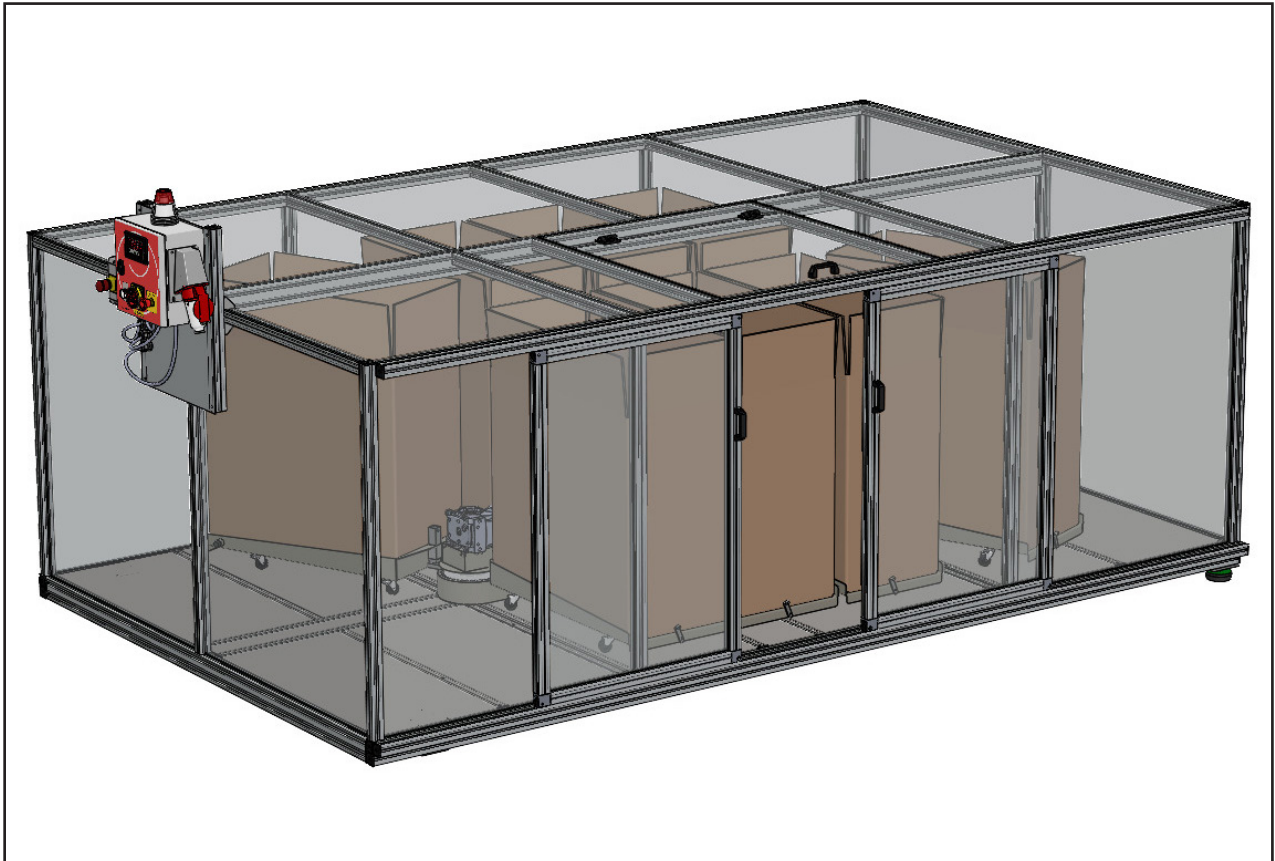

USE and MAINTENANCE MANUAL

F3900



CE

(Ed. 1 Rev. 0 11/02/2025)

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USE OF THE MANUAL

The use and maintenance manual is the document accompanying the equipment from its manufacture to its dismantling. Therefore, it is an integral part of the machine. The manual must be read before starting ANY ACTIVITY involving the machine, including handling and unloading from the means of transport. For ease of reference, the instruction manual has been divided into the following sections:

Section 1

Machine transport and handling.

Section 2

Description of the machine and of its field of application (i.e. the work it can perform). The technical features of the machine are also listed.

Section 3

Installation of the machine.

Section 4

Safety devices.

Section 5

Description of the machine controls and of the rules for its use.

Section 6

Ordinary and extraordinary maintenance.

Section 7

Dismantling.

Section 8

Wiring diagram.

SYMBOLS



Table of contents of the Use and Maintenance Manual



Transport



Description of the machine



Installation



Safety devices



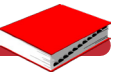
Normal use



Maintenance



Putting out of service



GENERAL CONDITIONS

The supervisor acting on behalf of the machine-owning company is obliged to respect the general conditions below in order to comply with safety regulations.



The instructions in this manual are binding conditions for the safe use of the machine and must be respected. Failure to comply with the conditions of use implies an "improper use" by the operator, thus removing the employer's responsibility to comply with the essential safety requirements.

The operator and maintenance personnel must be thoroughly familiar with the contents of this operating and maintenance manual. It is the obligation of the above-mentioned operators to read it carefully and, in case of doubt, to consult the employer's service network personnel for clarification before operating the machine.

The machine's operating and maintenance manual must always be at the disposal of the operator.

When leaving the machine unattended, the operator is obliged to prevent it from being used by untrained personnel. It is advisable to affix a sign on the control panel stating "use by unauthorised personnel is prohibited".

The employer, through the supervisor of his company, must ensure compliance with these requirements.

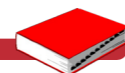
The responsible personnel acting on behalf of the company must comply with the following provisions:

- Ensure that the operators have good psychophysical characteristics.
- Make sure that the operators know how to use the forklift and have read this user manual.

The operator and the maintenance technician must perform routine maintenance as indicated in this manual in the dedicated section.

The operator and the maintenance technician have the obligation to ask the supervisor the intervention of the employer technical assistance for the extraordinary maintenance indicated in this manual.

The operator is obliged not to use the machine if any malfunction occurs. It is forbidden to perform extraordinary repairs. Any repairs or extraordinary maintenance performed on one's own or in unauthorized workshops can cause malfunctions, which can consequently cause damage to people or property. In such cases, the manufacturer is relieved of any responsibility for compliance with general safety regulations. The repairer or maintenance technician (different from the employer) assumes responsibility for compliance with the safety regulations for the whole machine. The technical file held by the manufacturer is not to be considered representative of the machine in its entire context. Any extraordinary maintenance performed on one's own or in unauthorized



workshops during the entire warranty period automatically invalidates the warranty.

The user of the machine who employs equipment, devices or systems combined with Crizaf's production machine must draw up the technical and safety documentation of such systems and, if necessary, submit the necessary certificates.



1.1 TRANSPORT

To transport the machine only the following methods can be used:

- Fastening to the pallet.
- Transport in wooden case and container (in case of sea transport).
- Transport by means of lift truck.

Make sure the means of transport and the lifting device can bear the weight of the machine with its packaging.

The weight of the packaging depends on the type used.

For further information about the weight, the dimensions and the characteristics of the packaging, please contact Crizaf before the delivery.

NOTICE

The handling of the crates or containers containing the machines or any other type of packaging is defined when the contract is drawn up. The customer organizes and manages the delivery to the factory and is generally responsible for the subsequent handling, storage or transport of the crates to the place of installation.



CAUTION

The staff in charge of handling must use protective gloves with a performance level of 3 or 4 in compliance with standard EN407 or another equivalent standard.



CAUTION

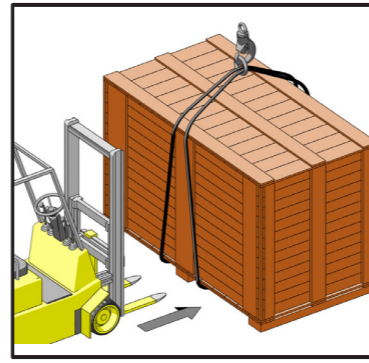
While lifting or handling the machine or any of its parts, clear the working area by leaving sufficient room around it to avoid injuring people or damaging nearby objects.

It is essential that the security officer is on site to coordinate the unloading and handling operations.



1.2 TRANSPORT IN WOODEN CASE OR CAGE

The machine is wrapped in thermoplastic material (or barrier shroud) to ensure its protection. It is then packed in a wooden cage or case to protect it from impacts and bad weather. To lift it use a fork lift truck or a bridge crane with ropes and hooks (picture 1).



Picture 1

SAFETY INSTRUCTIONS

Before opening and handling it, follow the instructions on the package.

SAFETY INSTRUCTIONS

Always place the forks in a barycentric position as shown in picture 2.

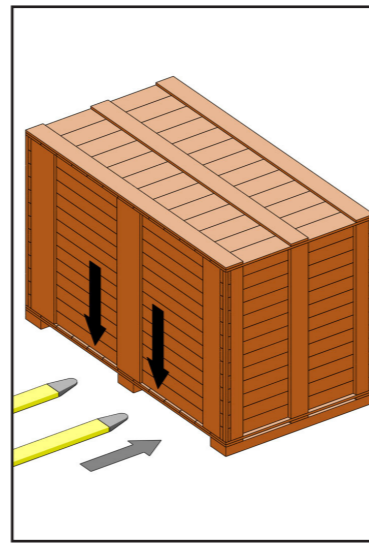
SAFETY INSTRUCTIONS

Once the machine is loaded on a lorry, cover it with a tarpaulin and tie it down with ropes.

SAFETY INSTRUCTIONS

In the case of transport by sea, once the machine is loaded on a covered lorry, it is transported to the shipping port and then placed in a container.

Once the container is loaded on the ship, it is the company in charge of transport which is responsible for its handling, storage and management.



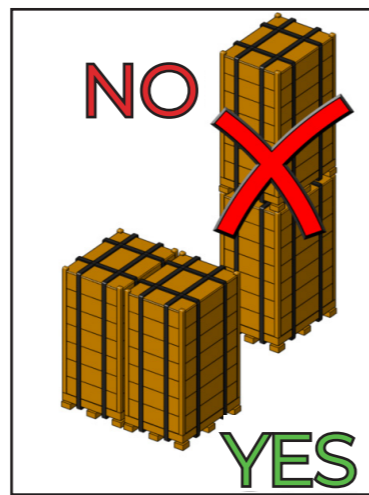
Picture 2

1.3 STORAGE

When transporting and storing the machine, make sure that the temperature is between -5 and 50° C. If the machine has to be stored, make sure that it is not placed in areas with an excessive relative humidity.

SAFETY INSTRUCTIONS

During storage, never overlap the cases containing the machines.



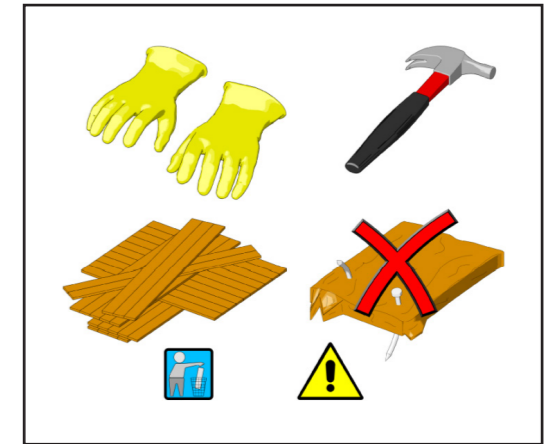
Picture 3



1.4 UNPACKING

If not contractually agreed otherwise, the responsibility for the unpacking of the machine lies with the machine user.

After positioning the machine in the installation area, open and unpack it using a hammer with nail puller. The crates need to be opened starting from the upper covering, then it will be possible to remove the side walls (picture 4).



Picture 4

SAFETY INSTRUCTIONS

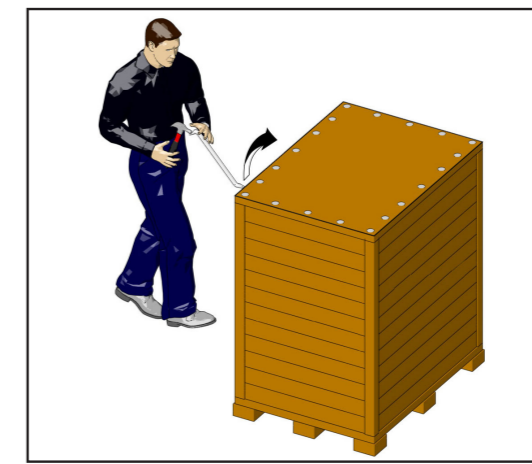
Check from above to see if any units or accessories have been inserted into the sides of the packaging, then decide which wall of the packaging to remove first so as not to damage the contents of the cage.

CAUTION

Always use protective gloves in accordance with EN407 or an equivalent standard. Always pay attention to any protruding nail.

NOTICE

The packaging (usually a wooden one) must be delivered to associations in charge of its disposal and recycling. The customer, through the figure of the supervisor, will coordinate the use of lift trucks, bridge cranes or what is necessary to handle the machine and position it in the installation area.



Picture 5



1.5 HANDLING

After opening the packaging as described in chapter 1.4, the machine can be moved from the pallet positioning the forks of a normal forklift truck under the machine structure. Lift the machine carefully so as not to damage any of its parts.

SAFETY INSTRUCTIONS

Always proceed very slowly during handling and place the forks of the truck in a barycentric position.

