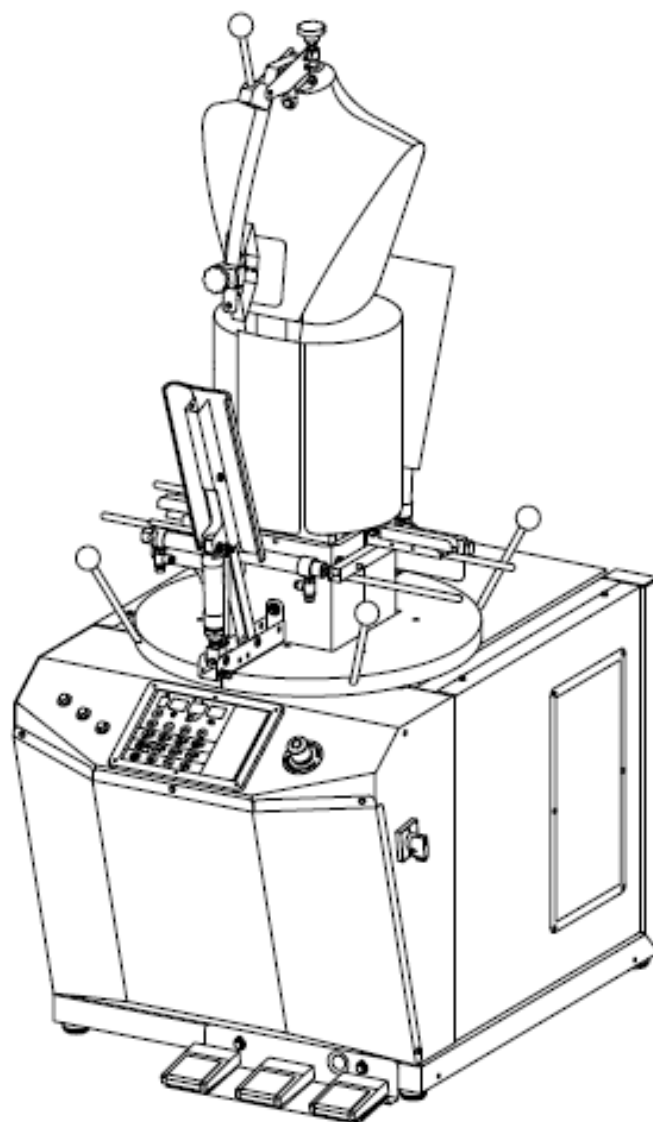


CATALOGO ISTRUZIONI E RICAMBI
INSTRUCTIONS AND SPARE PARTS BOOK
LIVRE D'INSTRUCTIONS ET PIECES DETACHEES
CATALOGO INSTRUCCIONES Y PIEZAS DE REPUESTO
BEDIENUNGSANLEITUNG UND ERSATZTEILELISTE
CATALOGO DE INSTRUCCIONES E TROCAS

”MC 105”



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1. Introduction

1.1. Content and purpose of this manual

This manual contains instructions concerning the installation and maintenance of pressing equipment in conformity to the present European Community Directive. Therefore you will find information on the following subjects :

- Information on machine technical features;
- Instructions on installation and operating of the machine;
- Instructions on maintenance and servicing;
- Technical diagrams;
- Exploded views of spare parts.

This manual is for the operator, the installer and the technician; they will have to read and understand it carefully before installing, using or servicing the machine.

This manual should be kept with the machine and read before operation; in case of loss or damage please ask the builder for a new copy.

The builder is not responsible for any consequences arising from the neglecting of all instructions reported in this manual.










The content of this manual is property of the manufacturer. Duplication of this manual is forbidden.

1.2. Safety precautions

Ignoring the following safety precautions can cause damage either to people, linen, animals and to the machine.

The following symbols, on the machine and in this manual, advise about possible risks.

Legend of the safety symbols found on the machine and in this book:

	Warning: live electricity
	General warning: follow instructions to avoid damage to the machine or to people.
	Warning: hot surface / burn hazard
	Warning: high temperature
	Risk of injury to hands of feet
	Wear gloves
	Wear protective shoes
	Wear a helmet
	Information, notice, advice

Carefully read the entire manual before installing, operating or servicing the machine.

Installation and maintenance the product described in this manual must be performed by authorized and qualified technicians who

know the products and are acquainted with standards for installation of industrial pressing equipment. The builder is not responsible for external connections not duly performed.

The product described in this manual must be used only to iron garments and linen. Any other use is forbidden unless builder authorizes it in writing.

Do not press fabrics contaminated by dangerous substances such as explosives, inflammable, etc. Make sure they are rinsed or aired before ironing.

To prevent fire hazard or explosions do not stand near the machine with explosive or inflammable products.

Use of the machine is allowed only to professional operators who have been trained on how to operate the machine. In any case the use of the machine is forbidden to children under 14 years of age.

Do not remove safety protection devices.

Do not leave machine unattended while in operation.

Do not remove safety symbols from the machine

1.3. Residual risks

Residual risks are defined as those derived from normal machine utilization that could not be eliminated by manufacturer.

The risk assessment has not identified residual risks. All potential dangers are controlled by suitable protections on the machine.

1.4. Manufacturer's liability

This manual instructions are not intended to substitute, but only to combine obligations of current legislation on safety standards.

With reference to information included in this manual, the manufacturer is not responsible in case of:

- neglect of local safety standards during machine utilization;
- incorrect installation of the machine;
- neglect or incorrect observance of instructions included on this manual;
- fault of voltage or of the feeding system;
- connection to electrical plant non compliant with EC safety requirement, in particular if the plant lacks grounding, thermal magnetic protection and differential protection,
- unauthorized changes on the machine;
- utilization of the machine by unauthorized, untrained or non-professional operators;
- neglect of maintenance operations
- use of non original spare parts.

2. Description of the machine

The unit described in this manual is a form finisher for pressing garments for the upper body (e.g. jackets, coats, overcoats).

The form finisher is designed for:

- Garment manufacturing industries;
- Large and small Industrial dry cleaners;
- Garment finishing industries.

The form finisher must be utilized by only qualified personnel, who have been specifically trained on this type of machinery.

The manufacturer does not accept any responsibility for damage caused to persons or things due to improper, erroneous or unreasonable utilization of the machine.

2.1. How to identify the machine

The machine is identified by a technical data plate. The plate is found on the back of the machine, as shown in Figure 2.1. Do not alter or modify in any way the data on the identification plate. Do not remove the identification plate:

Description of the data in the identification plate

Serial N	5 digits serial number
Type	Product code
V	Tension
Hz	Frequency (cycles)
kW	Power absorption
Date	Date of production

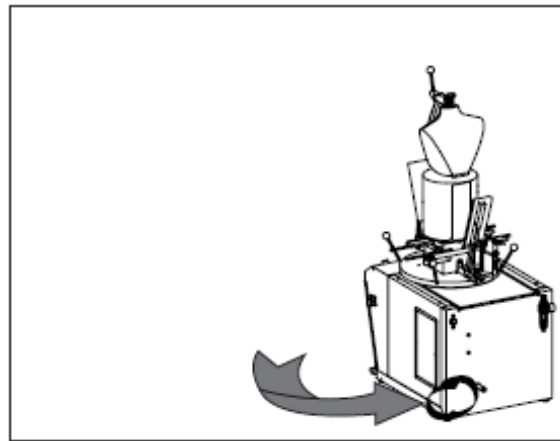


This manual describes all the versions of the machine. Before reading the manual identify the version of the machine you own by reading the machine “type” in the technical data plate. While reading the manual take into account only the information related to the version of machine you own.

For machine dimensions see Figure 2.1.

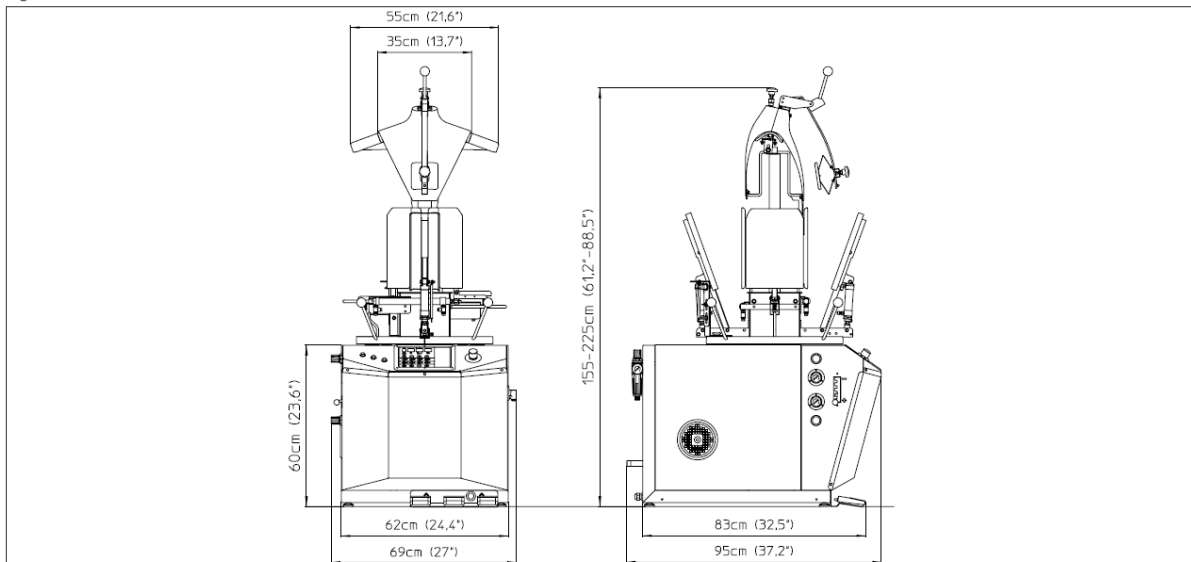
	Type	
Electrical requirements	400V 50Hz 3N	208-240V 3 60Hz
Steam inlet	1/2"	1/2"
Condensate return	1/2"	1/2"
Air supply	1/4"	1/4"
Power absorption	1,2kW	1.5 HP
Steam pressure	500 kPa	75 PSI
Air pressure	600 kPa	90 PSI
Steam consumption	15 - 20 kg/h	33 - 44 lbs/hr
Air consumption	6 nl/min	0.2 cfm
Net/Gross Weight	160/180 kg	353/397 lbs
Noise		
Room temperature	15 - 40 °C	60 - 105 °F

Figure 2.1 – Position of the identification plate



2.2. Technical data

Figure 2.2 - Machine dimensions



3. Installation

3.1. Upon receiving the goods

The machine is delivered mounted on crate and protected by a plastic film and, in some cases, by a cardboard box.

1. Position the crated machine near to the final location of installation. The crated machine must be moved using suitable devices, such as a forklift (Figure 3.1)
2. Unpack the machine and separate cardboard from plastic. Dispose of carton and plastic according to local regulations.
3. Unscrew the bolts that fix the machine to the crate.
4. Move the machine from the crate to its final position.



CAUTION – To avoid damaging the machine, do not move the machine by grabbing the form or the clamps.



CAUTION – The machine can be moved by hand by experienced personnel only. Wear gloves, helmet and protective shoes when moving the machine.

3.2. Packing list

Upon receiving the goods, check that the package contains all the items listed below:

1. Machine, complete with all mechanical parts and tensioning devices.
2. Plastic bag containing covers and padding (if not already in place on the machine).
3. Set of two sleeve expanders and two manual vent clamps (Figure 3.2). The vent clamps are not provided if the machine is equipped with optical pneumatic vent clamps.
4. Instruction manual.

3.3. Electrical connection



WARNING – The electrical connection is to be made by a licensed electrician only and accordingly to local safety regulations.

The manufacturer is not responsible for damage or injury caused by improper installation.

Refer to Figure 3.3.

1. Install a multi-pole switch (circuit breaker) to facilitate installation and service operations. See table 3.5 for rating and type of connection.
2. In most countries the circuit breaker should include a protection against overcurrent (e.g. thermal-magnetic circuit breaker or fuse). If using a fuse, see power absorption on the identification plate of the machine (see figure 2.1). In some countries the circuit breaker must include a ground fault interrupt protection

INDICATION - If a Ground Fault Interrupt protection is installed: every month test the safety of the circuit by pressing the Test button of the circuit breaker. The protection ought to trip. If it does not, call a technician immediately, as the safety of the equipment is impaired



3. Mount a plug on the power cord, see table 3.5 for rating.
4. Connect the plug to the circuit breaker. The cable should hang in a gentle curve.
5. Check that the motor is rotating counterclockwise, otherwise switch two of the three phases wires.



WARNING -The electrical line must be properly grounded to insure the safety of the operator (see grounding instructions below)

Table 3.5 – Data for electric connection

Installation	Plug	Power cord
400V 50Hz	Plug 3P+N+T 400V 3N 10A as per standard IEC60309	Type H05VV-F 5 x 1 mm ²
210-240V 60Hz	3P+T 210-240V 3 16A	Type H05VV5-F 4 x 14AWG



WARNING - The power cord can be replaced only by an authorized service center

Grounding instructions for US only

For 220V Triphase Models:

When permanently connecting this machine this appliance must be connected to a grounded, metal, permanent wiring system; or an equipment-grounding conductor must be run with the circuit conductors and connected to the equipment-grounding terminal or lead on the appliance.

When using a cord connector this appliance must be grounded.

In the event of malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This appliance is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.



DANGER – Improper connection of the equipment grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the cord or plug is necessary, do not connect the equipment grounding conductor to a live terminal. Check with a qualified electrician or serviceman if the grounding instructions are not completely understood, or if doubt as to whether the appliance is properly grounded. Do not modify the plug provided with the appliance – if it will not fit the outlet, have a proper outlet installed by a qualified electrician. This appliance is for use on a circuit having a nominal rating more than 120 V and is factory equipped with a specific electric cord and plug. No adaptor should be used with this appliance. If the appliance must be reconnected for use on a different type of electric circuit, the reconnection must be made by qualified service personnel; and after the reconnection, the appliance should comply with all local codes and ordinances.

For 120V Models

This appliance is for use on a nominal 120V circuit, and has a grounding plug. Under no circumstances shall the grounding plug be bypassed. No adaptor or extension cord should be used with this appliance. If the appliance must be reconnected for use on a different type of electric circuit, the reconnection should be made by qualified service personnel; and after the reconnection, the appliance should comply with all local codes and ordinances.

Figure 3.1 – How to move the crated machine

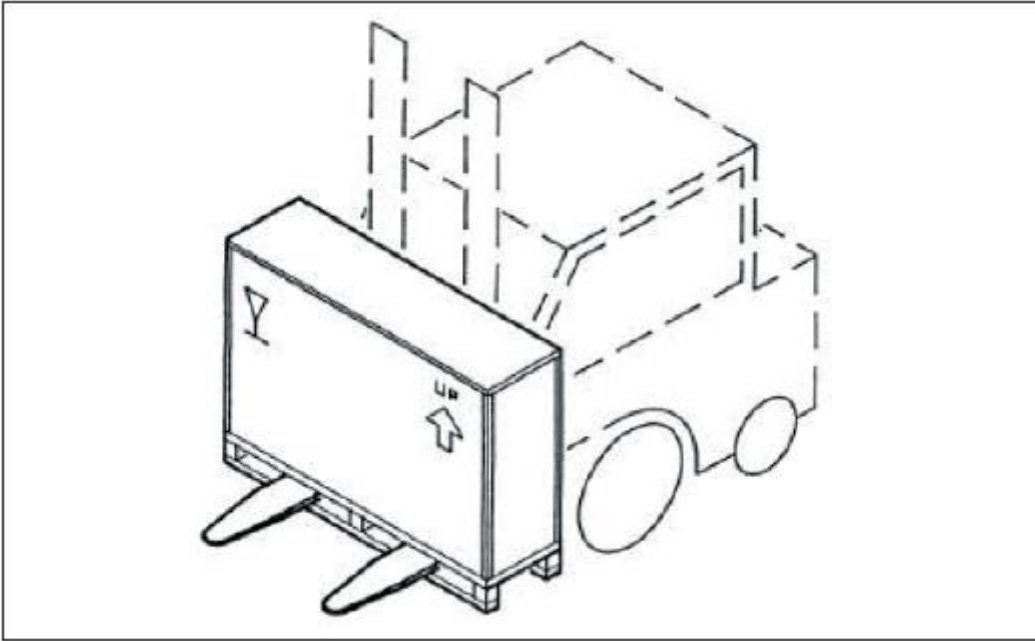
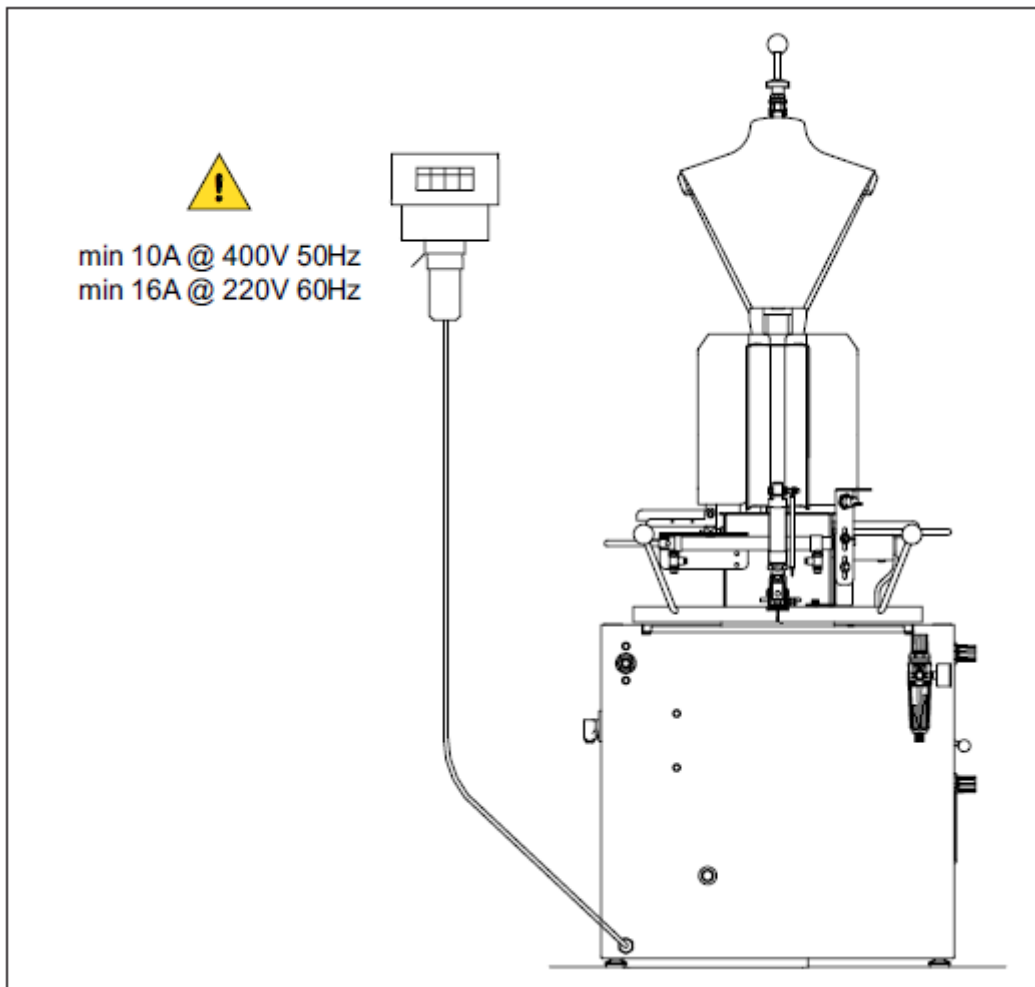


Figure 3.3 – Electrical connection



3.4. Compressed air connection



WARNING – The steam connection is to be made by a licensed technician only and according to local safety regulations.

Refer to figure 3.4.

1. Connect the machine to a compressed air source with pressure equal to or above 6 bar (90 PSI).
2. Make connections as indicated.
3. Set the general pressure regulator on the machine at 6 bar (90 PSI).



WARNING – Do not operate the machine with pressure higher than 6 bar. Risk of damage to the machine.

3.5. Steam connection



WARNING – The steam connection is to be made by a licensed technician only and according to local safety regulations.

3.5.1 Machine without iron

Refer to figure 3.5.

1. Mount the steam trap (4) and the check valve (5) as shown in figure 3.5. Connect an extension pipe to the check valve to reach the hole in the rear of the cabinet.
2. Connect a steam feed line (1) to the steam inlet (7). For your convenience, install a ball valve (3) on the steam feed line.
3. Connect the condensate outlet (8) to a condensate return line (2). For your convenience install a ball valve (3) on the condensate return line.

