

## Minipack-torre S.p.A.

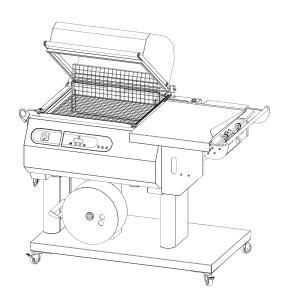
Via Provinciale, 54 - 24044 Dalmine (BG) - Italy Tel. (035) 563525 E-mail: info@minipack.it http://www.minipack.it

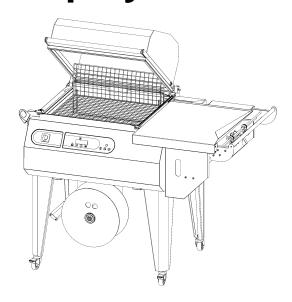


### **INSTALLATION, OPERATION AND MAINTENANCE**

# FM75 evo FM76 evo

# Replay 40 evo Replay 55 evo





BEFORE USING THE MACHINE PLEASE CAREFULLY READ THE INSTRUCTIONS



# TRANSLATION OF THE ORIGINAL INSTRUCTIONS

Chapter 1. Description         page           1.1. Preface         19           1.2. Machine features         19           1.3. Machine technical data         19           Chapter 2. Film features           2.1. Films to be used         20           2.2. Band A calculation         20           Chapter 3. Machine usage conditions           3.1. Max. weight and dimensions of the package         20           3.2. Items that may be packaged         20           3.3. Items which must not be packed         20           Chapter 4. Safety standards           4.1. Warnings         21           4.2. Description of safety stickers         22           5.1. Transport and positioning         23           5.2. Environmental conditions         24           5.3. Electrical connections         24           Chapter 6. Machine adjustment and setting up           6.1. Adjustment         25	Contents	
1.1. Preface       19         1.2. Machine features       19         1.3. Machine technical data       19         Chapter 2. Film features         2.1. Films to be used       20         2.2. Band A calculation       20         Chapter 3. Machine usage conditions         3.1. Max. weight and dimensions of the package       20         3.2. Hems that may be packaged       20         3.3. Items which must not be packed       20         Chapter 4. Safety standards         4.1. Warnings       21         4.2. Description of safety stickers       22         4.3. Individual protection devices       22         Chapter 5. Machine installation         5.1. Transport and positioning       23         5.2. Environmental conditions       24         5.3. Electrical connections       24         Chapter 6. Machine adjustment and setting up         6.1. Adjustment       25         6.1.1. Control panel       25         6.1.2. Switching the machine on       25         6.1.3. Selection of programs and calibration of parameters       25         6.1.4. Alarm messages       28         6.2. Film reel insertion       29         6.3. Ad		
2.1. Films to be used         20           2.2. Band A calculation         20           Chapter 3. Machine usage conditions           3.1. Max. weight and dimensions of the package         20           3.2. Items that may be packaged         20           3.3. Items which must not be packed         20           Chapter 4. Safety standards           4.1. Warnings         21           4.2. Description of safety stickers         22           4.3. Individual protection devices         22           Chapter 5. Machine installation           5.1. Transport and positioning         23           5.2. Environmental conditions         24           5.3. Electrical connections         24           Chapter 6. Machine adjustment and setting up           6.1. Adjustment         25           6.1.1. Control panel         25           6.1.2. Switching the machine on         25           6.1.3. Selection of programs and calibration of parameters         25           6.1.4. Alam messages         28           6.2. Film real insertion         29           6.3. Adjustment of the micropunches         29           6.4. Reticulated plate installation         29           6.5. Reel support and packaging plate adjustm	1.1. Preface 1.2. Machine features	19 19
3.1. Max. weight and dimensions of the package       20         3.2. Items which must not be packed       20         3.3. Items which must not be packed       20         Chapter 4. Safety standards         4.1. Warnings       21         4.2. Description of safety stickers       22         4.3. Individual protection devices       22         Chapter 5. Machine installation         5.1. Transport and positioning       23         5.2. Environmental conditions       24         5.3. Electrical connections       24         Chapter 6. Machine adjustment and setting up         6.1. Adjustment       25         6.1.1. Control panel       25         6.1.2. Switching the machine on       25         6.1.2. Switching the machine on       25         6.1.3. Selection of programs and calibration of parameters       25         6.1.3. Selection of programs and calibration of parameters       25         6.2. Film reel insertion       29         6.4. Reticulated plate installation       29         6.5. Reel support and packaging plate adjustment       29         6.6. Making the first seal       30         6.7. Film binding on rewinder (if present)       30         6.8. Introducing the object to be packag	2.1. Films to be used	
4.1. Warnings       21         4.2. Description of safety stickers       22         4.3. Individual protection devices       22         Chapter 5. Machine installation         5.1. Transport and positioning       23         5.2. Environmental conditions       24         5.3. Electrical connections       24         Chapter 6. Machine adjustment and setting up         6.1. Adjustment       25         6.1.1. Control panel       25         6.1.2. Switching the machine on       25         6.1.3. Selection of programs and calibration of parameters       25         6.1.4. Alarm messages       28         6.2. Film reel insertion       29         6.3. Adjustment of the micropunches       29         6.4. Reticulated plate installation       29         6.5. Reel support and packaging plate adjustment       29         6.6. Making the first seal       30         6.7. Film binding on rewinder (if present)       30         6.8. Introducing the object to be packaged       30         6.9. Packaging       30         Chapter 7. Ordinary maintenance         7.1. Instructions for ordinary maintenance work       31         7.2. Maintenance table       31         7.3. Se	3.1. Max. weight and dimensions of the package 3.2. Items that may be packaged	20
5.1. Transport and positioning 5.2. Environmental conditions 24 5.3. Electrical connections  Chapter 6. Machine adjustment and setting up 6.1. Adjustment 6.1. Adjustment 6.1. Control panel 6.1.2. Switching the machine on 6.1.3. Selection of programs and calibration of parameters 6.1.4. Alarm messages 6.2. Film reel insertion 29 6.3. Adjustment of the micropunches 6.4. Reticulated plate installation 29 6.5. Reel support and packaging plate adjustment 29 6.6. Making the first seal 6.7. Film binding on rewinder (if present) 6.8. Introducing the object to be packaged 6.9. Packaging  Chapter 7. Ordinary maintenance 7.1. Instructions for ordinary maintenance work 7.2. Maintenance table 7.3. Sealing blade cleaning 7.4. Plastic film and other scrap removal 7.5. Machine cleaning 7.6. Coolant check (if present) 7.7. Substituting the rubber and Teflon 7.8. Changing the sealing blade 7.9. Problem solving 7.10. Disassembling, demolition and elimination of residuals  Chapter 8. Guarantee	4.1. Warnings 4.2. Description of safety stickers	22
6.1. Adjustment       25         6.1.1. Control panel       25         6.1.2. Switching the machine on       25         6.1.3. Selection of programs and calibration of parameters       25         6.1.4. Alarm messages       28         6.2. Film reel insertion       29         6.3. Adjustment of the micropunches       29         6.4. Reticulated plate installation       29         6.5. Reel support and packaging plate adjustment       29         6.6. Making the first seal       30         6.7. Film binding on rewinder (if present)       30         6.8. Introducing the object to be packaged       30         6.9. Packaging       30         Chapter 7. Ordinary maintenance         7.1. Instructions for ordinary maintenance work       31         7.2. Maintenance table       31         7.3. Sealing blade cleaning       31         7.4. Plastic film and other scrap removal       31         7.5. Machine cleaning       32         7.6. Coolant check (if present)       32         7.7. Substituting the rubber and Teflon       32         7.8. Changing the sealing blade       33         7.9. Problem solving       33         7.10. Disassembling, demolition and elimination of residuals <td>5.1. Transport and positioning 5.2. Environmental conditions</td> <td>24</td>	5.1. Transport and positioning 5.2. Environmental conditions	24
7.1. Instructions for ordinary maintenance work 7.2. Maintenance table 7.3. Sealing blade cleaning 7.4. Plastic film and other scrap removal 7.5. Machine cleaning 7.6. Coolant check (if present) 7.7. Substituting the rubber and Teflon 7.8. Changing the sealing blade 7.9. Problem solving 7.10. Disassembling, demolition and elimination of residuals  7.10. Chapter 8. Guarantee	<ul> <li>6.1. Adjustment</li> <li>6.1.1. Control panel</li> <li>6.1.2. Switching the machine on</li> <li>6.1.3. Selection of programs and calibration of parameters</li> <li>6.1.4. Alarm messages</li> <li>6.2. Film reel insertion</li> <li>6.3. Adjustment of the micropunches</li> <li>6.4. Reticulated plate installation</li> <li>6.5. Reel support and packaging plate adjustment</li> <li>6.6. Making the first seal</li> <li>6.7. Film binding on rewinder (if present)</li> <li>6.8. Introducing the object to be packaged</li> </ul>	25 25 25 28 29 29 29 29 30 30 30
	<ul> <li>7.1. Instructions for ordinary maintenance work</li> <li>7.2. Maintenance table</li> <li>7.3. Sealing blade cleaning</li> <li>7.4. Plastic film and other scrap removal</li> <li>7.5. Machine cleaning</li> <li>7.6. Coolant check (if present)</li> <li>7.7. Substituting the rubber and Teflon</li> <li>7.8. Changing the sealing blade</li> <li>7.9. Problem solving</li> </ul>	31 31 31 32 32 32 32 33 33
5.1. Guarantee Conditions 34		3/1
CE declaration of conformity 69		