SAFETY INSTRUCTIONS

During handling, avoid swinging the machine. Move it carefully and lift it slightly from the ground.

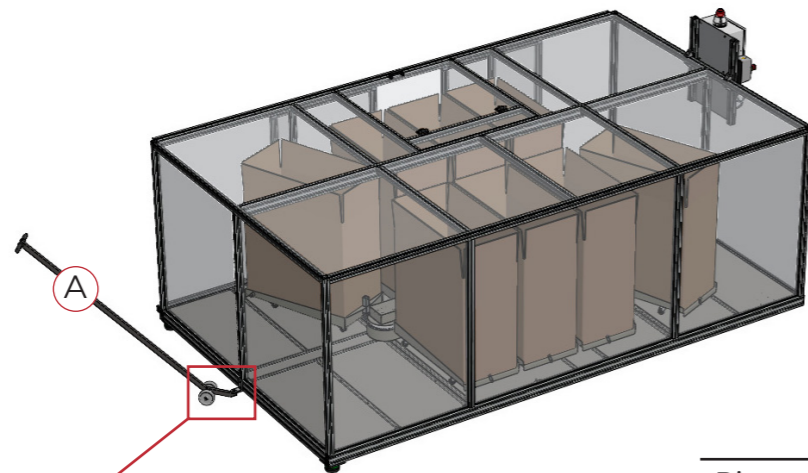
SAFETY INSTRUCTIONS

Always check the point where the forks lean against the machine frame in order to avoid any damage. Polystyrene or tender wood blocks can be placed between them, if necessary.

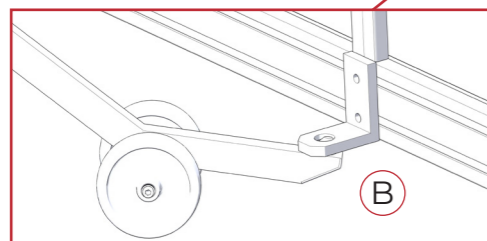
To move the machine within departments, or to insert it in production lines already present on site, proceed using the special trolley **A**, which is supplied with the machine. Insert the tip into the appropriate seat **B** shown in the detail of picture 6. Lift the machine and move it as required.

The wheels are only mounted on the back of the machine.

Raise the machine only a few inches, enough to allow movement, and make sure no operator is nearby.

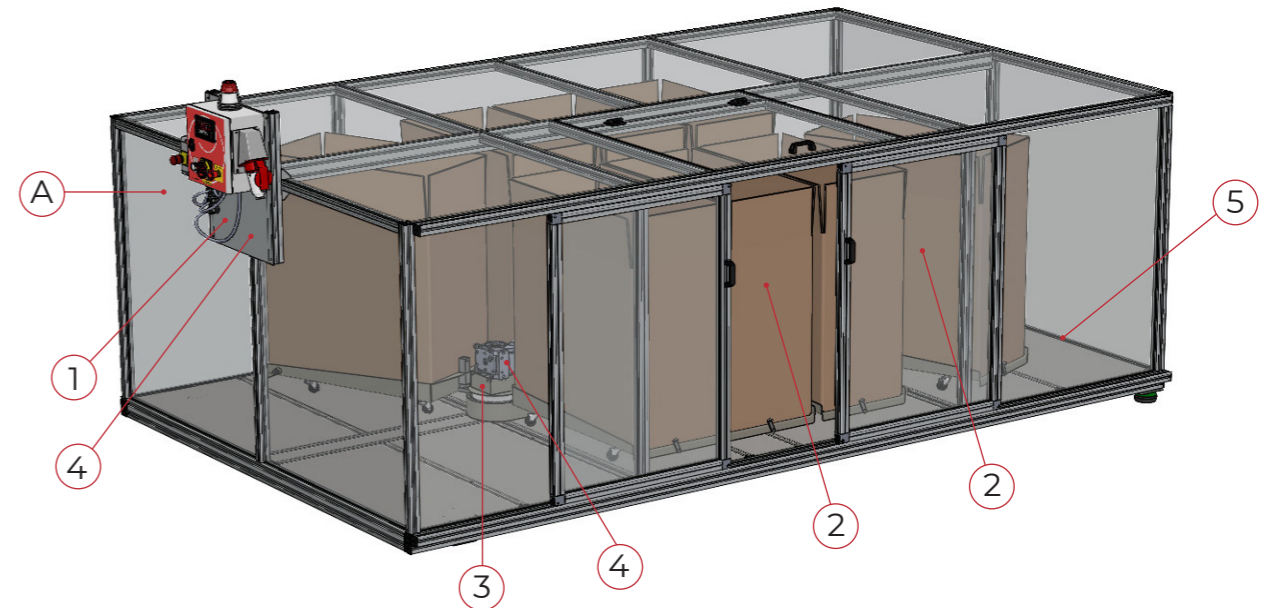


Picture 6

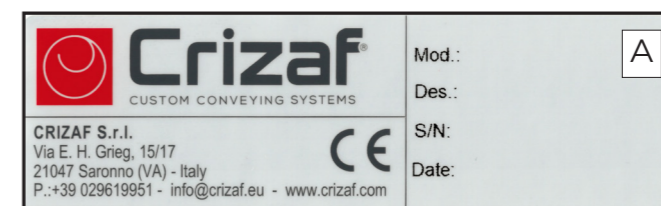
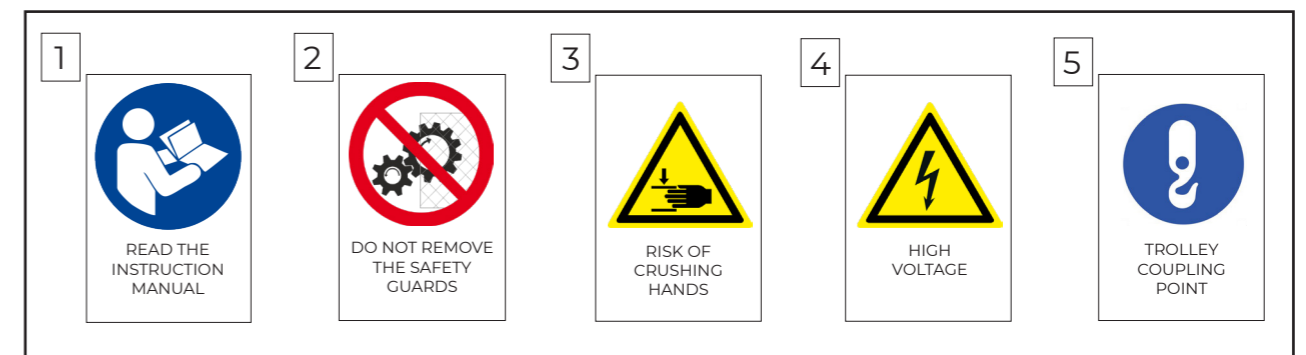


2.1 PLATE AND LABELLING DATA

The manufacturer's identification and the machine's conformity to the Machinery Directive 2006/42/EC are indicated on the plate shown below. The plate must not be removed, even if the machine is resold. Always refer to the serial number (written on the very plate) when getting in contact with the manufacturer. Several safety warnings are placed on the machine too (see the picture below) and they must be strictly observed. The company is not to be held responsible for damage to property or accidents to people which might occur if the above mentioned warnings are not observed. In such case, the operator is the only person responsible.



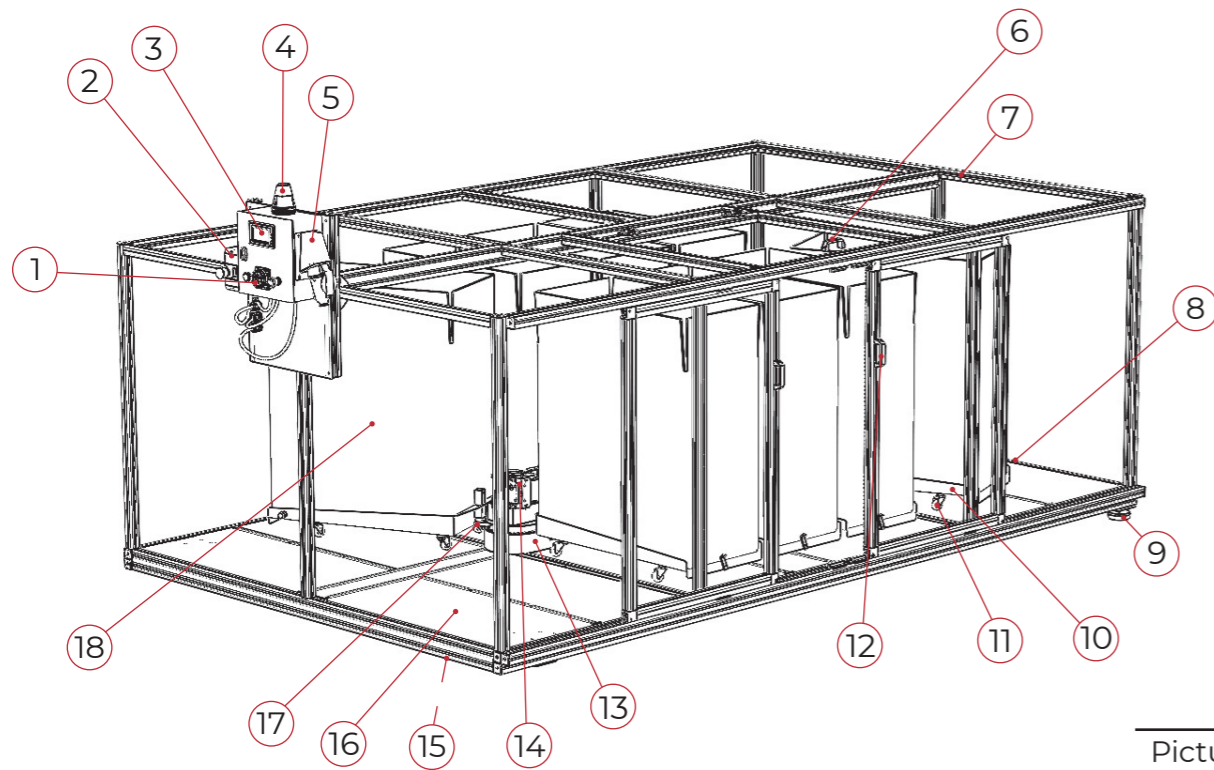
Picture 7





2.2 DESCRIPTION OF F3900 SYSTEM

The F3900 box storage and filling carousel is a simple yet functional solution due to its ease of use. The offer is completed by a state-of-the-art control panel that allows the system to work in complete autonomy and to inform the operator in the event of sudden interruptions or end-of-cycle.



Picture 8

POS.	DESCRIPTION	POS.	DESCRIPTION
1	Control panel	10	Tray boxes
2	Emergency button installed in different areas of the machine, if so requested	11	Pivoting wheels on the tray boxes
3	Machine programming HMI	12	Opening panel to unload processed boxes
4	Audible warning device	13	Motorised chain drive
5	Auxiliary power socket	14	Motor for tray boxes translation
6	Opening top panel to load parts into the boxes	15	Wheels to move the machine around the working area
7	Machine structure in aluminium profile	16	Machine platform
8	Hook for machine handling trolley	17	Pivot pin for tray boxes movement
9	Fixed anti-vibration foot	18	Boxes to fill



All machines are equipped with high precision components and are accurately assembled. Every phase of the assembly process is repeatedly checked by specialised personnel in order to ensure high quality standards during each phase of the cycle. Crizaf carries out the necessary tests on the machine before delivery. Thereby, the machine is tested and calibrated for the type of production required.

The machine is supplied with the following standard documents:

- Use and Maintenance Manual
- Declaration of Conformity
- Machine technical sheet
- Assembly drawings and lists of components
- Wiring diagram
- Spare parts

NOTICE

For other options or further information, please contact Crizaf Customer Support.



2.3 WORKABLE PRODUCTS/FIELD OF APPLICATION

The machine is designed and built for filling cardboard boxes/plastic containers with small to medium-sized plastic or metal parts.

The system consists of a group of tray boxes that bring the boxes to be filled (manually positioned by the operator) under the loading system.

Filled boxes are always removed manually from the machine.

It is forbidden to use the machine to handle heavy components and materials (read technical features). The machine is not suitable for handling food products.

The loading and unloading of empty/filled boxes is always to be done once the machine has stopped and is safe.