Connect the machine to a steam source with steam pressure at 5 bar (75 PSI) capable of providing 20 Kg/h (45 lbs/hr) of steam.



WARNING – Do not connect the machine to a steam line having pressure exceeding recommended values. Risk of serious damage to the machine and injury to people.

3.6. Other adjustments

The machine is supplied with the control panel folded against the side of the machine.

Rotate the support of the control panel to bring it in the most comfortable position.

Figure 3.4 – Compressed air connection

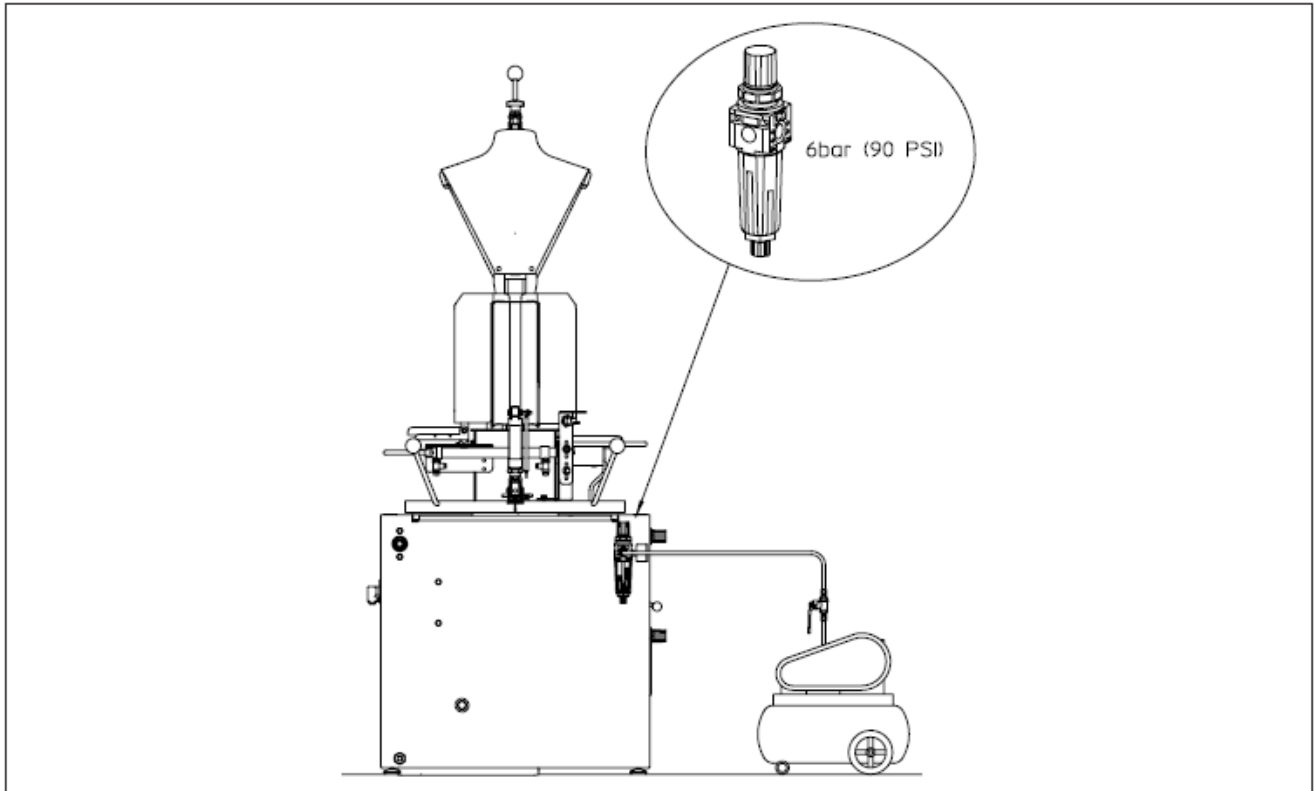
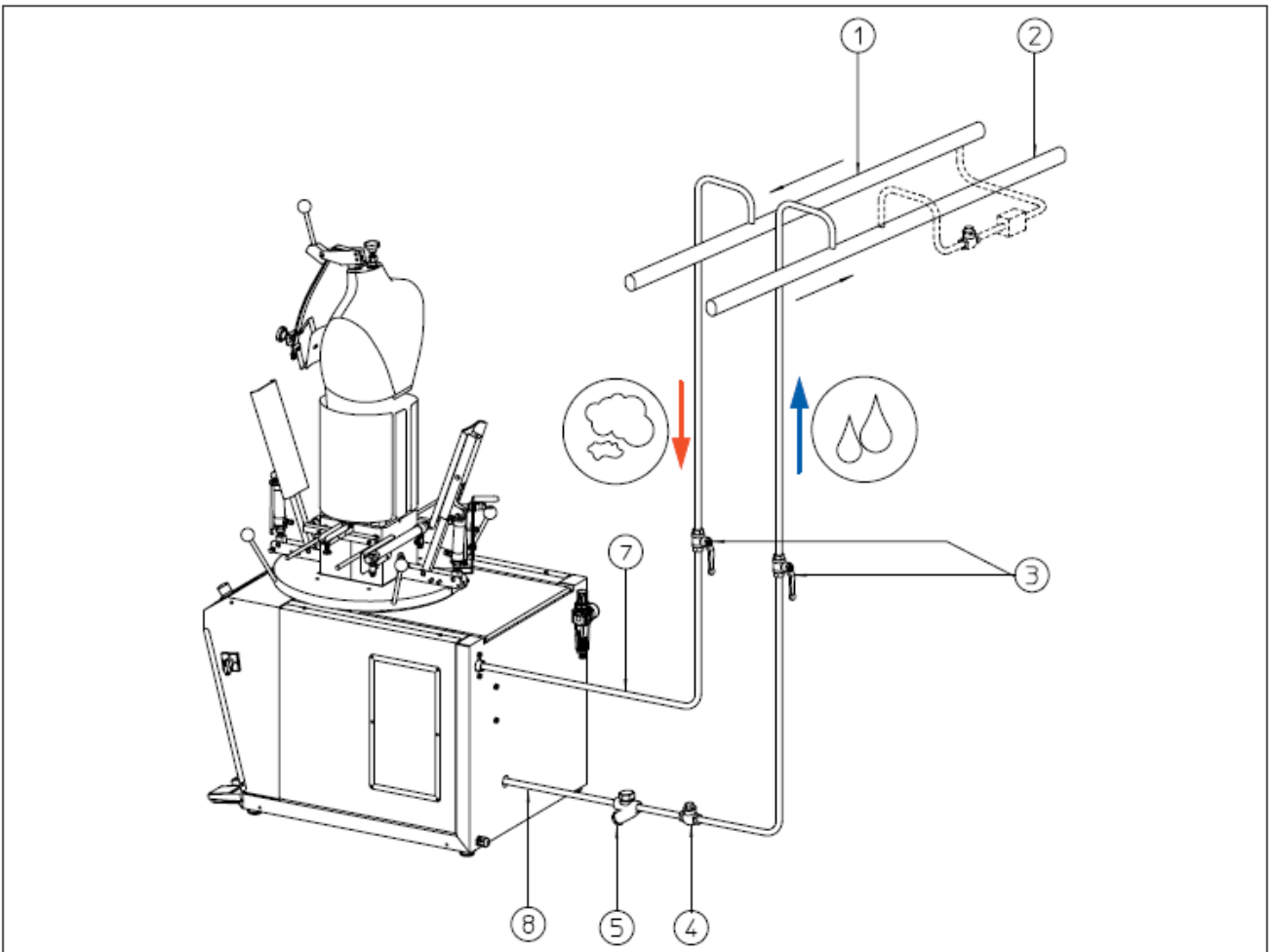


Figure 3.5 – Steam connection without iron



4. Operation

The form finisher described in this manual is made for pressing garments for the upper body (e.g. jackets, coats, overcoats).

The form finisher is designed for professional use in:

- Garment manufacturing industries;
- Large and small Industrial dry cleaners;
- Garment finishing industries.

The form finisher must be used by qualified personnel only, who have been specially trained on this type of machinery.

4.1. Safety precautions



During operation the machine is under electrical tension:

- Do not operate machinery with partially exposed or frayed wiring.
- Never permit water to come into contact with machine: **Danger of electrical shock, short-circuiting and damage to machine may result.**
- Do not open the machine cabinet.



The machine has various parts that reach extremely high temperatures:

- Do not leave the machine unattended while it is on.
- Keep all flammable substances away from the machine, to avoid risk of fire.
- Do not open machine body.
- Do not replace cover and padding while the machine is hot (wait at least 2 hours after turning it off). Always check the temperatures of the form before proceeding to substitute covers.



The machine emits hot steam vapours – stay clear of steam reflex jet.

4.2. Before starting

1. Open the steam and condensate return valves
2. Open the air delivery valve
3. Turn on main power switch (5 – figure 4.4).

4.3. Operation

Refer to figures 4.1 and 4.4

4.3.1 Position of the operator

During dressing, cycle start and undressing the operator stands in front of the machine.

4.3.2. Settings

1. Select program number with button (B) on the control panel.
2. Select blowing power by moving the lever to the desired notch (4)



Make sure that the general pressure in the machine, displayed by gauge (15), does not exceed 6 bar. Use knob (14) to adjust the general pressure: pull to unlock, rotate, push to lock pressure valve.

4.3.3. Pressing with the standard machine

1. Place the garment on the form and adjust shoulder width by turning knob (1).
2. Close lapel clamp (3), if needed.
3. Insert sleeve expanders in the sleeves, if needed.
4. If the garment has side vents, clamp them shut with manual vent clamps.

5. Select the AUTO mode in the section (D) of the control panel.
6. Press START pedal (7) to begin the cycle.
7. At the end of the cycle the clamps are automatically released. Open manually the lapel clamp by pulling lever (2).

If you do not want the machine to close the clamp automatically, select the MANUAL mode on the control panel. In this way the machine will wait for you to step on the START pedal before proceeding in the sequence (see chapter 5.5 “Operating mode” for details).

4.3.4. Pressing jackets with side vents using pneumatic vent clamps (OPTIONAL)





1. Set the machine in manual mode by pressing MANUAL in the (D) section of the control panel.
2. Dress the form, adjust shoulder width (1), close lapel clamp (3), if needed.
3. Step on the START pedal (7) once. The machine finds the operating height.
4. Step on the START pedal: the front clamp closes.
5. Turn the form, so that you are facing the back of the garment.
6. Step on the START pedal to close the rear clamp. While the clamp is closing keep the hem of the jacket in tension to prevent the clamp from closing on a crease.
7. Using the “expand sides” button (G) find the right width of side expanders. Stop the expanders before they hit jacket sides. If you expand the sides too far, push the “retract sides” button (H).
8. Manually push the vents clamps closed. While you are closing the clamp, use the other hand to arrange the vent so that it is pressed correctly. If the clamp closes in the wrong position it is possible to re-open it by hand.
9. Step on the START pedal twice to start the cycle. The first steps opens the sides and the second step starts the steam.

When the cycle ends, the machine automatically releases all clamps, including vent clamps. Manually open the lapel clamp (2).

4.3.5. Use of the iron (optional)

If your machine is equipped with an iron for touch-ups (the iron is an optional feature), the iron can be used anytime during the pressing cycle to perfect finishing.

If you want to keep full control of the quality of the garment proceed as follows:

1. Select the  function located in the (D) section of the control panel. At the end of the pressing cycle the clamps are not released and the garment is kept in place for visual inspection;
2. If the garment needs touch-ups: Press  in the (E) section of the control panel to start blowing;
3. Use the iron to finish the garment or add manual steam by pressing the button  in section (E) of the control panel;
4. Press  in the (E) section of the control panel to release the clamps.
 - The iron must be used and rested on a stable surface;
 - when placing the iron on its stand, ensure that the surface on which the stand is placed, is stable;
 - the iron is not to be used if it has been dropped, if there are visible signs of damage or if it is leaking.

4.3.6. Bypassing the photocell

In most cases the photocell automatically finds the height of the form at the beginning of the pressing cycles. In rare cases the garment placed on the form may be too short or too high and the cycle does not start even in the form is already in its lowest or highest position.

To start the cycle, press the “photocell bypass” button (F).

(> Continued on page 12)

Figure 4.1 – Control panel

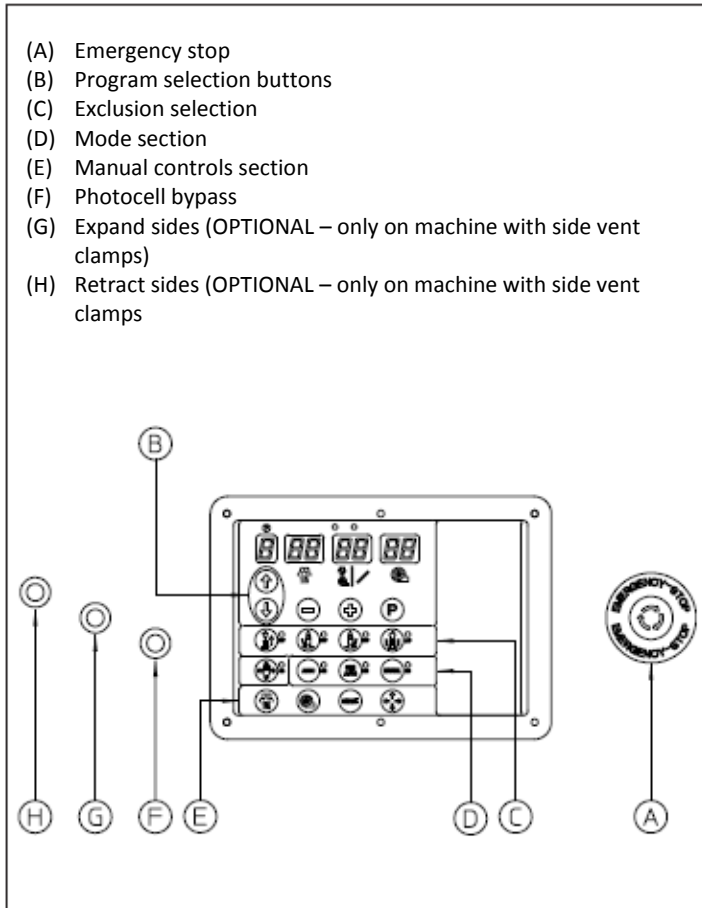


Figure 4.2 – Lapel clamp height adjustment

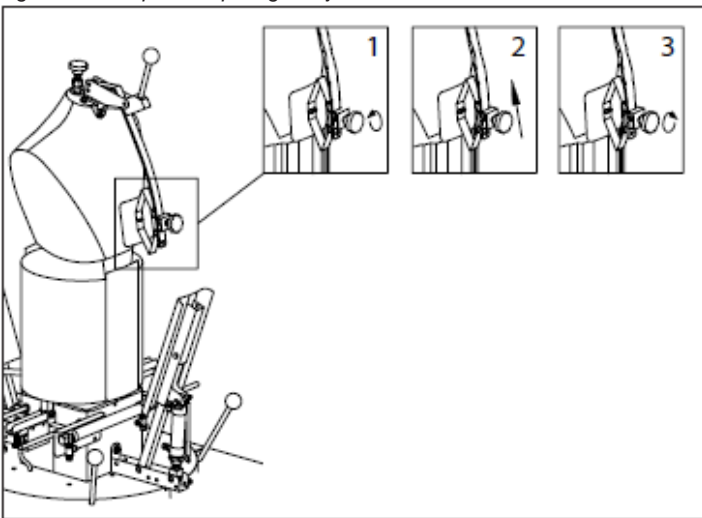


Figure 4.3 – Removing the lapel clamp

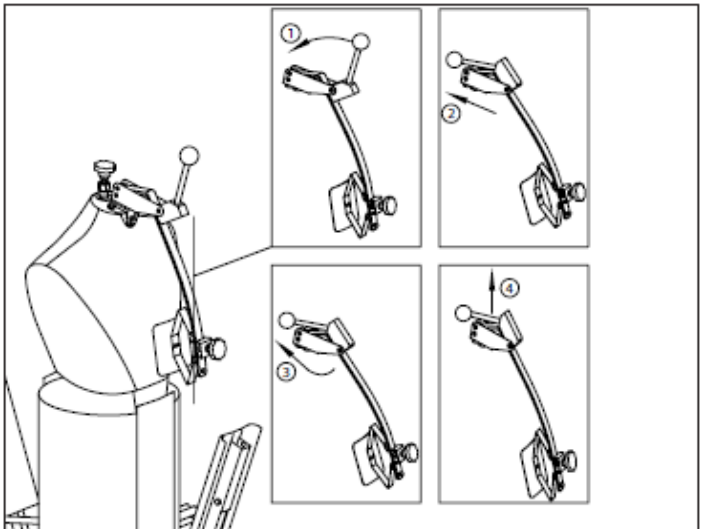
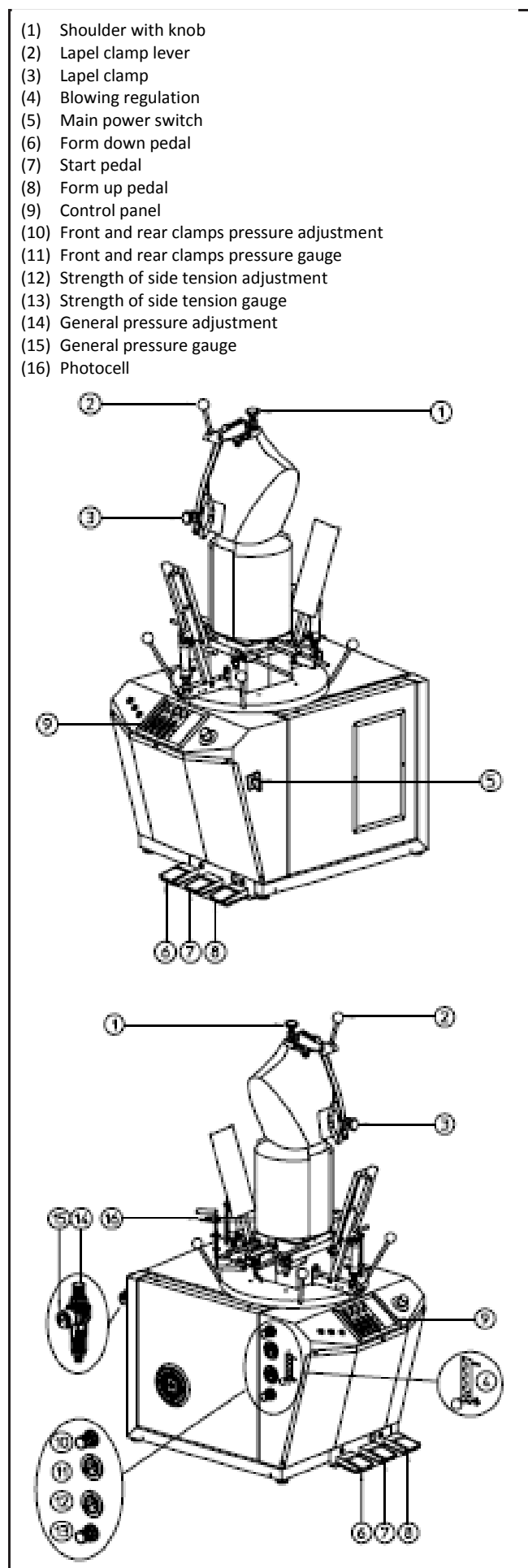


Figure 4.4 – Machine parts



4.4. In case of emergency

In case of emergency at any time during the cycle, push the red mushroom (A). The machine will stop immediately any operation and the clamps will be released.

To reset the machine, turn the mushroom clockwise.

4.5. Upon termination work

1. Turn off the main power switch.
2. Close steam and condensate return valves.
3. Close air delivery valve

4.6. Fine adjustments and detailed feature

Refer to figure 4.4 if not otherwise specified.

The machine has several fine adjustment possibilities, to match any kind of application.

Manual form down (6): use this pedal to move the form downwards during dressing operation

Manual form up (8): use this pedal to move the form upwards during dressing operation

Front and rear clamps pressure adjustment: pull knob (10) and rotate clockwise to increase the pressure on front and rear clamps. The pressure value is indicated by gauge (11). When finished, push knob in to lock in position.

Strength of side tension: pull knob (12) and rotate clockwise to increase the strength of sides tension. The pressure value is indicated by gauge (13). When finished, push knob in to lock in position.

Lapel clamp height (Figure 4.2): unscrew the knob to loosen the clamp; slide the clamp in the desired position; then tighten again the knob.

