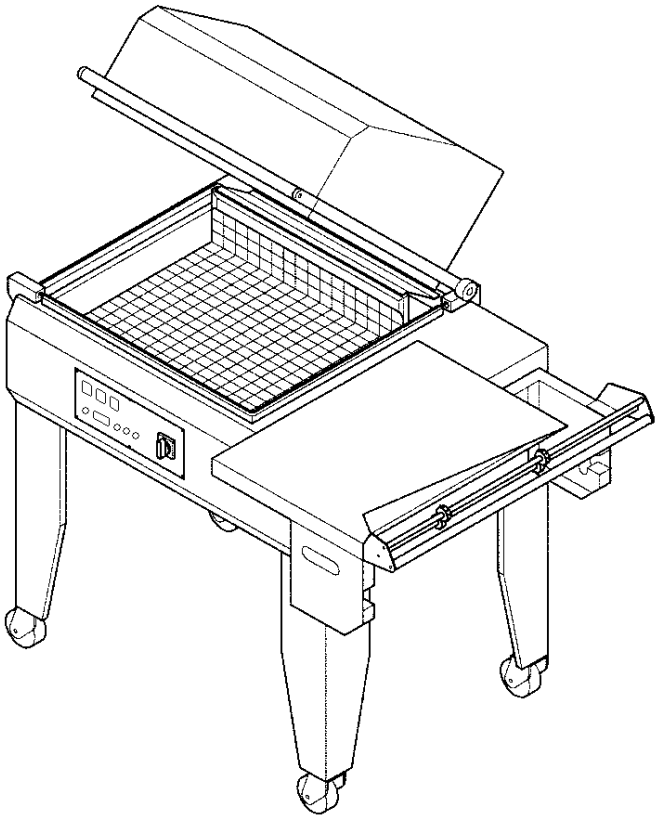
Minipack-torre S.p.A.
Via Provinciale, 54 - 24044 Dalmine (BG) - Italy
Tel. (035) 563525 – Fax (035) 564945
E-mail: info@minipack-torre.it
http://www.minipack-torre.it

INSTALLATION, OPERATION AND MAINTENANCE

Junior + E



Before using the machine please carefully read the instructions

DOC. N. FM111068
REV. 02
ED. 03.2006

Index

Chapter 1. Foreword

1.1. Preface

This manual has been drawn up in compliance with the UNI10893 standard dated July 2000. It is meant for all users in order to enable them to use the machine correctly. Keep it in a place which can be easily accessed in the proximity of the machine and which is known to all users. This manual is an integral part of the machine for safety reasons. We wish to specify the symbols in use here below in order to improve their understanding.

ATTENTION:
Accident prevention rules for the operator. This warning indicates the presence of dangers which can injure the person operating on the machine.

ATTENTION:
Hot members. It shows the danger of burning, thus involving the risk of a serious accident for the exposed person.

WARNING:
It indicates the possibility of damaging the machine and/or its components.

All reproduction rights of this manual are reserved to the manufacturer. Partial or complete reproduction is forbidden as provided by the law. Descriptions and pictures provided on this manual are not binding. Therefore the manufacturer, reserves the right of making any change considered necessary. This manual cannot be transferred for viewing to third parties without authorisation in writing of the manufacturing company. The machine must be used only for the purpose it was built. Any other use shall be considered as "illegitimate use" and therefore dangerous. Before carrying out any operation on the machine it is compulsory to read carefully all instructions provided on this manual, in order to avoid possible damage to the machine, to people and property.
Do not operate in case of doubts on the correct interpretation of the instructions.
Contact the manufacturer in order to obtain the necessary explanation.
Upon delivery check that the machine is complete in all parts.
Possible anomalies shall be immediately reported to the manufacturer.
The manufacturing company disclaims any responsibility in case of machine illegitimate use and/or in case of damages resulting form operations carried out on the machine that are not mentioned in this manual.

1.2. Performances of packaging machine

You have bought a machine with outstanding features and performance and we thank you very much for your confidence in choosing it. The system is unique in its kind and has achieved worldwide success with more than 70000 units operating in the field of packaging and wrapping.
The technological concept underlining its design, as well as the components and materials used in the manufacturing and testing process are the best assurance of proper operation and long-lasting liability.
Thanks to its particular operating circuit, it can be used both as a sealing and shrinking machine or as a plain sealing machine (sealing only). In this case it is possible to pack the object in a soft bag without shrink-wrapping. The film used in centerfolded execution can be micropunched or not when running through the micropunches of machine itself. The machine can carry out up to 300 packages/hour.

1.3. Machine identification

In every communication with the Manufacturer, always mention the model and the serial number specified on the plate on the rear part of the machine (figure 1.3. page 58).

1.4. Weight and dimensions of packed machine

a = mm1350 b = mm960 c = mm820 Weight = Kg115 (figure 1.4. page 58).

1.5. Machine weight and dimensions

a = mm1200 b = mm670 c = mm1330 Weight = Kg85 (figure 1.5. page 58).