2.4 TECHNICAL FEATURES

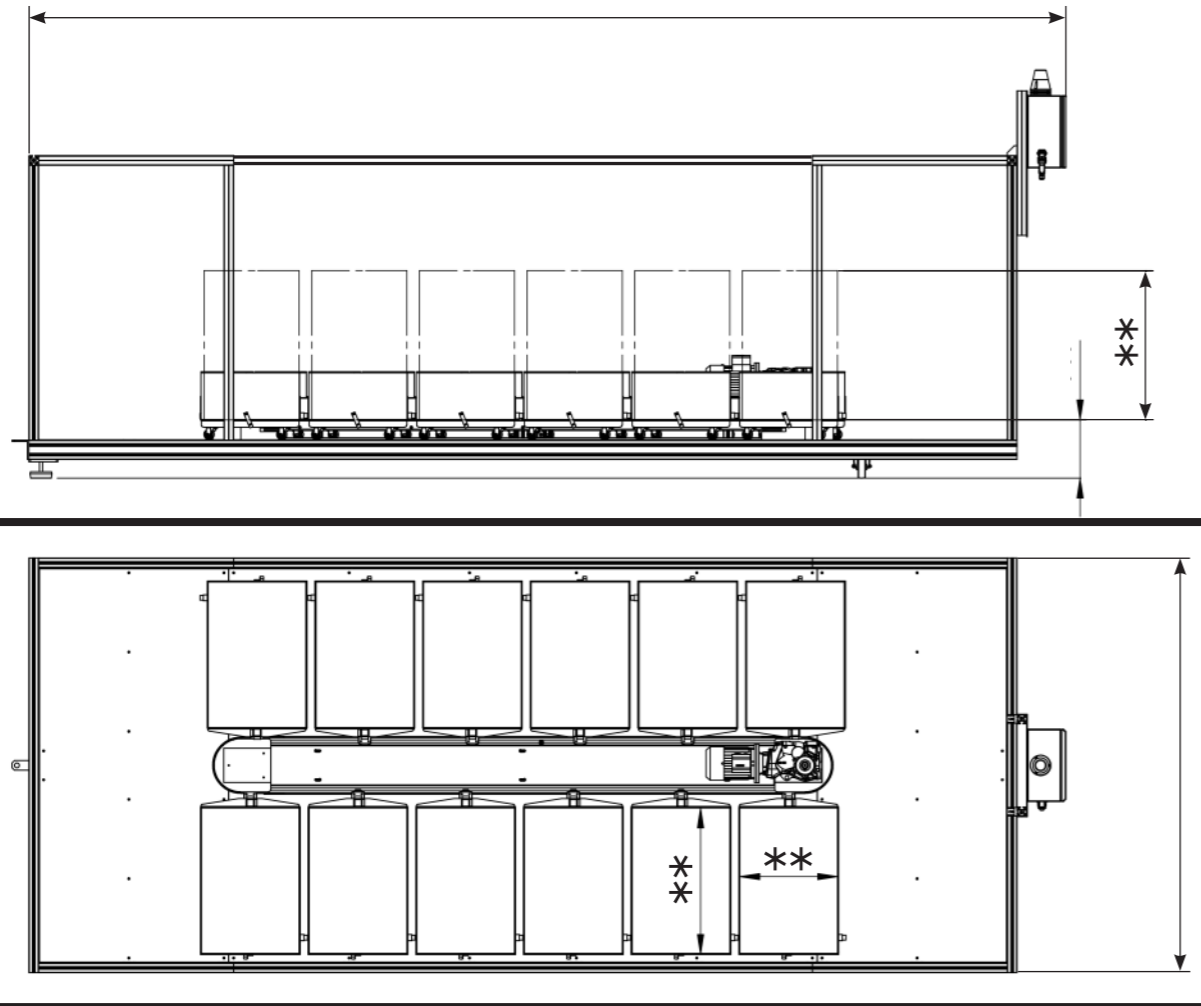
The main technical features of the machine are listed below:

FRAME	TRAY BOXES	DRIVE	CV179 CONTROL PANEL
80× 40 mm anodized extruded aluminium profile	RAL7035 painted steel	by chain	4.3" touch screen 0/1 switch E-Stop
polycarbonate lateral protections	/	three phases asynchronous motor 230/400Vac-50Hz-3Ph	tower light with buzzer
2pcs Ø100 mm casters	/	/	clean contact input or proximity for cycle counting
2pcs Ø60 mm levelling elements	/	/	16A socket for feeding conveyor
/	/	/	6 selectable languages (IT-FR-UK-DE-ES-PT)



2.5 DIMENSIONS AND POSITIONING

The size of the machine and its positioning:



Pictures 9 and 10

** Maximum and minimum dimensions of the boxes.

MINIMUM LIGHT FOR WORKING OPERATIONS:	Lux 400
Maximum noise:	db (A) 70 dB*
*Noise tests have been carried out in compliance with UNI EN ISO 11202:2010.	



3.1 ELECTRICAL CONNECTION

The machine is already electrically wired and the electrical system is located inside a panel on the side of the machine.

The electrical cables reach the panel from underneath and they are secured by means of fairleads.

The supply voltage is 380 V 3 phases + neutral + earth.

The minimum cable cross-section is 4 mm² and IMQ-approved safety cables and sockets must be used.

The machine's power supply cables are connected to terminals "1", "2", "3" and "4" of the main switch (picture 11).

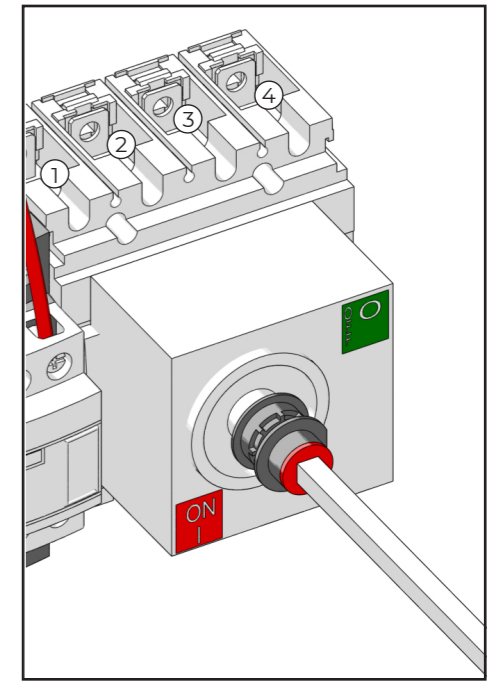
CAUTION

An "earth leakage circuit breaker" must be installed upstream of the system.

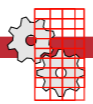
NOTE: It is not possible to open the panel if the main switch is ON.

CAUTION

It is advisable to run the cables to the control panel from above, through bus ducts, by running the cable through the fairlead hole located underneath the panel. All electrical connections must be made by authorised personnel who can issue certification.

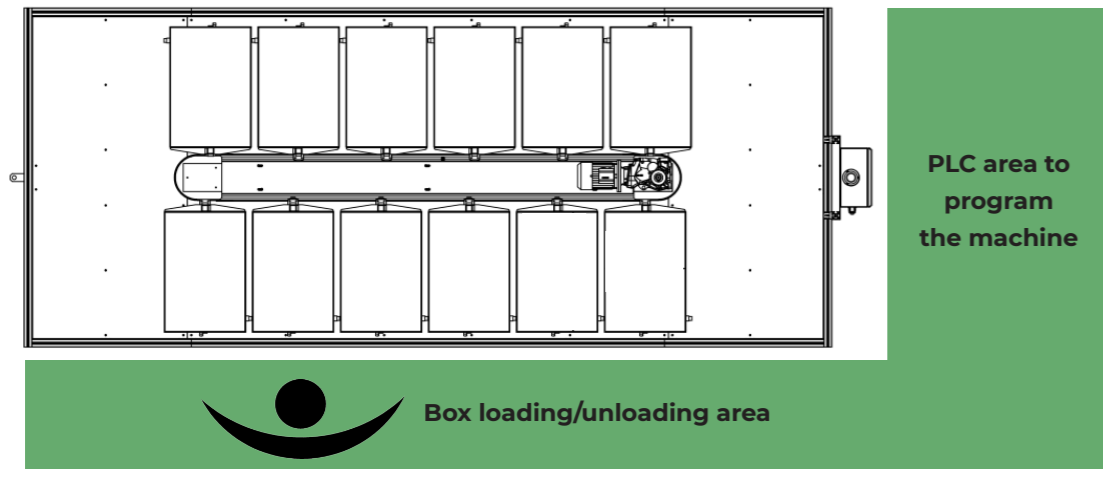


Picture 11



4.1 SAFETY AREA

Picture 12 shows the operator's working area.

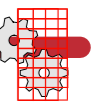


Picture 12

Normally the machine is sold and installed ready to accommodate the type of boxes to be transported. The tray boxes are the same size as the boxes they have to transport.


4.2 MACHINE SAFETY

All moving parts of the machine are guarded by panels screwed to the structure. The electrical system is contained within a panel, which can only be opened with a special key. Moreover, with the machine switched on, it is not possible to access the electrical components.



4.3 PRECAUTIONS

It is recommended to operate the machine by scrupulously following the instructions indicated below:

- ✘ It is **ABSOLUTELY FORBIDDEN TO SMOKE**  near the machine during both work and maintenance operations.
- ✘ Use gloves, safety shoes and **protective clothing** in compliance with the regulations in force.
- ✘ It is absolutely **FORBIDDEN** to use water in the event of fire. Use CO₂ POWDER fire extinguishers.
- ✘ Unauthorized personnel **is strictly forbidden to approach the machine.**
- ✘ Only **one operator** can work on the machine at a time.
- ✘ It is strictly **forbidden to remove or place boxes on the machine while it is still operating.**

4.4 EMERGENCY SITUATIONS



FIRE:

Always use powder fire extinguishers, which must be in the area close to the machine as required by the **LAW**: do not use water. Staff members should be trained to deal with such accidents.



5.1 SAFETY RULES DURING USE

The purpose of this section is to illustrate all the controls that the operator has at his disposal in order to be able to use the machine correctly in each work phase.

All the controls related to the use of the machine are located on the side and can be accessed easily by the operator.












CAUTION

The machine has numerous controls and a programmable "PLC". It is advisable to read this section very carefully and to provide a copy of it to the operators in charge of working operations and maintenance.

TO WORK on the machine, **STRICTLY FOLLOW** the precautions and safety criteria that are listed below.

Crizaf declines any responsibility in case the user does not follow them. The company is not responsible for any type of carelessness while using the machine either.

It is forbidden to:

-  Fill the boxes with heavy materials.
-  Climb on any part of the machine.
-  Load the machine with unfitting boxes/containers.
-  Incorporate the machine into an automatic production system without making the appropriate changes to the safety and programming systems.
-  Remove the fixed guards.
-  Disable or damage the safety devices in any way.
-  Change or add devices to the panel without written consent or a technical intervention by Crizaf, which confirms the change in the description of the intervention.
-  Use the machine for purposes different from the one it is destined to, which is specified in this use and maintenance manual.
-  Use the machine while unqualified operators are in the working area.



Please observe the following rules in order to work safely.



CAUTION

The processing must be carried out in strict compliance with safety regulations. Delimit and restrict the entry only to authorised personnel in the working area.



CAUTION

It is **STRICTLY FORBIDDEN** to smoke during the installation or adjustment operations of the machine. Some of the materials used may catch fire.



CAUTION

The user undertakes to observe and to make his employees and people he is responsible for observe all the standards and regulations about safety, accidents prevention and hygiene at work in force.

The customer has to follow the standards and regulations in force strictly and all the special provisions inside the plants and storehouses too.



CAUTION

The use of any tool, equipment or machinery will be wholly at customer's risk. In any case, the customer must check the compliance of these tools, equipment and machineries before and during the use, as well as all the prescriptions for the operations relating to equipment or parts of the plant at high risk of accident.



CAUTION

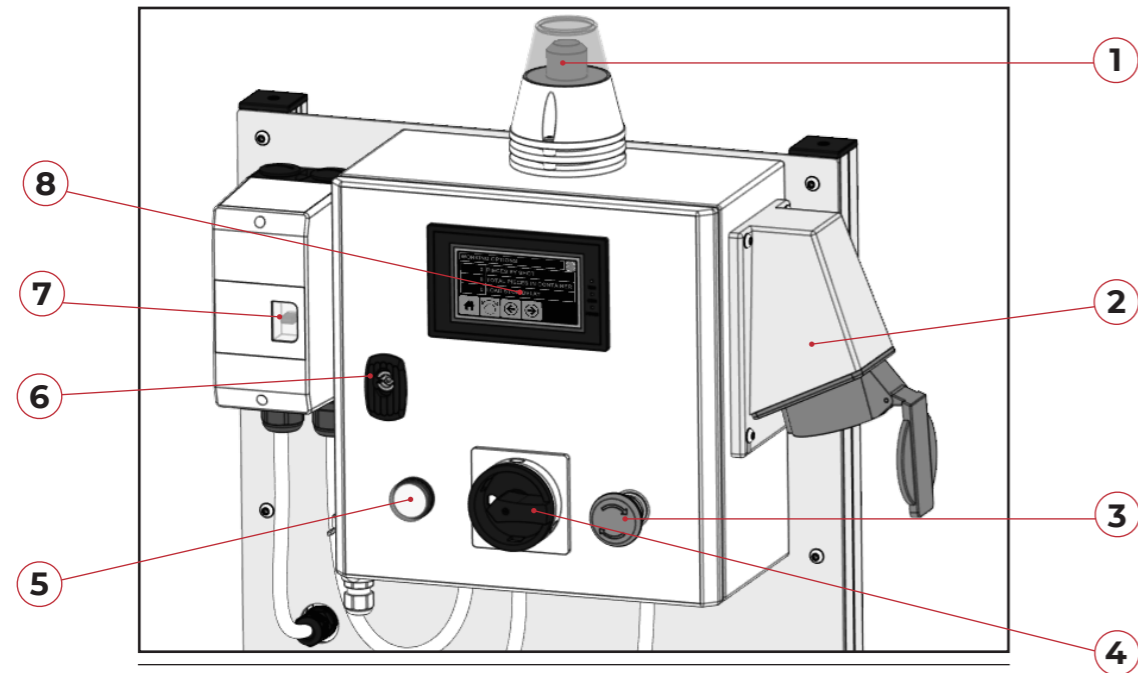
The user will provide its personnel with the necessary PPE in order to carry out the work.



