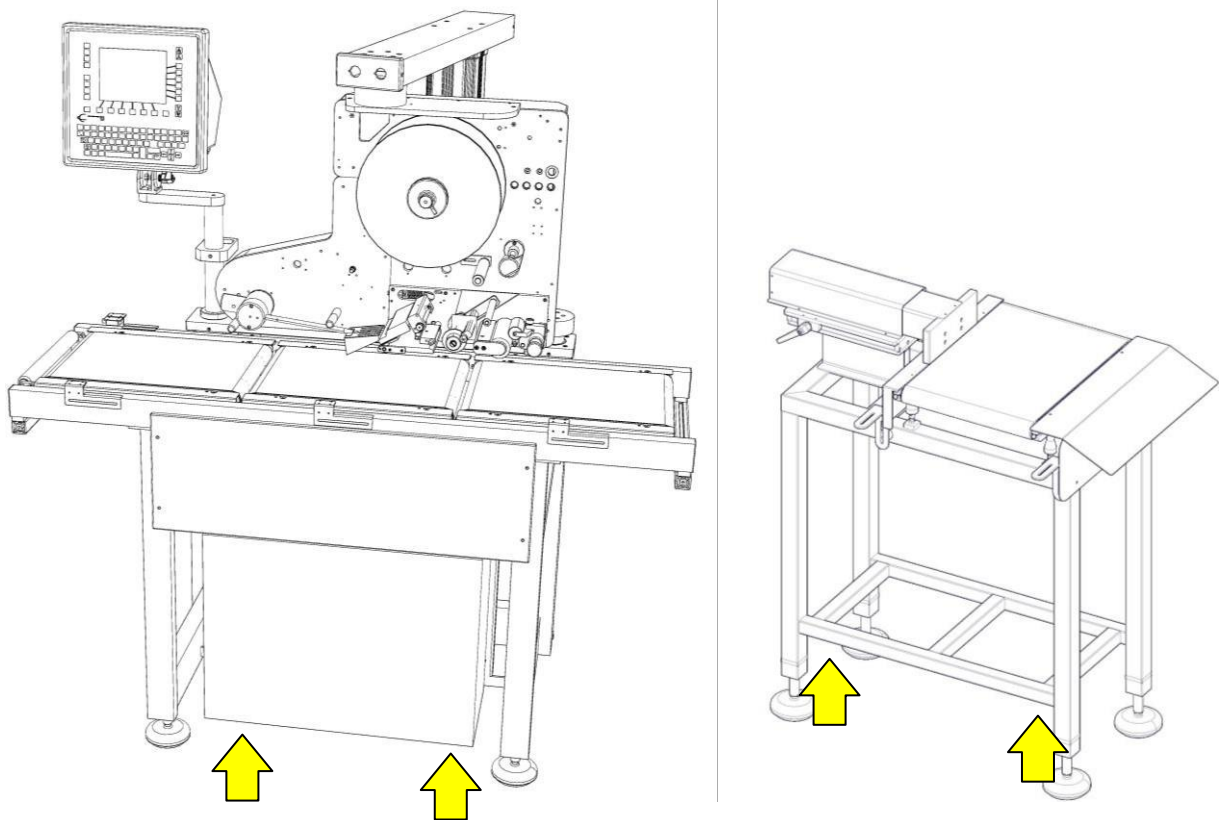
### **3.4.3 Handling the line and optional units**

The weighing line will be delivered in a crate with clear indications of:

- the weight (depending on the model and any optional equipment installed);
- the position of the centre of gravity;
- the lifting points.

The crate can be handled with a pallet transfer car, fork lift truck, or using a lifting system with ropes or belts.

Forks should be inserted on the front side of the machine, in correspondence with the labels provided for the purpose.



## **WARNING**

*When lifting the machine, pay great attention and proceed with care to prevent any damage to the cover of the switchboard cabinet. If the cover of the switchboard cabinet or the switchboard are damaged, do not install it until qualified technicians perform the necessary repair work.*

The machine features wheels for transport over short distances. It can therefore be pushed forward upon condition that the floor is perfectly smooth and clear from any obstacles.

## ATTENTION

*The machine must only be lifted from the points marked on the pack.*

*Always and only use lifting equipment and systems that are capable of withstanding the weight declared on the crate.*

*Do NOT LIFT the machine if this information is illegible. Contact the manufacturer's After-Sales service in order to obtain the necessary instructions.*

## WARNING

*It is essential to raise the printing heads if the machine must be moved in the future, even to only a small extent.*

Pay the utmost attention to the instructions on the crate when carrying the machine to its installation site.

### **3.5 Positioning**



Before removing the packaging, put the machine in its intended place of installation.

#### **3.5.1 Environmental requirements**

- Operating temperature from 0°C to +40°C.
- Non-condensing humidity from 10% to 95%
- Vibrations: since this is a weighing system, vibrations negatively influence the way the machine operates. It is therefore essential for the installation site to be well clear of sources of vibrations.
- Electromagnetic pollution: the weighing line has been tested in compliance with the relative European Union directives. It is therefore below the limits established both for emission and for immunity from emissions of the electromagnetic type.

## **ATTENTION**

*The customer who manages the line and/or system is responsible for making sure that the other pieces of equipment installed near the line comply with the requirements of standards relating to electromagnetic emissions, so as to prevent pollution sources exceeding values established by standard from damaging the line or causing it to operate in a faulty way.*

**THE MACHINE MAY NOT BE USED IN POTENTIALLY DANGEROUS ENVIRONMENTS**

#### **3.5.2 SPACE REQUIREMENTS**

Provide clearances in the machine's installation zone of at least **1000 mm**.

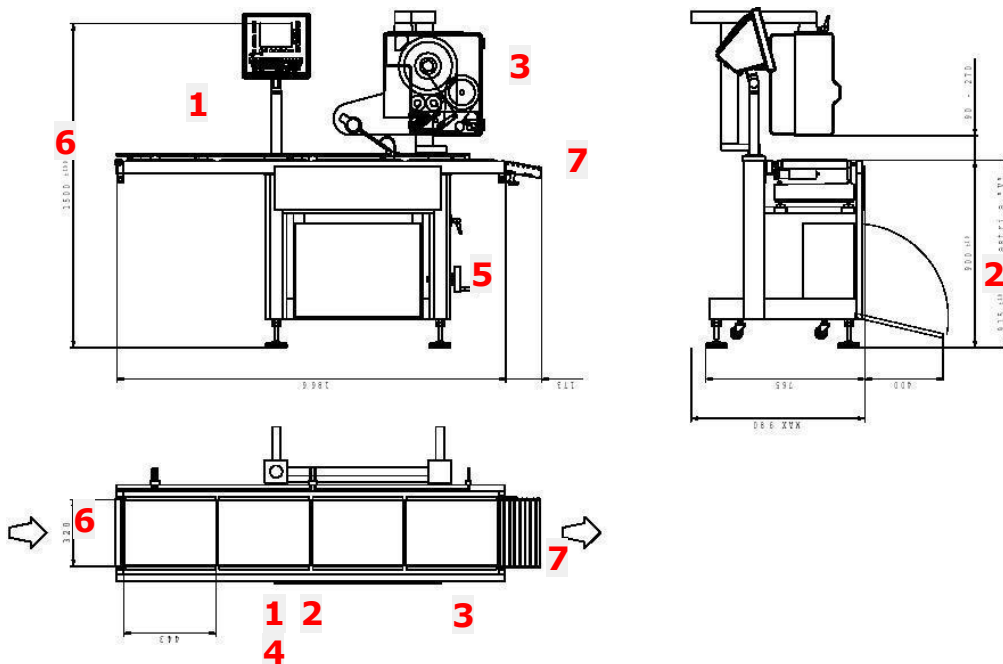
## ATTENTION

*Make sure that the clearance around the machine is sufficient to allow for easy and comfortable adjustments and maintenance.*

### 3.5.3 Clear zones

When the line is installed, particular attention must be paid to the following "clear zones" which must be kept uncluttered so as to prevent the operators' movements from being hampered:

1. the operator must have free access to the keyboard and be able to clearly see the weight and messages;
2. there must also be a zone that allows the casing that protects the electronic devices to be easily opened for servicing purposes;
3. the position of the printer (or printers) must allow easy access by the operator for paper roll replacement and for removal of the backing paper. Keep a waste bin nearby;
4. the position of buttons and additional selectors must not prevent the operator from having easy access to the keyboard;
5. position of the handwheels used to make adjustments;
6. position of the product loading area;
7. area where products are unloaded and packaged.



**Figure 3- 1 - Clear zones**

## ATTENTION

*Pay particular attention to the position of the EMERGENCY BUTTONS,  
access to which must never be obstructed by objects, even  
temporarily.*

### **3.5.4 Opening the package**

#### **MACHINE PACKED IN A WOODEN CRATE ON A PALLET**

Remove the package. It is advisable to keep the original packing materials which can be used to move the machine at a future date in full compliance with the safety conditions.

## **ATTENTION**

*At least 2 persons are required for this operation.*

*The crate is closed with nails. Use the necessary personal protective equipment and immediately eliminate the nails as they are removed. Never ever leave the wooden boards unattended with nails projecting from them.*

*Make sure that there are no bystanders near the crate when it is opened.*

The pack is formed by a cardboard box on a pallet and must be dismantled in the following order:

- Remove the staples from the base of the box or cut the cardboard.
- Two persons must hold the structure by the handles on the short sides of the box.
- Lift the box upwards, taking care to prevent damage, particularly to the printing unit or terminal.
- Remove the materials that fix the line to the pallet (usually straps).
- Lift the line by means of a lift truck or lifter with belts.

## **ATTENTION**

*Lift the machine from its centre, slowly testing the stability of the load and evaluating the risk of overturning. Only lift as high as is required to remove the wooden pallet. Use levers or poles during this operation, so as to remain as far as possible from the hanging load. NEVER stand or pass under the load!!*

- Two persons must quickly remove the pallet.
- Lower the machine to the floor.

## **ATTENTION**

*If the machine must be moved in any way, it is essential to place it in its original packing materials, in compliance with the instructions provided in the HANDLING chapter.*

- Make sure the machine is level by checking the level gauge on the scale itself. Use the adjustable feet to level the machine. **NEVER** use the adjustable feet of the scale support to do this.

## WARNING

*The printing heads of the labelling machines are raised for transport purposes; before starting the machine check that*

*the heads are lowered in printing position and that paper has been correctly inserted.*

## MACHINE DELIVERED BY THE MANUFACTURER'S PERSONNEL

In this case, the machine may be supplied without a package

- The customer must provide the mechanical means and personnel (two persons) for the unloading and positioning operations, which must be carried out in compliance with the instructions given by the manufacturer's staffs who deliver the machine.

## ATTENTION

*Lift the machine from its centre, slowly testing the stability of the load and evaluating the risk of overturning.*

- Make sure the machine is level by checking the level gauge on the scale itself. Make any adjustments using the nut and locknut on the adjustable feet. After adjusting, remember to wrench the nut. **NEVER use the adjustable feet of the scale support to do this.**

## ATTENTION

*The installed machine must never be resting on its wheels but on its feet.*

### 3.6 Connection to the energy supply lines



#### 3.6.1 Electricity

See paragraph 1.10.1.

## ATTENTION

*Perform all electrical connections with the machine isolated from the power supply.*

#### 3.6.2 Compressed air

See paragraph 1.10.2.

Connect the machine to the compressed air supply unit using suitable pipes (inner diameter 8 mm, outer diameter 10 mm).

After connecting, make sure that the pressure indicator is on 6 bar. If it is not, act on the regulator.

#### 3.6.3 COM1, COM2, COM3 serial output connection.

The outputs of the instrument can be configured in accordance to RS232/422 standards by means of BIOS settings and internal jumpers.

The labels show which standard has been adopted.

Connection to the pins is given in the following table:

| Pin | RS232 | RS422 |
|-----|-------|-------|
| 1   | DCD   | TX-   |
| 2   | RX    | TX+   |
| 3   | TX    | RX-   |
| 4   | DTR   | RX+   |
| 5   | GND   | GND   |
| 6   | DSR   |       |
| 7   | RTS   |       |
| 8   | CTS   |       |
| 9   | RI    |       |

**Figure 3- 2- Pins of serial outputs**

## ATTENTION

*Maximum conditions of use envisaged by standard RS232:*

*Maximum transmission distance = 15 m*

*Maximum voltage at ends =  $\pm 12$  VDC*

*It is advisable to use a screened cable for connections to external devices. Remember to connect the screen to the metal part of the shell of the 9-pin connector.*

## ATTENTION

*Limits to use envisaged for standard RS422:*

*Maximum transmission distance = 1200 m*

*Maximum voltage at ends =  $\pm 7$  V*

*It is advisable to use a screened cable of the "twisted pair" type for connections to external devices. Remember to connect the screen to the metal part of the shell of the 9-pin connector.*

### **3.6.4 Fast Ethernet network connection**

Pin-out 6 reflects the standard RJ45 Fast Ethernet 10/100 pin-out.

### **3.6.5 Connection of the printer**

Unless different instructions are given, the external printer is connected to the COM 2 serial port of the CPU box using the supplied cable.

Two types of printer, with 2" or 4" printing heads, are available as required.

Consult the printer manual for further details.

### **3.6.6 Connection of the ejector unit**

Connect the ejector to the main machine. In particular connect:

- the electrical power supply
- the compressed air supply

## ATTENTION

*Perform all electrical connections with the machine isolated from the power supply.*

### **3.7 Switching the terminal on and off**



#### **3.7.1 Routine turning on**

- Before powering the line, make sure that the connecting conditions specified in the "connections" section have been prepared and that compressed air is connected and supplied as specified.
- Make sure that the conveying system is not loaded and that nothing is touching the weighing belt.
- Make sure that the labels have been correctly loaded into the machine and that the printing head is lowered.
- Make sure that any feeding devices upstream to the line are at a standstill.
- Make sure that the emergency switch has not been pressed.
- Turn on the isolating switch upstream to the line.
- Turn the main switch in the lower part of the line to position 1 and wait for the 'machine ready' indication to appear on the display.

### **3.7.2 Starting**

The boot phase of the system occurs when the machine is powered. Information about the keys to press in the event of an emergency procedure will appear.

**ESC**

- Press **ESC** to stop the boot phase and activate the FTP server.



**Figure 3- 3 - Location of the main switch (1)**

### **3.7.3 Turning on after a normal stop**

- From the control panel, perform the restarting procedure.

### **3.7.4 Turning on after an alarm**

Eliminate the cause of the alarm and reset the alarm from the control panel. The machine is ready to work.

### **3.7.5 Turning on after pressing an EMERGENCY STOP button**

Disengage the button and press the reset key. The machine is ready to work.

### **3.7.6 Normal stop**

- From the control panel, press the STOP button. The machine will restart from the stage during which it was stopped.

### **3.7.7 Routine turning off**

- After the processing or programming phases have terminated, quit the archive menu and go to the main menu.
- Turn the main switch to position 0.
- Turn off the isolating switch upstream to the machine.

### **3.7.8 Emergency stop**

- Press the EMERGENCY STOP button.

## **WARNING**

*IN THE EVENT OF DANGEROUS CONDITIONS FOR OPERATORS OR ANOMALOUS SITUATIONS OF MACHINES, ACT ON THE EMERGENCY STOP DEVICES (MUSHROOM BUTTONS) TO BRING THE CYCLE TO AN IMMEDIATE STOP.*

*THE EMERGENCY BUTTONS MUST BE PRESSED ONLY IN THE EVENT OF DANGEROUS SITUATIONS. THEY MUST NOT BE USED FOR NORMAL STOPPING.*

## **3.8 Decommissioning**



### **3.8.1 Temporary**

If the line is to remain unused for a long period of time, it is still advisable to carry out the routine maintenance operations at least once every six months.

Protect the line from the dust and store it in a dry, sheltered place.

## **ATTENTION**

*If the line must be moved in any way, it is essential to place it in its original packing materials, in compliance with the instructions provided in the HANDLING chapter. If the original packing is not available, place the line on a pallet and secure it in a secure and stable manner.*

Lift the printer's thermal head (of all printers, if there is more than one).

Remove the thermal paper and thermal film (if used) and store it well away from the sources of light and heat.

### **3.8.2 Definitive (dismantling)**

The line is mainly composed of the following materials:

- ANTICORODAL 100 ALUMINIUM
- STAINLESS STEEL X 5 CrNi 1810 UNI EN 10088-1
- POLYURETHANE (PE VHNW 100)
- PVC
- POLYCARBONATE - POLYSTYRENE
- ELECTRICAL MATERIALS

There are also small quantities of:

- SINTERED BRONZE, BRASS

The electronic terminal contains NiCd batteries.

When the line is dismantled and scrapped, refer to this list so that the materials can be disposed of in compliance with the standards and laws in force at that time in the country of use.

Disconnect the machine from the power supply line, after making sure that all switches upstream and downstream have been turned to "0" **(see the switchboard manual)**.

**TO SAFEGUARD THE ENVIRONMENT**

***AFTER DIVIDING THE MACHINE COMPONENTS UP ACCORDING TO THE MATERIAL, THEY MUST BE DISPOSED OF BY AUTHORISED WASTE DISPOSAL CENTRES IN ACCORDANCE TO THE LEGISLATION APPLICABLE IN THE COUNTRY WHERE THE MACHINE IS USED.***

***DO NOT DISPOSE OF WASTES IN THE ENVIRONMENT.***

## 4. CONTROLS AND MESSAGES

### 4.1 Front section (display and keyboard)

### 4.2 Display

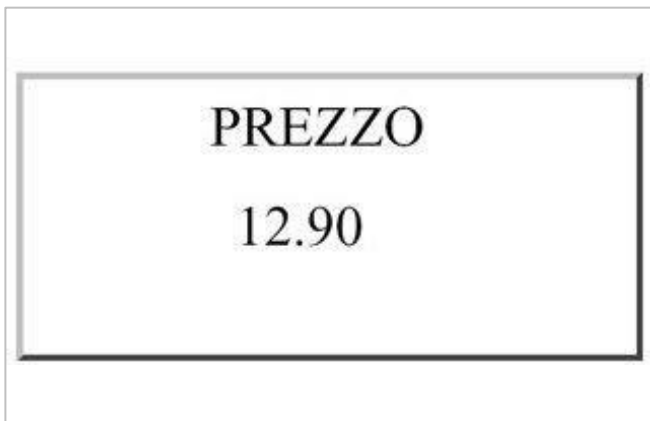
4.2.1 Pathway area

4.2.2 Tare area

4.2.3 Weight area

4.2.4 Metrological data area

4.2.5 Price area



**Figure 4- 1 - Detail of the price area**

**4.2.6 Message area**

**4.2.7 Functions area**

**4.2.8 Date, time and level area**

**4.2.9 Settings area**

## **4.3 Keyboard**

**4.3.1 Sets of keys**

**4.3.2 Function keys (orange background)**

**4.3.3 Date keys (purple background)**

**4.3.4 Summing keys (purple background)**

**4.3.5 Alphanumerical keys (light blue and grey background)**

**4.3.6 Editing keys (black background)**

## 5. USING THE LINE – PROGRAMMING

### 5.1 Convention

The following text will only indicate the pathway to follow without referring to the keys that must be pressed. For example, the pathway shown below will be given when a product code must be changed:

*Home\Process\Data Modification\Product*

(see symbols in § 1.3).

The complete pathway appears in the display area described in point 1 of § 4.2.

A dark blue rectangular button with the word "ENTER" in white capital letters.

Use to confirm entry of a data item or to open a submenu.

A dark blue rectangular button with the letters "ESC" in white capital letters.

Press to return to the previous menu.

When reference is made to selection of a menu, it means that the arrows can be used to move to the desired item which can then be confirmed

A dark blue rectangular button with the word "ENTER" in white capital letters.

with .

## 5.2 Home page

The following figure illustrates the home page of the application when the weighing-pricing machine is powered and the boot phase has terminated.

|                                                     |                |                                 |                         |                                    |                    |                           |       |
|-----------------------------------------------------|----------------|---------------------------------|-------------------------|------------------------------------|--------------------|---------------------------|-------|
| <b>PT kg</b><br><b>0.000</b><br>TARA PREDETERMINATA |                | <b>LORDO kg</b><br><b>0.000</b> |                         | Max. 12 kg<br>Min. 40 g<br>E = 2 g |                    | <b>PREZZO</b><br><b>0</b> |       |
| Home                                                |                |                                 |                         | Ver.SW 4.x.x Ver. Bil 491004 1.1   |                    |                           |       |
| <b>PLU</b>                                          | <b>CLIENTE</b> | <b>TESTO ARTICOLO 1</b>         | <b>TESTO ARTICOLO 2</b> | <b>ETI</b>                         | ORDINA PER PLU     |                           |       |
|                                                     |                |                                 |                         |                                    |                    |                           |       |
|                                                     |                |                                 |                         |                                    | ORDINA PER CLIENTE |                           |       |
|                                                     |                |                                 |                         |                                    |                    |                           |       |
|                                                     |                |                                 |                         |                                    | ELENCO PLU APERTI  |                           |       |
|                                                     |                |                                 |                         |                                    |                    |                           |       |
|                                                     |                |                                 |                         |                                    | RISTAMPA TOTALI    |                           |       |
|                                                     |                |                                 |                         |                                    |                    |                           |       |
|                                                     |                |                                 |                         |                                    | AZZERAMEN BILANCIA |                           |       |
|                                                     |                |                                 |                         |                                    |                    |                           |       |
| LAVORAZ                                             |                |                                 |                         |                                    | ARCHIVI            | 01/01/2007<br>14:20       | LIV.5 |

**Figure 5- 1 - Home page**

Use the function keys (F1...F12) to browse through the menus.

## **5.3 Operating levels**

### **5.3.1 Introduction**

The purpose of the operating levels is to simplify the weighing and data entry operations, while making them more secure.

At the lowest levels, the operator can only start machine operation, choose the PLU and use the pre-programmed information. Since he need not worry about entering data, he can work in a faster and more secure way. Using the macro functions, the operator can only edit those data he is able to access (e.g. the price, lot, dates, etc.), depending on the case in question. If the operator needs to edit parameters at higher levels, this can be done by accessing them with a password. In this case, the work becomes more versatile, but more liable to errors and slow-downs. When powered, the machine presents level 0, which is the lowest level.

### **5.3.2 List of access levels**

For Venus Series 100 weighing-pricing machines, there are five operator levels, which are described below:

|         |                                                                                                                                                                                                                   |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LEVEL 0 | Level at which the operator can merely access the process and use any macros that may have been set. Data editing. Allows codes, preselections and totals to be modified.                                         |
| LEVEL 1 | Data editing. Allows codes, preselections and totals to be modified.                                                                                                                                              |
| LEVEL 2 | Level where plu archives, texts and traceability data can be entered. Data editing. Allows level 1 data to be modified as well as weights, ranges, currencies, dates, article texts, consecutives numbers         |
| LEVEL 3 | Archives as in level 2 plus date/time settings. Data editing. Allows the level 2 data to be modified as well as Indicods and packing lists.                                                                       |
| LEVEL 4 | Level at which all the archives can be entered (plu, lab, texts, barcodes, images, traceability, barcode reading, weight control, weight bounding, macros). Data editing. Allows the level 3 data to be modified. |
| LEVEL 5 | Level at which various and network configurations within the operator's grasp can be set-up and at which maintenance operations can be carried out.                                                               |

**Figure 5- 2 - Level list**

### 5.3.3 Changing level

To change the operating level, press key  at the same time as the required level number (for example,  + 4 to access the 4<sup>th</sup> level) and enter the password.

### 5.3.4 Modifying a password

Passwords can only be entered at 5th level, the default access password of which is "555555".

To change one or more passwords, you must access level 5.

Follow the pathway below to go to level 5:

- *Home\Archives\Setups>Password*

|                  |        |
|------------------|--------|
| STARTING LEVEL   | 0      |
| LEVEL 1 PASSWORD | 111111 |
| LEVEL 2 PASSWORD | 222222 |
| LEVEL 3 PASSWORD | 333333 |
| LEVEL 4 PASSWORD | 444444 |
| LEVEL 5 PASSWORD | 555555 |

**Figure 5- 3 - List of passwords**

Select the level of which the password must be changed.

Type the new password and press  .  
Press *SAVE*.

### 5.3.5 Modifying access level when turning on the machine

When powered, the machine presents level 0, which is the lowest level.

Access level 5 to modify the access level.

Follow the pathway below to go to level 5:

*Home\Archives\Setups>Password*

Select line:

|                |   |
|----------------|---|
| STARTING LEVEL | 0 |
|----------------|---|

Press .

Type the new level (from 1 to 5) and press .

Press *SAVE*.

The machine will start from the selected level when turned on the next time.

## **5.4 Function macros**

### **5.4.1 Introduction: difference between macro and global field**

The difference between the function macro and global field concept lies in the length of time the intervention involving the modified field lasts and in the number of function keys available. When it comes to macro functions, the modifications entered remain activated until the process closes (except when the operator opts for saving the modifications in the archives when the macro is created). Modifications entered in global field mode always remain valid until the field itself is modified again. Use of a macro function may therefore be useful in order to automate the entry of lots of data that change for each process. The global fields are used when the same field must be entered for the first time and remains valid for several plu to be subsequently processed (a typical example is that of the lot code in a multiproduct/crate weigher context).

### **5.4.2 Introduction**

The "macro functions" allow you to associate a function or data item of the weighing-pricing machine to a function key, in a clear and simple way. This association simply occurs the first time the operating sequence that accesses the value to be changed is memorized. Memorizing can then be associated with any vacant key. As part of the standard supply, the machine comes with the following macros already activated:

- Date 1
- Date 2

- Date 3
- Tare

A macro function directly accesses the data in the process in the same way as they are accessed by means of the **DATA MODIFICATION** menu (see chapter 6.5).

### **5.4.3 How to program a macro function**

Proceed in the following way to program a macro function:

- With the machine running, go to the **"DATA MODIFICATION"** menu.

- Press keys  and **M** together.
- A mask will now appear asking you to name the macro function to be recorded (e.g. "Price"). Type the required name and confirm.
- The **"MACRO ACTIVATED REGISTRATION PHASE"** indication will appear on the top right of the display.
- Move to the field to be edited using the arrows (e.g. price).

- Select the field (e.g. the highlighted price) and press .
- The message "Field selected..." (e.g. "field selected: unitary price") will appear on the top right of the display.
- The user will be asked whether the change must be saved in the PLU.

- Close the memorizing phase of the macro by pressing keys  and **M** at the same time.
- Return to the process, with the machine operating.

- To associate the programmed macro to a key, press keys  and **A** at the same time.
- A mask with the prompt to "Select Macro File" will appear, with a list of the recorded macros.
- Select the programmed macro (e.g. "Price") and confirm.
- The **"Macro 1 text"** mask will appear. This prompt concerns the name to put on the key that will be selected. The text consists of two separate lines of 10 characters each.

The first is requested in this mask: enter the first part of the name

**ENTER**

and confirm (e.g.: CHANGE + ).

- The mask requesting the "Macro text 2" will appear, requiring entry of a second line of 10 characters describing the key: enter the

**ENTER**

second part of the name and confirm (e.g.: PRICE + ).

**ENTER**

If you choose not to enter the second test, press and the text previously entered will be automatically centred.

- The "**MACRO ACTIVATED ALLOCATION PHASE**" indication will appear on the top right of the display.

**F12**

- Press the key to which the macro will be assigned (e.g. which will become CHANGE PRICE).

#### **5.4.4 Start Macro**

The "**START MACRO**" concept allows processing of a macro to be automatically enabled.

**START MACRO** must be saved when a **start.mcx** file is made.

An already existing macro can be copied into another and called **start**, thus obtaining a **START MACRO**.

#### **5.4.5 How to delete a macro function**

Proceed in the following way to delete a macro function:

- Access the processing mask (machine operating) and press keys

**ALT**

and **E** at the same time.

- The "**MACRO ACTIVATED CANCELLATION PHASE**" indication will appear on the top right of the display.

**F12**

- Press the function key that must be eliminated (for instance CHANGE PRICE, which will disappear.

#### **5.4.6 Macro display**

To display existing macros, follow the pathway.

*Home\Archives\Macro\*

Only the OPEN menu, where a macro can be displayed, is available at level 2

## 5.5 Global fields

It is now possible to enter the fields so that they are valid and activated for all the PLU, by overwriting the values in the PLU until they are modified again.

# ATTENTION

*Only the manufacturer's specialized technical personnel may be allowed to program the file that enables the global fields to be used.*

### Note for installers:

the D.O.M. in ARCHIVES/USER/CONFIG contains the **campglob.cfg** file which can be edited with Block notes of Windows® and in which up to 3 lines can be entered. Each of these lines corresponds to a global field to use in the process.

The syntax to use for compiling the file is:

```
# COMMENT START-END CHARACTER
, FIELD SEPARATOR CHARACTER
; RECORD END CHARACTER
| FILE END # CHARACTER
```

The structure of the code to enter is the following:

| 1 <sup>st</sup> LINE TEXT<br>DESCRIPTION | 2 <sup>nd</sup> LINE TEXT<br>DESCRIPTION | PROCESSING<br>FIELD N° | GLOBAL<br>YES_NO |
|------------------------------------------|------------------------------------------|------------------------|------------------|
|------------------------------------------|------------------------------------------|------------------------|------------------|

### NOTE:

if the PROCESSING FIELD N° is set to **-1**, the global field function is disabled.

If the letter **S** (default) is entered in the last column, the fields will be global and, with reference to the dates (expiry and curing), will not be re-calculated. If **\*** (asterisk) is entered, the field typed in by the user will **only** be global **if** it does **not** begin with **\***, otherwise it will be non-global if the user types **\***. The latter option is **only** valid for dates (prod., expiry and curing).

If this function is activated during installation, the preset labels of the keys will be displayed in correspondence with function keys **F7**, **F8** and **F9**

**Example of file** campglob.cfg

```
# COMMENT START-END CHARACTER  
, FIELD SEPARATOR CHARACTER  
; RECORD END CHARACTER  
| FILE END # CHARACTER
```

```
# LOT BATCH MANAGEMENT IN DATES#
```

```
DATE/LOT          , PROD          , 43, S;  
CODE              , TRACEAB       , 49, S;  
THIRD             , DATE          , -1, S|
```

The codes entered in this way are cancelled when the machine is switched off and are currently not handled by network commands.

A partial list of the more significant fields that can be entered in the **campglob.cfg script** is given on the following pages.

**VENUS SERIE 100**

|                              |     |                                      |      |
|------------------------------|-----|--------------------------------------|------|
| CLIENT_CODE (10)             | L2  | PROD_DATE_PRINT_ENABLE               | L45  |
| PRODUCT_CODE (15)            | L3  | EXPI_DATE (15)                       | L46  |
| BATCH_CODE (15)              | L4  | EXPI_DATE_TEXT (70)                  | L47  |
| LOT_CODE (15)                | L5  | EXPI_DATE_PRINT_ENABLE               | L48  |
| COMMODITY_CODE (15)          | L6  | CURI_DATE (15)                       | L49  |
| PRODUCT_INDICOD (13)         | L7  | CURI_DATE_TEXT (70)                  | L50  |
| TOTAL_1_INDICOD (13)         | L8  | CURI_DATE_PRINT_ENABLE               | L51  |
| TOTAL_2_INDICOD (13)         | L9  | ITEMS_1_PRESEL (0, 9999)             | L52  |
| UNI_MEAS                     | L10 | WEIGHT_1_PRESEL (0, 100000)          | L53  |
| PRODUCT_TARE (0, 100)        | L11 | ITEMS_2_PRESEL (0, 9999)             | L54  |
| PRODUCT_PERC_TARE (0, 99.99) | L12 | WEIGHT_2_PRESEL (0, 100000)          | L55  |
| PRODUCT_TARE_PRINT_ENABLE    | L13 | TIME_FORMAT                          | L80  |
| TOTAL_1_TARE (0, 1000)       | L14 | TIME_PRINT_ENABLE                    | L81  |
| TOTAL_1_TARE_PRINT_ENABLE    | L15 | PROD_CONSEC (0, 999999999)           | L82  |
| TOTAL_2_TARE (0, 1000)       | L16 | PROD_CONS_PRINT_ENABLE               | L83  |
| TOTAL_2_TARE_PRINT_ENABLE    | L17 | TOTAL_1_CONSEC (1, 999999999)        | L84  |
| WEIGHT_SYMBOL_PRINT_ENABLE   | L19 | TOTAL_1_CONS_PRINT_ENABLE            | L85  |
| FIXED_WEIGHT (0, 1000)       | L21 | TOTAL_2_CONSEC (1, 1, 999999999)     | L86  |
| FIXED_AMOUNT (0, 1000000)    | L22 | TOTAL_2_CONS_PRINT_ENABLE            | L87  |
| MINIMUM_WEIGHT (0,1000)      | L23 | PROD_APPLIC_TARGET_DELTA (-600, 600) | L90  |
| MAXIMUM_WEIGHT (0,1000)      | L24 | PIECES_PROC_LIMIT (0, 999999999)     | L91  |
| IN_RANGE                     | L25 | WEIGHT_PROC_LIMIT (0, 1000000000)    | L92  |
| PRICE_1_CURRENCY             | L28 | PIECE_LENGTH (0, 999999999)          | L130 |
| PRICE_1_ROUND OFF            | L29 | SCALE_TARGET_DELTA (-600, 600)       | L132 |
| PRICE_1_DECIMALS             | L30 | ITEMS_NUM_COUNT (0, 2147480000)      | L141 |
| PRICE_1_CURRENCY_SYMBOL      | L31 | BARCODE_PROD_DATE (16)               | L148 |
| PRICE_1                      | L32 | BARCODE_EXPI_DATE (16)               | L149 |
| PRICE_1_PRINT_ENABLE         | L33 | BARCODE_CURI_DATE (16)               | 150  |
| AMOUNT_1_PRINT_ENABLE        | L34 | EXPI_DD (0, -999, 999)               | L153 |
| WEIGHT_SYMBOL_PRINT_ENABLE   | L42 | EXPI_DATE_FORMAT                     | L154 |
| PROD_DATE (15)               | L43 | CUR_DD (0, -999, 999)                | L155 |
| PROD_DATE_TEXT (70)          | L44 | EXPI_DATE_FORMAT                     | L156 |

## 5.6 Soft keys

### 5.6.1 Introduction

The Venus Series 100 weighing-pricing machine allows you to associate up to 72 keys that directly access the PLU to be processed by means of the on-board keyboard and 128 with the optional external keyboard. A typical use of the soft-keys is for the crate weighing mode with store (see further on) via the keyboard. The soft-keys can of course be used in all Venus Series 100 configurations.

### 5.6.2 Programming

To program the soft-keys, go to the **Home** page of the application and

press  + **S** at the same time.

The window that appears in the left-hand column contains direct access keys to which the PLUs can be linked, while any already allocated PLUs appear in the right-hand column. Proceed in the following way to associate one of the 72/128 available keys to the required PLU:

- use the arrows to move to the key to be programmed and press



. A window will be displayed, from which you can select the operating mode of the PLU that appears, according to the table below:

|   |    |                              |
|---|----|------------------------------|
| 0 | PC | PRODUCT WITH CONFIRMATION    |
| 1 | PN | PRODUCT WITHOUT CONFIRMATION |
| 2 | C1 | CUSTOM 1                     |
| 3 | C2 | CUSTOM 2                     |
| 4 | C3 | CUSTOM 3                     |
| 5 | Ok | SPACE/CONFIRMATION           |
| 6 | Rj | REJECT                       |
| 7 | Cc | CANCEL QUEUE                 |
| 8 | cl | CAPS LOCK                    |
| 9 | 2n | SHIFT                        |

**Figure 5- 4 - Soft-key options**

**Note: A dash ("-") will appear before the slash ("/") if the normal plu code is not associated ("-").**

### **SHIFT**

Two different plu can be associated to each individual soft-key so as to duplicate the number of keys available. The "shift" mode is used to distinguish which plu must be recalled when the soft-key is pressed, i.e. a status in which pressure on a soft-key recalls the second plu associated with the key itself. To change from the "normal plu" mode to the "shift plu" mode, press the key (or any one of the keys) associated with the **SHIFT** function.

### **PRODUCT WITH CONFIRMATION**

The plu associated with this soft-key in relation to the current status (normal plu or shift plu) is called up, after which a store is produced and added to the end.

### **PRODUCT WITHOUT CONFIRMATION**

The plu associated with this soft-key in relation to the current status (normal plu or shift plu) is called up but no store is produced.

### **CONFIRM**

The key repeats the function whereby a store relative to the currently selected plu is produced in a similar way to the **SPACE BAR**.

### **REJECT**

The key enters a non-valid store to the queue (N.B.: nothing apparently happens when the key is pressed; as soon as the next store is added to the queue, the position occupied by the spurious store is indicated with a 0).

### **CANCEL QUEUE**

This key is used for cancelling the queue of stores. Unlike the result achieved after the **DEL** key has been pressed, in this case the currently selected store is also eliminated.

### **CAPS LOCK**

This key is used to simulate pressure on the key of the same name and differs from the SHIFT key since it remains in its status once pressed (capitals or lower case) until pressed again.