## **Chapter 1. Description**

**EN** 

#### 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 understanding of them.



#### **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 parts. Shows the danger of burning, thus involving the risk of a serious accident for the exposed person.



#### ATTENTION:

Don't touch!



#### 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 in this manual are not binding. Therefore the manufacturer, reserves the right to make any change considered necessary. This manual cannot be transferred for viewing to third parties without authorisation in writing from the manufacturing company.

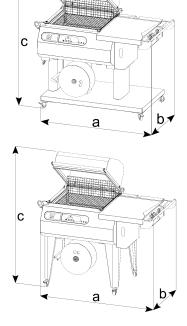
#### 1.2. Machine features

You have bought a machine with outstanding features and performance and we thank you very much for choosing it. The system is unique and has achieved worldwide success with more than 400000 units operating in the packaging and wrapping sector.

The technological concept of its design, as well as the components and materials used in the manufacturing and testing process are the best assurance of proper operation and lasting reliability.

Thanks to its particular operating circuit, it can be used both as a sealing and shrinking machine or as a sealing machine only. In the latter case it is possible to pack the object in a soft bag without shrink-wrapping.

#### 1.3. Machine technical data



	FM75	Replay 40	FM76	Replay 55
"a" (mm)	1160	1160	1260	1260
"b" (mm)	700	700	810	810
"c" (mm) (hood closed)	1120	1120	1165	1165
"c" (mm) (hood open)	1220	1220	1310	1310
Maximum production (packs/hour)	300	300	300	300
Machine weight (kg)	112	90	126	105
Package weight (kg)	136	111	150	126

## Chapter 2. Film features

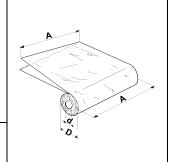
EN

#### 2.1. Films to be used

The machine can work with polyolefin heat-shrink film between 9 and 25 micron thick, both technical and suitable for food. To guarantee the best results, use the films marketed by us.

The special features of our films, with regard both to compliance with laws in force and to excellent machine performance.

FM75 – Replay 40 A = 500 mm MAX D = 250 mm MAX d = 77 mm FM76 – Replay 55 A = 600 mm MAX D = 250 mm MAX d = 77 mm



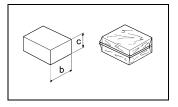


Consult the data and safety sheets of the films in use and observe the corresponding instructions!

#### 2.2. Band A calculation

Band A = b + c + 100 mm

By band "A" we mean the width that the film must have to package the product.



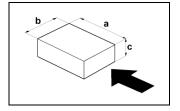
## **Chapter 3. Machine usage conditions**

EN

#### 3.1. Max. weight and dimensions of the package

**FM75 – Replay 40** a = 400 mm b = 250 mm c = 160 mm Weight = 10 kg **FM76 – Replay 55** a = 500 mm b = 380 mm c = 200 mm Weight = 15 kg

Note: measurements shown refer to the maximum for the single dimension. Refer to chapter 2.2. to get max. dimension of pack (b  $\times$  c); the addition of (b + c) is equal to film roll width minus 100 mm.



