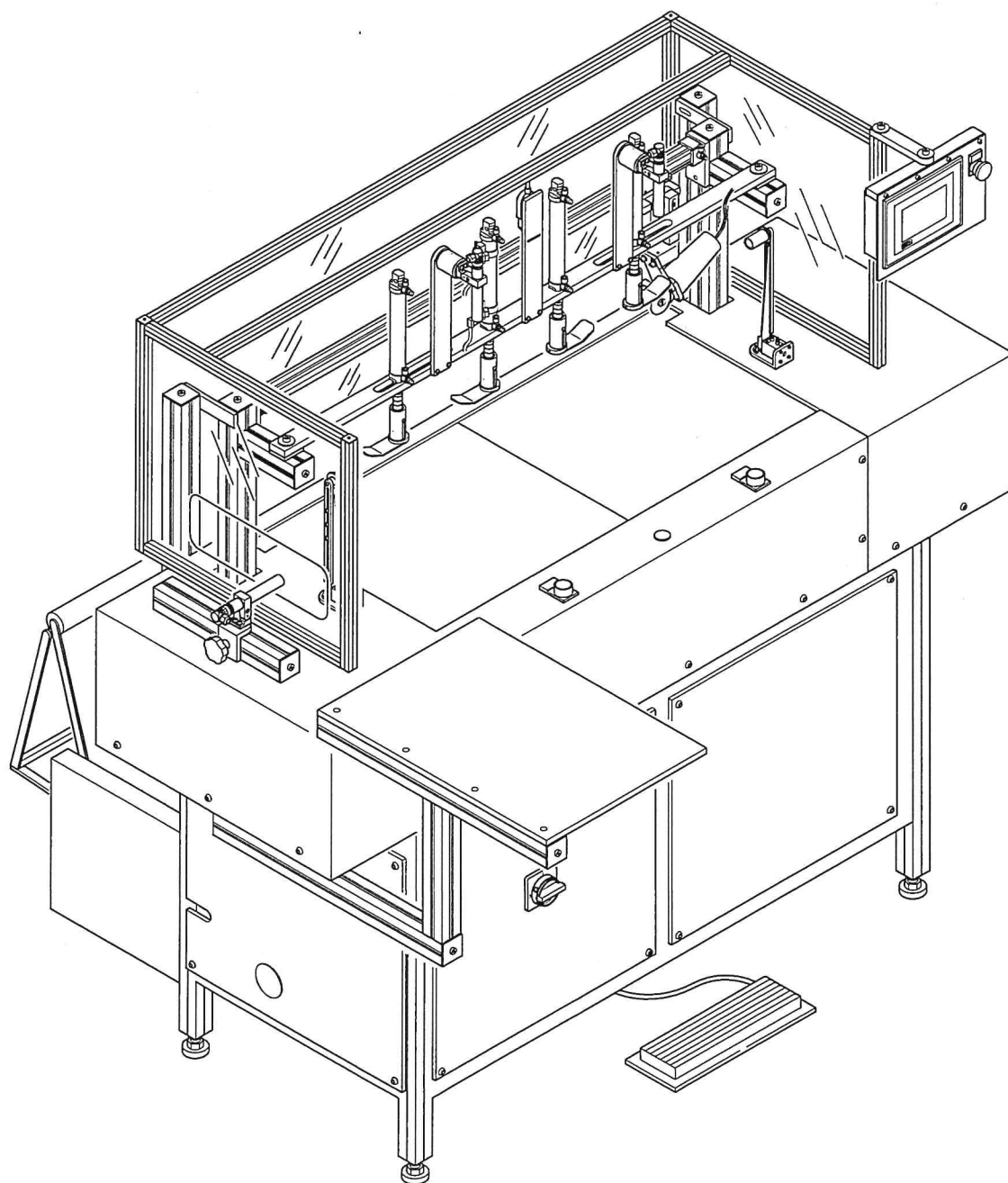


FRONT TRIMMER **mod. 1060**



Instructions for use and maintenance



MAIGA Macchine Automatismi Industriali Camicerie Abbigliamento



Macchine Automatismi Industriali Camicerie Abbigliamento

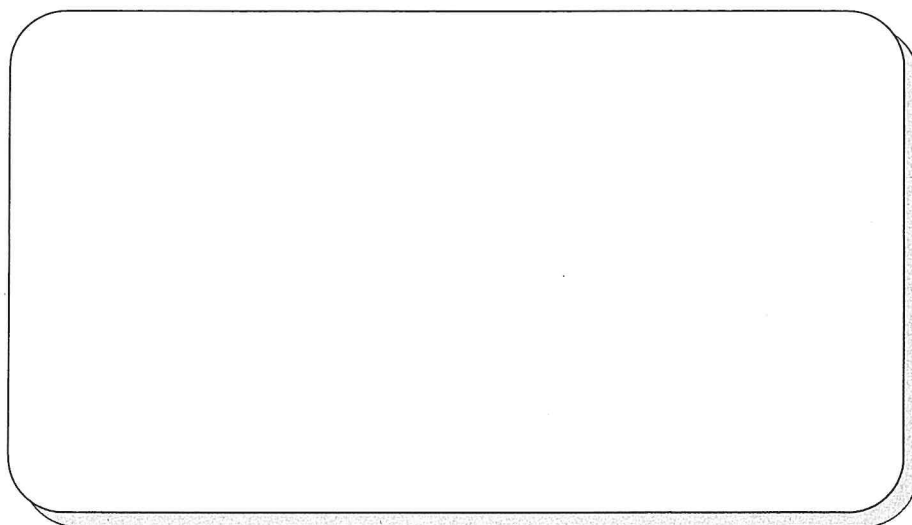
Via Casale, 23 - 24060 Torre de' Roveri (Bergamo) - ITALY

Telefono (+39) 35 580040 - Telefax (+39) 35 580920

web: www.maicaitalia.com

e-mail: info.maicaitalia@maicaitalia.com

AUTHORIZED AREA DEALER FOR ASSISTANCE



EEC CONFORMITY DECLARATION

The "1060 front trimmer" machine, as described in this manual, complies with the standards set down by the following EEC Directives:

UNI EN 292-1	Machine safety. Essential principles.
UNI EN 292-2	Machine safety. Essential principles.
UNI EN 294	Machine safety. Safety distances for arms.
UNI EN 349	Machine safety. Minimum crushing distances.
UNI EN 418	Machine safety. Emergency stop devices.
pr EN 563	Machine safety. Contact surface temperatures. Ergonomic data.
pr EN 574	Machine safety. Two-hand control devices.
pr EN 953	Machine safety. Guard design and construction.
pr EN 1088	Machine safety. Interlocking devices with or without guard locking.
EN 60204-1	Electrical devices on industrial machines. Part 1: general standards.
EN 60529	Levels of protection guaranteed by guards (IP code).
EN 60825	Radiation safety of laser products; plant classification; requirements and guide for the operator.

Manufacturer:
M.A.I.C.A. S.r.l.

01 - GENERALITIES

CHARACTERISTICS AND APPLICATION

The new M.A.I.C.A. 1060 machine is the first machine in the world that centres striped fabric with high precision trimming and equalizing.

The machine centres from the front, buttonhole or button side, using a laser beam that permits striped or checked fabrics to be aligned with total precision.

The 1060 centres the fronts, button-hole or button side by means of a laser beam that guarantees absolute precision in fabric alignment.

The fabric is cut with a cutter with cobalt counter-blade for a perfect cut and less blade consumption.

The fabric is equalized with a stacker that equalizes the ironed fabric, layer upon layer, with excellent precision.

The 1060 also has a back stacker for stacking the other half of the shirt front, if this is only to be cut halfway.

Working capacity: with the 1060 you can trim a material measuring 950 mm in length and 480 mm wide. You can also equalize up to 100 mm in height.

RECOMMENDATIONS FOR USE

The 1060 is **only to be used** where the fabric needs to be trimmed and equalized. The manufacturer declines all liability for damage arising from incorrect use or any use differing from the instructions in this manual.

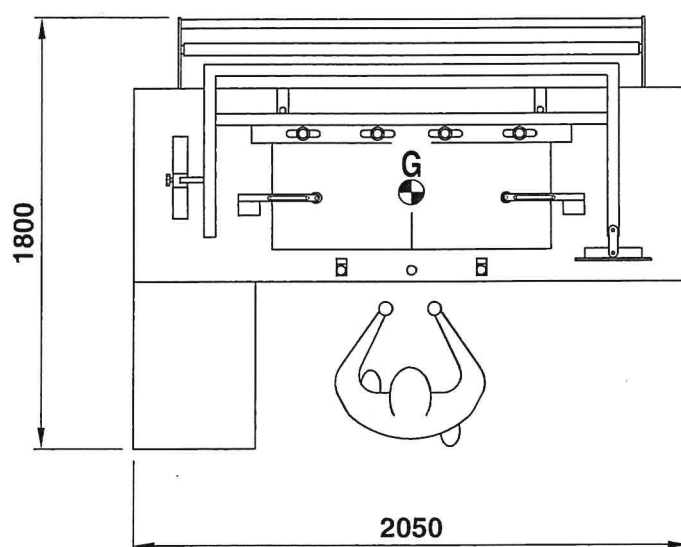
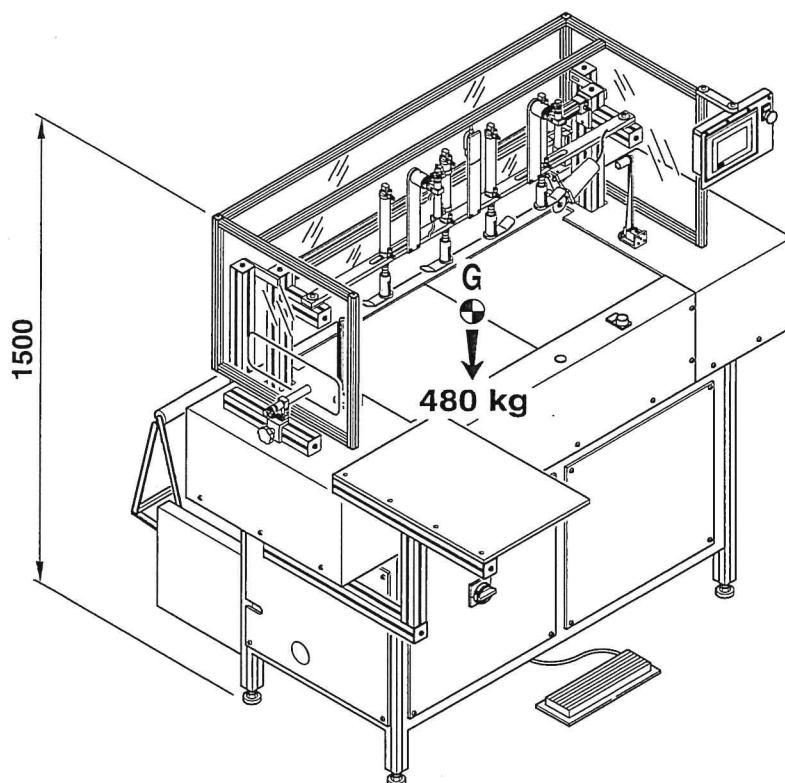
The symbol  appears when there is a risk or danger to the health of the operator; the maximum care must be taken.

The 1060 has a cutter unit with moving trimmer. We recommend extreme care when approaching these parts.

Disconnect the power and the compressed air supplies before carrying out any adjustment, replacement or maintenance work.

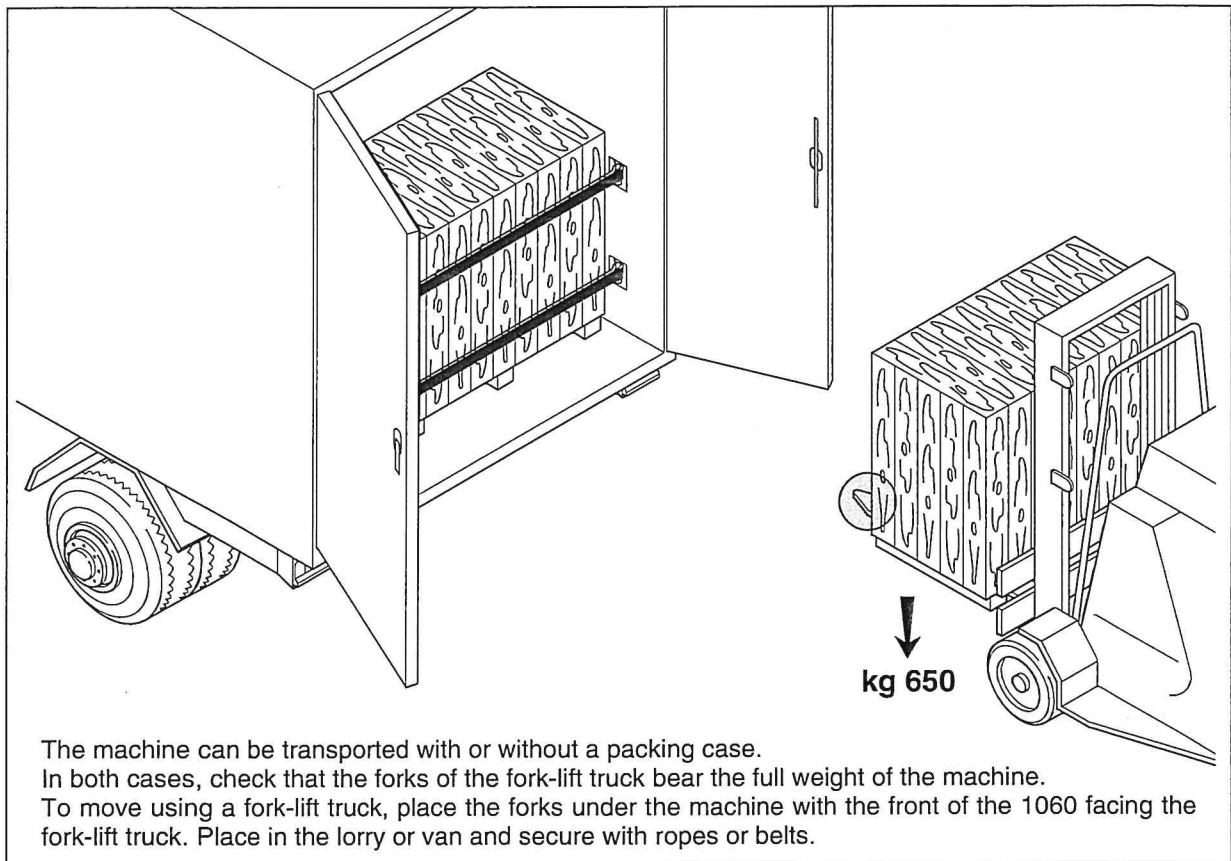
This machine **must not** be exposed to the weather (rain, direct sunlight, etc.).

