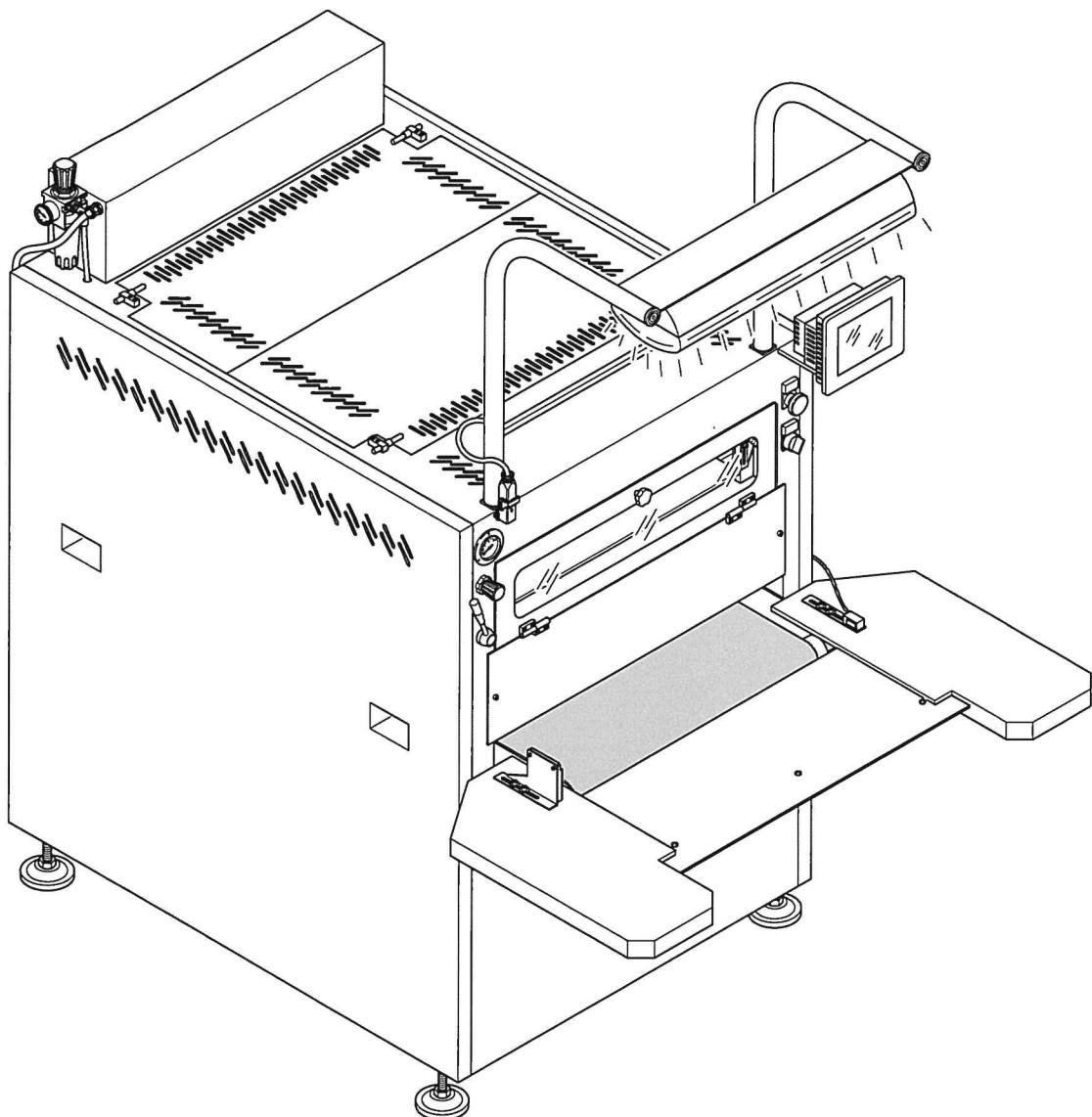


ADHESIVE MACHINE

mod. MP 2S



Instructions for use and maintenance



MAICA Macchine Automatismi Industriali Camicerie Abbigliamento



Macchine Automatismi Industriali Camicerie Abbigliamento

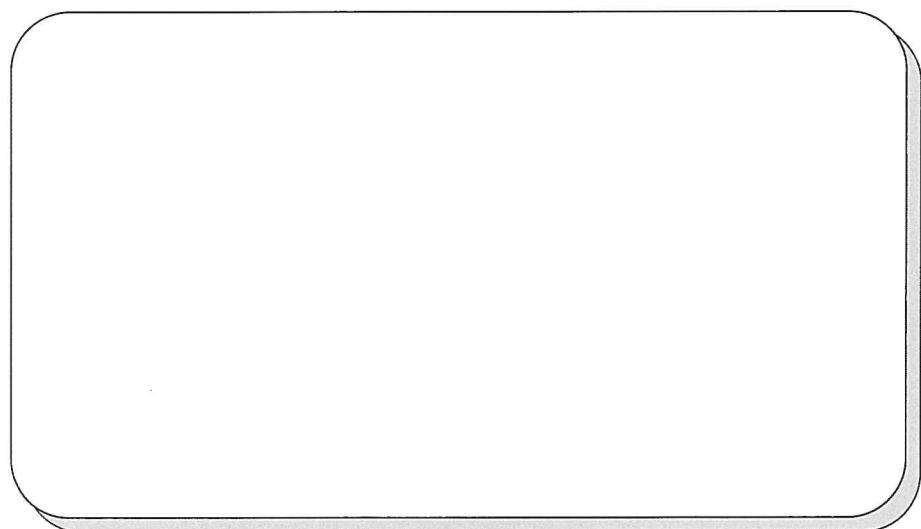
Via Casale, 23 - 24060 Torre de' Roveri (Bergamo) - ITALY

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

web: www.maicaitalia.com

e-mail: info.maicaitalia@maicaitalia.com

AUTHORIZED AREA DEALER FOR ASSISTANCE



01 - GENERALITIES

CHARACTERISTICS AND FIELD OF APPLICATION

The new adhesive machine mod. MP 2S has been created to satisfy the requirements of the most demanding clients for the adhesion of collar, cuffs and other details. The plastification is step-less whilst maintaining the high quality that the plate press guarantees. A tacking system makes it possible to fix the fabric before it enters the adhesive phase. The temperature is controlled from a touch screen that allows quick and easy adjustment of resistance. To conclude an unloader allows methodical stacking of the pieces when the operation has terminated without the presence of personnel. A characteristic detail of this new adhesive machine is the patented conveyor cleaning system using a specifically researched material.

ADVISED USE

The Adhesive machine mod. MP 2S is to **be used exclusively for** applications that require the use of adhesive for collars, cuffs and other shirt details.

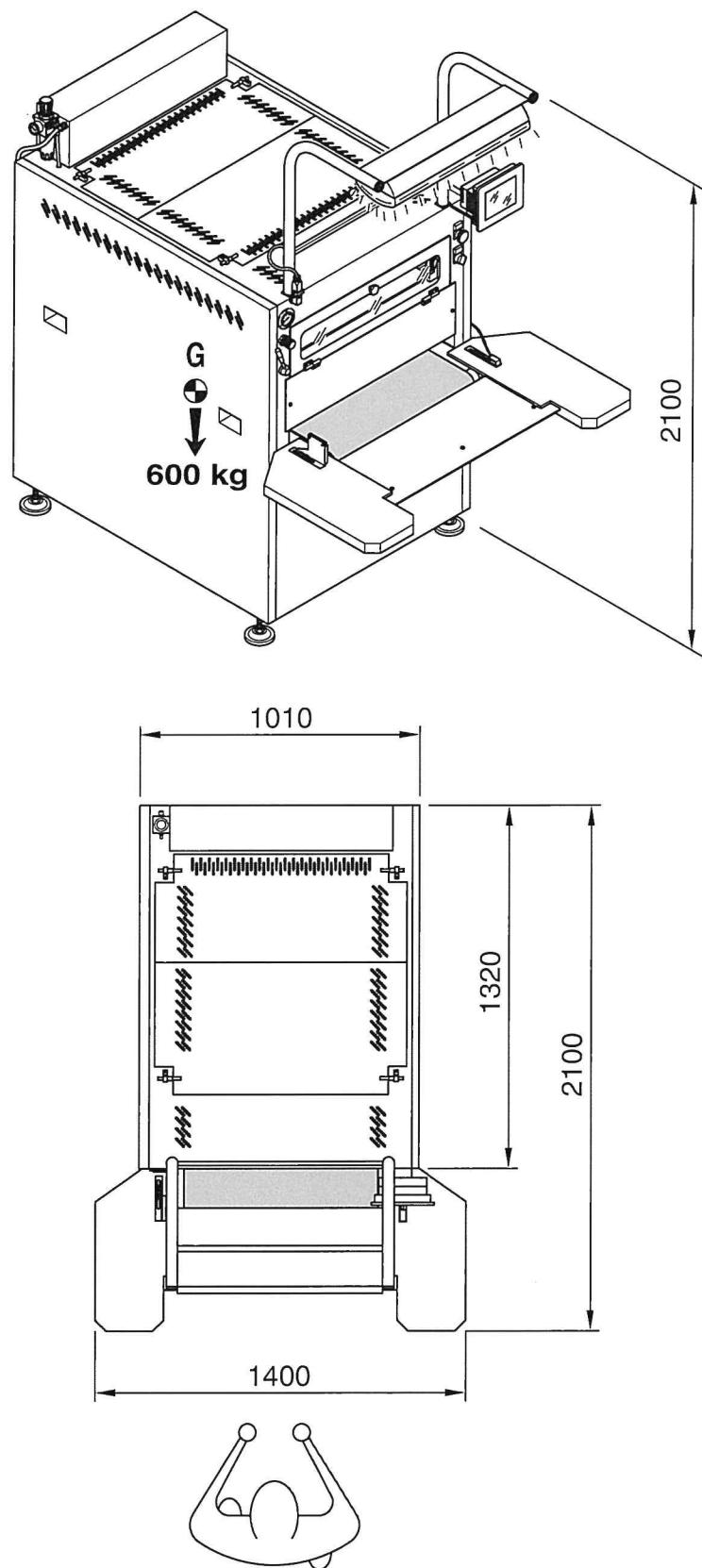
The  symbol indicates there exists a risk or danger for the health of the operator and, therefore, much care must be taken at this point.