5.2 CONTROLS

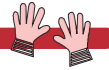
The machine is equipped with the following controls.

CONTROLS ON THE PANEL



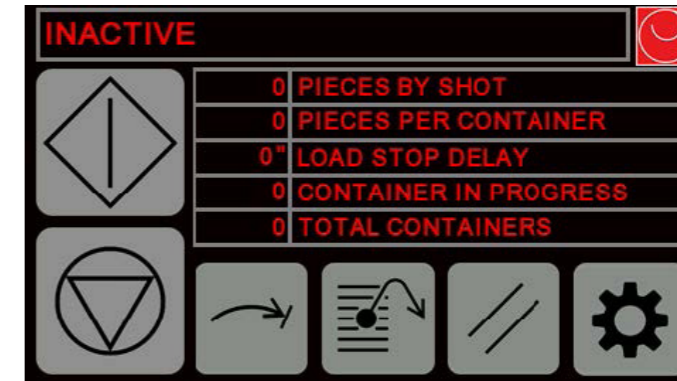
Picture 13

POS.	DESCRIPTION	FUNCTION
1	Audible warning device	Rings to inform the operator that the next one will be the last box.
2	Auxiliary power socket	Allows the carousel machine to be electrically supplied.
3	Emergency button	If pressed the machine stops right away.
4	Padlockable main switch	Allows the machine to be electrically supplied.
5	Machine start button	Switches the machine on; once pressed, it lights up white.
6	Panel key	Allows the control panel to be opened.
7	Reset motor protection trip coil	Reactivate motor protection.
8	PLC	Sets the machine.









5.3 NORMAL USE

1. HOMEPAGE



Screen 1

-  By pressing this key, the work cycle starts. It is only possible to start a work cycle if all parameters have been set correctly.
-  By pressing this key, the work cycle stops and resets.
-  Pressing this key forces the changeover to the next sector/container during the filling phase.
-  Pressing this key subtracts a shot for sampling.
-  By pressing this key, the alarm is silenced and the machine goes into stand-by. If pressed for a long time (approx. 5 seconds), all working parameters and machine states are reset.
-  If this key is pressed while the machine is stopped, the working parameters can be changed; if pressed during the work cycle, the set parameters are displayed instead of the current ones.



2. SETTINGS

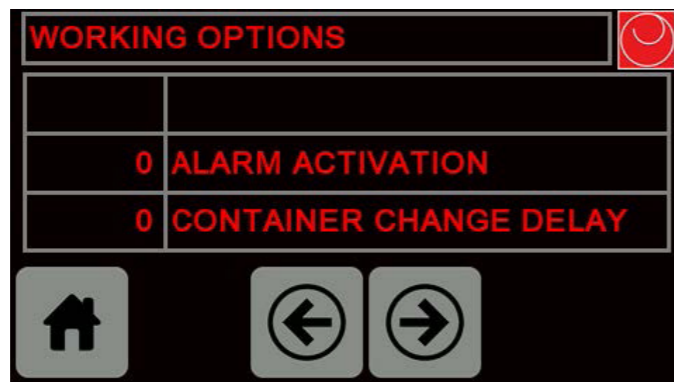


Screen 2

The following screen is displayed by pressing the button on the homepage.

- PIECES BY SHOT: it indicates the number of pieces that make up a shot;
- TOTAL PIECES IN CONTAINER: it indicates the number of pieces that should fit in each container/box (must be a multiple of PIECES BY SHOT);
- LOAD STOP DELAY: it is the delay time for the feeding belt to stop, starting from the last counted shot, before the box changes.

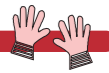
Press to move to the next page. In this model the key does not work.



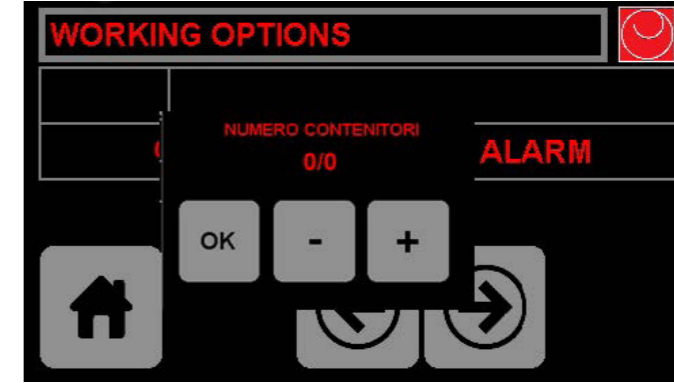
Screen 3

- ALARM ACTIVATION: it indicates the box at which the alarm will be activated. This number must be between 1 and the total number of boxes that has been set (0 deactivates it). Once the set number is reached, the machine will enter the inactive state, triggering the alarm. Normally, it is the last box to be filled.
- CONTAINER CHANGE DELAY: it is the delay time for changing the box, which can be used, for example, to empty the chute that equips the feeding belt.

NOTE: to change the parameters just press on the value and a keyboard or a screen for increasing or decreasing said value will pop up.



3. WORKING OPTIONS



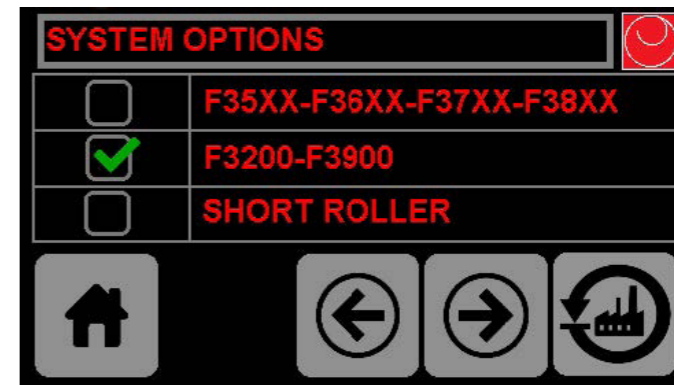
Screen 4

Press the key to go back to the homepage.

Press the key to go back to the previous page.

Press the key to see the working options.

4. SYSTEM OPTIONS

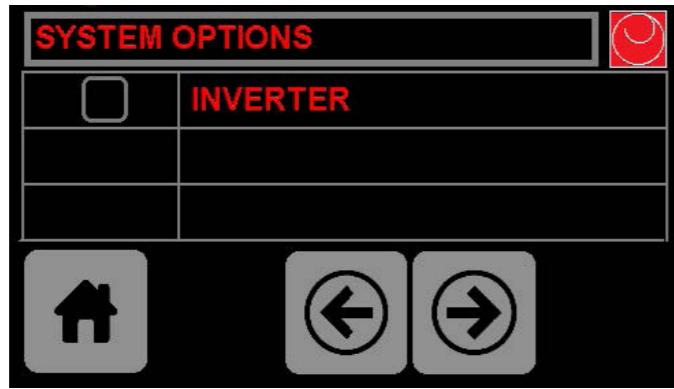


Screen 5

The following screens can only be accessed after entering a password (it can be changed). The default password is 12345.

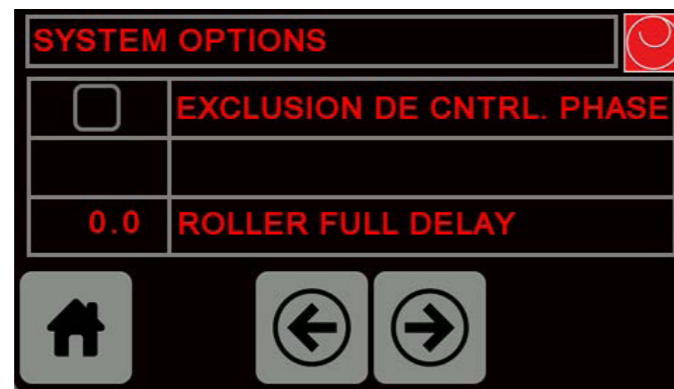
- F32000-F3900 or F35XX-F36XX-F37XX- F38XX: press it to select either the belt operating mode or the carousel operating mode (one excludes the other).
- SHORT ROLLER: if selected, the last box filled is not evacuated on the roller conveyor.

The key resets the parameters to the factory default values. By holding it down for a few seconds until the red light appears, this button will reset the working parameters and settings to the factory default ones (excluding language and machine type). Switch the control off and on for the reset to take effect.



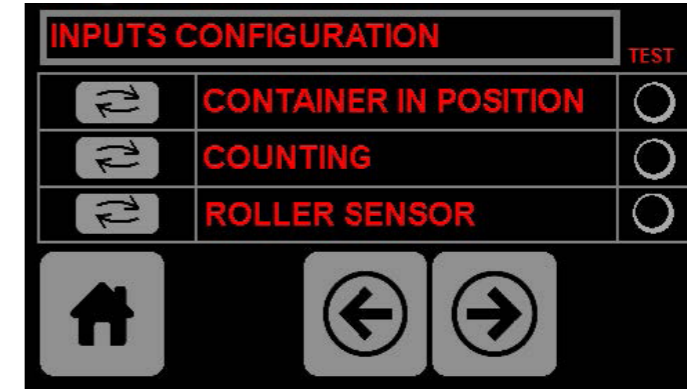
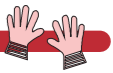
Screen 6

- INVERTER: it indicates the presence of the inverter (the motor relay always remains active and the drive command is given by the "inverter enable" output).



Screen 7

- PHASE CONTROL EXCLUSION: it excludes phase control for single-phase operation.
- ROLLER FULL DELAY: it indicates the time after which the system will generate an alarm when the roller conveyor is full.



Screen 8

- CONTAINER IN POSITION: it indicates the type of sensor input (on = container in position)
- COUNTING: it indicates the type of piece-counting input (on = it is counting).
- ROLLER SENSOR: indicates the type of roller conveyor sensor input (on = roller full).

reverses the relative input from NO to NC or vice versa. The TEST column shows the logical state of the input.



Screens 9 and 10

- PASSWORD (default 12345): press it to set the desired password. The password must be numeric and must consist of at least 5 numbers;
- LANGUAGE: to select the desired language (Italian, English, Spanish, French, German, Portuguese), press the corresponding flag.
- SOUND: it allows a "beep" to be set when any command on the touch screen is pressed.




6.1 MAINTENANCE RULES

This section describes how to carry out routine maintenance operations, i.e. operations to be performed at set intervals. The preventive maintenance table (par. 6.4) indicates the frequency of these maintenance operations.

Maintenance operations must be performed by trained and qualified personnel. Observe the following **precautions** during maintenance operations:

- ☞ Wear protective gloves.
- ☞ Wear safety shoes.
- ☞ Wear protective overalls.
- ☞ Wear protective goggles.

These are the **main precautions** to be taken when carrying out maintenance work on the machine:

- ☞ Do not touch exposed connections and components without first disconnecting the power supply (power switch must be OFF).
- ☞ Disconnect the power supply before removing any protective panel or replace any electrical component.
- ☞ Do not wear rings, watches, chains, bracelets etc. during maintenance operations.
- ☞ Use an insulating rubber mat (if possible) underfoot when carrying out maintenance work; avoid working on wet floors or in very humid environments.
- ☞ Do not smoke 
- ☞ Do not use open flames, points or pins for cleaning.

Most of the problems that may arise when using the machine have simple solutions. However, if you are unable to solve the issue please contact Crizaf Technical Service, where qualified personnel are at your disposal.

It is also absolutely forbidden for the person in charge of maintenance to operate the machine while in the dangerous restricted area.



6.2 ORDINARY MAINTENANCE

MACHINE CLEANING

Clean the machine as follows:

- ☞ Remove the dust that settles on the surface of the moving platform with a vacuum cleaner. Do not use compressed air for cleaning.
- ☞ Clean the surface of the tray boxes and of metal parts with a sponge lightly soaked in a solution of clean water and a water-based cleaning agent.



CAUTION

ALWAYS carry out periodic maintenance activities with the machine stationary and disconnected from the power supply.



6.3 EXTRAORDINARY MAINTENANCE

Extraordinary maintenance includes all operations necessary to replace a defective or failed component that cannot guarantee perfect operation. A correct preventive maintenance drastically reduces the need for extraordinary maintenance.

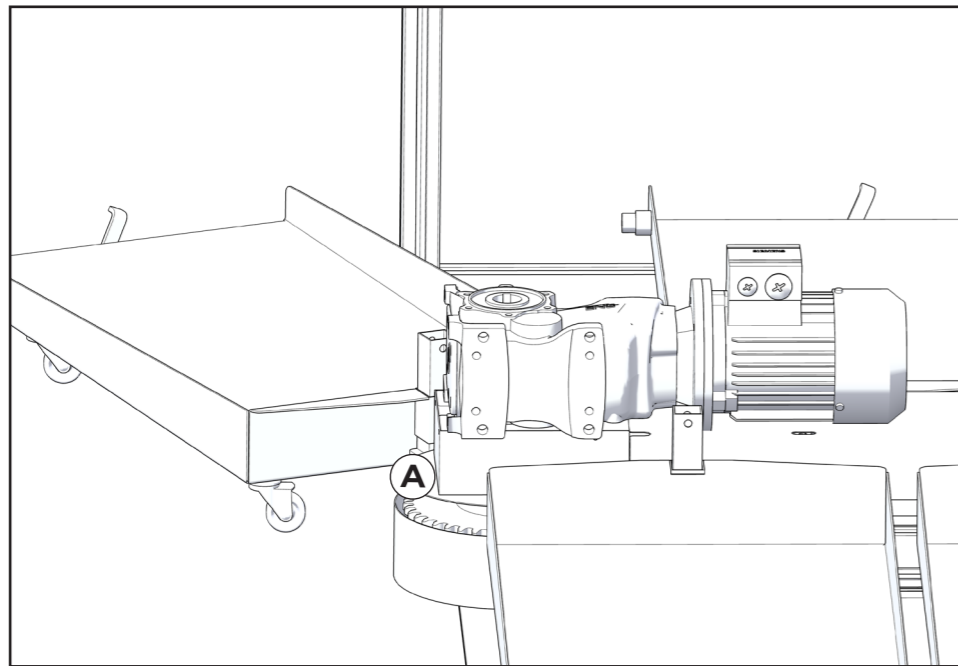


When replacing a component ensure that it conforms to the original in order to avoid personal injury and damage to the machine.