02 - FRONT TRIMMER TECHNICAL DATA mod. 1060

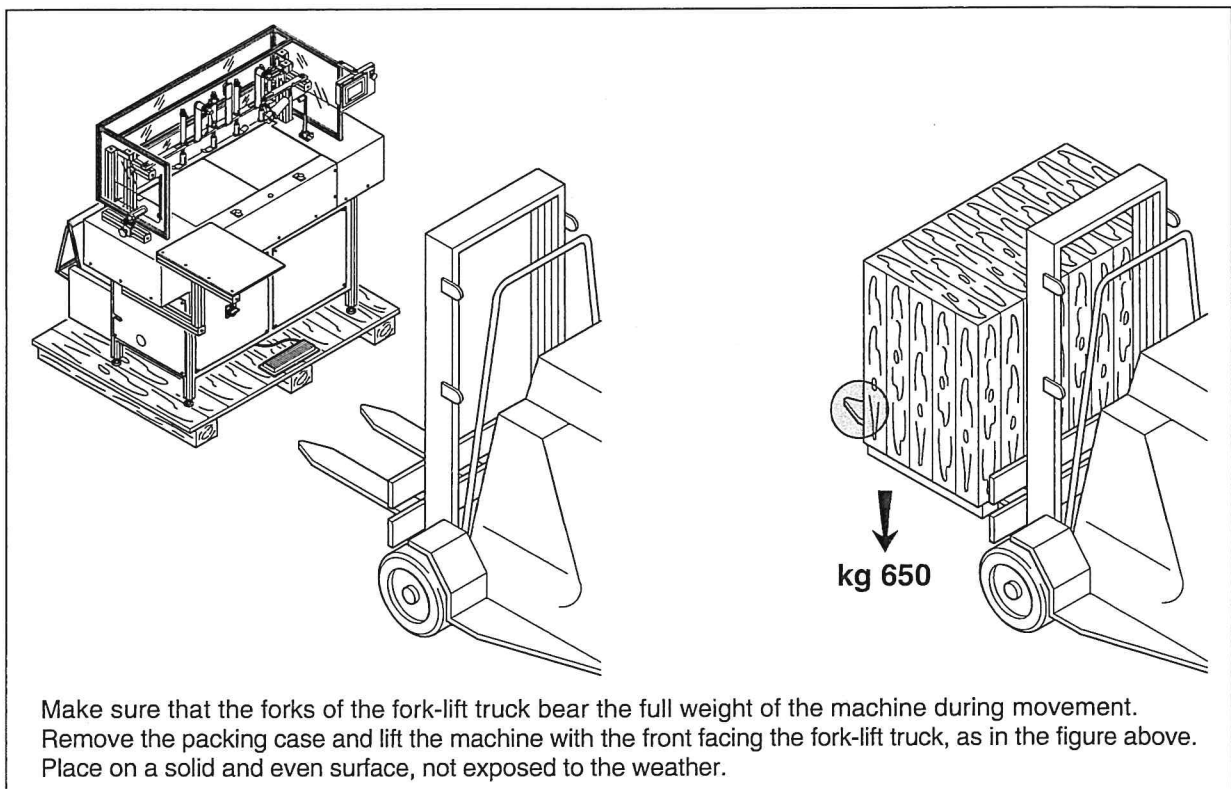


Daily level of exposure to noise **Leq**, with the machine in operation, compliant to current standards.

03 - LIFTING AND TRANSPORTATION



04 - LOADING AND UNLOADING



05 - INSTALLATION

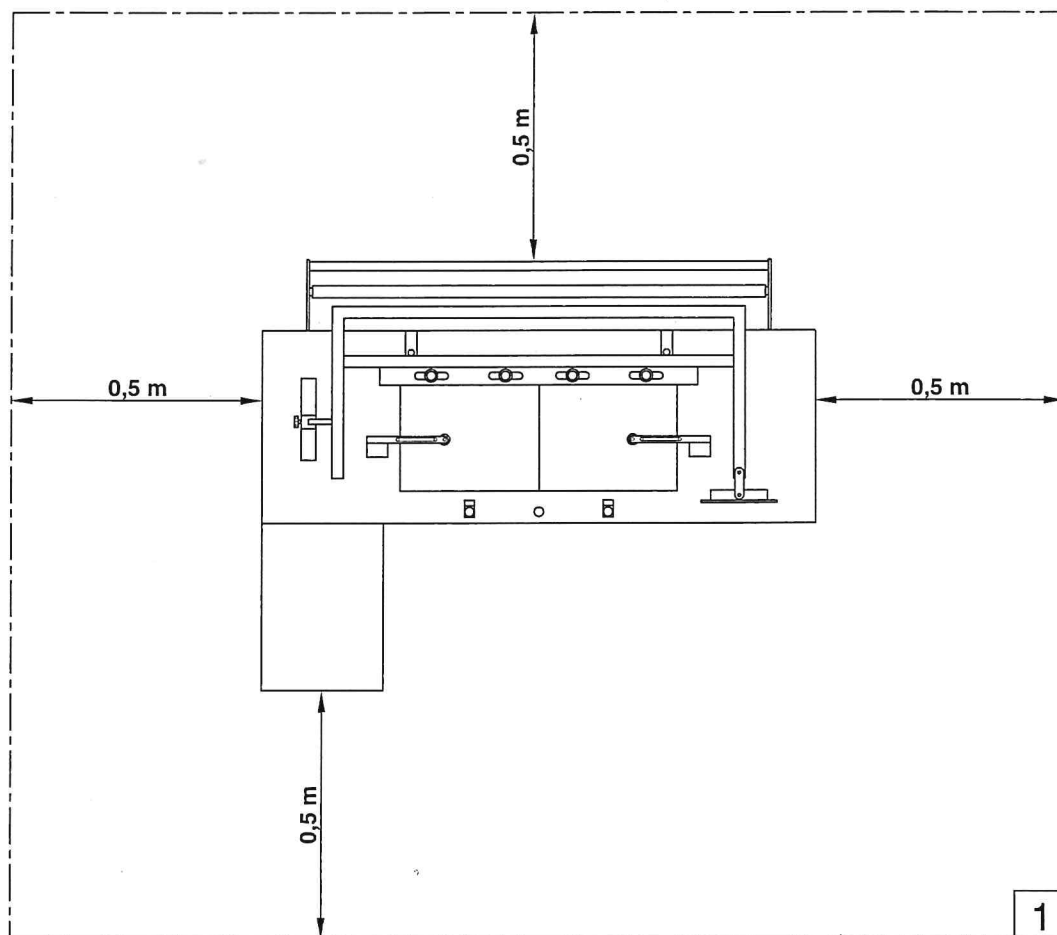
ATTENTION: This machine must only be installed by specialized personnel.

The manufacturer cannot be held liable for any damage to persons or to property arising from incorrect installation not in accordance with these instructions and connection to a mains supply that does not meet the necessary requirements.

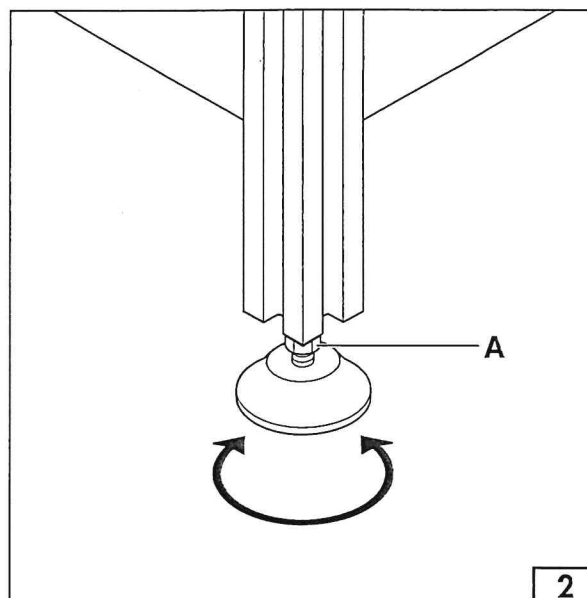


If the machine is installed on a suspended surface, check that the surface can withstand the weight of the machine. This machine must not be installed in areas where there are explosive or inflammable materials and substances.

Make sure that the distances shown in figure 1 below are respected as these are necessary for the maintenance and operation of the machine.



The machine must be placed on a solid and even surface. Turn the nuts "A" (fig. 2) on the leveling feet to adjust the height.

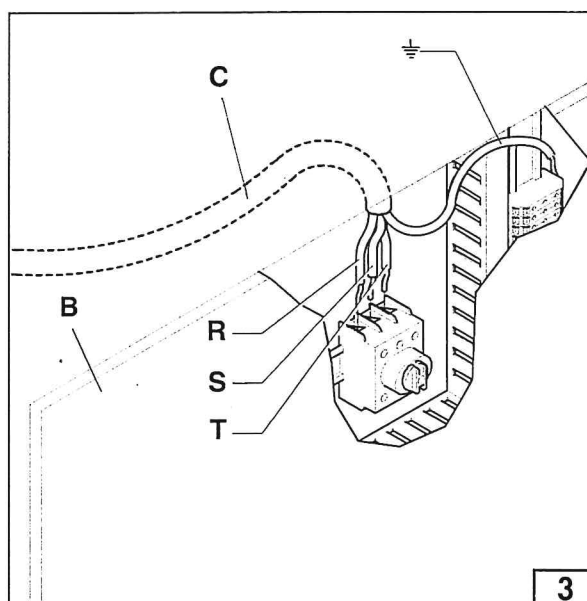


ELECTRICAL CONNECTIONS

The machine is usually delivered with the power cable wired inside the electrical panel. Therefore, all that needs to be done is to connect it to a 380V-50Hz three-phase power outlet.

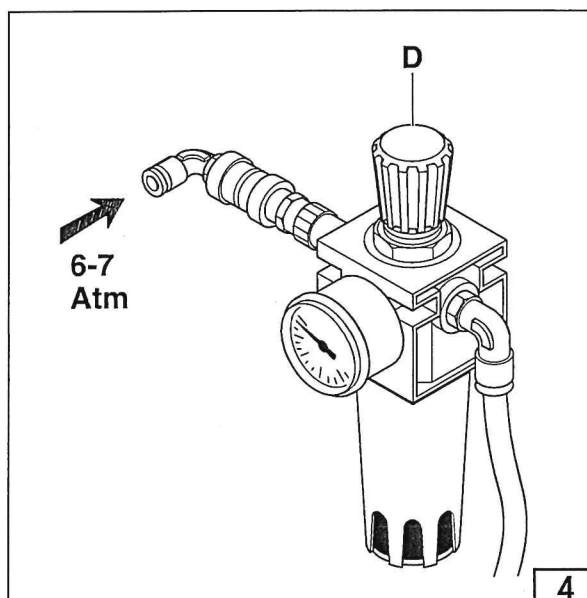
If this is not the case, proceed as follows (fig. 3):

- Open the front panel "B".
- Pass the power cable "C" through the core hitch on the machine.
- Connect phases **R - S - T** and the earth $\perp$ to the corresponding terminals of the main switch.
- Before installation, check the efficiency of the earthing system to which the machine is connected.
- The power consumption is 2 kW.