The machine is fitted with conveyor belts and resistance groups that reach temperatures above 70 °C. Wait until the parts involved in the gluing process have cooled down.

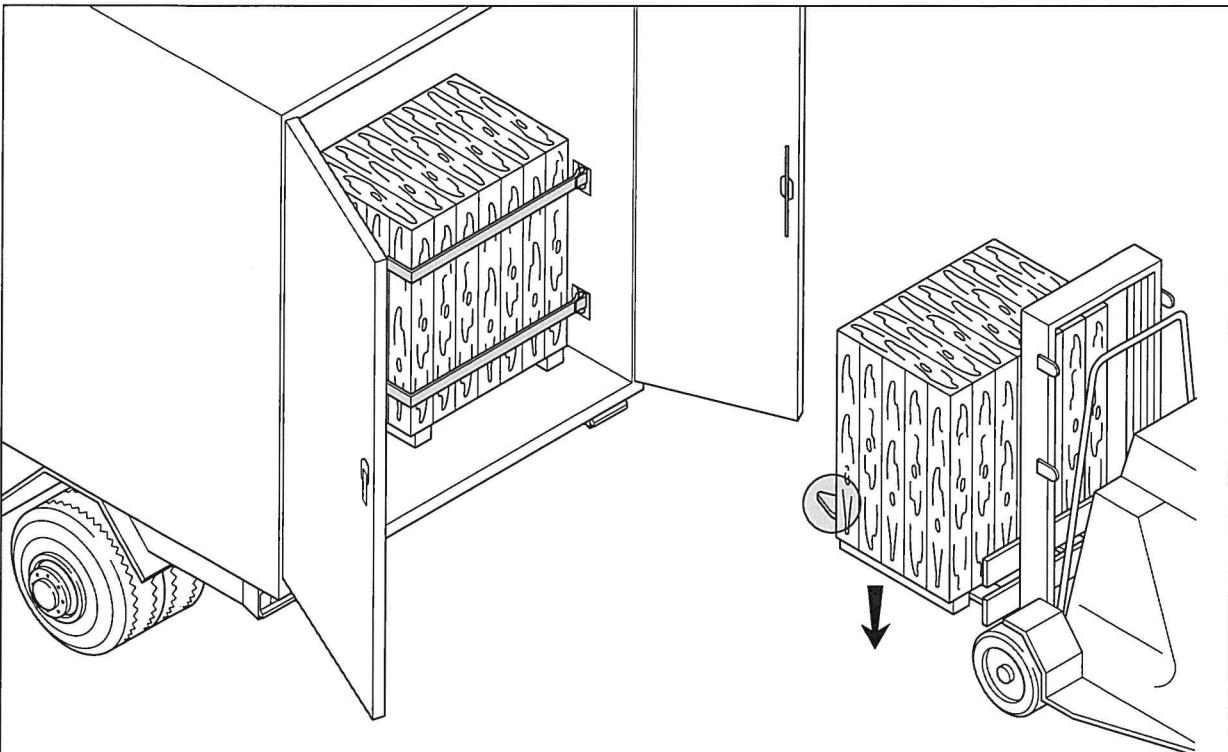
Always disconnect the machine from the mains supply, the compressed air supply and wait for the ironing parts to cool down before undertaking any adjustment, replacement or maintenance work.

The machine **must not be** exposed to the weather (rain, sun, etc).

02 - ADHESIVE MACHINE mod. MP 2S TECHNICAL DATA

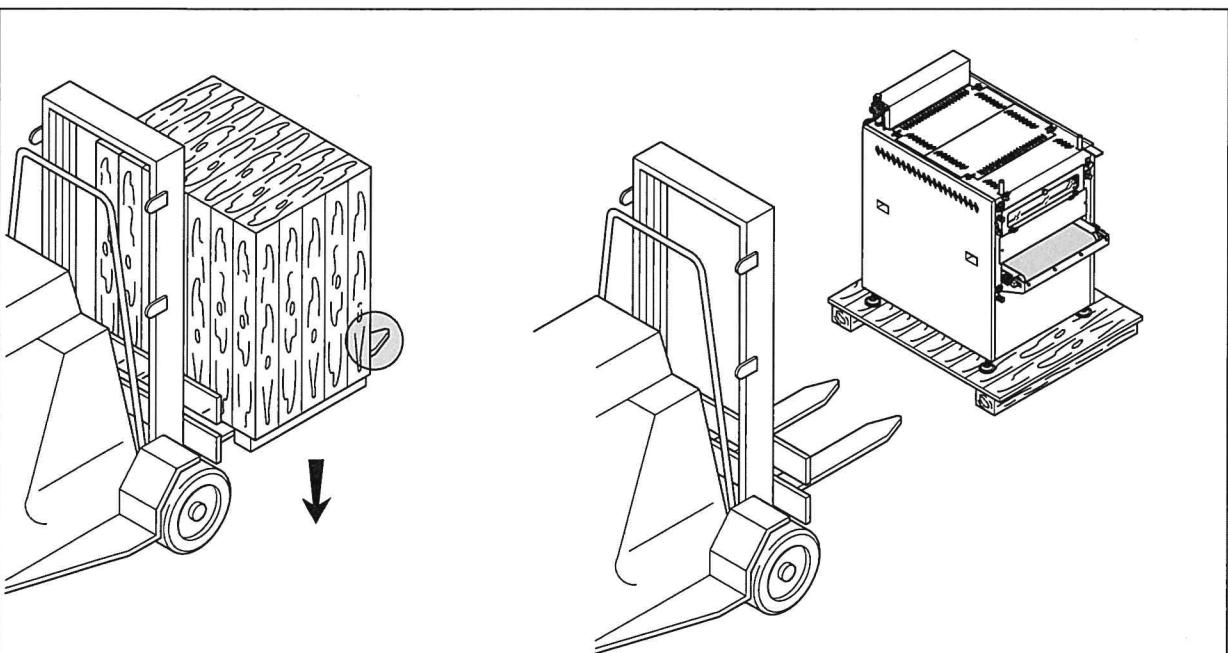


03 - LIFTING AND TRANSPORTATION



The machine can be transported with or without a packing case.
In both cases, check that the forks of the fork-lift truck bear the full weight of the machine.
Place in the lorry or van and secure with ropes or belts.

04 - LOADING AND UNLOADING



Make sure that the forks of the fork-lift truck bear the full weight of the machine during movement.
Remove the packing case and lift the machine with the front facing the fork-lift truck, as in the figure above.
Place on a solid and even surface, not exposed to the weather.

05 - INSTALLATION

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

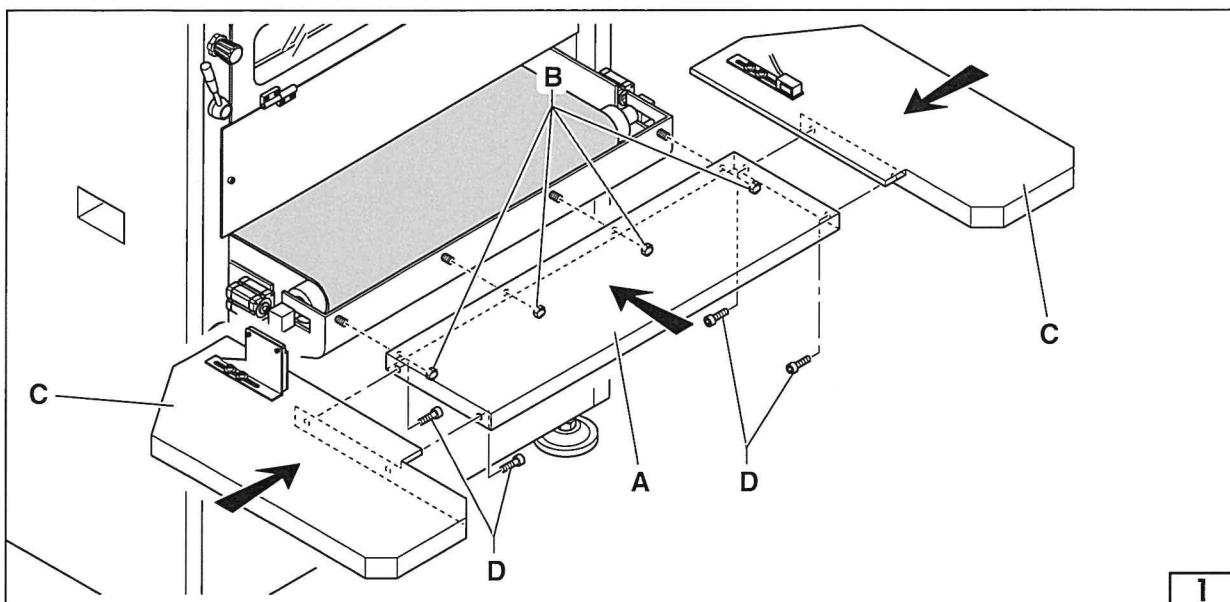
The manufacturer cannot be held liable for any damage to persons or to property arising from incorrect installation not in accordance with these instructions and connection to a mains supply that does not meet the necessary requirements.