**CUSTOM KEYS (Custom 1, Custom 2, Custom 3)**

These keys allow the keyboard to be divided so as to be able to select a plu by "composing" optional elements (up to 4) forming portions of code, in sequence. The first three elements are associated with one custom key, while the last is associated with a product key (points 2 and 3). This means that when the relative key is pressed, the code of the specific plu associated with the key is entered in the plu code.

The pre-defined sequence in which the elements are composed in the code is:

***custom1-custom2-custom3-product***

although the order in which they are typed may vary (the dash has only been entered to make the sequence legible but it does not appear in the code). For example, if custom2 is pressed and then custom1, the plu code will first contain the code associated with custom2, which will then be put before the code associated with custom1.

Both during and after code composition (and also after the creation of stores, after which the activated plu is not eliminated), the elements can be modified in an independent way by pressing the relative key, leaving the remaining code elements unchanged.

A confirmation action is never associated with the custom keys as it would prevent the plu elements from being modified without ascribing the entire plu code again. The store can be confirmed by

- a) using a confirmation key (space or a programmed soft-key);
- b) calling up a product with confirmation key as last element of the sequence.

Note that if the last element of the sequence is a product without confirmation key, the store must be confirmed by means of the procedure described in point a). Also note that in this case, once the entire code has been typed, the composition can be modified still further while this cannot be done when the last element of the typed sequence is the product with confirmation key, which automatically creates the store.

The **CUSTOM** key function has been added to allow clients who work in the crate weighing mode to orthogonally select certain elements associated with the plu, such as the true code and the client, for example. This means that a group of plu codes that share the coding element that expresses the product can be entered into the system, unlike the coding element that expresses the client.

For example, data:

Plu: **CHICKEN**

Size: **SMALL, LARGE**

Clients: **ROSSI, BIANCHI**

the following plu:

**SMALLROSSICHICKEN**

**SMALLBIANCHICHICKEN**

**LARGEROSSICHICKEN**

**LARGEBIANCHICHICKEN**

and the following soft-keys are entered:

1 PC **CHICKEN/**

2 C1 **SMALL/**

3 C1 **LARGE/**

C2 **ROSSI/**

5 C2 **BIANCHI/**

6 Ok /

a store for **LARGE CHICKEN** for **ROSSI** can be entered by simply typing

**341;**

after this, the size alone can be changed while maintaining the same client and product (and confirming the store) by typing:

**26**

### **5.6.3 Deleting**

A dark blue square button with the word "ALT" in white capital letters.

Press  + **C** at the same time and comply with the procedure described above. However, in this case, a non-allocated status is obtained for the selected key (dash alongside the slash /).

## 5.7 Key combinations with ALT

| <i>COMBINATION</i> | <i>FUNCTION</i>                                      | <i>MACHINE STATUS</i>  | <i>CONFIGURATION</i>                                             |
|--------------------|------------------------------------------------------|------------------------|------------------------------------------------------------------|
| ALT + 0            | Access to operator level 0                           |                        |                                                                  |
| ALT + 1            | Access to operator level 1                           |                        |                                                                  |
| ALT + 2            | Access to operator level 2                           |                        |                                                                  |
| ALT + 3            | Access to operator level 3                           |                        |                                                                  |
| ALT + 4            | Access to operator level 4                           |                        |                                                                  |
| ALT + 5            | Access to operator level 5                           |                        |                                                                  |
| ALT + B            | Change selected scale                                | Home                   | DUPLEX machine<br>(connected to 2<br>scales)                     |
| ALT + M            | Activates/deactivates manual<br>mode                 | Process                |                                                                  |
| ALT + N            | LABELLING ONLY function                              | Process                | Manual operation<br>FIXED WEIGHT PLU                             |
| ALT + L            | Activates/deactivates the PACKING<br>LIST function   | Process                | PACKING LIST option<br>enabled                                   |
|                    | Displays list of weights for the<br>PACKING LIST     | Home window            |                                                                  |
| ALT + M            | Start/end of MACRO programming                       | Data<br>modification   |                                                                  |
| ALT + A            | MACRO allocation                                     | Process                |                                                                  |
| ALT + E            | MACRO elimination                                    | Process                |                                                                  |
| ALT + S            | SOFT-KEY allocation                                  | Home                   |                                                                  |
| ALT + C            | SOFT-KEY cancellation                                | Home                   |                                                                  |
| ALT + I            | Label printout with printer<br>information           | Home                   |                                                                  |
| ALT + T            | Thermal head condition test<br>printout              | Home                   |                                                                  |
| ALT + F            | Label alignment                                      | Home                   |                                                                  |
| ALT + P            | Label sensor calibration                             | Home                   |                                                                  |
| ALT + K            | MONOPRODUCT / CRATE WEIGHER<br>mode change           | Home                   |                                                                  |
| ALT + H            | Keyboard/scanner input<br>change                     | Home                   | Scanner serial port<br>configured                                |
| ALT + D            | ADDITIONAL HEAD /<br>ALTERNATIVE HEAD mode<br>change | Home                   | Venus Series 100<br>DOUBLE HEAD                                  |
| ALT + X            | Change active printing unit                          | Home window<br>Process | Venus Series 100<br>DOUBLE HEAD<br>ALTERNATIVE HEAD<br>operation |

## **5.8 Use of the TAB key during process**

The following settings can be modified during the process:

|     |                                                                        |         |  |
|-----|------------------------------------------------------------------------|---------|--|
| TAB | CONTRAST,<br>HEAD TEMPERATURE,<br>WEIGHING TARGET,<br>LABELLING TARGET | Process |  |
|-----|------------------------------------------------------------------------|---------|--|

**Figure 5- 5 - Combinations with the ALT key**

## 5.9 Menu List

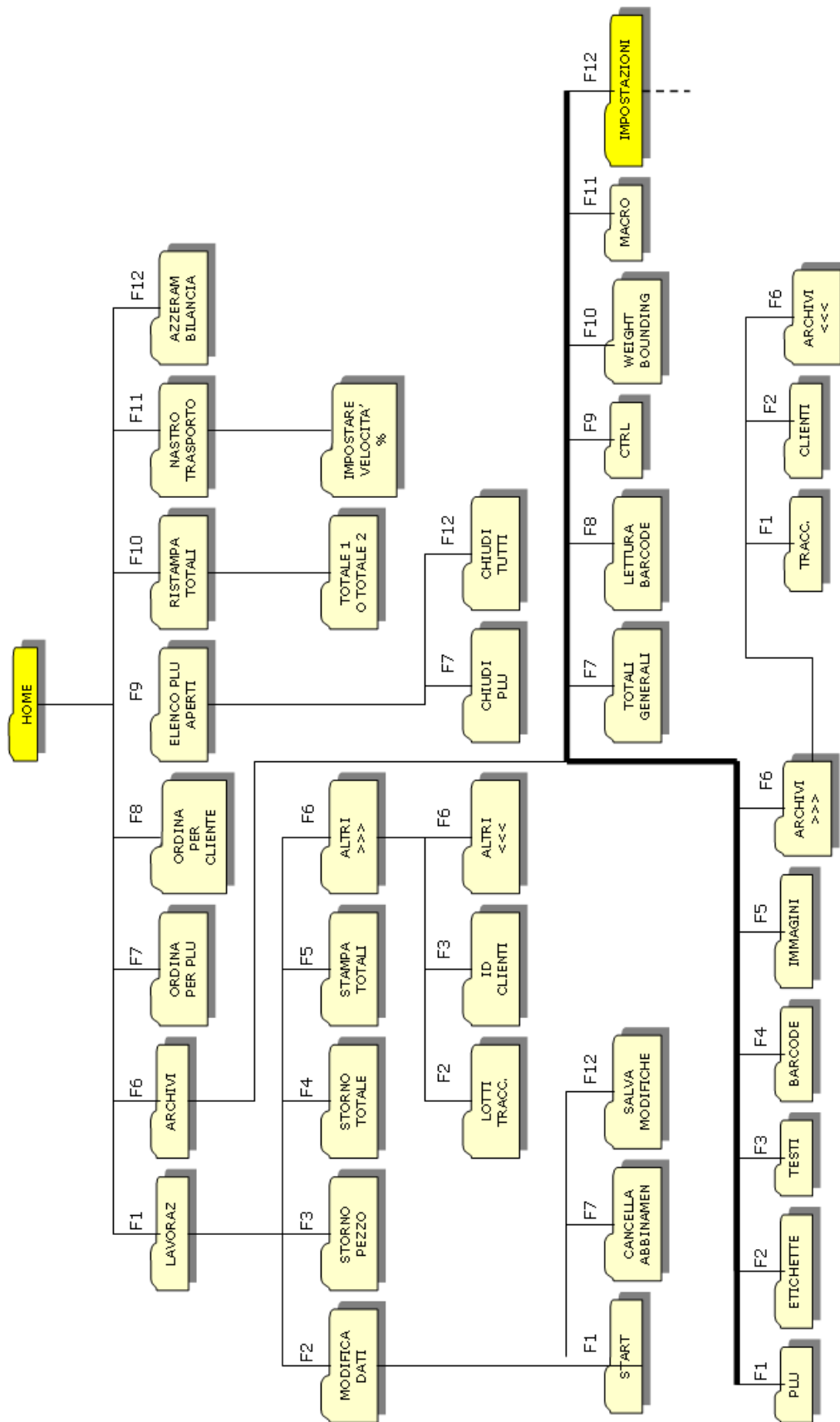


Figure 5- 6 - Menu List 1/3

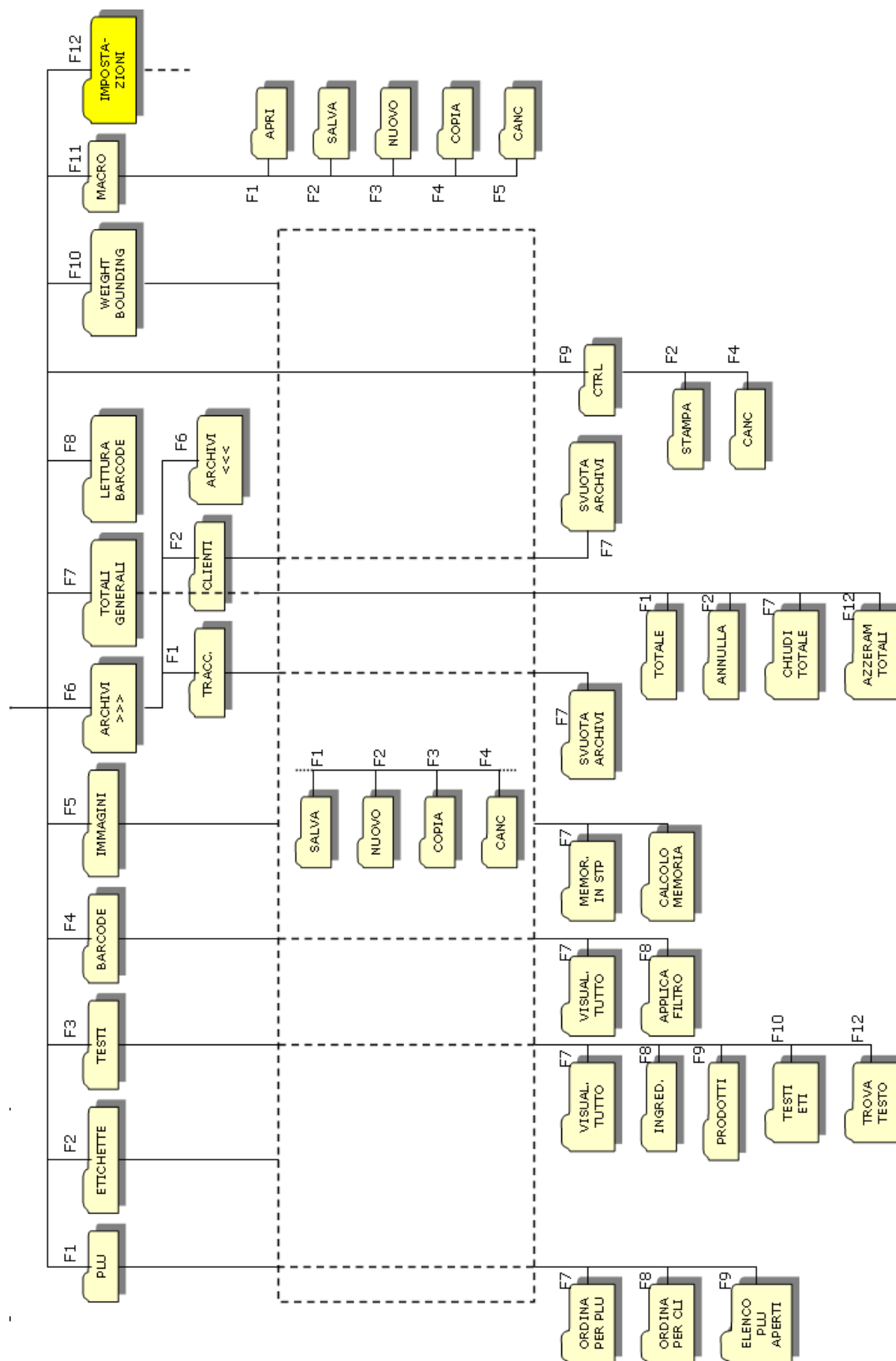


Figure 5- 7 - Menu List 2/3

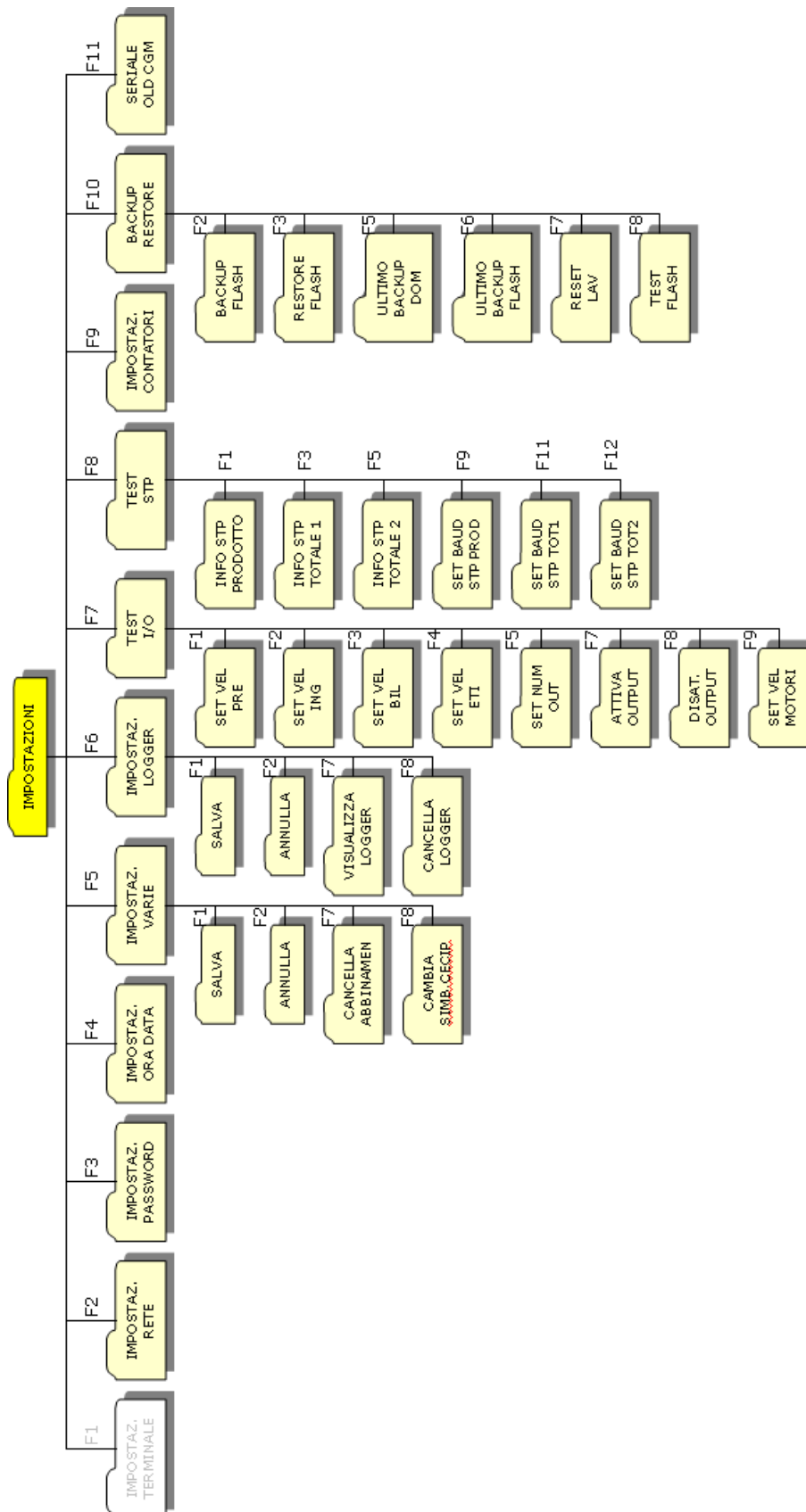


Figure 5- 8 - Menu List 3/3

## **5.10 Common notes about archive programming**

In order to correctly program the archives of the weighing-pricing machine, it is necessary to know the structure of the archives.

The PLU is the container that holds texts, labels, settings for monitoring pre-packaged products and settings for handling the weight classes (weight bounding). The labels contain texts, barcodes and images.

Reasoned programming therefore requires the following data to be entered in the given order:

- Texts
- Barcodes
- Images
- Labels
- Weight classes (weight bounding)
- PLU

Remember that texts can be entered directly from the PLU archive, thus ingredients or any service texts linked to the individual PLU can be entered at this level.

Also remember that if the operations do not take place in the stand-alone mode and the Planet View application is used (optional) for compiling the archives, most of the data entry formalities are overcome since the work takes place in an environment that allows the user to construct the label and all its components in the graphic mode and to then associate them with the PLU. With Planet View, the work takes place in the WYSIWYG (What You See Is What You Get) mode.

## **ATTENTION**

*The functions common to all the archives, such as **SAVE, NEW, COPY and CANCEL** are described below.*

*Refer to these instructions for all the archives.*

### **5.10.1 SAVE**

F1

The (SAVE) key saves the archives entered and goes to the window in:

Home\Arch.

### **5.10.2 NEW**

F2

The (NEW) key accesses a window where a new ID of the archive can be entered.

### **5.10.3 COPY**

F3

The (COPY) key allows the user to copy the selected record into another destination and to allocate another ID to it.

### **5.10.4 CANCEL**

F4

The button is used to delete the selected record.



### 5.11.2 Properties of the Texts Archive

|          |                                                                               |
|----------|-------------------------------------------------------------------------------|
| TEXT     | Gives the memorizing number of the text, from 0 to 999999999.                 |
| CATEGORY | Identifies the type of text: Ingredient, Product or Text for label.           |
| CONTENTS | Effectively contains the text to be printed and/or displayed (70 characters). |

**Figure 5- 10 - Properties of the Texts Archive**

### 5.11.3 How to find a text

Texts or parts of texts can be searched within the texts archive by

typing the required word on the keyboard and pressing  (**FIND TEXT**).

When a word or part of a word is typed, it is displayed in an editing zone on the top right (display area of the operator's messages, see par. 4.2.6).

If  (**FIND TEXT**) is pressed again, the machine will search for other repeats, if any.

#### **5.11.4 Pre-set texts**

The terminal contains preset texts which can be used to handle the total labels or for some of the options, like packing list management or the weight control function.

## **WARNING**

*Do not cancel preset texts as this could lead to operating faults.*

**Figure 5- 11- List of Pre-set Texts**

|       |                          |
|-------|--------------------------|
| 10001 | List of Product Weights: |
| 10002 | Product Weighing List:   |
| 10003 | N.Piece                  |
| 10004 | Piece N°                 |
| 10005 | N.Box                    |
| 10006 | Box N°                   |
| 10007 | Pieces Total             |
| 10008 | Total Pieces             |
| 10009 | Tare Weight              |
| 10010 | Tare Weight              |
| 10011 | (kg/lb)                  |
| 10012 | Brut Weight              |
| 10013 | Gross Weight             |
| 10014 | Net Weight               |
| 10015 | Net Weight               |
| 10016 | Pallet Total nr.         |
| 10017 | Pallet Total N°          |
| 10018 | Pallet Tare              |
| 10019 | Pallet Tare              |
| 10020 | Pallet Brut Weight       |
| 10021 | Pallet Gross Weight      |
| 10022 | Pallet Net Weight        |

|       |                     |
|-------|---------------------|
| 10023 | Pallet Net Weight   |
| 10024 | Box Total           |
| 10025 | Box Total           |
| 10028 | Pallet total        |
| 10029 | Pallet Total        |
| 10030 | CONSECUTIVE PIECE   |
| 10031 | CONSECUTIVE TOT 1   |
| 10032 | CONSECUTIVE TOT 2   |
| 10033 | N.PIECES IN TOT 1   |
| 10034 | N.PIECES IN TOT 2   |
| 10035 | N.BOXES IN TOT 2    |
| 10036 | Packing List        |
| 10037 | Gross Weight        |
| 10038 | Pallet Gross Weight |
| 10039 | Tot N° Bx.          |
| 10040 | Tot N° Boxes        |
| 10041 | Boxes               |
| 10042 | Tot pcs.            |
| 10043 | Tot n° pcs          |
| 10044 | on pallet           |
| 15001 | Lot N°              |
| 15002 | Code Product:       |
| 15003 | Description:        |
| 15004 | -- Limit            |
| 15005 | - Limit             |
| 15006 | Nominal weight:     |
| 15007 | + Limit             |
| 15008 | ++ Limit            |
| 15009 | Lot starting date:  |
| 15010 | Lot end date:       |
| 15011 | Package N°          |
| 15012 | Average weight      |

|       |                              |
|-------|------------------------------|
| 15013 | Tot. weight                  |
| 15014 | REJECTED                     |
| 15015 | ACCEPTED                     |
| 15016 | Zone 1                       |
| 15017 | Zone 2                       |
| 15018 | Zone 3                       |
| 15019 | Zone 4                       |
| 15020 | Zone 5                       |
| 15021 | Totals:                      |
| 15022 | Standard dev.                |
| 15023 | Standard dev. accepted       |
| 15024 | Total package weighed        |
| 15025 | Weighed pack. total weight   |
| 15026 | Weighed pack. average weight |
| 15027 | Weight of lightest pack.     |
| 15028 | Weight of heaviest pack.     |
| 15029 | LOT ACCEPTED                 |
| 20000 | GENERAL TOTAL                |
| 20001 | PARTIAL TOTAL                |
| 20002 | CLIENT TOTAL                 |
| 20003 | PRODUCT TOTAL                |
| 20004 | BATCH TOTAL                  |
| 20005 | LOT TOTAL                    |
| 20006 | TRACEABILITY TOTAL           |
| 20007 | PRODUCT CODE TOTAL           |
| 20008 | LOT                          |
| 20009 | PRODUCT                      |
| 20010 | PLU                          |
| 20011 | TRACEABILITY                 |
| 20012 | CLIENT                       |
| 20013 | TOTAL N° PIECES              |

|       |                        |
|-------|------------------------|
| 20014 | NET WEIGHT             |
| 20015 | GROSS WEIGHT           |
| 20016 | TARE                   |
| 20017 | TOTAL LOT - PRODUCT    |
| 20018 | TOTAL LOT - PLU        |
| 20019 | TRACE. PRODUCT TOTAL   |
| 20020 | TRACE. - PLU TOTAL     |
| 20021 | CLIENT - PRODUCT TOTAL |

## **5.12 Barcodes**

### **5.12.1 Introduction to barcodes**

The following is a list and a brief description of the most widely used barcodes, all of which can be printed by labelling machines on Venus Series 100 weighing-pricing machines.

- EAN 13/ EAN 8
- UPC A/ UPC E
- CODE 39 / CODE 32 Pharmaceutical Ita
- Interleaved 2 of 5/ ITF 14
- CODE 128/ EAN 128
- Monarch Codabar
- Pdf 417

### **5.12.2 EAN 13/ EAN 8**

#### **Description**

The EAN code (European Article Numbering), is used for coding large-scale distribution products in Europe and in other non-European countries.

The EAN 13/8 code is compatible with the UPC A/E code (used in the U.S.A. and Canada) from which it comes, and uses numeric characters only.

EAN 8 is a smaller code used for products whose size is unable to take an EAN 13 code.

The EAN 13/8 code can be given a 2 or 5-character ADD-ON, something that is often used in the publishing industry.

#### **Format**

|                               |                                                                                                          |                                                 |                 |
|-------------------------------|----------------------------------------------------------------------------------------------------------|-------------------------------------------------|-----------------|
| National EAN prefix           | Trademark proprietor's code                                                                              | Product code                                    | CD              |
| N <sub>1</sub> N <sub>2</sub> | N <sub>3</sub> N <sub>4</sub> N <sub>5</sub> N <sub>6</sub> N <sub>7</sub> N <sub>8</sub> N <sub>9</sub> | N <sub>10</sub> N <sub>11</sub> N <sub>12</sub> | N <sub>13</sub> |

**Figure 5- 12 - EAN 13 fixed weight**

|                               |                                                                            |                |
|-------------------------------|----------------------------------------------------------------------------|----------------|
| National EAN prefix           | Trademark proprietor's code                                                | CD             |
| N <sub>1</sub> N <sub>2</sub> | N <sub>3</sub> N <sub>4</sub> N <sub>5</sub> N <sub>6</sub> N <sub>7</sub> | N <sub>8</sub> |

**Figure 5- 13 - EAN 8 fixed weight**

| EAN prefix     | Product code                                                                              | Price                                                                         | CD              |
|----------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-----------------|
| N <sub>1</sub> | N <sub>2</sub> N <sub>3</sub> N <sub>4</sub> N <sub>5</sub> N <sub>6</sub> N <sub>7</sub> | N <sub>8</sub> N <sub>9</sub> N <sub>10</sub> N <sub>11</sub> N <sub>12</sub> | N <sub>13</sub> |

**Figure 5- 14 - EAN 13 variable weight**

**Notes:**

**National EAN prefix:** this is a prefix ascribed by EAN International to the national coding organizations (e.g. Indicod in Italy, Gencode in France); Values 80 to 83 have been allocated to Italy.

**Trademark proprietor's code:** this code is assigned by Indicod to its associates and identifies the owner of the trademark on an international scale also, without the risk of misunderstandings.

**Product code:** code assigned by Manufacturers (trademark owners) to their products so as to identify them in an unmistakable way.

**CD:** Check digit, control character.

**EAN prefix:** the prefix for variable weight products in Italy is 2.

**Price:** Field with the final amount.

**Number of characters on symbol:** 12, 12 + 2, 12 + 5 / 7, 7 + 2, 7 + 5

**Check Digit:** 1 character added automatically.

**Character set:** 0 ÷ 9

**Advantages:** a large amount of information.

**Disadvantages:** fixed number of digits. The spaces are significant.

**Reproduction**



### 5.12.3 UPC A/ UPC E

#### Description

The UPC code (Universal Product Code) is the equivalent of EAN for the large-scale distribution industry in the United States and Canada. Here again, there are two types: UPC - A with twelve numeric characters and UPC - E which only encodes six numbers.

#### Format

| Prefix         | Trademark proprietor's code and product code                                                             | CD                                             |                 |
|----------------|----------------------------------------------------------------------------------------------------------|------------------------------------------------|-----------------|
| N <sub>1</sub> | N <sub>2</sub> N <sub>3</sub> N <sub>4</sub> N <sub>5</sub> N <sub>6</sub> N <sub>7</sub> N <sub>8</sub> | N <sub>9</sub> N <sub>10</sub> N <sub>11</sub> | N <sub>12</sub> |

**Figure 5- 15 - UPC - A**

| Prefix         | Trademark proprietor's code                                                | CD             |
|----------------|----------------------------------------------------------------------------|----------------|
| N <sub>1</sub> | N <sub>2</sub> N <sub>3</sub> N <sub>4</sub> N <sub>5</sub> N <sub>6</sub> | N <sub>7</sub> |

**Figure 5- 16 - UPC – E**

#### Notes:

**Prefix:** assigned by UCC (Uniform Code Council) and takes on different meanings.

**Trademark proprietor's code and product code:** As EAN 13

**CD:** As EAN 13

**Number of characters on symbol:** 11, 11 + 2, 11 + 5 / 6, 6+ 2, 6 + 5

**Check Digit:** 1 character added automatically

**Character set:** 0 ÷ 9

**Advantages:** a large amount of information.

**Disadvantages:** fixed number of digits. The spaces are significant

#### Reproduction



#### 5.12.4 CODE 39 / CODE 32 Pharmaceutical Ita

##### Description

Code 39 is used for automating processes in the industrial field.

Code 32 Pharmaceutical Ita has been developed according to the specifications of the Italian Ministry of Health, based on code 39.

##### Format

|                    |
|--------------------|
| $N_1 \dots N_{32}$ |
|--------------------|

**Figure 5- 17 - Code 39**

|   |                                     |
|---|-------------------------------------|
| A | $N_1 N_2 N_3 N N_5 N_6 N_7 N_8 N_9$ |
|---|-------------------------------------|

**Figure 5- 18 - Code 32 Pharmaceutical Ita**

##### Notes:

Up to 32 alphanumerical characters can be encoded in code 39.

In code 32 Pharmaceutical Ita where there is a fixed initial "A" followed by nine characters, the first of which is always 0 and the last a control character.

**Number of characters on symbol:** 1 – 32 / 10

**Check Digit:** optional / specific

**Character set:** 0 to 9, A to Z, - + % \$ <space>  
/ 0 to 9 and the characters of the English alphabet with the exclusion of A E I O

**Wide/narrow ratio:** 2:1, 3:1

**Advantages:** representation of alphabetical, numeric and special characters.

**Disadvantages:** the spaces are significant.

##### Reproduction



### 5.12.5 Interleaved 2 of 5/ ITF 14

#### Description

The interleaved 2 or 5 barcode (ITF) is used in industry with a range of use similar to code 39.

However, compared to the latter, it can only encode numerical data.

The term interleaved stems from the fact that the characters in this barcode are encoded both in the bars and spaces.

A particular case of the interleaved 2 of 5 version is ITF 1, which is used as the European standard for encoding multiple packages of products encoded individually.

In practice, this is an interleaved 2 or 5 fourteen digits long, in which the most significant digit is always a 0 and where the remaining thirteen correspond to the numbers in the EAN 13 of the individual products.

It is always advisable to use a final check digit with this barcode.

#### Format

|                    |
|--------------------|
| $N_2 \dots N_{32}$ |
|--------------------|

**Figure 5- 19 - Interleaved 2 of 5**

|                    |    |
|--------------------|----|
| $N_1 \dots N_{13}$ | CD |
|--------------------|----|

**Figure 5- 20 - ITF 14**

#### Notes:

**Number of characters on symbol:** 2 – 32 / 13

**Check Digit:** Optional / A number is added automatically

**Character set:** 0 ÷ 9

**Wide/narrow ratio** 3:1

**Advantages:** a large amount of information.

**Disadvantages:** the spaces are significant and the digits must always be even in number.

#### Reproduction



### 5.12.6 CODE 128/ EAN 128

#### Description

Code 128 is an alphanumerical, two-way barcode whose name stems from the ability to encode the 128 characters of the ASCII table.

An important application of code 128 is EAN/UCC 128, created through collaboration amongst EAN, UCC and AIM (Automatic Identification Manufacturers).

The difference between a code 128 and an EAN 128 lies in the use, by the latter, of functional character FCN1 after the start character.

Through use of data identifiers, the EAN/UCC system allows supplementary information to be added to packaging units and logistic units.

The data identifiers are prefixes that distinguish the meaning and format of the following fields.

#### Format

| Start characters A, B, C | FCN1 | Series of elements | CD                    | Stop |
|--------------------------|------|--------------------|-----------------------|------|
|                          |      | Data Identifier    | Information field (i) |      |

**Figure 5- 21 - EAN 128**

#### Notes:

**Number of characters on symbol:** 1 to 48 (included in the "series of elements" field) and up to 165 mm in length

**Check Digit:** optional

**Character set:** ASCII

#### Reproduction



### **5.12.7 Monarch Codabar**

#### **Description**

The Codabar Code was developed by Monarch Marking Systems in 1972. This is why it is also called "Monarch Code" and sometimes even "Code NW7". Owing to its features of the very highest security against the risk of reading errors, this code is typically used in the medical-health sector to identify and associate test tubes, analyses results and blood bags to patients.

#### **Format and Notes**

|                                        |                                                        |
|----------------------------------------|--------------------------------------------------------|
| <b>Number of characters on symbol:</b> | up to 32, including start, stop and CD                 |
| <b>Check Digit:</b>                    | optional                                               |
| <b>Character set:</b>                  | 0 to 9 and six special characters (-, \$, :, /, ., + ) |

#### **Reproduction**



### **5.12.8 PDF 417**

#### **Description and notes**

PDF417 is a 2D code with two dimensions. This code was invented by Ynjiun Wang in 1991 on behalf of Symbol Technologies©. PDF means **Portable Data File** and the symbols consists of 17 modules, each of which contains bars and spaces (from which 417 derives). The PDF417 code has a large data capacity of up to 2500 characters. It also has an optimum density and a low error percentage. The PDF417 code can also encode binary data as well as alphanumerical data or the characters of the ASCII table, thus allowing photos or any other type of binary data to be encoded. It is important to analyse the name of this code. The words "Portable data file" stand for a completely new concept of the barcode: in conventional systems, the data encoded in the barcode is merely a means for accessing a determined database. Thus, if there is a barcode but not the relative reference database, it will be impossible to use the system in a concrete way. PDF417 is the actual database. Depending on the data format, this code can contain from around one thousand to 2500 characters. This means that all the necessary information can be encoded within the code in order to obtain a code that is actually a file of data.

#### **Reproduction**



### 5.12.9 Barcode archive properties

Follow the pathway:

Home\Arch.\BC

the following window will appear:

|                                              |              |                          |          |                                    |  |                     |       |
|----------------------------------------------|--------------|--------------------------|----------|------------------------------------|--|---------------------|-------|
| PT kg<br><b>0.000</b><br>TARA PREDETERMINATA |              | LORDO kg<br><b>0.000</b> |          | Max. 12 kg<br>Min. 40 g<br>E = 2 g |  | PREZZO<br><b>0</b>  |       |
| Home\Arch.\BC                                |              |                          |          |                                    |  |                     |       |
| BARCODE                                      | TIPO BARCODE | DESCRIZIONE              |          |                                    |  | VISUALIZZA<br>TUTTO |       |
|                                              |              |                          |          |                                    |  |                     |       |
|                                              |              |                          |          |                                    |  | APPLICA<br>FILTRO   |       |
|                                              |              |                          |          |                                    |  |                     |       |
|                                              |              |                          |          |                                    |  |                     |       |
|                                              |              |                          |          |                                    |  |                     |       |
|                                              |              |                          |          |                                    |  |                     |       |
|                                              |              |                          |          |                                    |  |                     |       |
|                                              |              |                          |          |                                    |  |                     |       |
|                                              |              |                          |          |                                    |  |                     |       |
|                                              |              |                          |          |                                    |  |                     |       |
|                                              |              |                          |          |                                    |  |                     |       |
|                                              |              |                          |          |                                    |  |                     |       |
|                                              |              |                          |          |                                    |  |                     |       |
|                                              |              |                          |          |                                    |  |                     |       |
|                                              |              |                          |          |                                    |  |                     |       |
|                                              |              |                          |          |                                    |  |                     |       |
|                                              |              |                          |          |                                    |  |                     |       |
| SALVA                                        | NUOVO        | COPIA                    | CANCELLA |                                    |  | 01/01/2007<br>14:20 |       |
|                                              |              |                          |          |                                    |  |                     | LIV.5 |

**Figure 5- 22 - Barcode archive**

Concerning routine management of the archive, see paragraph 5.9 (Common notes about archive programming).

The  **(APPLY FILTER)** button allows the display of the barcodes in the archive to be filtered, depending on the type criteria of the latter.

The  **(DISPLAY ALL)** button allows all the elements forming the archive to be completely displayed.