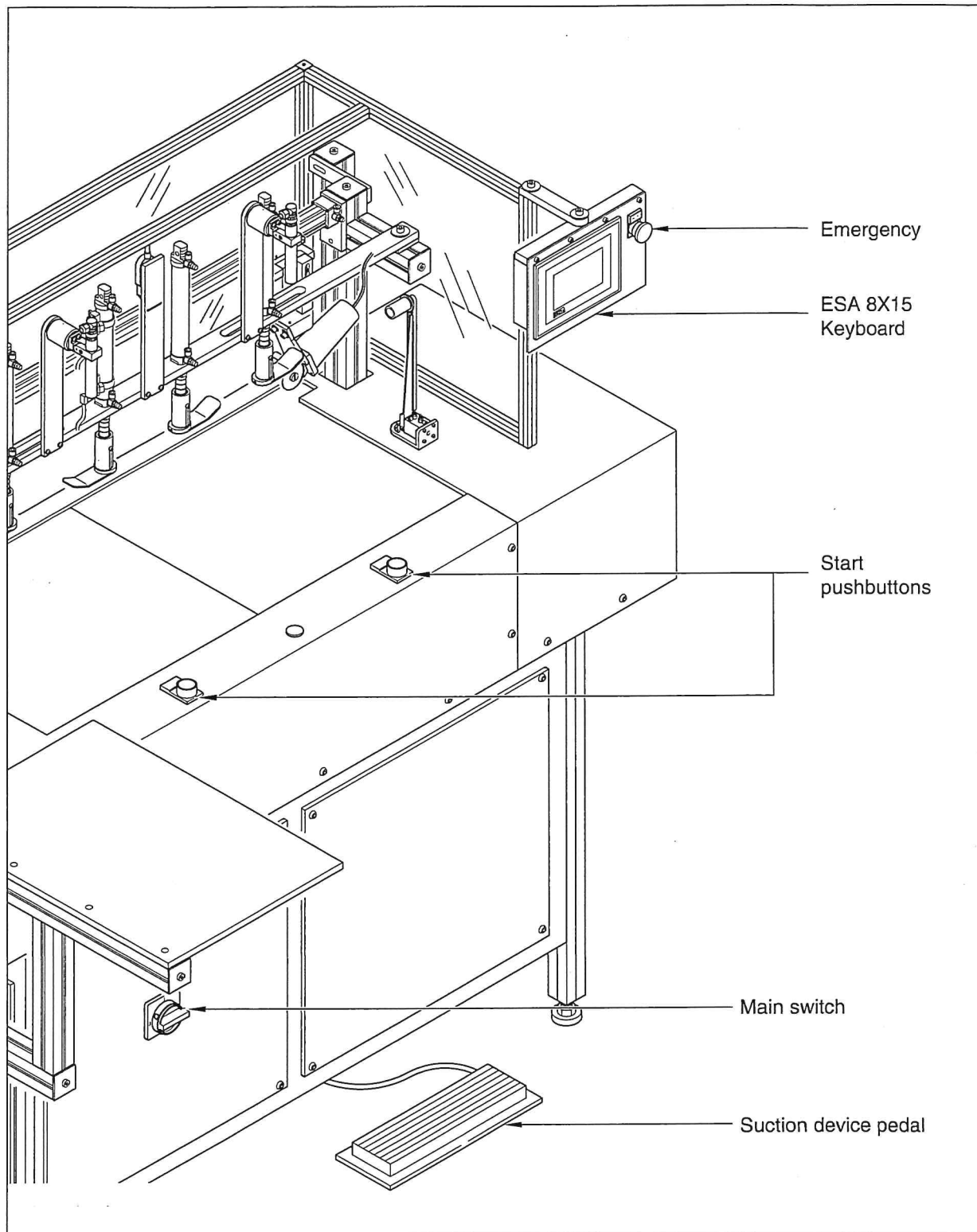


PNEUMATIC CONNECTION

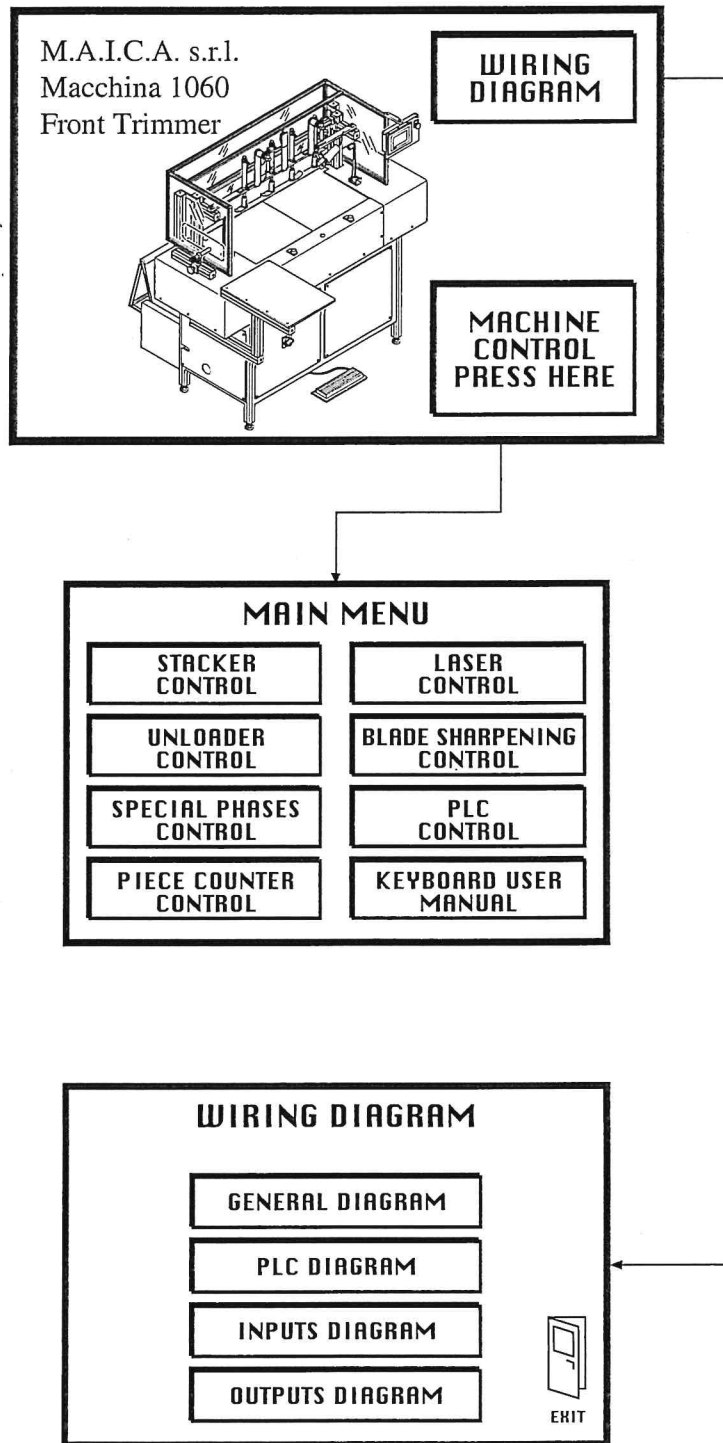
- Connect the machine to the compressed air outlet and make sure that the air flow is sufficient to allow for operation with a constant rate of pressure of 6÷7 Atm.
- Calibrate pressure regulator "D" at between 6÷7 Atm (fig. 4).

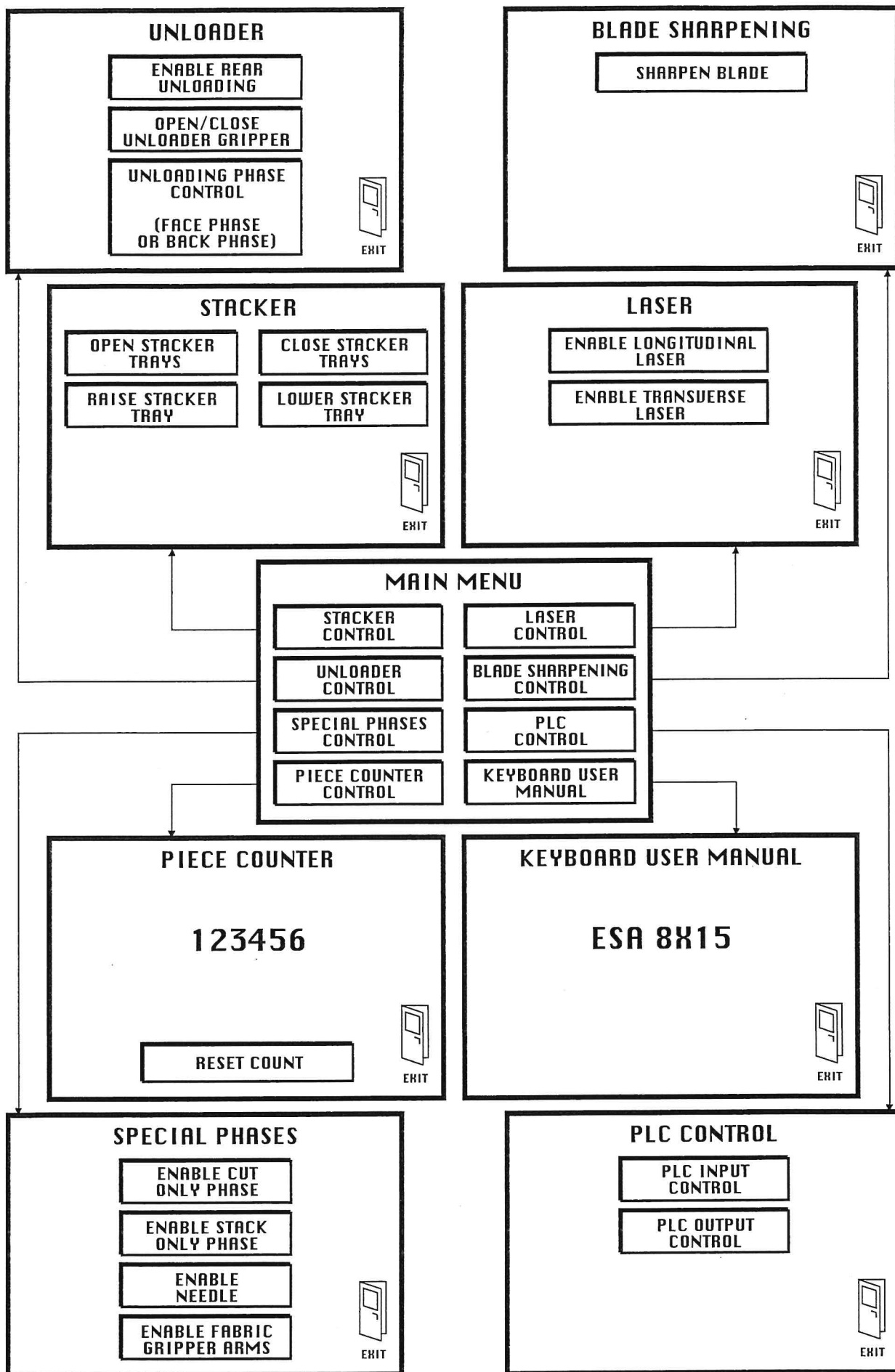


06 - MACHINE CONTROLS



ESA 8X15 KEYBOARD FUNCTIONS

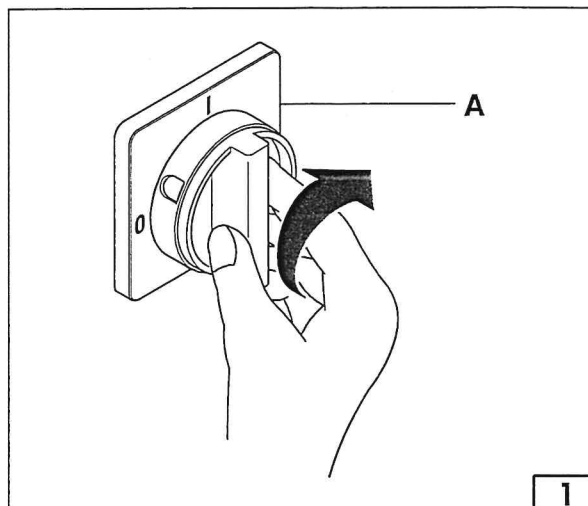




07 - OPERATION

START-UP

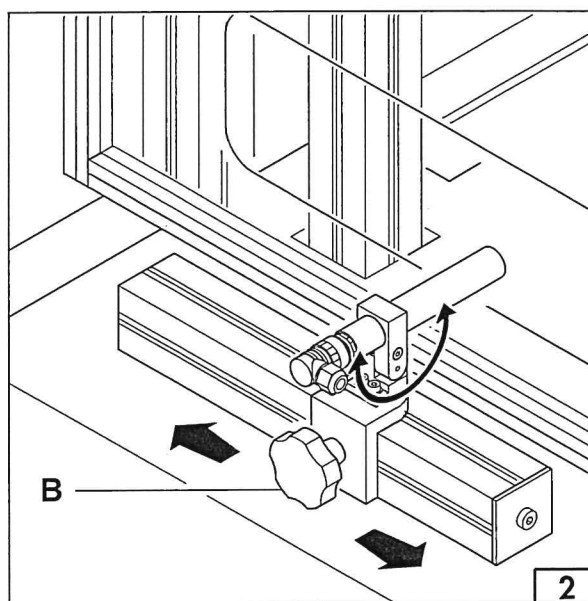
Turn main switch "A" to position I (fig. 1).