Chapter2. Machine installation

2.1. Transport and positioning

	***It is recommended to handle with great care during transport and positioning!***

		***Use protection gloves while handling the machine.***

- *Cut the strap with scissors make sure you protect your eyes by wearing glasses, and withdraw the cardboard. Remove the cardboard containing the 4 legs (G) (figure 2.1.A. page 58).*
- *Unscrew the 4 fastening screws (A) of the pallet (figure 2.1.B. page 58).*
- *Lift the machine by means of a lift truck. Place the 4 legs (G) on the machine (figure 2.1.C. page 58).*
- *Remove the upper hood by cutting the strings.*

	***<u>If it is transported by hand, 4 people are required for its transportation.</u>*** ***When lifting the machine, always grip it by the ends and never by the reel support (5).***

2.2. Environmental conditions

- *Place the machine in a suitable environment free from humidity, gases, explosives, combustible materials.*
- *Leave a minimal space of 200mm around the machine so that not to obstruct air outlets (figure 2.2. page 58).*
- *Once the correct height is abtained, block the machine by means of the wheel brakes.*

Working environmental conditions:

- *Temperature from + 5°C to + 40°C*
- *Relative humidity from 30% to 90%, without condensation*

The lighting of the operation room shall comply with the laws in force in the country where the machine is installed. However, it shall be uniform and provide for good visibility in order to safeguard the operator's safety and health.

<u>MACHINE SAFETY FACTOR = IP20</u>
<u>THE AERIAL NOISE MADE BY THE MACHINE IS LOWER THAN 70 dB</u>

2.3. Electrical connections

<u>OBSERVE HEALTH AND SAFETY REGULATIONS!</u>

	*If the machine is not equipped with the power supply plug, use a plug that is suitable for the voltage and amperage values described by the rating plate and that can comply with the rules in force in the installation country.* ***<u>GROUNDING OF THE UNIT IS OBLIGATORY!</u>*** *(figure 2.3. page 58).*

Before executing electrical connections, make sure the mains voltage matches the one on the plate on machine rear and that the ground contact complies with the safety rules in force.
In case of doubts about the mains voltage, contact the local public supply Company.

Chapter 3. Machine adjustment and setting up

3.1. Adjustment

1 *Main switch*
2 *Adjusting button*
3 *Adjusting button*
A *Temperature warning light*
B *Shrinking warning light*
C *Sealing warning light*
P *Programs selection button*
D *Display*
S *Variables selection switch*
(figure 3.1. page 59).

ELECTRONIC BOARD FEATURES
The machine is equipped with 6 selectionable programs:

Program nr.	Program features
P1	Sealing only
P2	Sealing + shrinking
P3	Sealing + delayed shrinking to sealing end
P4	Sealing + shrinking
P5	Sealing + shrinking
P6	Sealing + shrinking

Each program is composed by 4 variables which can be modified (in case it is not possible to set one of them, such a variable will obviously not appear on the display):

Variable	Field	Field features
1. Temperature	00 ÷ 99	corresponds to 180.....378°C (2°C each point)-(medium value 75)
2. Sealing	0 ÷ 2.2	values expressed in seconds
3. Shrinking	0.0 ÷ 9.9	values expressed in seconds
4. Shrinking delay	0 ÷ 9	tenth-seconds values

PHASE NR. 1 = SWITCHING THE MACHINE ON
Turn the main switch (1) into pos. 1. Before using the machine, wait until the adjusting temperature is reached. This is signalled by the extinction of the warning light (A). The display (D) turns on and the number of the currently selected program will appear.
PHASE NR. 2 = PROGRAMS SELECTION
Push button (P) to select the number of the program.
PHASE NR. 3 = VARIABLES PROGRAMMING
Through button (S) it is possible to look through the variables of the selected program, while through buttons (2) and (3) the memorized values can be modified. To validate modifications, press button (S) until the number of the program appears on the display.
*The fan delay time after sealing can be modified; there is not a LED indicating this variable which is shown with an "**r**" on the left display, while the right one shows the time which has been set. At the end of all variables to be adjusted, the display will show the code of the program just chosen (for example P1).*
N.B.: In case during programming the SQ1 limit switch is being pressed, the unit quits the scheduling, the selected program is executed and the display shows the number of the program.
PHASE NR. 4 = PERFORMANCE
Once all adjustments have been made, the machine is ready to start working.

APPROXIMATE TABLE OF MACHINE CICLE ADJUSTEMENT

SHRINKING TIME	PAUSE TIME	TEMPERATURE (Field)
6"	**6"**	**50**
5"	**7"**	**60**
4"	**8"**	**70**
3"	**9"**	**80**
2"	**10"**	**90**

*In case of **"ANOMALY"** the display will show as follows:*
E 1 *Machine has been switched on when the hood was lowered. Lift the hood up.*
E 2 *Machine has been switched on when the (S) button was pressed. Release the button. In case the error signalling still persists, check the correct functioning of the button.*
E 3 *Working temperature hasn't been reached in the set time (10 min.). Check the correct positioning of the feeler. Check heater and fuses. Reset through (P) button.*
E 4 *Temperature is higher than 430°C or feeler has been interrupted. Switch the machine on to reset.*

Chapter 3. Machine adjustment and setting up

3.2. Film reel insertion

- *Insert the reel of film on the roller (6) and block it through the centering cones (7) (figure 3.2. page 59).*
- *Position the roller on the film reel support.*
- *Run through the micropunches (8).*
- *Run the film lower layer under the packaging plate (9).*
- *Run the film upper layer over the packaging plate (9).*

3.3. Reticulated plate installation

The reticulated plate (11) can be placed according to the height of the product to pack.
To position it follow this procedure (figure 3.3. page 59):

- *Pull the reticulated plate in direction of the arrows*
- *Remove it from the stops*
- *Position the plate on the stops at the required height*

N.B.: For a proper packaging the reticulated plate must be positioned so that film sealing is at the half of the package height.