#### 3.2. Items that may be packaged

These machines are capable of packing a wide range of completely different products. They are used successfully in the following sectors: food, marketing, graphics and mailing, large distribution, industry, fabrics.

#### 3.3. Items which must not be packed

The products listed below must absolutely not be wrapped to avoid permanent damage to the machine and serious injuries to the operator:

- Wet and unstable products
- Liquids of any kind and density in fragile containers
- Flammable and explosive materials
- Pressurised gas cylinder of any kind
- Loose 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 damage the machine.

## **Chapter 4. Safety standards**

EN

#### 4.1. Warnings

It is extremely important to read this entire chapter as it contains important information regarding risks that personnel are subject to in the event of incorrect use of the machine. These basic standards must be observed as well as specific standards applicable in the country of installation.

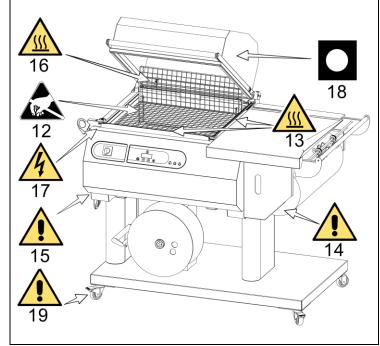
- This machine is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack experience and knowledge, unless they have been given supervision or instruction concerning use of the machine by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the machine.
- Never use the machine for purposes other than as specified in the sales contract.
- Never allow unauthorised personnel to perform repairs or other operations on the machinery.
- The operator must be familiar with all warnings related to the tasks in hand and always be informed by the head of the site regarding risks.
- Ensure that all clothing is tight fitting, with particular reference to cuffs or other loose clothing.
- Ensure that all operating areas and transit zones are kept clear, clean and adequately lit at all times.
- Eliminate all safety hazard conditions before using the machine and always notify the head personnel of any malfunction.
- Never use the machine in the event of fault.
- Never tamper with safety devices or circuits.
- Never perform modifications on the machine without prior authorisation from the manufacturer.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- The electrical enclosure must remain closed during operation.
- Smoking is forbidden while the machine is operating!
- Never performs maintenance and/or adjustments to the machine during operation. Guards may only be disassembled by suitably trained and qualified maintenance engineers.
- Never operate the machine without all guards fitted. Ensure correct position of all guards before resuming normal operation.
- If it is necessary to leave the machine unattended, switch it off by turning the main switch to the "0" (OFF) position!
- The manufacturer declines all liability for damage or phisical injury caused by failure to observe safety standards.

#### THE MACHINE CAN NOT BE USED BY UNTRAINED PERSONNEL!



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

- Do not touch the sealing blade (13) soon after sealing by reaching beyond the safety guard. Danger of burns due to residual heat on the sealing blade (13)
- Do not keep on sealing if the sealing blade breaks (13). Replace it at once
- Do not touch the chamber closing flap (16) during warm-up. Danger of burns
- Do not touch the fan while moving or using the machine without the reticulated plate (12)
- Make sure the film reel is properly lodged in is place (14)
- Ensure that the machine is secured correctly to the four holes (15) lon the trolley (if present)
- When the machine is not in use, leave the upper hood (18) open.
- The wheels (19) must be used only for moving the unit short distances across smooth, horizontal floors.



#### 4.2. Description of safety stickers

The following safety stickers feature on the machine:

On machine front panel.



#### Danger of electrocution!

Risk due to presence of electrical power in electrical system inside front panel (17).

When the panel is opened, the machine must be switched off and the plug must be pulled from the socket of the main circuit.

While the machine is running, the front panel must be mounted properly.



- On the guard in front of the sealing blade.
- On the protection panel of the heat diaphragm positioned behind the reticulated plate.

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

#### 4.3. Individual protection devices



Wear safety shoes that protect feet from impacts, crushing and compression while moving or handling the machine.

Wear safety gloves that protect the hands from crushing and mechanical hazards and while moving or handling the machine.



Wear safety gloves that protect the hands against cutting risks while changing the sealing blade.

Wear safety gloves that protect the hands against the specific risks associated with the materials to be packed (mechanical, chemical) and against coming into contact with the high temperatures present on the seals and/or sealing blade (up to 100°C).



Wear safety gloves that prevent the hands from coming into contact with foodstuffs when packaging them.

#### 5.1. Transport and positioning



Wear safety shoes that protect feet from impacts, crushing and compression while moving or handling the machine.



Wear safety gloves that protect the hands from crushing and mechanical hazards and while moving or handling the machine.

The machine must be installed by personnel who are qualified for this operation: personnel specifically trained to safely carry out the loading, unloading and handling operations, who are familiar with the accident prevention rules.



Where a forklift must be used, please note that:

- The forklift truck must only be driven and manoeuvred by specialised and trained personnel who have the skills to carry out these activities,
- the load to be handled must not exceed the capacity of the forklift,
- the load to be handled must be stable and positioned in absolute safety.
- Cut the strap with scissors make sure you protect your eyes by wearing glasses and withdraw the cardboard. Remove the screws and any plate intended to fasten the machine to the pallet.

If you have purchased the trolley (FM75/76 evo):

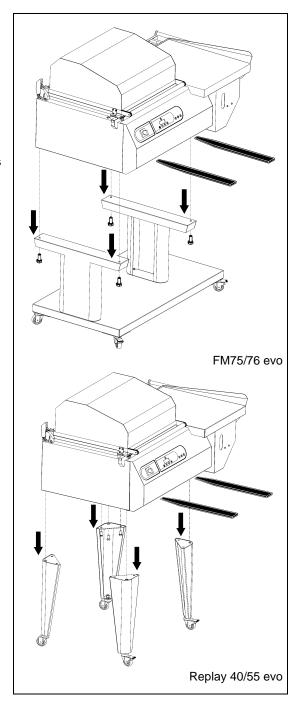
- Remove the box containing the trolley and assemble it according to the instructions inside the box
- Lift the machine by means of a fork lift truck and place it on its trolley, securing it in place using the four screws that were used to secure the packaging plates to the machine
- Cut the strap to release the upper hood.