Removable lapel clamp (Figure 4.3): to remove the lapel clamp, push the lever backwards, then slide the whole clamp backwards, twist it and then push again to free it.

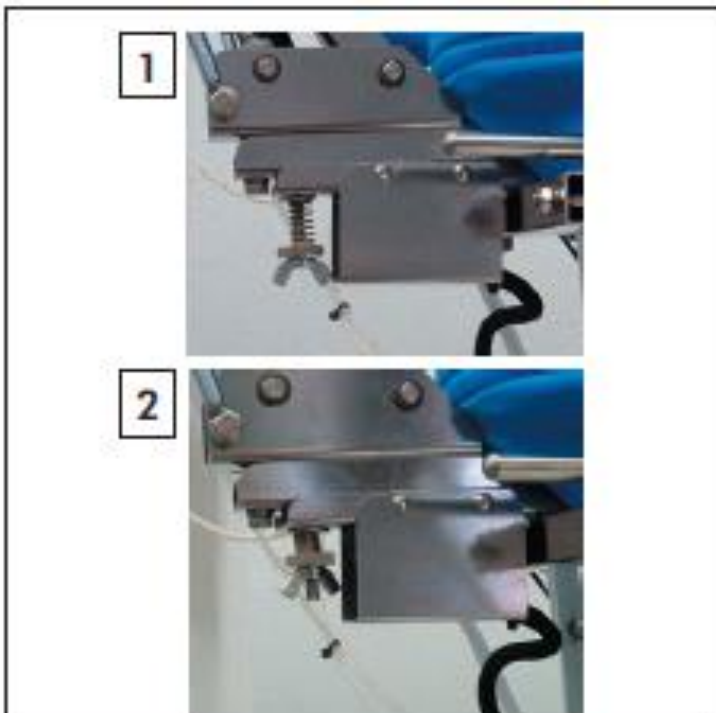
Side expanders tilting (Figure 4.5): the tilting movement of the side expanders can be blocked. When the movement is blocked, the anti-stretch device does not work. Block the expanders tilt by screwing the ring nut first and then the wing nut to lock.

See the next chapter “Use of the control board” to learn how to program pressing cycles and to discover the functions of the control board.

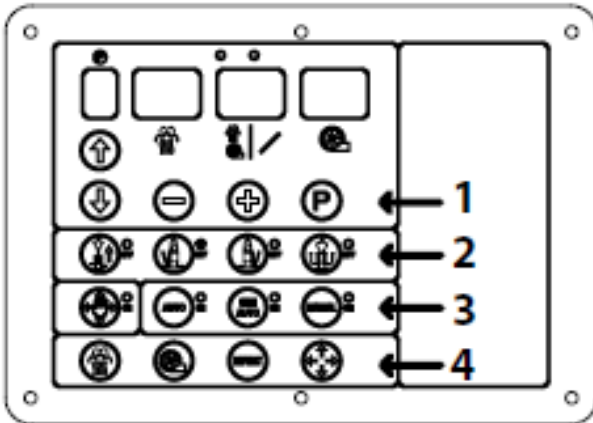
Figure 4.5 – Blocking side expanders tilting

1 – Loose spring: unlocked

2 – Paked spring: locked. The antistretch device does not work.



5. Use of the control board



This form finisher is equipped with a microprocessor programmer which manages the pressing cycle in all of its functions. The user can pre-set 9 pressing programs.

The control panel is subdivided into 4 sections:

1. Allows storage of 9 different finishing cycles
2. Allows exclusion of some functions.
3. Allows choice of pressing cycle modes
4. Allows manual function of the finisher.

When the machine is switched on the control panel shows the last program used.

It is possible to **adjust the brightness of the display**: press \oplus to increase, press \ominus to decrease.

5.1. Basic programming

The programming section consists of four displays and five programming buttons.

Displays	
P	Program number display: from 1 to 9
	Steam time display: from 00 to 99 seconds
	The two-figure display is shared by two functions: mixed air + steam pause between steam and blowing; used eg. for touch ups
	Blowing time display, from 00 to 99 seconds

To program a pressing cycle do as follows:

1. Press P . A letter "P" appears in the P display and the steam time display begins to flash.
2. Press \oplus or \ominus to increase or reduce the steam time.
3. Press P to memorize the steam time.
4. The green light and the display below begin to flash: press \oplus or \ominus to set a time of mixed steam + air after steaming, if needed.
5. Press P to memorize the mix time.

6. The green light and the display below begin to flash: press \oplus to increase, press \ominus to decrease.
7. Press P to memorize the pause time.
8. The indicator starts to flash. Press \oplus or \ominus to set blowing time. The air time is displayed in seconds from 0 to 99 seconds. If air time is higher than 99 seconds, it is displayed in minutes with jumps of half minute. For example: 2.5 means 2 minutes and a half.
9. Press P . The display stops to flash. Programming is finished.

If you need to change only one of the times, repeat all steps without modifying the other times.

Mix and pause times can be used or not, depending on the needs. Table 5.1 shows the possible combinations.

5.2. Advanced programming

This programming section allows adjustment of several parameters. Figure 5.3 shows the look of the displays during programming of advanced parameters.

The status of each function remains stored in the memory associated to the program in which it was entered.

1. To access advanced programming press and hold the P button until the letter H appears in the program number display.
2. The display shows the number of the parameter being programmed. Please refer to table 5.2 for description of the parameters and their status.
3. The display shows a flashing number indicating the parameter value. Press \oplus or \ominus to change parameter value.
4. Press P to memorize the value and step forward to the next function.
5. Press P several times, until the display returns to normal pressing times visualization.

The settings of the advanced parameters remain stored in the memory associated to the program in which they were entered.

For example: if the machine is running program number 5 and the user excludes the photocell, the photocell will remain excluded for future use of program number 5, even after switching off the machine.

5.3. Pressing cycle counter meters

The machine is equipped with two cycle counters:

- The total counter counts all the pressing cycles carried out by the machine in its work life and cannot be reset.
- The partial counter can be reset and can be utilized, for example, to count the number of garments processed in one day.

Partial counter meter

- To access the counters press the arrow buttons at the same time for two seconds.




• The letter "C" appears on the P display. The other displays show the number of cycles.

- To reset the counter press P .
- To exit meter mode, press the arrow buttons at the same time till the display shows pressing times.

Figure 5.3 – Displays during advanced parameters programming



Total counter meter

- To access the counters press the arrow buttons at the same time for two seconds.
 - The letter “C” appears on the  display. The other displays show the number of cycles.
 - Press  or  to view the total cycles counter meter. The total cycles counter cannot be reset.
 - To exit meter mode, press the arrow buttons at the same time; the display shows pressing times.
- The machine can work while the counter is visualized.

5.4. Exclusions

This section consists of 4 buttons with red LED. The buttons allow exclusion of the following functions:

- vertical tensioning
- rear clamp movement
- front clamp movement
- side expander movement

Pushing the button relative to the function effects exclusion. When the LED is on, the relative function is excluded.

Exclusions remain stored in memory after switching off the machine.



Excludes vertical tensioning. When the light is on the form does not move upwards during cycle to perform vertical tensioning.



Excludes the rear clamp. When the light is on the clamp does not close. If the button is pushed during a cycle, the clamp opens but the cycle continues.



Excludes the front clamp. When the light is on the clamp does not close. If the button is pushed during a cycle, the clamp opens but the cycle continues.



Excludes the side expanders. When the light is on the side expanders do not operate. If the button is pushed during a cycle, the side expanders retract but the cycle continues.

5.5. Operating mode

This section consists of 4 buttons with green LED.

To select a mode press the relative button: the green LED turns on.

5.5.1. Automatic mode

Select by pressing the “AUTO” button. The green LED indicates that the function is active.

After stepping once on the START pedal:

- The form will automatically adjust its height
- The clamps close
- The pressing cycle begins
- At the end of the pressing cycle all clamps open. The form remains still.

5.5.2. Semiautomatic mode

Select by pressing the “SEMI AUTO” button. The green LED indicates that the function is active.

Step once on the START pedal:

- The form will automatically adjust its height

Step on the START pedal a second time:

- The clamps close
- The pressing cycle begins
- At the end of the pressing cycle all clamps open. The form remains still.

5.5.3. Manual mode

Select by pressing the “MANUAL” button. The green LED indicates that the function is active.

In this mode, the machine performs the cycle one step at a time and the operator must step on the START pedal to go forward in the cycle:

1st step: The form automatically adjusts its height

2nd step: The rear clamp closes

3rd step: The front clamp closes

4th step: The side expanders come out


5th step: The pressing cycle begins

At the end of the pressing cycle all clamps open. The form remains still.

The order of steps 2 and 3 may be reversed if the parameter H06 is set to 01 (see Table 5.2).


5.5.4. Manual end



The manual end function is utilized when it is necessary to verify garment pressing quality at the end of a cycle.


The function is activated by means of button .

When the function is active (the green LED of the button is on), the clamps are not released at end of the cycle.

This allows to:

- run another cycle by pushing .

- manually steam and blow the garment with buttons  and .
- manually touch up the garment with the iron.

When the garment is properly finished, end the cycle and open the clamps by pressing .


5.6. Manual functions



Press once to start a steam flow that lasts a pre-set time. To interrupt the steam before the pre-set time has finished, touch the button once. The pre-set manual steam time is 5 seconds. To change such time, follow the instructions in chapter 5.2, parameter H04.



Press once to start blowing. Press it again to stop

blowing. Press  while air is blowing to obtain mixed air and steam.

Repeats the cycle without further tensioning; this button is enabled only at end of the pressing cycle



and only if the  mode is selected.

Ends the cycle immediately, interrupts all ongoing




commands, opens all clamps. When the  mode is selected, press this button to open the clamps at the end of the cycle.

Table 5.1 – Setting mix and pause times







What is your need?	What you should do	How the displays will look	
I do not need mix or pause times	Set both times at zero		Mix and pause lights are off. The displays show no numbers.
I want both mix and air times	Set the two times according to the procedure described in chapter 5.1.1. Note that each of the two times cannot exceed 9 seconds.		Mix and pause lights are on. The digit on the left is mix time. The digit on the right is pause time.
I need only a mix time, no pause	Set mix time at the desired value. If this value is below 10 seconds, you must set pause time at zero. If mix time is 10 seconds or above, the pause time is automatically set at zero.	 	Mix light is on. Pause light is off. The two displays show mix time (8 seconds and 12 seconds in the example).
I need only a pause time, no mix	Set mix time at zero. Set pause time at the desired value.		Mix light is off. Pause light is on. The two displays show pause time.

Table 5.2 – Advanced programming parameters

Parameter number	Parameter description	Meaning of the number in the  display (press + or - to change the value)
H 01	Vertical tension time. The machine is pre-set with 0,2 hundredths of second tensioning time	Tensioning time in 1/100 of second
H 02	Garment positioning time. This parameter allows to vary the distance of the rim of the garment from the bottom of the form. The higher this time, the greater the distance. The machine is pre-set with 0,2 hundredths of second positioning time	Positioning time in 1/100 of second
H 03	Photocell exclusion. The photocell allows the machine to automatically find the height of the garment. When the photocell is excluded, height adjustment must be performed manually by stepping on the Form Up and Down pedals (6 and 8 in figure 4.4).	00 means photocell excluded 01 means photocell activated
H 04	Manual steam time. Duration of steam output when pressing the steam button in the manual controls section. The factory pre-set time is 5 seconds.	Time of manual steam in seconds
H 05	Tensioning time. This parameter allows to choose when vertical tensioning should occur in the pressing cycle. The factory pre-set status is 00	00 Tensioning starts at the beginning of steaming 01 Tensioning starts at the end of steaming 02 Tensioning starts after 5 seconds from the beginning of blowing
H 06	Order of clamp closing. 00 is the default value for the standard model; 01 is the default value for the model with vent clamps	00 The rear clamp closes before the front clamp 01 The front clamp closes before the rear clamp
H 07	Anti-stretching. When the anti-stretching function is activated, the side expanders stop tensioning when they hit the garment. Delicate fibers are thus protected from deformation.	00 Anti-stretching off 01 Anti-stretching on 02 Anti-stretching on. In case the garment relaxes the side clamps start again the tensioning.

6. Maintenance

6.1. Maintenance allowed to the user

WARNING: Before performing any maintenance on the machine, disconnect from electric power.

6.1.1. Every week

- Clean machine body with a soft non abrasive cloth.

WARNING: Do not use aggressive detergents or solvents that may ruin machine parts

- Verify visually that steam, condensate and compressed air connections do not leak
- Verify that visible electrical cabling and air and steam connection tubing are in perfect working order
- Verify that pads and covers are in good condition. If they show any sign of deterioration replace them immediately. Pressing quality may decrease dramatically if pads and covers are dirty or damaged.

WARNING: Do not run a machine that does not look in proper order

INDICATION: always ask for original spare parts. Non original parts may damage to the machine or decrease its safety

6.1.2. Every six months

Call the authorised technician to perform the maintenance operations described in the following chapter.

6.2. Maintenance to be carried out by the technician every six months

WARNING: The maintenance operations described in this chapter must only be carried out by qualified personnel.



WARNING for the technician:

Before any kind of maintenance or control intervention:

- Disconnect the machine from electricity, air and steam
- Discharge air pressure from the pneumatic circuit by pushing the air vent at the bottom of the air filter
- Make sure that all the parts of the machine have cooled down.

Before servicing the oil cylinder

- Put the form in the lowest position
- Discharge air pressure in the circuit by opening the discharge valve of the cup filter

6.2.1. Electrical circuit maintenance

- Verify that electrical connections are properly tightened and do not show oxidation;
- Verify tightening of solenoid valve coils;
- Verify state of cable and electrical wiring conditions.

6.2.2. Steam circuit maintenance

- Verify that steam and condensate return connections are properly tightened and do not leak
- Verify that steam valve is in good working order and does not present leakage

6.2.3. Air and hydraulic circuit maintenance

- Verify that valves and cylinders do not show any loss of air;
- Carefully inspect hydraulic cylinder of form finisher movement to exclude any loss of oil;
- Verify level of oil in the tank through gauge (1) in Figure 6.1.

This operation should be carried out with the form in its uppermost position.

- If the level is below minimum, top up with low viscosity (ISO VG 32) oil that contains an antiwear agent. Examples: Shell Tellus 32; Mobil DTE 24; Fuchs Renolin MR 10; Kluber Lamora HLP 32; ...

Oil refill

- Set the form at lowest position
- Discharge air pressure inside the machine
- Unscrew the filling cap on the top of the tank
- Pour oil until the level reaches half of tube (1)
- Tighten the cap.

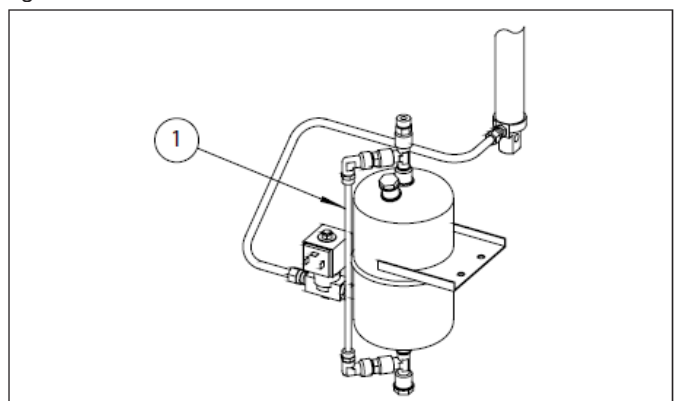
6.2.4. Other controls

- Check that fan blades are free of dirt and lint deposits.



Use only Original spare parts.

Figure 6.1 - Oil tank



7. Troubleshooting

Refer to Table 7.2 for solutions to the most common malfunction situations. If the proposed solutions do not work, enter self-diagnosis (paragraph 7.1) to determine if there are failed components.

Figure 7.1 - Self diagnosis example






WARNING - DO NOT SERVICE THE MACHINE YOURSELF
Call the service center in any of the following cases:




- the machine has a problem that is not listed in table 7.2
- none of the remedies proposed by table 7.2 work
- control board self-diagnosis shows one or more failures.


7.1 Control board self-diagnosis

The control board is equipped with a self-diagnosis software that can detect common problems to the pneumatic circuit.

1. To enter self-diagnosis mode, press the arrow buttons together for two seconds. The letter "C" appears on the  display.

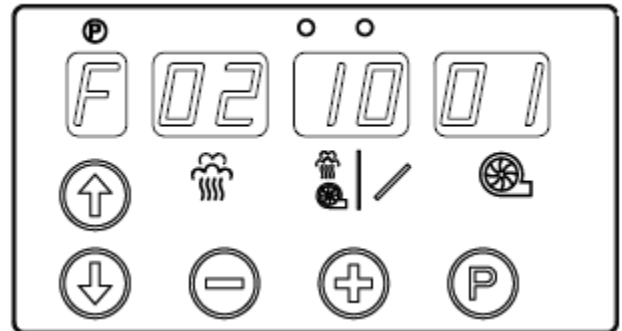
2. Press button  once. The letter F appears on the  display. The other displays show information concerning the status of the pneumatic circuit:


- If there is no failure, the displays show: F -- --
- If there are failures, the display  shows the number of failures occurred, use  or  to scroll all the references.

The display  shows the code of the failed

component. The display  shows the code of the type of failure.

Failure references are displayed using these codes:



Number in the  display	The following component has failed
06	Coil of fan switch
07	Solenoid valve EA1 - form up
08	Solenoid valve EA2 - oil
09	Solenoid valve EA3 - form down
10	Solenoid valve EA4 - back clamp
11	Solenoid valve EA5 - side expanders
12	Solenoid valve EA6 - front clamp
13	Steam valve EA7



Number in the  display	The following fault has occurred
00	Neutral and phase are inverted
01	No power to the component
02	Short circuit at the component

Figure 7.1 shows an example:

The pneumatic circuit has more than one failures.

The displays show information regarding failure number 2: the back clamp solenoid valve has no power.

To erase faults memory, press  until the displays show: F -- --

To exit self-diagnosis program, press the arrow buttons together until the displays show pressing times.

Table 7.2 - Troubleshooting

Problem	Possible cause	What the user should do
The machine does not start	No power to machine	Check there is electrical power in the facility Check connection to power lines Turn on main power switch
The display is dark	The emergency button has been pressed	Reset the emergency button by turning it clockwise
The display is dim	Brightness of the display set too low	Increase brightness by pressing button + on the control panel
The form does not move	Air pressure is inadequate or absent	Check and regulate general pressure to 6 bar (Figure 4.4, knob 14 and gauge 15)
	Reflective material is worn out	Replace reflective material strip
	The photocell beam does not hit the reflective material	Check that the photocell has not been moved. If necessary, redirect the photocell beam on the reflective material and lock well the photocell position
Front and rear clamps do not respond	Air pressure is inadequate or absent	Check and regulate general pressure to 6 bar (Figure 4.4, knob 14 and gauge 15) Check and regulate clamps pressure. Minimum pressure is 2.5 bar (Figure 4.4, knob 10 and gauge 11)
	Clamps are excluded	Press front/rear clamps exclusion button on the control panel to deselected
Side clamps do not respond	Air pressure is inadequate or absent	Check and regulate general pressure to 6 bar (Figure 4.4, knob 14 and gauge 15) Check and regulate clamps pressure. Minimum pressure is 1 bar (Figure 4.4, knob 12 and gauge 13)
	Clamps are excluded	Press side clamps exclusion button on the control panel to deselected
No steam from machine	Steam feed valve closed	Open steam feed valve
	Steam time set at zero	Set steam time greater than zero
Fan does not function (no blowing)	Blowing time set at zero	Reset blowing time
Inadequate ventilation	Blowing control level set too low	Move lever to higher position
The expanders overstretch the garment	Antistretch function is deactivated	Activate the antistretch function by entering advanced programming (see chapter 5) and set parameter H09 to value 01)
	The expanders are locked in the block position	Unlock the expanders tilt by unscrewing the wing nut and the ring nut shown in figure 4.5

7.2. Solution to failures, allowed only to the authorised service center



WARNING - This chapter is for the exclusive use of an authorised technician. For maintenance and replacement of components always refer to a service center.

Before going through this list, carry out all the controls in the previous table, for the user.