1. CHAIN GREASING

Every 500 hours, it is necessary to grease the chain that enables the transport of the tray boxes. In order to perform this operation proceed as follows:

- ☞ Ensure the machine is safe by disconnecting the power supply and locking the main switch. Remove any box from the tray boxes.
- ☞ Wear all necessary personal protective equipment (gloves, safety shoes, etc.).
- ☞ Open the front protection from which the boxes are loaded and then sprinkle the chain at the return point (position A figure 14) using an extension with a brush soaked in grease at its end.



Picture 14

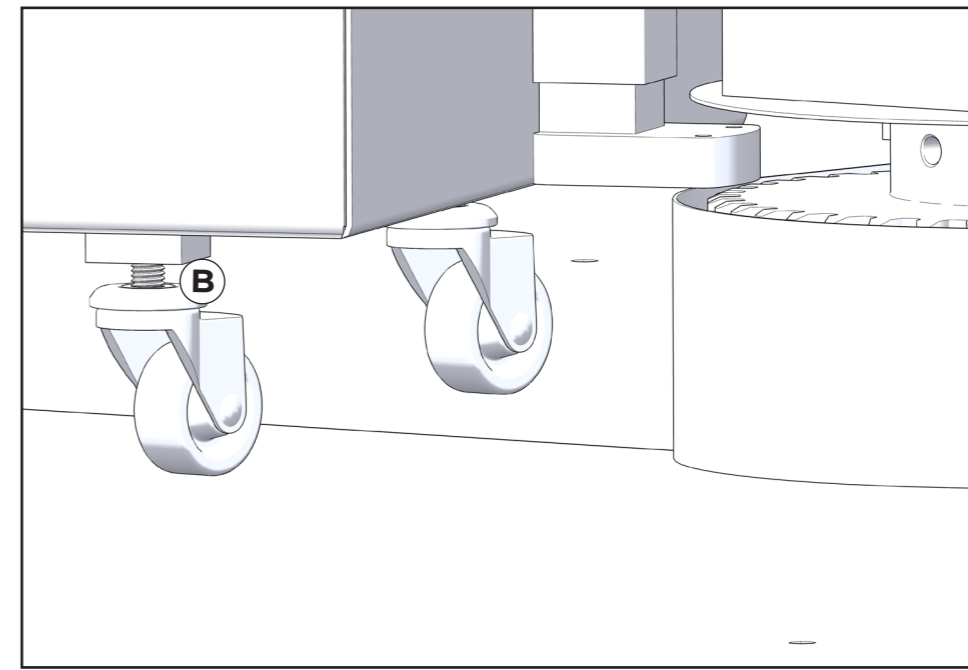


2. TRAY BOXES' WHEELS REPLACEMENT

The tray boxes slide on the machine platform thanks to 4 pivoting wheels positioned underneath them.

The wheels require no special maintenance. Greasing is not necessary. However, over time they could wear out or the bearings could seize and no longer allow the wheels to rotate. To replace the wheels do as follows:

- ☞ Place the tray box with damaged wheels in front of the open box loading area.
- ☞ Ensure the machine is safe by disconnecting the power supply and locking the main switch. Remove any box from the tray boxes.
- ☞ Wear all necessary personal protective equipment (gloves, safety shoes, etc.).
- ☞ Open the front guards, remove the tray box by releasing it from the transport pin (to do this just lift it up) then remove the defective wheels by unscrewing them from their seat (position B figure 15).



Picture 15



6.4 PREVENTIVE MAINTENANCE TABLE

FREQUENCY	INTERVENTION	PROCEDURE
Visual inspection at standstill to check the physical integrity of the machine and its main components.		
On a daily basis	Safety devices	Ensure that all the machine's safety systems are functioning: emergency stop buttons, supports, covers and that the user-supplied means of removal are fully effective.
	Tightness of the screws	Check the tightness of the frame screws, hinges and supports.
	Unusual noises	Ensure that all moving devices are in good condition, with no obstacles or poor environmental conditions.
Every week	Presence of obstacles	Make sure that there are no obstacles on the tray boxes moving platform. If there are any, remove them immediately before the tray boxes hit them.
	General cleaning	Clean the machine, the tray boxes moving platform and the control panel specifically. Remove the dust from the tray boxes moving platform.
	Make sure that there are no objects under the surface of the tray boxes	Check carefully for foreign matters and remove them.
Every six month	Electrical signal, power and control lines	There must be no uninsulated sections, cuts or bends with too tight a radius.



6.5 Troubleshooting

These are some of the most typical faults and with them the appropriate action to take to solve the issue. Proceed as follows:

Problem	Cause	Operation
Noise from the motor unit	Bearing failure	Replace the bearing support.
	Motor failure	Replace the motor unit.
	Incorrect fixing of the gearmotor	Tighten the fastening screws.
	Components between the motor and the conveyor chain	Check that there are no components between the motor and the conveyor chain.
The tray boxes do not rotate	Incorrect electrical connection	Check the wiring diagram.
	Burnt-out motor	Replace the motor.
	The tray boxes are stuck	Free them.
The tray boxes scrape the platform surface	Wheels are broken or stuck	Check the wheels and replace them.
	Objects on the platform surface	Remove said objects.



7.1 MACHINE STORAGE

If the machine is not going to be used for some time, carry out the following operations:

- Turn off the machine;
- Cut the power supply off;
- Check very carefully that the supply pipes are not damaged or cracked, otherwise they must be replaced;
- Clean both visible and internal parts;
- Coat all parts prone to oxidation with protective oil;
- Cover the entire machine with a waterproof sheet;
- Keep the machine in a dry place. To preserve electrical parts, the ambient temperature must be within the range of 0 °C and 40 °C.



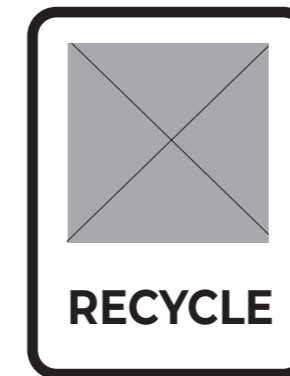
7.2 PUTTING OUT OF SERVICE

If, for any reason, the machine must be put out of service, follow some important rules to safeguard the environment.

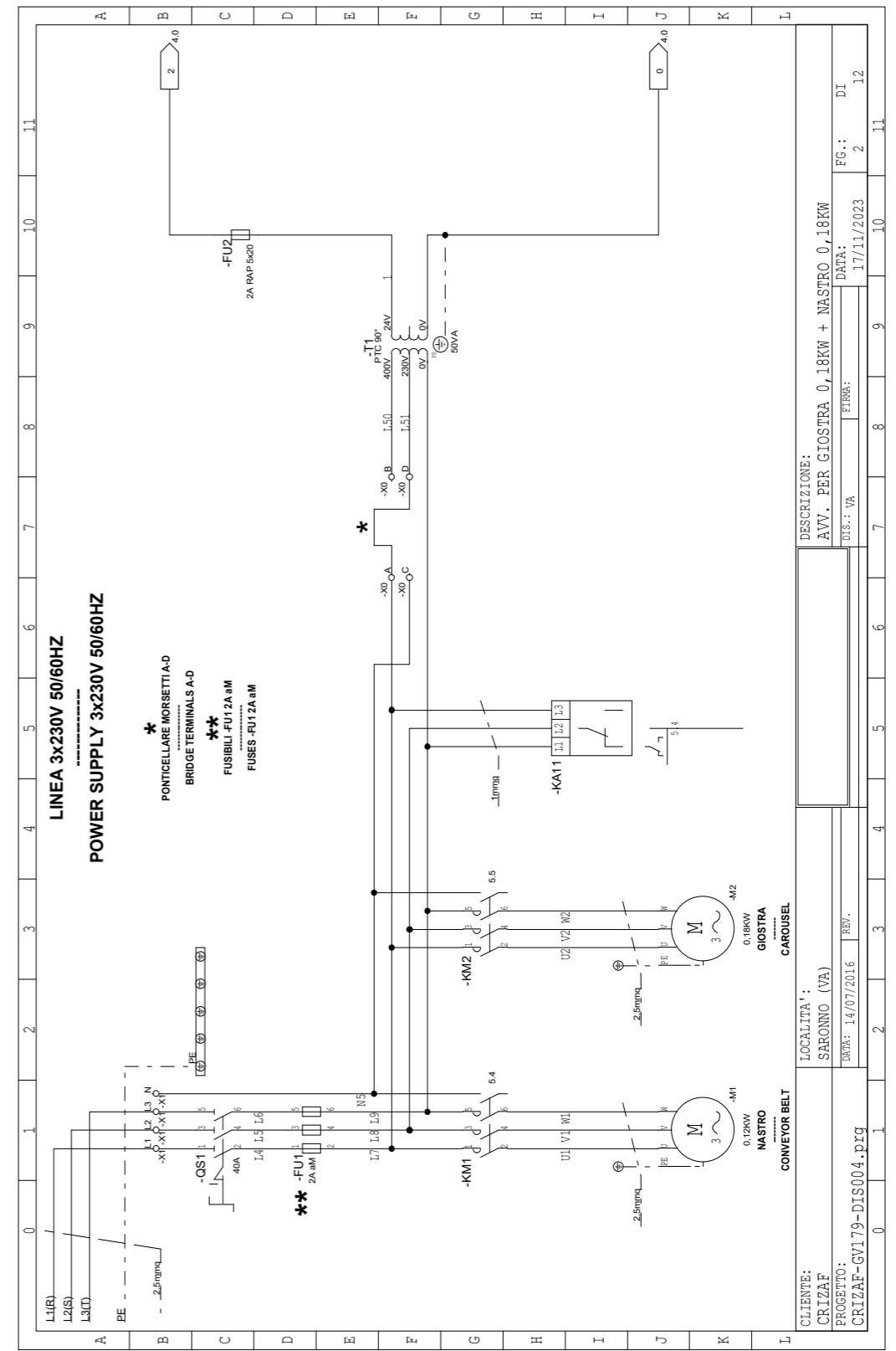
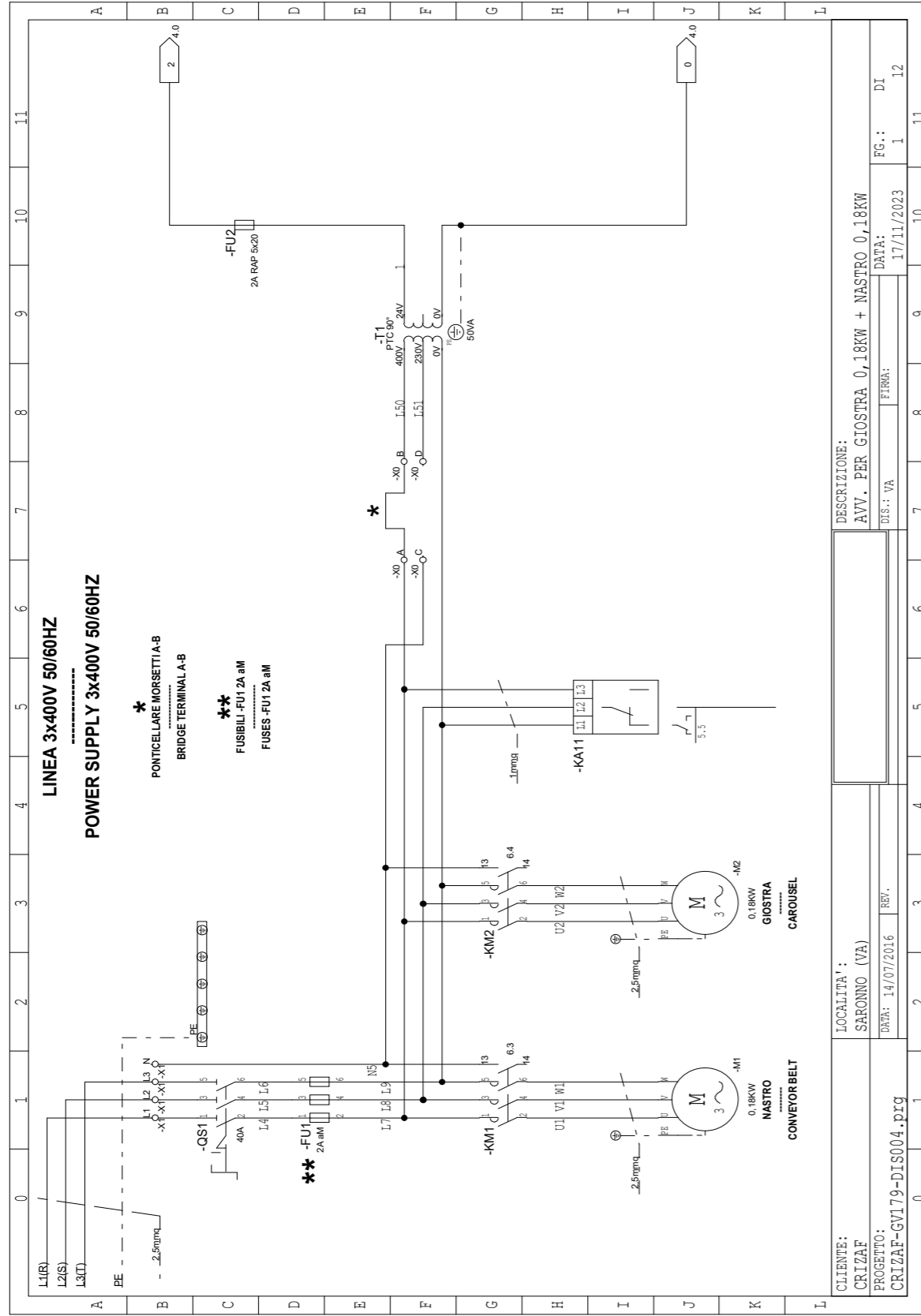
Sheaths, flexible ducts, plastic or non-metal components will have to be disassembled and disposed of separately.