The types of barcode can be entered:

|                                   |
|-----------------------------------|
| Ean 13 without check digit        |
| Ean 13 with check digit           |
| Ean 13 + Add On 5                 |
| Ean 13 + Add On 2                 |
| Ean 8 without check digit         |
| Ean 8 with check digit            |
| Ean 128 A                         |
| Ean 128 B                         |
| Ean 128 C                         |
| Code 128                          |
| 2/5                               |
| 2/5 Interland without check digit |
| 2/5 Interland with check digit    |
| 3/9 without check digit           |
| 3/9 with check digit              |
| 3/9 Sinc \$ without check digit   |
| 3/9 Sinc \$ with check digit      |
| UPC A with check digit            |
| UPC B without check digit         |
| UPC E                             |
| Codabar 2/7 Monarch AA            |
| Codabar 2/7 Monarch BB            |
| Codabar 2/7 Monarch CC            |
| Codabar 2/7 Monarch DD            |
| Codabar 2/7 Monarch AB            |
| Codabar 2/7 Monarch AC            |
| Codabar 2/7 Monarch AD            |

|                            |
|----------------------------|
| Codabar 2/7 Monarch BA     |
| Codabar 2/7 Monarch BC     |
| Codabar 2/7 Monarch BD     |
| Codabar 2/7 Monarch CA     |
| Codabar 2/7 Monarch CB     |
| Codabar 2/7 Monarch CD     |
| Codabar 2/7 Monarch DA     |
| Codabar 2/7 Monarch DB     |
| Codabar 2/7 Monarch DC     |
| Code 32 Pharmaceutical Ita |
| PZN code                   |
| EAN 13 Ana                 |
| EAN 13 Mark & Spencer      |
| PDF 417                    |
| UPC A double check digit   |

**Figure 5- 23 - Types of barcode**

Three types can be considered when the fields are entered in a barcode:

- **fixed field**

a numeric field up to 10 characters in length can be entered.

- **variable field**

a variable field belonging to one of the following three families can be entered (for the complete list of fields, consult the end of par. 5.11):

- PROCESS
- TOTALS
- TRACEABILITY (optional, if activated)
- CLIENTS (optional, if activated)

- **fixed text**

a text, or part of one, can be entered in a barcode by calling it up directly from the texts archive in the machine.

After having gone to the **TEXT** item, press the **ENTER** key to link to the texts archive. Now go to the required text and confirm it with **ENTER**. Press **ENTER** to return to the previous page. The description directly called up from the archive will be given alongside the **TEXT** field.

The ability to enter a text from the archive of the same name adds to the options offered by entering a fixed text since strings longer than ten characters will also be available.

The archive contains and memorizes the barcodes that can be printed, and is organized in the following way:

|              |                                                                      |
|--------------|----------------------------------------------------------------------|
| BARCODE      | Gives the ID of the barcode, from 0 to 30000.                        |
| BARCODE TYPE | Identifies the barcode type entered.                                 |
| DESCRIPTION  | Identifies the name and possible description of the barcode entered. |

**Figure 5- 24 - Barcode archive properties**

**LIST OF VARIABLE FIELDS****• PROCESS**

|                                |
|--------------------------------|
| PRIMARY PROD. NET WEIGHT (7)   |
| PRIMARY PROD. TARE (7)         |
| PRIMARY PROD. GROSS WEIGHT (7) |
| SEC. PROD. NET WEIGHT (7)      |
| SEC. PROD. TARE (7)            |
| SEC. PROD. GROSS WEIGHT (7)    |
| PLU CODE (15)                  |
| PRODUCT CODE (15)              |
| CLIENT CODE (10)               |
| LOT CODE (15)                  |
| BATCH CODE (15)                |
| COMMODITY (15)                 |
| PRODUCTION DATE (16)           |
| EXPIRY DATE (16)               |
| CURING DATE (16)               |
| PRICE PER kg 1 CURRENCY (10)   |
| AMOUNT 1 CURRENCY (10)         |
| PRICE PER kg 2 CURRENCY (10)   |
| AMOUNT 2 CURRENCY (10)         |
| PROD INDICOD (13)              |
| TOT 1 INDICOD (13)             |
| TOT 2 INDICOD (13)             |
| PLU 1 TEXT (70)                |
| PLU 2 TEXT (70)                |
| PLU 3 TEXT (70)                |
| PLU TEXT (70)                  |
| PLU 5 TEXT (70)                |
| PLU 6 TEXT (70)                |
| PLU 7 TEXT (70)                |
| PLU 8 TEXT (70)                |
| PLU 9 TEXT (70)                |
| PLU 10 TEXT (70)               |
| PLU 11 TEXT (70)               |
| PLU 12 TEXT (70)               |
| PLU 13 TEXT (70)               |
| PLU TEXT 1 (70)                |
| PLU 15 TEXT (70)               |
| PLU 16 TEXT (70)               |
| PLU 17 TEXT (70)               |
| PLU 18 TEXT (70)               |
| PLU 19 TEXT (70)               |
| PLU 20 TEXT (70)               |

|                                          |
|------------------------------------------|
| PRODUCTION DATE TEXT (70)                |
| EXPIRY DATE TEXT (70)                    |
| CURING DATE TEXT (70)                    |
| CONSECUTIVE PIECE (10)                   |
| CONSECUTIVE TOTAL 1 (10)                 |
| CONSECUTIVE TOTAL 2 (10)                 |
| TIME (5)                                 |
| N.PIECES IN TOT.1 (10)                   |
| PRIMARY TOT.1 NET WEIGHT (10)            |
| PRIMARY TOT.1 TARE (10)                  |
| PRIMARY TOT.1 GROSS WEIGHT (10)          |
| SECONDARY TOT.1 NET WEIGHT (10)          |
| SECONDARY TOT.1 TARE (10)                |
| SECONDARY TOT.1 GROSS WEIGHT (10)        |
| N.PIECES IN TOT.2 (10)                   |
| N.CARTONS IN TOT.2 (10)                  |
| PRIMARY TOT.2 NET WEIGHT (10)            |
| PRIMARY TOT.2 TARE (10)                  |
| PRIMARY TOT.2 GROSS WEIGHT (10)          |
| SECONDARY TOT.2 NET WEIGHT (10)          |
| SECONDARY TOT.2 TARE (10)                |
| SECONDARY TOT.2 GROSS WEIGHT (10)        |
| N.PIECES IN TOT.PLU (10)                 |
| N.CARTONS IN TOT.PLU (10)                |
| N.PALLETS IN TOT.PLU (10)                |
| PRIMARY PLU NET WEIGHT (10)              |
| PRIMARY PLU TARE (10)                    |
| PRIMARY PLU GROSS WEIGHT (10)            |
| SECONDARY PLU NET WEIGHT (10)            |
| SECONDARY PLU TARE (10)                  |
| SECONDARY PLU GROSS WEIGHT (10)          |
| CHECKSUM                                 |
| GS CHARACTER                             |
| BAYERLAND 13 CHAR TXT 18                 |
| BAYERLAND 13 CHAR TXT 19                 |
| BAYERLAND 13 CHAR TXT 20                 |
| MACHINE COUNT ACT. (10)                  |
| PIECE PTR LAB NUM.COUNT (10)             |
| TOT 1 PTR LAB NUM.COUNT (10)             |
| TOT 2 PTR LAB NUM.COUNT. (10)            |
| OVERALL PIECES NUM. COUNT (10)           |
| OVERALL TOT 1 NUM. COUNT (10)            |
| OVERALL TOT 2 NUM. COUNT (10)            |
| OVER.TOT 1 TOT 2 PCS. NUM. COUNT<br>(10) |
| TOTAL AMOUNT 1 CURRENCY 1 (10)           |

|                                |
|--------------------------------|
| TOTAL AMOUNT 1 CURRENCY 2 (10) |
| BARCODE PRODUCTION DATE (16)   |
| BARCODE EXPIRY DATE (16)       |
| BARCODE CURING DATE (16)       |
| EXPI DD TMC (5)                |
| CUR DD (5)                     |
| SSCC (18)                      |
| DAY OF YEAR (3)                |

**Figure 5- 25 - Process variable fields**

- **TOTALS**

|                            |
|----------------------------|
| TOT PASSWORD 1 (30)        |
| TOT PASSWORD 2 (15)        |
| TOT NET WEIGHT kg (10)     |
| TOT TARE kg (10)           |
| TOT GROSS WEIGHT kg (10)   |
| TOT NET WEIGHT lb (10)     |
| TOT TARE lb (10)           |
| TOT GROSS WEIGHT lb (10)   |
| TOT AMOUNT CURRENCY 1 (10) |
| TOT AMOUNT CURRENCY 2 (10) |
| NUMBER TOT PIECES (10)     |

**Figure 5- 26 - Totals variable fields**

- **TRACEABILITY**

The variable fields regarding traceability that can be entered in barcodes depend on the structure of the **trace.cfg** file in D.O.M. in:

ARCHIVES/USER/TRACE

Line default settings includes the following fields:

|                         |
|-------------------------|
| ID TRACEABILITY (30)    |
| EAR TAG (30)            |
| COUNTRY OF BIRTH (30)   |
| BIRTH COUNTRY CODE (30) |
| FATTENING 1 (30)        |
| FATTENING 2 (30)        |
| SLAUGHTER (30)          |
| PORTIONING (30)         |
| PREPARATION (30)        |

**Figure 5- 27- Traceability variable fields**

- **CLIENTS**

|                    |
|--------------------|
| BUSINESS NAME (30) |
| ADDRESS (40)       |
| ZIP CODE (6)       |
| LOCALITY (30)      |
| PROVINCE (15)      |
| COUNTRY (30)       |

**Figure 5- 28 - Clients variable fields**

The properties of the fields that can be entered are:

|                            | <i>FIXED FIELD</i>                                                                                                                                  | <i>VARIABLE FIELD</i>                                                                                                                                                                                                                        | <i>FIXED TEXT</i>      |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| <i>Barcode id</i>          | Numeric, from 0 to 30000.<br>Cannot be edited as it is the barcode number memorized in the archive.                                                 |                                                                                                                                                                                                                                              |                        |
| <i>Description</i>         | Alphanumeric data item from 0 to 25 characters. A description can be assigned so as to recognize the barcode. "Ean 13 barcode amount", for example. |                                                                                                                                                                                                                                              | See variable field.    |
| <i>data</i>                | Numeric, up to 10 characters.<br>Field in which the required value can be entered directly.                                                         |                                                                                                                                                                                                                                              |                        |
| <i>Variable field</i>      |                                                                                                                                                     | See list of variable fields (process, totals and traceability).                                                                                                                                                                              |                        |
| <i>Text</i>                |                                                                                                                                                     |                                                                                                                                                                                                                                              | Link to texts archive. |
| <i>Start position</i>      |                                                                                                                                                     | Numeric data item, from 1 to the max length given alongside the field (x = max field length). Indicates the starting position from whence the data are taken from the selected variable field and that will then be included in the barcode. | See variable field.    |
| <i>How many characters</i> |                                                                                                                                                     | Numeric data item, from 1 to the number of characters needed to complete the max field length (x = max field length). Indicates the quantity of characters selected, that will then be included in the barcode.                              | See variable field.    |
| <i>Without dot</i>         |                                                                                                                                                     | YES/NO                                                                                                                                                                                                                                       |                        |

|                        |  |                                                                  |                           |
|------------------------|--|------------------------------------------------------------------|---------------------------|
| <i>Type of filling</i> |  | Zero on left<br>Zero on right<br>Blank on left<br>Blank on right | See<br>variable<br>field. |
| <i>Rounding off</i>    |  | YES/NO                                                           |                           |

**Figure 5- 29 - Barcode field properties**

## 5.13 Images

### 5.13.1 Introduction

The archive contains and memorizes all the images that need to be printed. It is important to have a clear idea of the construction layout and modes for using the images in Venus Series 100 weighing-pricing machines.

The work directories contain the BMP folder in ARCHIVES/USER/, which contains the files in \*.bmp format that can be interpreted by the machine. The client's personal logos can be entered in the ARCHIVES/USER/BMP folder (**IMPORTANT:** the file must have been saved in the monochromatic mode and in the \*.bmp format).

When new images are created, reference must be made to the bitmaps in:

ARCHIVES/USER/BMP.

There can be numerous \*.BMP files in ARCHIVES/USER/BMP and relatively few images created in the relative archive.

Follow the pathway: Home\Arch.\Ima and the following window appears:

|                                                     |                  |                                 |          |                                    |                                                |
|-----------------------------------------------------|------------------|---------------------------------|----------|------------------------------------|------------------------------------------------|
| <b>PT kg</b><br><b>0.000</b><br>TARA PREDETERMINATA |                  | <b>LORDO kg</b><br><b>0.000</b> |          | Max. 12 kg<br>Min. 40 g<br>E = 2 g | <b>PREZZO</b><br><b>0</b>                      |
| Home\Arch.\Imm                                      |                  |                                 |          |                                    |                                                |
| <b>IMMAGINE</b>                                     | <b>NOME FILE</b> | <b>MEMO IN STP</b>              |          |                                    | <b>MEMORIZZA<br/>IN STP<br/>CALCULAT<br/>E</b> |
|                                                     |                  |                                 |          |                                    |                                                |
|                                                     |                  |                                 |          |                                    |                                                |
|                                                     |                  |                                 |          |                                    |                                                |
|                                                     |                  |                                 |          |                                    |                                                |
|                                                     |                  |                                 |          |                                    |                                                |
|                                                     |                  |                                 |          |                                    |                                                |
|                                                     |                  |                                 |          |                                    |                                                |
|                                                     |                  |                                 |          |                                    |                                                |
|                                                     |                  |                                 |          |                                    |                                                |
|                                                     |                  |                                 |          |                                    |                                                |
|                                                     |                  |                                 |          |                                    |                                                |
|                                                     |                  |                                 |          |                                    |                                                |
|                                                     |                  |                                 |          |                                    |                                                |
|                                                     |                  |                                 |          |                                    |                                                |
| SALVA                                               | NUOVO            | COPIA                           | CANCELLA |                                    | LIV.5                                          |

**Figure 5- 30 - Images archive**

Concerning routine management of the archive, see paragraph 5.9 (Common notes about archive programming).

### 5.13.2 Images archive properties

|                  |                                                                                                                                                                                                                                                                                  |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IMAGE            | Gives the memorizing number of the image, from 0 to 30000.                                                                                                                                                                                                                       |
| FIELD NAME       | Allows the "bmp" file to be selected from a list (in the DOS 8+3 format).                                                                                                                                                                                                        |
| MEMORIZED IN PTR | Indicates whether the image in question is memorized in the printer's permanent memory. An image in the permanent memory is processed in a faster way during the processing input phase than an image that must be loaded via the serial link each time the process is accessed. |
| ROTATION         | Can be selected amongst 0, +90, +180, +270; indicates the extent to which the image is turned in degrees in relation to the label exiting direction.                                                                                                                             |
| ZOOM             | from 10% to 200%. Allows the image to be correctly sized on the label.                                                                                                                                                                                                           |

**Figure 5- 31 - Images archive properties**

### 5.13.3 Memorize in PTR

To be able to print a drawing/image on a label, it must have first been created in the images archive. If a label has an image whose "**MEMORIZE IN PTR**" field setting is **NO**, the CPU loads the image used in the PTR memory when the processing phase starts, taking the time required to transfer the data via serial link. When the image has been loaded into the PTR memory, work can proceed normally without slowing down.

When the "**MEMORIZE IN PTR**" operation takes place, all the files of images with **YES** selected for the "**MEMORIZE IN PTR**" field are transmitted to the printer memory in a single file. Definitive memorizing will occur by pressing **SAVE**.

**IMPORTANT:** If a client's faulty printer is replaced, the "**MEMORIZE IN PTR**" operation is carried out again for the images.

Calling up a label containing an image when this refers to a file that is **NOT in the BMP** directory may block the program.

On access to Home\Arch.\Ima\ checks will be made to make sure that the BMP directory contains each ".bmp" file corresponding to the images created by pressing **NEW**.

If this match FAILS to occur, dashes will appear in place of the name of the image on access to the images archive and the "**MEMORIZE IN PTR**" field is **NO**.



Concerning routine management of the archive, see paragraph 5.9  
(Common notes about archive programming).

The window used to enter and edit the label fields is the following:

|                                                     |                    |                                 |          |                                    |                          |                           |  |
|-----------------------------------------------------|--------------------|---------------------------------|----------|------------------------------------|--------------------------|---------------------------|--|
| <b>PT kg</b><br><b>0.000</b><br>TARA PREDETERMINATA |                    | <b>LORDO kg</b><br><b>0.000</b> |          | Max. 12 kg<br>Min. 40 g<br>E = 2 g |                          | <b>PREZZO</b><br><b>0</b> |  |
| Home\Arch.\Eti\Vis. Eti                             |                    |                                 |          |                                    |                          |                           |  |
| <b>TIPO CAMPO</b>                                   | <b>DESCRIZIONE</b> | <b>X</b>                        | <b>Y</b> | <b>VAR</b>                         |                          |                           |  |
|                                                     |                    |                                 |          |                                    | INSERISCI<br>TXT FISSO   |                           |  |
|                                                     |                    |                                 |          |                                    |                          |                           |  |
|                                                     |                    |                                 |          |                                    | INSERISCI<br>TXT VARIAB. |                           |  |
|                                                     |                    |                                 |          |                                    |                          |                           |  |
|                                                     |                    |                                 |          |                                    | INSERISCI<br>BARCODE     |                           |  |
|                                                     |                    |                                 |          |                                    |                          |                           |  |
|                                                     |                    |                                 |          |                                    | INSERISCI<br>IMMAGINE    |                           |  |
|                                                     |                    |                                 |          |                                    |                          |                           |  |
|                                                     |                    |                                 |          |                                    | AREA<br>OMBREGGIATA      |                           |  |
|                                                     |                    |                                 |          |                                    |                          |                           |  |
|                                                     |                    |                                 |          |                                    | ALTRI<br>>>>             |                           |  |
|                                                     |                    |                                 |          |                                    |                          |                           |  |
| SALVA                                               | PROVA DI<br>STAMPA | COPIA                           | CANCELLA | MUOVI<br>CAMPO SU                  | MUOVI<br>CAMPO GIU       | 01/01/2007<br>14:20       |  |
|                                                     |                    |                                 |          |                                    |                          | LIV.5                     |  |

**Figure 5- 33 – Entry and editing of labels\_1 fields**

|                                                     |                    |                                 |          |                                    |                      |                           |  |
|-----------------------------------------------------|--------------------|---------------------------------|----------|------------------------------------|----------------------|---------------------------|--|
| <b>PT kg</b><br><b>0.000</b><br>TARA PREDETERMINATA |                    | <b>LORDO kg</b><br><b>0.000</b> |          | Max. 12 kg<br>Min. 40 g<br>E = 2 g |                      | <b>PREZZO</b><br><b>0</b> |  |
| Home\Arch.\Eti\Vis. Eti                             |                    |                                 |          |                                    |                      |                           |  |
| <b>TIPO CAMPO</b>                                   | <b>DESCRIZIONE</b> | <b>X</b>                        | <b>Y</b> | <b>VAR</b>                         |                      |                           |  |
|                                                     |                    |                                 |          |                                    | INSERISCI LINEA      |                           |  |
|                                                     |                    |                                 |          |                                    |                      |                           |  |
|                                                     |                    |                                 |          |                                    |                      |                           |  |
|                                                     |                    |                                 |          |                                    | INSERISCI RETTANGOLO |                           |  |
|                                                     |                    |                                 |          |                                    |                      |                           |  |
|                                                     |                    |                                 |          |                                    |                      |                           |  |
|                                                     |                    |                                 |          |                                    |                      |                           |  |
|                                                     |                    |                                 |          |                                    |                      |                           |  |
|                                                     |                    |                                 |          |                                    |                      |                           |  |
|                                                     |                    |                                 |          |                                    |                      |                           |  |
|                                                     |                    |                                 |          |                                    |                      |                           |  |
|                                                     |                    |                                 |          |                                    |                      |                           |  |
|                                                     |                    |                                 |          |                                    | ALTRI<br><<<         |                           |  |
|                                                     |                    |                                 |          |                                    |                      |                           |  |
|                                                     |                    |                                 |          |                                    |                      |                           |  |
| SALVA                                               | PROVA DI STAMPA    | COPIA                           | CANCELLA | MUOVI CAMPO SU                     | MUOVI CAMPO GIU      | 01/01/2007<br>14:20       |  |
|                                                     |                    |                                 |          |                                    |                      | LIV.5                     |  |

**Figure 5- 34 – Entry and editing of labels\_2 fields**

### 5.14.2 Label archive properties

| <i>FIELD</i>                  | <i>TYPE AND LENGTH</i>                             | <i>DESCRIPTION</i>                                                                                                                                                                                                                                                                                                     |
|-------------------------------|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Label</i>                  | Numeric data item -from 0 to 999999999             | Cannot be modified                                                                                                                                                                                                                                                                                                     |
| <i>Label Descript.</i>        | Alphanumerical data item - from 0 to 25 characters | A description can be assigned so as to recognize the label. E.g. "Lab 1 price in Euro".                                                                                                                                                                                                                                |
| <i>Printing speed</i>         | Numeric data item -from 0 to 200                   | Printing speed in mm per second.                                                                                                                                                                                                                                                                                       |
| <i>Peeling</i>                | Numeric data item -from -999 to 999                | Label positioning in relation to the end of printing head (e.g. with negative values, the next label to print will not touch the printing head while with positive values, the label will project from the printing head and allow the siliconed paper of the printed label to be completely peeled off. (See NOTE 1). |
| <i>Backfeed</i>               | Numeric data item - from 0 to 100                  | Allows the entire available label surface to be written over by retracting the label itself prior to printing. (See NOTE 2).                                                                                                                                                                                           |
| <i>Table Temperature</i>      | STANDARD TEMPERATURE OR LOW TEMPERATURE            | This parameter is not interpreted at the present time. The printing performance does not depend on the settings.                                                                                                                                                                                                       |
| <i>Temperature</i>            | Numeric data item - from 0 to 100 %                | Percentage of energy applied to the printing head.                                                                                                                                                                                                                                                                     |
| <i>X offset</i>               | Numeric data item - from 0 to 100 mm               | Allows all fields created on the label to be moved horizontally in mm.                                                                                                                                                                                                                                                 |
| <i>Y offset</i>               | Numeric data item - from 0 to 100 mm               | Allows all fields created on the label to be moved vertically in mm.                                                                                                                                                                                                                                                   |
| <i>Heading Length</i>         | Numeric data item - from 0 to 999.9                | See NOTE 3                                                                                                                                                                                                                                                                                                             |
| <i>Type of dec. separator</i> | Dot (.)<br>Comma (,)                               |                                                                                                                                                                                                                                                                                                                        |

**Figure 5- 35 - Label archive properties**

**NOTE 1:** if this parameter is programmed with a different value from the previous one, the printer will re-align at the beginning of the process and will issue a few white labels.

**NOTE 2:** this space would not be used by peeling the label, i.e. if the label edge were to be positioned a few mm beyond the head. If BACKFEED is given a different value from 0, the label will retract a few mm prior to printing, thus allowing all the label space to be used. This parameter is **only activated on machines connected to table labelling machines, such as Smart 2000.**

**NOTE 3:****HOW TO CORRECTLY USE THE HEADING PARAMETER IN THE LABEL PROGRAMMING MODE**

Correct use of this parameter also allows you to print in the initial part of the label which was hitherto unprintable and proportional to the selected peeling value (the larger the peeling area expressed in dots, the larger is the initial unprintable area).

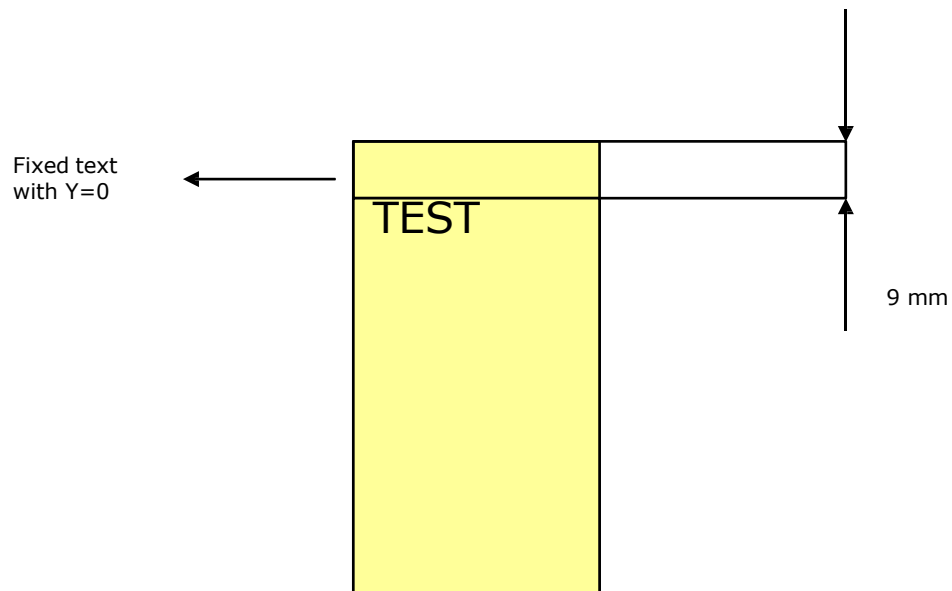
To use this option, you need electronic box with Italora 2.63my firmware release (2.74 for table labelling machines) or more recent releases.

Follow the procedure:

1. Program a label with the peeling value most suited to the processing requirements.
2. Program a data item (e.g. fixed text) in the label with coordinate  $Y = 0$ .
3. Measure the space between the beginning of the label at the top and the beginning of the writing. Multiply the space, measured in mm, for the printer resolution (generally 8), thus obtaining the heading length expressed in dots.

Example with a -40 peeling value and with 8-dot printer resolution, you will obtain

**HEADING VALUE** in dots  $9 \times 8 = 72$



**Figure 5- 36 - Heading**

4. Enter 72 for the **HEADING** field and decrease the peeling value by the same amount:

**HEADING = 72**

**PEELING = -40 - 72 = - 112**

5. Save the changes and access the process without loading pieces.
6. Press the **FEED** key several times to feed out scrap labels and allow the printer to re-align with the layout. At this point, you will note that the initial part of the label under the head has already been printed. This option therefore allows the heading to be printed without two labels being peeled at the same time.
7. Start the Process.

**5.14.3 Label archive field properties**

|                                                                      | TESTO<br>FISSO                                                                                                              | TESTO<br>VARIABILE                                                                                        | BARCODE                                                                                      | LINEA | RETTANGOLO | IMMAGINE | AREA<br>OMBREGGIATA |
|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-------|------------|----------|---------------------|
| <b>ETICHETTA</b>                                                     | Numerico da 0 a 999999999. Non modificabile in quanto ID nell'archivio assegnato.                                           |                                                                                                           |                                                                                              |       |            |          |                     |
| <b>DESCRIZIONE</b>                                                   | Alfanumerico da 0a 25 caratteri. Si può assegnare una descrizione per riconoscere il testo fisso. Ad esempio "data limite". |                                                                                                           |                                                                                              |       |            |          |                     |
| <b>LINK ARCH.<br/>TESTI</b>                                          | Permette di accedere all'archivio dei testi e di selezionare quello che si vuole stampare.                                  |                                                                                                           |                                                                                              |       |            |          |                     |
| <b>LINK ELENCO<br/>CAMPI<br/>VARIABILI<br/>LAV, TOT E<br/>TRACC.</b> |                                                                                                                             | Vedi tabelle 5.25 e 5.26 all'elenco dei campi variabili per lavorazione, totali, tracciabilità e clienti. |                                                                                              |       |            |          |                     |
| <b>LINK ARCH.<br/>BARCODE</b>                                        |                                                                                                                             |                                                                                                           | Permette di accedere all'archivio dei barcode e di selezionare quello che si vuole stampare. |       |            |          |                     |

|                                |                                                                                                                                                                                                                                                                                               |                                                                                                 |  |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|--|
| <b>LINK ARCH.<br/>IMMAGINI</b> |                                                                                                                                                                                                                                                                                               | Permette di accedere all'archivio delle immagini e di selezionare quella che si vuole stampare. |  |
| <b>COORD. X</b>                | Numerico da 0 a 999.9mm. È il valore in mm della posizione orizzontale del punto di partenza di stampa del campo rispetto all'etichetta.                                                                                                                                                      |                                                                                                 |  |
| <b>COORD. Y</b>                | Numerico da 0 a 999.9 mm. È il valore in mm della posizione verticale del punto di partenza di stampa del campo rispetto all'etichetta.                                                                                                                                                       |                                                                                                 |  |
| <b>ROTAZIONE</b>               | Rotazione del campo sull'etichetta. Selezionabile tra: 0° / + 90° / +180° / + 270°                                                                                                                                                                                                            |                                                                                                 |  |
| <b>TIPO<br/>CARATTERE</b>      | Sono disponibili i seguenti font in versione normale e reverse: standard, micro, arial, draft, motor, new century, title, compact. Sono inoltre disponibili se l'hardware della stampante lo permette anche i seguenti fonts in versione normale e bold (grassetto): nina 10, 12, 16, 20, 28. |                                                                                                 |  |
| <b>EXP. ORR.</b>               | Numerico da 0 a 99. Fattore d'ingrandimento del carattere in orizzontale.                                                                                                                                                                                                                     |                                                                                                 |  |
| <b>EXP. VERT.</b>              | Numerico da 0 a 99. Fattore d'ingrandimento del carattere in verticale.                                                                                                                                                                                                                       |                                                                                                 |  |
| <b>LUNGHEZZA</b>               | Numerico da 0 a 70. Campo che si utilizza impostando anche l'allineamento. Stringhe eccedenti la lunghezza impostata vengono troncate.                                                                                                                                                        |                                                                                                 |  |

|                                 |                                                                                                                                                                                                         |                                                                                      |                                                                |                                                                |  |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------------------------------|--|
| <b>ALLINEAMENTO</b>             | Selezionabile tra: auto, destra, sinistra, centrato.<br>Allinea il testo tenendo conto della lunghezza del campo. Se si seleziona automatico le cifre vengono allineate a destra, le parole a sinistra. |                                                                                      |                                                                |                                                                |  |
| <b>CARATTERE DI RIEMPIMENTO</b> | Alfanumerico di un carattere.<br>È possibile utilizzare uno spazio o un qualunque carattere gestito dal programma.                                                                                      |                                                                                      |                                                                |                                                                |  |
| <b>CAMPO VARIABILE</b>          | Selezionabile fra SI e NO, discrimina se inviare il dato solo all'ingresso in lavorazione o in tutte le pesate.                                                                                         |                                                                                      |                                                                |                                                                |  |
| <b>ALTEZZA</b>                  |                                                                                                                                                                                                         | Numerico da 0 a 999.99 mm<br>Altezza di stampa del codice a barre.                   | Numerico da 0 a 999.99 mm<br>Altezza di stampa del rettangolo. | Numerico da 0 a 999.99 mm<br>Altezza di stampa del rettangolo. |  |
| <b>SPESSORE</b>                 |                                                                                                                                                                                                         |                                                                                      | Numerico da 1 a 16. Spessore della linea in dots.              |                                                                |  |
| <b>ESPANSIONE</b>               |                                                                                                                                                                                                         | Numerico da 0 a 9. Espansione in larghezza del barcode.                              |                                                                |                                                                |  |
| <b>DIM. BARRA LARGA</b>         |                                                                                                                                                                                                         | Numerico da 0 a 99. Fattore di moltiplicazione dei dots di stampa della barra larga. |                                                                |                                                                |  |

|                           |  |                                                                                                                                                                               |  |  |
|---------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| <i>DIM. BARRA STRETTA</i> |  | Numerico da 0 a 99. Fattore di moltiplicazione dei dots di stampa della barra stretta.                                                                                        |  |  |
| <i>INTERPRETATO</i>       |  | Selezionabile tra: Si o No<br><b>Si</b> = sotto il barcode appariranno in chiaro i numeri rappresentati;<br><b>No</b> = sotto il barcode non apparirà nessun numero.          |  |  |
| <i>NUM. LINEE</i>         |  | Numerico da 0 a 999.                                                                                                                                                          |  |  |
| <i>NUM. COLONNE</i>       |  | Numerico da 0 a 999.                                                                                                                                                          |  |  |
| <i>LIV. SICUREZZA</i>     |  | Numerico da 0 a 8. Più elevato è questo fattore maggiore è la ridondanza dei dati stampati e quindi la capacità di ricostruire l'informazione in casi di barcode danneggiato. |  |  |
| <i>TRONCATO</i>           |  | Selezionabile tra: Si o No                                                                                                                                                    |  |  |

**Figure 5- 37 - Label archive field properties**

**NOTE 4 ABOUT BARCODES:**

The NARROW BAR DIM. setting must never be zero in *Home\Arch.\Lab\Lab.Dis\Lab.Mod.*

In particular, a 1:0 wide-narrow ratio cannot be selected with the EAN 13 barcode as the program would be unable to print it correctly even though the barcode construction specifications do not allow for this ratio to be interpreted.

**NOTE 5 ABOUT THE PRINTING ORDER**

The fields in the labels are printed in the order in which they are entered. Thus, the last will possibly overlap the first. Bear this fact in mind when bringing initials and/or codes into logos or drawings (Oval EEC stamp). The entry order can be varied by means of the **MOVE FIELD UP/DOWN buttons** (see fig. 5.31).