Table 7.3 - Solution to failures

Symptom		Cause / components involved	Controls to be carried out
1	The display shows unknown symbols	The emergency stop button has been pushed or there is a software failure	1. Push and restore the emergency button 2. Reset the board by cutting power to the machine or by pushing the "reset" button on the back of the board 3. Replace the board and report the failure to Trevil
2	The machine behaves in unpredictable /non standard way		Open the console and verify that the reset button is not accidentally kept depressed by wires Replace the board
3	The displays are turned off	The emergency stop button has been pushed	Push and restore the emergency button
		Software error	Reset the board
		No power to the board	Test tension to the board
		Board failure	Replace the board
4	The form does not move using the START pedal. It only moves using the UP and DOWN pedals	START pedal microswitch	1. Check tension to the START pedal 2. Check that the START pedal microswitch is working
		Photocell	1. Check tension to the pedal 2. Check that the pedal microswitch is working
5	The form does not move using the UP (DOWN) pedal. It only moves using the START pedal	Pedal microswitch	1. Check tension to the pedal 2. Check that the pedal microswitch is working
6	The form does not move with any pedal	Failure to the oil circuit	Check oil level Looks for leaks in the oil circuit and the oil cylinder Check pneumatic connections to the oil valve Check that the oil valve is working
7	The form does not go up neither with the UP pedal, nor with the START pedal	Form up solenoid valve (E1)	Check pneumatic connections to the valve Check that the valve is working
8	The form does not go down neither with the DOWN pedal, nor with the START pedal	Form down solenoid valve (E2)	Check pneumatic connections to the valve Check that the valve is working
9	A clamp or the expanders do not move	Wrong adjustments	Adjust the pressure reducers Adjust the speed controls
		Cylinder	Check pneumatic connections to the cylinder
		Solenoid valve	Check pneumatic connections to the valve Check electric connections to the valve Check that the valve is working
10	No Steam	Steam solenoid valve	Check that the valve is working
		Board failure	Replace the board
11	Droplets of water during steaming	Defective steam trap	1. Check that the steam trap is hot 2. Hit the steam trap to help it start functioning 3. Replace the steam trap
		Water is being carried from the boiler through steam pipes	Check whether the boiler is fed with softened water that forms foam. In this case the water should also come out of other appliances connected to the same boiler.
		Clogged steam nozzles	Remove the cover and clean the steam outlets on the copper tube
12	The fan does not start	Motor	1. Check the thermal relay 2. Check contactor VT1 3. Check electric continuity in the motor
		Board failure	Replace the control board

8. Machine stop

8.1. Prolonged stop

In case of prolonged stop of the machine:

1. Close the steam and air connections
2. Disconnect from electrical power
3. Put the form in the lowest position and discharge the pressure in the circuit
4. Discharge residual condensate
5. Clean the cabinet and the grids from dust and lint
6. Protect the form so that the covers do not get dirty.

8.2. Transportation

In case the machine must be moved, follow the instructions below.

1. Close steam and air connections
2. Disconnect from electrical power
3. Put the form in the lowest position and discharge the pressure in the air circuit
4. Disconnect air, steam and condensate return connections
5. Discharge residual condensate
6. Clean the cabinet and the grids from dust and lint
7. Move the machine to a crate of suitable size
8. Screw the machine to the crate, using suitable brackets (Figure 8.1)
9. Fold any protruding elements (such as the control panel)
10. Protect the form so that the covers do not get dirty
11. Wrap the machine in cellophane or bubble plastic
12. If necessary, cover the whole machine with a cardboard box and tighten it to the crate

8.3. Decommissioning

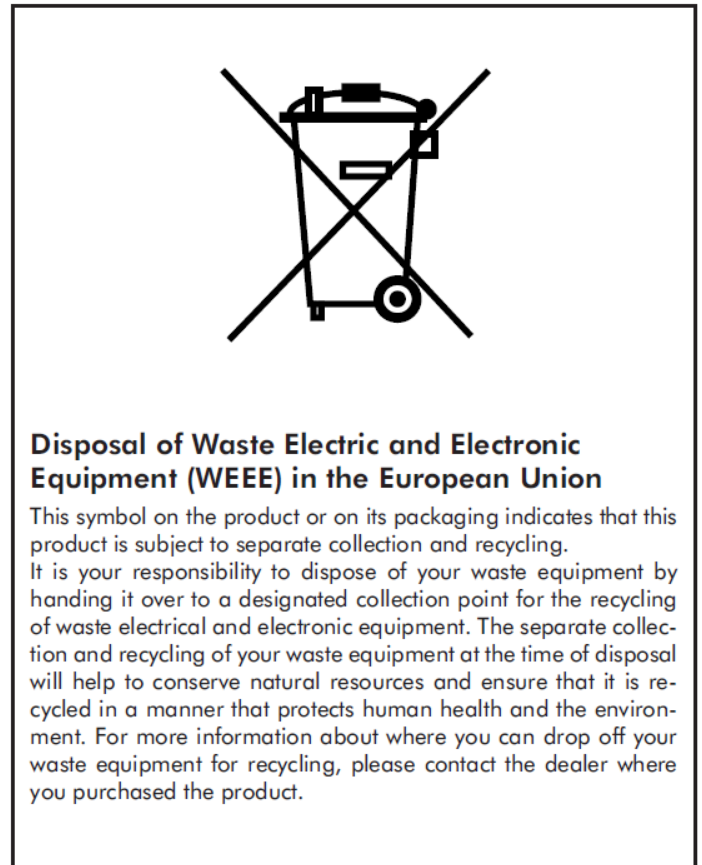
At the end of its life the machine must be properly dismantled and its parts must be disposed of according to local regulations.

1. Close steam and air connections
2. Disconnect from electrical power
3. Put the form in the lowest position and discharge the pressure in the air circuit
4. Disconnect air, steam and condensate return connections
5. Discharge residual water condensate
6. Discharge the oil from the oil circuit
7. Move the machine to a crate of suitable size
8. Screw the machine to the crate, using suitable brackets (Figure 8.1)
9. Fold any protruding elements (such as the control panel)
10. Give the machine to a specialized recycling center for proper separation and recycling of all materials (painted steel, stainless steel, copper, plastic, fiberglass, cloth)

Figure 8.1. - How to screw the machine to the crate




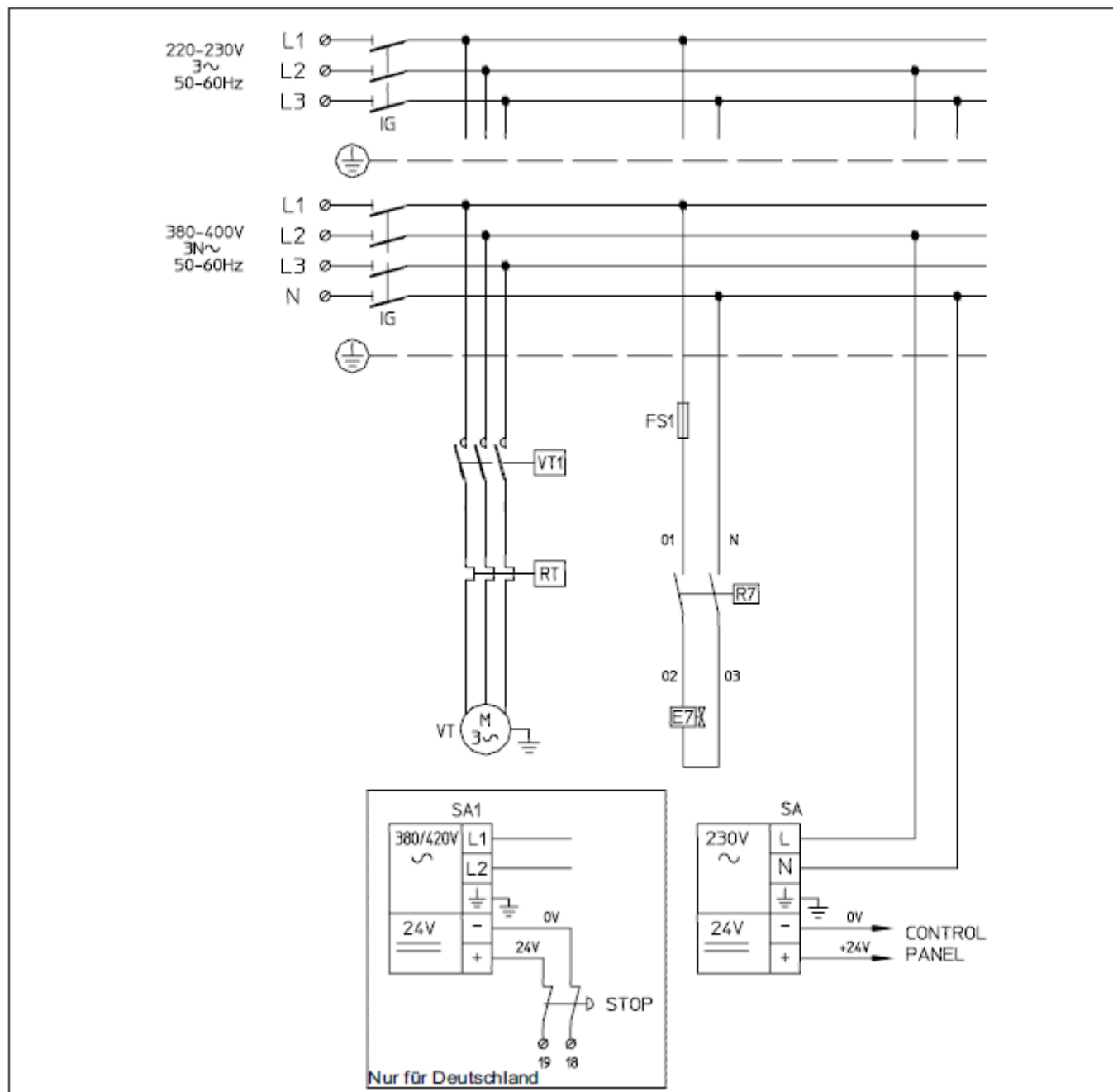
Figure 8.2. - How to pack the machine for transportation



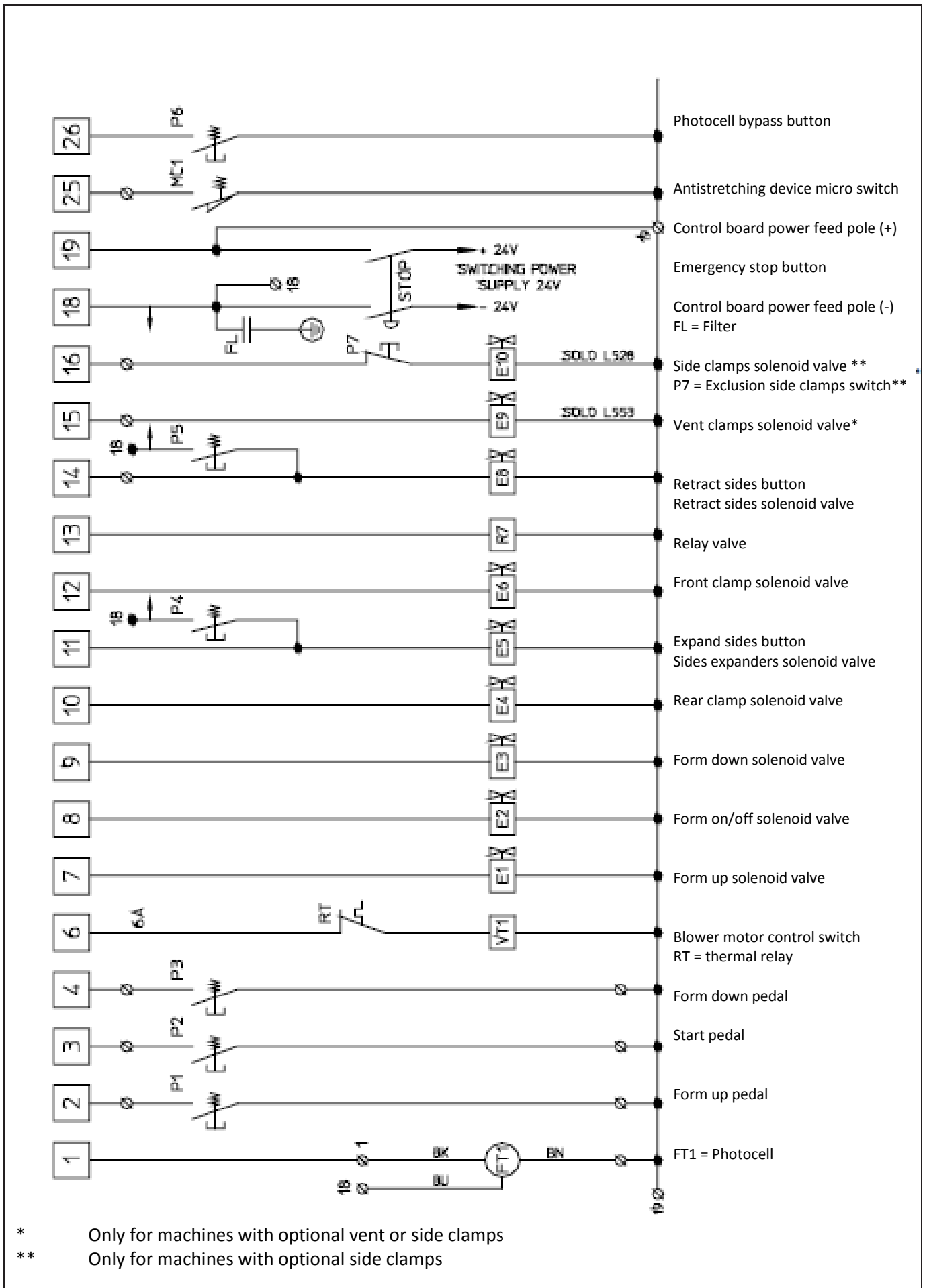
9. Technical diagrams

The diagrams in this chapter are for exclusive use of the authorized assistance chapter.

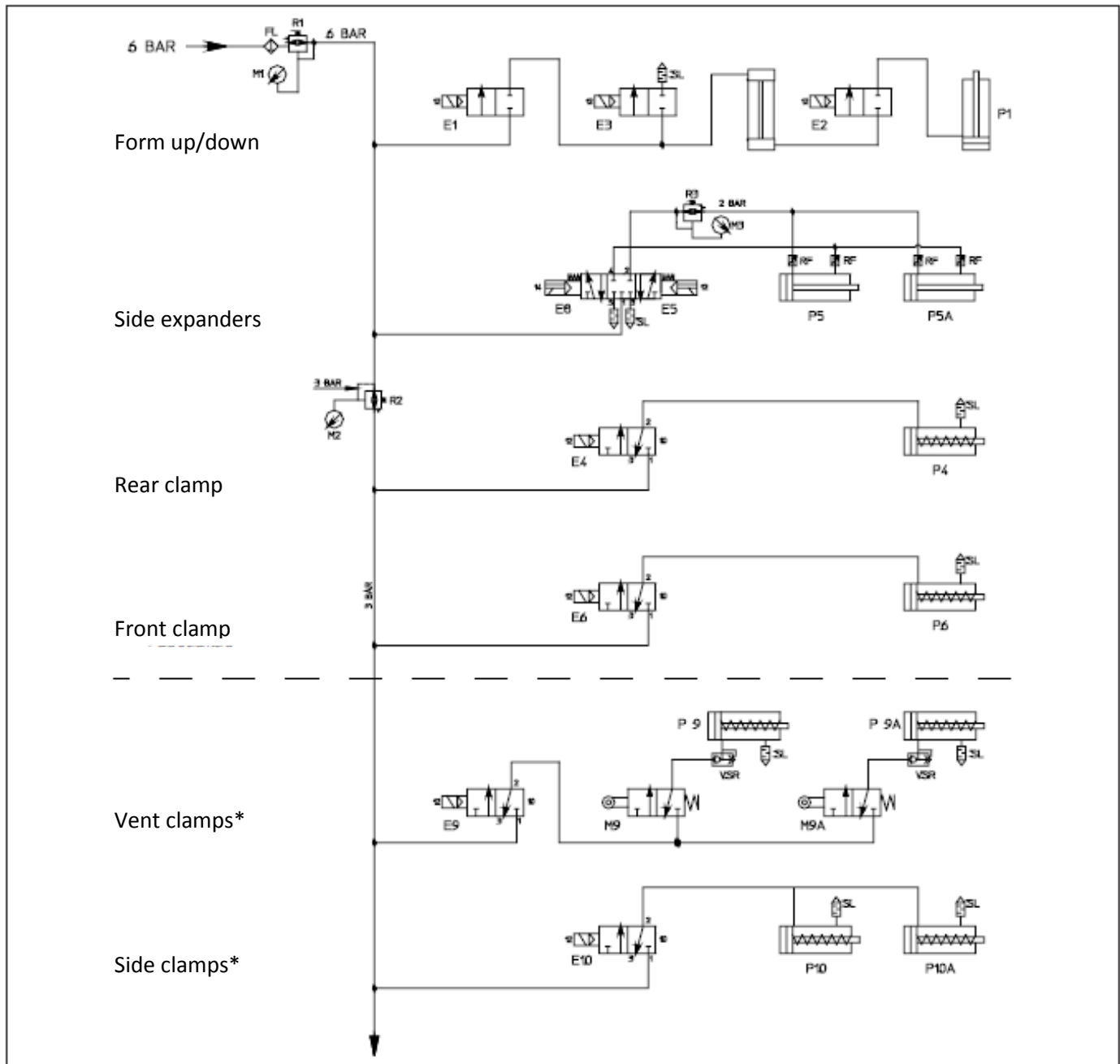
 **Do not perform maintenance on the machine if not authorized in writing by the Manufacturing Company.**



E7	ELETTROVALVOLA VAPORE	STEAM SOLENOID VALVE	DAMPFVENTIL	VALVULA VAPOR
R7	RELE' COMANDO ELETTR. VAPORE	STEAM VALVE RELAY	RELAIS DAMPFSTEUERUNG	RELE' MANDO VAPOR
FS1	FUSIBILE 10A	10A FUSE	SICHERUNG 10A	FUSIBILE 10A
IG	INTERRUTTORE GENERALE	MAIN SWITCH	HAUPTSCHALTER	INTERRUPTOR GENERAL
RT	PROTEZIONE TERMICA VENTILATORE	BLOWER THERMAL PROTECTION	THERMOSCHUTZ VENTILATOR	PROTECCIÓN TÉRMICA VENTILADOR
SA	ALIMENTATORE 3A	POWER FEED 3A	SPEISER 6A	ALIMENTADOR 3A
VT	VENTILATORE	BLOWER	VENTILATOR	VENTILADOR
VT1	CONTATTORE COMANDO VENTILATORE	BLOWER CONTROL SWITCH	SCHALTSCHÜTZ STEUERUNG VENTILATOR	CONTACTOR MANDO VENTILADOR
Part	Descrizione	Description	Beschreibung	Descripción
ELECTRIC DIAGRAM - SCHEMA ELETRICO				