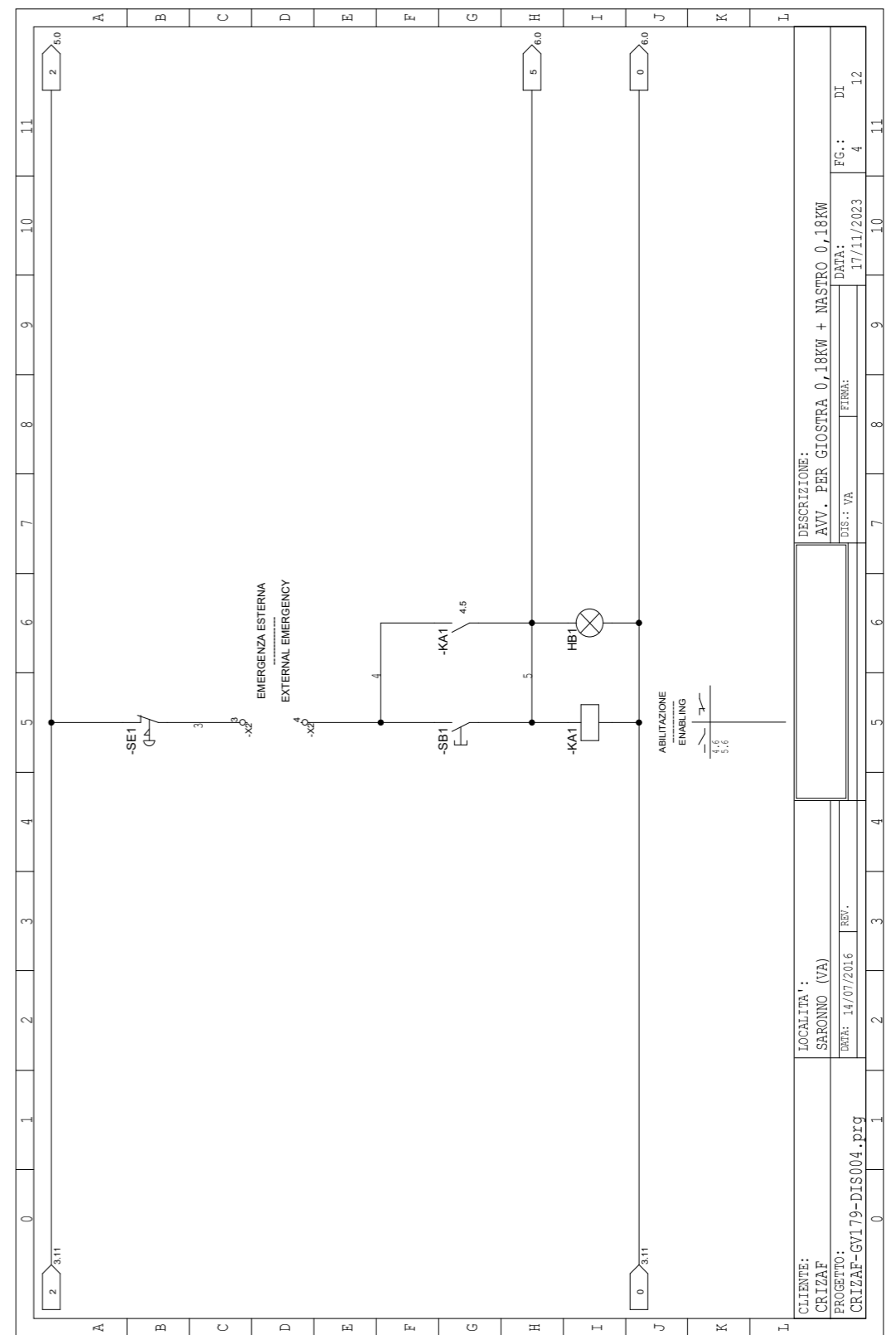
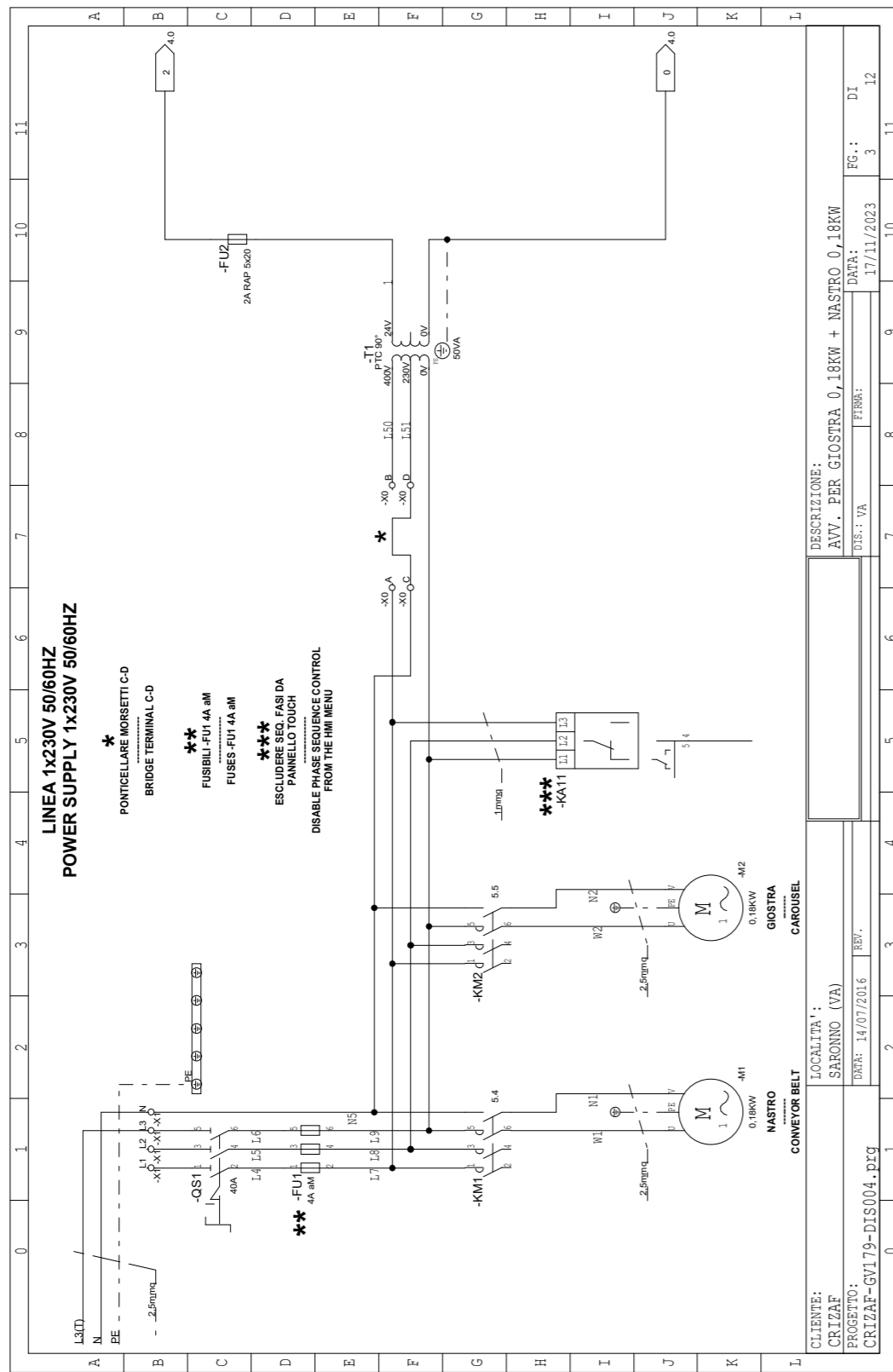
Electrical components should be dismantled in order to be reused if they are still in good condition or, if possible, overhauled and recycled.

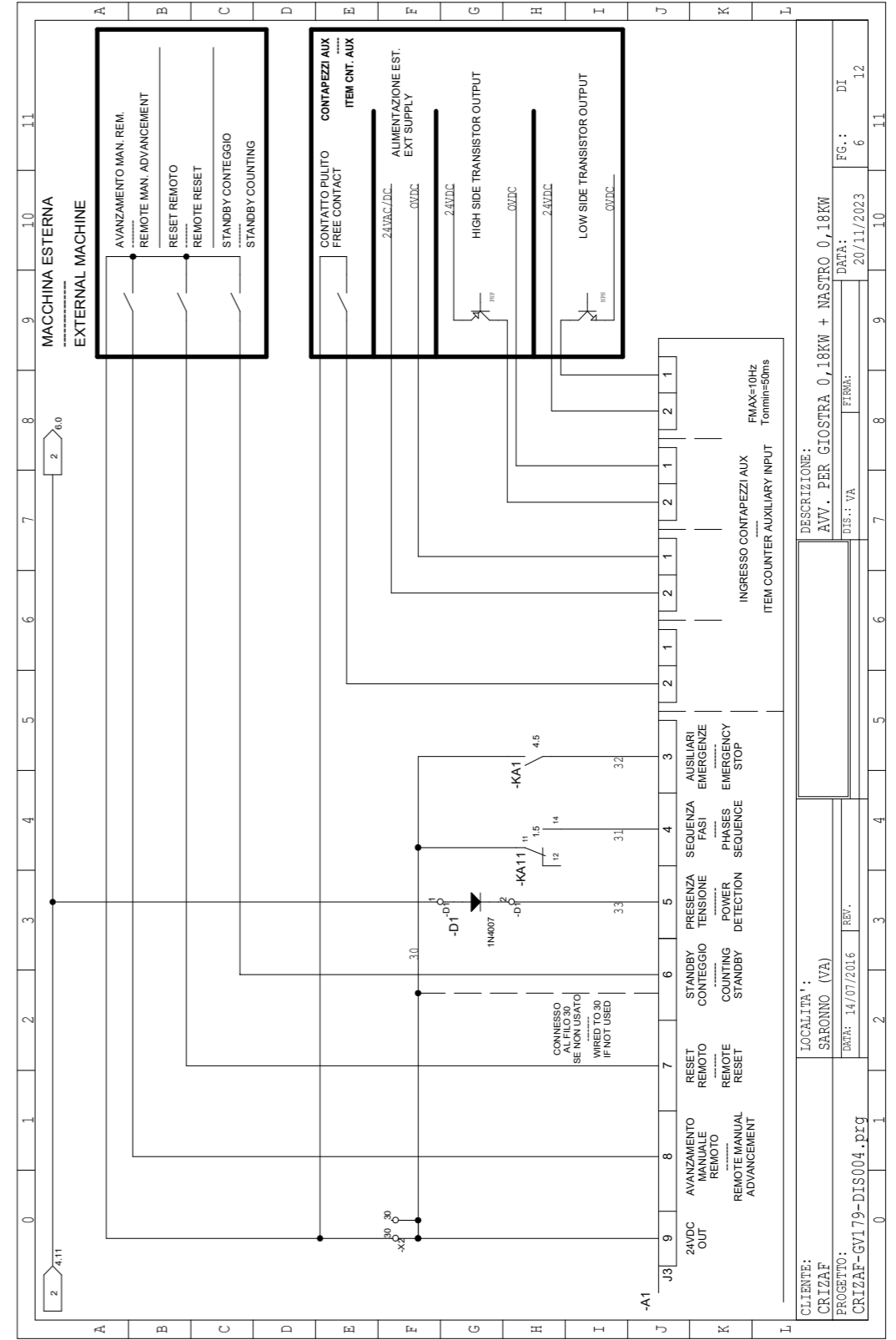
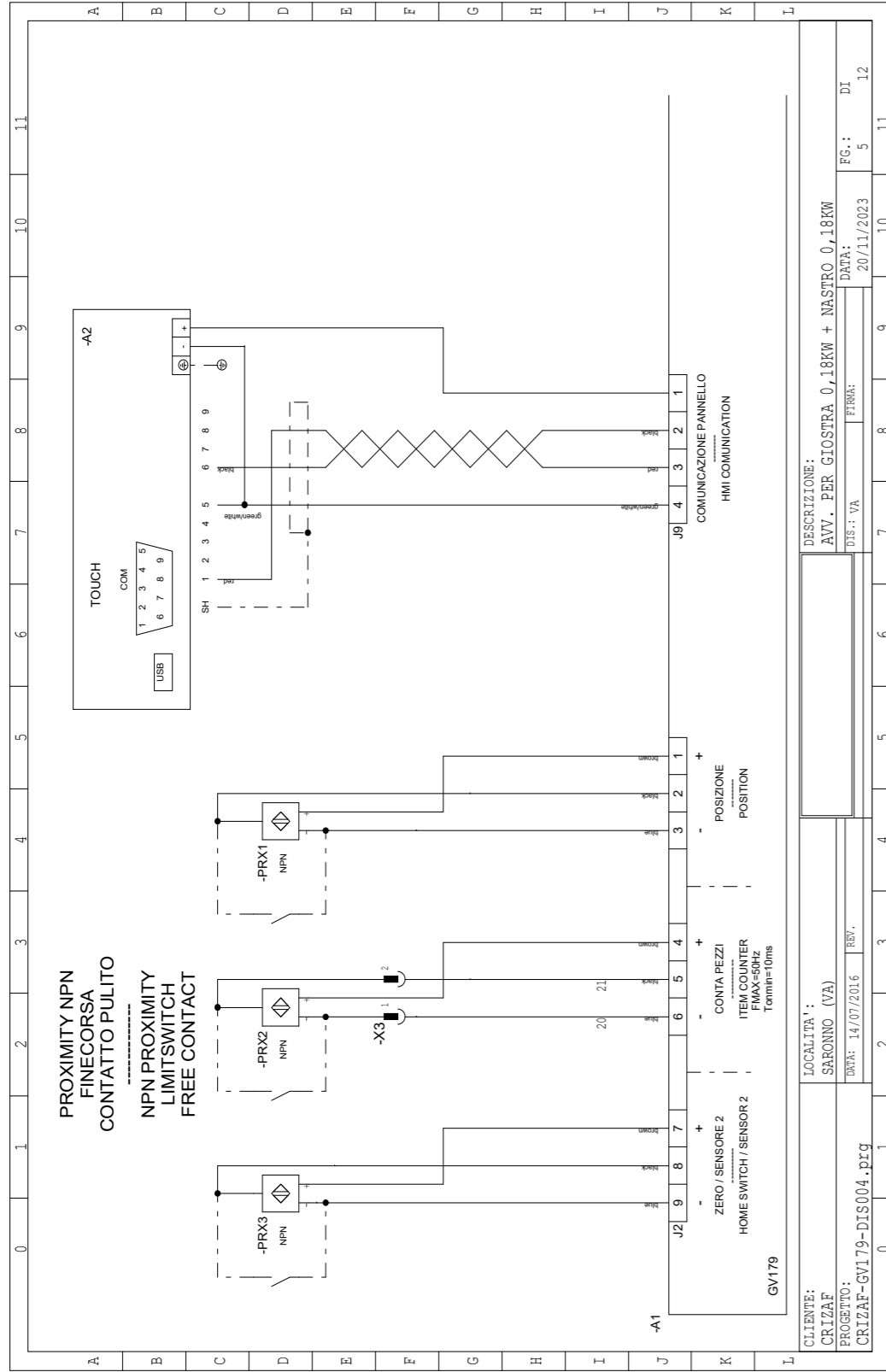
The machine contains **polluting oils** (bearings, couplings, gearboxes, etc.), which **MUST BE DISPOSED OF** at the appropriate collection points.