**5.15.2 Plu archive properties**

| <b>FIELD</b>           | <b>TYPE AND LENGTH</b>                           | <b>DESCRIPTION</b>                                                                                                                                                                                             |
|------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>PLU</i>             | Alphanumerical data item from 0 to 15 characters | ID of the plu, cannot be modified. It can be printed both in light letters and in barcodes.                                                                                                                    |
| <b>CODES</b>           |                                                  |                                                                                                                                                                                                                |
| <i>CLIENT</i>          | Alphanumerical data item from 0 to 10 characters | Identifies the name of the client.                                                                                                                                                                             |
| <i>PRODUCT CODE</i>    | Alphanumerical data item from 0 to 15 characters | Alphanumerical code that identifies the product. Can either be associated with the warehouse product code or with a code personalized for the client and can be printed both in light letters and in barcodes. |
| <i>BATCH</i>           | Alphanumerical data item from 0 to 15 characters | Number that identifies a batch of products. It is displayed as soon as the PLU is selected; it can be printed both in plain text and in barcodes.                                                              |
| <i>LOT</i>             | Alphanumerical data item from 0 to 15 characters | Number that identifies a lot of products. It is displayed as soon as the PLU is selected; it can be printed both in plain text and in barcodes.                                                                |
| <i>COMMODITY</i>       | Alphanumerical data item from 0 to 15 characters | Alphanumerical code that identifies the product category. it can be printed both in plain text and in barcodes.                                                                                                |
| <b>INDICOD</b>         |                                                  |                                                                                                                                                                                                                |
| <i>PRODUCT INDICOD</i> | Numeric data item from 0 to 13 characters        | Field of the numeric type that identifies the Indicod code to add to the EAN13 barcode or to other barcodes, with 13 characters. It is used in the labels of the individually weighed piece.                   |
| <i>TOT.1 INDICOD</i>   | Numeric data item from 0 to 13 characters        | Field of the numeric type that identifies the Indicod code to add to the EAN13 barcode or to other barcodes, with 13 characters. It is used in labels for total 1, which is the total of the package.          |
| <i>INDICOD TOT. 2</i>  | Numeric data item from 0 to 13 characters        | Field of the numeric type that identifies the Indicod code to add to the EAN13 barcode or to other barcodes, with 13 characters. It is used in labels for total 2, which is the total of the pallet.           |

| <b>WEIGHTS</b>                        |                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------|----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>UNIT OF MEASUREMENT FOR WEIGHT</i> | Can be selected from either kg or lb                           | Allows the weight unit used to be selected for each PLU: kilograms (kg) or pounds (lb).                                                                                                                                                                                                                                                                                                                                                                             |
| <i>PRODUCT TARE</i>                   | Numeric data item from 0 to 99.999 characters, expressed in kg | Identifier of the preset tare value of the package. For example, it is associated with the weight of the packet, polystyrene tray and relative polyethylene, etc... It is displayed as soon as the PLU is selected and is used for calculating the net weight; it is added to each weight made so as to obtain the final calculation of the overall tare for each total level (see "totalizing" section"). It can be printed both in light letters and in barcodes. |
| <i>PRODUCT % TARE</i>                 | Numeric data item from 0 to 99.99                              | Identifier of the percentage weight drop due to the loss of liquids (e.g. when certain products drip, when products thaw or are cured). It is added to the product tare and is then printed and totaled along with the latter.                                                                                                                                                                                                                                      |
| <i>PRINT PROD. TARE</i>               | Can be selected from: Yes or No.                               | Establishes whether the tare value of each individual package is to be printed on the label or not.                                                                                                                                                                                                                                                                                                                                                                 |
| <i>PACKING TARE (TOT. 1)</i>          | Numeric data item from 0 to 999.999, expressed in kg           | Identifier of the preset tare value of the package. For example, it is associated with the weight of the box or crate, etc... It is used to calculate the net weight of the package along with the total of the individual tares of each product it contains. It can be printed both in plain text and in barcodes.                                                                                                                                                 |
| <i>PRINT TARE TOT. 1</i>              | Can be selected from: Yes or No.                               | Establishes whether the tare value of each individual package is to be printed on the label or not.                                                                                                                                                                                                                                                                                                                                                                 |
| <i>PALLET TARE (TOT. 2)</i>           | Numeric data item from 0 to 999.999, expressed in kg           | Identifier of the preset tare value of the pallet; it is used to calculate the net weight of the pallet along with the total of the tares of each package it contains. It can be printed both in light letters and in barcodes.                                                                                                                                                                                                                                     |
| <i>PRINT TARE TOT. 2</i>              | Can be selected from: Yes or No.                               | Establishes whether the tare value of each individual pallet is to be printed on the label or not.                                                                                                                                                                                                                                                                                                                                                                  |

|                            |                                                                                                                                                       |                                                                                                                                                                |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>PRINT GROSS</i>         | Can be selected from: Yes or No.                                                                                                                      | Establishes whether the gross weight of each individual package is to be printed on the label or not.                                                          |
| <i>PRINT WEIGHT SYMBOL</i> | Can be selected from: <ul style="list-style-type: none"> <li>• WITHOUT SYMBOL</li> <li>• SYMBOL WITHOUT SPACE</li> <li>• SYMBOL WITH SPACE</li> </ul> | Identifies the mode in which the weight symbol is printed alongside the real weight value.                                                                     |
| <i>FIXED DATA</i>          | Can be selected from: <ul style="list-style-type: none"> <li>• VARIABLE WEIGHT</li> <li>• FIXED WEIGHT</li> <li>• FIXED AMOUNT</li> </ul>             | Discriminates the product processing mode.                                                                                                                     |
| <i>FIXED WEIGHT</i>        | Numeric data item from 0 to 999.999, expressed in kg                                                                                                  | Identifier of the fixed weight value to print if the products are to be labelled with preset weights. It can be printed both in light letters and in barcodes. |
| <i>FIXED AMOUNT</i>        | Numeric data item from 0 to 999999.999                                                                                                                | Identifier of the fixed amount value to print if the products are to be labelled with preset amounts. It can be printed both in plain text and in barcodes.    |
| <i>TRACE CODE TOT EN.</i>  | Can be selected from: Yes or No.                                                                                                                      | Allows products processed with a pre-established retraceability code to be totalized (or not) within the traceability total, if activated.                     |
| <i>CTRL limit --</i>       | Cannot be modified                                                                                                                                    |                                                                                                                                                                |
| <i>CTRL limit -</i>        | Cannot be modified                                                                                                                                    |                                                                                                                                                                |
| <i>+ CTRL limit</i>        | Numeric data item from 0 to 1000.000                                                                                                                  |                                                                                                                                                                |
| <i>++ CTRL limit</i>       | Numeric data item from 0 to 1000.000                                                                                                                  |                                                                                                                                                                |
| <i>CTRL ENABLING</i>       | Can be selected from: Yes or No.                                                                                                                      | If "YES" is selected and the CTRL option is activated, the relative PLUS is enabled                                                                            |

|                           |                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>CTRL OPTIONS</i>       | <ul style="list-style-type: none"> <li>• From - to ++ with 2.5%</li> <li>• From - to + with 2.5%</li> <li>• From - onwards with 2.5%</li> <li>• From - to ++ with 2.5%</li> <li>• From - to ++ without 2.5%</li> <li>• From - onwards without 2.5%</li> </ul> | <ul style="list-style-type: none"> <li>• "From - to ++ with 2.5%", pieces whose weight is between the - LIMIT and the ++ LIMIT are accepted. Moreover, up to 2.5% of pieces whose weight is between the --LIMIT and the -LIMIT are accepted so long as the average is higher than the nominal value.</li> <li>• "From - to + with 2.5%", pieces whose weight is between the - LIMIT and the + LIMIT are accepted. Moreover, up to 2.5% of pieces whose weight is between the --LIMIT and the -LIMIT are accepted so long as the average is higher than the nominal value.</li> <li>• "From - onwards with 2.5%"; pieces whose weight is higher than the - LIMIT are accepted. Moreover, up to 2.5% of pieces whose weight is between the - - LIMIT and the - LIMIT are accepted so long as the average is higher than the nominal value.</li> <li>• "From - to ++ without 2.5%";</li> <li>• "From - to + without 2.5%";</li> <li>• "From - onwards without 2.5%".</li> </ul> |
| <b>RANGE</b>              |                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <i>LOW. WGT LIMIT</i>     | Numeric data item from 0 to 999.999, expressed in kg                                                                                                                                                                                                          | The weighed packages can be checked by setting the two weight ranges envisaged in the PLU. All the weight packages within the two selected limits will be labelled if the WITHIN RANGE parameter is selected                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <i>UPP. WGT LIMIT</i>     | Numeric data item from 0 to 999.999, expressed in kg                                                                                                                                                                                                          | The packages outside the range will be: <ul style="list-style-type: none"> <li>• rejected, if the ejector is installed (OPTIONAL);</li> <li>• not labelled;</li> <li>• stopped on the line.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <i>RANGE TYPE</i>         | Within or outside                                                                                                                                                                                                                                             | All the weight packages that are <b>not</b> within the two selected limits (lower and upper) will be labelled if the EXTERNAL RANGE parameter is selected.<br>The packages within the range will be: <ul style="list-style-type: none"> <li>• rejected, if the ejector is installed (OPTIONAL);</li> <li>• not labelled;</li> <li>• stopped on the line.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <i>WEIGHT BOUNDING ID</i> | Weight Bounding Archive Link                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

| <b>CURRENCIES</b>       |                                                                                                                                                                                                                     |                                                                                                                                                                                               |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PRIMARY CURRENCY        | List of currencies in relation to the various geographical areas. Selection of one of these areas will access a mask containing all the countries in the selected area, allowing the required country to be chosen. | Establishes the currency to use when the primary currency is printed. It is represented in geographical areas, which are:                                                                     |
|                         |                                                                                                                                                                                                                     | EUROLAND                                                                                                                                                                                      |
|                         |                                                                                                                                                                                                                     | WESTERN EUROPE                                                                                                                                                                                |
|                         |                                                                                                                                                                                                                     | EASTERN EUROPE                                                                                                                                                                                |
|                         |                                                                                                                                                                                                                     | AMERICA                                                                                                                                                                                       |
|                         |                                                                                                                                                                                                                     | AFRICA                                                                                                                                                                                        |
|                         |                                                                                                                                                                                                                     | ASIA                                                                                                                                                                                          |
|                         |                                                                                                                                                                                                                     | OCEANIA                                                                                                                                                                                       |
| NUM. DECIMALS 1         | Can be selected from 0 to 3                                                                                                                                                                                         | Gives the number of decimals to consider in the primary currency                                                                                                                              |
| ROUNDING-OFF 1          | Can be selected amongst 1, 5 and 10                                                                                                                                                                                 | Gives the degree of approximation of the value of the amount.                                                                                                                                 |
| PRIMARY CURRENCY SYMBOL | Alphanumeric data item from 0 to 3 characters                                                                                                                                                                       | Identifies the symbol of the primary currency, depending on the country selected.                                                                                                             |
| PRICE                   | Numeric data item from 0 to 999999.999                                                                                                                                                                              | Identifier of the value of the unitary price in relation to the currency used. It is displayed directly as soon as the PLU is selected; it can be printed both in plain text and in barcodes. |
| PRINT PRIMARY PRICE     | Can be selected from: Yes or No.                                                                                                                                                                                    | Establishes whether the primary currency price is to be printed on each individual package or not.                                                                                            |
| PRINT PRIMARY AMOUNT    | Can be selected from: Yes or No.                                                                                                                                                                                    | Establishes whether the primary currency amount is to be printed on each individual package or not                                                                                            |
| SECONDARY CURRENCY      | List of currencies in relation to the various geographical areas. Selection of one of these areas will access a mask containing all the countries in the selected                                                   | Establishes the currency to use when the secondary currency is printed. It is represented in geographical areas, which are:                                                                   |

|                                   |                                                                                                                                                       |                                                                                                                                                                              |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                   | area, allowing the required country to be chosen.                                                                                                     | EUROLAND<br>WESTERN EUROPE<br>EASTERN EUROPE<br>AMERICA<br>AFRICA<br>ASIA<br>OCEANIA                                                                                         |
| <i>NUM. DECIMALS 2</i>            | Can be selected from 0 to 3                                                                                                                           | Gives the number of decimals to consider in the secondary currency                                                                                                           |
| <i>ROUNDING-OFF 2</i>             | Can be selected amongst 1, 5 and 10                                                                                                                   | Gives the degree of approximation of the value of the amount.                                                                                                                |
| <i>SEC. CURRENCY SYMBOL</i>       | Alphanumerical data item from 0 to 3 characters                                                                                                       | Identifies the symbol of the secondary currency, depending on the country selected.                                                                                          |
| <i>PRIM. -SEC. CURRENCY CONV.</i> | Numeric data item from 0 to 9999.999999                                                                                                               | Establishes the conversion value, which is automatic for all countries in which the EURO is used. The adequate conversion value must be entered for all the other countries. |
| <i>PRINT SEC. PRICE</i>           | Can be selected from: Yes or No.                                                                                                                      | Establishes whether the secondary currency price is to be printed on each individual package or not.                                                                         |
| <i>PRINT SEC. AMOUNT</i>          | Can be selected from: Yes or No.                                                                                                                      | Establishes whether the secondary currency amount is to be printed on each individual package or not                                                                         |
| <i>PRINT CURRENCY SYMBOL</i>      | Can be selected from: <ul style="list-style-type: none"> <li>• WITHOUT SYMBOL</li> <li>• SYMBOL WITHOUT SPACE</li> <li>• SYMBOL WITH SPACE</li> </ul> | Identifies the mode in which the currency symbol is printed alongside the price and amount.                                                                                  |
| <b>DATE</b>                       |                                                                                                                                                       |                                                                                                                                                                              |
| <i>PROD. DATE TEXT</i>            | Direct entry or Text Archive Link                                                                                                                     | Gives the description associated with the production date, to be printed on the label. Allows one of the texts in the texts archive to be selected.                          |
| <i>PROD. DATE</i>                 | List of the ways in which the production date can be printed.                                                                                         | List of date formats:<br>Identifies the date printing mode and can be selected from amongst:                                                                                 |
|                                   |                                                                                                                                                       | <ul style="list-style-type: none"> <li>• DD MM YY</li> <li>• DD MM YYYY</li> <li>• DD.MM.YY</li> </ul>                                                                       |

- DD.MM.YYYY
- DD/MM/YY
- DD/MM/YYYY
- DD ROM YY
- DD ROM YYYY
- DD MON YY
- DD MON YYYY
- MM DD YY
- MM DD YYYY
- MM.DD.YY
- MM.DD.YYYY
- MM/DD/YY
- MM/DD/YYYY
- DDMMYY
- DDMMYYYY
- PROG. DD OF YEAR
- ROM YY
- ROM YYYY
- MMDDYY
- MMDDYYYY
- YYMMDD
- YYYYMMDD
- WEEK OF YEAR
- DD-MM-YY
- DD-MM-YYYY
- MM-DD-YY
- MM-DD-YYYY
- YY-MON(ENG)-DD
- YYYY-MON(ENG)-DD
- YMMDD
- YY.JJJ
- MON YY
- MON YYYY
- YY-MM-DD
- DDDYY
- DDDRMM
- DDDRY

|                                   |                                                               |                                                                                                                                                 |
|-----------------------------------|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
|                                   |                                                               | <ul style="list-style-type: none"> <li>• DD MON (ENG)</li> <li>• YY MO(BS) DD</li> </ul>                                                        |
| <i>BARCODE PROD. DATE FORMAT</i>  | List of the ways in which the production date can be printed. | See list of date formats.                                                                                                                       |
| <i>PRINT PROD. DATE</i>           | Can be selected from: Yes or No.                              | Establishes whether the production date is to be printed on the label or not                                                                    |
| <i>EXPIRY DATE DD.</i>            | Numeric data item from 0 to 999                               | Identifier of the number of the product's "use by" days. It is added to the production date so as to calculate the expiry date.                 |
| <i>EXPIRY DATE TEXT</i>           | Direct entry or Text Archive Link                             | Gives the description associated with the expiry date, to be printed on the label. Allows one of the texts in the texts archive to be selected. |
| <i>EXPIRY DATE FORMAT</i>         | List of the ways in which the expiry date can be printed.     | See list of date formats.                                                                                                                       |
| <i>BARCODE EXPIRY DATE FORMAT</i> | List of the ways in which the production date can be printed. | See list of date formats.                                                                                                                       |
| <i>PRINT EXPIRY DATE</i>          | Selected between: Yes or No.                                  | Establishes whether the expiry date is to be printed on the label or not                                                                        |
| <i>CURING DD.</i>                 | Numeric data item from 0 to 999                               | Identifier of the number of the product's curing days. It is added to the production date so as to calculate the curing date.                   |
| <i>CURING DATE TEXT</i>           | Direct entry or Text Archive Link                             | Gives the description associated with the curing date, to be printed on the label. Allows one of the texts in the texts archive to be selected. |
| <i>CURING DATE FORMAT</i>         | List of the ways in which the expiry date can be printed.     | See list of date formats.                                                                                                                       |
| <i>BARCODE CURING DATE FORMAT</i> | List of the ways in which the production date can be printed. | See list of date formats.                                                                                                                       |
| <i>PRINT CURING DATE</i>          | Can be selected from: Yes or No.                              | Establishes whether the curing date is to be printed on the label or not                                                                        |
| <i>PRINT TIME</i>                 | Can be selected from: Yes or No.                              | Establishes whether the time is to be printed on the label or not                                                                               |

| <b>PRESELECTIONS</b>             |                                                                           |                                                                                                                                                                                                                                                             |
|----------------------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>TOT. 1 PCS<br/>PRESELECT.</i> | Numeric data item from 0 to 999999999                                     | Indicates the number of packages to reach to activate total label issue for the box or crate in the automatic or manual mode.                                                                                                                               |
| <i>TOT 1 WGT<br/>PRESELECT.</i>  | Numeric data item from 0 to 99999.999 characters, expressed in kg (or lb) | Indicates the weight value to reach to activate total label issue for the box or crate in the automatic or manual mode.                                                                                                                                     |
| <i>TOT. 2 PCS<br/>PRESELECT.</i> | Numeric data item from 0 to 999999999                                     | Indicates the number of packages to reach to activate total label issue for the box or crate in the automatic or manual mode.                                                                                                                               |
| <i>TOT 2 WGT<br/>PRESELECT.</i>  | Numeric data item from 0 to 99999.999 characters, expressed in kg (or lb) | Indicates the weight value to reach to activate total label issue for the box or crate in the automatic or manual mode.                                                                                                                                     |
| <i>PIECES WEIGHED</i>            | Numeric data item from 0 to 999                                           | Indicates the number of pieces to consider in a box after each weighing operation.                                                                                                                                                                          |
| <i>PCS PROCESS. LIMIT</i>        | Numeric data item from 0 to 109                                           | Indicates the number of pieces to reach in order to conclude the process. A request to quit the process or proceed will appear once this limit has been reached.                                                                                            |
| <i>WGT PROCESS. LIMIT</i>        | Numeric data item from 0 to 109                                           | Indicates the weight to reach in order to conclude the process. A request to quit the process or proceed will appear once this limit has been reached.                                                                                                      |
| <b>ARTICLE TEXTS</b>             |                                                                           |                                                                                                                                                                                                                                                             |
| <i>ARTICLE TEXT 1 – 20</i>       | Direct entry or Text Archive Link                                         | Alphanumeric code identifying a generic text to be printed. It can be used for printing the name of the product, the ingredients or any other text on the label. The first two lines of the description will appear on the screen when the PLU is selected. |
| <b>LABELS</b>                    |                                                                           |                                                                                                                                                                                                                                                             |

|                             |                                  |                                                                                                                             |
|-----------------------------|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| <i>PRODUCT LABEL</i>        | Label Archive Link               | Allows one of the label formats in the labels archive to be selected and assigned to the pricing of the individual packages |
| <i>TOT.1 LABEL</i>          | Label Archive Link               | Allows one of the label formats in the labels archive to be selected and assigned to the pricing of the box or crate total. |
| <i>TOT.2 LABEL</i>          | Label Archive Link               | Allows one of the label formats in the labels archive to be selected and assigned to the pricing of the pallet total.       |
| <i>PROD.LAB.BARCODE</i>     | Barcode Archive Link             | Allows the user to select a barcode from the barcode archive to allocate, also via macro.                                   |
| <b>HANDLING</b>             |                                  |                                                                                                                             |
| <i>INPUT BELT SPEED</i>     | Numeric data item from 0 to 100  | Speed of <u>first belt</u> if installed.                                                                                    |
| <i>BELT SPEED</i>           | Numeric data item from 0 to 100  | Speed of 2 <sup>nd</sup> to 4 <sup>th</sup> belts if there are four belts, of all if there are three belts.                 |
| <i>UP/DOWN ENABLING</i>     | Can be selected from: Yes or No. |                                                                                                                             |
| <i>WEIGHING POS.</i>        | Numeric data item from 0 to 400  | Represents the target-delta in relation to the machine settings.                                                            |
| <i>LABELLING POS.</i>       | Numeric data item from 0 to 400  | Represents the target-delta in relation to the machine settings.                                                            |
| <i>PIECE LENGTH</i>         | Numeric data item from 0 to 109  | Filter which, if present, substitutes the machine's default filtering and eliminates the double readings.                   |
| <i>MANUAL PROD. APPLIC.</i> | Can be selected from: Yes or No. |                                                                                                                             |
| <b>CONSECUTIVES</b>         |                                  |                                                                                                                             |

|                                |                                            |                                                                                                                     |
|--------------------------------|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| <i>PRINT CONSEC.<br/>PIECE</i> | Can be selected from:<br>Yes or No.        | Establishes whether the consecutive package number is to be printed on the label of the individual products or not. |
| <i>PRINT TOT. 1 PROG.</i>      | Can be selected from:<br>Yes or No.        | Establishes whether the consecutive number of the box or crate is to be printed on the total 1 label.               |
| <i>PRINT TOT. 2 PROG.</i>      | Can be selected from:<br>Yes or No.        | Establishes whether the consecutive number of the pallet is to be printed on the total 2 label.                     |
| <b><i>PACKING LIST</i></b>     |                                            |                                                                                                                     |
| <i>TOT 1 PACKING<br/>FILE</i>  | Link to list of available packing layouts. | Establishes whether the type of box packing list report is to be printed or not.                                    |
| <i>TOT 2 PACKING<br/>FILE</i>  | Link to list of available packing layouts. | Establishes whether the type of pallet packing list report is to be printed or not.                                 |

**Figure 5- 39 - Plu field explanations****NOTE 1 ABOUT THE VARIABLE WEIGHT PROCESS**

In this operating mode, the machine detects the gross weight of the package and prints it on the product label, subtracting the tare if set-up in this way. The detected gross weight, net weight and tare are added to the totals. The label must at least give the NET WEIGHT.

**NOTE 2 ABOUT THE FIXED WEIGHT/AMOUNT PROCESS**

In this operating mode, the machine detects the gross weight of the product, possibly compares it with the selected weight limits, but prints the label and totalizes the fixed weight and/or amount set in the PLU.



Concerning routine management of the archive, see paragraph 5.9 (Common notes about archive programming).

### **5.16.2 Store**

The store concept is linked to the multiproduct mode and, along with the BCRead archive, allows a **queue** of plu to process to be entered.

The plu queue is associated with the items entered into the machine and dealt with by means of a FIFO logic. It can be generated via the keyboard of the machine (by using **soft keys**), by means of a serial keyboard, a laser scanner and by means of a network command. Venus Series 100 does NOT allow stores to be generated by means of the scanner on the input.

Currently, the 3 types of input are **mutually exclusive**, thus mixed serial keyboard/scanner store cannot be executed.

If the keyboard is used for executing stores, **all** the set queue can be

A dark blue square button with the white text "DEL" inside.

cancelled in the case of error by pressing .

In the latter case, the item stops on the scale belt while awaiting a new store from the keyboard.

### **5.16.3 Crate weigher - Note for the installers:**

In the **crate weigher** mode, a store can be executed via the scanner during the process, while the data available in the list of processing fields can also be edited. The data entry mode can be selected in the following way during the installation phase:

- **Manual input**

- Serial keyboard (256 keys)
- Terminal keyboard (70 keys) - Manual scanner (usable in parallel)

**Note:** the serial keyboard and stand-alone terminal keyboard (manual scanner) are mutually exclusive.

During the installation phase, it is also possible to select the operating mode of the scanner reader and to choose whether to execute or not execute a store when a reading is made with a scanner:

- **Enter as store**

Always enter a PLU ID in the BC READ archive, otherwise a non-valid store indication will be obtained when the piece reaches the scale.

Besides generating a store, it is also possible (if envisaged in the BC READ archive) to modify the process fields, which will be considered as global fields.

**Do not overlap use of GLOBAL FIELDS with process field (considered as global fields) editing via scanner.**

Automatic stores can be set by using the soft keys (see "**product with confirmation**"). However, using the scanner, the data can be edited before the actual store is generated: plu store and data editing when an actual barcode is being read.

**Note:** The first 5 digits read are considered by default if the BC READ archive is empty or if none of its elements is associated with the machine settings.

- **Enter as process field**

The string read is **only** used for modifying the process fields. When this setting is activated, a PLU ID must **not** be entered in the BC READ archive as it will not be considered and a store will not be created.

The store must be executed via the serial keyboard or stand-alone.

The field entered is considered a **global field**.

#### **5.16.4 Monoproduct - Note for the installers:**

In the **monoproduct** mode, **it is NOT POSSIBLE** to call up a plu via the scanner and process it, while it is still possible to modify the process data and traceability ID.

#### **5.16.5 Properties of the BC Read archive**

When a new barcode is read, the machine stops the process, changes the data and then restarts the process again. The new data will affect the next piece to be weighed if the updated data item concerns the plu or traceability lot in progress (process data), while they will affect the next piece to enter the machine in the case of a global field.

If the selected field belonging to the plu is handled in global mode, the machine will automatically load the data item read in the global field (see below) during the process, when the barcode is read, instead of in the plu.

The scanner that reads the data only functions during the processing phase.

The machine configuration contains an item that enables the scanner to read the data, plus the relative serial port and barcode ID used for reading. There is also a field that enables macro key F11 during the process. This allows the ID of the barcode in progress to be changed during the process just as key F12 changes the plu in progress if enabled.

### **ERROR SITUATIONS:**

The following checks are available in the CRATE WEIGHER mode with scanner reading:

- there are no checks on access to the process.
- An error is activated and stops the process if the terminal reads a code whose size is less than the position (and length) of a field to be read inside it.
- If present in the selected barcode, the traceability fields are ignored.
- Checks are made to ascertain the existence or presence in the setup of the barcode ID for reading during access to the process, with process block.

The following checks are available in the MONOPRODUCT mode with scanner reading:

- before accessing the process, the terminal checks to make sure that the selected barcode exists;
- before accessing the process, the terminal checks to make sure that the fields set in the barcode are valid;
- before accessing the process, the terminal checks for the presence of different traceability fields from the lot or whether traceability has been enabled in the lot field.
- An error is activated and stops the process if the terminal reads a code whose size is less than the position (and length) of a field to be read inside it.
- An error is activated and stops the process if a traceability lot is read but is not present in the archive.
- The checks conducted on access to the process will be repeated if a different barcode is loaded during the process

- Checks are made to ascertain the existence or presence in the setup of the barcode ID for reading during access to the process, with process block.

**NOTE:**

Automatic management of the GS and AI characters is not currently available for the EAN128.

## **5.17 Traceability (optional)**

### **5.17.1 Introduction and properties of the traceability archive**

Traceability is an identification, recording and labelling system for products that allows checks to be made throughout the entire production process (traceability).

Identification and traceability are the main tools used for dealing with emergency situations (e.g. goods withdrawn from the retail outlet) without having to destroy all product.

The current traceability systems conform to the European and national standard based on international standard UCC/EAN 128.

Thanks to this system, the entire product cycle can be checked right through to the retail outlet, while the consumer can be given a whole series of information.

The "traceability" option is sold separately for Venus Series 100 weighing-pricing machines and is only activated in the machines after a special procedure has been carried out.

Besides the activation procedure, which enables the "traceability" function in the software, the machine must be programmed with the information that defines the fields in the archive that the operator can use, as well as the precompiled tables with the countries, breeds, size, source, origin, etc. (**note for installers:** consult the "Installer's Manual" for instructions about how to program the fields).

When a traceability data item is entered in a label, specify that the field is NOT variable since it is NOT transmitted to the printer each weighing operation.

There is an option that allows the request to be displayed in the traceability window on access to the process. This display is bound to the following **conditions:**

- The traceability option must be activated.
- The aforementioned option must be activated by means of the TRACE. INPUT ON START" item in the Software Test menu (can only be accessed by installers).

In the presence of these conditions and if YES has been selected in the "TRACE. CODE TOT. ENAB." field for the PLU/Process, whenever the process is accessed, the window requesting traceability will be displayed in the PLU Selection window. Otherwise (if NO has been selected) nothing will be requested and the last code entered will be valid.

**PROGRAM**

From the Lot selection window, you can press **PROGRAM** to enter a new traceability lot.

The key can be pressed in the lot selection window in order to enter a new traceability lot. If the archive is empty, the lot selection window will not appear and no entries can be made in this part of the program.

Follow the pathway: Home\Arch.\Trace and the following window will appear

|                                              |                          |                                    |                              |
|----------------------------------------------|--------------------------|------------------------------------|------------------------------|
| PT kg<br><b>0.000</b><br>TARA PREDETERMINATA | LORDO kg<br><b>0.000</b> | Max. 12 kg<br>Min. 40 g<br>E = 2 g | PREZZO<br><b>0</b>           |
| Home\Arch.\Tracc                             |                          |                                    |                              |
| <b>ID TRACCIABILITA</b>                      | <b>CAMPO 1 TRACC</b>     | <b>CAMPO 2 TRACC</b>               | SVUOTA<br>ARCHIVIO           |
|                                              |                          |                                    |                              |
|                                              |                          |                                    |                              |
|                                              |                          |                                    |                              |
|                                              |                          |                                    |                              |
|                                              |                          |                                    |                              |
|                                              |                          |                                    |                              |
|                                              |                          |                                    |                              |
|                                              |                          |                                    |                              |
|                                              |                          |                                    |                              |
|                                              |                          |                                    |                              |
|                                              |                          |                                    |                              |
|                                              |                          |                                    |                              |
|                                              |                          |                                    |                              |
| SALVA                                        | NUOVO                    | COPIA                              |                              |
|                                              |                          |                                    | 01/01/2007<br>14:20<br>LIV.5 |

**Figure 5- 41 - Traceability archive**

Concerning routine management of the archive, see paragraph 5.9 (Common notes about archive programming).

### 5.17.2 Default settings

When the terminal is activated for the first time, the following default items are available and can be modified by specialized personnel to suit the customer's requirements:

- ID TRACEABILITY
- EAR TAG
- COUNTRY OF BIRTH

- BIRTH COUNTRY CODE
- FATTENING 1
- FATTENING
- PORTIONING
- PREPARATION

### **5.17.3 Error messages**

## **WARNING**

*The error messages in the following list appear owing to incorrect entries made by the user. Note that it is incorrect to proceed with the process after one of these messages has appeared.*

- If Venus is switched on without the trace.cfg file in:

**ARCHIVES\USER\TRACE**

the following message will appear in the boot phase before the application starts:

**ERROR CLASS: 100; TYPE OF ERROR: 106**

**No Trace. config. file**

- If the trace.cfg file is present but the archive is empty and the operator attempts to access the process, a warning window will appear with the message:

**TRACEABILITY LOT NOT FOUND**

If OK is pressed, the machine accesses the process. The piece is weighed, but the message "Field Not Valid:" "Variable field ID" is printed on a level with the traceability fields in the label; The process fields are printed normally.

- If ";" , "," are omitted from the table or if excess data are entered (e.g. an extra 0), the following message will appear during the boot phase before the application starts:

**ERROR CLASS: 7000; TYPE OF ERROR: 7006**

**Index Out of String**

- The following message appears in the absence of the tabpaesi.txt file (or any file that identifies the table with another name), or if

reference is made to it in trace.cfg with the wrong name and the relative table is recalled with F7:

**Error 108:**

**No table file**

## **5.18 Packing list (optional)**

### **5.18.1 Introduction**

The Venus Series 100 weighing-pricing machine can print a pallet packing list report if enabled and correctly setup. The report printout is made by a laser printed.

The packing list document (which is issued by the person who transmits it) gives details about the list of packs (boxes) and the quantities on each pallet.

A generic packing list file can be accessed by selecting it via the following pathway:

Home\Arch.\Config.\Various Config.\Packing Tot2 File

A different packing list file can also be recalled, in each PLU.

The files that are available and that can be selected and associated with the closing events (also forced) of the pallet (Tot\_2) are also visible upon selection.

These files with the \*.PAK extension (e.g. **PALLET.PAK**) are text files formed with an editor like Windows notepad in compliance with a simple syntax.

Each **packing list** file for TOT\_2 can **only** include data concerning the boxes as well as TOT\_2 (pallet).

## **5.19 CTRL weight control (optional)**

### **5.19.1 Explanations about standards**

Prepackaged packing or pre-packaging means the unit formed by the product and its container. A product is said to be pre-packaged (OIML R87 2.10 - Law 690) when the packaging operation takes place in the absence of the purchaser, according to standard quantities determined in advance that can not be modified without altering the packaging itself. The weight or volume quantity indicated on the package takes the name of "**nominal value**".

The current laws establish the rules that manufacturers must comply with and the statistical monitoring modes for the metric services of the Chambers of Commerce.

Packaging lot means a group of packages with the same nominal quantity, the same model and the same type of manufacture

The main rules establishes for pre-packages are:

- the effective average contents of a packaging lot must not be less than the nominal value indicated on the package;
- pre-packages that contain less than they should with an error that is double the tolerance margin, cannot be marketed.

The machine handles the weight monitoring function when appropriately programmed and enabled.

### **5.19.2 Properties of the weight monitoring archive**

The "weight monitoring" mode can be enabled or disabled for each plu. This is done by enabling the CTRL ENABLING field in the WEIGHTS group. This operating mode only functions if the plu processed is the **fixed weight** type. The normal process will be activated if this is not the case. If the "crate weigher" operating mode has been set, the weight control function is **disabled** regardless of the settings in the fields of the PLU being processed.

There are four fields in the WEIGHTS group of the plu (-- LIMIT, - LIMIT, + LIMIT, ++ LIMIT), which identify the 5 weight summarizing zones. These limits are loaded in automatic mode when fixed weight operation is selected and can only be modified via the user interface (only + LIMIT and ++ LIMIT) before the first piece passes

Each line in the table identifies a weight range (WEIGHT\_FROM must be less than WEIGHT\_TO) given in grams, for which the + and - limits are calculated beginning from the nominal weight and applying (either more or less) the error percentage (ERR\_%) or the absolute weight (WEIGHT\_ERR), depending on whether there is a positive value for one field or the other.

| <b>WEIGHT_FROM</b> | <b>WEIGHT_TO</b> | <b>ERR_%</b> | <b>WEIGHT_ERR</b> |
|--------------------|------------------|--------------|-------------------|
| 5                  | 49               | 9            |                   |
| 50                 | 99               |              | 4.5               |
| 100                | 199              | 4.5          |                   |
| 200                | 299              |              | 9                 |
| 300                | 499              | 3            |                   |
| 500                | 999              |              | 15                |
| 1000               | 9999             | 1.5          |                   |
| 10000              | 14999            |              | 150               |
| 15000              | 9999999          | 1            |                   |

**Figure 5- 42 - Reference table for weight control**

Different acceptance logics for the lot can also be selected by means of the CTRL OPTIONS field in the WEIGHTS group of the plu. The following options can be selected:

- "From - to ++ with 2.5%", pieces whose weight is between the -LIMIT and the ++LIMIT are accepted. Moreover, up to 2.5% of pieces whose weight is between the --LIMIT and the -LIMIT are accepted so long as the average is higher than the nominal value.
- "From - to + with 2.5%", pieces whose weight is between the - LIMIT and the + LIMIT are accepted. Moreover, up to 2.5% of pieces whose weight is between the --LIMIT and the -LIMIT are accepted so long as the average is higher than the nominal value.
- "From - onwards with 2.5%"; pieces whose weight is higher than the - LIMIT are accepted. Moreover, up to 2.5% of pieces whose weight is between the -- LIMIT and the - LIMIT are accepted so long as the average is higher than the nominal value.
- "From to ++ without 2.5%".
- "From to + without 2.5%".
- "From - onwards without 2.5%".

## **5.20 Weight Bounding (optional)**

### **5.20.1 Introduction**

The Weight Bounding (weight classes) mode allows products entering the line to be weighed, labelled and totalized in a different way from the weight range to which they belong.

Up to 9 weight ranges are available and each range is characterized by a minimum limit and a maximum limit within the scale capacity. A range is considered to be enabled if the minimum and maximum values are **different** from zero.

Each valid weight range (W.B. ID) is associated with a plu in which the weight-pricing modes of the product are described.

A weight bounding archive is defined and used for memorizing the weight range definitions and their associations with the PLU. Each set of nine weight ranges is associated with an ID that can be associated with one or more PLU.

The Weight Bounding option includes entry of a weight range in the plu within which the normally processed piece will be accepted. If the weight detected is beyond the set weight range, the software checks to make sure that it is within the ranges in the archive to which the Weight Bounding ID in the plu's RANGE refers. If this condition is ascertained, the plu corresponding to the weight range to which the weighed piece belongs will be sent for processing.

If the weight of the piece is not within the ranges established in the Weight Bounding ID linked to the plu in progress, then that piece will be rejected.

Totalizing will occur in the PLU selected from the weight range table. This means that if the same PLU is used in several ranges, it will not be possible to discriminate the total of each individual range used. The totals of the PLU must therefore be printed and possibly reset before a new weight range selection is used

To start processing a Weight Bounding, you need to select a "Master" PLU in which an element of the Weight Bounding archive is associated.

**VENUS SERIE 100**

Follow the pathway: Home\Arch.\WeightB\WeightB Mod pathway to display the following window:

|                                              |  |                          |  |                                    |  |                                     |  |
|----------------------------------------------|--|--------------------------|--|------------------------------------|--|-------------------------------------|--|
| PT kg<br><b>0.000</b><br>TARA PREDETERMINATA |  | LORDO kg<br><b>0.000</b> |  | Max. 12 kg<br>Min. 40 g<br>E = 2 g |  | PREZZO<br><b>0</b>                  |  |
| Home\Arch.\WeightB\Mod.WeightB               |  |                          |  |                                    |  |                                     |  |
| <b>Campo</b>                                 |  | <b>Valore</b>            |  |                                    |  | <b>CANCELLA<br/>ABBINAMENTO</b>     |  |
| <b>WEIGTB</b>                                |  |                          |  |                                    |  |                                     |  |
| <b>DESCRIZIONE</b>                           |  | <b>1</b>                 |  |                                    |  |                                     |  |
| <b>[+]RANGE 1</b>                            |  |                          |  |                                    |  |                                     |  |
| MIN RANGE 1                                  |  | <b>0</b>                 |  |                                    |  |                                     |  |
| MAX RANGE 1                                  |  | <b>0.500</b>             |  |                                    |  |                                     |  |
| PLU RANGE 1                                  |  | <b>PANIFICI</b>          |  |                                    |  |                                     |  |
| <b>[+]RANGE 2</b>                            |  |                          |  |                                    |  |                                     |  |
| <b>[+]RANGE 3</b>                            |  |                          |  |                                    |  |                                     |  |
| <b>[+]RANGE 4</b>                            |  |                          |  |                                    |  |                                     |  |
| <b>[+]RANGE 5</b>                            |  |                          |  |                                    |  |                                     |  |
| <b>[+]RANGE 6</b>                            |  |                          |  |                                    |  |                                     |  |
| <b>[+]RANGE 7</b>                            |  |                          |  |                                    |  |                                     |  |
| <b>[+]RANGE 8</b>                            |  |                          |  |                                    |  |                                     |  |
| <b>[+]RANGE 9</b>                            |  |                          |  |                                    |  |                                     |  |
|                                              |  |                          |  |                                    |  |                                     |  |
|                                              |  |                          |  |                                    |  |                                     |  |
|                                              |  |                          |  |                                    |  |                                     |  |
| SALVA                                        |  | ANNULLA                  |  |                                    |  | 01/01/2007<br>14:20<br><b>LIV.5</b> |  |

**Figure 5- 43 - Weight Bounding Archive**

Concerning routine management of the archive, see paragraph 5.9 (Common notes about archive programming).



## 5.22 General totals

### 5.22.1 Introduction and properties

Various different totalizing modes can be enabled in Venus Series 100 across the processes (in which the totals per box, pallet and PLU are present).

**Note for the installers:** follow the pathway below to enable all or even only some of the available totals:

Home\Arch.\Config.\Term.\Machine Config.\TOTALS ENABLING

After this, the programmed labels can be associated with the totals fields by following the pathway:

Home\Arch.\Config.\Various Config.\TOTAL LABELS

The following values are available:

- General
- Partial
- Client code
- Product Code
- Batch code
- Lot code
- Traceability code
- Commodity code
- Article code
- Lot - Product
- Lot - PLU
- Traceability - Product
- Traceability - PLU
- Client - Product

Follow the pathway:

Home\Arch.\Config.\Various Config.\SUMMING KEYS

The more frequently used totals can be called up by using the  keys to access the process window, in the same way as a macro function.