3.4. Reel support and packaging plate adjustment

The reel support (5) and the packaging plate (9) must be adjusted according to the width of the article to be packaged, leaving a space of about 1-2 cm between the article and the sealing edge (figure 3.4. page 59).

3.5. Execution of 1^ film sealing

Place film as shown in the picture to carry out the first seal (figure 3.5. page 59). Lower the handle of the cover with your left hand and make a pressure of 10-15 Kg. Machine will automatically operate and the first seal will be carried out on the side of the film. With the right hand detach the film from the sealing blade. Film is now ready to carry out wrapping.

3.6. Introducing the object to be wrapped

With the left hand slide on the packaging plate the quantity of film necessary to contain the product to be packed. Introduce the product into the bag using the right hand and make it slide to the left until it is layed on the screen leaving a little space fo about 1-2 cm to allow the passage of air for shrinkwrapping (figure 3.6. page 59).

3.7. Making up

By pushing the cover handle with a pressure of 10-15 Kg. the cover rests on the sealing blade (figure 3.7. page 59). By pinching the film, it is automatically sealed on the open sides (right and front). In case you have selected the function "SEALING +SHRINKWRAPPING" you will see the film shrink onto the product. Slightly decrease the pressure on the cover handle to allow film detach from the sealing area on the inside. With the right and detach the film from the sealing blade towards the outside.

Chapter 4. Limits and conditions in the use of machine

4.1. Max. packing sizes

a = mm 500 b = mm 380 c = mm 250 (figure 4.1. page 59).
***N.B.:** max. dimensions shown on above scheme are referring to the max. dimension of the single package.*
Refer to chapter 5.2. to get max. dimension of package (b x c); the addition of (b + c) is equal to film roll width 100 mm.

4.2. Items which must not be packed

The below listed products must absolutely not be wrapped to avoid damages to the machine and serious injuries to the operator in charge:

- *Wet and unstable products*
- *Liquids of any kind and density in fragile containers*
- *Flammable and explosive materials*
- *Pressurised gas cylinder of any kind*
- *Bulk and volatile powders*
- *Bulk materials with grain size smaller than the holes of the reticulated plate*
- *Any materials and products not listed but which might harm operator and cause damages to the machine.*

Chapter 5. Film features

5.1. Films to be used

The machine can work with all thermoshrinkable and non-thermoshrinkable films, from 15 to 50 microns in thickness, of a technical and food type. To guarantee the best results, it is recommended to use the films marketed by us.
The special features of our films (which may be customised with drawings and text) assure their outstanding reliability, with regard both to compliance with laws in force and to an excellent machine performance.

It is recommended to refer to the technical and safety sheets of the films in use and to observe the corresponding instructions!

A = mm550 MAX D = mm250 MAX d = mm77 (figure 5.1. page 60).

5.2. Band A calculation

Band A = b + c + 100mm (figure 5.2. page 60).

Chapter 6. Safety standards

6.1. Warnings

During the work phases pay attention to all hot parts of the machine. The temperature they can reach is so high that it can cause burns.

It is forbidden to smoke when the machine is working!

- *Do not touch the sealing blade (13) soon after sealing by reaching beyond the safety guard (12). Danger of burns due to residual heat on the sealing blade (figure 6.1.A page 60).*
- *Do not keep on sealing in case the sealing blade breaks (13). Replace it at once (figure 6.1.A page 60).*
- *Do not touch the chamber closing flap (16) during warm-up function. Danger of burns (figure 6.1.B page 60).*
- *Do not touch the fan while moving or using the machine without the reticulated plate (11) (figure 6.1.B page 60).*
- *Make sure the film reel is properly lodged (14) (figure 6.1.C page 60).*

Every time you turn the machine off, it is recomended to leave the upper hood (19) open *(figure 6.1.D page 60).*

Chapter 7. Ordinary maintenance

7.1. Precautions for ordinary maintenance interventions

ORDINARY MAINTENANCE, MUST BE EXECUTED BY QUALIFIED STAFF APPROPRIATELY TRAINED.

Before proceeding to maintenance, switch the machine off and disconnect it by operating on the master switch and wait for the machine to cool down!

It is recommended to use protection gloves during maintenance operations!

Chapter 7. Ordinary maintenance

7.2. Sealing blade cleaning

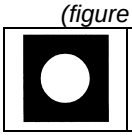
- *Using a dry cloth, wipe off the residues clinging to the sealing blade: do this at once after sealing since they are easier to remove when still warm.*
- *Periodically lubrificate the sealing blade with the grease supplied with the machine (figure 7.2. page 60).*

7.3. Plastic film and other scrap removal

Wait for the machine to cool down completely before removing any scraps stuck to the hot parts of the machine (e.g., on the flaps of the heat chamber). If the lower cover requires cleaning (where the fan is installed), remove the reticulated plate (11) and take out any pieces that may have fallen inside (figure 7.3. page 60).