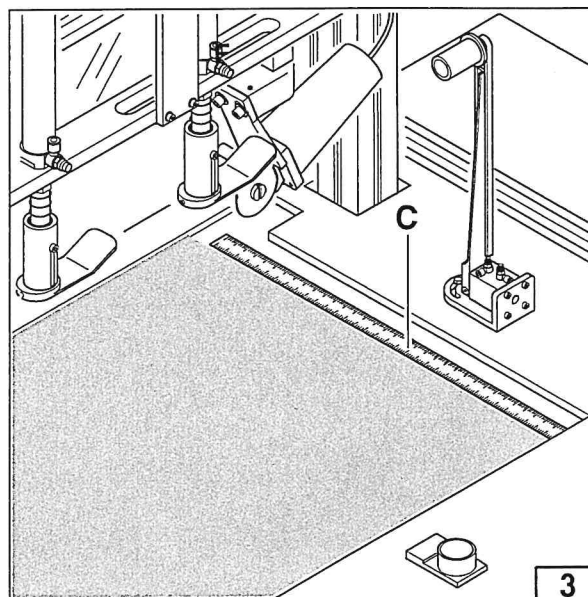
Enable the longitudinal laser from the keyboard main menu by pressing the "Laser Control" pushbutton and adjust the beam to the required strength using knob "B" (fig. 2).

Check that the fabric tray is in the fully raised position. If not, press the following pushbuttons in the keyboard main menu in sequence:

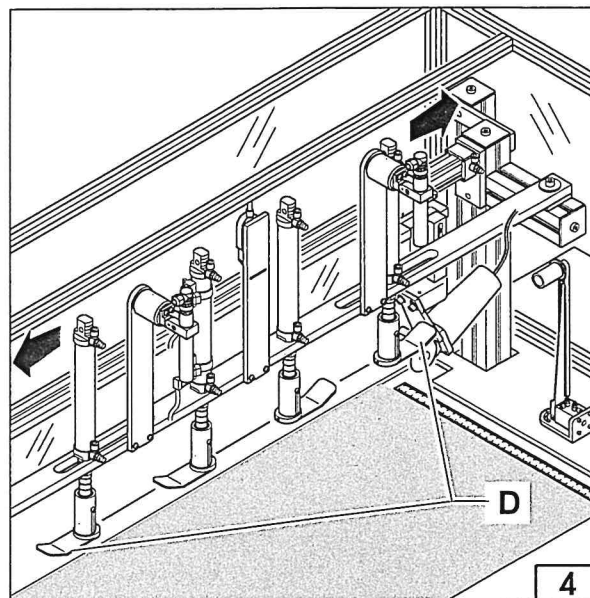
STACKER CONTROL → OPEN STACKER TRAYS →
RAISE STACKER TRAY → CLOSE STACKER TRAYS.



Position the fabric to be cut on either the right or the left, resting the shoulder point at stops "C" on the sliding panels (fig. 3).



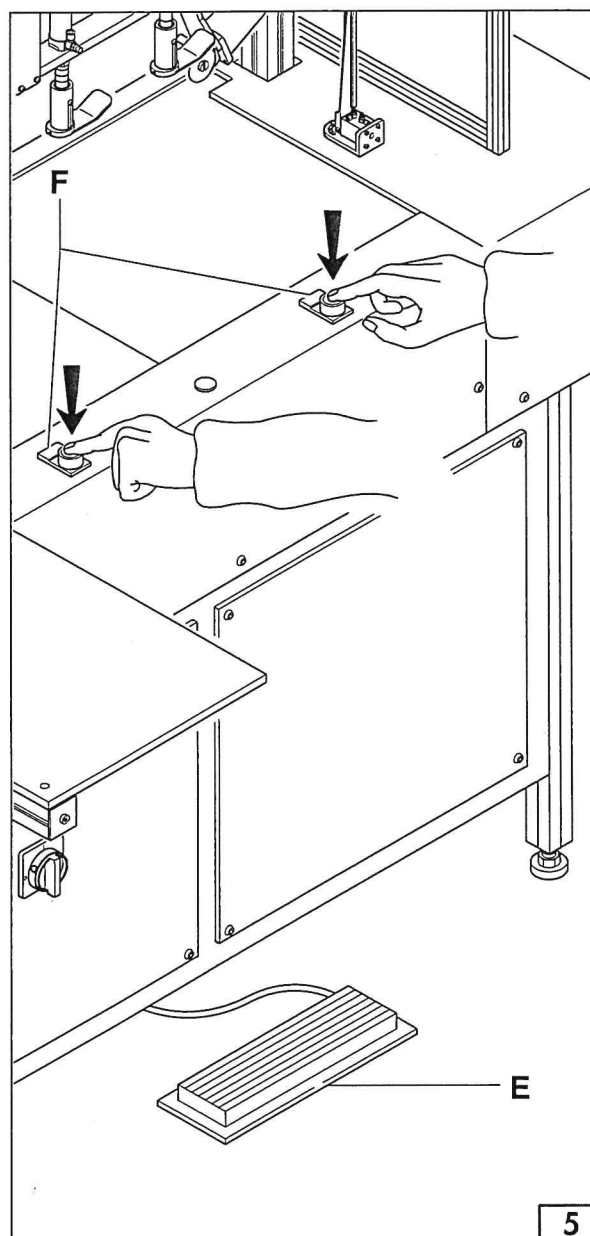
Position the lateral fabric stop cylinders "D" as far from the fabric as possible (fig. 4).



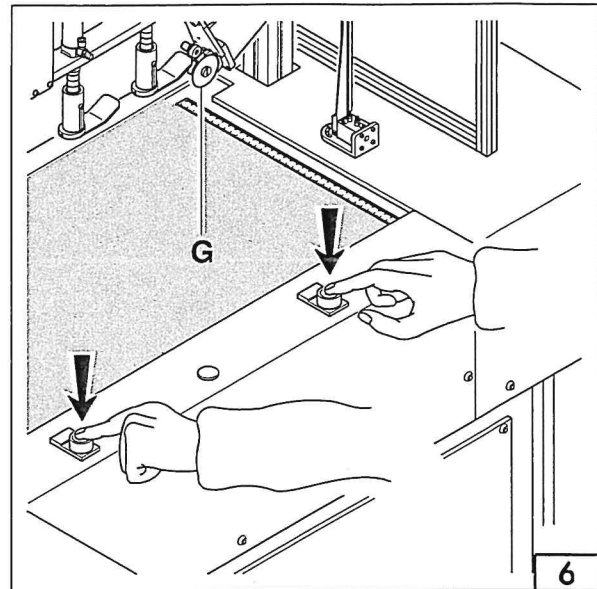
Press suction device pedal "E" to start up the motor (fig. 5). This can also be started up by pressing the two start pushbuttons "F" at the same time.

The motor stops when the machine is not used for more than 3 minutes or pressing the push-button of emergency on the keyboard.

Check that the machine sucks and does not blow when the suction device pedal is pressed. If not, invert the rotation of the motor.

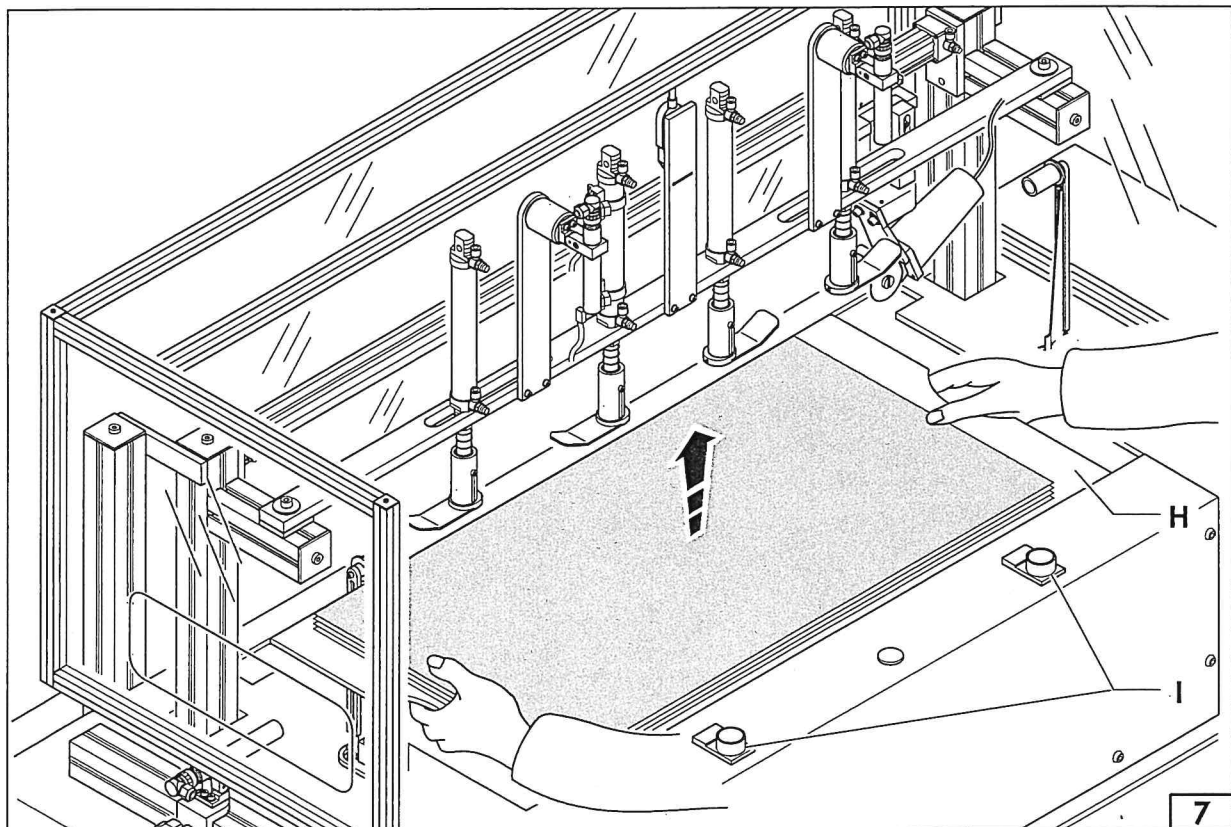


Check that the fabric is lined up properly.
 Press the two start pushbuttons simultaneously (fig. 6): this ensures the operator's safety as he must have both hands on the pushbuttons.
 Trimmer "G" trims the fabric which is then placed on the stacker tray while the off-cuts are collected in a container at the back of the machine.
 The fabric tray lowers automatically.
 To ensure that the sliding panels do not hit the cut fabric, the tray can be further lowered using the keyboard: press the STACKER CONTROL and LOWER STACKER TRAY pushbuttons in the MAIN MENU.
 If, on the other hand, the fabric tray is to be raised, press the OPEN STACKER TRAYS and RAISE STACKER TRAY pushbuttons.

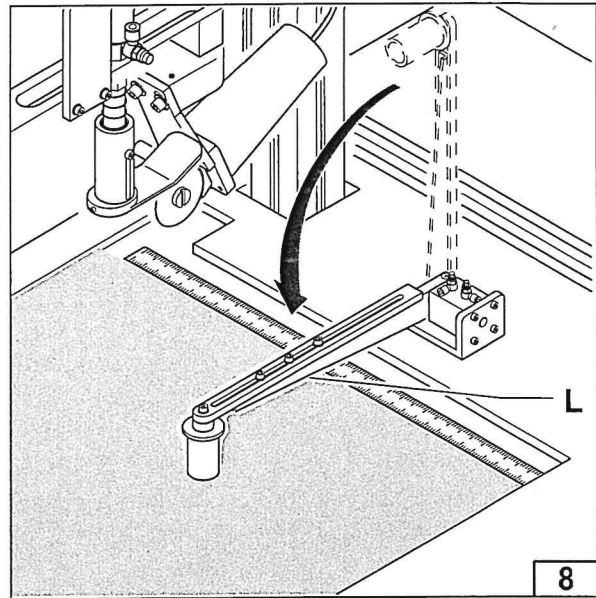


To guarantee good performance, we recommend that you do not stack or equalize more than 40 items at a time.
 To remove the cut items, follow these steps:

- Open the sliding panels (from the keyboard: MAIN MENU → STACKER CONTROL → OPEN STACKER TRAYS).
- Remove fabric tray "H" (fig. 7) and place the cut items on the worktable.
- Replace the fabric tray and raise the stacker (from the keyboard: MAIN MENU → STACKER CONTROL → RAISE STACKER TRAY).
- Close the sliding panels (CLOSE STACKER TRAYS pushbutton). If these do not close even when the pushbutton has been used, press the two start pushbuttons "I".
- Before starting to cut, we recommend that you place a sheet of paper on the fabric tray so that belt saw cutting is made easier.



In the case of slippery fabrics (silk, viscose etc.), engage arms "L" (fig. 8) from the keyboard main menu by pressing the pushbuttons SPECIAL PHASES CONTROL → ENABLE FABRIC GRIPPER ARMS in sequence. Adjust the arms so that they secure the back of the fabric (fig. 9).



To cut checked fabrics, enable the transverse laser using the "Laser Control" pushbutton in the keyboard main menu and direct the light beam in the required position (fig. 10).

If the fabric is to be cut in half, the first half remains on the stacker tray and the other is placed on the rear unloader. To enable the unloader press the "Unloader Control" and "Enable Rear Unloading" pushbuttons.