CONTROL BOARD CONNECTIONS
INGRESSI E USCITE PANNELLO DI CONTROLLO



* Optional

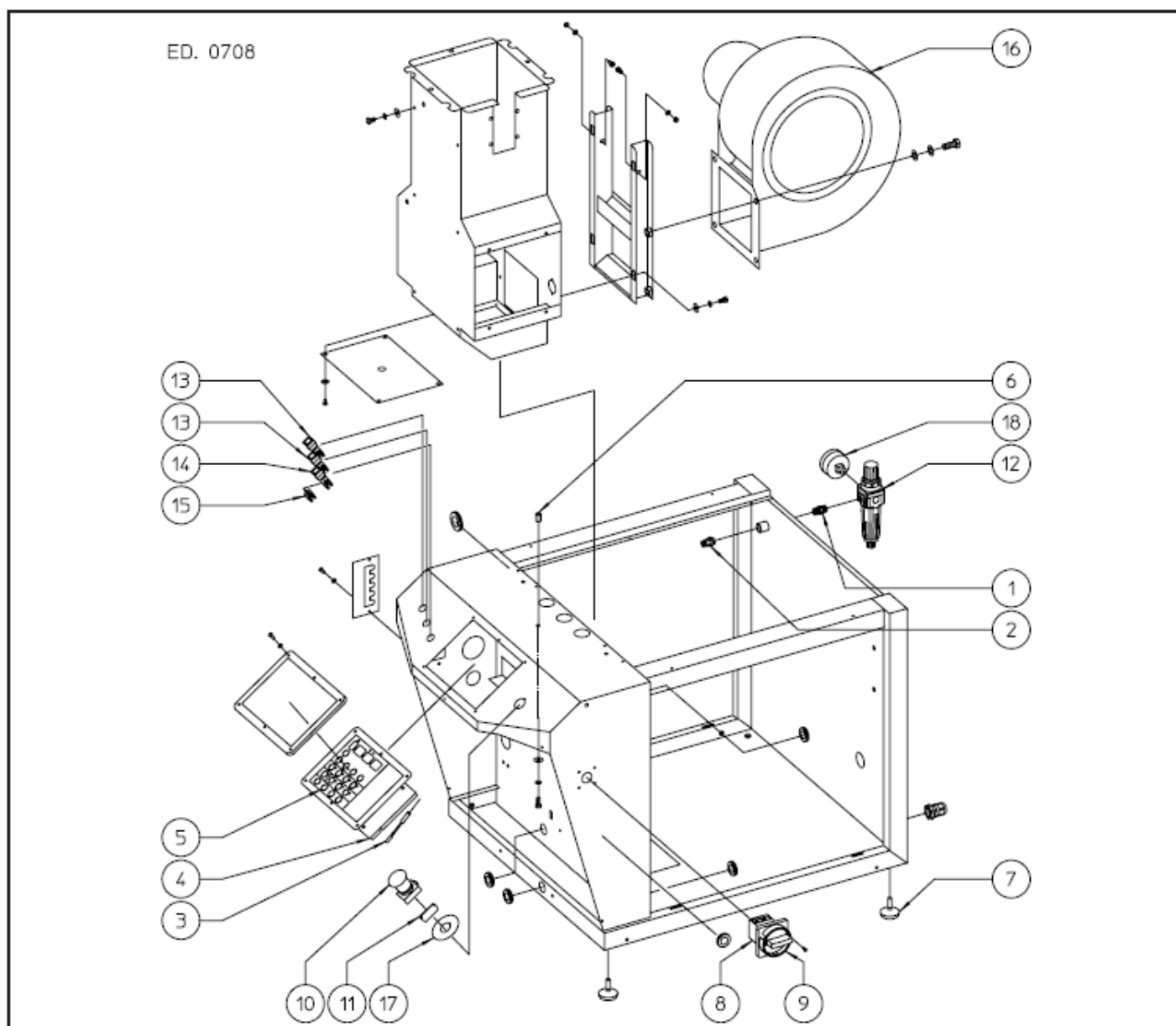
Pos.	Descrizione	Description	Beschreibung	Descripción
E1	Elettrov. Salita busto	Form up solenoid valve	Elektroventil Anhebung Büste	Electroválvula subida busto
E2	Elettrov. On/off	On/off solenoid valve	On/off Elektroventil	Electroválvula on/off
E3	Elettrov. Discesa busto	Form down solenoid valve	Elektroventil Absenkung Büste	Electroválvula bajada busto
E4	Elettrov. Pala posteriore	Rear clamp solenoid valve	Elektroventil hintere Andruckleiste	Electroválvula pala trasera
E5, E8	Elettrov. Espansori laterali	Side expanders solenoid valve	Elektroventil seitliche Andruckleisten	Electroválvula ensanchadores laterales
E6	Elettrov. Pala anteriore	Front clamp solenoid valve	Elektroventil vordere Andruckleiste	Electroválvula pala delantera
E9	Elettrov. Pale spacchi *	Vent clamps solenoid valve *	Elektroventil Andruckleisten Schlitzen *	Electrov. Palas aberturas *
E10	Elettrov. Pale laterali *	Side clamps solenoid valve *	Elektroventil Andruckleisten seitliche *	Electrov. Palas laterales *
FL	Filtro	Filter	Filter	Filtro
M1, M2, M3	Manometri	Pressure meter	Manometer	Manómetros
M9, M9A	Micro pneumatici*	Pneumatic microswitch*	Pneumatische Mikroschalter*	Micro neumáticos*
P10, P10A	Pistoni pale laterali*	Side clamps cylinder*	Seitliche Andruckleisten Kolben*	Pistón Palas laterales*
P1	Pistone busto	Form cylinder	Kolben Büste	Pistón busto
P4	Pistone pala posteriore	Rear clamp cylinder	Kolben hintere Andruckleiste	Pistón pala trasera
P5, P5A	Pistoni espansori laterali	Side expanders cylinders	Kolben Seitenspreizer	Pistones ensanchadores laterales
P6	Pistone pala anteriore	Front clamp cylinder	Kolben vordere Andruckleiste	Pistón pala delantera
P9, P9A	Pistoni palette spacchi*	Vent clamps cylinders*	Kolben Klammern für Schlitze*	Pistones palas aberturas*
RF	Regolatori di flusso	Flow regulators	Durchflussregler	Reguladores de flujo
R1, R2, R3	Riduttori di pressione	Pressure reducers	Druckminderer	Reductores de presión
SL	Silenziatori	Silencers	Schalldämpfer	Silenciadores
VSR	Valvola di scarico rapido	Quick exhaust air valve	Schnellablassventil	Válvula de descarga rápida
PNEUMATIC DIAGRAM - SCHEMA PNEUMATICO				

10. Spare parts diagrams

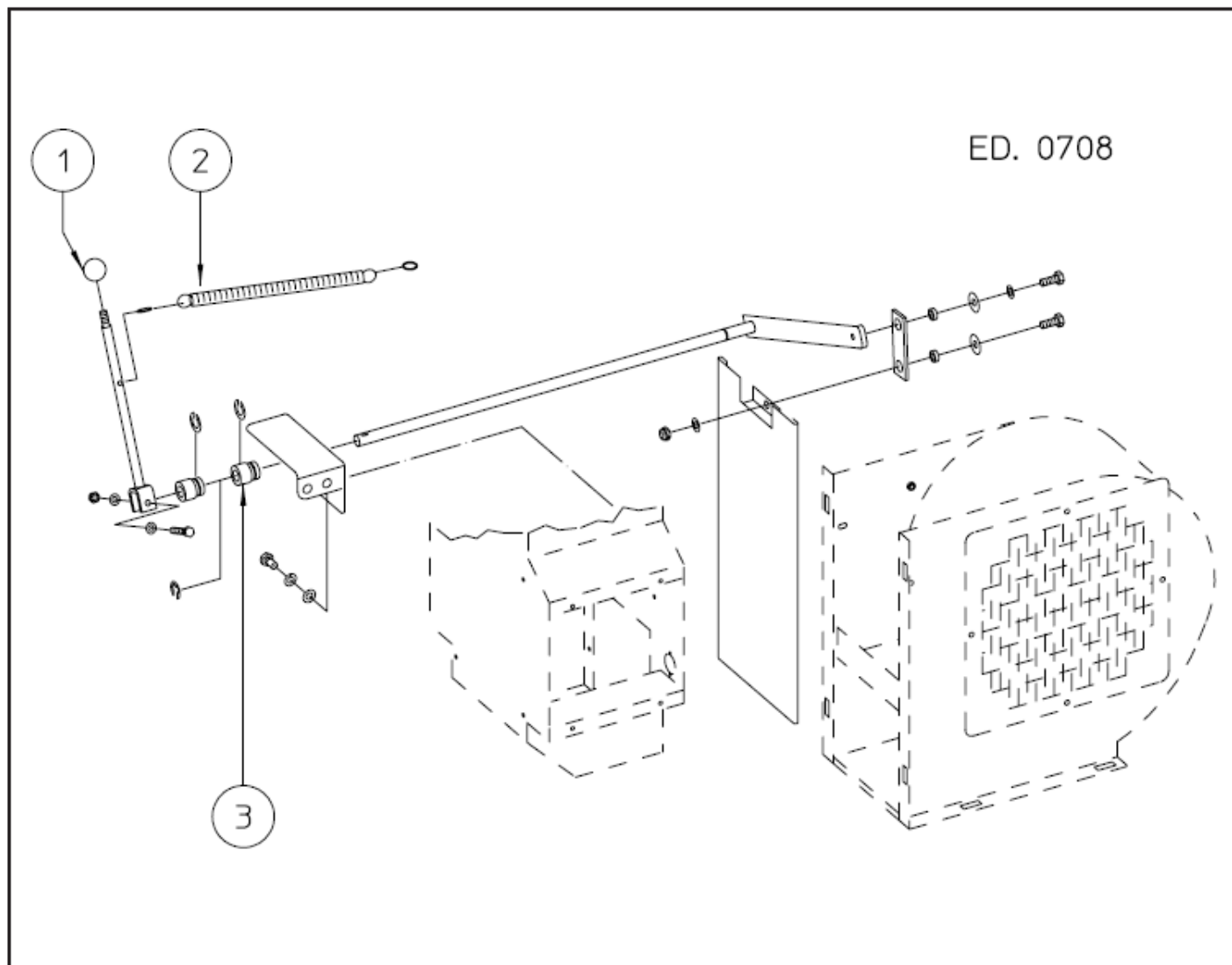
Please refer to the following diagrams when ordering spare parts.
To avoid mistakes, always provide code and description of the required spare part.



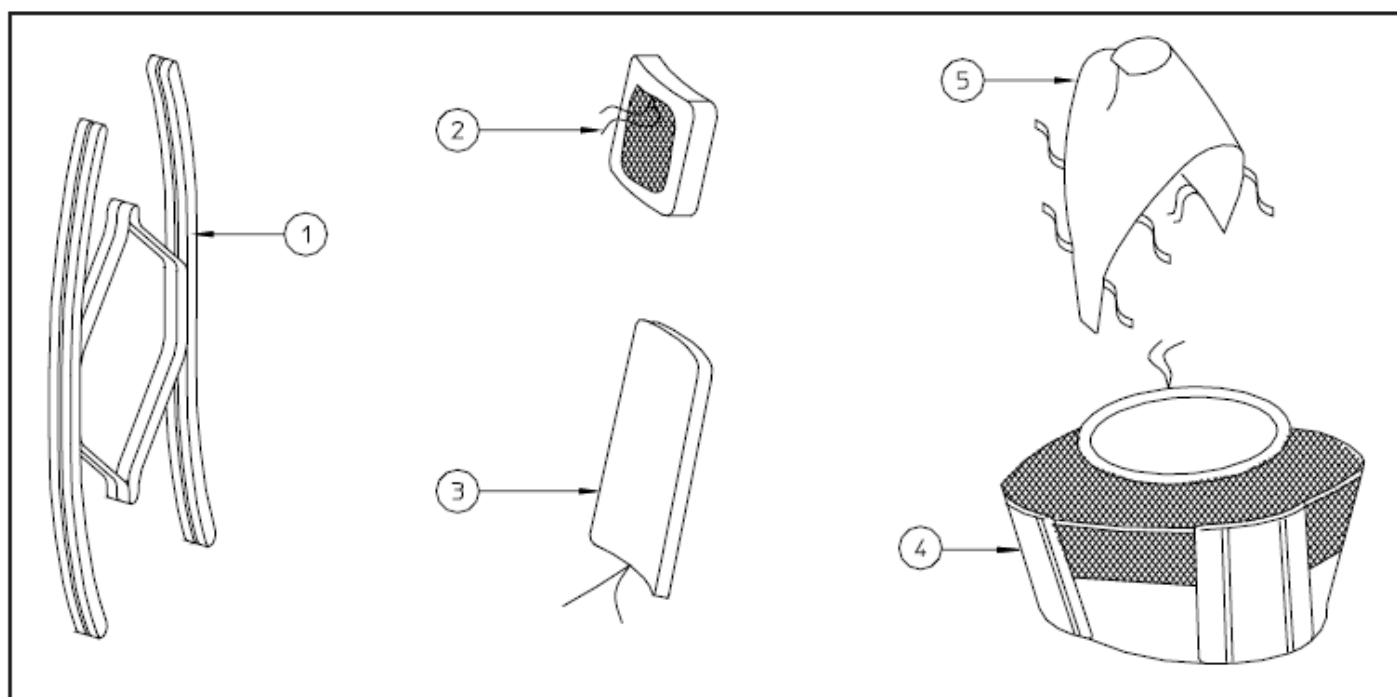
Always use original spare parts.



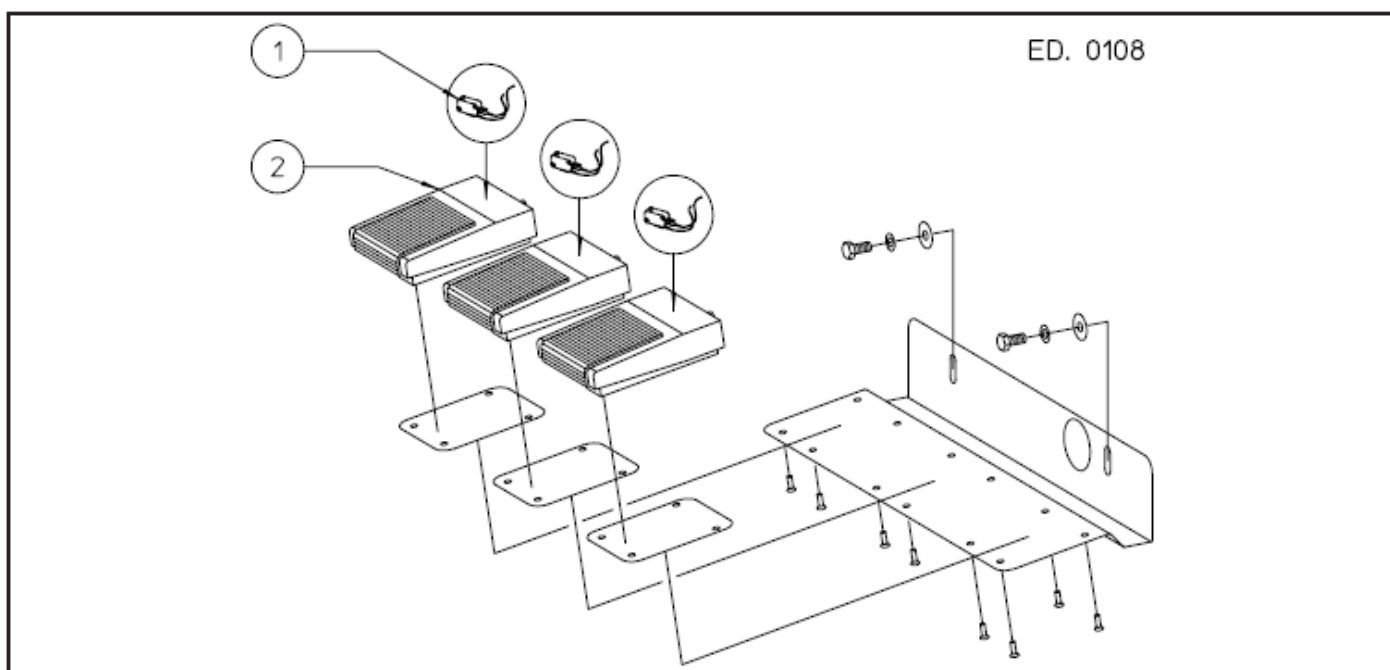
18	80366-0	1	MANOMETRO	PRESSURE GAUGE	DRUCKWACHTER	MANOMETRE	MANÓMETRO
17	730003-0	1	AREA GIALLA	YELLOW DISC	GELBE SCHEIBE	DISQUE JAUNE	DISCO AMARILLO
16	61025-B	1	VENTILATORE	BLOWER MOTOR	BLASENMOTOR	MOTEUR	MOTOR SOPLANTE
15	150000-F01	3	CONTATTO PULSANTE	BUTTON CONTACT	KNOPFKONTAKT	POUSSOIR CONTACT	CONTACTO PULS.
14	150000-E	1	PULSANTE VERDE	BUTTON GREEN	GRÜN KNOPF	POUSSOIR VERT	PULSANTE VERDE
13	150000-C	2	PULSANTE BLU	BUTTON BLU	BLAUE KNOPF	POUSSOIR BLEU	PULSANTE AZUL
12	111918-B	1	RIDUTTORE	REDUCER	MINDERER	REDUCTEUR	REDUCTORES
11	019-B01	1	FRUTTO x CONTATTO	CONTACT	KONTAKT	POUSSOIR	PULSANTE
10	014-B	1	PULSANTE ROSSO	BUTTON RED	ROT KNOPF	POUSSOIR ROUGE	PULSANTE ROJA
9	011-H	1	MOSTRINA	PROTECTION	SCHUTZ	PROTECTION	PROTECCIÓN
8	011-D	1	INTERRUTTORE	SWITCH	SCHALTER	INTERRUPTEUR	INTERRUPTOR
7	20819002	4	REGOLABILI	LEVELLING FOOT	VERSTELLBARER FUSS	PIED REGLABLE	PIE REGULABLE
6	0290117	1	DISTANZIALE	SPACER	ABSTANDSTÜCK	ENTRETOISE	RIOSTRA
5	022143201	1	PANNELLO	PANNEAU	PANEEL	PANNEL	PANEL
4	0221412	1	SCHEDA	CARTE ELECTRONIQUE	PLATINE	CARD	TARJETA
3	0220591FAS	1	CONDENSATORE	CAPACITOR	KONDENSATOR	CONDENSATEUR	CONDENSADOR
2	0210111	1	RACCORDO	CONNECTION	ANSCHLUSSTÜCK	RACCORD	CODO
1	0090202	1	NIPPLO 1/4"	NIPPLE	NIPPEL	NIPPLE CONIQUE 1/4"	NIPLE
pos	Code	Q.ty	Descrizione	Description	Beschreibung	Designation	Descripción
FRAME GROUP - CARROZZERIA							



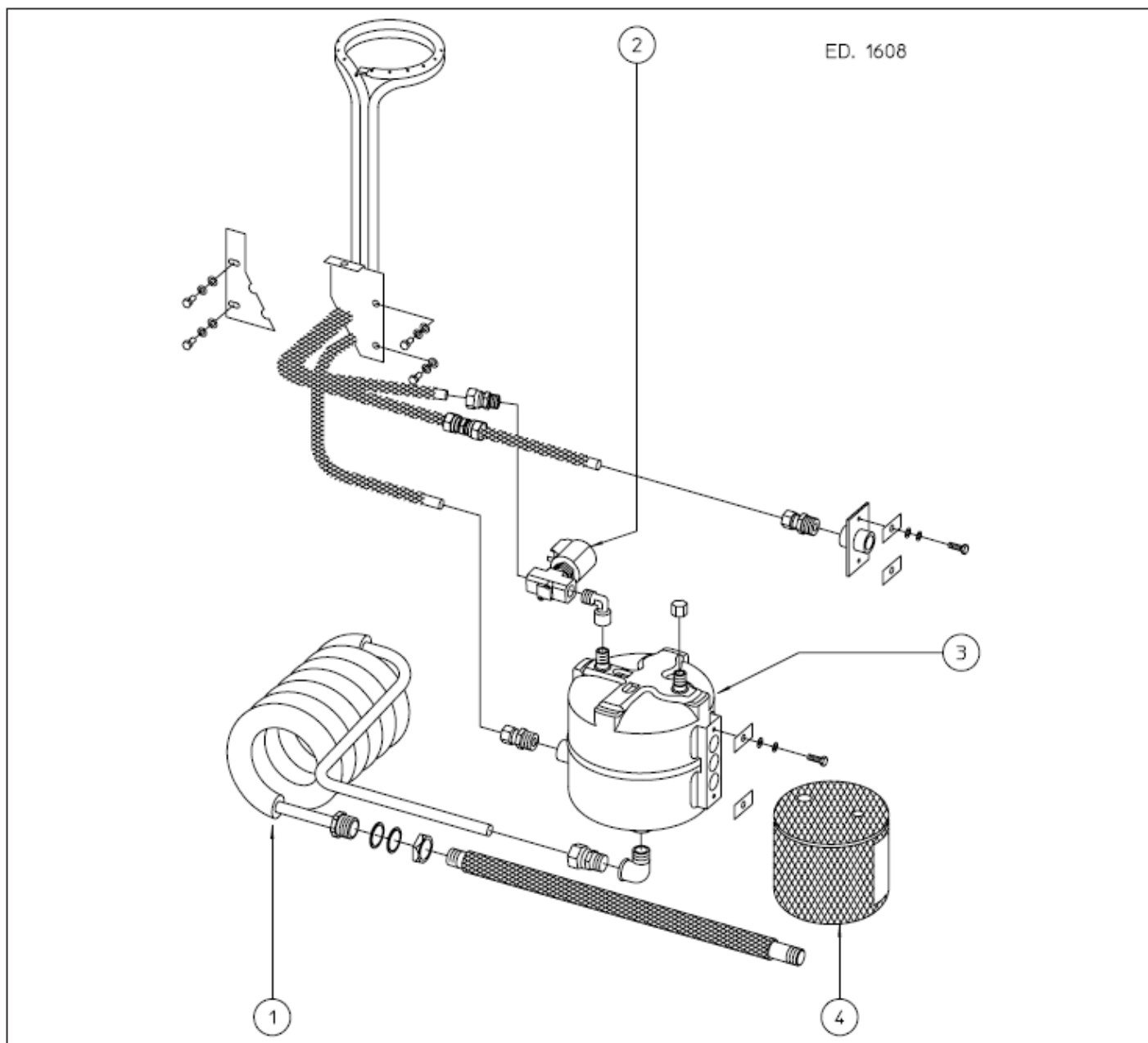
3	0290155	2	BUSSOLA	BUSH	RING	BAGUE	CASQUILLO
2	0240102	1	MOLLA	SPRING	FEDER	RESSORT	MUELLE
1	0180209	1	POMOLO	HANDLE	KNOPF	POIGNEE	TIRADOR
pos	Code	Q.ty	Descrizione	Description	Beschreibung	Designation	Descripción
STANDARD BLOWING GROUP - GRUPPO ARIA STANDARD							