7.4. Machine cleaning

- *Use a cloth moistened with water for the cleaning of the machine.*
- *For cleaning the upper hood (19) inside and outside we recommend to use a normal detergent for glass cleaning (figure 7.4. page 61).*



Do not use any detergents with solvents which could damage the upper hood (19) and reduce the transparency.

- *If the machine works in a dusty environment it is necessary to clean it more frequently inside as well as outside. It is especially recommended to vacuum-clean the dust which settles on the interior electrical components. To open the switch box again remove the 4 fastening screws.*

7.5. Rubber and teflon replacement

When the Teflon-strikers (17) are worn out, replace them with spare parts, paying attention that the application is linear and even (figure 7.5. page 61). Before applying the Teflon self-adhesive strip clean the rubber part (18) with a detergent. If also the rubber (18) is damaged, replace it as follows:

1. *remove the old rubber*
2. *clean its housing*
3. *apply some drops of glue in the housing*
4. *insert the new rubber in a linear way*
5. *clean the rubber with a detergent*
6. *apply the self-adhesive Teflon-strip.*

7.6. Changing the sealing blade

To replace the sealing blade (13) follow this procedure (figure 7.6. page 61):

- *Disconnect power to the machine*
- *Unscrew the three screws (20), (21), (22)*
- *Remove the old sealing blade*
- *Clean the housing and if necessary replace the insulating teflon (23) of the central clamp*
- *Insert the new sealing blade starting from the central clamp and tighten the screw (21)*
- *Trim the new sealing blade according to the holes of the pistons (24) and (25)*
- *Complete the insertion if the sealing blade in the whole housing*
- *Push the rear piston completely onwards (25) towards the sealing blade to make it enter the hole of the piston itself and then tighten screw (22)*
- *Push the front piston (24) completely onwards towards the sealing blade to make it enter the hole of the piston itself and then tighten screw (20)*
- *Trim the teflon projecting from the central clamp*
- *Make sure that the sealing blade is well positioned and in tension*

7.7. Wiring diagram

(figure 7.7. page 61).

IG	*Main switch*
FU	*Line fuse 10.3X38*
FU1	*Board fuse 5X20*
FU3	*Magnet fuse 5X20*
FU4	*Auxiliary plug fuse 5X20*
FU5	*Motor fuse 5X20*
EH	*Heaters*
EH1	*Sealing blade heater*
T1	*Cutting transformer*
M1	*Fan motor*
M2	*Ventilator motor*
J	*Thermocouple*
SQ1	*Machine cycle limit switch*
YA	*Shrinking magnet*
YB	*Sealing magnet*
KM1	*Sealing blade contactor*
KM2	*Heaters contactor*
FR	*Antinoise filter*

Chapter 7. Ordinary maintenance

7.8. Spare parts

Code	Item description
S02A0404	Teflon liner
FE385602	Sealing blade
FM350009	Upper neoprene rubber
FM350006	Lower neoprene rubber
S0K00306	Blade holder complete clamp
FE241011 (230V) FE241012 (115V) FE240017 (200V)	Motor
FM130002	Reticulated plate
FM080033	Upper hood
FM170002	Torsion bar
S0K00604	Complete slotted microperforator
S0K00605	Complete needles microperforator
FE380011 (230V) FE380013 (115V) FE380014 (200V)	Heaters
S02A0820	Roll holder complete tube
S0K01111	Fan
FM195065	Glass wool panel
FE440612 (230V) FE440611 (115V) FE440612 (200V)	Transformer

7.9. Disassembling, demolition and elimination of residuals

ATTENTION!
All operations about disassembling and demolition must be done by qualified personnel with mechanical and electrical expertise required to work in security conditions.

Proceed as follows:

1. *disconnect machine from power mains*
2. *disassemble components*

All wastes must be treated, eliminated or recycled according to their classification and to the procedures in force established by the laws in force in the country the equipment has been installed.

Chapter 8. Guarantee

8.1. Certificate of guarantee

The guarantee runs for 12 months after the installation date under the conditions set forth on the instruction manual. Fill in the card with all data requested,tear out along the perforations and send in.

8.2. Guarantee conditions

The guarantee runs for 12 months and goes into force on the installation date of the machine. The guarantee covers free replacement or repair of any parts due to defects arising from faulty material. The repairs or replacement are usually carried out at the manufactures, with transport or workmanship at buyer's charge. If the repair or replacement is carried out at the buyer's place, he shall bear the travelling, transfer and workmanship charges. Work under guarantee can be carried out exclusively by the manufacturer or by the authorised dealer. In order to be entitled to repairs under the guarantee, the faulty part must be sent for repair or replacement to the manufacturer or his authorised dealer. The return of such repaired or replaced part will be considered to be the performance of the guarantee.