⚠ If the machine is installed on a suspended surface, check that the surface can withstand the weight of the machine. This machine m

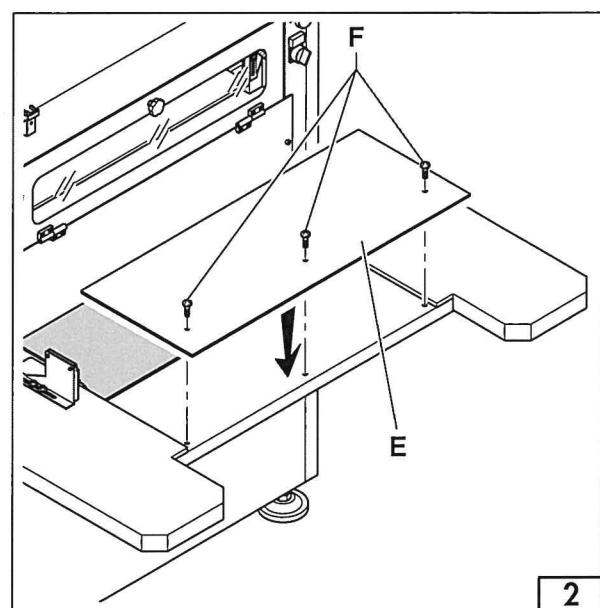
To facilitate its transport, the machine is delivered with the following parts dismantled:

- Front support surface (fig. 1-2):

Screw surface "A" to the machine structure using fixing nuts "B".
Fix side supports "C" with screws "D".



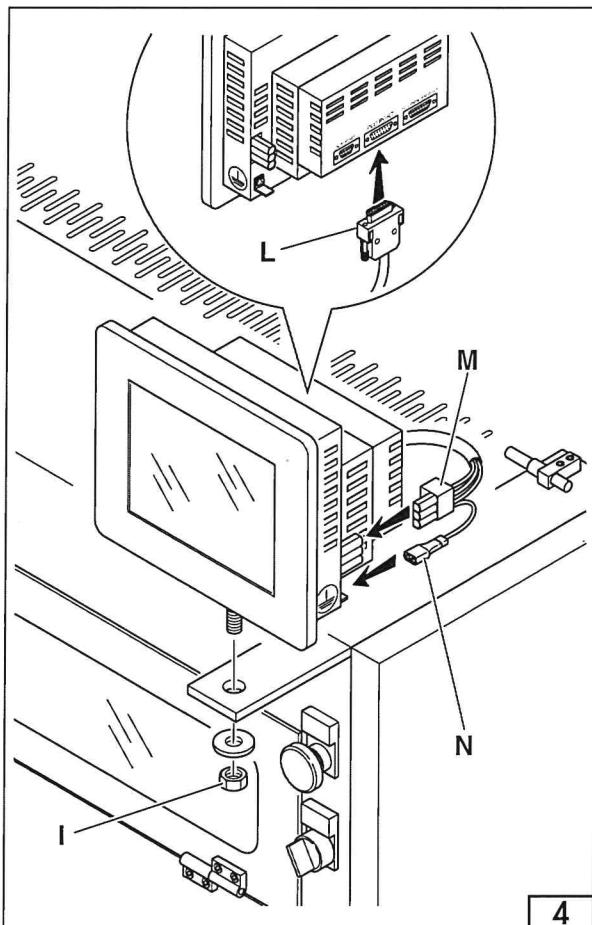
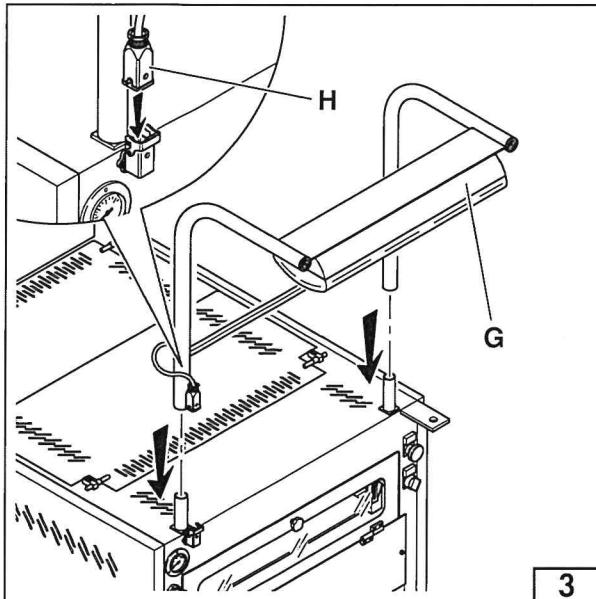
- Screw on sheet "E" with screws "F".



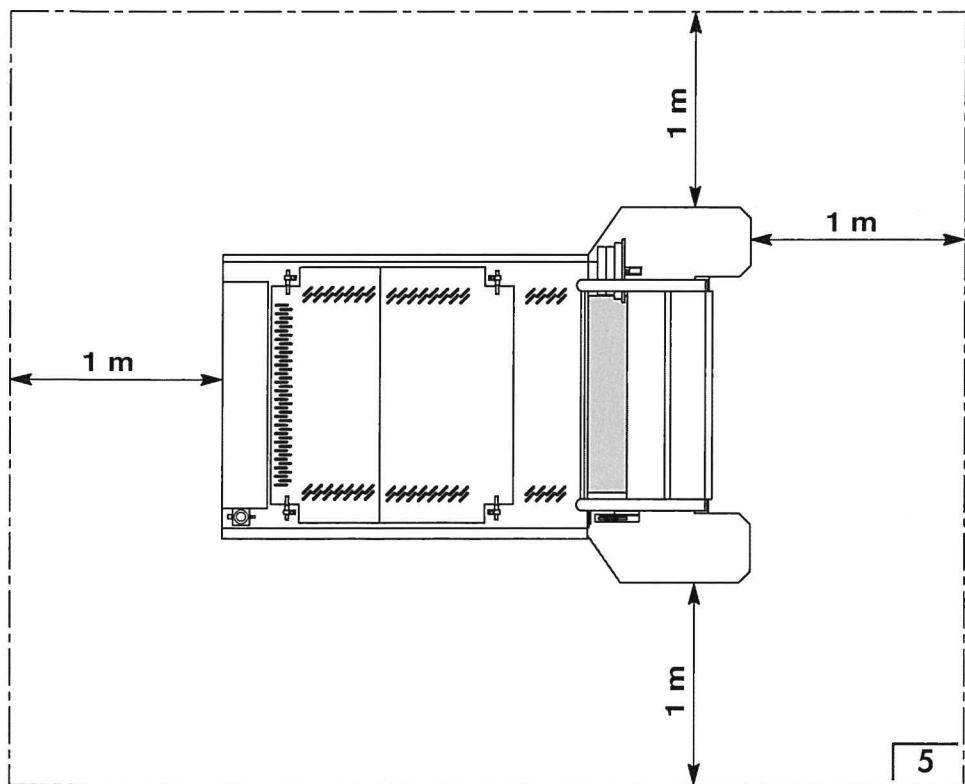
- Lamp support (fig. 3):

Insert the tubular elements of lamp-holder structure "G" and connect connector "H".
- Control keyboard (fig. 4):

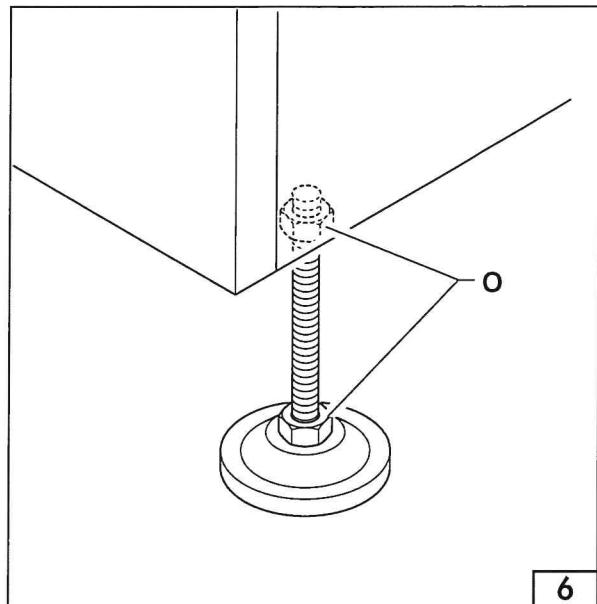
Position the keyboard and fix it to the support bracket using nut "I".
 Connect PLC connector "L" and power supply connector "M".
 Make the earth connection using terminal "N".



- Make sure that the distances shown in figure 5 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. Use levelling feet "O" to adjust the height (fig. 6).