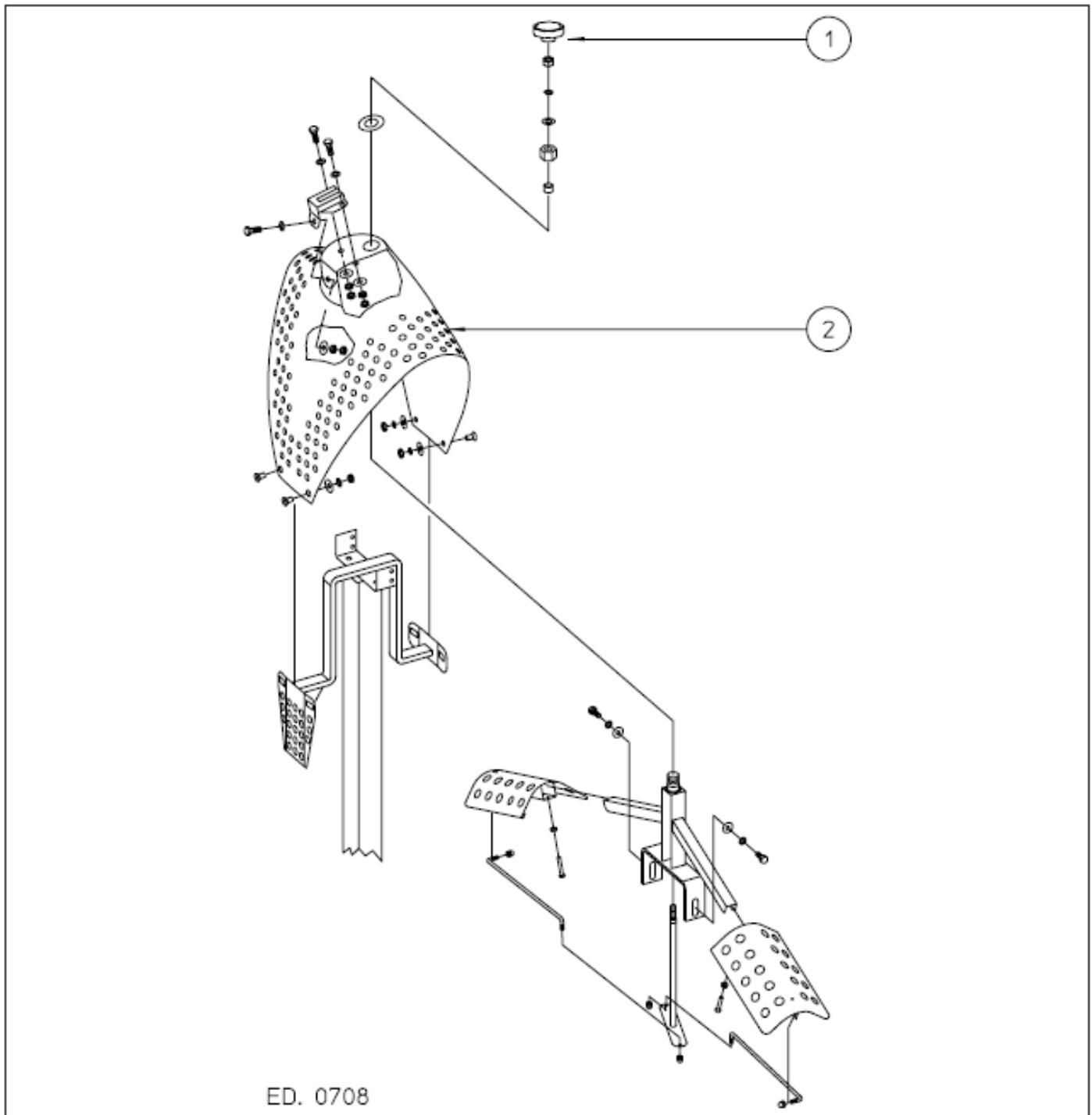
5	50791001B	1	CORPETTO	FORM COVER	KÖRPERBEZUG	COUVERTURE BUSTE	CUERPO
4	50791010B	1	SACCO	BAG	SACK	COUVERTURE	BOLSA
3	50791009B	2	COPERTURA PER PALA FRONTALE E POSTERIORE	COVER SET FOR FRONT AND REAR COVER	BEZUG FÜR VORDERE UND HINTERE ANDRUCKLEISTE	REVÊTEMENT POUR PALETTE ANTERIEURE ET POSTERIEURE	COBERTURA PARA PALAS DELANTERA Y TRASERA
2	50791003B	1	COPERTURA PALA FERMACOLLO	COVER FOR LAPEL CLAMP	BEZUG FÜR KRAGEN-ANDRUCKLEISTE	COUVERTURE POUR	COBERTURA PARA PALA CUELLO
1	5000901	2	ESTENSORI MANICHE	EXPANDER	SPANNER	EXTENSEUR	EXTENSOR
pos	Code	Q.ty	Descrizione	Description	Beschreibung	Designation	Descripción
COVERS SET - GRUPPO CORREDO							



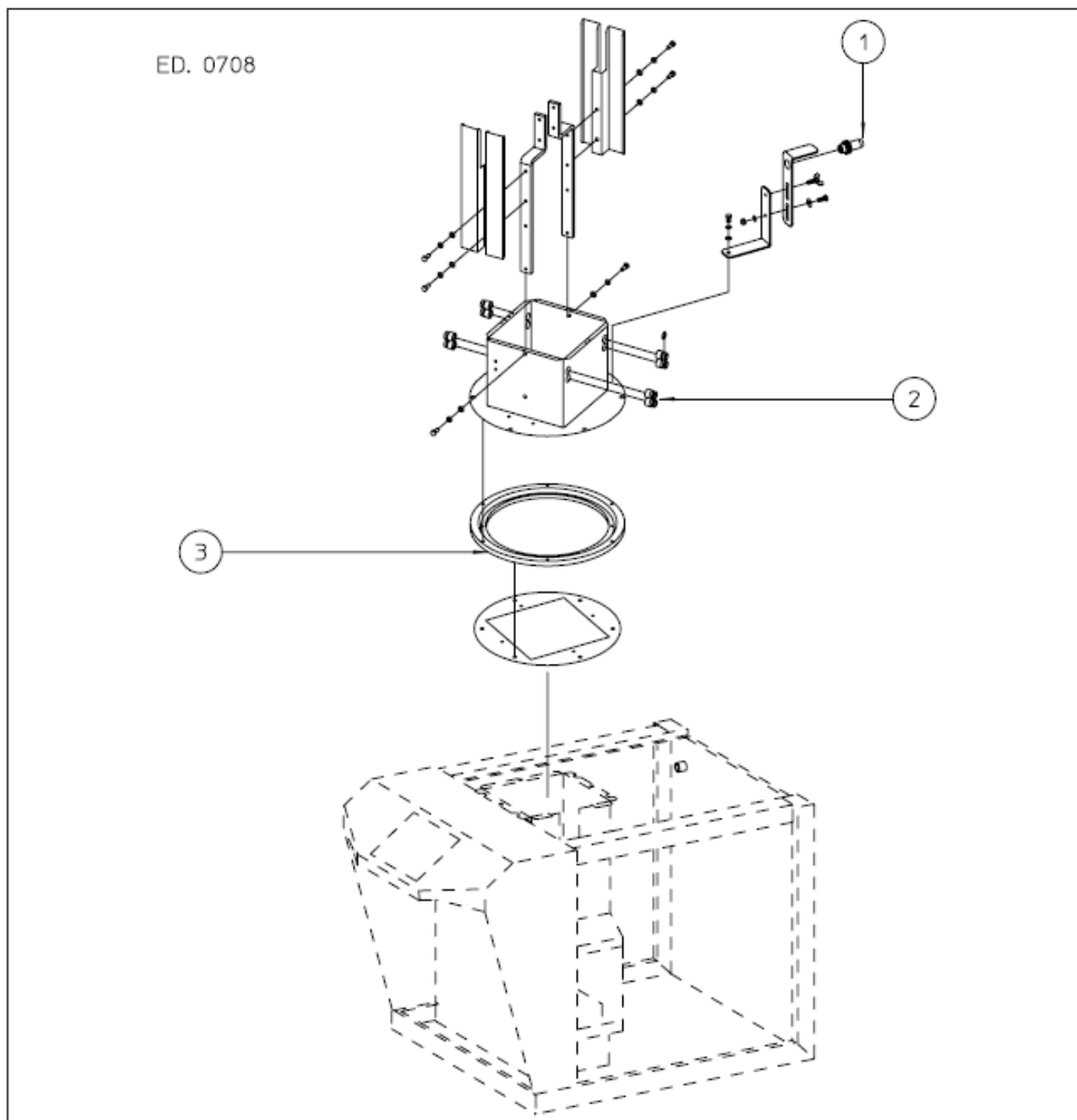
2	21251001	3	PEDALE	PEDAL	PEDAL	PEDALE MOBILE	PEDAL
1	0220574	3	MICROINTERRUTTORE	MICROSWITCH	MIKROSCHALTER	MICROINTERRUPTEUR	MICROINTERRUPTEUR
pos	Code	Q.ty	Descrizione	Description	Beschreibung	Designation	Descripción
PEDALS GROUP - GRUPPO PEDALI							



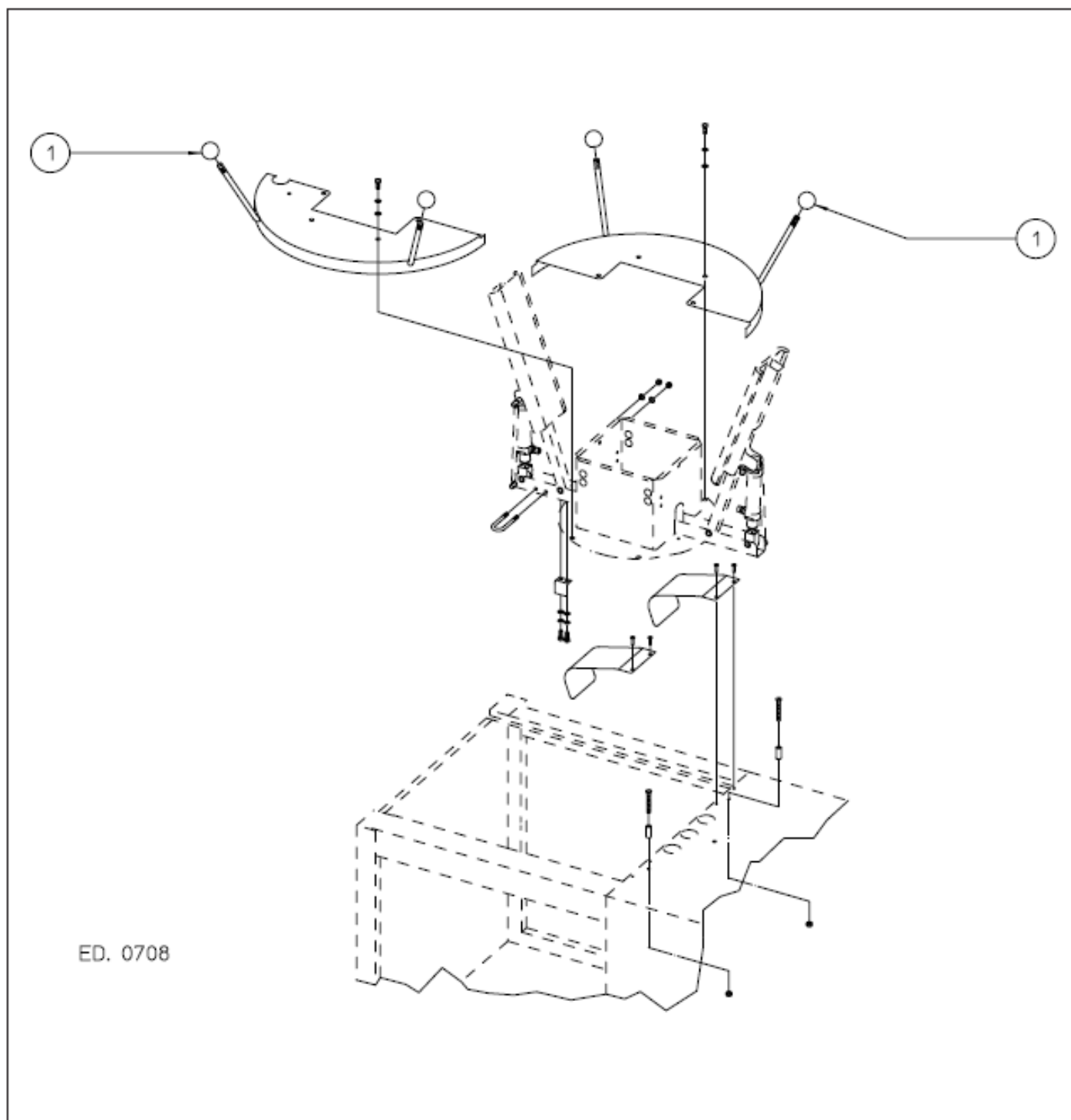
4	S025901	1	ISOLAMENTO	INSULATION	ISOLIERUNG	ISOLATION	AISLAMIENTO
3	S025401	1	SEPARATORE	SEPARATOR	ABSCHIEDER	SEPARATEUR	SEPARADOR
2	E028235	1	VALVOLA VAPORE	STEAM VALVE	DAMPFVENTIL	VANNE VAPEUR	VÁLVULA VAPOR
1	0230801	1	BATTERIA	BATTERY	BATTERIE	BATTERIE	BATERÍA
pos	Code	Q.ty	Descrizione	Description	Beschreibung	Designation	Descripción
STEAM GROUP - GRUPPO VAPORE							



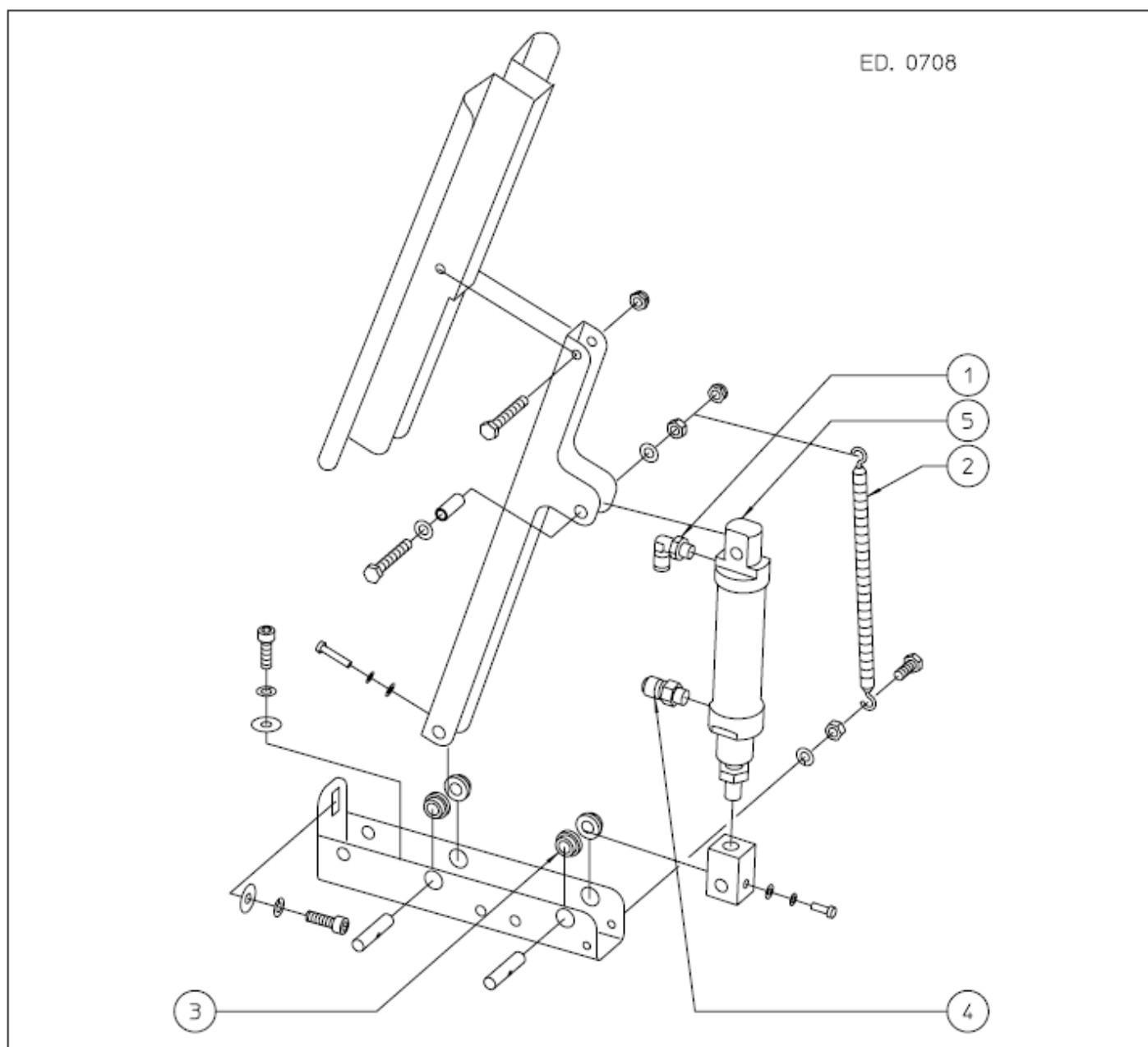
2	50711044	1	FORMABUSTO	BUST	BUESTE	BUSTE	BUSTO
1	0180321	1	VOLANTINO	HAND WHEEL	KNOPF	VOLANT	RUEDA MANUAL
pos	Code	Q.ty	Descrizione	Description	Beschreibung	Designation	Descripción
SHOULDERS ASSEMBLY - GRUPPO SPALLE							



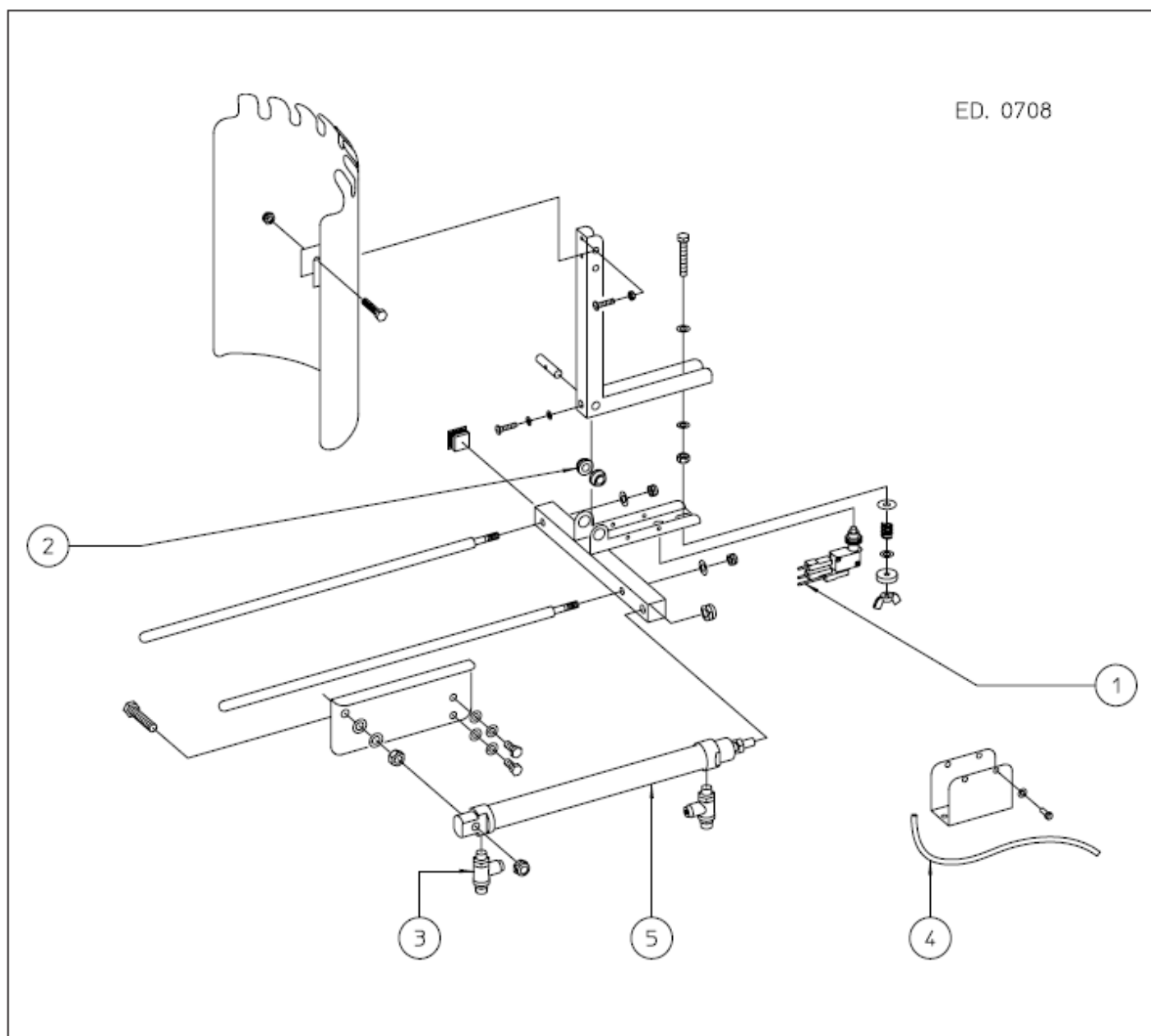
3	5100124	1	GIRANTE	DISK WHEEL	SCHEIBE	PLIER	RUEDA
2	0290155	8	BUSSOLA GUIDA	BUSH	RING	BAGUE	CASQUILLO
1	0221424	1	FOTOCPELLULA	PHOTECCELL	FOTOZELLE	PHOTOCCELLULE	FOTOCÉLULA
pos	Code	Q.ty	Descrizione	Description	Beschreibung	Designation	Descripción
ROTATION GROUP - GRUPPO CONDOTTO ROTANTE							