The guarantee is voided:

1. *in case of failure to mail the CERTIFICATE OF GUARANTEE, duly filled in and signed, with in 20 days after the date of purchase.*
2. *in case of inappropriate installation, power supply, misuse and mishandling by unauthorised persons.*
3. *in case of changes made to the machine without prior agreement in writing by the manufacturers.*
4. *if the machine is no longer the property of the first buyer.*

The manufacturer decline any responsibility for damage to persons or things in case of inappropriate installation or connection to the power mains or omission of connection to earth or in case of any mishandling of the machine. The manufacturer undertake to carry out any variations and changes made necessary by technical and operating requirements.

GB EC DECLARATION OF CONFORMITY

GB We:

MINIPACK-TORRE S.p.A.
Via Provinciale, 54
24044 DALMINE (BG)

GB declare under our responsibility that the product

GB packing machine model:

Junor +E	***n°***

GB is in conformity with prevision of following directives and their modifications:

98/37/CE
89/336/CEE
73/23/CEE

GB And furthermore we declare that the following rules have been applied:

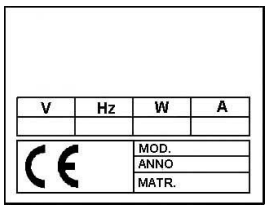
EN 292-1
EN 292-2
EN 60335-1
EN 60204-1

Dalmine, 01/07/2002

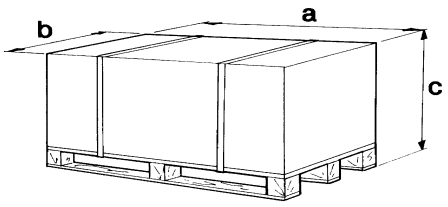
TORRE ing. FRANCESCO

GB Managing Director

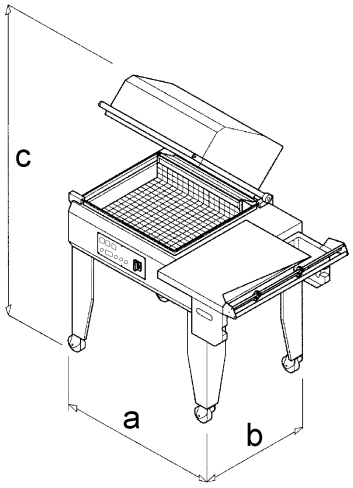
1.3.



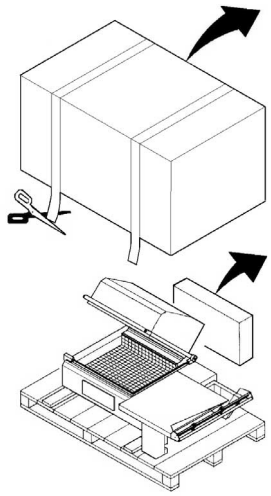
1.4.



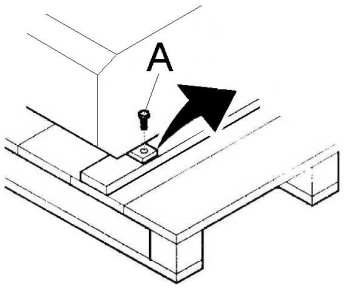
1.5.



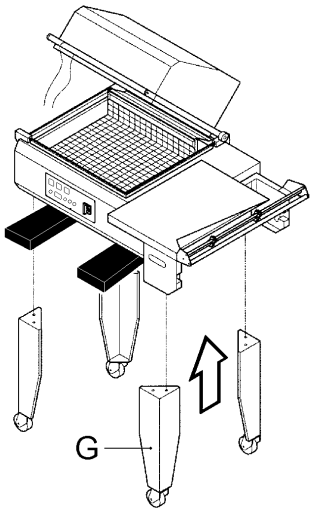
2.1.A



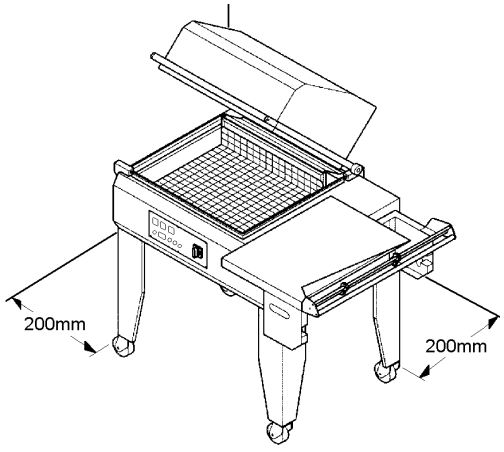
2.1.B



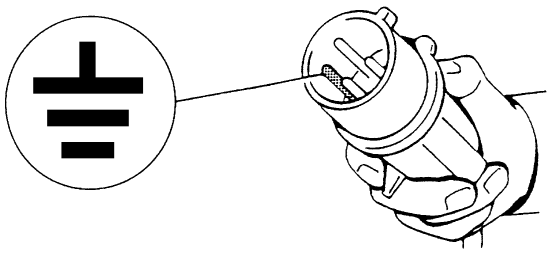
2.1.C



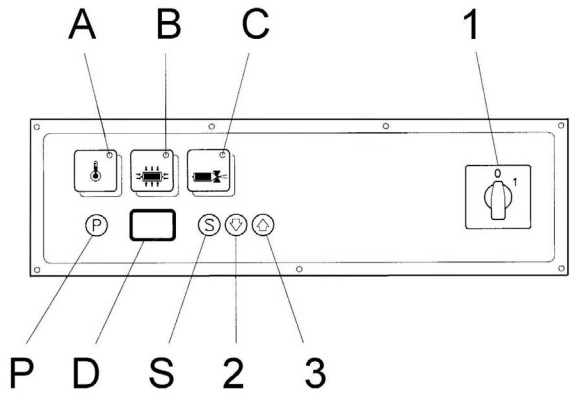
2.2.