ELECTRICAL CONNECTIONS

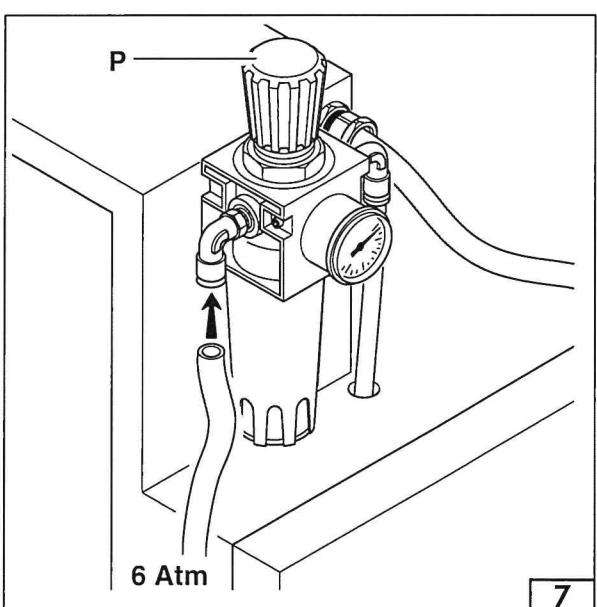
The machine is delivered complete with power supply cable.

- Connect the cable to a 380V-50Hz Three-phase + Neutral power socket.
- Before installation, check the efficiency of the earthing system to which the machine is connected.
- The power absorbed is 12 kW.

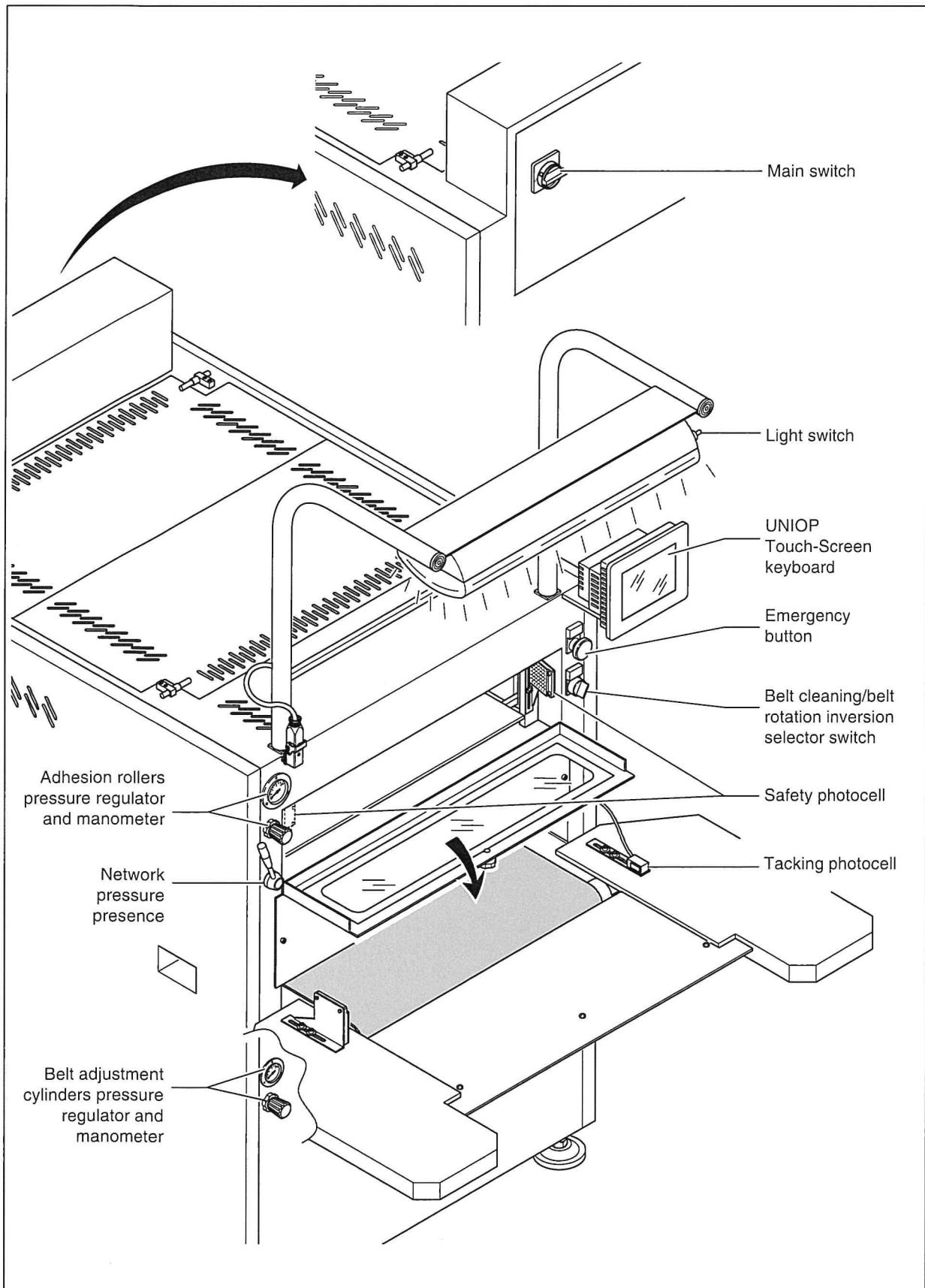
PNEUMATIC CONNECTION

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 Atm.

Calibrate pressure regulator "P" at between 6 Atm (fig. 7).

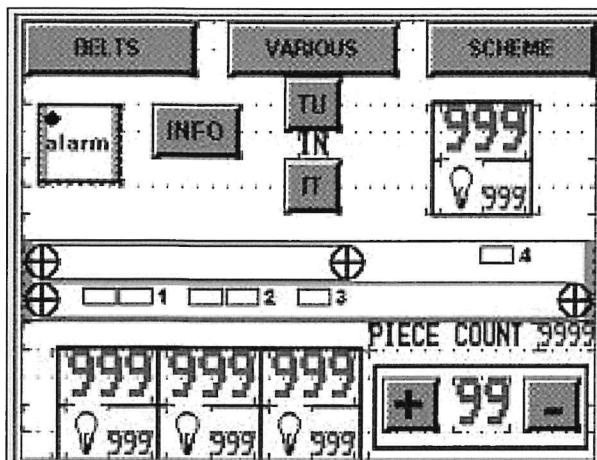


06 - MACHINE CONTROLS

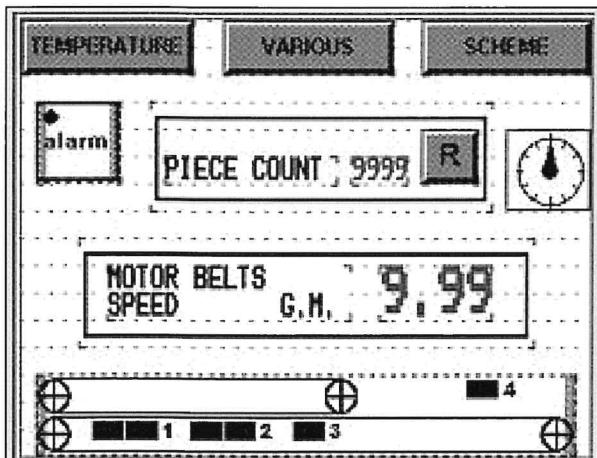


FUNZIONI E IMPOSTAZIONI TASTIERA UNIOP

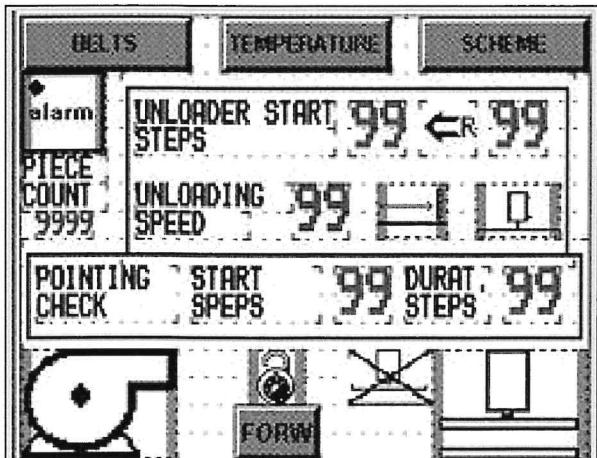
1 - Pagina controllo cambio lingua e controllo temperature



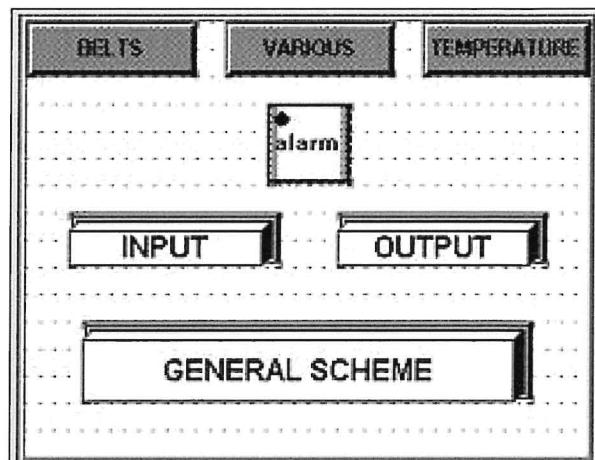
2 - Pagina controllo velocità motore nastri e reset conta pezzi