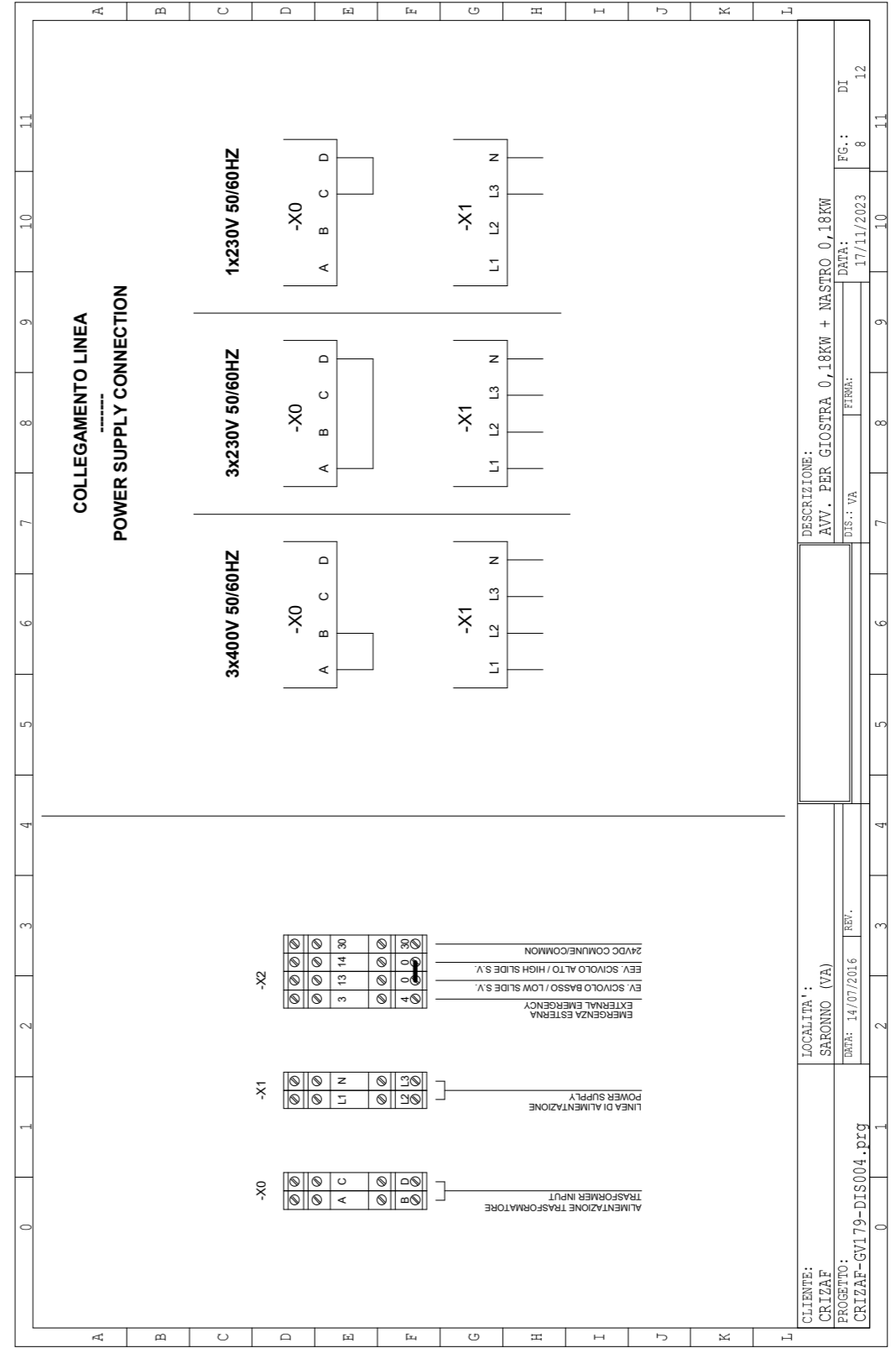
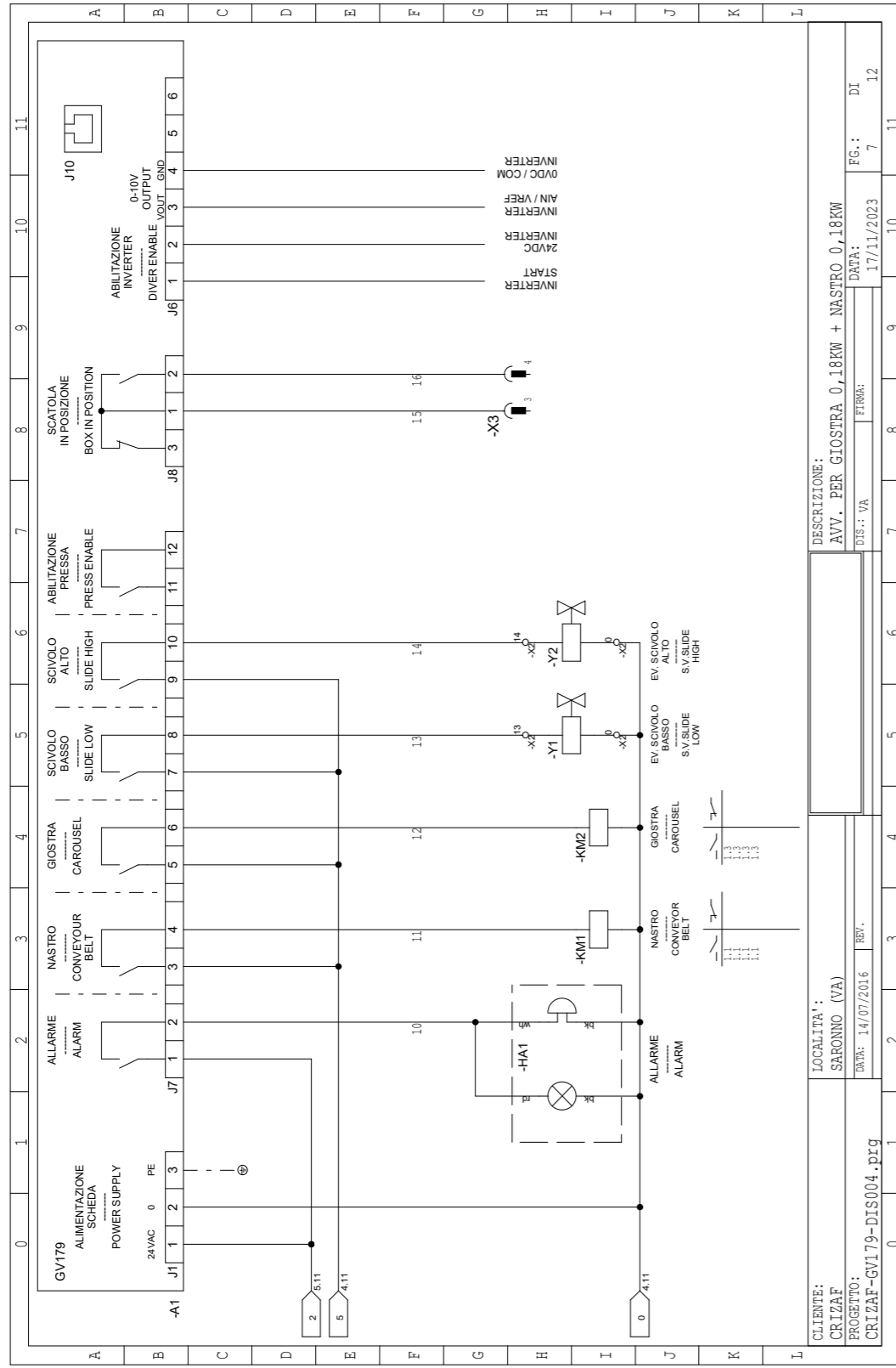