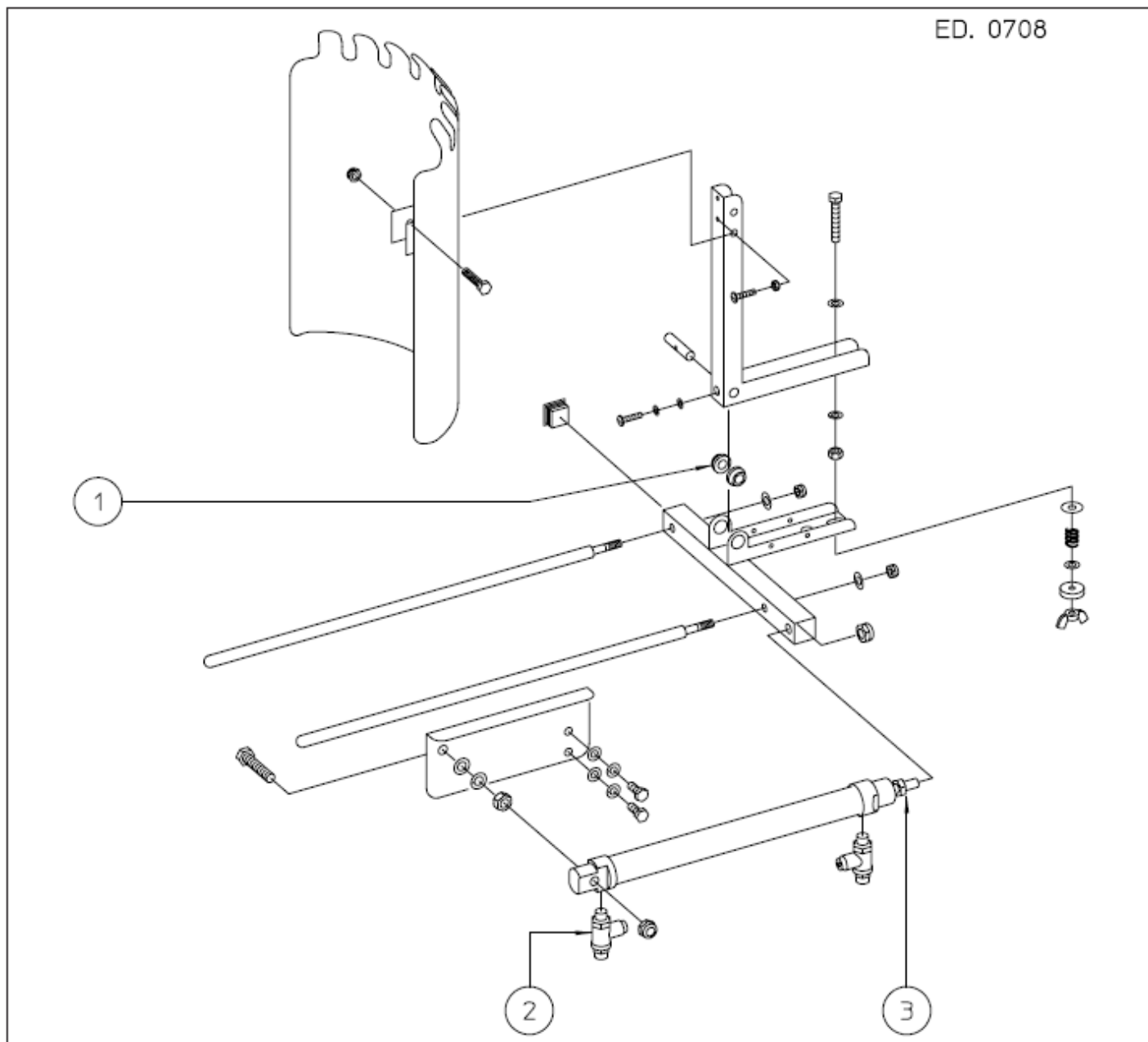
1	0180204	4	POMOLO	HANDLE	KNOPF	POIGNEE	TIRADOR
pos	Code	Q.ty	Descrizione	Description	Beschreibung	Designation	Descripción
360° GROUP - GRUPPO 360°							



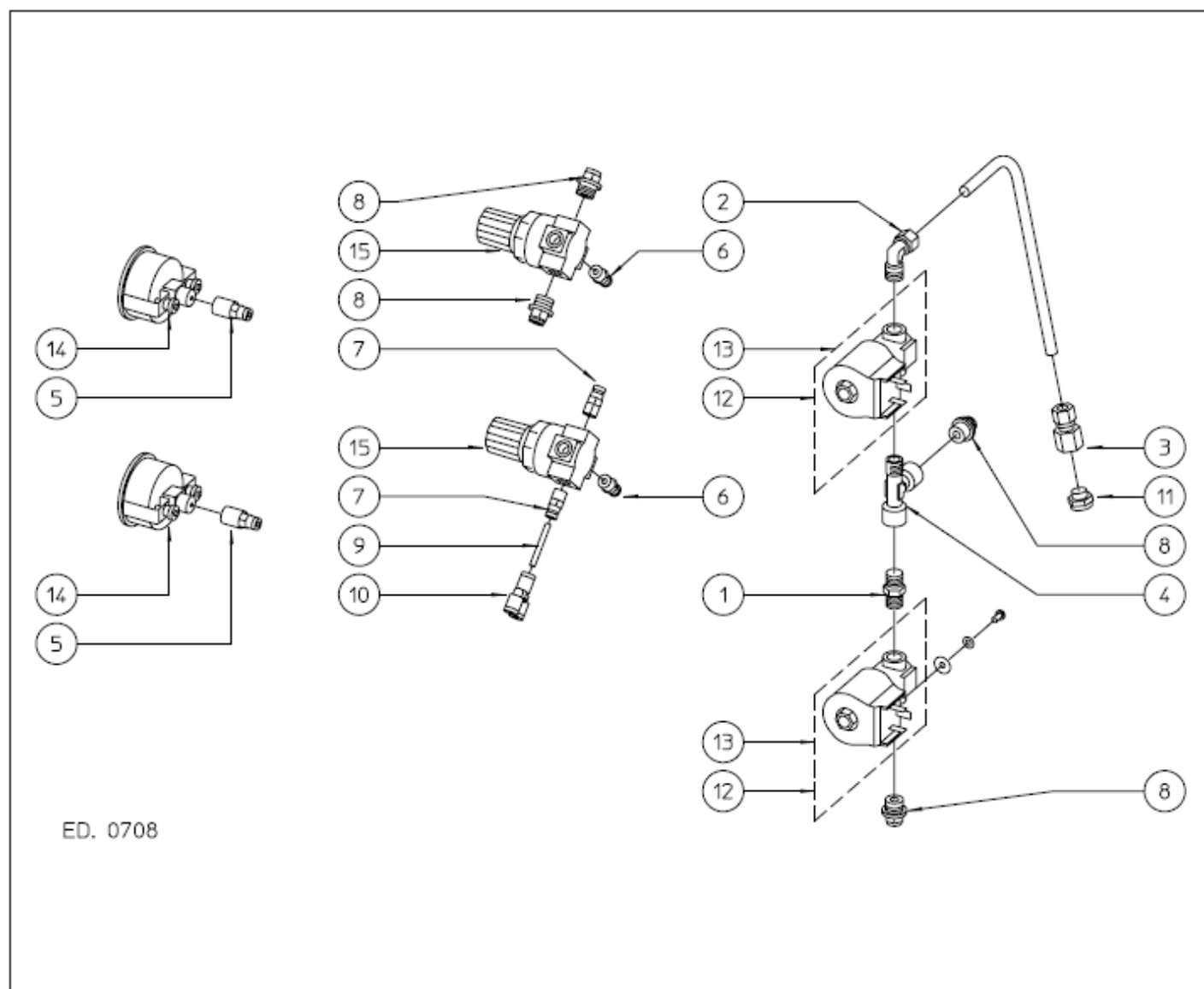
5	024-0COD	1	CILINDRO Ø25x50	CYLINDRE Ø25x50	ZYLINDER Ø25x50	CYLINDER Ø25x50	CILINDRO Ø25x50
4	C22	1	SILENZIATORE	SILENCER	SCHALLDÄMPFER	SILENCIEUX ¼ "	SILENCIADOR
3	0290131	4	BUSSOLA	BUSH	RING	BAGUE	CASQUILLO
2	0240107	1	MOLLA	SPRING	FEDER	RESSORT	MUELLE
1	0210307	1	RACCORDO	JOINT	ANSCHLUSSTÜCK	RACCORD	CODO
pos	Code	Q.ty	Descrizione	Description	Beschreibung	Designation	Descripción
CLAMP GROUP - GRUPPO PALE							



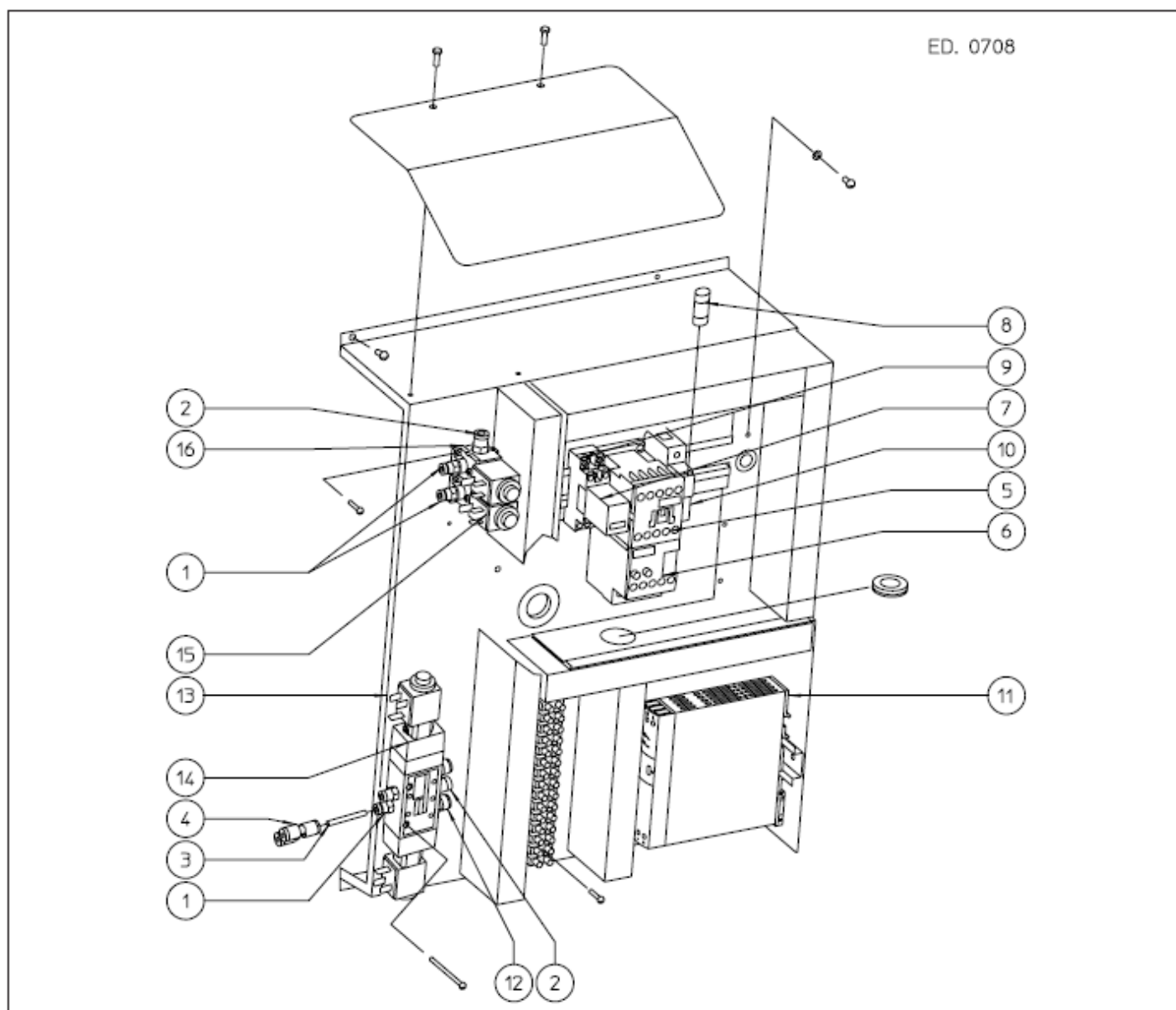
5	024-NCOD	1	CILINDRO Ø20x200	CYLINDER Ø20x200	ZYLINDER Ø20x200	CYLINDRE Ø20x200	CILINDRO Ø20x200
4	F0131001	1	CAVO ELETTRICO	ELECTR. CABLE	ELEKTR. KABEL	CABLE ELECTR.	CABLE ELÉCTRICO
3	C12	2	REGOLATORE FLUSSO	FLOW REGULATOR	LUFTREGLER	REGULATEUR FLUX	REGULADOR FLUJO
2	0290131	2	BUSSOLA	BUSH	RING	BAGUE	CASQUILLO
1	0220557	1	MICROINTERRUTT.	MICROSWITCH	MIKROSCHALTER	MICROINTERRUPTEUR	MICROINTERRUPTOR
pos	Code	Q.ty	Descrizione	Description	Beschreibung	Designation	Descripción
EXPANDER GROUP - GRUPPO ESTENSORE SX							



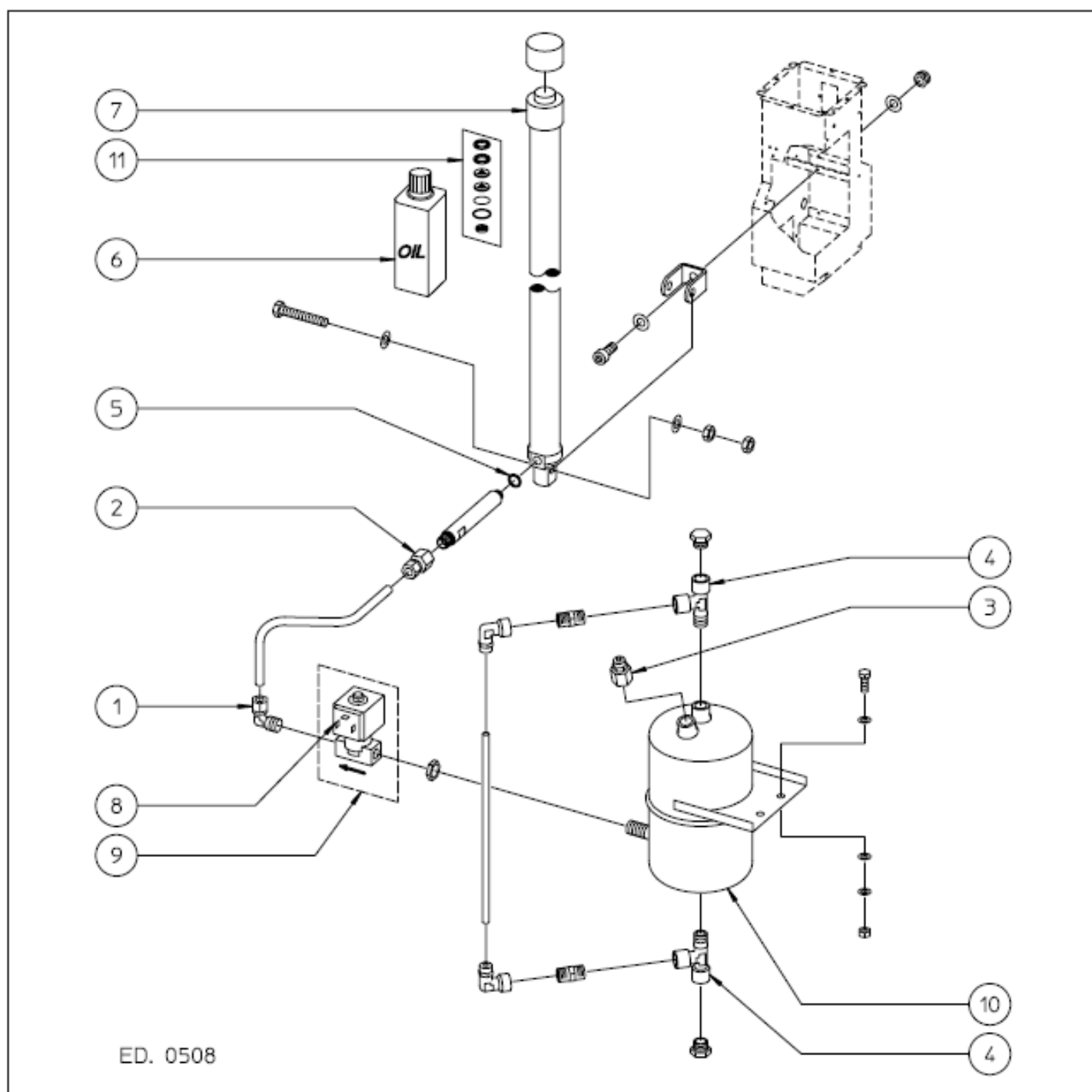
3	024-NCOD	1	CILINDRO Ø20x200	CYLINDER Ø20x200	ZYLINDER Ø20x200	CYLINDRE Ø20x200	CILINDRO Ø20x200
2	C12	2	REGOLATORE FLUSSO	FLOW REGULATOR	LUFTREGLER	REGULATEUR FLUX	REGULADOR FLUJO
1	0290131	2	BUSSOLA	BUSH	RING	BAGUE	CASQUILLO
pos	Code	Q.ty	Descrizione	Description	Beschreibung	Designation	Descripción
EXPANDER GROUP - GRUPPO ESTENSORE DX							