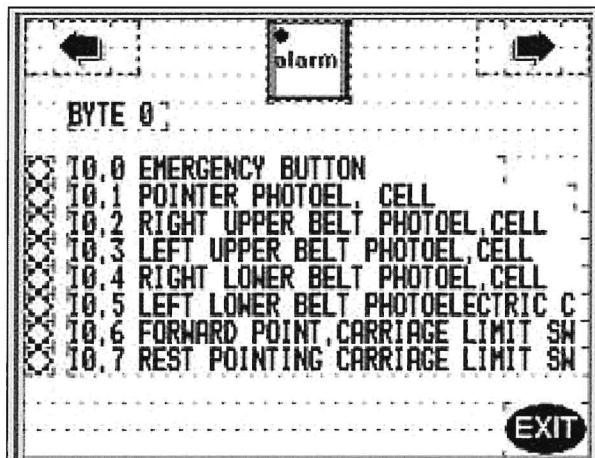
3 - Pagina controllo accensione motore di raffreddamento, controllo puntatura, controllo partenza scarico e blocco scarico



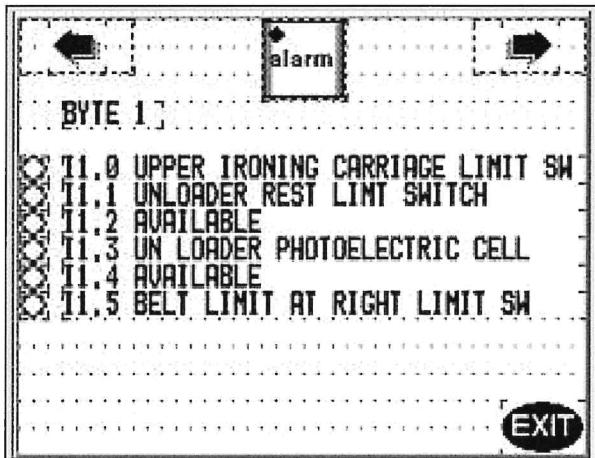
4 - Pagina controllo ingressi, uscite e schema generale. Premere il pulsante con la voce desiderata: INGRESSI - USCITE - SCHEMA GENERALE



5 - Pagina stato ingressi PLC
(con spia accesa contatto OK)



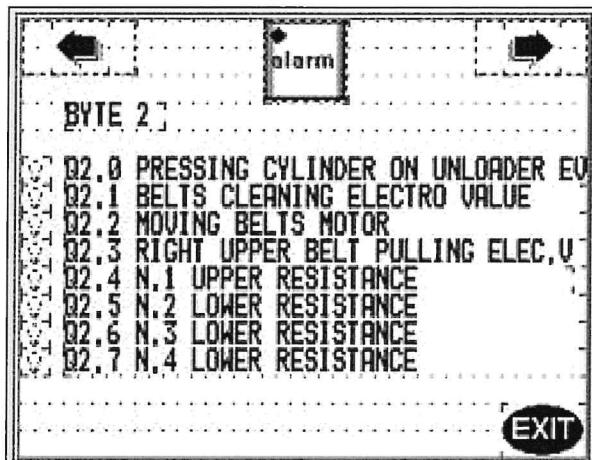
6 - Pagina stato ingressi PLC
(con spia accesa contatto OK)



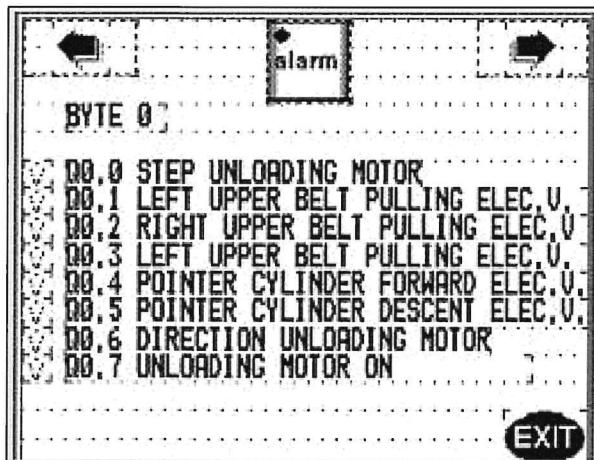
7 - Pagina stato ingressi PLC
(con spia accesa contatto OK)



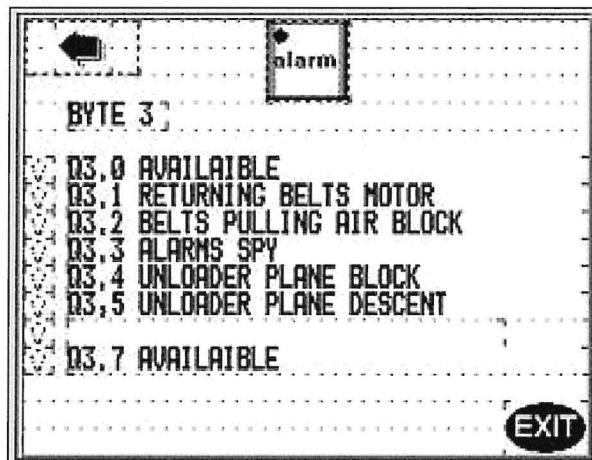
10 - Pagina stato uscite PLC
(con spia accesa contatto OK)



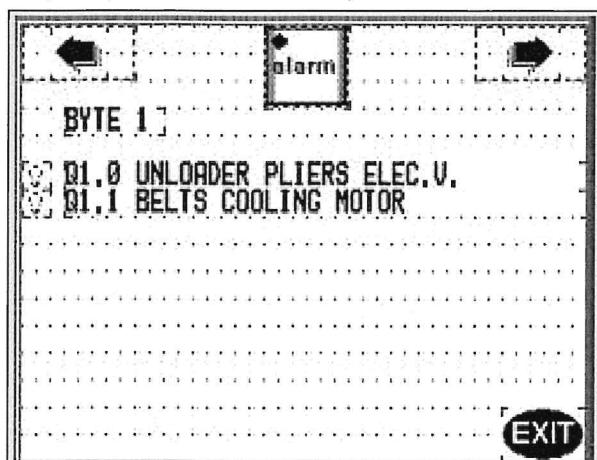
8 - Pagina stato uscite PLC
(con spia accesa contatto OK)



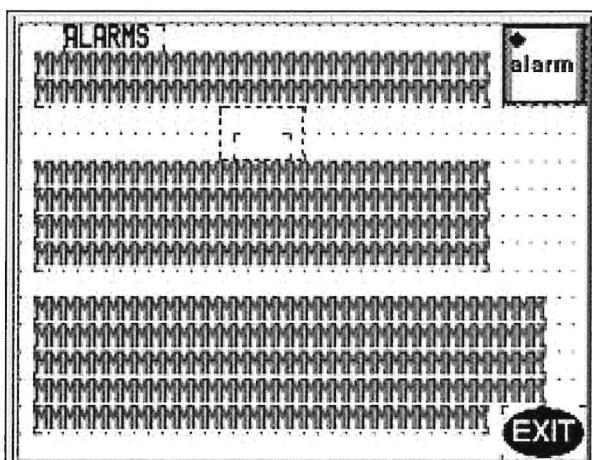
11 - Pagina stato uscite PLC
(con spia accesa contatto OK)



9 - Pagina stato uscite PLC
(con spia accesa contatto OK)



12 - Pagina controllo allarmi sonde
e resistenze con tutto OK



FUNZIONI E IMPOSTAZIONI TASTIERA UNIOP

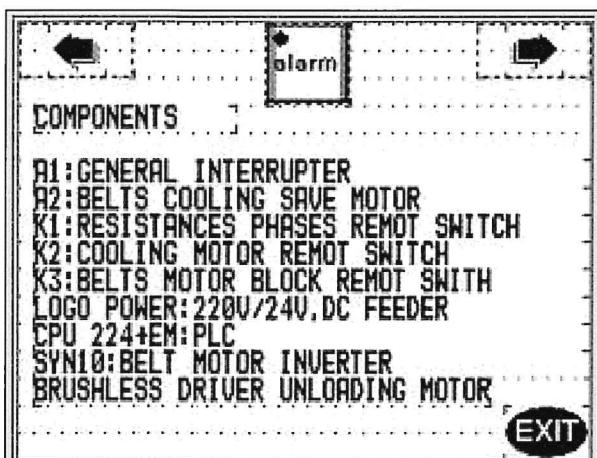
13 - Pagina controllo allarmi sonde e resistenze con allarme in corso