If you have purchased the legs (Replay 40/55 evo):

- Remove the box containing the legs.
- Raise the machine using a fork lift and fit the 4 legs using the screws provided.
- Cut the strap to release the upper hood.

If you have purchased the waste rewinder:

 Unpack the waste rewinder and position it as indicated in the instructions provided.



## **Chapter 5. Machine installation**

**EN** 

#### 5.2. Environmental conditions

- Place the machine level on the floor in a suitable environment free from humidity, gases, explosives, combustible materials. The machine may only be installed on smooth, flat non-inflammable surfaces
- Leave a minimum space of 0,5 m around the machine so that not to obstruct air inlets
- Once the correct position is achieved, lock the machine by means of the wheel brakes.

#### Working environment 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 allow good visibility in order to safeguard the operator's safety and health.

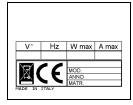
# MACHINE PROTECTION FACTOR = IP20 THE AIRBORNE NOISE MADE BY THE MACHINE IS LOWER THAN 70 dB(A)

#### 5.3. Electrical connections

Voltage (V): see data on plate Frequency (Hz): see data on plate

Maximum absorbed power (W): see data on plate Maximum absorbed current (A): see data on plate

Note: when contacting the Manufacturer, always indicate the model and the serial number specified on the plate on the rear part of the machine.





The power line must be protected with a type A residual current device with rated residual current equal to " $I\Delta n$ ", 30 mA.

As a result, the maximum resistance of the earth electrode must correspond to the values indicated in the following table

l∆n	Maximum resistance of the earth electrode		
	(50 V)	(25 V)	
3 A	16 Ω	8 Ω	
1 A	50 Ω	25 Ω	
500 mA	100 Ω	50 Ω	
300 mA	166 Ω	83 Ω	
30 mA	1666 Ω	833 Ω	



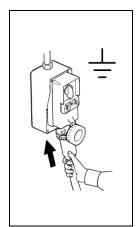
#### **OBSERVE HEALTH AND SAFETY REGULATIONS!**

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.

#### **GROUNDING OF THE UNIT IS OBLIGATORY!**

Before making 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 power supply company.

Insert the plug on the cable from machine electrical cabinet in a mains power supply socket that can be reached easily by the operator.



**EN** 

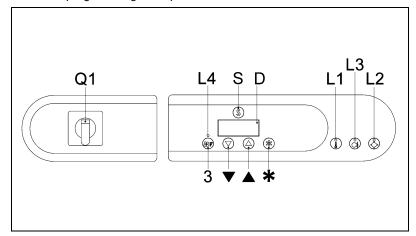
#### 6.1. Adjustment

#### 6.1.1. Control panel

The machine is fitted with a control panel, from which all programming and operation functions can be set.

#### Q1 Main switch

- **▼** Button "DECREASE".
  - Reduces set function values
- ▲ Button "INCREASE".
- Increases set function values
  3 Button "Soft Shrink".
- Reduces the fan speed
- L1 Temperature warning light
- **L2** Shrinking warning light
- L3 Sealing warning light
- L4 LED Soft Shrink
- **D** Display.
  - Displays selected functions and relative settings
- \* Cycle counter selection button
- S Parameters selection button



#### 6.1.2. Switching the machine on

Turn the main switch (Q1) into pos. 1.

The display (D) turns on and the number of the currently selected program will appear.

Switching the machine on powers the shrinking heat element which begins to heat up.

Before using the machine, wait until the adjusting temperature is reached. This is signalled by the extinction of the warning light (L1).

#### 6.1.3. Selection of programs and calibration of parameters

The machine has 10 programs (Pr 1÷Pr 10) that can be selected by pressing (▲) and (▼).

The programs are identical and, with the appropriate settings, can make 2 different types of packaging:

#### **ONLY SEALING**

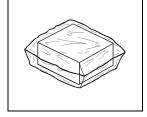
This program is for film sealing only.

The film melts due to the heat of the sealing blade. The pressure between the sealing blade and the upper contrast lined in Teflon separates the 2 edges of the film.

The product to be packed is enclosed in a slack bag.



• Heat chamber temperature "tEMP" = OFF.



#### **SEALING AND SHRINKING**

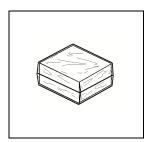
This program seals and shrinks film simultaneously.

Shrinking is produced by the forced circulation of hot air around the the package. Air is heated by passing through a heat element (heat diaphragm).

The product to be packed is enclosed in a bag which perfectly adheres to its shape.

This is obtained by setting:

- Heat chamber temperature "tEMP" = to the desired value,
- Shrinking time "Shri" = to the desired value.



EN

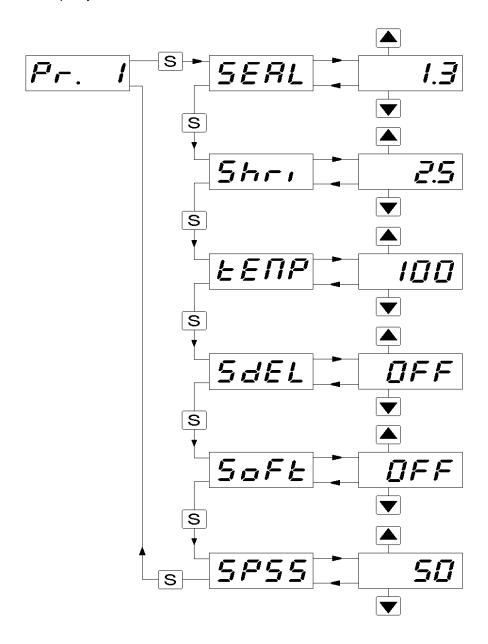
Once the desired program has been selected, press the button (S) to display the program's parameters.

The code (flashing) that identifies the first parameter that will be alternated with the set value will appear on the display. If the parameter indicates a function that can be linked to an LED indicator on the panel, said LED will flash to show that a parameter for the linked function is being programmed.

Then press (▲) and (▼) to change the value.