### 5.22.2 General Totals management

Follow the pathway `Home\Arch.\Gen. Tot.` to open the following window:

|                                              |          |                          |          |                                    |         |                       |  |
|----------------------------------------------|----------|--------------------------|----------|------------------------------------|---------|-----------------------|--|
| PT kg<br><b>0.000</b><br>TARA PREDETERMINATA |          | LORDO kg<br><b>0.000</b> |          | Max. 12 kg<br>Min. 40 g<br>E = 2 g |         | PREZZO<br><b>0</b>    |  |
| Home\Arch.\Tot. Gen.                         |          |                          |          | TOT GENERALE                       |         |                       |  |
| NUM. PZ                                      | NETTO KG | TARA KG                  | NETTO LB | TARA LB                            | IMPORTO | CHIUDI<br>TOTALE      |  |
|                                              |          |                          |          |                                    |         |                       |  |
|                                              |          |                          |          |                                    |         |                       |  |
|                                              |          |                          |          |                                    |         |                       |  |
|                                              |          |                          |          |                                    |         |                       |  |
|                                              |          |                          |          |                                    |         |                       |  |
|                                              |          |                          |          |                                    |         |                       |  |
|                                              |          |                          |          |                                    |         |                       |  |
|                                              |          |                          |          |                                    |         |                       |  |
|                                              |          |                          |          |                                    |         |                       |  |
|                                              |          |                          |          |                                    |         | AZZERAMENTO<br>TOTALI |  |
|                                              |          |                          |          |                                    |         |                       |  |
|                                              |          |                          |          |                                    |         |                       |  |
|                                              |          |                          |          |                                    |         |                       |  |
|                                              |          |                          |          |                                    |         |                       |  |
|                                              |          |                          |          |                                    |         |                       |  |
|                                              |          |                          |          |                                    |         |                       |  |
|                                              |          |                          |          |                                    |         |                       |  |
|                                              |          |                          |          |                                    |         |                       |  |
|                                              |          |                          |          |                                    |         |                       |  |
| TOTALE                                       | ANNULLA  |                          |          |                                    |         | 01/01/2007<br>14:20   |  |
|                                              |          |                          |          |                                    |         | LIV.5                 |  |

### Figure 5- 45 - General Totals archive

The enabled totals can be displayed and printed from this window (after printing, the total will be cancelled).

## 5.23 Menus accessible at 5<sup>th</sup> level

### 5.23.1 Introduction

The menus accessed at level 5 are for the machine administrator and allow the software of the terminal to be customised and serviced.

The network parameters can also be edited at this level.

Follow the *Home\Arch.\Config.* pathway to display the following mask:

|                                                     |                |                                 |                    |                                    |                  |                           |       |
|-----------------------------------------------------|----------------|---------------------------------|--------------------|------------------------------------|------------------|---------------------------|-------|
| <b>PT kg</b><br><b>0.000</b><br>TARA PREDETERMINATA |                | <b>LORDO kg</b><br><b>0.000</b> |                    | Max. 12 kg<br>Min. 40 g<br>E = 2 g |                  | <b>PREZZO</b><br><b>0</b> |       |
| Home\Arch.\Plu                                      |                |                                 |                    |                                    |                  |                           |       |
|                                                     |                |                                 |                    |                                    |                  | TEST I/O                  |       |
|                                                     |                |                                 |                    |                                    |                  | TEST STP                  |       |
|                                                     |                |                                 |                    |                                    |                  | IMPOSTAZ. CONTATORI       |       |
|                                                     |                |                                 |                    |                                    |                  | BACKUP RESTORE            |       |
|                                                     |                |                                 |                    |                                    |                  | SERIALE OLD CGM           |       |
| IMPOSTAZ. TERMINALE                                 | IMPOSTAZ. RETE | IMPOSTAZ. PASSWORD              | IMPOSTAZ. ORA-DATA | IMPOSTAZ. VARIE                    | IMPOSTAZ. LOGGER | 01/01/2007<br>14:20       | LIV.5 |

**Figure 5- 46- 5<sup>th</sup> level configuration**

**5.23.2 Network settings**

This mask contains the settings used to connect to the company network or to personal computers in order to exchange data.

| <b>FIELD NAME</b>        | <b>DEFAULT</b> | <b>AVAILABLE VALUES</b>                | <b>NOTES</b>                                                                                                      |
|--------------------------|----------------|----------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| NETWORK IP ADDRESS       | 0.0.0.0        | MAX 16 CHARACTERS                      |                                                                                                                   |
| SUBNET MASK              | 255.255.0.0    | MAX 16 CHARACTERS                      |                                                                                                                   |
| GATEWAY                  | 1.1.1.1        | MAX 16 CHARACTERS                      |                                                                                                                   |
| PPP IP LOCAL ADDR        | 90.0.0.1       | MAX 16 CHARACTERS                      | IP address to enter in the case of point to point connection, like the one between the terminal and a remote PC.  |
| PPP IP REMOTE ADDR       | 90.0.0.2       | MAX 16 CHARACTERS                      | Enter the IP address of the remote terminal.                                                                      |
| CGM SERVICE PORT         | 5001           | FROM 0 TO 65536                        |                                                                                                                   |
| REMOTE HOST SERVICE PORT | 0              | FROM 0 TO 65536                        | Port to which an UDP message of the BROADCAST type can be transmitted on the network when the machine is powered. |
| CONNECTION TO HOST       | NO             | YES, NO                                | If entered, requires a network connection so as to enable the machine to work.                                    |
| MODEM COM PORT           | NOT CONNECTED  | NOT CONNECTED COM1, COM2, COM3, COM4   | Select the COM used to connect a modem for remote assistance purposes.                                            |
| BAUD RATE MODEM          | 4800           | 4800, 9600, 19200, 33600, 5600, 115200 | Enter the baud rate of the modem mentioned above.                                                                 |
| OLD CGM COM PORT         | NOT CONNECTED  | NOT CONNECTED COM1, COM2, COM3, COM4   |                                                                                                                   |
| SEND WEIGHTS TO          | LABELLED       | LABELLED, WEIGHED                      | See note in par. 5.23.3                                                                                           |
| SEND REJECT OFF RANGE    | YES            | YES, NO                                | See note in par. 5.23.3                                                                                           |
| SEND OTHER REJECTS       | NO             | YES, NO                                | See note in par. 5.23.3                                                                                           |
| SEND APPLICATION ERROR   | NO             | YES, NO                                | See note in par. 5.23.3                                                                                           |

**Figure 5- 47 - Network configuration**

### **5.23.3 Transmission of Weights, Rejected Weights and application errors**

A series of functions bound to the transmission of weights via the network will have built up over time and are described below individually:

These parameters are to be found in the network menu and are:

- **SEND WEIGHTS TO:** (Weighed / Labelled)
- **SEND REJECT OFF RANGE:** (YES / NO)
- **SEND OTHER REJECTS:** (YES / NO)
- **SEND APPLICATION ERROR:** (YES / NO)

#### **SEND WEIGHTS TO: (Weighed / Labelled)**

This option allows the user to choose whether the weight of the box or pallet must be transmitted to the weighed or labelled condition.

#### **Definitions:**

A box is said to be weighed when the last piece that forms it is labelled.

A box is said to be labelled when its label is applied to the box itself

A pallet is said to be weighed when the last box that forms it is labelled.

A pallet is said to be labelled when its label is applied to the pallet itself

When there are queues of boxes and/or pallets, the weighed and labelled events may even be very distant from each other. Thus, the weighing-pricing line may produce other pieces and other weighed boxes during the time it takes for a weighed box to reach the labelling area.

The setting given to the option depends on the way in which the software of the software house that created the network connection with the weighing-pricing line has been implemented.

#### **SEND REJECT OFF RANGE: (YES / NO)**

This parameter allows the rejected weight transmission to be enabled so long as the type of reject **is the OFF RANGE one**. In short, a piece can be rejected for various different reasons, amongst which Off Range, i.e. weight not valid because it is minimum or more than the capacity or if a store has been associated with the wrong piece.

In this case, only pieces rejected as they are off range are transmitted via the network.

This option is particularly used in connections with the CTRL software which displays the representation of a Gaussian curve showing the pieces within range and those that are off range. Moreover, the terminal uses these data to create a series of statistics that can be used by the operator to calibrate the packaging machines or those prior to the weighing line.

The weighing-pricing machine sets field L133 = true to inform the host that the piece has been rejected.

**SEND OTHER REJECTS:****(YES / NO)**

This parameter allows the rejected weight transmission to be enabled so long as the type of reject **is different from OFF RANGE one**. As described in the previous point, there are various reasons for which a piece may be rejected. Only pieces rejected for being off range are transmitted via the network with option in point two. With this option, all the rejected pieces are transmitted so long as they are not off range. If YES is entered for both the options, all the rejected products are transmitted via the network.

The weighing-pricing machine sets field L133 = true to inform the host that the piece has been rejected.

**SEND APPLICATION ERROR:****(YES / NO)**

This option must be enabled in particular cases in which a scanner is connected to the product printer that reads all the labels leaving the printer itself.

The weighing-pricing line only considers a piece is valid the moment in which its label is applied. A particular situation could occur whereby the piece is not a reject because its weight is valid and within range, its label has been produced but the applicator fails to apply it owing to a fault, or the line sets to the error status. In this case, the piece is not valid and is not a reject, thus it is not transmitted. However, if a scanner is installed on the printer, the produced label that has not been applied will have been read and sent to the Host. In this case, there is a discrepancy between the data transmitted by the scanner (the label has been read and sent) and the weights received by the line (as the piece has not been labelled, it will not have been sent). This problem is overcome by enabling the "SEND APPLICATION ERROR" option. If the label has been produced but not applied, the line transmits a rejected weight via the network, with a fictitious weight (-1 kg) which is used by the host to correct the data received from the scanner.

**5.23.4 Setting passwords**

See paragraph 5.3.4 on page 1-77

**5.23.5 Setting time/date**

The date and time of the system can be set in this menu.

**5.23.6 Miscellaneous settings**

| FIELD NAME               | DEFAULT       | AVAILABLE VALUES                                                                                                                                                                                                                                                                                                 | NOTES                                                                                                                                                                                                                                                            |
|--------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LIST OF CURRENCY SYMBOLS | CECIP SYMBOLS | ISO 4217 SYMBOLS, CECIP SYMBOLS                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                  |
| PLU TOTAL LABEL          |               | Label archive links                                                                                                                                                                                                                                                                                              | A PLU total label must be selected if the printout is required when open PLUs are closed. A pallet printer must also have been entered.                                                                                                                          |
| PLU TOTAL LABELS         |               | If the relative totals are enabled, each total can be linked to the relative label:<br>GENERAL TOT.<br>PARTIAL TOT.<br>CLIENT TOT.<br>PRODUCT TOT.<br>BATCH TOT.<br>LOT TOT.<br>TRACE. TOT.<br>COMMODITY CODE TOT.<br>LOT-PROD.TOT.<br>LOT-PLU TOT.<br>TRACE.-PROD. TOT.<br>TRACE.-PLU TOT.<br>CLIENT-PROD. TOT. | A total will not be visible at this level if it has not been enabled.                                                                                                                                                                                            |
| SUMMING KEYS             | Empty         | <ul style="list-style-type: none"> <li>SUM 1 KEY</li> <li>SUM 2 KEY</li> <li>SUM 3 KEY</li> <li>SUM KEY</li> </ul>                                                                                                                                                                                               | Link to totals enabled.                                                                                                                                                                                                                                          |
| AUTOMATIC PRINT LIMIT    | 0.100         | FROM 0 TO 100000                                                                                                                                                                                                                                                                                                 | This parameter is only interpreted if automatic label printing has been enabled. The weight limit is given in kg. Once this weight limit has been passed (either above or below), it enables the piece after the one being processed to be weighed and labelled. |
| MAN. LABEL               | AUTOMATIC     | AUTOMATIC, ON REQUEST                                                                                                                                                                                                                                                                                            | If AUTOMATIC is selected, the                                                                                                                                                                                                                                    |

|                    |   |                                         |                                                                                                                                                  |
|--------------------|---|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| PRINTOUT           |   |                                         | label can be printed once the stable weight has been obtained.<br>If<br>ON REQUEST is selected, the "<=" key must be pressed to print the label. |
| TOT 1 PACKING FILE |   | The selectable .pak files can be setup. |                                                                                                                                                  |
| TOT 2 PACKING FILE |   | The selectable .pak files can be setup. |                                                                                                                                                  |
| N° PACKING COPIES  | 1 | FROM 0 TO 100                           |                                                                                                                                                  |

**Figure 5- 48 – Miscellaneous settings**

### **5.23.7 Logger settings**

This menu can only be displayed and cannot be edited at level 5. It is only used for diagnostic purposes by qualified personnel.

### 5.23.8 I/O Test

To make it easier to identify any faults, the Venus Series 100 lines are equipped with a check-control program able to monitor the buttons and sensors and activate each actuator device (solenoid valves, motors, etc.) by means of a manual control.

## ATTENTION

*The check-control function can only be accessed at level 5 by means of a password. This can only be done by personnel with a QUALIFICATION 3 professional profile.*

This mask allows the user to check the status of the outputs, force the outputs, check the status of the dip-switches, enter the speed of the belts, command starting and stopping and check the readings made by ascanner connected to a serial port.

|                                              |             |                          |             |                                    |      |                     |       |
|----------------------------------------------|-------------|--------------------------|-------------|------------------------------------|------|---------------------|-------|
| PT kg<br><b>0.000</b><br>TARA PREDETERMINATA |             | LORDO kg<br><b>0.000</b> |             | Max. 12 kg<br>Min. 40 g<br>E = 2 g |      | PREZZO<br><b>0</b>  |       |
| Home\Arch.\Config.\Test IO                   |             |                          |             |                                    |      |                     |       |
| Input 1                                      | Input 13    | Output 1                 | Output 13   | Count ING                          | 0    | ATTIVA OUTPUT       |       |
| Input 2                                      | Input 14    | Output 2                 | Output 14   | Count PRE                          | 1000 | DISATTIVA OUTPUT    |       |
| Input 3                                      | Input 15    | Output 3                 | Output 15   | Count BIL                          | 1000 |                     |       |
| Input 4                                      | Input 16    | Output 4                 | Output 16   | Count ETI                          | 1000 | SET VEL MOTORI      |       |
| Input 5                                      | Input 17    | Output 5                 | Output 17   | Vel. PRE                           | ---  |                     |       |
| Input 6                                      | Input 18    | Output 6                 | Output 18   | Vel. ING                           | ---  |                     |       |
| Input 7                                      | Input 19    | Output 7                 | Output 19   | Vel. BIL                           | ---  |                     |       |
| Input 8                                      | Input 20    | Output 8                 | Output 20   | Vel. ETI                           | ---  |                     |       |
| Input 9                                      | Input 21    | Output 9                 | Output 21   | Sel. Output                        | ---  |                     |       |
| Input 10                                     | Input 22    | Output 10                | Output 22   | Bc-----                            |      |                     |       |
| Input 11                                     | Input 23    | Output 11                | Output 23   | Dip Switch                         | 0000 |                     |       |
| Input 12                                     | Input 24    | Output 12                | Output 24   | L1 L2 Riarmo                       |      |                     |       |
| SET VEL PRE                                  | SET VEL ING | SET VEL BIL              | SET VEL ETI | SET NUM OUT                        |      | 01/01/2007<br>14:20 | LIV.5 |

**Figure 5- 49 – I/O Test**

## ATTENTION

*The emergency device obviously remains activated even though the circuits are operated in the manual mode. The presence of an alert operator, ready to act if required, is therefore of fundamental importance.*

Only trained and explicitly authorized personnel may use the check-control function.

Manual activation of the control circuits does not include operating checks and synchronisms. The line must therefore be unloaded, the conveyors left vacant and all bystanders must leave the area.

Only activate one control at a time and once the inspections have been conducted, set it back to the hold condition (stopped, deactivated).

**5.23.9 Input table**

| <b>Logic input</b> | <b>Pin N°</b>      | <b>Function</b>                     | <b>NOTES</b>                                                                                                                                                                                                                                                                                                                               |
|--------------------|--------------------|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IN-1               | J4-PIN 2           | Economy photocell                   |                                                                                                                                                                                                                                                                                                                                            |
| IN-2               | J4-PIN 5           | Entrance photocell                  |                                                                                                                                                                                                                                                                                                                                            |
| IN-3               | J4-PIN 8           | Scale photocell                     |                                                                                                                                                                                                                                                                                                                                            |
| IN-4               | J5-PIN 2           | Labelling Is                        |                                                                                                                                                                                                                                                                                                                                            |
| IN-5               | J5-PIN 5           | Pre (separator) belt photocell      |                                                                                                                                                                                                                                                                                                                                            |
| IN-6               | J6-PIN 2<br>CP     | Emergency                           |                                                                                                                                                                                                                                                                                                                                            |
| IN-7               | J6-PIN 4<br>CP     | Reset                               |                                                                                                                                                                                                                                                                                                                                            |
| IN-8               | J6-PIN 6<br>CP     | Starting                            |                                                                                                                                                                                                                                                                                                                                            |
| IN-9               | J6-PIN 8<br>CP     | Stopping                            |                                                                                                                                                                                                                                                                                                                                            |
| IN-10              | J7 PIN 3           | Good Read scanner check             | If AUTOMAC: weighing start                                                                                                                                                                                                                                                                                                                 |
| IN-11              | J7 PIN 4           | Bad Read scanner check              | If AUTOMAC: start of application print                                                                                                                                                                                                                                                                                                     |
| IN-12              | J7 PIN 5           | Print request for tot. 1            | If AUTOMAC: wrapper fault                                                                                                                                                                                                                                                                                                                  |
| IN-13              | J9-PIN 3<br>CP/PNP | Enabling by next machine            |                                                                                                                                                                                                                                                                                                                                            |
| IN-14              | J9-PIN 5           | Pressure switch                     | The pressure switch is a clean contact that is closed when air is present. If the pressure switch is NOT present, the input must be connected at 24V. When there is no air, the machine blocks and stops processing, indicating the fault. The operator must be informed that any label issued must be discarded and the machine unloaded. |
| IN-15              | J9-PIN 6           | End of ejection/Restart button      |                                                                                                                                                                                                                                                                                                                                            |
| IN-16              | J9-PIN 7           | SPARE                               |                                                                                                                                                                                                                                                                                                                                            |
| IN-17              | J10-PIN 7          | Applicator/PNP ejector limit switch |                                                                                                                                                                                                                                                                                                                                            |
| IN-18              | J3-PIN 10          | Applicator/ejector hold sensor      | Not used with the air-jet                                                                                                                                                                                                                                                                                                                  |
| IN-19              | J11-PIN 3(+)_4(-)  | Product label ready                 |                                                                                                                                                                                                                                                                                                                                            |
| IN-20              | J11-PIN 5(-)       | Printer fault                       |                                                                                                                                                                                                                                                                                                                                            |

### 5.23.10 Output Table

| Logic output | Pin N°                     | Function                                                       | NOTE                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------|----------------------------|----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OUT-1        | J2-PIN 1                   | Enable PRE belt (separator)                                    |                                                                                                                                                                                                                                                                                                                                                                                                    |
| OUT-2        | J2-PIN 5                   | Enable input belt (prior to scale)                             |                                                                                                                                                                                                                                                                                                                                                                                                    |
| OUT-3        | J2-PIN 9                   | Enable scale belt                                              |                                                                                                                                                                                                                                                                                                                                                                                                    |
| OUT-4        | J3-PIN 3                   | Enable labelling machine belt                                  |                                                                                                                                                                                                                                                                                                                                                                                                    |
| OUT-5        | J7-PIN 6                   | Weighing End                                                   | If AUTOMAC                                                                                                                                                                                                                                                                                                                                                                                         |
| OUT-6        | J7-PIN 7                   | End of application print                                       | If AUTOMAC                                                                                                                                                                                                                                                                                                                                                                                         |
| OUT-7        | J7-PIN 8                   | Venus fault:                                                   | If AUTOMAC                                                                                                                                                                                                                                                                                                                                                                                         |
| OUT-8        | J8-PIN 1                   | Switch                                                         |                                                                                                                                                                                                                                                                                                                                                                                                    |
| OUT-9        | J8-PIN 4(+)_7              | Ejector                                                        |                                                                                                                                                                                                                                                                                                                                                                                                    |
| OUT-10       | J8-PIN 6(+)_7(-)           | Enabling by prior machine                                      |                                                                                                                                                                                                                                                                                                                                                                                                    |
| OUT-11       | J8-PIN 8(+)_9(-)           | Fault/Block                                                    | Activated RELAY output when the machine is blocked for one of the following faults, which will appear on the screen: emergency, no compressed air, no more paper, applicator error, positioning errors, blocking errors that force the machine to quit the process, red light.                                                                                                                     |
| OUT-12       | J8-PIN 10(+)-J9-PIN1(-) CP | Line running/Line at a standstill                              | <b>Line running:</b> Relay output activated when the machine is operating and the belts may start automatically at any time, even without the operator's intervention. <b>Line at a standstill:</b> output deactivated when the machine is at a standstill, the belts are stopped and cannot restart without a command from the operator. CONVEYOR BELT function enabled. The output is activated. |
| OUT-13       | J9-PIN 8                   | Enable Compressor                                              |                                                                                                                                                                                                                                                                                                                                                                                                    |
| OUT-14       | J9-PIN 9                   | Enable label verification scanner/Pallet label at end          |                                                                                                                                                                                                                                                                                                                                                                                                    |
| OUT-15       | J10-PIN 1                  | Suction                                                        |                                                                                                                                                                                                                                                                                                                                                                                                    |
| OUT-16       | J10-PIN 3                  | Applicator piston/Arm motor command/Comb ascent/blowing action |                                                                                                                                                                                                                                                                                                                                                                                                    |
| OUT-17       | J10-PIN 5                  | Clutch/Piston return/Ejector piston                            |                                                                                                                                                                                                                                                                                                                                                                                                    |
| OUT-18       | J11-PIN 7                  | Enable printer                                                 |                                                                                                                                                                                                                                                                                                                                                                                                    |
| OUT-19       | J11-PIN 9                  | Assist Blow                                                    |                                                                                                                                                                                                                                                                                                                                                                                                    |

|        |          |                                   |  |
|--------|----------|-----------------------------------|--|
| OUT-19 | J3-PIN 2 | Enable label verification scanner |  |
| OUT-20 | J2-PIN 7 | Enable printer                    |  |
| OUT-21 | J5-PIN 5 | Enable PRE belt (separator)       |  |
| OUT-22 | J6-PIN 5 | Enable infeed belt (before scale) |  |
| OUT-23 | J7-PIN 5 | Enable scale belt                 |  |
| OUT-24 | J8-PIN 5 | Enable labelling machine belt     |  |

### 5.23.11 PTR Test

This mask can be used to check that the dialogue with the printers connected to the terminal is correct.

For example, if only one printer is connected (without a sensor that detects labels) and PRODUCT PTR INFO is pressed, data similar to the following will be obtained under the column with the "PRODUCT PTR" heading:

However, if one or more of the components of the chain formed by the terminal's serial port output, the cable or the printer are faulty, after a time-out, error messages (**ERR**) will appear instead of the above mentioned values.

|                                              |  |                          |  |                                    |  |                     |  |
|----------------------------------------------|--|--------------------------|--|------------------------------------|--|---------------------|--|
| PT kg<br><b>0.000</b><br>TARA PREDETERMINATA |  | LORDO kg<br><b>0.000</b> |  | Max. 12 kg<br>Min. 40 g<br>E = 2 g |  | PREZZO<br><b>0</b>  |  |
| Home\Arch.\Config.\Conf. STP                 |  |                          |  |                                    |  |                     |  |
| STP PRODOTTO 1                               |  | STP CARTONE              |  | STP BANCALE                        |  |                     |  |
| Temp. TESTINA 94                             |  | Temp. TESTINA ---        |  | Temp. TESTINA ---                  |  |                     |  |
| Contrasto (%) 80                             |  | Contrasto (%) ---        |  | Contrasto (%) ---                  |  |                     |  |
| Foto ETICHETTA 19                            |  | Foto ETICHETTA --        |  | Foto ETICHETTA --                  |  |                     |  |
| Foto PRELIEVO 0                              |  | Foto PRELIEVO --         |  | Foto PRELIEVO --                   |  | SET BAUD STP PROD   |  |
| Ver. FIRMWARE J2.10                          |  | Ver. FIRMWARE -----      |  | Ver. FIRMWARE -----                |  |                     |  |
| Mem. AMD 2Mb x 1                             |  | Mem. -----               |  | Mem. -----                         |  |                     |  |
|                                              |  |                          |  |                                    |  | SET BAUD STP TOT1   |  |
|                                              |  |                          |  |                                    |  | SET BAUD STP TOT2   |  |
| INFO STP PRODOTTO                            |  | INFO STP TOTALE 1        |  | INFO STP TOTALE 2                  |  | 01/01/2007<br>14:20 |  |
|                                              |  |                          |  |                                    |  | LIV.5               |  |

**Figure 5- 50 – PTR Test**

### 5.23.12 Counter setting

| <b>FIELD NAME</b> | <b>DEFAULT</b> | <b>AVAILABLE VALUES</b> | <b>NOTES</b>                                                                                                                                                                                                                                       |
|-------------------|----------------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MACHINE ON (sec.) | 0              |                         | Time the machine has been processing                                                                                                                                                                                                               |
| PROD PTR COUNT    | 0              |                         | Number of labels whose print has been addressed to the PRODUCT PRINTER, regardless of the number of printers connected. This value increases even when the terminal is connected to one single printer that issues product, box and pallet labels. |
| TOT 1 PTR COUNT   | 0              |                         | As above but valid for the TOT1 PRINTER (BOX).                                                                                                                                                                                                     |
| TOT 2 PTR COUNT   | 0              |                         | As above but valid for the TOT2 PRINTER (PALLET).                                                                                                                                                                                                  |
| NUM. PROD. LAB.   | 0              | FROM 0 TO 2147480000    | Number of labels printed and classified as product labels. Indicates progressive weighing and is never reset when the box or process is closed (PLU closure).                                                                                      |
| NUM. TOT 1 LAB.   | 0              | FROM 0 TO 2147480000    | As above but valid for box labels.                                                                                                                                                                                                                 |
| NUM. TOT 2 LAB.   | 0              | FROM 0 TO 2147480000    | As above but valid for pallet labels.                                                                                                                                                                                                              |
| NUM. OVERALL LAB. | 0              | FROM 0 TO 2147480000    | Sum of the three previous labels.                                                                                                                                                                                                                  |
| PROC. STORY       |                |                         | Read-only, for technical use.                                                                                                                                                                                                                      |
| PIECE STORY       |                |                         | Read-only, for technical use.                                                                                                                                                                                                                      |
| TOT 1 STORY       |                |                         | Read-only, for technical use.                                                                                                                                                                                                                      |
| TOT 2 STORY       |                |                         | Read-only, for technical use.                                                                                                                                                                                                                      |

**Figure 5- 51- Counters**

**NOTE:**

These values can be printed. Unlike the PROG, PIECE, TOT. 1 PROG and TOT 2 PROG. fields, which are reset when the box or process is closed, the second group has an absolute consecutive number.

### 5.23.13 Backup/Restore

This menu allows you to save archives in the memory card (flash memory), if installed. The operations described above can be carried out by saving the data in a removable flash memory, obtained by pressing the **FLASH BACKUP** and **FLASH RESTORE** keys.

Once the data have been saved in the flash card, the latter can **ONLY BE REMOVED AFTER THE TERMINAL HAS BEEN SWITCHED OFF** and must be kept in a safe place.

The remaining two keys can be used to check when the last saving operations were carried out.

### 5.23.14 Old Cigiemme serial link

| FIELD NAME                 | DEFAULT                | AVAILABLE VALUES                                                                                                         | NOTES                                                                                                                                                         |
|----------------------------|------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LABEL MANAGEMENT           | WEIGHT CTRL MANAGEMENT | WEIGHT CTRL MANAGEMENT, OLD CGM MANAGEMENT                                                                               | From the serial protocol aspect, total compatibility with the CTRL program, otherwise only a simplified version will be available.                            |
| CONF. VIA PC CHANGE CODE   | NO                     | YES, NO                                                                                                                  | If YES is selected, the remote host will request confirmation on each PLU change via the terminal. This mechanism keeps the archives aligned with each other. |
| OLD ADMIN. SER. COMPLETE   | YES                    | YES, NO                                                                                                                  | If NO is selected, the remote host can only receive the weights.                                                                                              |
| WEIGHT UNLOADING           | NO TRANSMISSION        | <ul style="list-style-type: none"> <li>• NO TRANSMISSION</li> <li>• STANDARD WEIGHT</li> <li>• EXPRESS WEIGHT</li> </ul> |                                                                                                                                                               |
| TOTALS UNLOADING           | NO TRANSMISSION        | <ul style="list-style-type: none"> <li>• NO TRANSMISSION</li> <li>• STANDARD WEIGHT</li> <li>• EXPRESS WEIGHT</li> </ul> |                                                                                                                                                               |
| PROTOCOL                   | DPC014.20              | <ul style="list-style-type: none"> <li>• DPC014.20</li> <li>• DPC014.17</li> </ul>                                       |                                                                                                                                                               |
| NUMBER OF RE-TRANSMISSIONS | 5                      | FROM 1 TO 99                                                                                                             |                                                                                                                                                               |
| OLD CGM BAUD RATE          | 19200                  | 38400, 19200, 6900, 4800, 2400,                                                                                          |                                                                                                                                                               |

**Figure 5- 52 – Old Cigiemme serial link**

**Note for the installers:** the totals can only be printed if the pallet printer has been enabled during the installation phase.

## 6. USE OF THE LINE - PROCESS

### 6.1 Combinations available

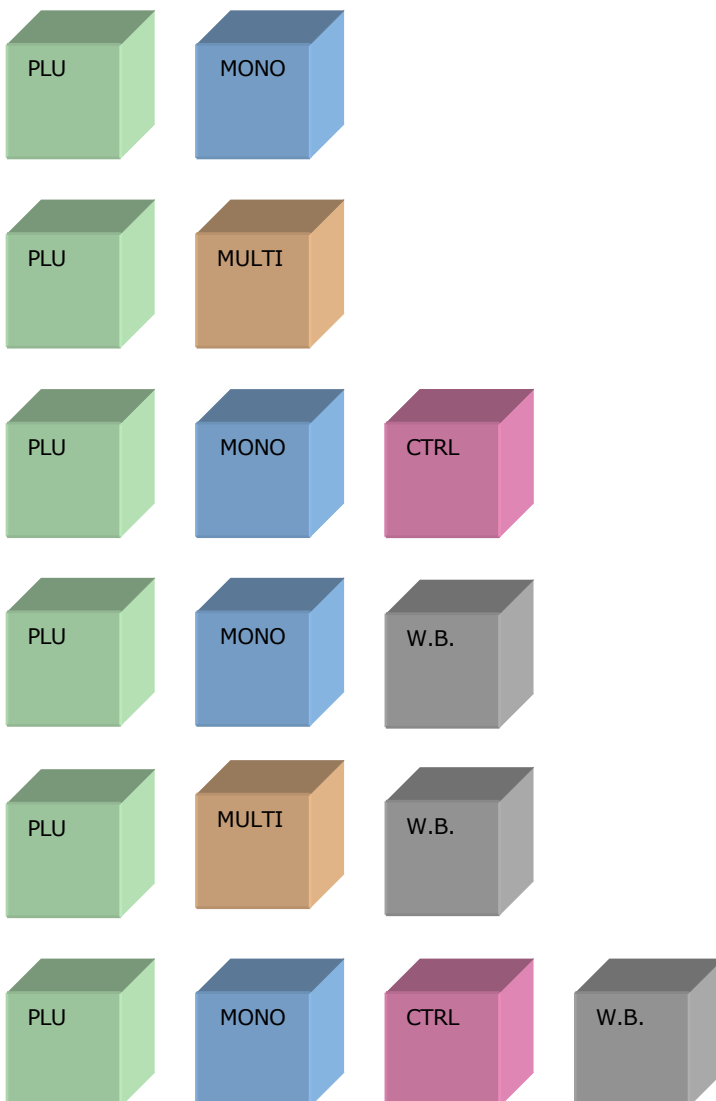


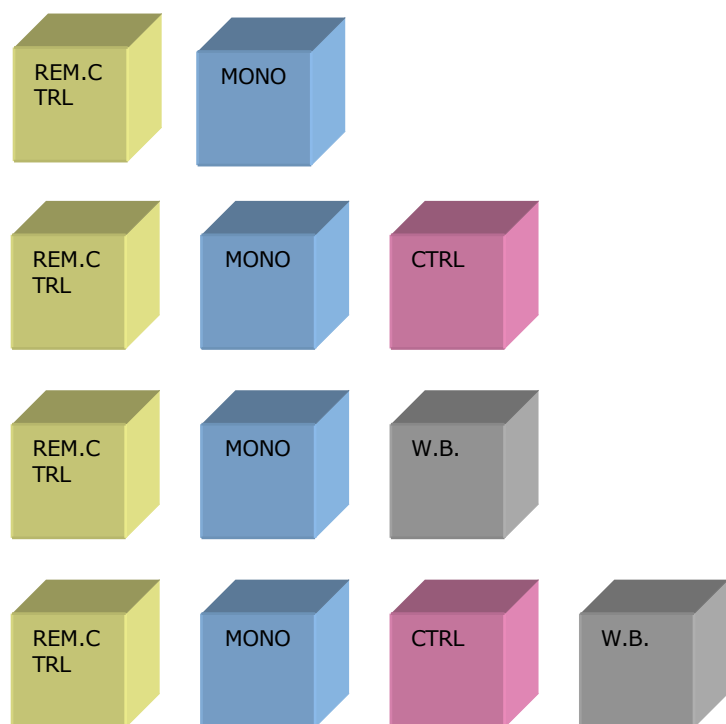
Venus Series 100 weighing-pricing machines are highly versatile and can adapt to different processing requirements.

The main combinations that can be obtained by changing the parameters of Venus Series 100 in the appropriate way (only installer technicians may carry out this operation) are briefly described below. Remember that the following pairs of values are **antithetical**, i.e.:

- **Process with PLU - Remote Management**
- **Monoproduct - Multiproduct(/Crate weigher)**

The remaining two parameters (**CTRL** and **Weight Bounding**) can be set up along with the previous ones when this makes sense.





**Figure 6- 1- Permitted combinations**

## **6.2 Type of process**

### **6.2.1 PLU**

During this type of process, the required plu is selected from a list in the stand-alone mode.

### **6.2.2 Remote mode**

This type of process involves the selection of an order on the screen, in the stand-alone mode after which a network command is transmitted to a remote host connected to Venus Series 100 which will then command entry into the process of the plu linked to the previously selected order.

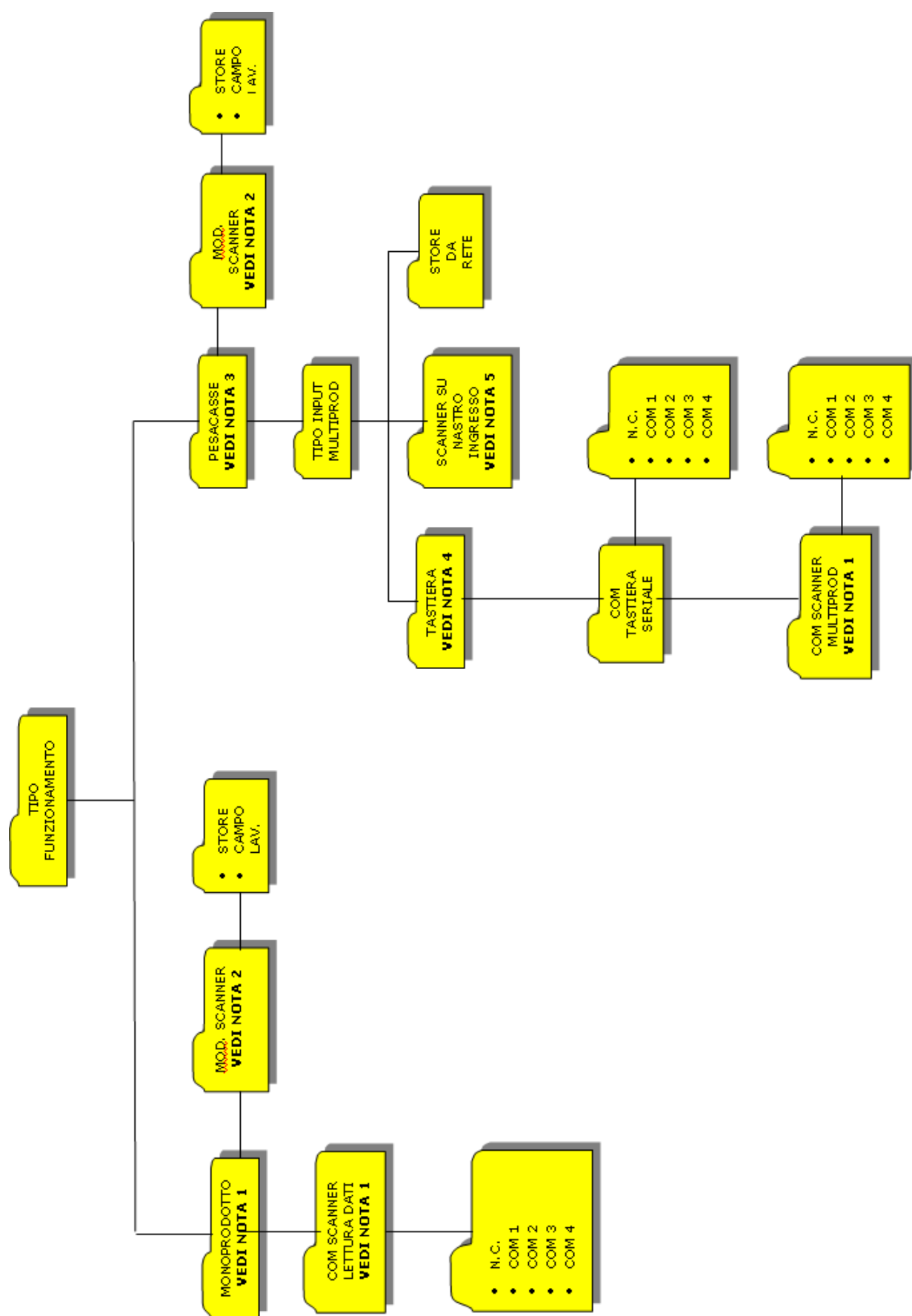
## **6.3 Type of operation**

### **6.3.1 Single product**

Only one homogeneous product is processed in this operating mode. A plu must therefore be called up from the list and processed until the processing limits have been reached. If the type of product must be changed, quit the current process without necessarily closing it, and call up another plu to process.