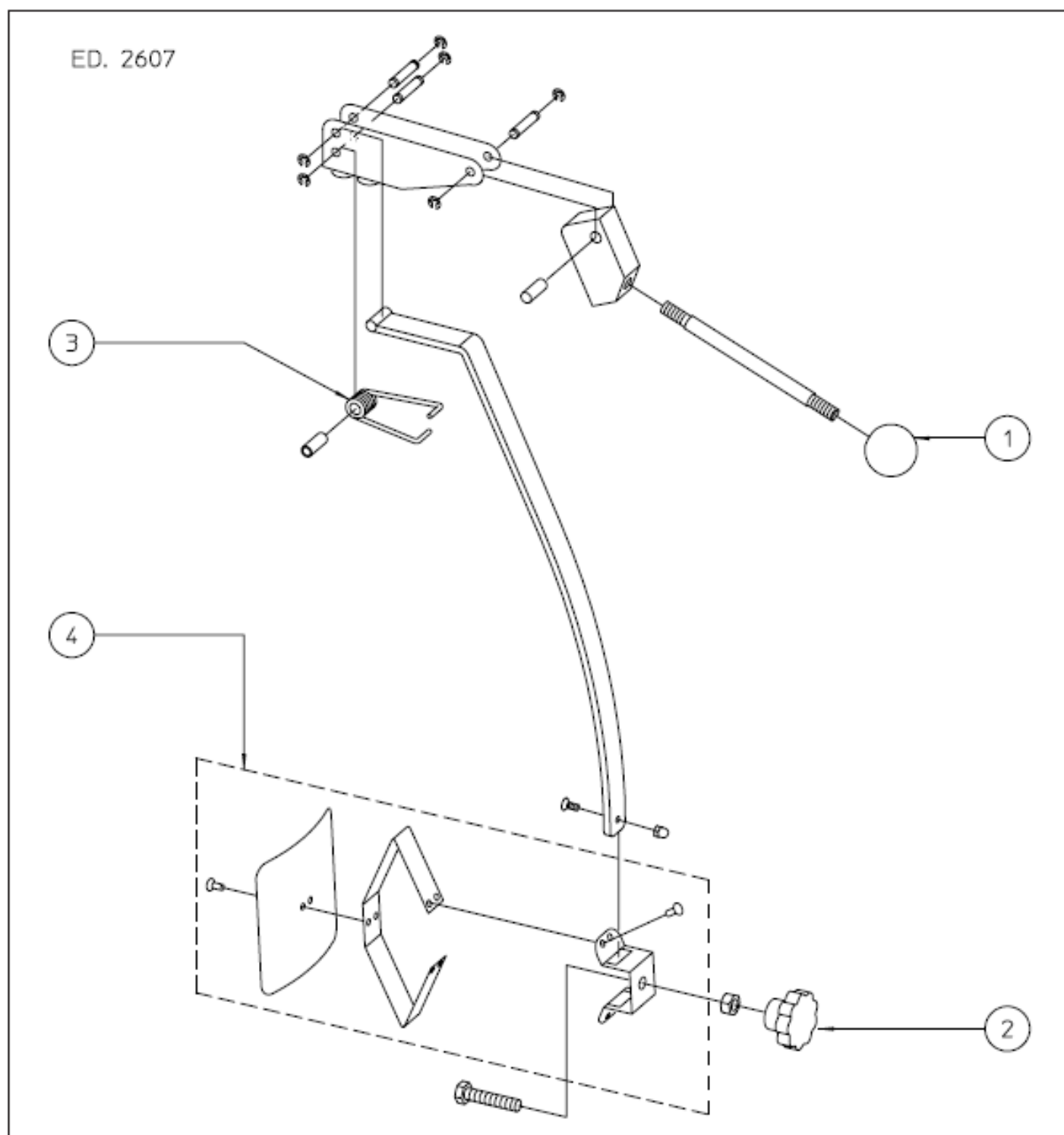
15	111919-0	2	RIDUTTORE 1/4"	REGULATOR	REGLER	REGULATEUR 1/4"	REGULADOR
14	073-0	2	MANOMETRO	PRESSURE GAUGE	DRUCKWACHTER	MANOMETRE	MANÓMETRO
13	E2011003	2	ELETTROVALVOLA	SOLENOID VALVE	ELEKTROVENTIL	ELECTROVANNE	ELECTROVÁLVULA
12	E2011002	2	BOBINA	COIL	SPÜLE	BOBINE 24 VDC	BOBINA 24 VDC
11	C21	1	SILENZIATORE	SILENCER	SCHALLDÄMPFER	SILENCIEUX 1/4"	SILENCIADOR
10	0210520	1	RACCORDO	CONNECTION	ANSCHLUSSTÜCK	RACCORD	CODO
9	0210511	1	PROLUNGA	EXTENSION	VERLÄNGERUNG	PROLONGE	ALARGADOR
8	0210111	4	RACCORDO	CONNECTION	ANSCHLUSSTÜCK	RACCORD	CODO
7	0210109	2	RACCORDO	CONNECTION	ANSCHLUSSTÜCK	RACCORD	CODO
6	0210108	2	RACCORDO	CONNECTION	ANSCHLUSSTÜCK	RACCORD	CODO
5	0210106	2	RACCORDO	CONNECTION	ANSCHLUSSTÜCK	RACCORD	CODO
4	0170201	1	TE MF G 1/4"	TE MF 1/4" GAS	TE MF 1/4" GAS	TE MF 1/4" GAS	CODO TE MF G 1/4"
3	0160302	1	RACCORDO	CONNECTION	ANSCHLUSSTÜCK	RACCORD	CODO
2	0160204	1	RACCORDO CURVO	CONNECTION	ANSCHLUSSTÜCK	RACCORD COURBE	CODO CURVO
1	0090202	1	NIPPLO 1/4"	NIPPLE	NIPPEL	NIPPLE CONIQUE 1/4"	NIPLE
pos	Code	Q.ty	Descrizione	Description	Beschreibung	Designation	Descripción
PNEUMATIC GROUP - GRUPPO PNEUMATICO							



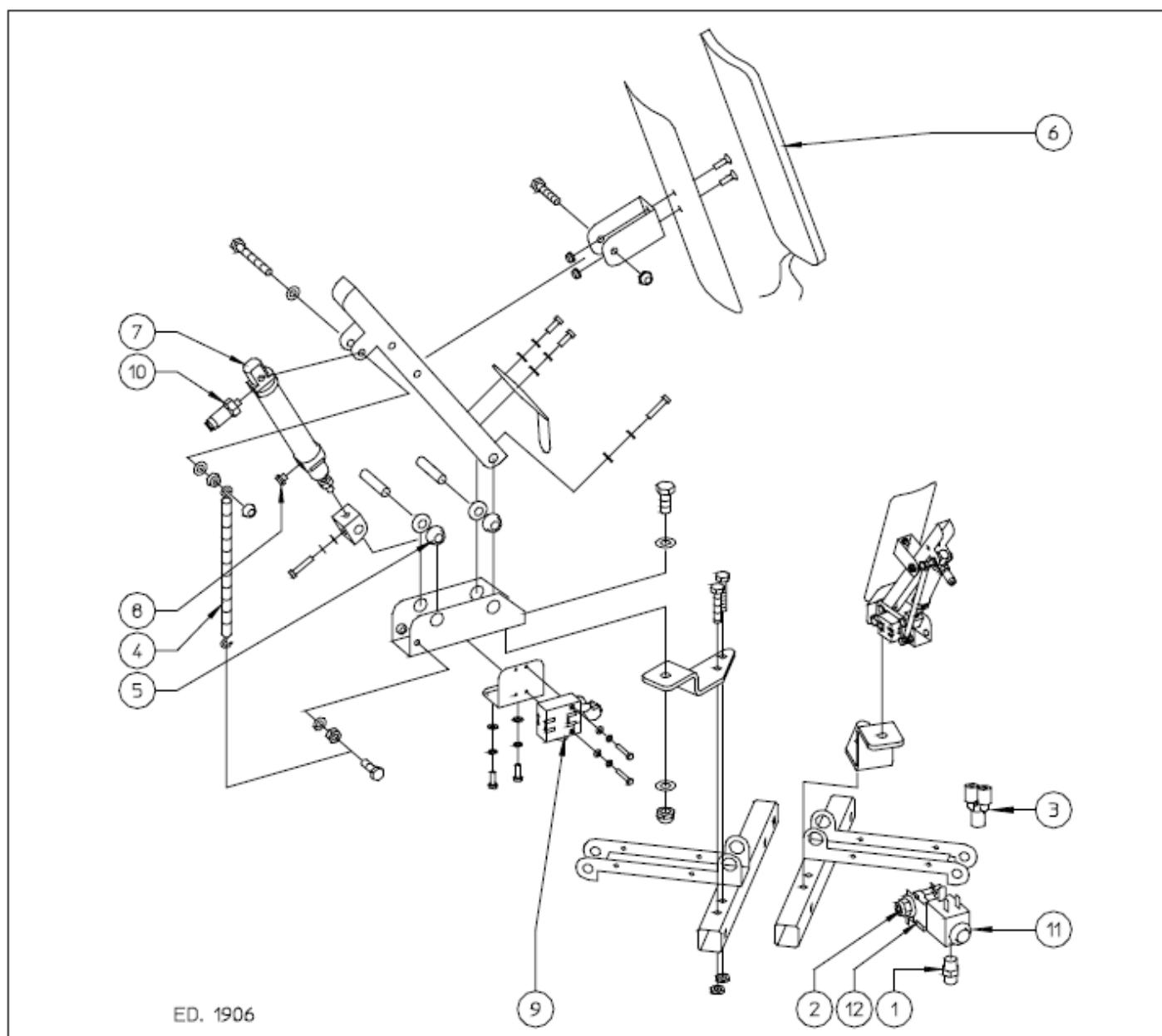
16	E700001	2	CORPO ELETTR.	VALVE BODY	VENTILBODEN	CORPS ELECTROVANNE	CUERPO ELECTR.
15	E600024	2	BOBINA	COIL	SPÜLE	BOBINE 24 VDC	BOBINA 24 VDC
14	E3124	1	ELETTRORVALVOLA	SOLENOID VALVE	ELEKTROVENTIL	ELECTROVANNE	ELECTROVÁLVULA
13	E0212006	2	BOBINA	COIL	SPÜLE	BOBINE	BOBINA 24 VDC
12	C22	2	SILENZIATORE	SILENCER	SCHALLDÄMPFER	SILENCIEUX 1/8"	SILENCIADOR
11	0221413	1	ALIMENTATORE	POWER CARD	SPEISER	ALIMENTATEUR	ALIMENTADOR
10	0220817	1	PORTAFUSIBILE	FUSE SUPPORT	SICHERUNGHALTER	PORTE FUSIBLE	PORTAFUSIBLE
9	0220813	1	ZOCCOLO	BASE	SOCKEL	CULOT	CASQUILLO
8	0220801	1	FUSIBILE 10Ax38	FUSE	SICHERUNG	FUSIBLE 10A.X38	FUSIBLE 10A
7	0220586	1	RELE 24V	RELAY 24V	RELAIS 24V	RELAIS 24V	RELÉ 24V
6	0220568	1	RELE TERMICO	RELAY	RELAIS	RELAIS THERMIQUE	RELÉ TÉRMICO
5	0220566	1	CONTATTORE	CONTACTOR	KONTAKTOR	CONTACTEUR 24V	CONTACTOR
4	0210520	1	RACCORDO	CONNECTION	ANSCHLUSSTÜCK	RACCORD	CODO
3	0210511	1	PROLUNGA	EXTENSION	VERLANGERUNG	PROLONGE	ALARGADOR
2	0210112	2	RACCORDO	CONNECTION	ANSCHLUSSTÜCK	RACCORD	CODO
1	0210108	4	RACCORDO	CONNECTION	ANSCHLUSSTÜCK	RACCORD	CODO
pos	Code	Q.ty	Descrizione	Description	Beschreibung	Designation	Descripción
ELECTRIC ASSEMBLY - IMPIANTO ELETTRICO							



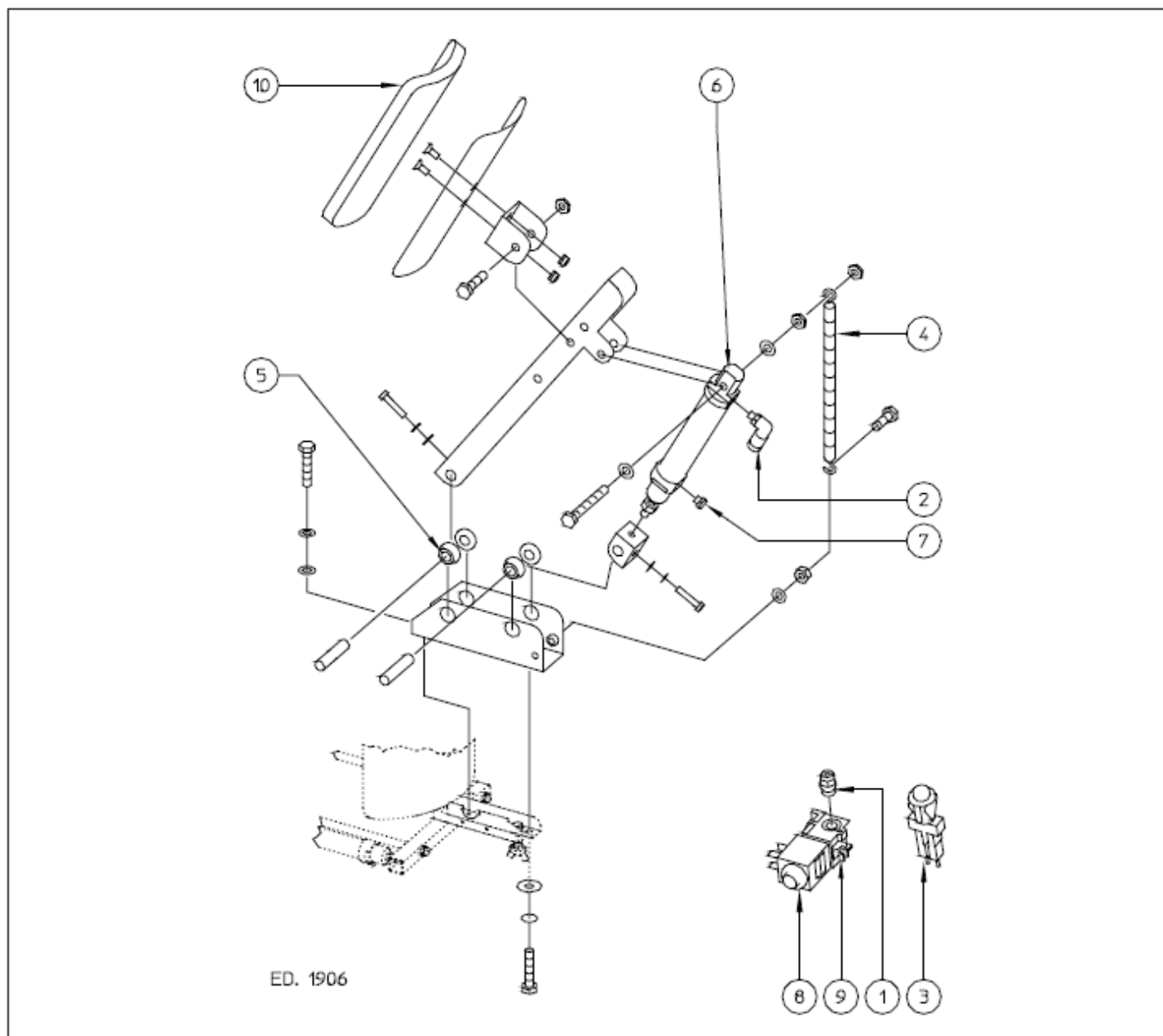
11	ZC04	1	KIT GUARNIZIONI	GASKET KIT	DICHTUNGEN	KIT JOINTS	KIT EMPAQUET.
10	S1711001	1	SERBATOIO OLIO	OIL TANK	ÖLTANK	RESERVOIR HUILE	TANQUE ACEITE
9	E2011004	1	ELETTRIVALVOLA	SOLENOID VALVE	ELEKTROVENTIL	ELECTROVANNE	ELECTROVÁLVULA
8	E2011005	1	BOBINA	COIL	SPÜLE	BOBINE	BOBINA 24 VDC
7	C24	1	CILINDRO Ø25x750	CYLINDER Ø25x750	ZYLINDER Ø25x750	CYLINDRE Ø25x750	CILINDRO Ø25x750
6	5100590	1	BARATTOLO OLIO	OIL TIN	ÖLDOSE	BOITE HUILE	FRASCO ACEITE
5	0250309	1	GUARNIZIONE	GASKET	DICHTUNG	JOINTS	EMPAQUETADURA
4	0170201	2	RACCORDO	CONNECTION	ANSCHLUSSTÜCK	RACCORD	CODO
3	0160801	1	RACCORDO	CONNECTION	ANSCHLUSSTÜCK	RACCORD	CODO
2	0160308	1	RACCORDO	CONNECTION	ANSCHLUSSTÜCK	RACCORD	CODO
1	0160204	1	RACCORDO	CONNECTION	ANSCHLUSSTÜCK	RACCORD	CODO
pos	Code	Q.ty	Descrizione	Description	Beschreibung	Designation	Descripción
OIL CIRCUIT - GRUPPO ELEVAZIONE SPALLE							



4	L535	1	GR. PALA FERMAC.	COLLAR CLAMP GROUP	KRAGENKLAMMER	GR. PALETTE FIXE COU	GR. PALA FIJACUELLO
3	0240124	1	MOLLA	SPRING	FEDER	RESSORT	MUELLE
2	0180411	1	VOLANTINO	HAND WHEEL	KNOPF	VOLANT	RUEDA MANUAL
1	0180204	1	POMOLO	HANDLE	KNOPF	POIGNEE	TIRADOR
pos	Code	Q.ty	Descrizione	Description	Beschreibung	Designation	Descripción
LAPTEL CLAMP ASSEMBLY GRUPPO PALA FERMACOLLO							



12	E700001	1	CORPO ELETTROVALVOLA	VALVE BODY	VENTILBODEN	CORPS ELECTROVANNE	CUERPO ELECTROV.
11	E600024	1	BOBINA 24V DC	COIL 24V DC	SPÜLE 24V DC	BOBINE 24V DC	BOBINA 24V DC
10	C500	2	VALVOLA SCARICO	QUICK EXHAUST VALVE	SCHNELLABLASSVENTIL	VANNE DE DÉCHARGEMENT RAPIDE	VÁLVULA DE DESCARGA RÁPIDA
9	C400	2	LEVA A RULLO	LEVER	HEBEL	LEVIER	PALANCA
8	C34	2	SILENZIATORE	SILENCER	SCHALLDÄMPFER	SILENCIEUX ¼"	SILENCIADOR
7	C203	2	CILINDRO Ø16	CYLINDER	ZYLINDER	CYLINDRE Ø16	CILINDRO D=16 C=50
6	-----	2	RIVEST. PALA SPACCHI	VENT CLAMP COVER	SCHLITZEKLAMMER-BEZUG	COUVERTURE PALETTE	COBERTURA PALA ABERTURA
5	0290131	4	BUSSOLA	BUSH	RING	BAGUE	CASQUILLO
4	0240107	2	MOLLA	SPRING	FEDER	RESSORT	MUELLE
3	0210520	1	RACCORDO	CONNECTION	ANSCHLUSSTÜCK	RACCORD	CODO
2	0210107	1	RACCORDO	CONNECTION	ANSCHLUSSTÜCK	RACCORD	CODO
1	0210103	1	RACCORDO	CONNECTION	ANSCHLUSSTÜCK	RACCORD	CODO
pos	Code	Q.ty	Descrizione	Description	Beschreibung	Designation	Descripción
PNEUMATIC VENT CLAMPS (option) GRUPPO PALE SPACCHI (opzionale)							



10	----	2	RIVEST. PALA LATERALE	LATERAL CLAMP COVER	SCHLITZEKLAMMER-BEZUG	COUVERTURE PALETTE	COBERTURA PALA ABERTURA
9	E700001	1	CORPO ELETTROVALVOLA	VALVE BODY	VENTILBODEN	CORPS ELECTROVANNE	CUERPO ELECTROV.
8	E600024	1	BOBINA 24V DC	COIL 24V DC	SPÜLE 24V DC	BOBINE 24V DC	BOBINA 24V DC
7	C34	2	SILENZIATORE	SILENCER	SCHALLDÄMPFER	SILENCIEUX ¼"	SILENCIADOR
6	----	2	CILINDRO Ø16	CYLINDER	ZYLINDER	CYLINDRE Ø16	CILINDRO D=16 C=50
5	0290131	8	BUSSOLA	BUSH	RING	BAGUE	CASQUILLO
4	0240107	2	MOLLA	SPRING	FEDER	RESSORT	MUELLE
3	----	1	RACCORDO	CONNECTION	ANSCHLUSSTÜCK	RACCORD	CODO
2	0210305	2	RACCORDO	CONNECTION	ANSCHLUSSTÜCK	RACCORD	CODO
1	0210103	1	RACCORDO	CONNECTION	ANSCHLUSSTÜCK	RACCORD	CODO
pos	Code	Q.ty	Descrizione	Description	Beschreibung	Designation	Descripción
PNEUMATIC LATERAL CLAMPS (option) GRUPPO PALE LATERALI (opzionale)							

Dealer

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Manufacturer

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