Once the desired value has been set, press the button (S) again to go to the next parameter and so on until you exit the parameters programming mode indicated by the return of the display to indication of the program selected.

Note: the ( $\triangle$ ) and ( $\nabla$ ) buttons move at one digit at a time but if they are pressed for more than one second the value increases or decreases quickly.



EN

The operating parameters for each program are:

Parameter	Description	Range	Default
SEAL	Sealing time Time in which film sealing occurs.	OFF / 0,1 ÷ 3,0 sec.	1,3
Shri	Shrinking time Time in which shrinking occurs (operation of the fan).	OFF / 0,1 ÷ 10,0 sec.	2,5
LENP	Heat chamber temperature Temperature that the heat chamber must reach. The indicated value will correspond to: 0 = 0° (the heating element is switched off) 1 150 = 100° 398°C (2°C each point)	OFF / 1 ÷ 150	100
SdEL	Fan delay time after sealing Delay time between the end of sealing and the start of shrinking (operation of the fan).	OFF / 0,1 ÷ 1,0 sec.	OFF
Soft	Soft Shrink Reduces the fan speed to the value set in the next parameter "SPSS". To quickly enter/remove the "SoFt" function use the Soft-Shrink (3) button that, when pressed/released, enters/removes the function. If the function is entered the display immediately shows the "SPSS" parameter of the active program which can then be changed. To exit this mode simply start an operating cycle or press the button (S).  This function is useful for packaging light products.	OFF - On	OFF
5 <i>P</i> 55	Speed Soft Shrink Parameter for adjusting the fan speed.	40 ÷ 100 %	50

#### **PARTIAL CYCLE COUNTER**

When the machine is in SELECTION OF PROGRAMS mode, the display shows the program in execution (e.g. "Pr. 1"). In this mode press (\*) to enter the "partial cycle counter" function in which the display shows the partial counter value reached.

Press the (\*) button again to return to the selection of programs and so on in rotation.

The partial cycle counter increases at each sealing up to a maximum of 9999 cycles (displayed), after which the count is blocked whilst waiting for the reset command.

The partial cycle counter reset command occurs only when you are in the cycle counter mode by pressing the (\*) button and keeping it pressed for more than 3 sec.

When the reset command has been given the display will then show "0".

**EN** 

#### 6.1.4. Alarm messages

The electronic board detects series of alarms that are indicated on the display (D) by the following messages:

#### AL1: Limit switch B1 closed when the machine is switched on.

Possible causes are:

Machine on and hood down. Lift the hood.

Limit switch B1 faulty. Check the operation of the limit switch and replace if required.

The machine will not execute the cycle in both cases. It is necessary to open the limit switch contact to cancel signalling.

The alarm will disappear as soon as the contact is opened.

#### AL2: Temperature not reached.

A possible cause is:

The working temperature was not reached in the pre-set time (15 min.).

Check that the thermocouple is positioned correctly. Check the heating element.

To reset the alarm, switch the machine off and on again.

#### AL3: Maximum temperature exceeded.

Possible causes are:

- ☐ Thermocouple with broken wires, damaged, or not in contact at the point of attachment on the heat sink.
- Membrane board with relative flat connection, damaged with loss of electrical insulation.
- □ Shrinking magnet damaged with loss of electrical insulation.
- ☐ The electronic component for the control of the heat sink on the power board is faulty.

Take electrical measurements and/or replace the components.

To reset the alarm, switch the machine off and on again.

#### AL4: Thermocouple interrupted.

To reset the alarm, switch the machine off and on again.

#### AL5: Sealing blade safety device.

A possible cause is:

☐ Triac sealing short circuit or mains voltage side sealing open circuit.

To reset the alarm, switch the machine off and on again.

#### AL6: Chamber safety thermostat tripped due to overheating.

A possible cause is:

☐ Malfunction of the heat sink temperature control system.

Check that the machine has no faults during operation (strange noises, burning odours, strangely high work temperatures).

Try to manually rearm the safety thermostat under the front panel (disconnect the power to the machine before opening the panel).

#### AL7: Operator safety.

A possible cause is:

□ QM0 relay short circuit.

To reset the alarm, switch the machine off and on again.

#### AL8: Operator safety.

A possible cause is:

QM0 relay open circuit.

☐ Limit switch B1 faulty. Check the operation of the limit switch and replace if required.

To reset the alarm, switch the machine off and on again.

#### ALL: Hood closed after shrinking.

If the hood remains closed during a shrinking cycle for longer than the pre-set shrinking time, the machine continues the shrinking for a maximum of 10 seconds, after which it stops running.

To reset the alarm, simply open the hood.

#### EEE: Machine lock.

Contact the technical assistance.

#### OffL: No communication between the display unit and the power unit.

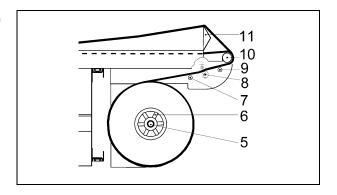
Contact the technical assistance.

If the alarm remains after having carried out the indicated interventions and controls to restore the machine, contact the technical assistance.

EN

#### 6.2. Film reel insertion

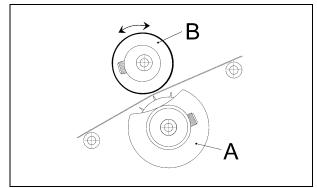
- Insert the reel of film on the roller (5) and lock it with the centring cones (6)
- Position the roller on the film reel support
- Feed the film around the return roller (7)
- Run through the micropunches (8)
- Run the film over the film drive roller (9)
- Feed the film around the return roller (10)
- Run the film lower layer under the packaging plate (11)
- Run the film upper layer over the packaging plate (11).



#### 6.3. Adjustment of the micropunches

The correct position of the micropunches allows optimal shrinking and prevents the packaged packet from tearing along the seal.

For this purpose you can adjust the distance between the micropunch (A) and the contrast (B) by turning said contrast. The film punch becomes more pronounced when this distance is reduced.



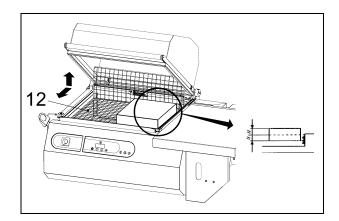
#### 6.4. Reticulated plate installation

The reticulated plate (12) can be placed according to the height of the product to pack.