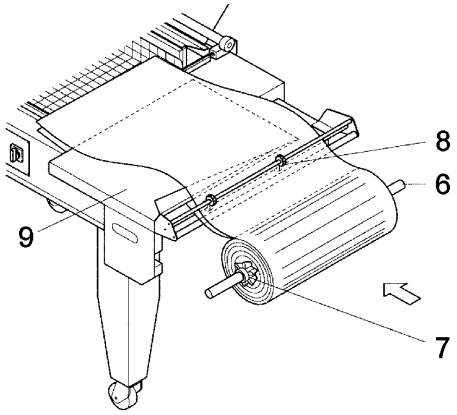
2.3.



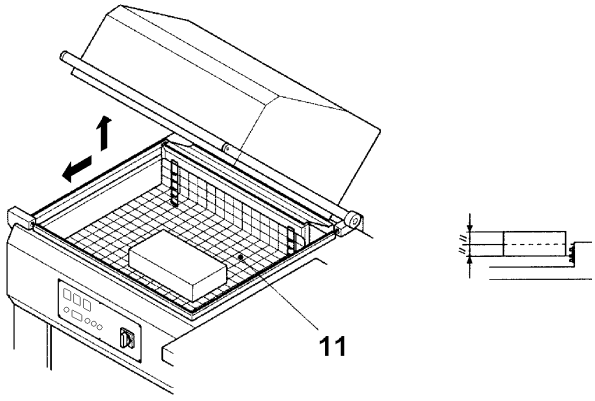
3.1.



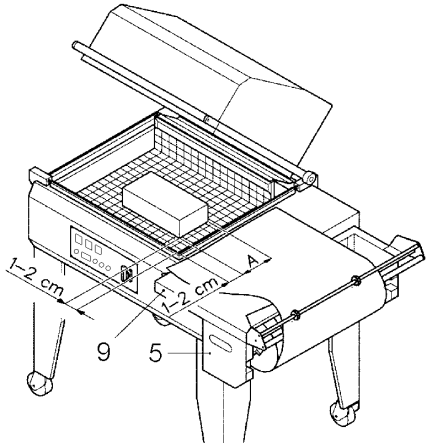
3.2.



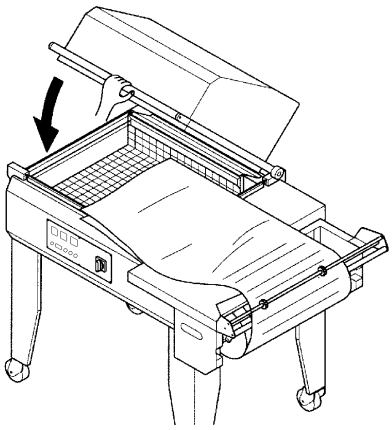
3.3.



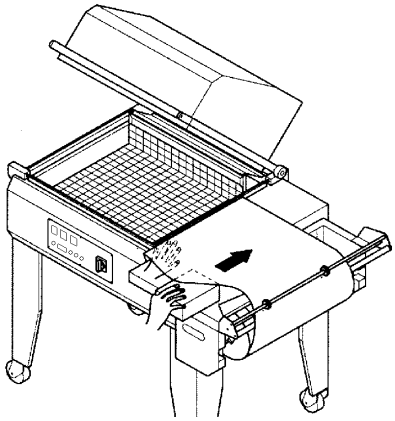
3.4.



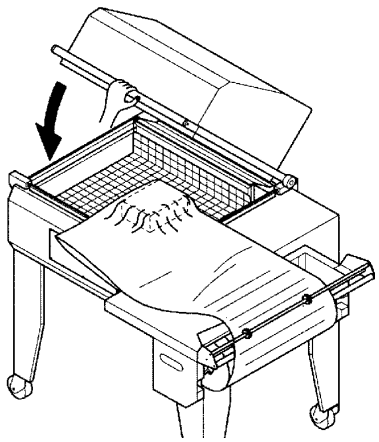
3.5.



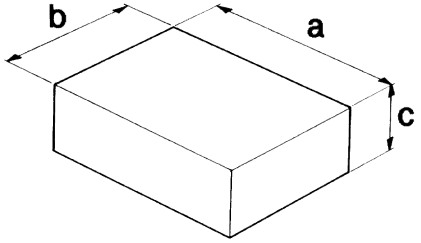
3.6.



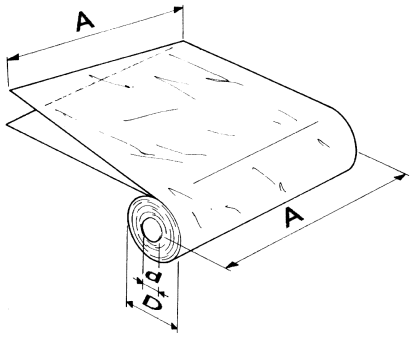
3.7.