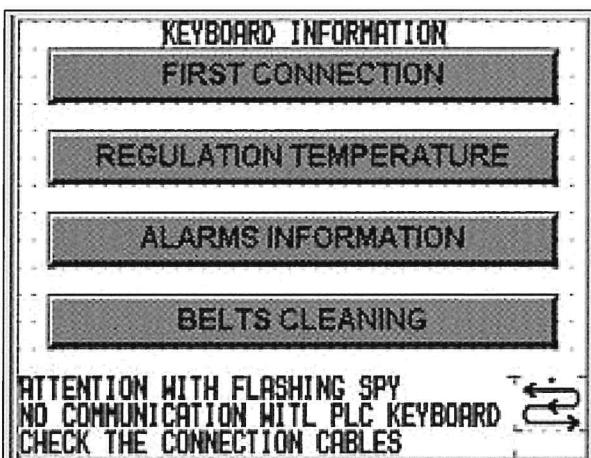
16 - Pagina descrizione relè



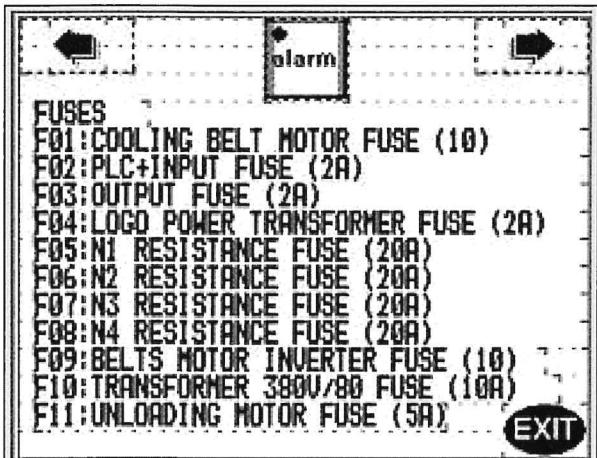
14 - Pagina descrizione componenti



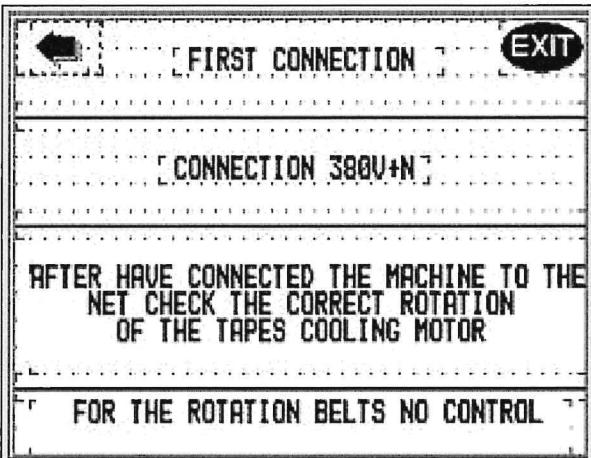
17 - Pagina informativa
(Premere il pulsante con la voce desiderata)



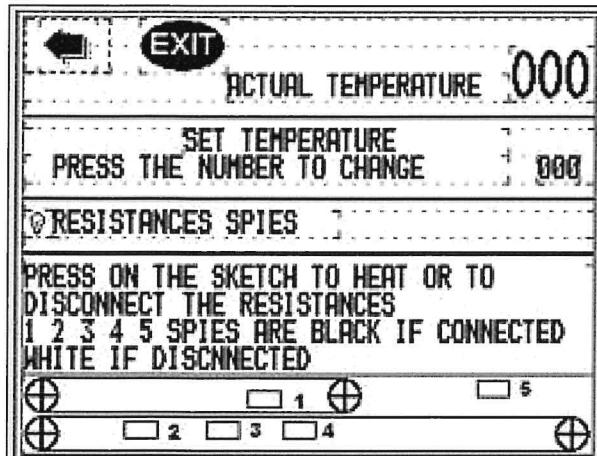
15 - Pagina descrizione componenti



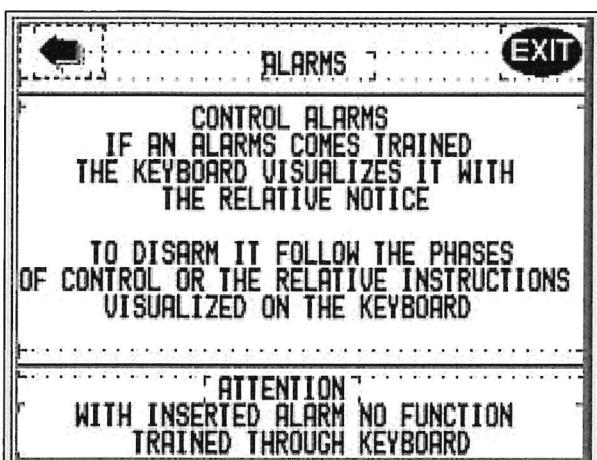
18 - Pagina informativa: Primo collegamento



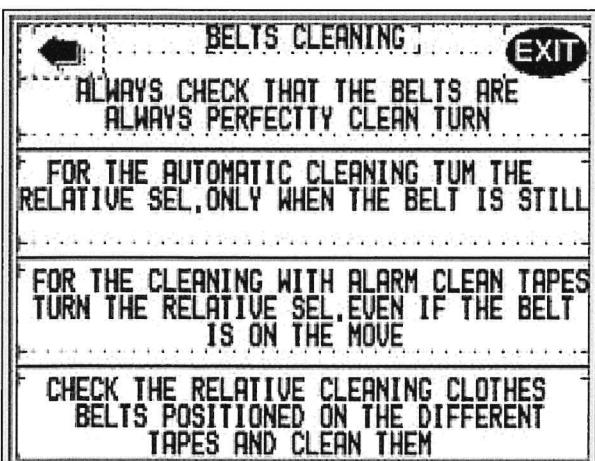
19 - Pagina informativa: Regolazione temperature



20 - Pagina informativa: Info allarmi



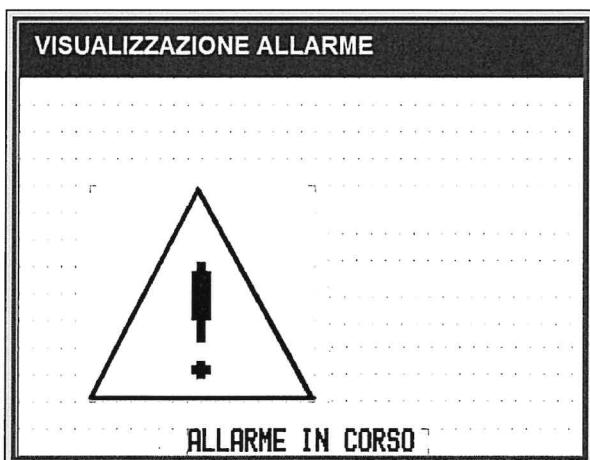
21 - Pagina informativa: Pulizia nastri



22 - ALLARMI

- PULIRE NASTRI: girare il selettore pulizia nastri
- EMERGENZA INSERITA: sbloccare il pulsante.
- NASTRI FUORI ASSE A DESTRA: controllare la posizione dei nastri e riportarli in posizione.
- NASTRI FUORI ASSE A SINISTRA: controllare la posizione dei nastri e riportarli in posizione.
- FOTOCELLULE SUPERIORI NON OK: controllare la posizione del nastro superiore.
- FOTOCELLULE INFERIORI NON OK: controllare la posizione del nastro inferiore.
- MANCA ARIA: controllare che la linea aria arrivi alla macchina e che il selettore aria sia in posizione ON.
- CARRO PUNTATORE BASSO: controllare il finecorsa I1.0 sul cilindro di puntatura.
- CONTROLLO GIRA NASTRI I2.1 NON OK: controllare che il motore nastri giri e che l'inverter non sia in blocco (se sull'inverter c'è la scritta LOK togliere tensione tramite l'interruttore generale e attendere 1 minuto prima di ripristinare la tensione).

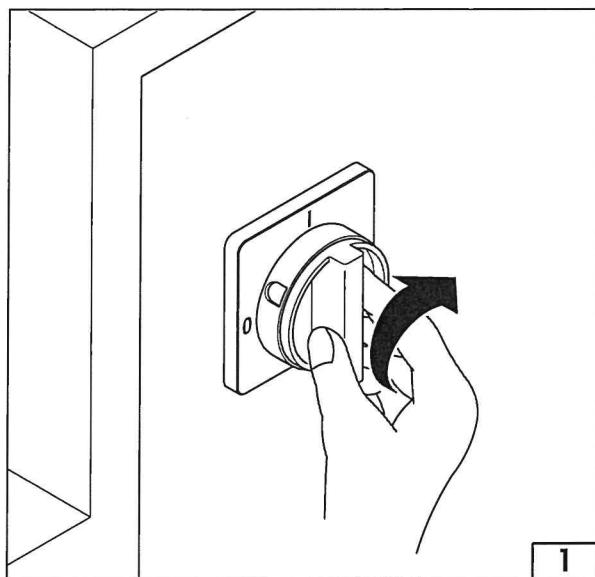
ATTENZIONE: CON ALLARME IN CORSO NESSUNA FUNZIONE POSSIBILE TRAMITE LA TASTIERA



07 - OPERATION

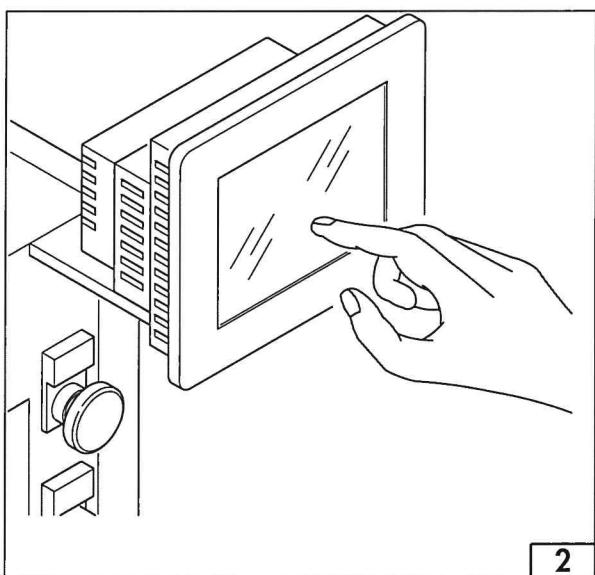
STARTUP

- Turn the main switch to position I (fig. 1).
- Open the air stopcock.
- Use the keyboard to set the temperature of the resistances (140-180°C).
- Check the correct operation of the cooling pump motor; if it is noticed that air is sucked in when the upper casing is lifted, reverse the connection of the phases in the power plug.