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

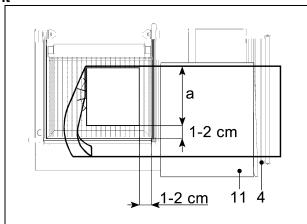
To position it follow this procedure:

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



#### 6.5. Reel support and packaging plate adjustment

The reel support (4) and the packaging plate (11) 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 welding edge.



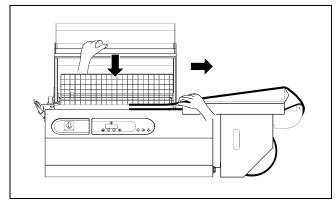
EN

#### 6.6. Making the first seal

Place film as shown in the picture to carry out the 1st seal. 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.

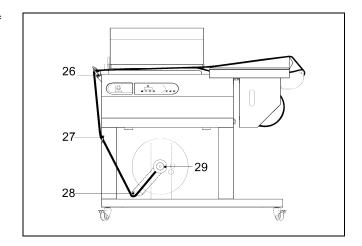


#### 6.7. Film binding on rewinder (if present)

Carry out a number of cycles sufficient to make a strip of scrap film.

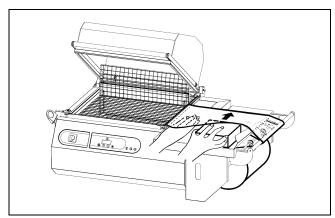
Guide this film strip around the transmission rollers (26) and (27) and the control roller (28) and bind it to the rewinder (29).

The machine is now ready to start packaging.



#### 6.8. Introducing the object to be packaged

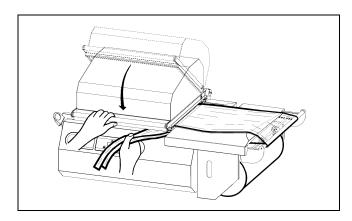
With the left hand slide on the packaging plate the quantity of film necessary to contain the product to be packed. Introduce the product into the bag using the right hand and make it slide to the left until it is laid on the screen leaving a little space of about 1-2 cm to allow the passage of air for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



#### 6.9. Packaging

By pushing the cover handle with a pressure of 15 kg the cover rests on the sealing blade; by pinching the film, it is automatically sealed on the open sides (right and front). If you have set "shrinking" you will see the film shrink around the product.

Slightly decrease the pressure on the cover handle to allow film detach from the sealing area on the inside. With the right hand detach the film from the sealing blade towards the outside.



## **Chapter 7. Ordinary maintenance**

EN

## 7.1. Instructions for ordinary maintenance work ORDINARY MAINTENANCE MUST BE CARRIED OUT BY QUALIFIED, APPROPRIATELY TRAINED STAFF.



Before carrying out maintenance, switch the machine off with the main switch (Q1), disconnect it and wait for the machine to cool down!

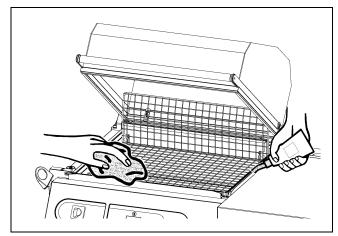
#### 7.2. Maintenance table

The type of machine requires reduced maintenance operations; you must nevertheless stick to the Maintenance plan.

FREQUENCY	COMPONENT	TYPE OF OPERATION
Each	Machine	Clean the machine with a water dampened cloth.
day		
Each	Sealing blade	Using a dry cloth, wipe any film residues off the sealing blade.
day		
Each	Upper hood	Use only soap and water to clean both the outside and the inside of the
day	in Plexiglass	Plexiglass hood.
Each	Lower hood	Use compressed air to remove any film residues from the inside of the hood
day		and in the heat chamber zone.
Each	Sealing blade	Check that the sealing blade is not worn.
month	-	Check the wear status of the Teflon and replace if necessary.
Every	Coolant	Check the level of coolant and top-up if necessary.
3 months		

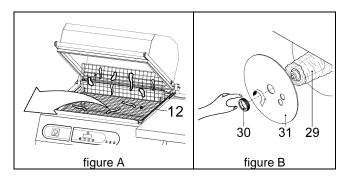
#### 7.3. Sealing blade cleaning

- Using a dry cloth, wipe any film residues off the sealing blade: do this at once after sealing since they are easier to remove when still warm
- For improved cleaning, regularly lubricate the sealing blade with the Teflon non-stick grease supplied with the machine.



#### 7.4. 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 (12) and take out any pieces that may have fallen inside (figure A)
- When the reel on the automatic rewinder (29) is full, remove the film by unscrewing the knob (30) and taking away the disk (31) (figure B).

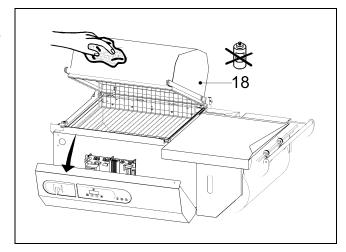


#### 7.5. Machine cleaning



To clean the upper hood (18), clean both the outside and the inside with water and soap only. Do not use any detergents with solvents which could damage the upper hood (18) and reduce the transparency.

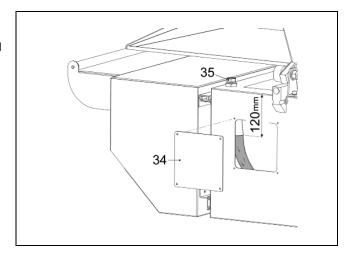
- Use a cloth moistened with water to clean the machine
- If the machine works in a dusty environment it is necessary to clean it more frequently inside as well as outside. We especially recommend you vacuum up the dust which settles on the interior electrical components.



#### 7.6. Coolant check (if present)

Check the level of the coolant every 3 months by unscrewing the rear panel (34).

Make sure the level of the liquid is not below the indicated measure. Otherwise unscrew the cap (35) and add the mixture of water and antifreeze (10%).