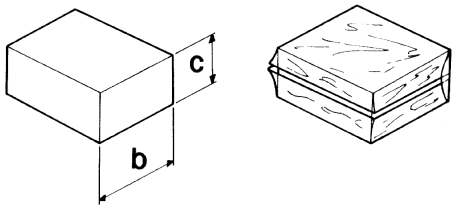
4.1.



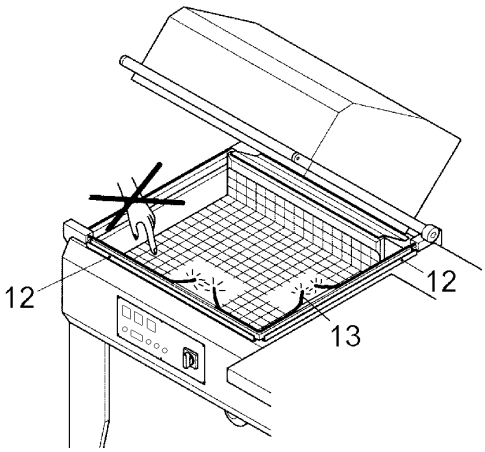
5.1.



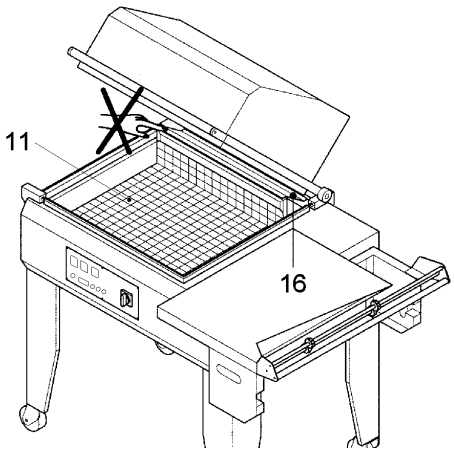
5.2.



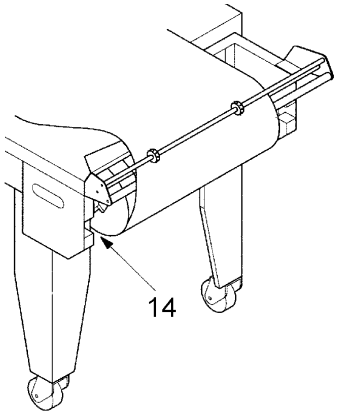
6.1.A



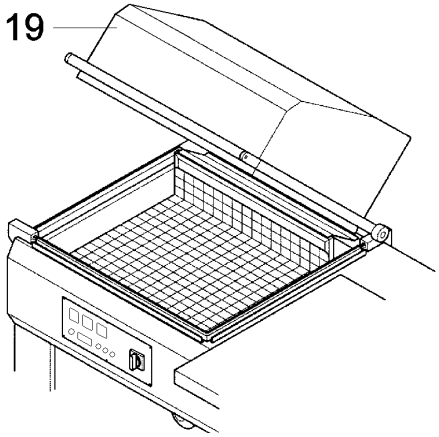
6.1.B



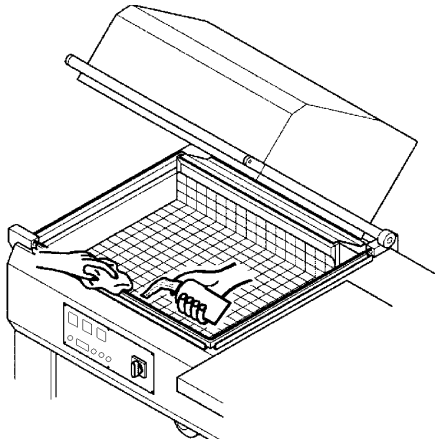
6.1.C



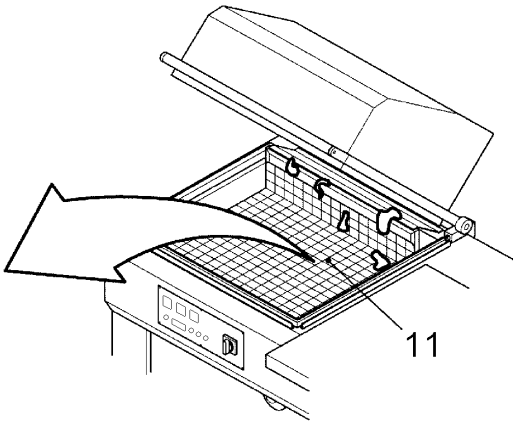
6.1.D



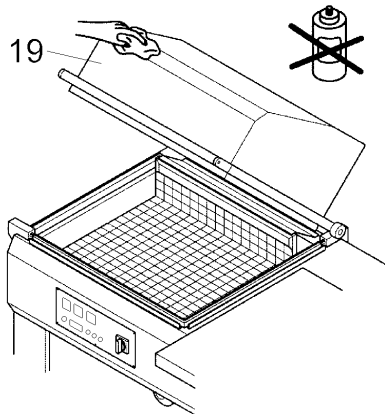
7.2.