The "Open Unloader Gripper" pushbutton must be pressed to remove the cut items from the unloader.

The "Unloading Phase Control" pushbutton can be used to select stacking direction of the cut pieces by pressing "Face Phase" or "Back Phase".

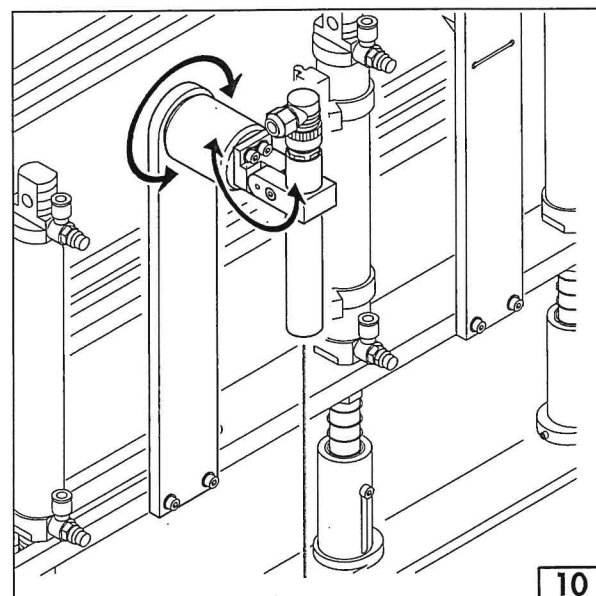
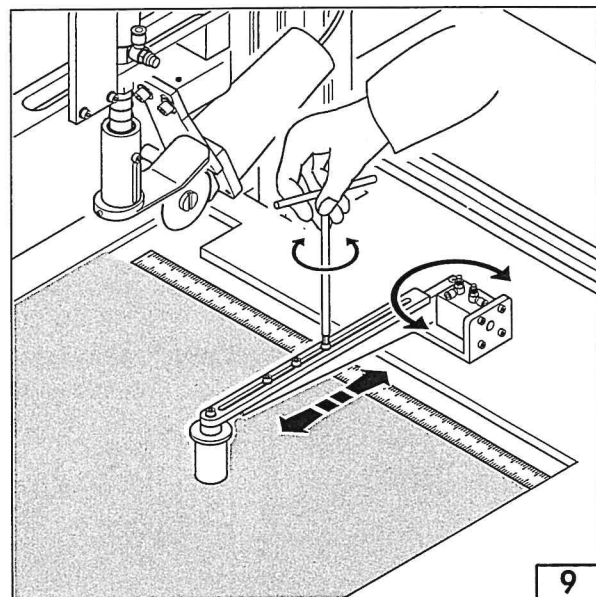
As well as the normal processing operations, the "Special Phases Control" pushbutton in the keyboard main menu can be used to enable the cut only phase or the stack only phase.

If a checked fabric is to be trimmed and cut in half, pressing the "Enable Needle" pushbutton will make a reference hole for trimming the second side (buttonhole or button), thus preventing unnecessary waste of material.

Also in the keyboard main menu, further touch-buttons provide access to the number of pieces processed, the wiring diagram, the PLC input and output control and the keyboard user manual.

The machine can be stopped if necessary using the emergency pushbutton beside the keyboard.

Possible alarms are displayed on the keyboard by the blinking of a control pushbutton. Press the pushbutton to display them.



08 - MAINTENANCE

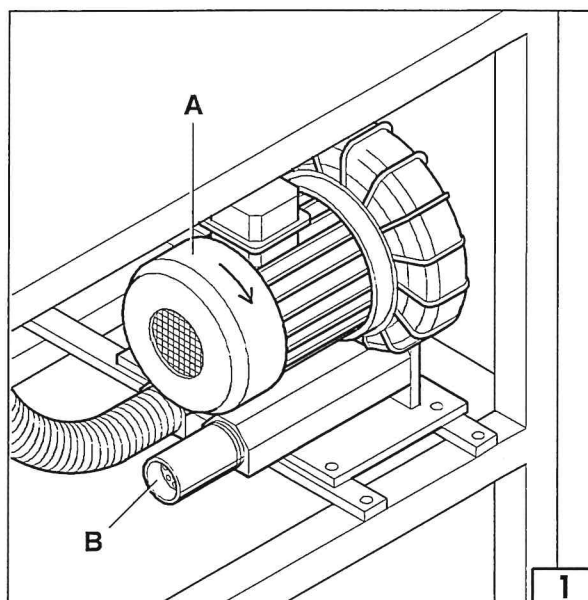


Always disconnect the machine from the mains supply, the compressed air supply and wait for the ironing parts to cool down before undertaking any adjustment, replacement or maintenance work. The operations described below must only be carried out by specialized personnel.

Proper and regular lubrication of all joints and careful observance of the regulations indicated in this manual will prolong the efficiency and reliability of this machine over time.

PERIODICALLY CLEAN

Periodically remove the panel at the back of the machine and clean the motor "A" and filter "B" with a jet of air (fig. 1).



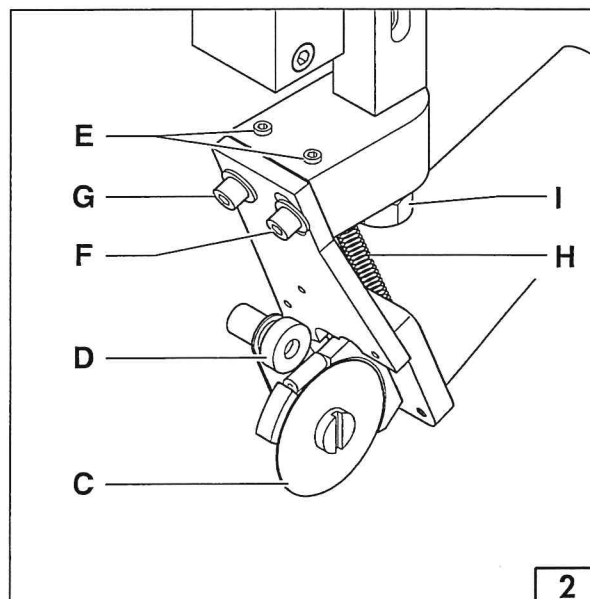
TRIMMER UNIT

For an accurate and correct cut, these checks should be made:

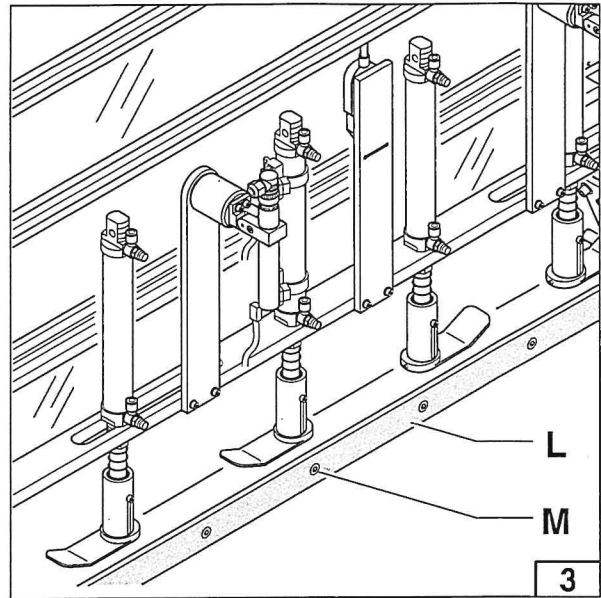
- Check that blade "C" (fig. 2) is not nicked. If it is, press the following pushbuttons on the keyboard main menu: BLADE SHARPENING CONTROL and SHARPEN BLADE to sharpen the cutting edge of the blade with the special grinding wheel "D".

Possible blade replacement.

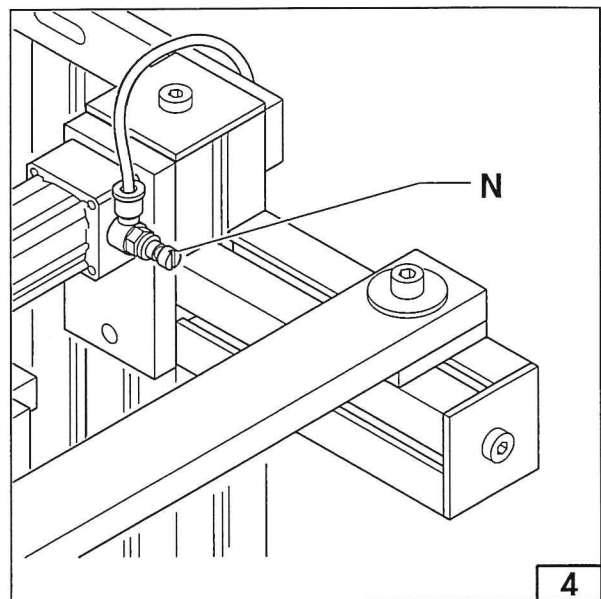
- Check that the trimmer plate vibrates as little as possible. If necessary, adjust as follows:
 - 1) loosen securing dowels "E"
 - 2) undo screw "F"
 - 3) remove pin "G" and grease the bearing
 - 4) remount pin "G"
 - 5) tighten screw "F", making sure that it is not too tight
 - 6) tighten dowels "E"
 - 7) Load thrust spring "H", but not too much
 - 8) tilt the blade by about 0.5-1 mm using nut "I".



- Check that counter-blade "L" (fig. 3) is as sharp as possible, without nicks or wear, bearing in mind that the cutting material is about 1 mm thick. If necessary, replace the counter-blade by removing set screws "M".



- Adjust the cutting speed working on the stop valves with regulator "N" (fig. 4) located at the sides of the cylinder.



DEMOLITION

If the machine needs to be demolished, separate the various materials making up the machine and dispose of at the appropriate recycling points.

09 - TROUBLE-SHOOTING

The sliding panels do not close

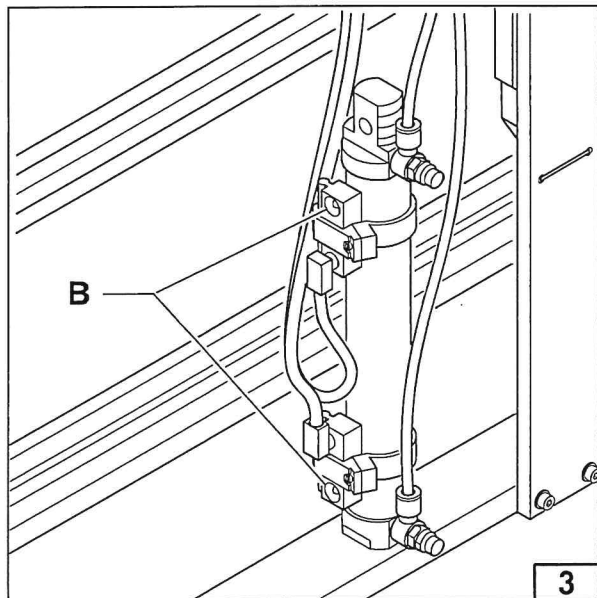
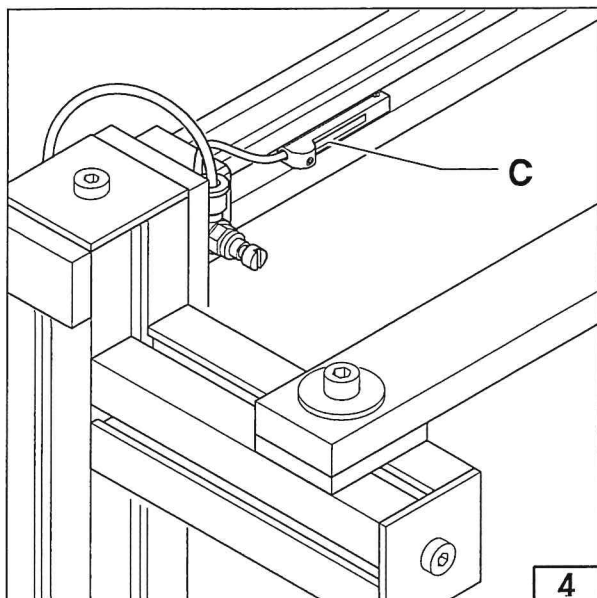
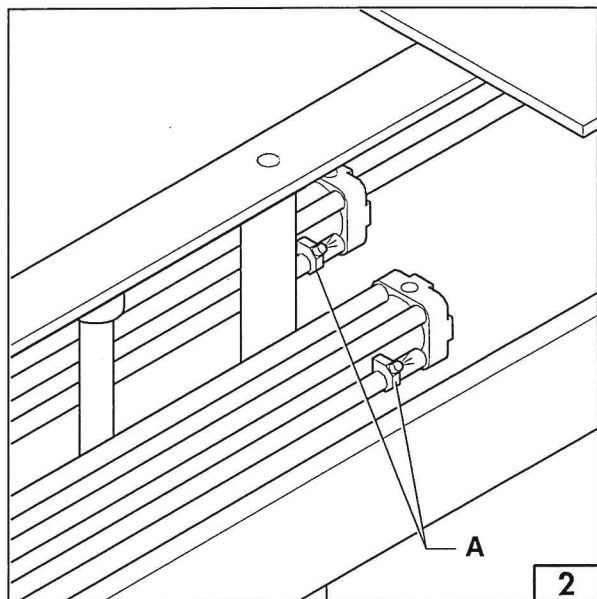
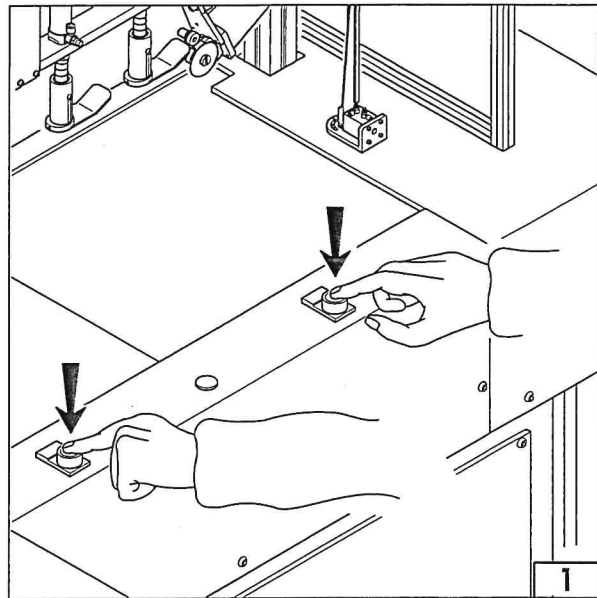
- Press the two start pushbuttons (fig. 1).
- Check that magnetic limit switch "A" on the cylinders work correctly (fig. 2).
- Check that an impulse reaches the PLC leds inside the control panel.
- Check that limit switch "B" on the fabric cylinders (fig. 3) works correctly and that an impulse reaches leds on the PLC.