### **6.3.2 Crate weigher/Multiproduct**

During this type of operation, several plu are processed without the user having to quit and return to the process. To implement this type of operation, stores must be created with different means, such as a stand-alone keyboard, serial keyboard and network command.



**Note 1**

The manual scanner modifies the data by acting like a macro.

It is **NOT** possible to process a PLU.

**Note 2**

This setting allows you to choose whether to execute a store or not when a reading is made with a scanner and the read string is successively sent to the weighing-pricing machine.

- **Enter as store**

Always enter a PLU ID in the BC READ archive, otherwise a non-valid store indication will be obtained when the piece reaches the scale.

Besides generating a store, it is also possible (if envisaged in the BC READ archive) to modify the process fields, which will be considered as global fields.

**Do not overlap use of GLOBAL FIELDS with process field (considered as global fields) editing via scanner.**

Automatic stores can be set by using the soft keys (see "product with confirmation"); however, using the scanner, the data can be edited before the actual store is generated.

**Note:** The first 5 digits read are considered by default if the BC READ archive is empty or if none of its elements is associated with the machine settings.

- **Enter as process field**

The string read is **only** used for modifying the process fields. When this setting is activated, a PLU ID must not be entered in the BC READ archive as it will not be considered and a store will not be created.

The store must be executed via the serial keyboard or standalone.

The field entered is considered a global field.

**Note 3**

The scanners ONLY function during the process.

**Note 4****Manual inputs (all)**

- Serial keyboard (256 keys)
- Terminal keyboard (70 keys) - Manual scanner (usable in parallel)

The serial keyboard and standalone terminal keyboard (manual scanner) are mutually exclusive.

**Note 5****Automatic input (only Mercury Plus)**

OEM scanner

## 6.4 Operating modes



### 6.4.1 CTRL – Operation

The plu can be processed after the machine and archives have been preset for operation in the weight control mode.

Each piece rejected in accordance with the described logic appears on the screen as having been rejected owing to the effects of the weight control and similarly to what happens in the case of rejects due to off range, the rejected weight is transmitted via the network if the respective option has been enabled.

If the MINIMUM WEIGHT and MAXIMUM WEIGHT fields (relative to the classic RANGE operating mode) are set at the same time as the weight control fields, the reject logic is as follows:

- piece IN RANGE: the validation logic relative to the weight control remains effective;
- piece OFF RANGE: the piece is rejected in any case. If the piece is also rejected according to the weight control logic, the reason for rejection will be "weight control" (instead of "off range").

A weight control lot is **univocally** associated with each process.

This lot is requested when the process is created (owing to the effects of accessing a process with a plu that has not yet been opened or of a start command transmitted via the network for a plu that has not yet been opened). An already created lot that has not yet been eliminated cannot be used.

The process is activated in the normal way (without weight control) if no lot is ascribed when the request is made (pressure on the ESC key).

The process mask is different from that of the single product (in the various configurations) and crate weigher modes as it contains the graph and statistical data of the lot associated with the plu being processed, updated in real time during the process itself.

The reports are printed by default in automatic mode whenever a lot is

closed. This function can be disabled by pressing the  + **L** keys during the process. The printing function will be enabled in any case, when the machine is powered again. If the packing list function is also enabled, the printing options will be enabled/disabled whenever the



+ **L** keys are pressed together.

The following combinations are available: no print, weight control, packing list, packing list + weight control. Note that, unlike weight

control, the packing list print enabling option is memorized for when the terminal is powered again.

#### **6.4.2 CTRL - Process example**

If the process begins with pieces that weigh less than the nominal weight, these pieces are rejected. If the average rises after this, the previously rejected pieces are re-weighed in consideration of the fact that if the piece in question weighs more than the "- limit" and, meanwhile, the instantaneous average is more than the nominal weight, it can be accepted.

### **6.4.3 CTRL - Lot closing**

A weight control lot can be closed in the following ways:

- When 10000 pieces have been reached, if a lower processing limit has not been set in the plu (in accordance with the current laws). In this case, the machine automatically quits the process. Operation with weight control is disabled if the same plu is processed again without having been previously closed.
- When a request is made to close down the lot being processed by pressing F10 ("CTRL LOT CLOSING"). In a similar way to the previous case, the machine quits the process automatically and allows the same plu to be processed in the normal mode again.
- When the actual plu is closed. The lot is not eliminated from the system. This allows repeated prints to be made by means of the relative archive. Note that the plu can be closed in one of the following modes: via the interface (pending plu window), via the network (DELETE\_PRO\_ARC command) or when a processing limit is reached. If the "close all" function is selected from the pending plu window (or via the network by sending the "DELETE\_ARC=ALL command), the weight control lots are closed (but not eliminated) at the same time as the plu are closed but the relative reports are not printed.

Since the previous process will be closed, each time the process is accessed again, if the CREATE PRO ON EACH ACCESS WITH RESET (can be selected during the installation phase) is selected and if the lot associated with the process in question has not yet been closed, it will be closed and the relative report will be printed. After this, a new lot will be requested for the new process, as in the normal procedure.

The process can be quitted before an entered processing limit has been reached. In this case, the lot will remain "frozen" and, thus, open. It will not be possible to obtain a printout of the report in this condition.

The created lots are memorized in a lots archive (accessible by following the pathway Home\Arch.\Ctrl), which allows all the existing lots to be displayed. Each line corresponds to a lot, of which it gives the main information.

**F2**

A single lot (key **F2**) can be reprinted in the CTRL lots archive mask, if it has already been closed. Individual lots can be deleted. The report will not be printed if this is done.

There is also an automatic method for deleting lots, so that closed lots remain memorized within the system for a programmable number of days. This parameter is selected in the machine configuration, DATA RECORDING group, "CTRL MEMORIZ DAYS" item". This method does not affect the open lots in any way.

#### **6.4.4 W.B. - Standard single product:**

The Weight Bounding archive associated with the initial PLU is loaded on access to the process. When the piece arrives, the terminal checks to make sure that the weight is within the range set in the PLU. If the piece is valid, it will be counted in this PLU. If the piece is rejected, Weight Bounding will be activated so as to check that the piece is within one of the 9 in the Weight Bounding function. If it is, the relative PLU will be loaded so that it can be processed. However, in this case, the weight range of the destination PLU is also considered valid but any Weight Bounding ID that may have been set in this PLU will not be evaluated. This means that the piece may be definitively rejected because it is not within the range (within or outside the programmed values) of the PLU selected last

#### **6.4.5 W.B. - Single product with CTRL enabled:**

If the CTRL is to be associated with the weight range, it must be enabled in the master PLU (the one run in order to access the process). The Weight Bounding archive associated with the initial PLU is loaded on access to the process. When the piece reaches the scale, it is **before** subjected to the CTRL verifications to find out whether it must be rejected or not and, if it is to be rejected, checks are conducted to find out whether the weight is within one of the 9 ranges set in the Weight Bounding function. If it is, the relative PLU will be loaded in order to process it. However, in this case, the weight range of the destination PLU is also considered valid but any Weight Bounding or CTRL that may have been set in this PLU will not be evaluated.

The opposite cannot be done, i.e. first find out to which weight range the piece belongs and then check whether that PLU conducts weight control. This is because CTRL calculation to find out whether the piece must be rejected or not also depends on the average. Thus it is not possible to know beforehand whether the piece will be rejected or not on the basis of its belonging to a determined range. To check the weight of the pieces for Weight Bounding first and then for the CTRL could result in pieces being rejected by the CTRL after having ascertained in which weight range they belong. This would clash with the purpose for which the weight ranges are used, i.e. to prevent pieces from being rejected in any case.

#### **6.4.6 W.B. - Crate weigher**

On access to the process, the initial PLU is loaded but Weight Bounding is not loaded until the arrival of the piece, which will then be associated to a PLU. This is when the associated Weight Bounding archive will be checked and loaded. When the piece arrives, the

terminal first checks to make sure that the weight is within the range set in the PLU associated with the piece on the scale. If the piece is valid, it will be counted in this PLU. If the piece is rejected, Weight Bounding will be activated so as to check that the piece is within one of the 9 in the WEIGHT BOUNDING function. If it is, the relative PLU will be loaded so that it can be processed. However, in this case, the weight range of the destination PLU is also considered valid but any WEIGHT BOUNDING that may have been set in this PLU will not be evaluated. This means that the piece may be definitively rejected because it is not within the range (within or outside the programmed values) of the PLU selected last.

An explanatory example of the combined crate weigher-WB operating mode occurs in the poultry sector, where the weight of crates of the same PLU but with different weights (1 kg, 1.1 kg, 1.2 kg) must be discriminated.

**In all cases, the piece will be rejected if a PLU that does not exist in the archive is loaded in a WEIGHT BOUNDING range. The same thing happens if the Weight Bounding code loaded in the PLU does not physically exist in the archive.**

## 6.5 Labelling machine mode



A labelling function can be activated with the machine in the manual mode, after the processing limit (N° of labels to print) has been established. When the relative device is installed at the printer output, the labels will not be peeled and will be wound on a take-up roller. Before the labelling function is activated, the manual mode must be selected by pressing **M** during the process.

The labelling function can be accessed by pressing **[ALT] + [N]**.

To quit the labelling mode, press **[ALT] + [N]** again.

If the photosensor is selected, the labelling mode can be quitted when one of the following events occurs:

- as soon as the label is picked up by the photosensor, thus allowing the next label in the queue to be printed;
- when **[ALT] + [N]** is pressed.

When **[ALT] + [N]** is pressed to interrupt the labelling cycle, all printing and totalizing procedures stop immediately, regardless of the processing status of the current label.

If the printer is without a photosensor, the printing cycle of the label in progress is concluded with relative totalizing. After this, it will be possible to press **[STOP]**, **[MODIFY DATA]**, use macros or access any other part of the menu.

The process can be quitted during continuous label issue (typically on a product printer without photosensor) by pressing **[F1]**.

This condition is explained by considering the case in which there is a label under the photosensor and another in the printer's print buffer. If total 1 is closed in advance, the relative label will only indicate the data pertaining to the previously printed labels with the exception of those in the buffer and the only way to quit without resulting in total 1 is to send a reset command to the printer.

Since this is not a mode that complies with metrological limitations, the labelling function can only be used with fixed weight PLU.

The mode is based on the processing limit and the number of labels to print is the difference between the selected processing limit in pieces and the number of pieces effectively processed.

Press **[ALT] + [N]** during the process to access a window asking for entry of the missing labels, which will effectively modify the processing limit in pieces. If 0 is entered for the quantity, there will be an infinite issue of labels until **[ALT] + [N]** are pressed again.

After a processing limit has been selected and reached, the system asks whether to proceed or terminate. If the user decides to continue,

there will be an infinite issue of labels until **[ALT] + [N]** are pressed again.

If  $x$  pieces have been processed and the processing limit is modified with a lower number of processed pieces, a warning window will appear even though it is possible to continue.

If the photosensor is not selected, the pre-selections are controlled as in a normal process.

The machine configuration allows the photosensor to be also entered in the product printer. If the terminal is equipped with the same printer for both the product and total 1 and the photosensor is set for PROD PTR, it will not be possible to set it for TOT1 PTR.

## 6.6 How to prepare and power the line



To read this chapter and access this area, the PLU and labels of the product to be weighed and labelled must have already been programmed (see chap. 5. Use of the Line - Programming).

The line is regulated via software by means of the speed, target and filter parameters entered in the PLU and MACHINE SETTINGS, and depends on the product being processed. The weighing unit is calibrated in the factory and the client need not carry out any other operations.

Power the line using the main switch on the electric panel, release the emergency switch if it has been pressed and then reset the auxiliary contacts by pressing the relative button (see par. 1.8).

Before accessing the process, make sure that the scale setting is 0. If

necessary, unload the plate and reset with key  (SCALE RESET) in the start window.

The height of the printing/application unit can be regulated with the button on the front of the electric panel.

## WARNING

*The printing system features functions that are regulated in the factory. NEVER ALTER THE SETTINGS. This operation, which is only necessary if the instrument is overhauled, requires specialized technicians and special tools.*

Reset any already existing totals if they are not required prior to

beginning the process. This is done by pressing  (LIST OF OPEN

PLU) and then  (CLOSE ALL).

To access the process, select the PLU required by typing it or scrolling

with the arrows, then press (PROCESS) or  .  
press again to quit the processing cycle.

The products to process are loaded in either the manual mode or by means of an automatic feeding system, so long as they are always and only loaded on the first conveyor belt of the line.

The terminal handles the sequence of pieces that enter and stops them when necessary to prevent collisions.

## WARNING

*Products can only be weighed when they are stationary on the conveyor on the scale and do not leave this.*

Printing is enabled and the label application system activated when the weight is stable (static weighing).

## ATTENTION

*The line can be stopped instantly in an emergency by pressing the relative mushroom shaped button. At the beginning of each work shift, it is important to check the position of this control and to make sure that it operates efficiently. Unload the line, make sure that there are no bystanders or obstructions, enable the processing function and start the line. Now press the EMERGENCY button and make sure that it has operated. If this fails to occur, DO NOT USE THE LINE and contact the maintenance engineers.*

## WARNING

*Incorrect use of the printing system will prevent the machine from operating efficiently. Strictly comply with the instructions given in the maintenance manual in relation to:*

- *The choice of labels*
- *Type of paper*
- *Dimensions and thickness*
- *Cleaning*
- *Routine maintenance*

## **6.7 Modify data**



The modify data menu, which can be accessed during the process, allows the data in the plu to be temporarily modified (the list can be consulted in par. 5.15.2). The changes made will remain valid for as long as the processes remain open (unless the changes are saved in the plu).

## **6.8 Reverse entry management**



The reversal operation can be carried out during the process where necessary.

Press Reverse pcs, type a quantity in kg between the suggested limits and confirm. The belts will stop (if applicable - automatic versions) during this operation.

Press Tot 1 Reverse and type a quantity in kg between the suggested limits, then confirm. After this, type a quantity in pcs between the suggested limits and confirm. The belts will stop during this operation.

After the reversal operations have terminated, the totals will be updated on the screen and the belts will start again.

## **6.9 Totals management (Advanced closing)**



Totalizing always occurs when labelling has terminated correctly and the summed values are the ones given on the print itself.

It is possible to close the box or pallet in advance of the values set in the PLU by following the pathway: *Home\Pro\Totals print*.

Print-out of the box and/or pallet total will be requested as the machine settings change.

## **6.10 List of open PLU**



The open processes can be checked by accessing this menu.

To close and print the total of a PLU (open process), follow the pathway: *Home\Open Plu*, scroll with the arrows until the required PLU has been selected, then press **CLOSE PLU**.

Remember that to obtain a print of the PLU total, the pallet printer must be present in the machine settings and a total plu label must

have been selected in: *Home\Archives\Settings\Various settings\TOTAL PLU LABEL*

The **CLOSE ALL** key cancels all the open processes and the relative totals.

## WARNING

*Remember that if the open processes cannot be closed with the standard procedure, "brute force" deletion can be obtained by accessing the **RESET PROC** function. Follow the pathway:*

*Home\Arch.\Config.\BacRes\RESET PROC*

### 6.11 Conveyor belt



The conveyor belt function is activated when, for temporary requirements, the pieces must transit on the line without any weighing and/or labelling operation taking place.

The percentage transit speed can be entered as for every PLU by accessing this function.

Emergency stopping and control of the enabling signals upstream and downstream are also available in the conveyor belt mode.

### 6.12 Scale reset



Within the limits established by law, the scale reset function allows the value expressed by the weighing platform to be reset if it is not perfectly on the zero mark.

### 6.13 Operator's duties



During machine operation, the operator must:

- check regular operation of the machine,
- load product (non-automatic version),
- change the printer reel,
- use the control panel for the operators he/she is entrusted with,
- remove any rejects (if an ejector unit is fitted),
- perform turning on/off, starting and stopping procedures.

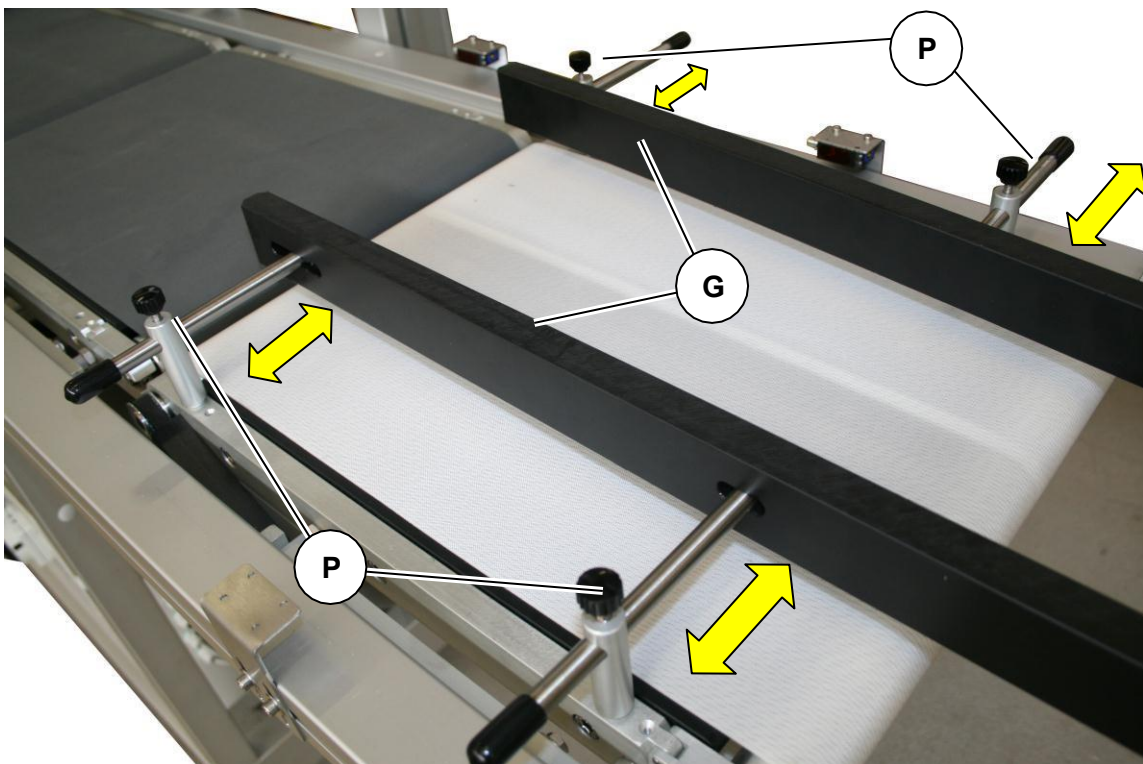
## 6.14 Adjustments



### 6.14.1 Infeed belt guides

Depending on the product to weigh and for the purpose of optimising the flow of product, adjust the position of the guides on the infeed belt. Proceed as follows:

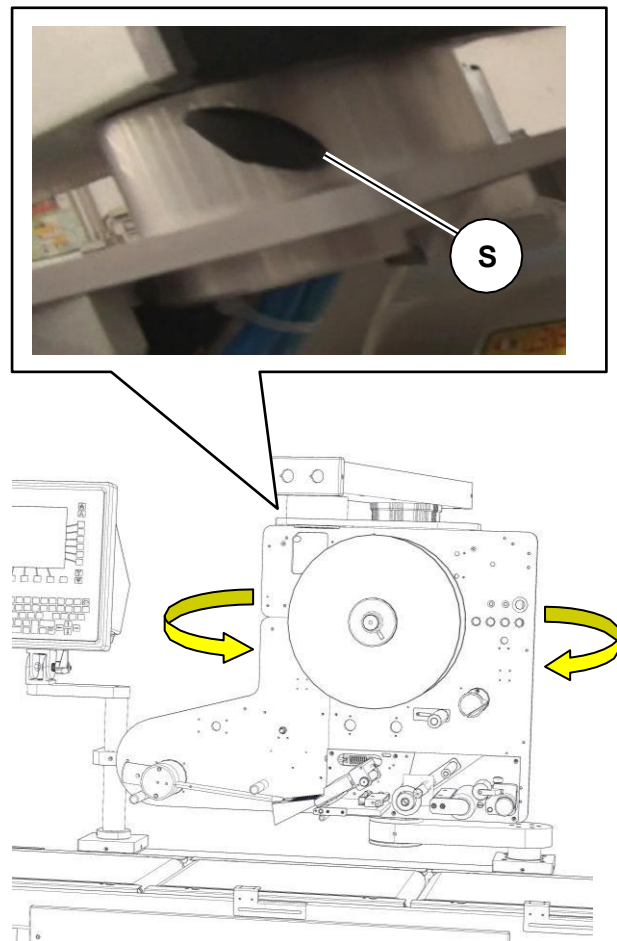
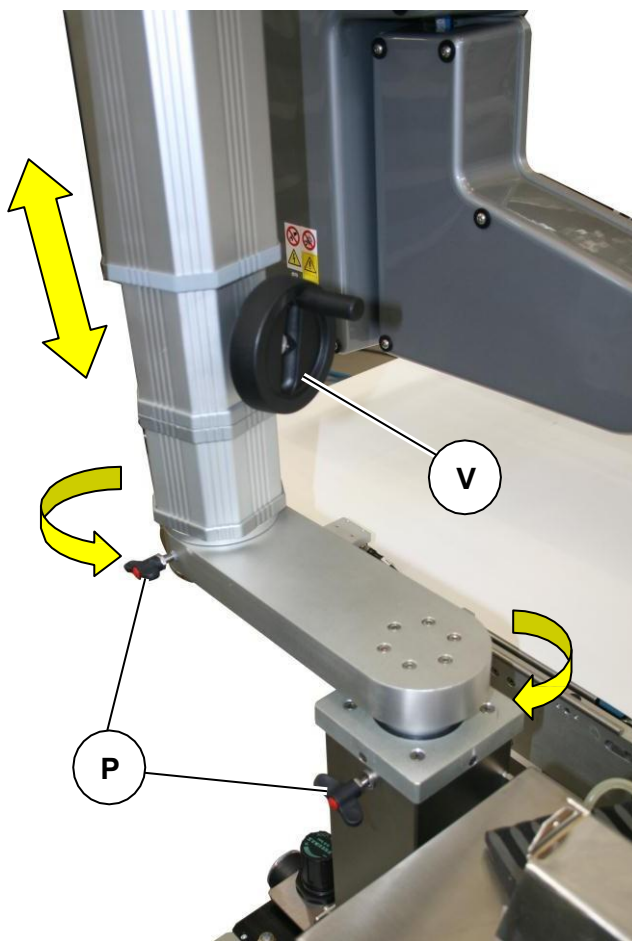
- loosen knobs (P) of guides (G)
- adjust position of guides
- secure guides in place by wrenching the knobs



### 6.14.2 Adjusting position of the printer (if installed)

Depending on the product to print, adjust the position of the product printer as described below.

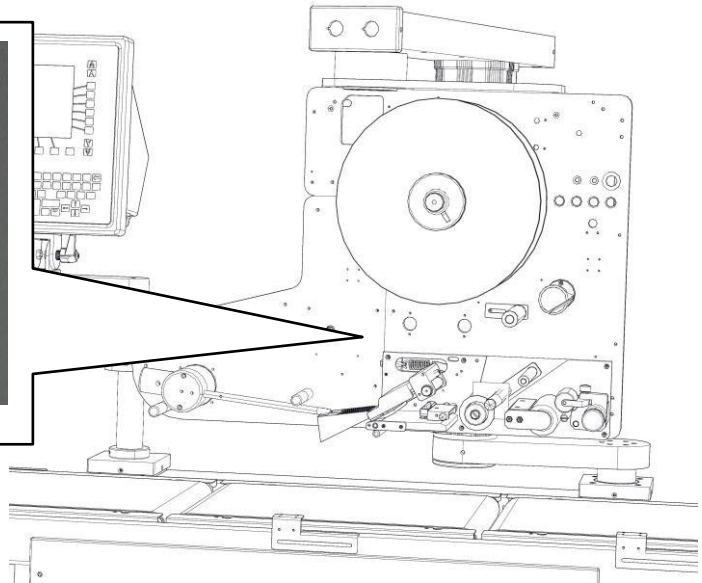
- Act on the height adjustment handwheel (V); move the printer to a distance from the product ranging from 5 to 10 cm
- Loosen the rear knobs (P) to adjust the position of the base with respect to axes X and Y. After adjusting, wrench the knobs.
- Loosen the upper knob (S) to adjust rotation of the head (0°-90°-180°-270°). After adjusting, wrench the knob.



### **6.14.3 Adjusting label suction inlet (if installed)**

Using the knob, you can increase or reduce suction intensity of the label pick-up unit.

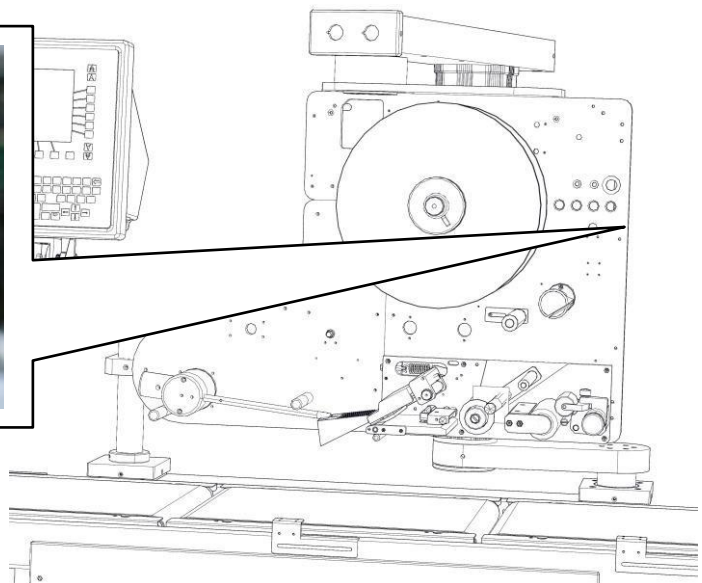
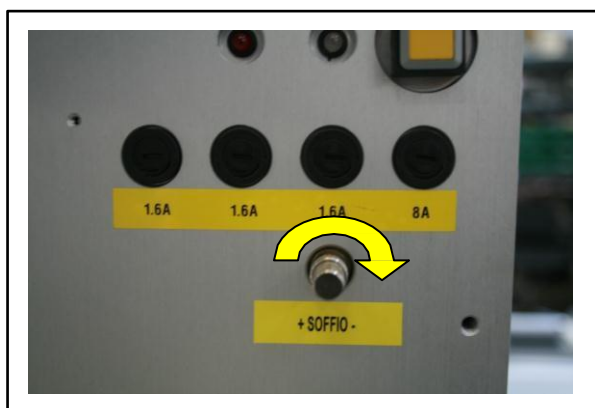
Turn anti-clockwise to increase or clockwise to reduce.



### **6.14.4 Adjusting label blowing (if installed)**

Using the knob, you can increase or reduce blowing intensity of the label blowing unit.

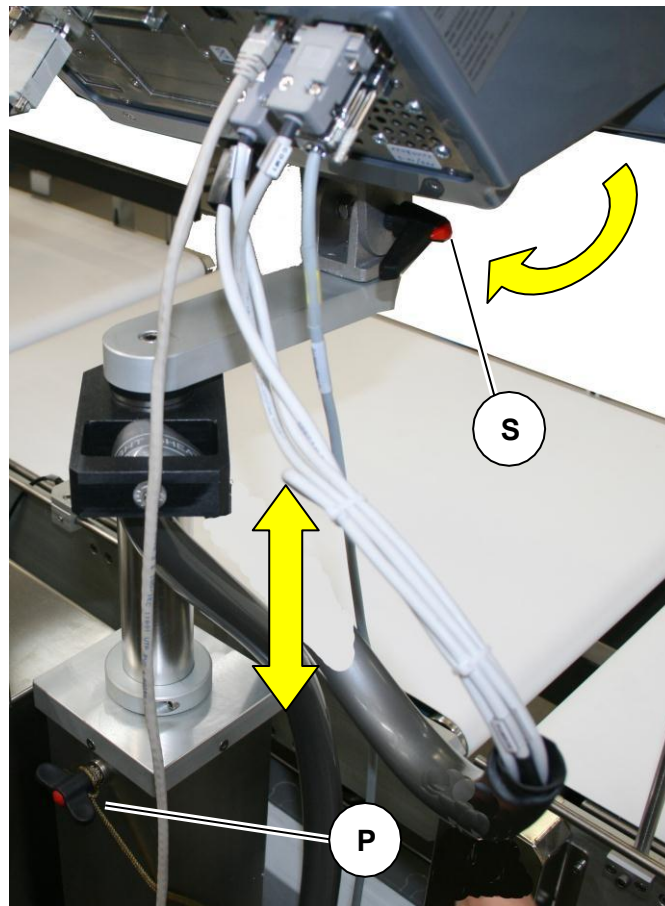
Turn anti-clockwise to increase or clockwise to reduce.



#### **6.14.5 Adjusting position of the control panel**

Depending on the product to print, adjust the position of the product printer as described below.

- Loosen the rear knob (P) to adjust the height of the control panel. After adjusting, wrench the knob.
- Loosen the upper knob (S) to adjust inclination of the control panel. After adjusting, wrench the knob.



#### **6.14.6 Adjusting pressure**

If the pressure indicator is not on 6 bar, act on the regulator to increase or reduce pressure as is the case. Follow the indications on the regulator itself.

## 7. MAINTENANCE

### 7.1 Introduction



Certain simple servicing operations, described below, keep the machine in an efficient condition and avoid faults which could impair its performance.

It is therefore of fundamental importance to train the personnel about how to carry out this servicing work.

Besides the instructions in the manual, it is advisable for the servicing staff to be present when the machine is installed and to take part in the training course held by the manufacturer's authorized technicians.

## ATTENTION

*Requires the intervention of qualified personnel:*

- *QUALIFICATION 2) Mechanical servicing technician*
  - *QUALIFICATION 3) Servicing electrician*

## WARNING

*The data on the identification plate and the closing and security stamps on the line must not be altered or removed for any reason whatsoever.*

*The warranty immediately becomes void in the event of tampering or removal and the manufacturer is relieved from all liability concerning any material or economic damage caused by such action.*

### 7.2 Factory tests



The user may not disassemble the line for any reason whatsoever.

Disassembly of the line immediately voids the warranty and relieves the manufacturer from all liability.

All parts are calibrated and checked by the manufacturer at the time of installation.

### **7.3 Inspections to be conducted on installation**



These operations may only be carried out by persons authorized by the manufacturer.

To guarantee that the line operates in a fade-free and regular way and to prevent the warranty from becoming void, parts may only be replaced with genuine spares. The maintenance operations may only be carried out by technicians explicitly authorized by the manufacturer.

The weighing line you have purchased will have been subjected to various tests and trials in our factory so as to correctly set up the complex in compliance with the metric and safety standards in force.

When the line is installed, meticulously carry out the following inspections to make sure that the equipment has not been damaged during transport:

- make sure that the warning, safety plates and the one with the line's identification data are affixed and in a perfect condition;
- make sure that the powering voltage corresponds to the value given on the identification plate of the line;
- make sure that the front panel and the casing housing the electronic components are in good condition as they may have been damaged during transport;
- conduct a functional test to check that all the components inside the line operate correctly and that the display functions in the right way.

## **7.4 GENERAL WARNINGS**



### **Qualification of maintenance personnel**

Operators in charge of mechanical and electrical maintenance must attend classroom and practical training as described in detail below:

- a. classroom and function training concerning all machine equipment;
- b. supervision of the manufacturer's technicians during the starting operations.

### **Safety conditions during maintenance**

When servicing, the maintenance mechanic must be wearing suitable personal protective equipment, namely:

- accident-prevention footwear
- protective gloves
- approved accident-prevention garments
- a hard hat

When servicing, the maintenance electrician must wear suitable means of personal protection, namely:

- insulating footwear
- insulating gloves

1. Maintenance of the machine must be carried out by qualified and explicitly authorised personnel only. All maintenance operations must be performed under the supervision of a foreman.

2. Before carrying out repairs or any other work on the machine, always warn the other operators involved of your intentions.

3. All interventions must be made with the machine halted and isolated from the electricity and compressed air supplies.

4. When performing maintenance work in poorly lit areas, use a portable lighting system and avoid areas of shadow that prevent or reduce visibility in the areas where the intervention is performed or in the surrounding areas.

5. Do not wear rings, wrist-watches, jewellery, loose-fitting or hanging clothing such as ties, torn garments, scarves, unbuttoned jackets or unzipped overalls, that could get caught up in the moving parts of the machine.

6. Never service the machine in wet environments.

Avoid working in damp environments. The area where the maintenance operations are executed must always be kept clean and dry.

Remove any oil stains as soon as you can.

7. Never carry out any of the following operations on the frame: drilling, cutting, etc. since these could damage electrical cables and weaken the structure.

8. During the execution of arc welding, isolate the metal parts of the machine involved, as the ground contact of the welding machine could damage the electrical equipment.

9. The machine must be only be used for the purposes envisaged by the project and relative supply contract. For other uses, consult the manufacturer.

- It is prohibited to wash with water or in any case direct blasts of water towards the machine.

- It is prohibited to tamper with the safety devices.

10. For replacements, use only ORIGINAL SPARE PARTS.

11. Keep the machine and surrounding area clean at all times.

## ATTENTION

*Before starting the machine, make sure that:*

- a. any guards removed during maintenance operations have been correctly fitted and are in working order*
- b. all spare parts are correctly assembled and secured in place;*
- c. all foreign objects (cloths, tools, etc. ) have been removed from the machine.*

*Do not work on the machine with tools, cleaning equipment, etc. when it is running.*

## 7.5 Periodic checks



To make maintenance easier, a schedule with the frequencies with which each individual part of the machine must be serviced is given below.

The references to the required maintenance procedures are found at the crossing points of the two items.

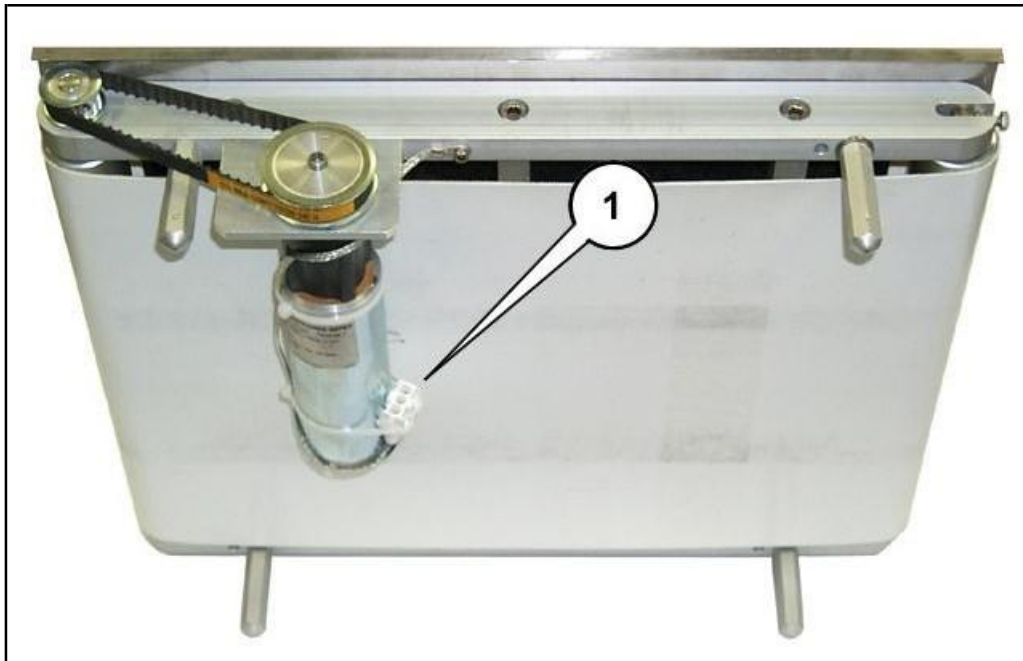
These procedures are listed in the following chapter.