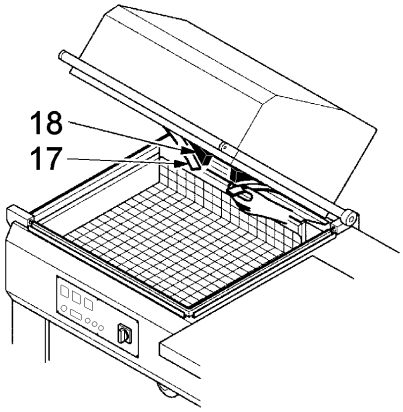
7.3.



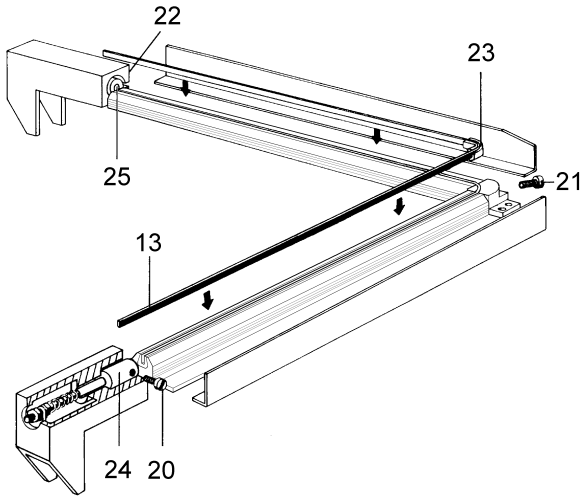
7.4.



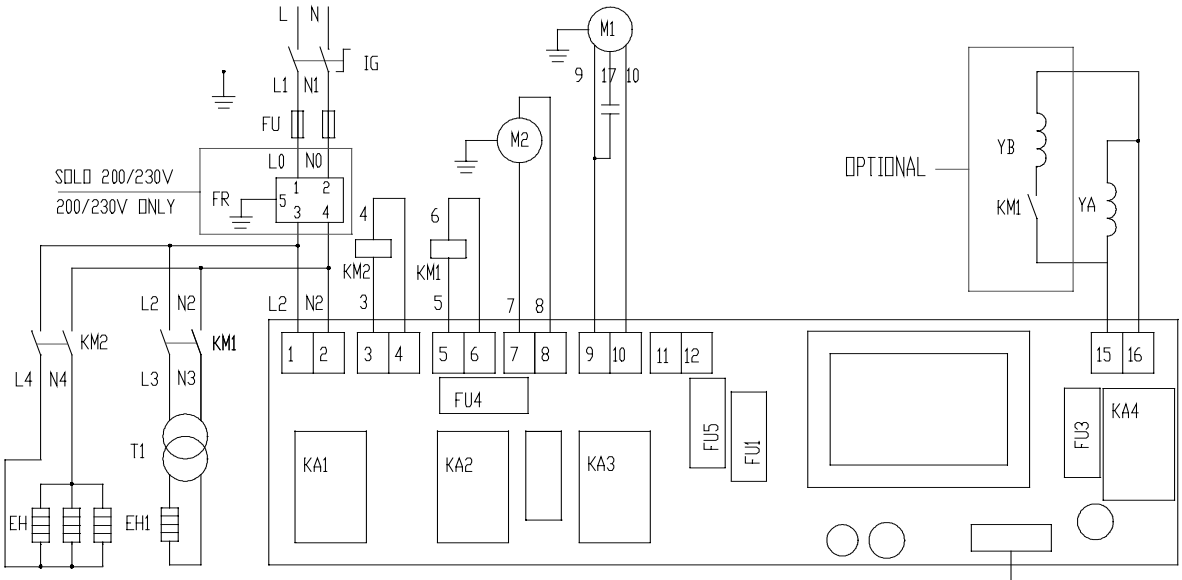
7.5.



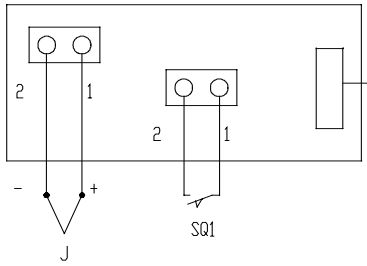
7.6.



7.7.



VL	115V	200/230V
FU	AM 25A 450V	AM 16A 450V
FU1	T 315mA 250V	T 250mA 250V
FU3	T 500mA 250V	T 500mA 250V
FU4	T 1A 250V	T 500mA 250V
FU5	T 4A 250V	T 4A 250V



(GB) Type

(GB) Serial n°

(GB) Test n°

CERTIFICATE OF GUARANTEE

Date and dealer's stamp

(GB) Customer address

(GB) Purchase date

Minipack-torre S.p.A.

Via Provinciale, 54 - 24044 DALMINE (BG) - ITALY
Tel. (035) 563525 – Fax (035) 564945
E-mail: info@minipack-torre.it
http://www.minipack-torre.it

Spett.le
minipack-torre S.p.A.

Via Provinciale, 54
24044 DALMINE (BG)
ITALY

MADE IN ITALY