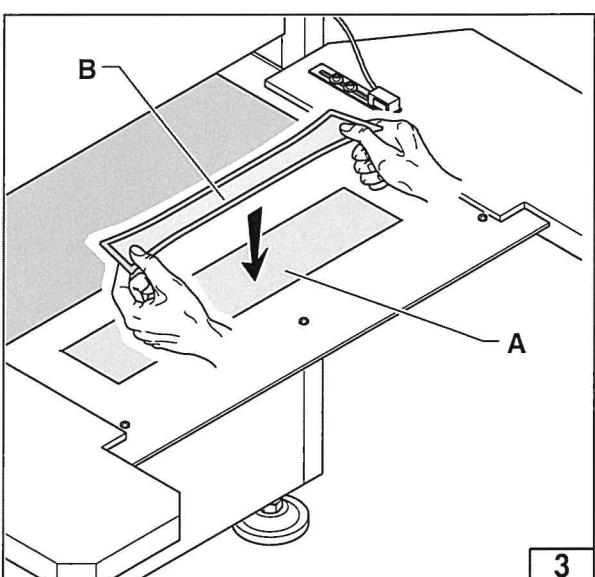
1

- Check the data input from the keyboard (fig. 2), as described in the "**UNIOP KEYBOARD FUNCTIONS AND SETTINGS**" paragraph on page 10.
- Wait for the machine to reach the working temperature.



2

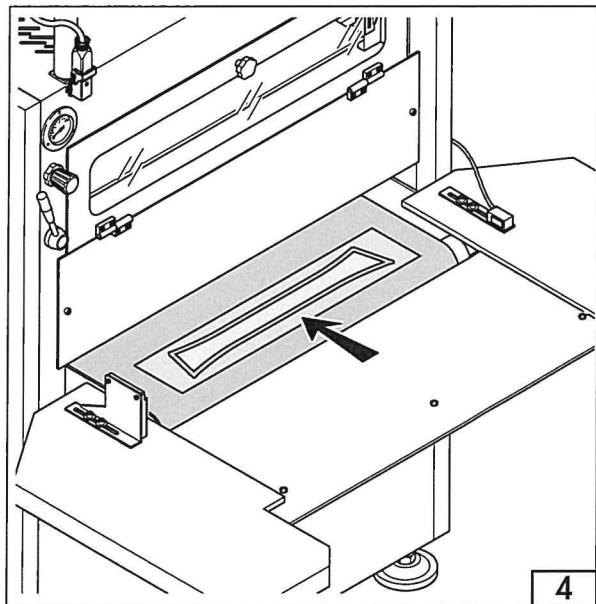
- When the temperature is reached, position fabric "A" and adhesive "B" as shown in figure 3.



3

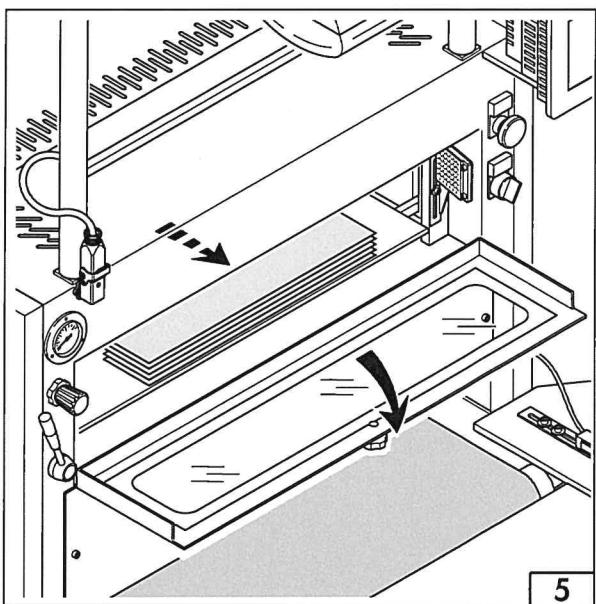
- Place both parts on the conveyor belts (fig. 4) so that they rest on them completely and proceed with positioning further parts of fabric and adhesive.

On the basis of the settings entered from the keyboard, a first tacking operation is or is not performed; the fabric then passes, between the two belts, into the heating zone where special resistances allow the glue to melt and then through two pressure rollers that complete the fixing of the adhesive onto the fabric.



4

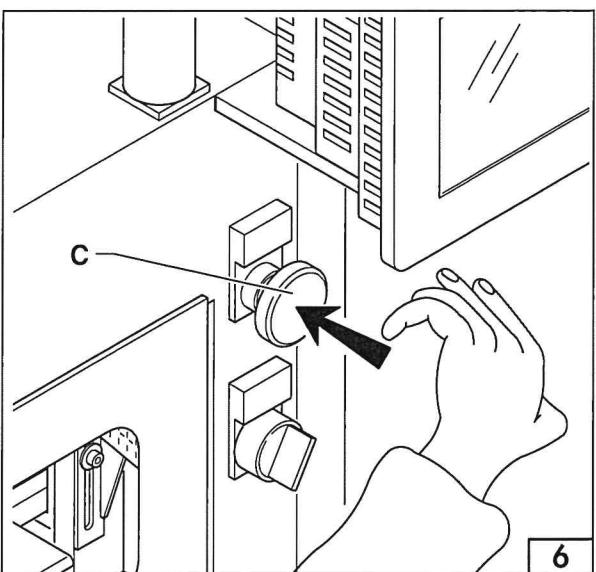
- The finished parts cool down naturally or through activation of a cooling pump; after which they are unloaded and stacked automatically (fig. 5), ready to be picked up by the operator.



5

Possible anomalies are signalled by alarms being displayed on the keyboard.

- In case of need, the machine can be stopped immediately by pressing emergency button "C" (fig. 6).



6

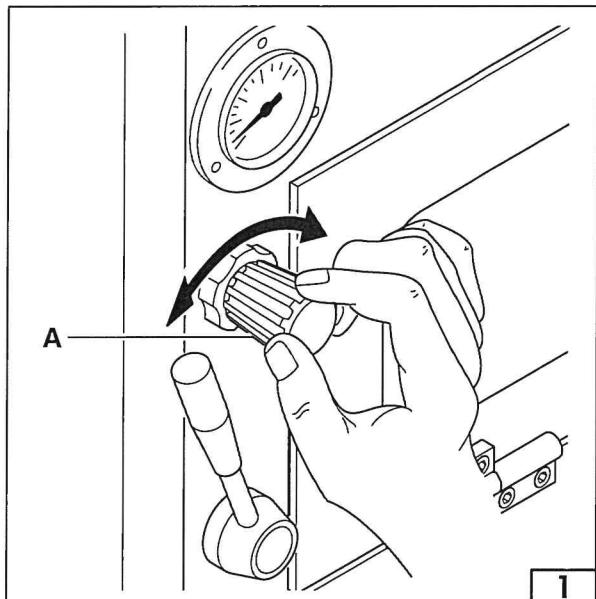
08 - ADJUSTMENTS



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.

ROLLER PRESSURE ADJUSTMENT

- Set regulator "A" (fig. 1) so that the fabric is glued correctly.
An operating pressure of between 1 and 3 ATM is recommended.
- For all other adjustments refer to the "**UNIOP
KEYBOARD FUNCTIONS AND SETTINGS**"
paragraph on page 10.



09 - 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.