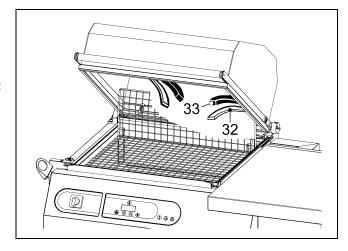
#### 7.7. Substituting the rubber and Teflon

When the Teflon-strikers (32) are worn out, substitute them with spare parts, making sure the application is linear and even.

Before applying the Teflon self-adhesive strip clean the rubber part (33) with a detergent.

If the rubber (33) is also damaged, substitute it as follows:

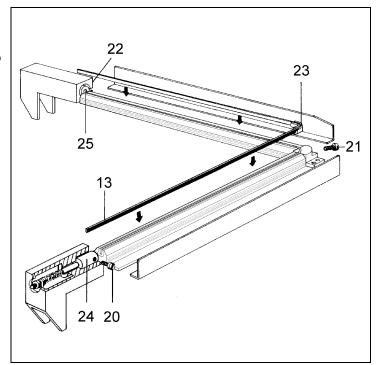
- Remove the old rubber
- Clean its housing
- Insert the new rubber in a linear way
- Clean the rubber with a detergent
- Apply the self-adhesive Teflon-strip.



#### 7.8. Changing the sealing blade

To substitute the sealing blade (13) follow this procedure:

- Switch the machine off with the main switch (Q1), disconnect it and wait for the machine to cool down
- Unscrew the three screws (20), (21), (22)
- Remove the old sealing blade
- Clean the housing and if necessary substitute 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 (24) towards the sealing blade to make it enter the hole of the piston itself and then tighten screw (22)
- Push the front piston (25) completely 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 under tension.



#### 7.9. Problem solving

DDOD! EM	CALICE	COLUTION
PROBLEM	CAUSE	SOLUTION
The machine seals but	The head lung's temperature is too low	Increase the set value
it does not shrink.	The shrink time parameter "Shri" is set on OFF.	Increase the value (0.1 ÷ 10)
	The chamber temperature parameter "tEMP" is set on OFF.	Increase the value (1 ÷ 150)
	The machine is in heating mode	Wait for the machine to reach the set temperature (Led "L1" switch-off)
	The fan does not turn	The fan's motor is faulty. Contact the after-sales technical assistance.
	The maximum temperature of the heat lung is exceeded.	Contact the after-sales technical assistance.
	The safety thermostat intervened, disconnecting the heating element.	
Shrinking takes place,	The film is not suitable or of scarce quality	Replace the film
but it is not even and complete	The product is too big	The product is bigger than admitted (see paragraph 3.1.)
Shrinking contains "bubbles" (the film	The film is without micro-holes	Make the film properly slide through the micro-holes (see paragraph 6.2.)
does not adhere to the product)	The micropunches are too small	Reduce the distance between the micropunch and the contrast (see paragraph 6.3.)
Sealing opens during shrinking	The sealing blade is dirty or damaged	Clean the sealing blade or replace it if damaged
	Sealing time is incorrect	Adjust the sealing time
	Insufficient hood pressure	Slightly increase pressure on the hood's handle
Sealing is irregular	The film is not suitable or of scarce quality	Replace the film

## **Chapter 7. Ordinary maintenance**

EN

PROBLEM	CAUSE	SOLUTION
Sealing does not take	Sealing time is not enough	Increase the set value
place	The sealing blade does not receive current	Repair the power supply circuit of the sealing
		blade.
		Contact the after-sales technical assistance.
	The Teflon and/or gasket of the cover are	Replace the Teflon and/or gasket of the
	worn	cover
	The sealing blade is damaged	Replace the sealing blade.
		Contact the after-sales technical assistance.
Fumes present during	Sealing time is long	Decrease the set value
sealing	Residues present on the sealing blade	Clean the sealing blade

If the machine does not work properly after the above-mentioned checks, contact the assistance service describing the detected defect.

#### 7.10. Disassembling, demolition and elimination of residuals



#### **ATTENTION!**

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

Proceed as follows:

- Switch the machine off with the main switch (Q1), disconnect it and wait for the machine to cool down
- 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 where the equipment has been installed.



The symbol indicates that this product shall **not** be treated as household waste. By making sure that the product will be properly disposed of, you will facilitate the prevention of potential negative effects for the environment and human health, which might be otherwise caused by the improper waste treatment of this product. For more detailed information about the recycling of this product, please contact the product seller or, as an alternative, the after-sales service or the corresponding waste treatment service.

## **Chapter 8. Guarantee**

EN

#### 8.1. Guarantee conditions

The guarantee runs for 12 months and comes 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 manufacturer's premises, with transport or labour charged to the buyer. If the repair or replacement is carried out at the buyer's premises, he shall bear the travelling, transfer and labour costs. 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 fulfilment of the guarantee.

- The guarantee is voided:
- In case of inappropriate installation, power supply, misuse and mishandling by unauthorised persons
- In case of changes made to the machine without prior agreement in writing from the manufacturer
- If the machine is no longer the property of the first buyer.

The manufacturer declines all liability for personal injury or damage 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 undertakes to carry out any variations and changes made necessary by technical and operating requirements.

# IN THE EVENT OF DISPUTES THE COURT OF BERGAMO (ITALY) SHALL HAVE SOLE JURISDICTION.



minipack

**DICHIARAZIONE CE DI CONFORMITA'** ΕN CE DECLARATION OF CONFORMITY KONFORMITÄTSERKLÄRUNG DE DECLARATION CE DE CONFORMITE'
DECLARACIÓN CE DE CONFORMIDAD
ÖVERENSTÄMMELSEFÖRKLARING EC FR ES

**DECLARAÇÃO CE DE CONFORMIDADE** 

ΔΗΛΩΣΗ ΠΙΣΤΟΠΟΙΗΣΗΣ CE cs ES PROHLÁŠENÍ O SHODĚ CE GELIJKVORMIGHEIDSVERKLARING NL FI

EY-VAATIMUSTENMUKAISUUSVAKUUTUS ДЕКЛАРАЦИЯ СООТВЕСТВИЯ СЕ

한국어 적합성의 CE 선언

RU

FR	We: Wir: Nous: Nosotros:	PT EL CS	νι. Nós: Εμείς: My: Wij:	RU Mы: 한국어 자사:	MINIPACK-TORRE S.p.A. Via Provinciale, 54 – 24044 Dalmine (BG) - Italy
IT	diablasia		4- 1		علم خناناء