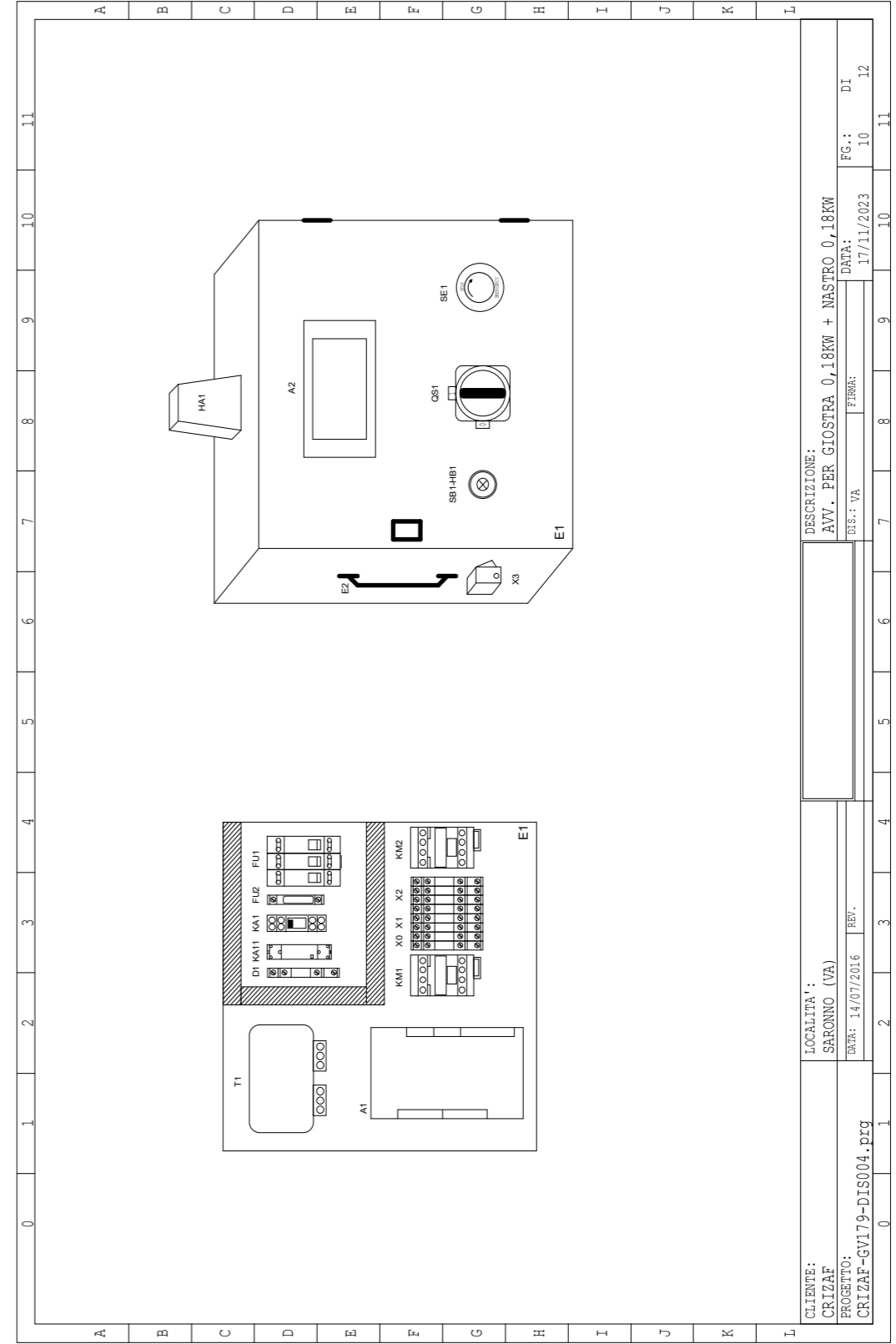
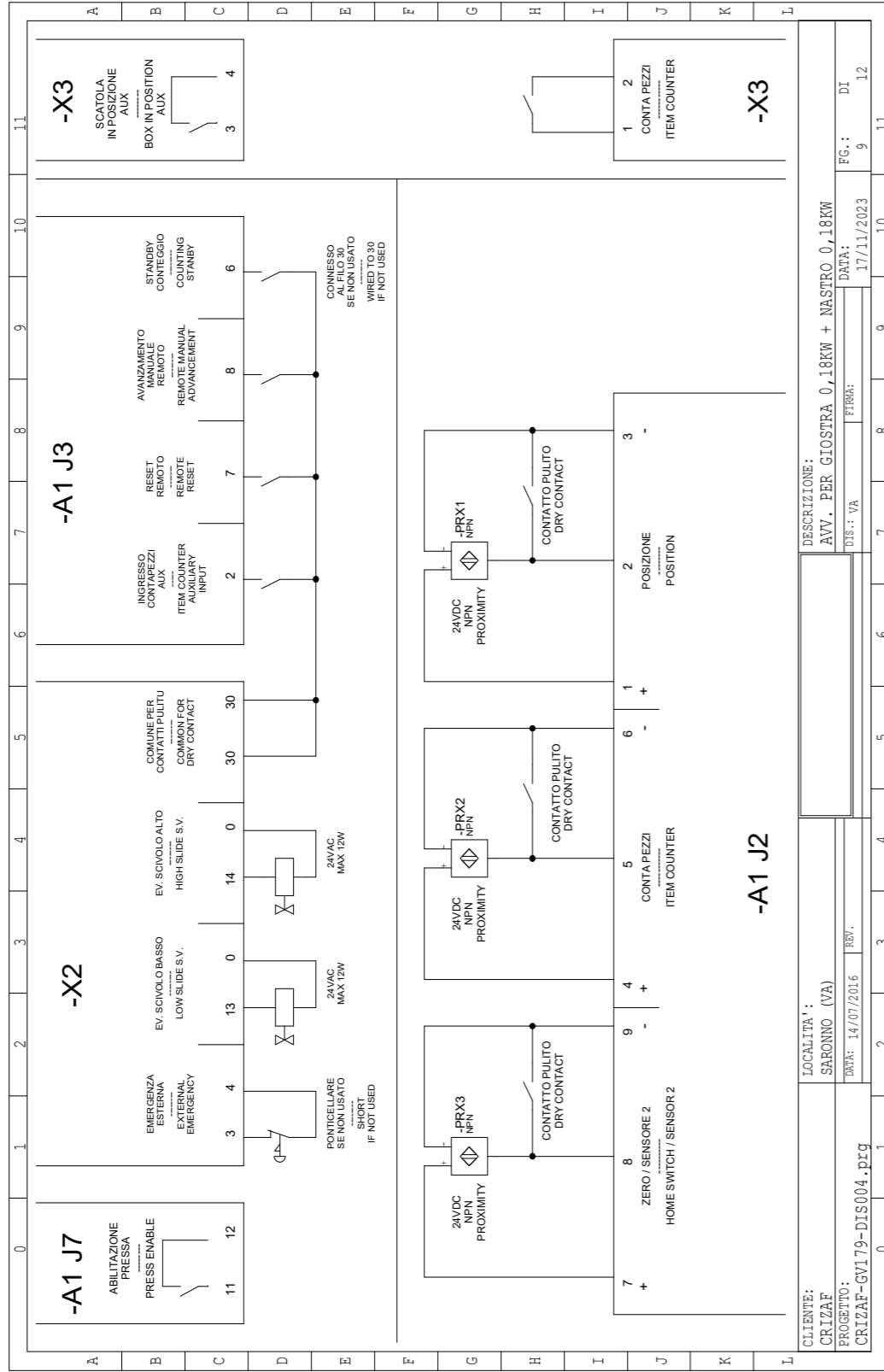
8.1 WIRING DIAGRAMS

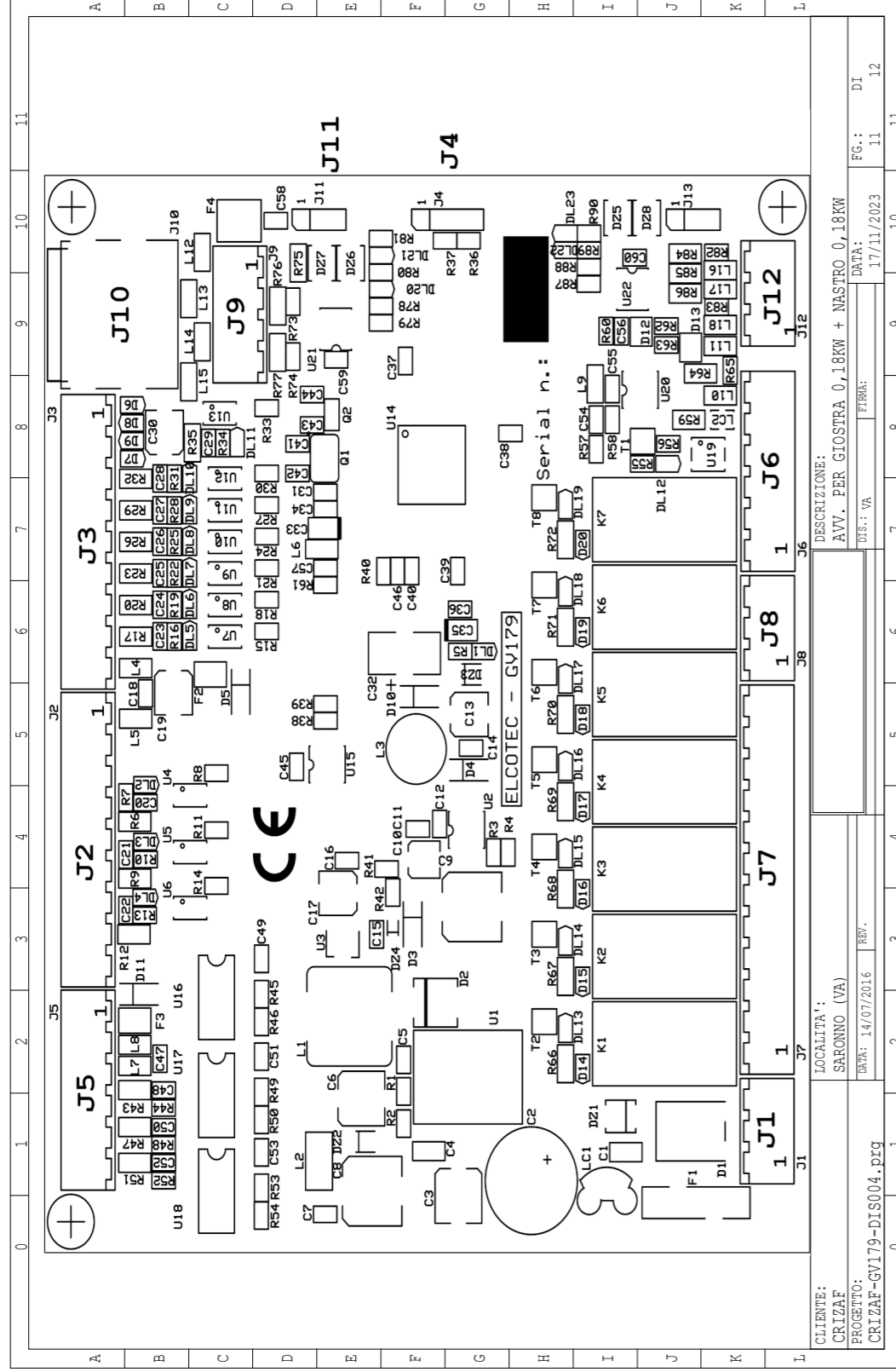












CODE/CODICE	DESCRIPTION	DESCRIPTION	DESCRIZIONE	BESCHREIBUNG	CONSTRUCTEUR/BUILDER CONSTRUTTORE/ANBAUER	TYP/TYPE/TIPO
-A1	ELECTRONIC CARD	ELECTRONIQUE	SCHEDE ELETTRONICA	ELECTRONIC BOARD	ELCOTEC	GV179-A*
-A2	OPERATOR PANEL	PANNEAU DE COMMANDE	PANNELLO OPERATORE	BEDIENFELD	KITE	FE643C
-D1	DIODE	DIODE	DIODE	DIODE	DIODE	1690202006 WDK 2.5 1D A 2
-E1	CONTROL BOX	COFFRET DE MANEVRE	CASSA DI COMANDO	GEHAUSE	ELDON	MAS930301 5RS 300x300x155mm
-E1	HANDLES	POIGNEES	MANIGLIE	GRIFEN	TOGNUJ	MF117D8
-E1	ADHESIVE	ADHESIF	ADESIVO	KLEBSTOFF	SERIFOT	ELCO 1641
-FU1	FUSE	FUSIBLE	FUSIBILE	SICHERUNGEN	ITALWEBER	10x38 2A 4M / 4A 4M
-FU2	FUSE	FUSIBLE	FUSIBILE	SICHERUNGEN	OMEGA	5x20 2A 5G
-HA1	LIGHT/ACOUSTIC MODULE	MODULE LUMIERE/ACOUSTIQUE	MODULO LUMINOSO/ACUSTICO	LICHT/AKUSTIKMODUL	EBES	ML001H2RD
-KA1	RELAY	RELAYS	RELE'	RELAYS	FINDER	4652624+6505
-KA11	RELAY	RELAYS	RELE'	RELAYS	GAVAZZI	DPAS1CM44
-KM1	CONTACTOR	CONTACTEUR	CONTATTORE	SCHUTZE	TELEMECANIQUE	LC1K0910B7
-KM2	CONTACTOR	CONTACTEUR	CONTATTORE	SCHUTZE	TELEMECANIQUE	LC1K0910B7
-OS1	MAIN SWITCH	INTERRUPTEUR GENERAL	INTERRUTTORE GENERALE	HAUPT SCHALTER	GOVERNANA	SQ032003R 3x40A+0090001
-SB1-HB1	PUSH BUTTON	BOULTON	PULSANTE	PULSIEREND	TELEMECANIQUE	ZB5AW313-ZB5AZ09 -ZBE101+ZB181
-SE1	PUSH BUTTON EMERGENCY	BOULTON ARRET D'URGENCE	PULSANTE FUNGO BLOCCO	PULSIERENDNOT-AUS	TELEMECANIQUE	ZB5AS84+ZB5AZ09+ZBE102
-T1	TRANSFORMER	TRANSFORMATEUR	TRASFORMATORE	TRAFEO	TECNOCABLAGGI	50VA 0-230-400V / 0-24V PTC
-XD-X1-X2	JUNCTION-BOX	BORNES	MORSETTIERA	REIMMEN	WEIDMULLER	N167480 ZDK 2.5
-X3	CONNECTOR	CONNECTEUR	CONNETTORE	CONNECTOR	ILME	CK 03 MACNF 04 + CK 03 VCRNM 04

CLIENTE: LOCALITA': SARONNO (VA)
 CRIZAF SARONNO (VA)
 PROGETTO: CRIZAF-GV179-DIS004.prg
 DATA: 14/07/2016
 DESCRIZIONE: AVV. PER GIOSTRA 0,18KW + NASTRO 0,18KW
 DATA: 17/11/2023
 REV.: 11
 DI: 12