The panels do not open and the trimmer does not return to its start position

- Check that limit switch "C" on the trimmer cylinder (fig. 4) works correctly.
- Check that an impulse reaches the PLC leds inside the control panel.

The cut is not accurate

- Carry out the trimmer checks described on page 15.

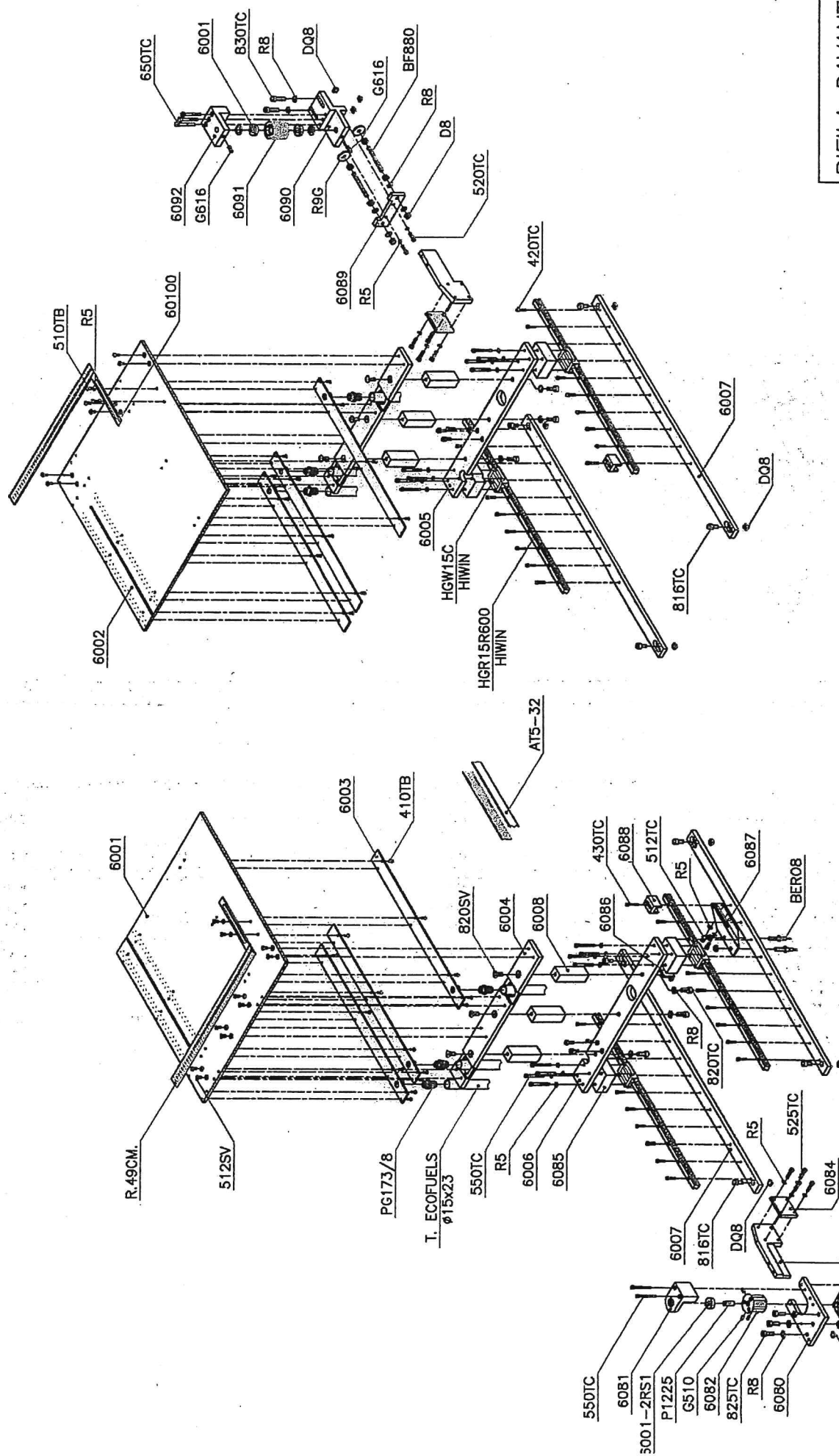


10 - SPARE PARTS TABLES

To help us identify the necessary spare parts quickly, please communicate the following data:

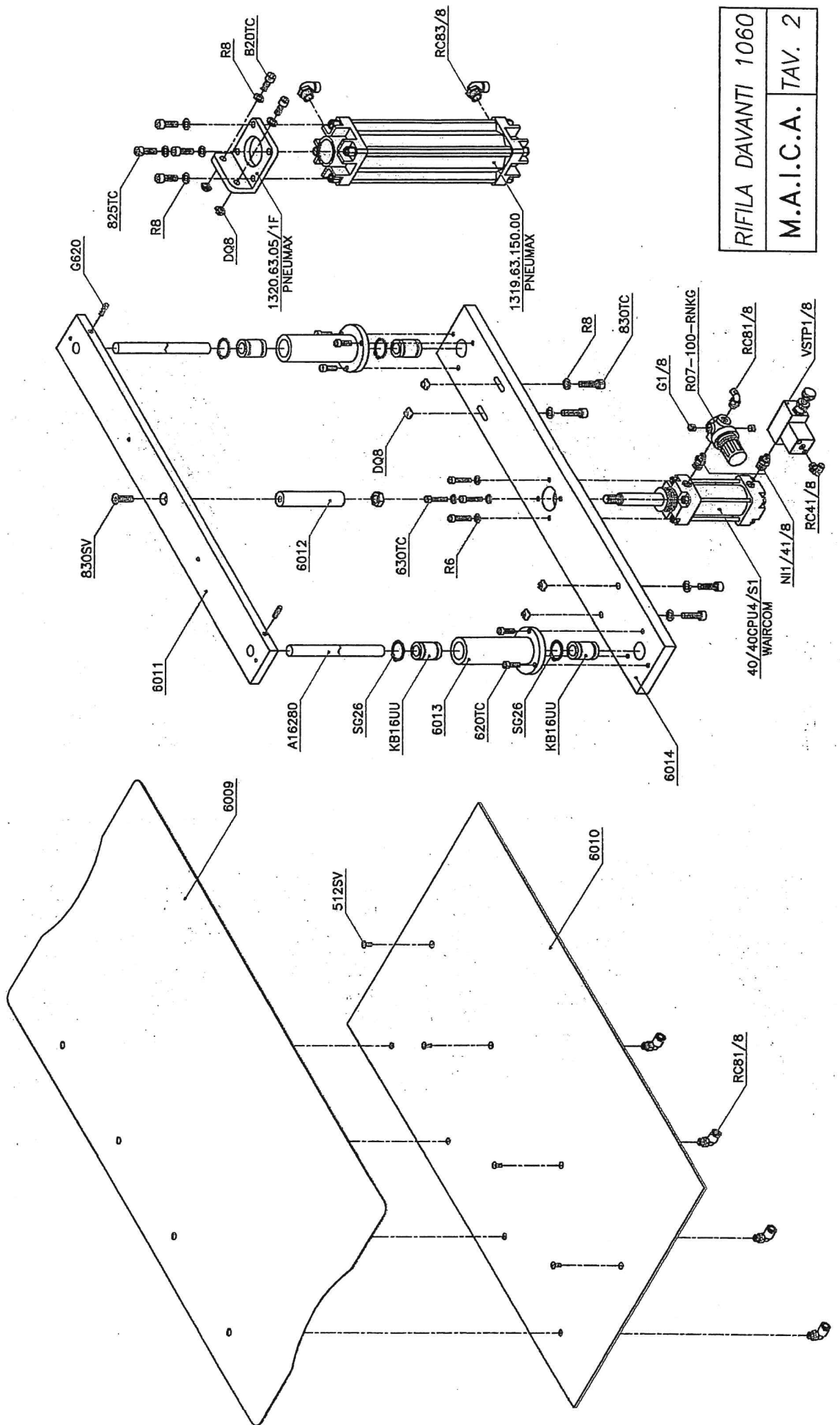
1. Model and serial number of the machine
2. Spare part code
3. Corresponding spare part table

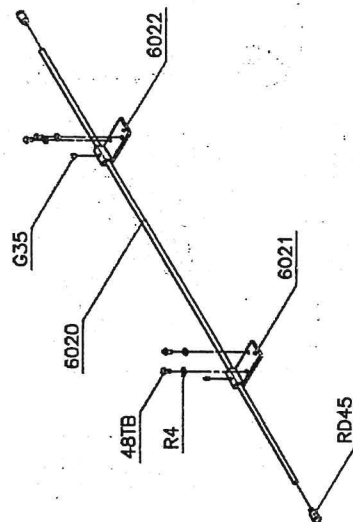
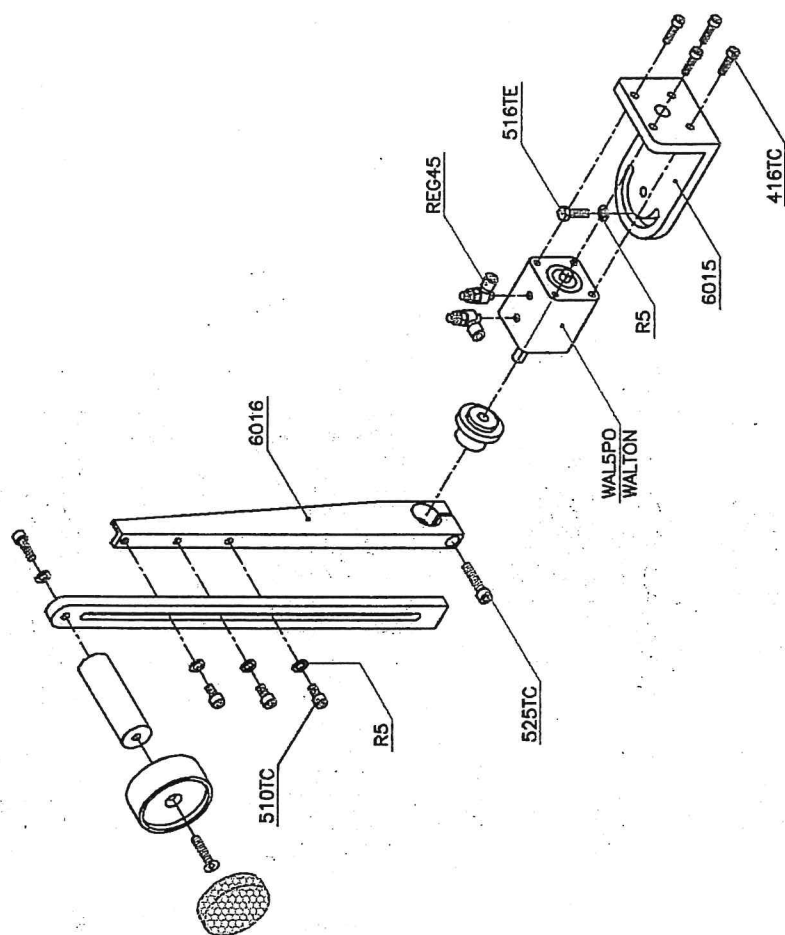
Example: 1060 FRONT TRIMMER Serial no. Code 6001 Table 1