ΕN declare under our responsibility that the product

DE erklären unter unserer ausschließlichen Verantwortung, dass das in dieser Erklärung genannte Produkt

FR déclarons sous notre exclusive responsabilité que le produit

ES declaramos bajo nuestra exclusiva responsabilidad que el producto

sv förklarar under eget ansvar, att produkten

declaramos sob a nossa exclusiva responsabilidade que o produto

EL δηλώνουμε υπεύθυνα ότι το προϊόν

sv

cs prohlašujeme výhradně na vlastní zodpovědnost, že produkt

NL verklaren op onze exclusieve verantwoordelijkheid dat het product

FI vakuutamme yksinomaisella vastuullamme, että tuote

RU под нашу исключительную ответственность заявляем, что данное изделие

한국어 자사의 독점적인 책임 하에 다음을 선언합니다. 제품

IT EN DE FR ES	MACCHINA CONFEZIONATRICE TIPO: PACKAGING MACHINE MODEL: VERPACKUNGSMASCHINE TYP: MACHINE D'EMBALLAGE MODELE: MÁQUINA CONFECCIONADORA TIPO:	SV PT EL CS NL	PACKNINGSMASKIN TYP: MÁQUINA CONFECCIONADORA MHXANH ΣΥΣΚΕΥΑΣΙΑΣ ΤΥΠΟΥ: BALICI SROJ MODEL: VERPAKKINGSMACHINE TYPE:		
	FM75 evo		n°	1	
	FM76 evo		n°	1	
	Replay 40 evo		n°	1	
	Replay 55 evo		n°	1	

IT è conforme ai requisiti essenziali di sicurezza e a tutte le disposizioni pertinenti delle direttive applicabili

ΕN conforms to the essential safety requirements and all the provisions of the applicable directives

entspricht den grundlegenden Sicherheitsanforderungen und allen betreffenden Bestimmungen der einschlägigen Richtlinien est conforme aux exigences essentielles de sécurité et à toutes les dispositions pertinentes des directives applicables DE

FR

ES cumple los requisitos fundamentales de seguridad y todas las normas pertinentes de las directivas aplicables

SV uppfyller de väsentliga säkerhetskraven och relevanta bestämmelser i gällande direktiv

é conforme os requisitos essenciais de segurana e a todas as disposições pertinentes das directrizes aplicáveis EL

συμμορφώνεται με τις βασικές απαιτήσεις ασφαλείας και όλες τις συναφείς διατάξεις των εφαρμόσιμων οδηγιών

cs splňuje základní požadavky na bezpečnost a všechna příslušná ustanovení platných směrnic NL

vastaa kaikkia olennaisia turvallisuutta koskevia vaatimuksia ja kaikkia sovellettavien direktiivien asiaakoskevia määräyksiä

RU соответствует основным требованиям безопасности и всем соответствующим положениям в действующих директивах 한국어 은 필수 안전 요구사항들과 적용할 수 있는 지침들의 관련된 모든 규정을 준수합니다

## 2006/42/CE, 2014/30/UE, 2014/35/UE

E inoltre dichiariamo che sono state applicate le seguenti norme armonizzate IT

And furthermore we declare that the following rules have been applied ΕN DΕ außerdem bestätigen wir, dass folgende harmonisierte Richtlinien angewendet wurden

Nous déclarons également que les normes harmonisées suivantes ont été appliquées

ES Además declaranos que han sido aplicadas las siguientes normas armonizadas

sv Dessutom förklarar vi, att följande harmoniserade normer har använts

РΤ E, além disso, declaramos que foram aplicadas as seguintes normas harmonizadas

EL

Επίσης δηλώνουμε ότι εφαρμόσθηκαν οι εξής εναρμονισμένες προδιαγραφές A kromě toho prohlašujeme, že byly aplikované následující harmonizované normy cs

ŇĹ We verklaren bovendien dat de volgende geharmoniseerde normen worden toegepast

Tämän lisäksi vakuutamme, että olemme soveltaneet seuraavia yhdenmukaistettuja standardeja

RU Также мы заявляем, что были применены следующие согласованные нормативы

한국어 또한 일치되는 다음 규범들이 적용되었음을 선언합니다

#### EN 12100:2010, EN 61000-6-3:2007, EN 61000-6-1:2007, EN 60335-1:2013

IT Persona autorizzata a costituire il Fascicolo Tecnico: Responsabile Ufficio Tecnico ΕN Person authorized to draft the Technical File: Head of the Technical Dept

DE Zur Erstellung des Technischen Merkhefts befugte Person: Verantwortlicher der Technischen Abteilung

FR ES Personne autorisée à constituer le Fascicule Technique : Responsable Bureau Technique Persona autorizada a elaborar el Fascículo Técnico: Responsable del Departamento Técnico

Person med behörighet att skapa den Tekniska Dokumentationen: Tekniskt ansvarig sv

PT Pessoa autorizada a compilar o Processo Técnico: Responsável pelo Gabinete Técnico EL

Ατομο εξουσιοδοτημένο να καταρτίσει το Τεχνικό Τεύχος: Υπεύθυνος Τεχνικού Γραφείου Osoba autorizovaná k vystavení Technické dokumentace: Vedoucí technického oddělení cs

NL Persoon bevoegd om het technisch dossier op te stellen: Verantwoordelijke technische dienst Teknisten asiakirjojen laatimiseen valtuutettu henkilö: Teknisen toimiston vastuuhenkilö

RII Лицо, уполномоченное для составления технического файла: начальник технического отдела

기술 파일을 제조하도록 공인된 인력: 공식 기술 책임자 한국어

Dalmine.

Torre P.I. Fabio Emanuele m Tubor Zunce Consigliere Delegato Managing Director

DE Geschäftsführer Directeur Général Consejero Delegado

Verkställande Direktör Conselheiro Delegado EL Ο Διευθύνων Σύμβουλος

Generální ředitel Gedelegeerd bestuurder

Toimitusjohtaja RU Управляющий директор 한국어 대표 이사