The numbers in table 7.1, which outline when the servicing operations are required, correspond to the successive sections of the chapter.

| <b>FREQUENCY PART</b>  | <b>AFTER EACH SHIFT</b> | <b>DAILY</b> | <b>WEEKLY</b> | <b>MONTHLY</b> | <b>YEARLY</b> | <b>WHEN REQUIRED</b> |
|------------------------|-------------------------|--------------|---------------|----------------|---------------|----------------------|
| Conveyors              |                         |              |               | 7.6/16         |               | 7.5/6/14/15          |
| Weighing system        | 7.7                     |              |               |                |               | 7.7/8                |
| Main labelling machine | 7.9                     | 7.10         | 7.11/12       |                |               | 7.12/13              |
| Main applicator        |                         |              |               |                |               | 7.17                 |
| Totalizers             | 7.9                     | 7.10         | 7.11/12       |                |               | 7.12/13              |
| Photocells             |                         | 7.18         |               |                |               | 7.18                 |

**Figure 7- 1 – Periodic checks**

## 7.6 How to replace the conveyor belts



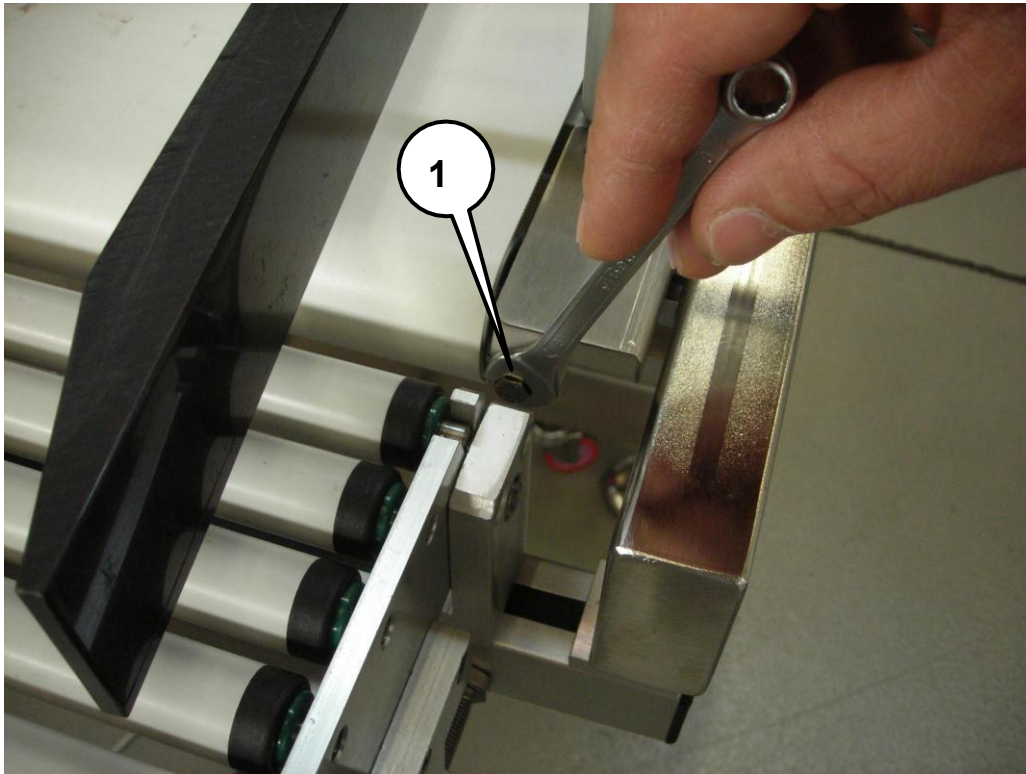
### **Key**

1. Encoder connector

### **Figure 7- 2- Flat belt (motor view)**

1. Turn off the machine and disconnect it from the electricity main
2. Slowly lift the conveyor so as to prevent the electric connection cable from being torn out.
3. Rest the conveyor on the one at the side.
4. Disconnect the motor connector.
5. Disconnect the encoder connector.
6. With the conveyor on the work bench, slacken the belt by working alternately on the screws at the end of each conveyor belt from the driven roller side.
7. Turn anticlockwise to slacken off the tension.
8. Pull the elastic belt from the rollers. If the belt is worn and must be replaced, it is advisable to cut it.
9. Install a new elastic belt and tighten it.

## 7.7 How to tighten the conveyor belts



### Key

1. Screws at the end of the belt

### Figure 7- 3 Flat belt (belt tightening)

The elastic conveyor belts must be tightened after assembly or after a long period of use.

Make sure that the belts are sufficiently taut by placing a ~ 5 kg weight on the line. The load must rest on both the half belts in the case of open or "V" belts.

## WARNING

*Do not exceed the recommended weights. The scale could be damaged. If you are in doubt about the carrying capacity, check the data plate on the weighing terminal.*

The belts must convey the load without slipping and/or uncertain movements.

Proceed in the following way if these faults occur:

1. Enter the **CONVEYOR BELT** operating mode in the initial page with a relatively low speed (20/30%).
2. Increase tightness of the belt (or half-belt if it is the "V" type) as required by alternately working on the two screws at the end of the belt itself.
3. Turn first one screw and the other on each half-belt by half a turn each time in the clockwise direction.

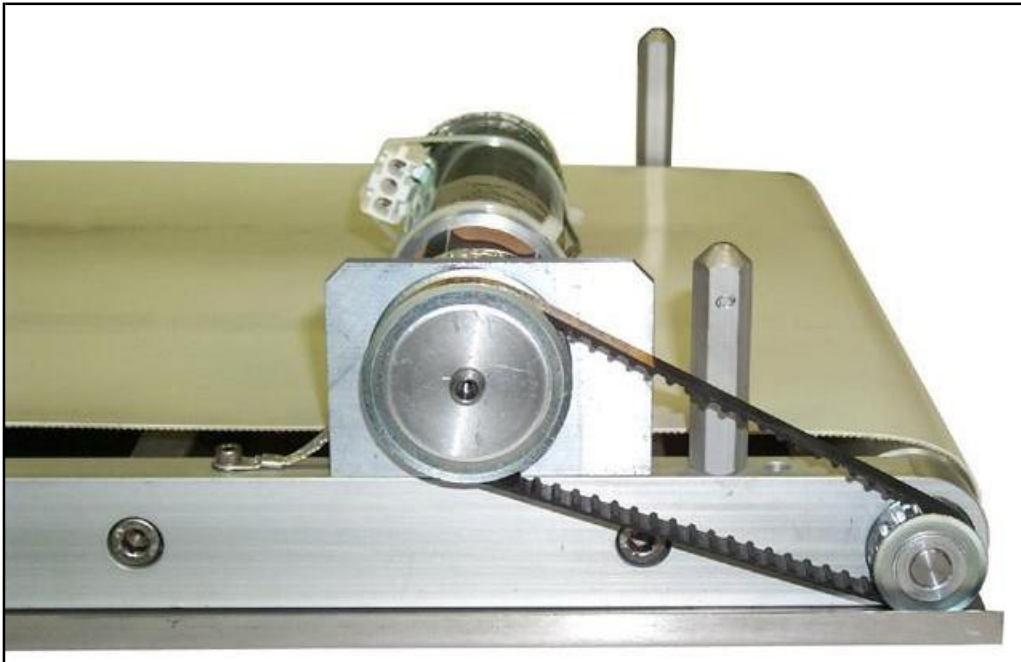
## WARNING

*Excessive belt tightening produces the opposite effect and reduces their working life besides wearing the driving system unnecessarily.*

## WARNING

*If the tensioning screws are not regulated in a balanced way, the belt will tend to shift to one side and could touch the side structures and become worn. Allow the belt to turn for at least one minute. If you note that it tends to shift sideways, gradually increase the tension of the part towards which the belt slips and repeat the test.*

## 7.8 Belt replacement



### **Key**

1. Casing fixing screws

**Figure 7- 4 - How to disassemble the side casing and section of the conveyor belt with transmission belt**

1. Turn off the line.
2. Slowly lift the defective belt without pulling out the motor's cable.
3. Rest the belt on the one at the side.

Unscrew the two screws that fix the casing.

3. Loosen the two screws that fix the flange to the frame (they cannot be seen in the photo).
4. Move the flange - motor unit towards the external roller and remove the belt.

## 7.9 Motor replacement



**Figure 7- 5 - Section of the conveyor belt with motor**

1. Comply with the procedure described for belt replacement.
1. Unscrew the plug and counter-plug used inside the gear wheel to fix it to the shaft, which must then be removed from its housing.

### **7.10 How to clean the conveyor belts**



Only use neutral based detergents that need not be rinsed (non-foaming).

**Wet** a clean cloth with a solution of water and detergent in the doses prescribed by the manufacturer of the detergent used.

## **ATTENTION**

*DISCONNECT THE MACHINE FROM THE ELECTRICITY MAIN!!*

*Turn off the machine and deactivate the disconnecter (with padlock) upstream. Carefully clean the conveyor belts by turning them by hand. Prevent water from dripping on to the parts underneath.*

## 7.11 How to check the weighing system



Check to make sure that the weight is displayed correctly using a weight of a known value.

This operation must be carried out with the machine on and running, by selecting a PLU and resetting the tare and percentage tare value.

There are two instrument categories: category X(x) including machines that carry out weight monitoring tasks and category Y(y) comprising weighing and labelling machines

When it comes to category **X(x)**, make sure that, in relation to the versions, the weight indication error on the printed label is the same or less than the values given in the table below:

| Weight value (m) given in divisions (e) | Maximum error tolerated during service |
|-----------------------------------------|----------------------------------------|
| $0 < m \leq 500$                        | $\pm 1e$                               |
| $500 < m \leq 2000$                     | $\pm 2e$                               |
| $2000 < m \leq 10000$                   | $\pm 3e$                               |

**Figure 7- 6- Class x maximum tolerated error table**

For example, for a scale with a max. 6 kg capacity and  $e=2g$  division, the table above reads:

| Weight value (m) given in divisions (e) | Maximum error tolerated during service |
|-----------------------------------------|----------------------------------------|
| $0g < m \leq 1000g$                     | $\pm 2g$                               |
| $1000g < m \leq 4000g$                  | $\pm 4g$                               |
| $4000g < m \leq 20000g$ (6000g max)     | $\pm 6g$                               |

**Figure 7- 7 – Ex. of class x maximum tolerated error table**

- If a known weight of 500g is loaded, there should be a 0.500kg  $\pm 2g$  indication on the display (valid from 0.498kg to 0.502kg).
- If a known weight of 2kg is loaded, there should be a 2,000kg  $\pm 4g$  indication on the display (valid from 1.996kg to 2.004kg).
- If a known weight of 5kg is loaded, there should be a 5,000kg  $\pm 6g$  indication on the display (valid from 4.994kg to 4.006kg).

When it comes to category **Y(y)**, make sure that, in relation to the versions, the weight indication error on the printed label is the same or less than the values given in the table below:

| Weight value (m) given in divisions (e) | Maximum error tolerated during service |
|-----------------------------------------|----------------------------------------|
| $0 < m \leq 500$                        | $\pm 2e$                               |
| $500 < m \leq 2000$                     | $\pm 3e$                               |
| $2000 < m \leq 10000$                   | $\pm 4e$                               |

**Figure 7- 8- Class y maximum tolerated error table**

For example, for a scale with a max. 6 kg capacity and  $e=2g$  division, the table above reads:

| Weight value (m) given in divisions (e) | Maximum error tolerated during service |
|-----------------------------------------|----------------------------------------|
| $0g < m \leq 1000g$                     | $\pm 4g$                               |
| $1000g < m \leq 4000g$                  | $\pm 6g$                               |
| $4000g < m \leq 20000g$ (6000g max)     | $\pm 8g$                               |

**Figure 7- 9 – Ex. of class x maximum tolerated error table**

- If a known weight of 500g is loaded, there should be a 0.500kg  $\pm 4g$  indication on the display (valid from 0.496kg to 0.504kg).
- If a known weight of 2kg is loaded, there should be a 2,000kg  $\pm 6g$  indication on the display (valid from 1.994kg to 2.006kg).
- If a known weight of 5kg is loaded, there should be a 5,000kg  $\pm 8g$  indication on the display (valid from 4.992kg to 4.008kg).

Repeat the test several times with a known weight near to the scale's minimum capacity and another near to its maximum capacity value.

## WARNING

*Contact the manufacturer's After-sales Service if the tests are beyond the tolerated error margin. Never attempt to tamper with the weighing system or its parts. Removal of the seals will immediately void the approval of the system and the warranty provided by the manufacturer.*

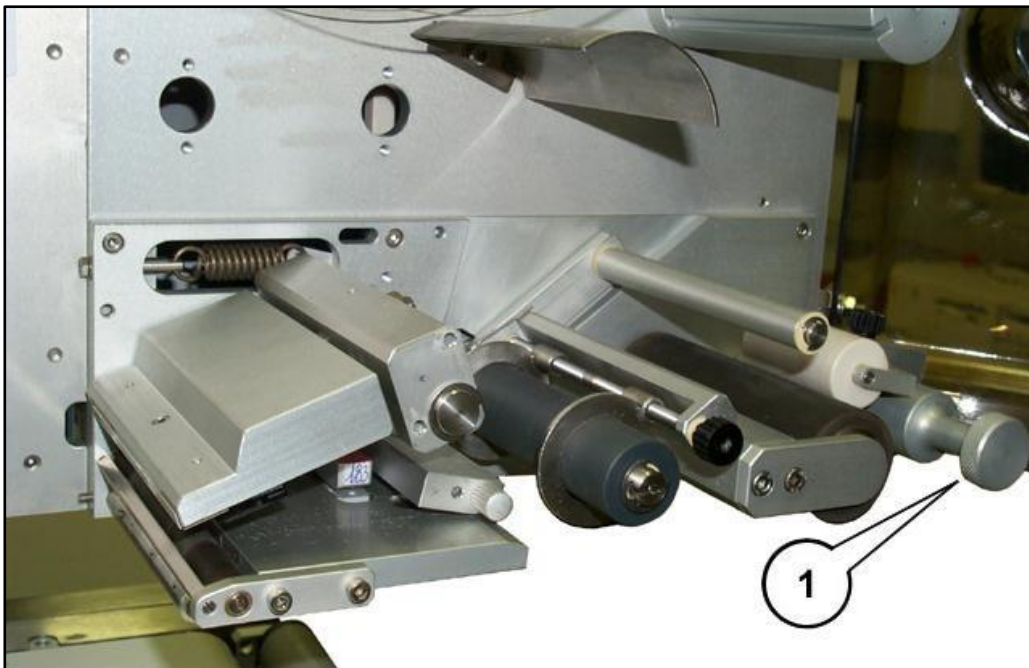
## 7.12 How to calibrate the weighing system



The weighing system is consigned perfectly calibrated and conforming to the metric standards in force in the country of use.

Calibration of the weighing system using certified SIT equipment can be requested, by means of the manufacturer's After-Sales Service. Once calibration has terminated, a "Calibration Report" is issued to certify the results obtained.

## 7.13 How to clean the thermal head



### Key

1. Lever to lift the printing unit

### Figure 7- 10 – Thermal head and lifting components

1. Turn off the machine.
2. Wait a few minutes for the head to cool.
3. Lift the printing unit by means of the relative lever.
4. Remove the labels.
5. Moisten a soft cotton cloth with denatured alcohol.
6. Wipe the lower part of the head to remove scraps of tape or labels.
7. Make sure that the cleaned parts have dried before powering and using the machine again.

## WARNING

*Never ever use metal or pointed tools for cleaning purposes as they can cause irreparable damage to the thermal head.*

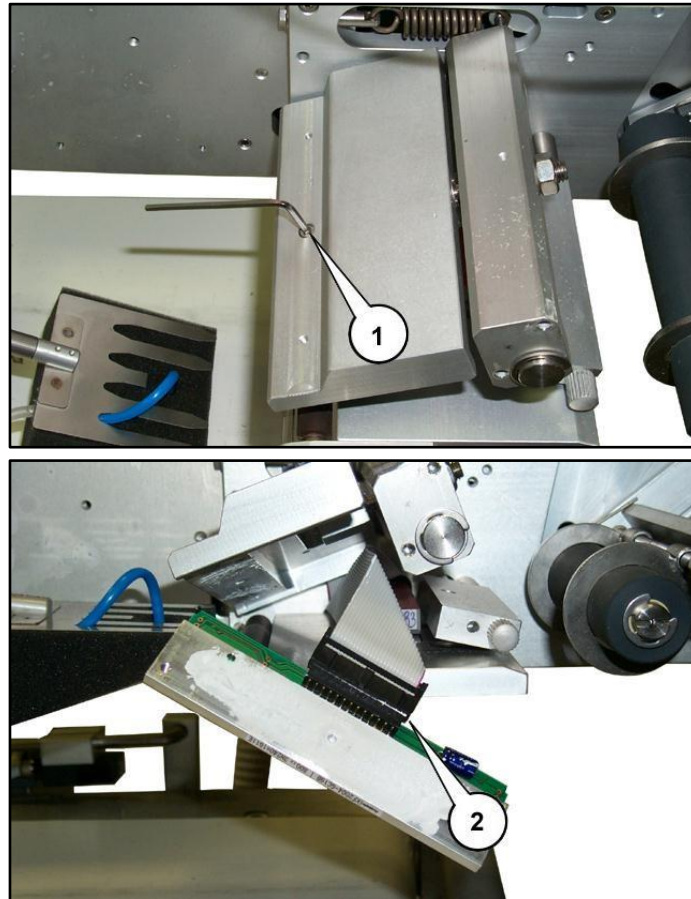
## WARNING

***Do not use gasoline or solvents on any of the devices or mechanisms.***

Traces of adhesive or bits of label can be removed with denatured alcohol.

When cleaning, make sure that drops of fluid do not drip on to electrical parts.

## 7.14 How to replace the thermal head



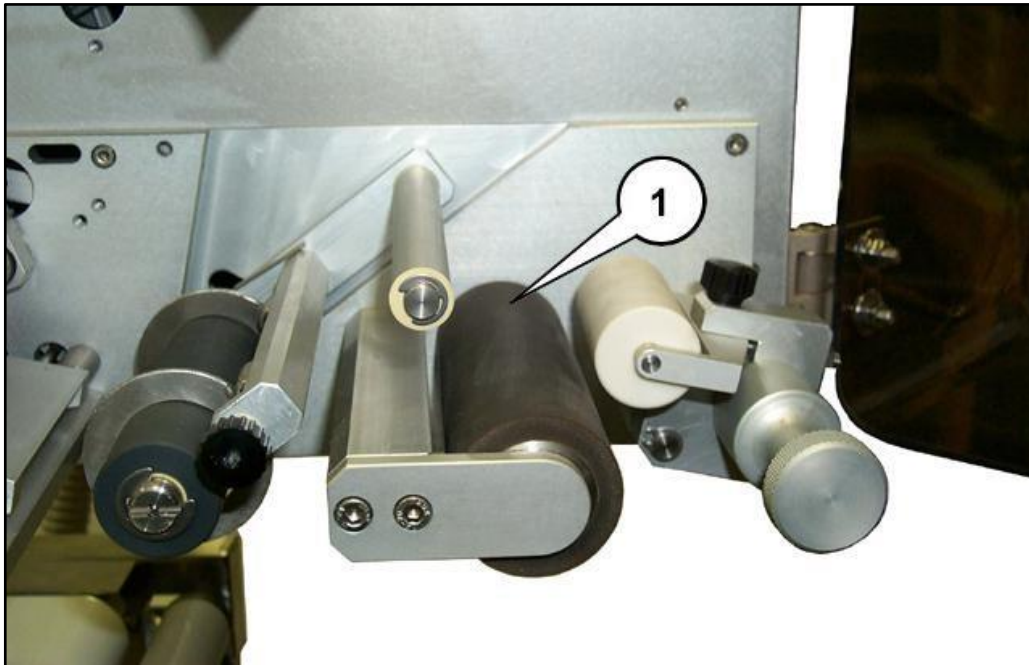
### **Key**

1. Screw that fixes the head to the dissipater
2. Head connector

### **Figure 7- 11- How to remove the head from the dissipater**

1. Turn off the printer.
2. Raise the thermal head.
3. Using an Allen wrench, unscrew the screw that fixes the head to the dissipater.
4. Delicately push the head from under the dissipater and disconnect it from the connector.
5. When the new head is installed, work through the operations described above in reverse order, remembering to spread silicone grease on the metal part of the head that contacts the dissipater in order to dissipate the heat produced.

## 7.15 How to clean the paper tractor roller



### **Key**

1. Paper tractor roller

### **Figure 7- 12 – Paper tractor roller.**

Proceed in the following way, using alcohol-based detergents only:

1. Turn off the machine.
2. Remove the labels.
3. Lift the printing unit by means of the relative lever.
4. Moisten a soft cotton cloth with denatured alcohol.
5. Wipe the rubber roller by turning it by hand.
6. Make sure that the cleaned parts have dried before powering and using the machine again.

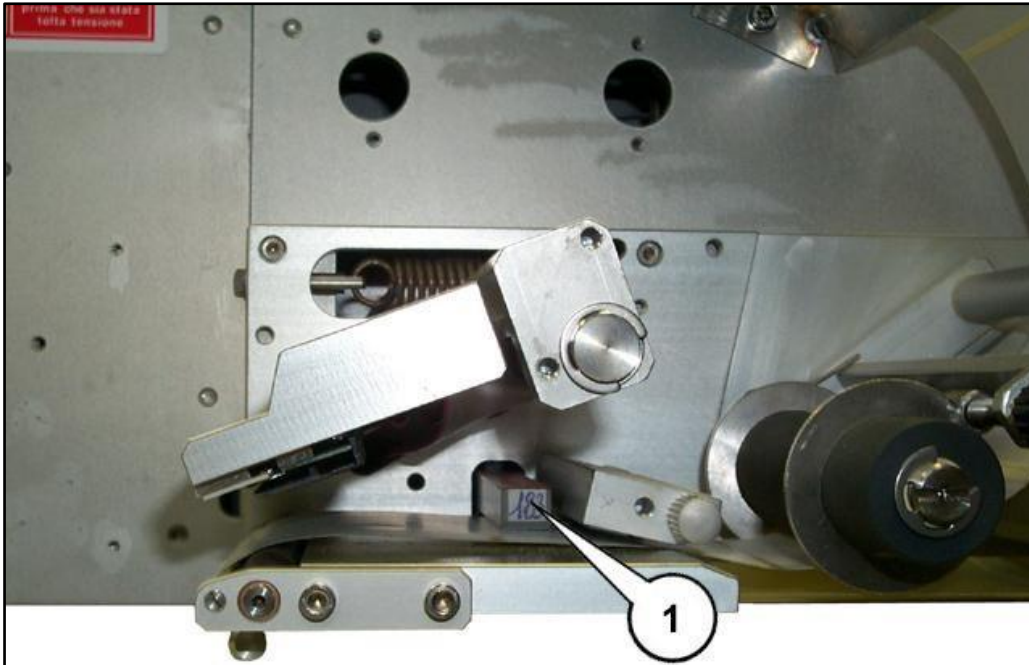
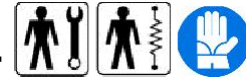
## **WARNING**

*Never ever use metal or pointed tools for cleaning purposes as they can cause irreparable damage to the rubber coated roller*

Traces of adhesive or bits of label can be removed with denatured alcohol.

When cleaning, make sure that drops of fluid do not drip on to electrical parts.

### 7.16 How to clean the paper photosensor



#### **Key**

1. Paper feeding photosensor

#### **Figure 7- 13 – Paper feeding photosensor**

1. Turn off the machine.
2. Remove the labels.
3. Use a soft brush to clean under the sensor.

## **WARNING**

*Never ever use metal or pointed tools for cleaning purposes as they can cause irreparable damage to the sensor.*

Traces of adhesive or bits of label can be removed with denatured alcohol.

When cleaning, make sure that drops of fluid do not drip on to electrical parts.

### **7.17 How to clean the accessory parts of the printer**



Metal and plastic parts: use a soft cloth moistened with a detergent product (do not use solvents or thinners).

Traces of adhesive or bits of label can be removed with denatured alcohol.

When cleaning, make sure that drops of fluid do not drip on to electrical parts.

### **7.18 Clean the photocells**



1. Turn off the machine.
2. Use a cotton cloth moistened with alcohol
3. Carefully clean the photocell lenses.
4. Also clean the reflector in front of the photocell.
2. Dry with a dry rag.

## **WARNING**

*Never ever use metal or pointed tools for cleaning purposes as they can cause irreparable damage to the sensor.*

*Never use gasoline or solvents*

### **7.19 How to clean the compressed air filter**



There is a pressure governor complete with pressure gauge and air filter on the compressed air pipe inlet.

1. Disconnect the machine from the electricity main.
2. Procure a vessel to hold the condensed liquid.
3. Place the vessel under the filter's transparent bulb.
3. Press the small button under the transparent bulb with a finger until all the liquid inside has flowed out.

## **ATTENTION**

*The condensation can spurt out violently. Move the edges of the vessel as near as possible. Keep your face and eyes well away and always use suitable clothing and personal protections.*

## 8. TROUBLESHOOTING



### 8.1 Introduction

To make it easier to identify any faults, the Venus Series 100 lines are equipped with a troubleshooting program able to monitor the buttons and sensors and activate each actuator device (solenoid valves, motors, etc.) by means of a manual control. To do this, refer to par. 5.23.8 and subsequent paragraphs.

## ATTENTION

*The check-control function can only be accessed at level 5 by means of a password*

*This can only be done by personnel with a QUALIFICATION 3 professional profile.*

## 8.2 Troubleshooting

### **2008 An emergency button is pressed**

- 1- disengage the red emergency button.
- 2- press the reset button

### **24 Operation is not resumed. Process cannot be started nor conveyor belt activated.**

The red emergency button has been disengaged but the reset button must be pressed.

### **2004 No paper in printer**

- 1- Insert a new roll of labels
- 2- Press [ALT] + [F] together to align the print carrying the new roll.

### **5 Process cannot be accessed since the machine is in conveyor belt mode.**

Disable "conveyor belt" mode before performing this operation.

From the main page, press "CONVEYOR BELT".

### **2013 Air pressure is insufficient**

Air pressure in the circuit is not sufficient to guarantee correct label application.

Check the compressed air connection and correct opening of the valve.

### **2004 Print is in Error condition**

Make sure printer is connected correctly to the power supply.

Make sure that the printer is on and the paper roll is inserted with the head lowered.

### **620 Request for zero with scale loaded**

The metrological limits relating to the possibility to reset the scale with its plate loaded have been exceeded.

Empty the scale to reset.

### **608 Timeout error during communication with scale**

The scale board has not responded to a command (generally a weight request).

1. Make sure cables are correctly connected.
2. Check compatibility between scale software and machine software.

### **610 CRC error on scale**

There is an error involving serial communication between machine and scale.

Causes include cable problems, a connector coming loose, electromagnetic disturbance from an external source.

**614 An error involving a piece weighing end procedure has occurred**

The scale has received a 'weighing end' command but not a 'weighing start' command.  
This means that a piece has reached weighing start position before  
the previous piece reaches the bottom end of the scale belt (weight end position).  
This situation occurs in the event of double photocell reading.  
Try resetting the length of the piece.

**2003 A double reading in scale or label timeout error occurred**

A piece travelling from the scale belt did not engage the application photocell  
or double reading of the scale photocell occurred.  
Check photocell setting.

**2009 No response from host**

The PC connected to the machine did not respond to a weighing command.  
Check the network connections and correct operation of PC software.

**2010 Response from host with error**

The PC connected to the machine has given the wrong response to a weighing command.  
Check the PC software.

**3 There is no flash card**

- 1- Turn the machine off
- 2- Remove front casing
- 3- Insert flash card into the special slot
- 4- Refit casing
- 5- Restart machine

**13 Impossible to reverse a carton as there is a carton open**

The carton has not been completed yet.  
Only one pack can be reversed.

**28 Soft key not assigned**

No PLU is assigned to a specific soft key.  
To assign a PLU, press keys [ALT] + [S] together, select a soft key and specify the PLU to associate to it.

Error list

**8.2.1 Stream Errors (100 - 199)**

**100 : Stream error category (indicates the error category. The following number indicates the error)**

---

**101** : Error that occurs in the Get String Field when the type of field sent fails to exist

**102** : Error, a larger stream has been defined than necessary

**103** : The type of variable specified does not exist or is not handled

**104** : The field number of the stream sent to the function fails to exist

**105** : Data entry error

**106** : Error in opening the traceability configuration file. The file does not exist or is in the wrong place

**107**: Error in the structure of the traceability configuration file

**108**: Error in opening a traceability table file

**109**: Error in the structure of a traceability table file

**110**: Error in the coherence of the structure of a traceability table file

**111**: Error in opening the LIST configuration file

**112** : Error in the structure of the LIST configuration file

**113** : Error in opening the MERCURY configuration file

**114** : Error in the structure of the MERCURY configuration file

**115** : Error in opening the WEIGHING configuration file

**116** : Error in the structure of the WEIGHING configuration file

**117** : Error in opening the Configurable Process Window configuration file

**118** : Error in the structure of the Configurable Process Window configuration file

**119** : Error in opening the client archive configuration file

**120** : Error in the structure of the client archive configuration file

**121** : Error in opening a client archive table file

**122** : Error in the structure of a client archive table file

**123** : Error in coherence of the structure of a client archive table file

### **8.2.2 Process errors (200 - 299)**

**200 : Process error category (indicates the error category. The following number indicates the error)**

---

**201** : The program expected to find a process that actually does not exist. Contact UTESW, or the attempt to load the Weight B. processes has failed.

**202** : The traceability lot does not exist. Choose an already existing one or create one.

**204** : An attempt has been made to access the crate-weigher with plu process with CTRL enabled. This combination is explicitly forbidden. Correct the PLU or change the type of process.

*In version 4.2.2 and previous version, this error is mistakenly signalled for every processing start difficulty.*

**206** : in a product label, total 1 or 2 has been wrongly entered in a variable label taken from the totals group.

**207** : The client id has not been loaded correctly.

---

***Other errors that prevent the process from being accessed are:***

**502** PTR\_ERR\_TOO\_MANY\_ELEMENTS\_IN\_LABEL:

**2029** : GEN\_ERR\_IMAGE\_INEXISTENT

**2028** : GEN\_ERR\_IMAGE\_WITH\_DIMZERO

**2025** : GEN\_ERR\_FON\_FIRMWARE\_NOT\_COMPATIBLE

---

**205** : Process attempt failed; generic error not included in the previous list...

*The number of the error that generated the error status (from 4.2.19 onwards) also appears in the text*

**8.2.3 Data Register errors (300 - 399)**

- **300** : The queue of boxes or pallets is corrupted. Make a Proc. Reset. If this fails to resolve the problem, contact UTESW and specify the origin of the problem.
- **301** : Too many boxes or cartons in the queue (queue full), spool the labels in the queue. Make a Proc. Reset if the system fails to begin operating correctly again. If the reset also fails to function, contact UTESW and specify the origin of the problem.

#### **8.2.4 Printer errors (500 - 599)**

**500 : Printer error category (indicates the error category. The following number indicates the error)**

---

**501** : one of the images (meaning element of the image archive, not as bmp) in the label has been cancelled after having been associated with the label. Re-compile the images archive correctly, then re-associate the image in the label.

**502** : Each label can contain up to 60 elements (50 in the old sw versions). The label being printed contains a larger number of elements. Reduce the number of elements in the label.

**503** : The field of the plu in the specified barcode does not contain enough characters. Correct the value of the field of the plu specified after "field" in the barcode specified after "barcode"

**504** : unexpected response from the printer.

**505** : the time envisaged for emptying the reception buffer has been exceeded.

*One of the possible causes of the reception buffer having failed to empty is that the printer's storage buffer is fully occupied*

### **8.2.5 Scale errors (600 - 699)**

- **601** : Generic error from CMA protocol (contact UTESW)
- **602** : Error in DEST NPACK (contact UTESW)
- **603** : Serial port opening error (contact UTESW)
- **604** : Error in IOCTL FIONREAD (contact UTESW)
- **605** : Error in IOCTL FIOFLUSH (contact UTESW)
- **606** : Error in IOCTL FIONREAD2 (contact UTESW)
- **607** : Error in IOCTL FIOBAUDRATE (contact UTESW)
- **608** : Scale broken or not connected. The scale board has not responded to a command. Check the scale board connection to the serial port and make sure that the board functions correctly. If no faults are discovered, upgrade the firmware to version 3.0.0 or more recent.
- **609** : The scale or remote control board has given an incorrect response to a command. Make sure that the version of the line firmware and board are compatible.
- **610** : The scale or remote control board has given a response to a command ruined by interference. Check the wiring and connector and cable filtering. Make sure that there is no interference in the surrounding environment. Exclude the presence of electromagnetic discharges. Replace the board if necessary.
- **611** : Impossible to carry out command: serial port closed (contact UTESW)
- **612** : Zero not stable. The attempt to reset the scale has not been successful since the stable weight condition has not been reached within a preset time. Make sure that there were no oscillatory phenomena on the scale plate during the resetting procedure (air, lift truck driving past, etc.). Check the scale calibration.
- **613** Converter error during calibration (contact UTESW)
- **614** : Error, reception of end of weighing command without the start of weighing one (contact UTESW)
- **615** : Reception of two start of weighing commands without the end of weighing one (contact UTESW)
- **616** : Request for zero during the weight processing phase (contact UTESW)
- **617** : Buffer overflow (contact UTESW)
- **618** : Not enough samples to validate the weight (contact UTESW)
- **619** : Request for zero during static weighing without the tare set (contact UTESW)

- **620** : The attempt to reset the scale has not been successful since the scale contains a greater load than the one tolerated for the resetting procedure in question, or the scale has not been calibrated correctly. Empty the scale. Check scale calibration.
- **621** : sampling impossible: tare set (contact UTESW)
- **622** : Calibration: scale zero not set (contact UTESW)
- **623** : Calibration: full scale not set (contact UTESW)
- **624** : Calibration: intermediate point not within scale (contact UTESW)
- **625** : Calibration not valid (contact UTESW)
- **626** : Preset tare setting impossible: value off range. The tare value set in the plu or in the process is higher than the maximum capacity of the scale. Change the set tare value. Make sure that the scale's metrological parameters have been entered correctly
- **627** : Self-weighing tare off range (contact UTESW)
- **628** : Self-weighing tare: weight not stable (contact UTESW)
- **629** : Self-weighing tare percentage  $\leq 0$  or  $> 100$  (contact UTESW)
- **630** : Request for calibration during the weight processing phase (contact UTESW)
- **631** : request for samples beyond the weighing range (contact UTESW)
- **632** : Setting error in DTR (contact UTESW)
- **633** : Setting error in 485 (contact UTESW)
- **634** : Wrong sampling frequency selected for Venus (contact UTESW)
- **635** : FILTER scale parameter off range. An attempt has been made to enter a value in the FILTER parameter of the CUSTOM weight that is not permitted by the board. Reduce the value of the parameter in question
- **636** : STABLE WEIGHT CALI scale parameter off range. An attempt has been made to enter a value in the STABLE WEIGHT CALI. parameter of CUSTOM weighing that is not permitted by the board. Reduce the value of the parameter in question
- **637** : Return code not known (contact UTESW)
- **650** : Error during transmission-reception (contact UTESW)

**8.2.6 Miscellaneous errors (800 - 1099)(1200 - 1299)****OLD CIGIEMME serial errors**

**850** : Error in opening Old Cigiemme serial link

**851** : Error in writing on Old Cigiemme serial link

**852** : Error in reading from Old Cigiemme serial link

**Generic serial errors**

**901** : Error in opening serial link (GENERIC)

**902** : Error in setting baud rate of serial link

**903** : Baud Rate value not tolerated

**905** : Error: Use of a closed serial port

**906** : Error in Fioflush of serial link

**907** : Error in FIOBUFSET of serial link

**PPP modem errors**

**1001** : Error in opening modem port

**1002** : Error in setting baud rate of modem's serial port

**1003** : Error in setting modem's automatic answer

**1004** : Error in initializing modem's PPP protocol

**1005** : Error in cancelling modem's PPP protocol

**1006** : An attempt has been made to transmit a command to a closed serial port of the modem

**Scanner serial errors**

**1201** : Error in Fion Read of the serial port connected to the scanner

**1202** : Error in reading the serial port connected to the scanner

**8.2.7 Input Output Remote Control errors (1100 - 1199)**

The remote I/O board is only installed in Venus Automatic and Automac integrated lines.