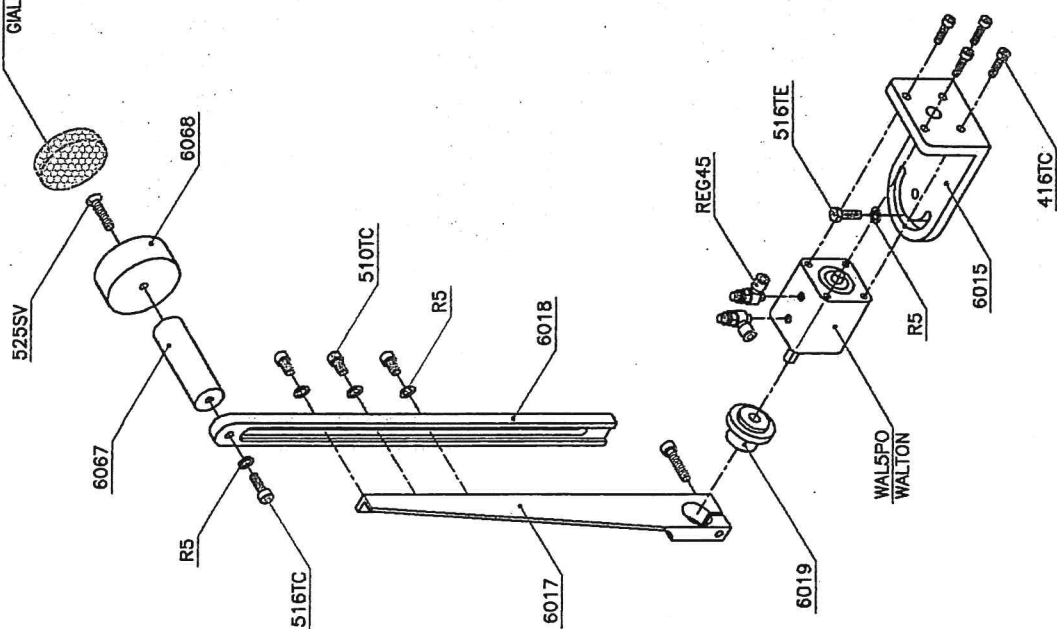
RIFILA DAVANTI 1060

M.A.I.C.A. TAV. 1



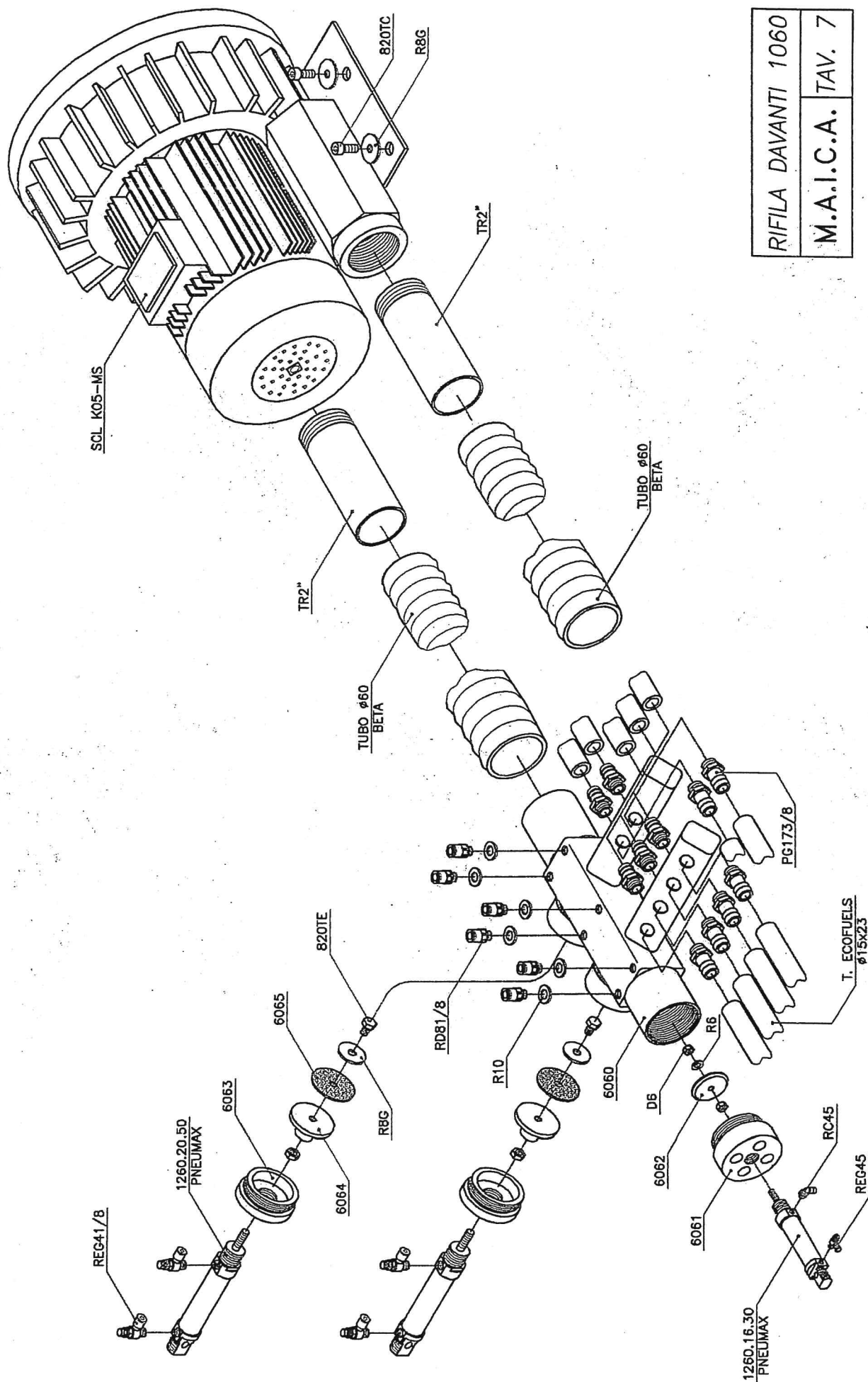


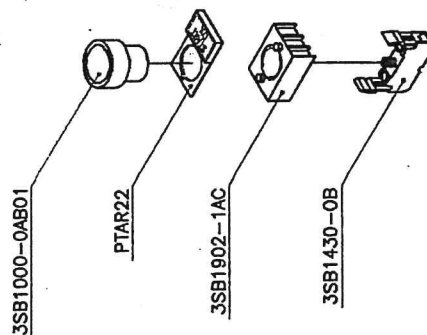
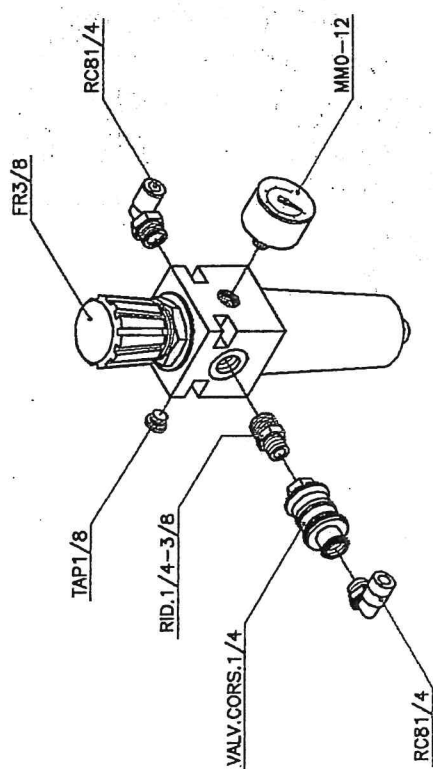
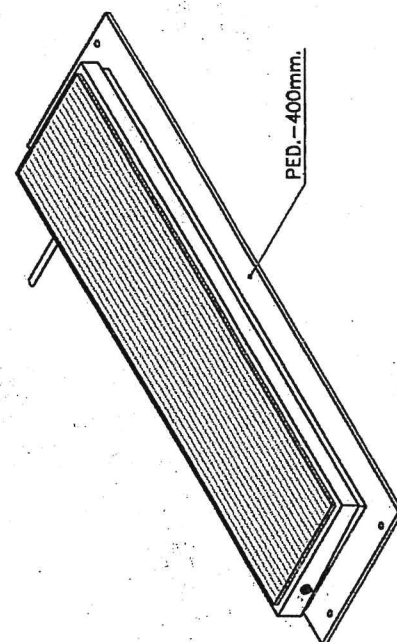
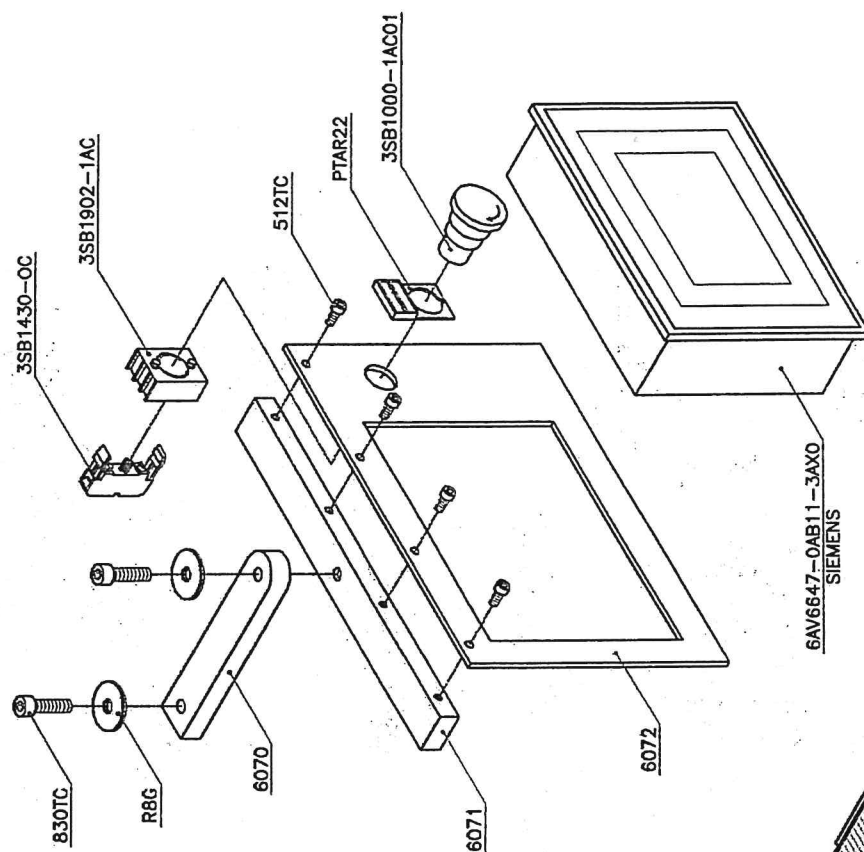
SILICONE SCHIUMATO
GIALLO SP.10



RIFILA DAVANTI 1060

M.A.I.C.A. TAV. 3





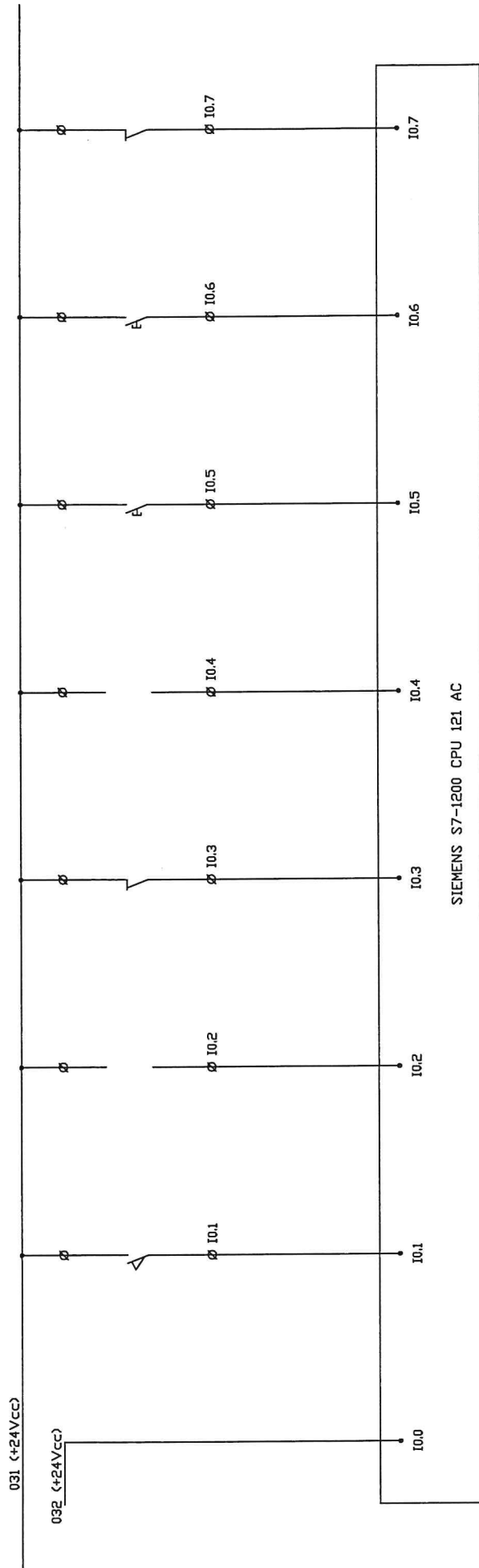
RIFILA DAVANTI 1060	M.A.I.C.A. TAV. 8
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A/1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
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			CAMICERIE ABBIGLIAMENTO																								
			Via Casale, 23 - 24060 Torre de Rovere (BG)																								
					CLIENTE														DESCRIZIONE		FOGLIO N. 1		N. FOGLI				
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																					1060						