**1101** : Command length or data error

**1102** : Incorrect or inexistent command

**1103** : Filtering time programming error (command 0x85)

**1104** : Filter already programmed (originally 0x85, now not used)

**1105** : Inexistent filter number (0x85, 0x87)

**1106** : Output already used for timed activation (0x86)

**1107** : Error in analogue programming address (0x88)

**1108** : Error in analogue programming values (0x88)

**1109** : Inexistent output number (0x89, 0x85)

**1110** : Output already used in a filtering operation

**1111** : Control input number off range (0x85)

**1112** : Control output number off range (0x85)

**1113** : The remote board fails to respond (timeout). Make sure that the serial cable between the board and Venus is connected correctly. Make sure that the board is on.

**1114** : The remote board restarted while the Venus terminal was working. Make sure that board powering is not faulty

### **8.2.8 Generic errors (2000 - 2099)**

- **2001** : Weighing target too far in advance. This problem is due to the incorrect position of the static weighing target. Typically, a static weighing target that is too far in advance makes the piece to be weighed stop after having passed beyond the end of the belt as well. Alternatively, if the target is too far back, the piece to be weighed stops too soon and the previous piece will have not yet left the scale.

Proceed in the following way to modify the "weighing target" value:

- 1- re-access the process
- 2- press "MODIFY DATA" immediately, before a package has time to transit
- 3- modify the "WEIGHING POS." value.
- 4- save the changes and access the processing phase again

This changes the value of that plu. If the problem still persists even with the minimum (or maximum) value, check the same value entered in the general settings of the machine.

- **2002** : Label delayed. The piece has reached the application target before the label has been completely issued.

- Possible causes:
  - belt targets too far in advance
  - label too long
  - belt speed too fast
  - label issue speed too slow or too much information in the label

- **2003** : Double reading in scale or lab timeout. The last piece weighed failed to reach the labelling photocell within the preset time. The labelling photocell was probably unable to detect the piece. Check the photocell setting. The same effect is obtained if the operator takes the piece from the line before it reaches the level of the labelling photocell.

- **2004** : There has been an error in the product, box or pallet printer. Depending on the message, make sure that the printer is on, check the connection to the terminal, the serial setting in the bios (232 or 422), whether the printer has paper, that the label detecting photosensor is connected correctly, that the printer is on-line.

- **2005** : Applicator malfunction. The applicator has not completed the application cycle correctly. The piece has not been totalized. Make sure that the applicator is connected and operating correctly (there is a dedicated "applicator test" button for the arm in the sw test window. Make sure that there are no mechanical impediments to prevent the arm from moving correctly.

- **2006** : Piece off machine still in application status. A piece reached the machine end target when, in the dynamic application mode, the

application device had not finished applying the label. Make sure that the applicator functions correctly. Move the machine end target forwards. The piece that generated the error (i.e. that reached the machine end target) has not been totalized.

- **2007** : Weighing target programming error. Serious error inside the software. Contact the software office.
- **2008** : Emergency button pressed. The emergency mushroom button was pressed during the process. Confirm the window, then release the emergency mushroom button and reset the machine again.
- **2009** : No response from host on weight. The machine has not received a response to the transmission, via the network, of 5 consecutive product, box or pallet weights. Check the network connection. Make sure that the program on the PC with which the machine actuates the dialogue via the network protocol is on, and that the relative software is functioning correctly. Make sure that the setting of the network board on the PC is Auto Detect in relation to the characteristics of the link (10/100 half/full duplex). Check whether there is interference in the network. If the results of these tests are negative, monitor the network via the sniffer installed in an external PC connected via hub (not switch!!).
- **2010** : Incorrect response from host on weight. The response command to a weight sent by the PC is structurally wrong. Make sure that the connection software on the PC side has been programmed correctly.
- **2011** : Flow packer faulty. A fault condition has occurred in the flow packer (Automac, etc.) to which the Venus terminal is connected. Check the status of the flow packer. Confirm the window. Re-access the process
- **2012** : Timeout for application. The Automac system has not informed the Venus terminal about the application position reading in time. Make sure that the photocell is positioned correctly. Check the wiring. Confirm the window and re-access the process. The processed piece has not been totalized.
- **2013** : Insufficient air pressure. There has been a sudden drop in the pressure of the air in the compressed air supply system. Check the connections of the compressed air system and the pressure switch. Confirm the window and re-access the process.
- **2014** : Targets too near. A target has tripped in a situation where the machine was unable to process it (belts stopping on a previous target or moved beyond the process). Find out which pair of targets are so near that when the piece stops on a level with the first, the other also trips automatically. This problem frequently occurs in relation to the weighing target/enabling target on the input. Space the targets in question further apart. Do not move the belts beyond the process if there are pieces in the machine

- **2015** : Connection shut-down whilst the machine is processing. A network connection has been shut-down by the PC with the machine processing and programmed for sending some type of weight. Find out why the connection shut-down, particularly the network connection. Make sure that the software in the PC functions correctly.
- **2016** : Ejector timeout. One of the sensors in the automatic ejection systems (piston, piston with recirculation) has not tripped in time to close the ejection cycle correctly. Make sure that the sensors are correctly connected and positioned.
- **2017** : Heads too near. Serious error inside the software. Contact the software office.
- **2019** : Barcode scanner not valid. The structure of [BcRead](#) is not compatible with the barcode read via the scanner. Check the formatting of the currently used [BcRead](#).
- **2020** : Traceability lot not found. The traceability lot recalled via the barcode being read ([BcRead](#)) is not present in the system. Enter the traceability lots that can be recalled via the scanner.
- **2021** : Label being printed not valid. This is a simple informational message that is only issued after other errors that quit the process. It indicates that when the error occurred a total label was being printed and that it will be reprinted on the next access to the process. If the label is reprinted on the next access to the process, discard one of the two copies so as to prevent two consecutive boxes (or pallets) from being labelled with the same label. This problem is particularly evident in the case of lines with queues of boxes (cfl).
- **2022** : Scale enabling target error. The piece had not been completely processed when TARGET 1 LAB BELT was reached. Mercury: Check the targets programmed in the machine. Move the target in question forwards. Reduce the speed of the belts. Contact the software office if the problem persists. Venus automatic: the problem could be due to the scale photocell and the labelling machine being too near to each other, or a piece length that is too short and that leads to double readings by the labelling machine photocell.
- **2023** : Ejector target too far back. The ejection target is too near the application target and trips incorrectly when the piece stops. Decrease the application target or increase the ejection target
- **2024** : Piece on ent. belt has reached scale. The piece that was stopping on the photocell on a level with the entrance belt exceeded the scale belt starting target during the stopping phase. Decrease the speed of the belts (or retract the position of the photocell installed on a level with the entrance belt).
- **2025** : Font not compatible with text language. The font selected for printing one of the textual elements in the label is unable to support the language in which the text to be printed has been set (whether fixed or variable). Change the label layout by selecting a font that

supports the language selected for that text (i.e. a font of the Nina family)

- **2026** : Font not compatible with printer firmware. There is at least one text in the label being printed for which an international font has been selected (i.e. of the Nina family) but the international option has not been selected. If necessary, proceed by upgrading the printer's firmware to version J2.10 or more recent (note: hw with 4 Mb of memory is required). Then select the international option for the printer.
- **2027** : Image too large. An attempt has been made to load an excessively large bitmap image into the printer. Check and image file and replace it if necessary.
- **2028** : Image with zero dimension. An attempt has been made to load a bitmap file of 0 dimension into the printer. The file with 0 dimension may have been caused by an incorrect transfer of archives by CuteFTP or Planet View. Cancel the file or transfer it again
- **2029** : Inexistent image. The bitmap file associated with the images file does not exist in the dom for the current image. Probable fault in the image transferring procedure via CuteFTP or Planet View. Repeat the procedure or check to make sure that the images archive is correct.
- **2030** : Box stopping target error. A piece has reached the BOX STOPPING TARGET before the BOX STOPPING TIME expired. This may happen if the box stopping time is too long. Reduce the BOX STOPPING TIME or lengthen the BOX STOPPING target.
- **2031** : Piece under labelling photocell not detected. Two consecutive pieces have reached the SAFETY TARGET without the first one having been detected by the relative photocell. This fault may have been caused by the input photocell having made a double reading or by the SAFETY TARGET being incorrectly positioned. Correct the PIECE LENGTH and make sure that the SAFETY TARGET has been set so that its distance from the photocell is less than the length of the piece.
- **2032** : Ask the operator which message appears in the window and compare it with the ones that appear afterwards. Make sure that the targets entered are correct when the weighing line starts. Different messages appear, depending on the fault detected, as explained below.
  - a)** Weighing target in PLU too negative: The delta of the weighing target set in the PLU is negative and its absolute value is higher than the weighing target set in the configuration. E.g. Weighing Target Delta = -340, Weighing target in the config = 300. Solution: Decrease the weighing target of the PLU or increase the weighing target in the configuration
  - b)** Application target in PLU too negative: Negative application target in the PLU and higher, as to absolute value, than the application target in the configuration. E.g. Application Target Delta = -450, Application

Target in the configuration = 300. Solution: Decrease the application target in the PLU or increase that target (if possible) in the configuration

**c)** Applic. targets 1 and two incorrect: The head 1 appl. target in the PLU is too positive or the head 2 appl. target in the PLU is too negative. Solution: Reduce Application target 1 or increase target 2.

**d)** Weighing target in PLU too large: The weighing target delta of the PLU is too positive and interacts negatively with the application target. Solution: Decrease the weighing target in the PLU or increase the application target if possible.

**e)** Appl. target too large or Ejec. target too small: The application target of the first head set in the PLU makes the application target go beyond the ejection target. Solution: Decrease the application target in the PLU or increase the application target in the configuration or the ejection target.

**f)** Applic. target 2 too large or Ejec. target too small: The application target of the second head set in the PLU makes the application target of the second head go beyond the ejection target. Solution: Decrease the application target of the second head in the PLU or increase the application target of the second head in the configuration or the ejection target.

**g)** Weighing target less than Lab. belt 1 target: The weighing target is less than Lab. belt target 1. Solution: Increase the weighing target or reduce the Lab. belt target 1.

- **2033:** A Client ID that is not in the archive has been searched for in the clients archive

- **2034 :** An attempt is being made to process with a PLU with a variable weight or with min weight max weight limit settings that are different from zero, with a SINGLE BELT machine entered as SINGLE BELT WITH ADVANCED PRINT. Only plu configured as "fixed weight without range" can be processed in this configuration"

### **8.2.9 Memory errors (4000 - 4099)**

The errors generated by the memory normal denote a fault in the software that only the software technicians can resolve. A correct diagnosis of the fault by the after-sales staff is therefore of fundamental importance is the correct solution is to be found.

Proceed in the following way to make a correct analysis:

**Ask the customer for the full text of the message, the situation in which it occurred as well as a copy of the archives and/or errors logger if necessary, and send everything to the software office.**

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**4000** : Generic memory error

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**4004** : The software has found a different memory pointer from the expected one. The structure of the message on the screen is "Alloc: Invalid pointer (category name)", where category name stands for the name of the object for which the error was generated. **(See above)**

**4005** : The right allocator for the vector or string has not been found (the size of the object is larger than those envisaged). The structure of the message on the screen is "Alloc: Bad allocator (category name)", where category name stands for the name of the object for which the error was generated. **(See above)**.

**4006** : Memory has not been reserved for the indicated objects. The structure of the message on the screen is "Alloc: Unreserved memory (category name)", where category name stands for the name of the object for which the error was generated. **(See above)**.

**4007**: Not enough memory has not been reserved for the indicated objects. The structure of the message on the screen is "Alloc: Out of tag list space (category name)", where category name stands for the name of the object for which the error was generated. **(See above)**.

**4008** : The pointer has attempted to access the marked object by means of an invalid object. The structure of the message on the screen is "Alloc: Invalid tag (category name)", where category name stands for the name of the object for which the error was generated. **(See above)**.

**4009** : An attempt has been made to reserve memory for an object for which that memory has already been reserved. The structure of the message on the screen is "Alloc: Memory already reserved (category name)", where category name stands for the name of the object for which the error was generated. **(See above)**.

### **8.2.10 Database error (5000 - 5099)(1 - 10)(-1, -945)**

The errors generated by the database can have the following motivations:

The database is corrupted. Try with reset Proc and/or reset DB

If error is given after a disk on module has been made, the DOM may not have been initialized correctly (repeat the initializing procedure or change the DOM).

If the client systematically obtains an error signal when covering a route he normally does not use, he should note down what happens and inform the UTESW: there may be a gap in the software

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**5000:** DB error category (indicates the error category. The following number indicates the error)

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**5001 :** Error in search key (**See beginning of page**)

**5002:** Error in CR Read (**See beginning of page**)

**5003 :** Error in CR Write (**See beginning of page**)

**5004 :** Error in Setor (**See beginning of page**)

**5005 :** Error in FindNM (**See beginning of page**)

**5006 :** Error in Rec Read (**See beginning of page**)

**5007 :** Error in Disdel (**See beginning of page**)

**5008 :** Error in Open (**See beginning of page**)

**5009 :** Error in Close (**See beginning of page**)

**5010 :** Error in rec write (**See beginning of page**)

**5011 :** Error in DB Connect (**See beginning of page**)

**5012 :** Error in instruction that enters a new record in the table. (**See beginning of page**)

**5013 :** Error in instruction that moves the pointer to the first record in the table(**See beginning of page**)

**5014 :** Error in instruction that moves the pointer to the next record in the table (**See beginning of page**)

**5015 :** Error in instruction that moves the pointer to the previous record in the table (**See beginning of page**)

**5016 :** Error in instruction that moves the pointer to the last record in the table (**See beginning of page**)

**5017 :** Error in instruction that reads the password from the index file (**See beginning of page**)

**5018:** The name of a password that has not been defined has been specified. (**See beginning of page**)

**5019:** Error in instruction that takes the database address (**See beginning of page**)

**5020 :** Error in instruction that sets the database address (**See beginning of page**)

**5021 :** Error in instruction that makes the set address the current record (**See beginning of page**)

**5022 :** Password entry error. (**See beginning of page**)

**5023 :** Error in Set\_Key (**See beginning of page**)

**5024 :** Error in Key First (**See beginning of page**)

**5025 :** Error in Key Next (**See beginning of page**)

**5026 :** Error in Key Prev (**See beginning of page**)

**5027 :** Error in Key Last (**See beginning of page**)

**5028 :** Error in NR Frame (**See beginning of page**)

**5029 :** Error in Delete (**See beginning of page**)

**5030 :** Error in Lock Set Time out (**See beginning of page**)

**5031 :** Error in Lock Write (**See beginning of page**)

**5032 :** Error in Lock Read (**See beginning of page**)

**5033 :** Error in DB Rec Free (**See beginning of page**)

**5034 :** Error in Set free (**See beginning of page**)

**5035 :** Error generated within a Format Compound Index function. (**See beginning of page**)

**5036 :** Error in Curr Key (**See beginning of page**)

**5037 :** Error in DB Engine (**See beginning of page**)

**5038 :** Error in invalid Key (**See beginning of page**)

**5039 :** Error in Key Build (**See beginning of page**)

#### **Negative errors:**

The line could also give the following error signals that denote problems with the database. For troubleshooting **See beginning of page**

**1, 2, 3, 4, 5, 6, 7, 8, 9, 10, -1, -2, -3, -4, -5, -6, -7, -8, -9, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20, -21, -22, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -900, -901, -902, -903, -904, -905, -906, -907, -908, -909, -910, -911, -912, -913, -914, -915, -916, -917, -918, -919, -920, -921, -922, -923, -924, -925, -937, -938, -939, -940, -941, -942, -943, -944, -945**

### **8.2.11 7000 String errors (7000 - 7099)**

A string is an element of the machine's memory that contains alphanumeric texts. All the alphanumeric texts in the machine's archives are handled by the software with strings. The errors generated by the strings can denote incorrectly programmed archives or a software error. Typically, incorrect programming occurs during label printing (especially with barcodes) or in communications via the network. If the error occurs when the label is being printed, try to find out which element generates it and modify the texts printed with that element.

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**7000:** Generic error generated by a string

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**7001:** A string has been initialized with an excessively long string in relation to the memory defined during the initializing phase

**7002 :** The length of the sum of two strings is greater than the length of the destination string

**7004 :** The length of the sum of two strings is greater than the length of the destination string

**7005 :** The string cannot be re-structured as there is no more space in the string

**7006 :** The software has attempted to take characters from a string beyond its maximum length. This can happen if (for example), characters from 3 to 7 of a field are taken in a barcode and a text 2 characters in length have been memorized in the field.

**7007 :** an attempt has been made to index a character of the string with a negative index

**7008 :** Sprintf Overflow

**7009 :** an attempt has been made to remove a character from the string that was null

**7010 :** Malloc Overflow. The Malloc has gone beyond the maximum length of the string

**7011 :** The string is too long

**7012 :** Strncpy overflow

**7013 :** Malloc overflow

**7014 :** String not initialized. An attempt has been made to use a string that has not been initialized

**7015 :** The parameter sent to the string and that expresses its length, is larger than the length of the string

**7016 :** An attempt has been made to codify a Unicode string with a function that does not tolerate Unicode.

**7017** : An attempt has been made to convert a Non Unicode string into a standard string.

**7018** : An attempt has been made to read a longer string from the database than the one present in that database

**7019** : An attempt has been made to read a longer string from the database than the one present in that database

**7020** : An attempt has been made to link two strings with different code pages

### **8.2.12 Network errors (700 - 899)**

**700** : Network error category (indicates the error category. The following number indicates the error)

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**701** : command not recognized.

**702** : syntax error in command.

**703** : structural error in message.

**704** : wrong number of parameters in command.

**705** : archive not recognized.

**706** : PLU field not recognized.

**707** : Syntax error in a PLU field.

**708** : type of parameter incorrect. The operator has attempted to enter a value in a field that is incompatible with the type of field itself (e.g. an attempt is made to enter an integer in a string field).

**709** : Plu Id containing spaces.

**710** : value beyond list range. The operator has attempted to set up a field with a value that is not in the relative list of options.

**711** : field value off range. In the case of a number, the minimum or maximum limits have been exceeded.

**712** : NON-BOOLEAN field value.

**713** : Incorrect field id (e.g. a TAG of the PP12 type would be signalled for the PLU).

**714** : string field too long.

**715** : item not present in archive. An item has been searched for in an archive that does not exist (e.g. READ\_ARC = PLU, PLU152 when PLU152 does not exist).

**716** : TAG not permitted. A TAG parameter has been found in a command that does not tolerate TAGs (e.g. READ\_ARC = PLU ALL does not tolerate the TAGs of parameters).

**717** : Syntax error in a field of the NET\_LOGIN command.

**718** : USR not defined. An attempt has been made to define the PWD without the USR having been defined.

**719** : login refused. The user or PWD are not permitted.

**720** : the buffer of the socket is too small or too large.

**721** : user not logged in. The user has still not been defined, thus it is impossible to respond to any command.

**722** : user already logged in.

**723** : request for transmission of an unrecognized type of weight.

**724** : Syntax error in a field of the WEIGHT response to a weight transmitted to the HOST.

**725** : Syntax error in a field of the OPTION\_CONNECTION command.

**726** : connection option not recognized.

**727** : Syntax error in a field of the SET\_READ\_STRUCT command.

**728** : Syntax error in a PRO field.

**729** : Mercury faulty

**730** : The SOCKET in question does not have total control of the machine. This error could occur when an attempt is made to enable the START or STOP commands to the machine without having been first registered as having total control over it.

**731** : no home window. An attempt has been made to enable the machine to process without it having set to the HOME window.

**732** : no process window. An attempt has been made to enable a STOP command without the machine having set to the PROCESS window.

**733** : Syntax error in a TEXT field.

**734** : archive empty.

**735** : <GET\_NEXT> TAG without the machine having first sent a <CONTINUE> TAG.

**736** : PRO Id containing spaces.

**737** : Error due to an attempt to delete a PLU with the relative PROCESS open.

**738** : Machine PROCESSING. Operation not allowed whilst the machine is processing (e.g. archive deletion).

**739** : total control of the machine already defined (impossible to connect with this option).

**740** : impossible to enable transmission of product weights.

**741** : Impossible to enable transmission of TOT 1 weights.

**742** : Impossible to enable transmission of TOT 2 weights.

**743** : <GET\_NEXT> TAG with a READ command relative to a different ID (e.g. <READ\_ARC = PLU, ABCD > the first time, then <READ\_ARC = PLU, XYZ > the second time with GET NEXT).

**744** : Syntax error in a LAB field.

**745** : LABEL item ID not handled (e.g. E12 = ...).

**746** : Label item ID incorrect. An item that forms a label has a different label number from the one specified in the WRITE\_ARC = LAB, 123 command

**747** : traceability not enabled. An attempt has been made to enter a label in a variable field pertaining to the traceability option when this has not been enabled.

**748** : Incorrect type of alignment of a label item (FIXED or VARIABLE TEXT) since the field length entered is 0.

**749** : Syntax error in a BARCODE field.

**750** : BARCODE item ID not handled (e.g. B7 = ...).

**751** : BARCODE item ID incorrect. An item that forms a BARCODE has a different BARCODE ID from the one specified in the WRITE\_ARC = BARCODE, 123 command.

**752** : Value in list for a BARCODE variable field not permitted.

**753** : Incompatibility between FIELD STARTING CHARACTER + NUMBER OF CHARACTERS in relation to the VARIABLE FIELD LENGTH selected in a BARCODE item.

**754** : Syntax error in an IMAGE field.

**755** : the emergency button has been pressed.

**756** : no reset.

**757** : conveyor belt mode activated.

**758** : Syntax error in a field of the REVERSE\_ENTRY command.

**759** : there are no pieces to reverse.

**760** : an attempt has been made to reverse a number of pieces or an overall weight that is higher than the quantity effectively weighed up to that time.

**761** : impossible to reverse a carton as there is a carton open.

**762** : there are no cartons to reverse.

**763** : incorrect reverse entry values in command.

**764** : Syntax error in a field of the TOTAL CLOSING command.

**765** : an attempt has been made to print a label with a printer that has not been assigned in the total closing command.

**766** : An attempt has been made to close a TOT\_1 without there being any cartons open.

**767** : An attempt has been made to close a TOT\_2 without there being any pallets open.

**768** : An attempt has been made to delete a PRO currently in the PROCESS phase.

**769** : An attempt has been made to modify a PRO currently in the PROCESS phase.

**770** : Error during printout of a label following the PRINT\_LABEL command.

**771** : Incorrect type of PTR in PRINT\_LABEL command.

**772** : option not enabled. An attempt has been made to access an archive (e.g. TRACEABILITY) without this option having been enabled on the machine.

**773** : TRACEABILITY Id containing spaces.

**774** : Syntax error in a TRACEABILITY field.

**775** : An attempt has been made to modify the TRACEABILITY item associated with the PROCESS in progress.

**776** : Error in writing on DB. The DB cannot be accessed in the writing mode owing to an error on the screen which requires manual confirmation by the operator.

**777** : An attempt has been made to execute the CONVEYOR BELT command in a MANUAL machine.

**778** : REMOTE CONTROL mode not enabled.

**779** : Error in the identification number of a record in the PROGRAMMABLE LIST in the REMOTE CONTROL operating mode (for example, an attempt has been made to enter record 12 when there are only 8 in the list).

**780** : Syntax error in a field of the PROGRAMMABLE LIST record transmitted by the HOST.

**781** : Incorrect number of fields that form the record of the PROGRAMMABLE LIST.

**782** : Identification number of a record in the PROGRAMMABLE LIST too large.

**783** : BUFFER OVERFLOW error. A command whose dimensions exceed the value specified in the initial LOGIN command has been transmitted to the machine.

**784** : Error in creating a new process due to the fact that a process with that specific ID already exists.

**785** : operation not allowed owing to the fact that the machine is dealing with an application or is totalizing (e.g. if a reverse entry operation is attempted while the machine is totalizing).

**786** : Syntax error in a GENERAL DATA field.

**787** : GENERAL DATA is only accessible in the reading mode.

**788** : Error while a GENERAL DATA item was being memorized in the archives.

**789** : Error in allocating the serial port used for activating the old CGM serial protocol.

**790** : Serial port to be used for activating the old CGM serial protocol already occupied by another device.

**791** : ERROR when the COM of the old serial protocol was set up in the machine configuration.

**792** : Enabling/disabling of the old serial protocol not accepted since the operator is in the NETWORK CONFIGURATION mask of the machine.

**793** : tare more than scale capacity: an attempt has been made to enter a product tare value in the PLU or PROCESS that exceeds the scale capacity.

**794** : Some of the PLU data have not been linked correctly (texts or labels), thus it is impossible to enable the machine to process.

**795** : Syntax error in a field of the SHOW MESSAGE command.

**796** : SHOW MESSAGE already displayed.

**797** : Impossible to display a SHOW MESSAGE since the machine is processing with an ERROR DIALOG already displayed.

**798** : Incorrect type of SHOW MESSAGE.

**799** : Impossible to enable transmission of TOT PLU weights.

**800** : SHOW MESSAGE already displayed. The terminal waits for confirmation from the operator before carrying out any other command

**801** : Some of the PROCESS data have not been linked correctly (labels), thus it is impossible to enable the machine to process.

**802** : general total not enabled.

**803** : syntax error in a general total field

**804** : general total inexistent.

**805** : Syntax error in a SET KEY CAPTION field.

**806** : error in the key customising command due to an attempt to program a fixed button of a window.

**807** : error due to an attempt to customise the keys of an inexistent window.

**808** : A command concerning the STOREs has been transmitted without the weighing terminal having been set up for the CRATEWEIGHING operating mode with STORE management via the network.

**809** : "WRITE\_ARC = STORE" command containing CONTINUE TAGs.

**810** : Syntax error in a field concerning the STOREs in the CRATEWEIGHING operating mode.

**811** : A Store command has been received without the CRATEWEIGHING function having been set up with INPUT via the NETWORK

**812** : CONTINUE tag not allowed with this command (dialogue structure error)

**813** : Syntax error in a STORE field

**814** : box and/or pallet queue not empty: impossible to make forced closures or reversals for boxes or pallets

- 815** : File name error in FILES command
  - 816** : Syntax error in a FILES field
  - 817** : File opening error after reception of a FILES command
  - 818** : too many fields have been entered in the store
  - 819** : restart command received on processing limit since the limit has not been reached
  - 820** : there has been an attempt to cancel a process with the label
  - 821** : There has been an attempt to cancel a process with the terminal in the processing status
  - 822** : There has been an attempt to cancel a process already cancelled or renamed
  - 823** : Syntax error in a CTRL field
  - 824** : An attempt has been made to delete CTRL with PROC open
  - 825** : CTRL lot identifier containing spaces
  - 826** : CTRL lot open: impossible to write the process
  - 827** : Generic CTRL error
  - 828** : There has been an attempt to give a STOP command, but the line has a dialogue (window) open and cannot quit the process
  - 829** : An attempt has been made to enable a STOP command, but the line is in the process editing window
  - 830** : An attempt has been made to enable a STOP command, but the line is in the traceability archive window
  - 831** : Syntax error in a field of a command that acts on the WEIGHT BOUNDING archive
  - 832** : It is impossible to add a new store to the queue because it is full (up to 46 stores)
  - 833** : Syntax error in a field of a command that acts on the CONFIG. archive.
  - 834** : Syntax error in a field of a command that acts on the CLIENTS archive.
  - 835** : There has been an attempt to carry out an operation in the client's archive that is not enabled
- These errors should be considered simple warnings in the unsafe mode*
- 836**: The number of fields fails to correspond, the extra ones are ignored,
  - 837**: The number of fields fails to correspond, the missing ones are replaced by defaults
  - 838**: The number of fields fails to correspond in many cases

**839** : ERR SOCK\_UNKNOWN\_NUM\_FIELD if everything is all right, this will never appear

**840**: an unknown tag is used

**841** : combination 840 and 838

## 9. GLOSSARY



**Up-down:** function that allows an automatic device to be activated in order to mechanically isolate the scale plate - product system when this is in the weighing position for the time that weighing lasts (static), thus enabling it to weigh products that are longer than the scale belt.

**Autozero:** the scale's automatic periodical resetting system. It can only be enabled during an automatic weighing phase. The scale is automatically reset at established intervals, and only when the plate is unloaded, guaranteeing that it will not be loaded automatically with a weight during the resetting procedure. The autozero managing logic is described in the domain rules.

**Reset:** process with which the weight indication is returned to zero, annulling the load bearing on the cell, within the preset limits.

**Barcode:** data structure formed by fixed and variable fields of the process able to be printed on the label. Each barcode must therefore be able to indicate the data of the process in relation to which it is created.

**BcRead:** indicates the format of a barcode that the system can read during the process (by means of a scanner) in order to automatically modify a sub-group of data pertaining to the current process.

Each bcread must be described by the sequence of fields it contains and univocally identified within the sequence of characters of the barcode itself.

**Scale:** component that processes the data from the load cell and that provides weighing functions (obtainment of a gross weight value and calculation of the relative entities derived).

It also memorizes a group of information representing the calibration data and which are the result of the calibration processes.

**Braid:** sheath wound around conductor cables in order to protect them against electrical or magnetic interference.

**Calibration setup (1) (also sizing):** process with which a bond is established between the intensity of the signal leaving the load cell and the weight bearing on it.

Calibration can be:

- **linear:** the bond between the signal and weight is considered to be linear and thus described by means of the equation of a straight line;
- **non linear:** the bond between the signal and weight is considered describable by means of a second degree equation.

**Calibration (2):** group of information that describes the bond obtained during calibration.

**Zero calibration:** process by which the load bearing on the cell is annulled the moment in which it is activated, thus modifying the calibration data.

**Center zero:** defines a weight range around the zero mark between  $\pm 1/4$  of a division.

**Connector:** plug or socket for connecting the terminal to the external equipment.

**Counters:** they are consecutive globals associated with the equipment.

Some express information which, although global, become modified during the process and therefore need to be handled according to the **pipeline logic** of the process itself (or information that must be converted into stories so that it can be recovered according to the instant in which it was produced).

Some pertain to the actual system and cannot be reset during the life of the machine. Others, as they pertain to parts that are liable to be replaced, must include a resetting mechanism.

**Default:** value provided by the data memory in the absence of an entry via the keyboard. The data entered by the manufacturer are recalled as default values.

**Key-in:** press the command that needs to be activated or the character to be called up on the , using the keyboard.

**Display:** lighted screen on which the numeric data and symbols transmitted by the system appear, so that they can be immediately consulted.

**Division:** appreciable minimum weight variation.

**Zero division:** this is the division ( $1/2$  before and  $1/2$  after) spanning the scale resetting value.

**Multiple divisions:** automatic system for changing the division depending on the weighed load. Functions when the scale is either loading or unloading.

**Multiple extensions:** automatic method for changing the weighing range in systems with several ranges and different maximum capacities. Once the scale has been loaded, return to zero occurs within the last range switched.

**Label:** group of graphic elements that express the forms and data of the process in a printable form.

The following elements can be included in a label:

- fixed texts
- variable texts
- barcodes
- images
- lines
- rectangles

The sequence in which the elements are transmitted to the printer is significant, since, in the case of overlapping, each element overwrites the previously transmitted one which partially or totally occupies the same area.

**Labelling:** process whereby the label is applied to the product and totalizing of the same within the process is performed. If the product label (or printer) is not present, the process will deal with totalizing alone. If the piece is not to be totalized (or rejected), the process is annulled.

**Full scale:** this is the maximum weighing capacity of the instrument, which does not necessarily coincide with the max. structural capacity of the weighing platform.

**Host:** remote system that connects to the weighing-pricing system in order to handle and program it

**Image:** graphic element that must be able to be memorized in the system so that it can be displayed and printed.

**Interface:** group of circuits and channels that connect the terminal with the external devices to which it is linked.

**IP xx:** protection degree for casings and housings containing electrical or electronic components. The IP rating indicates the protection class of electronic equipment against solid matters (the first number) and liquid (the second number).

**Process (1):** status of the system in which it, if appropriately stimulated (cell loading, photocell obscuring, command from interface), is able to process the individual products.

**Process (2):** weighing, labelling, weight /price data calculation, totalizing and possible handling process the subject of which is a group of products pertaining to a specific plu.

**Process (3):** group of information that characterizes the process of a specific plu. It consists of the group of data of the plu in question with the addition of the following elements:

- the **weighing-pricing data** of the last product weighed
- the **consecutives** linked to the totalizings

**Traceability lot:** group of information that identifies and describes a production lot (typically refers to the livestock market), used to obtain different products to process.

The information that identifies and describes the traceability lot can be configured as described in the relative section of the Supplementary Specifications.

**Mask:** graphic representation of data, characters or symbols on the display, according to the modes established by the manufacturer.

**Multidivision:** see "Multiple divisions".

**Multiextension:** see "Multiple extensions".

**Operator:** person who uses the system. This is therefore the person who must have read this manual and who is fully familiar with the operating controls.

**Option:** the equipment that is not part of the standard supply.

**Minimum weight:** corresponds to the interval between 0 (zero) and a pre-established number of divisions. A high relative error can occur in this zone.

**Weighing:** process by which the weight bearing on the load cell during the actual process is measured.

**Automatic weighing:** automatic weight measuring process that does not require the intervention of an operator.

**Dynamic weighing:** automatic weighing process in which weight measurement occurs without stopping the product on the scale plate.

**Manual weighing:** weight measuring process that requires the intervention of an operator. It can activate in the automatic mode as soon as the operator loads a product on the scale plate or in the manual mode, when the operator starts up the process itself.

**Static weighing:** automatic weighing process in which the product handling system that regulates the way the product is loaded on to the scale, stops the piece on the scale plate so that the weight can be measured.

**Weighing platform:** part of the set-up on which the goods are placed for weighing.

**PIN:** pin, rheophore or pole to which the cable connects.

**PLC:** freely programmable electronic component containing the program that controls the machine on which it is installed.

**PLU:** acronym of **PRICE LOOK UP**, or search (identification) unit of the product. It collects all the specific information about every product that can be processed, or supplies the group of data required to guide the transport, handling, weighing, labelling and totalizing process.

Additional information expressing the plu's relation with other elements in the system can be associated with each plu

**Pole:** see PIN.

**Maximum capacity:** maximum weighing capacity.

**Transmission protocol:** data encoding and sorting system in a transmission towards an external device.

**Stopping position by a belt:** a position (target) must be identified on each belt on a level with which the products stop in order to be subjected to the process pertaining to that particular belt (stopping while waiting for events, enabling, confirmation from the user, weighing, labelling).

**Weighing range:** weighing range between the minimum weight and maximum capacity.

**Load receiver:** part of the instrument where the load is positioned for weighing.

**Scanner:** barcode reader.

**Serialization:** data transmission, character by character.

**Slot:** position or housing for the board in the terminal.

**Stopped status:** machine condition in which all the belts are at a standstill or being stopped, and in which they stop as soon as the

pieces in the machine reach the stopped position on the individual belts.

**Enabling status of a belt:** a belt "is enabled" if the next belt (or the next machine relative to the last belt in the line) is able to accept pieces. This means that if a belt has not been enabled, a piece in transit on it must stop at the relative stopping position, or that it cannot start again until its processing status in that position has been completed.

**Processing:** condition in which the line is to be found that allows the conveying system to accept pieces, move them, weigh them, label and totalize them. The opposite situation is called "off process".

**Running status:** machine condition in which the pieces must be able to be moved continuously, in compliance with the downstream enabling conditions.

**Store:** reservoir of information, which can contain:

- the code of a process;
- information that guides the process of the specified code (if present) in relation to weighing, handling, characteristics associated with the process

**String:** sequence of alphanumerical characters exchanged during a serial transmission between the terminal and external equipment.

**Weighing instrument:** measuring instrument that determines the "weight" entity of a body.

**Preset tare:** tare value associated with a product (plu), the origin of which is a known value that is entered in the system. It is used for calculating the net weight at the time the weight data of a plu being processed are calculated. Since the scale that measures the gross weight can have a different capacity and division each time, the value of the tare associated with the plu must not be rounded-off in any way.

**Percentage tare (also weight drop):** Percentage value that expresses an additional tare element equal to the actual percentage value of the net weight, which is consequently decreased to a further extent by the tare value thus obtained.

**Printing head (single head, double head)**

The printing head consists of a printer and an applicator that can be the air-jet, arm or piston type. An automatic weighing-pricing system can have one or two printing heads (double head). If there are two heads, they are either positioned in line or above and below.

**Fixed text:** text element filed in the system and univocally identified by a numeric code. Each text must belong to a category (ingredients, products, label texts)

**Variable text (or variable field):** data item of each process which can be included in labels, barcodes, reports.

The variable texts include:

- fields of the actual process
- information bound to the traceability lot currently set in the system
- general totals

**General total:** totalizing element that sums the values created by processing the individual pieces across the actual process itself.

**Data transmission:** exchange of information between two or more devices via electric cables.

**Zero tracking:** automatic zero following system. It can only be enabled during a manual weighing phase and corrects the zero value progressively when the weight value recorded in the cell has been subjected to a smaller variation than a settable value (generically 0.5 g) within a preset period of time (generically 0.5 s). The correction is made by resetting the scale again. It is used in a practical way in applications where progressive accumulations or liquid or dirt tend to shift the scale from its zero position.





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