RIFILA DAVANTI
1060 MOTORI PASSO PASSO
SIEMENS S7-1200

A/1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
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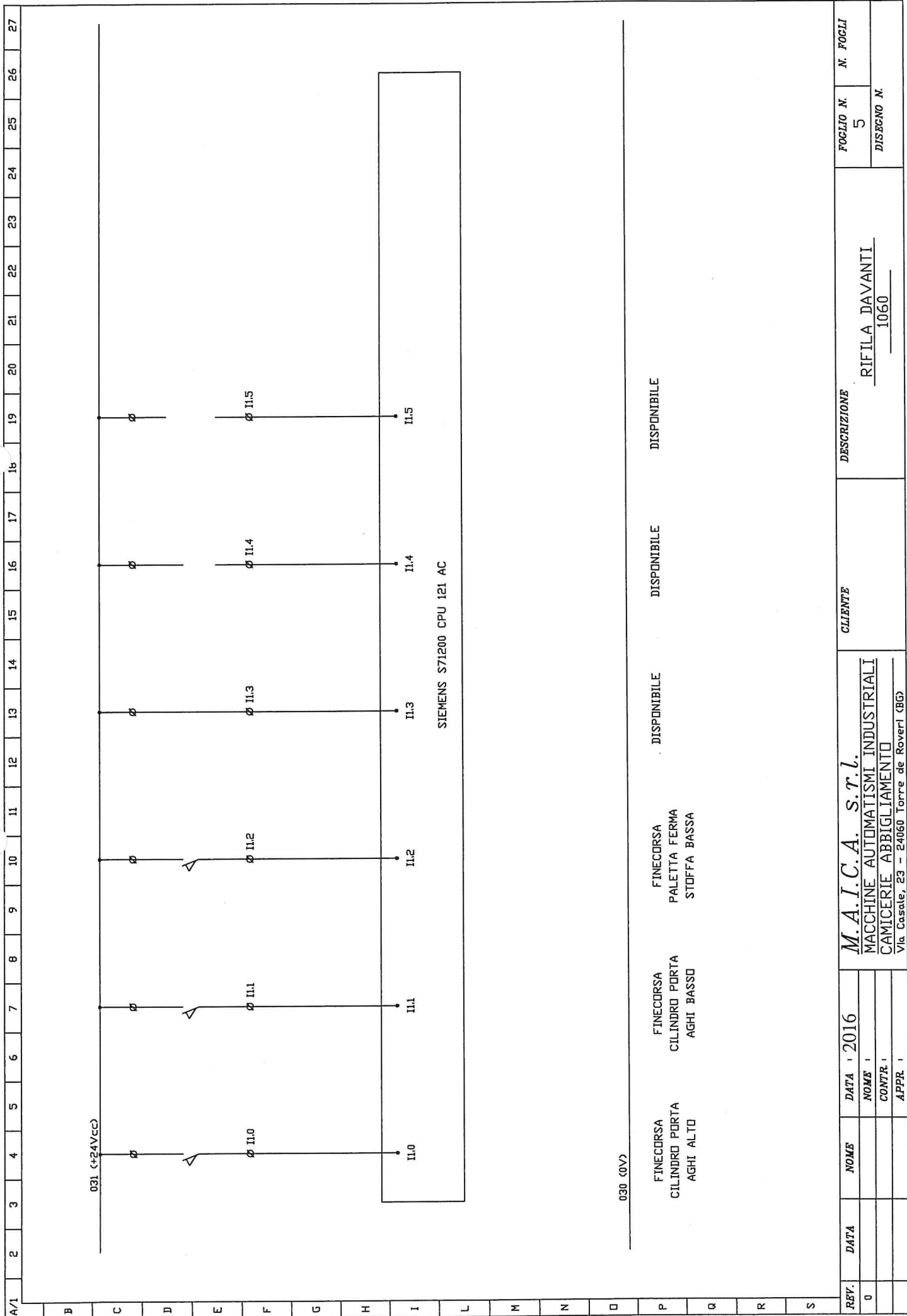
REV.	DATA	NOME	DATA	2016	M.A.I.C.A. S.r.l.	CLIENTE	DESCRIZIONE	FOGLIO N.	N. FOGLI
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					CAMICERIE ABBIGLIAMENTO		1060		
					Via Casale, 23 - 24060 Torre de Roveri (BG)				



030 (0V)

EMERGENZA	PEDALE ASPIRAZIONE	DISPONIBILE	FINECORSA PUNTO (0) CARRO TAGLIO	DISPONIBILE	PULSANTE START DESTRO	PULSANTE START SINISTRO	FINECORSA PUNTO (0) CARRO PIANI
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REV.	DATA	NOME	DATA	2016	CLIENTE		DESCRIZIONE		FOGLIO N.	N. FOGLI
0					M.A.I.C.A. S.r.l.		RIFILA DAVANTI		4	
					MACCHINE AUTOMATISMI INDUSTRIALI		1060			
					CAMICERIE ABBIGLIAMENTO					
					Via Casale, 23 - 24060 Torre de Roveri (BG)					



FINECURSA
CILINDRO PORTA
AGHI ALTO

FINECURSA
CILINDRO PORTA
AGHI BASSO

FINECURSA
PALETTA FERMA
STOFFA BASSA

DISPONIBILE

DISPONIBILE

DISPONIBILE

REV.	DATA	NOME	DATA	2016	DESCRIZIONE	CLIENTE	FOGLIO N.	N. FOGLI
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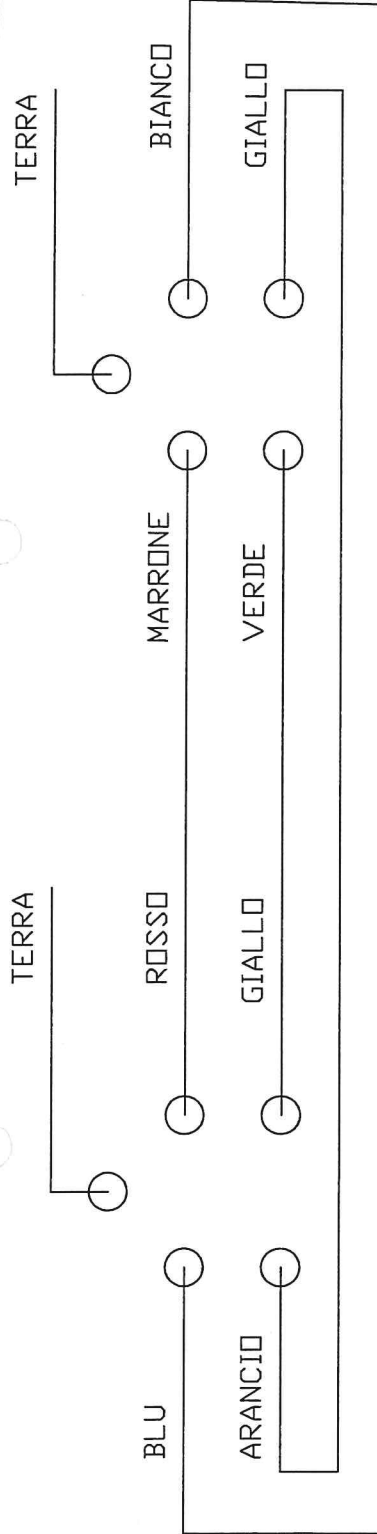
M.A.I.C.A. S.r.l.
MACCHINE AUTOMATISMI INDUSTRIALI
CAMICERIE ABBIGLIAMENTO
Via Casale, 23 - 24060 Torre de Roveri (BG)

RIFILA DAVANTI
1060

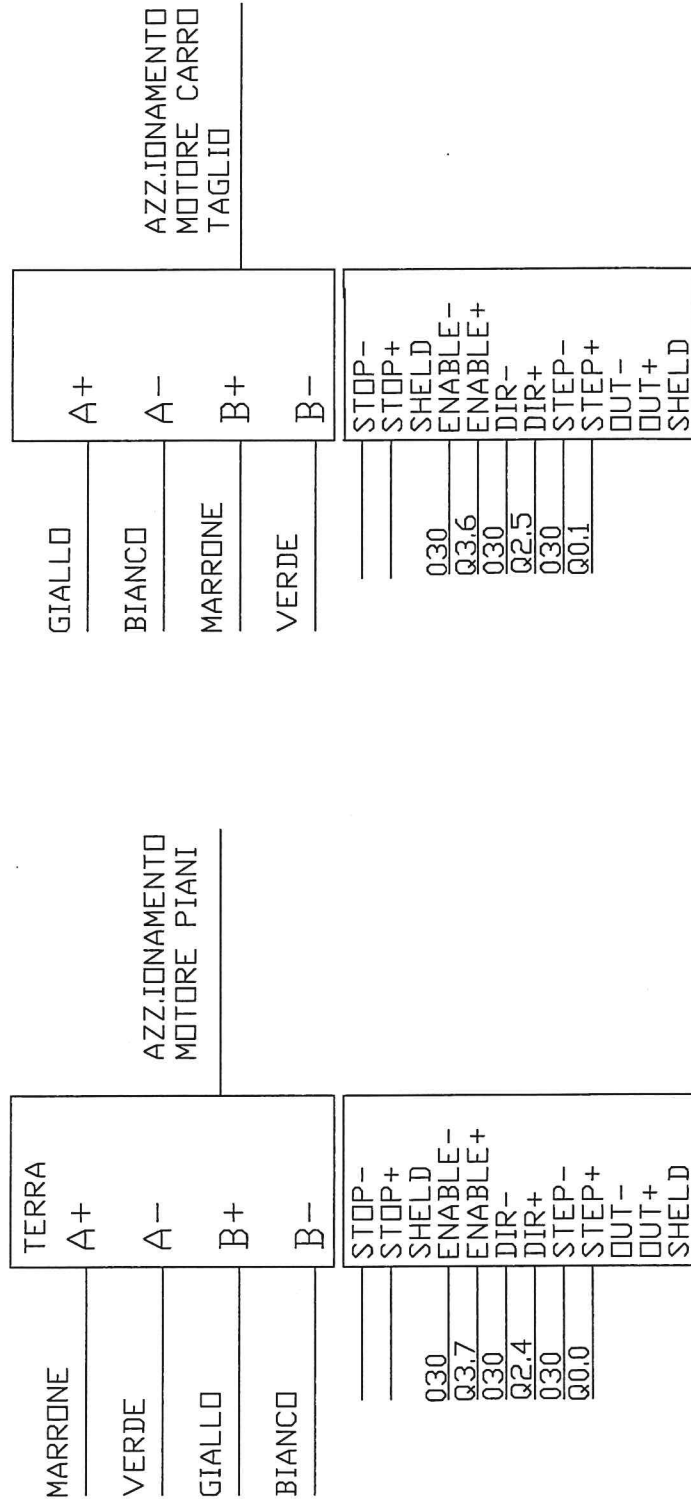
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M.A.I.C.A. S.r.l.
 MACCHINE AUTOMATISMI INDUSTRIALI
 CAMICERIE ABBIGLIAMENTO
 Via Casale, 23 - 24060 Torre de Roverè (BG)

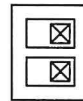
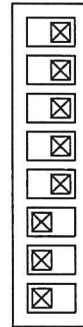
COLLEGAMENTI SPINE MOTORI X 1060



COLLEGAMENTI AZZIONAMENTI



POSIZIONE SWITCH
E POTENZIOMETRI
X AZZIONAMENTI



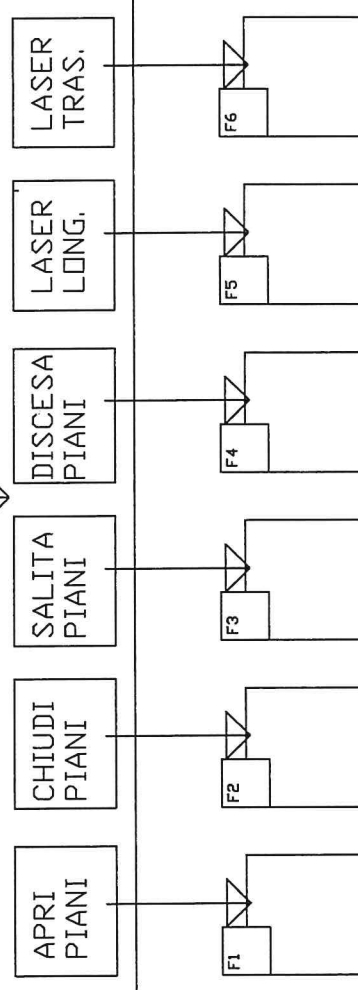
EMERGENZA

SIEMENS

SIMATIC PANEL

TOUCH

LA TASTIERA FUNZIONA PREMENDO
SUI TASTI CORRISPONDENTI ALLA
FUNZIONE DESCRITTA .
PER LE FUNZIONI SOTTO DESCRITTE
PREMERE I TASTI F1 CORRISPONDENTI



PANNELLO CONTROLLO 1060