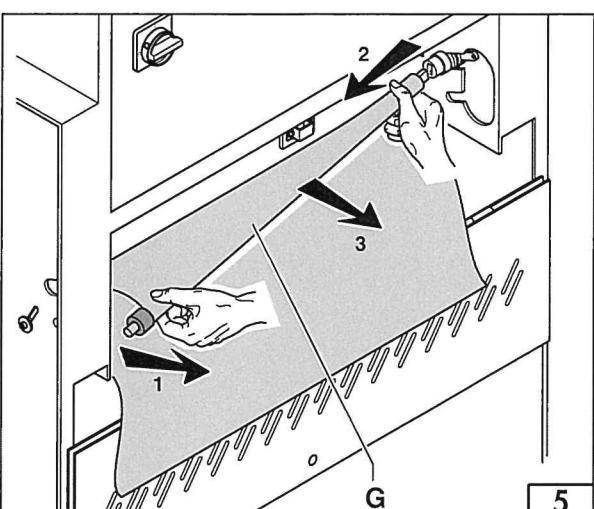
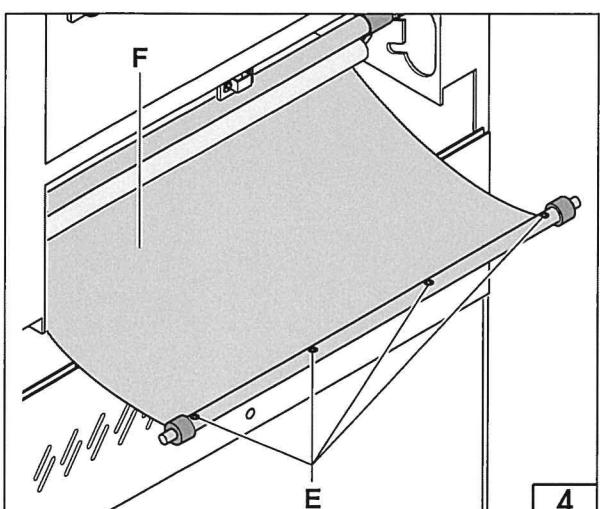
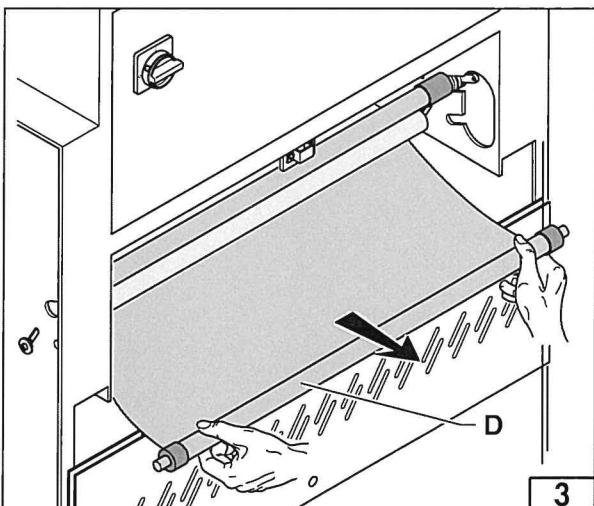
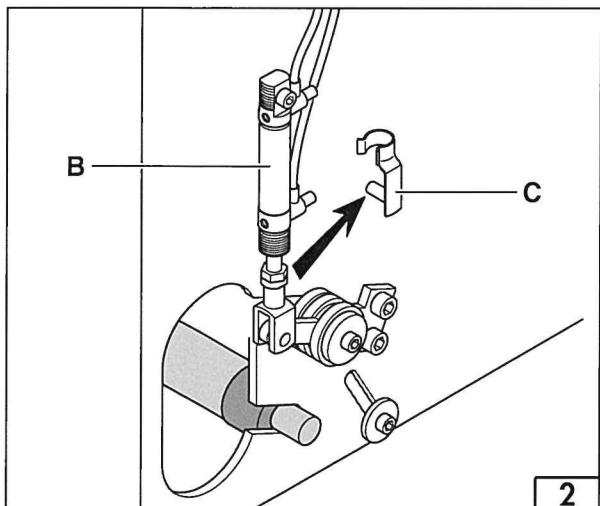
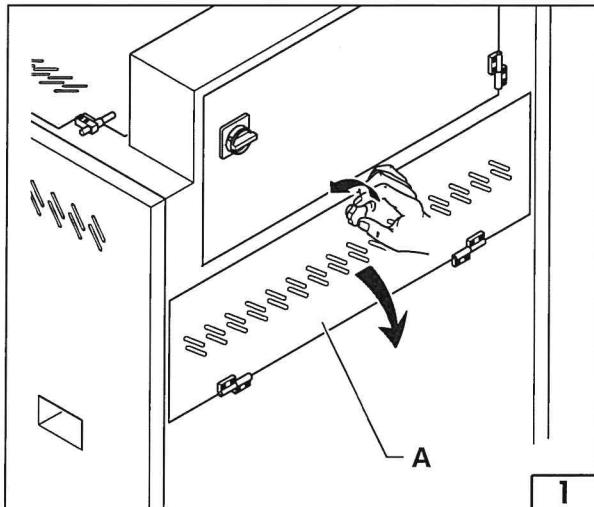
The operations described below must only be carried out by specialized personnel.

The Adhesive machine mod. MP 2S does not require any special maintenance during use thanks to its rational design. We recommend lubricating the joints regularly and following all instructions in this manual very carefully to keep this machine in good and reliable working condition.

REAR CLEANING BELT

Regularly clean the Teflon belt from residues of glue and dust by carrying out the following operations:

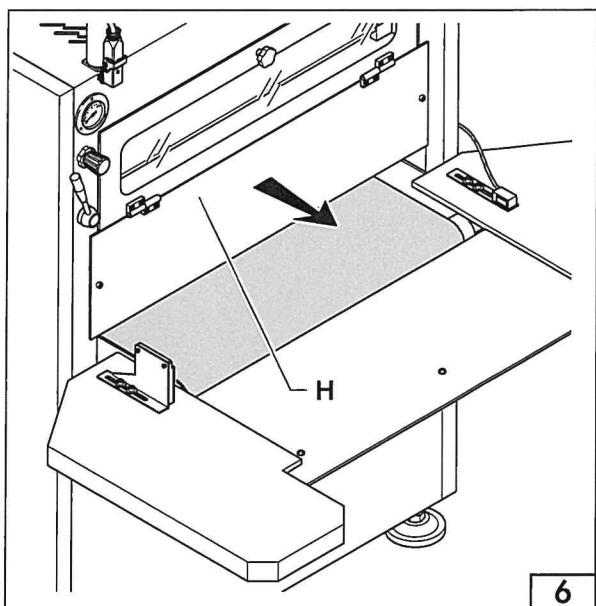
- Remove the side casings and open rear casing "A" (fig. 1).
- Detach cylinders "B", removing sealing spring "C" from the fork (fig. 2).
- Extract roller "D" (fig. 3) from the rear of the machine and unscrew screws "E" so as to detach belt "F" (fig. 4).
- Remove roller "G" so as to extract the belt (fig. 5) and clean it with a jet of air.
- Refit the cleaning belt by reversing the operations described above.



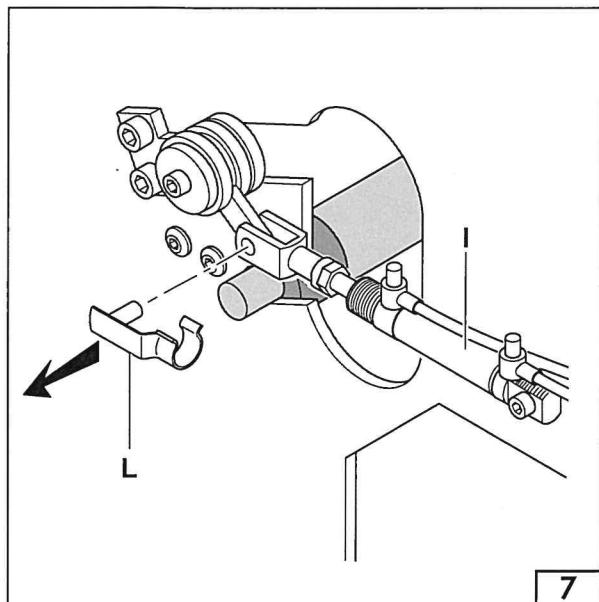
FRONT CLEANING BELT

Regularly clean the Teflon belt from residues of glue and dust by carrying out the following operations:

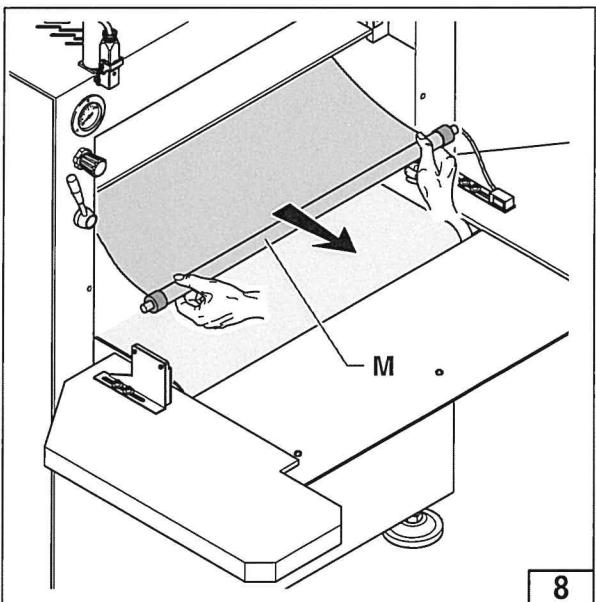
- Remove side casings and rear casing "H" (fig. 6).
- Detach cylinders "I", removing sealing spring "L" from the fork (fig. 7).
- Extract roller "M" (fig. 8) from the front of the machine and unscrew screws "N" so as to detach belt "O" (fig. 9).
- Open the front hatch; remove roller "P" so as to extract the belt and clean it with a jet of air (fig. 10).
- Refit the cleaning belt by reversing the operations described above.



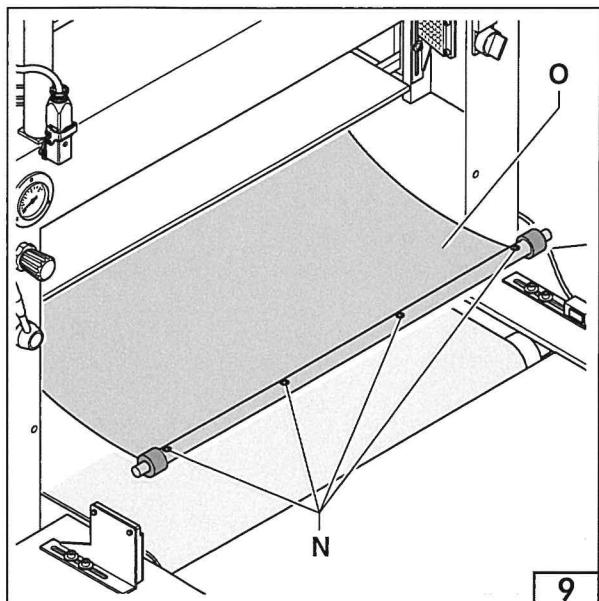
6



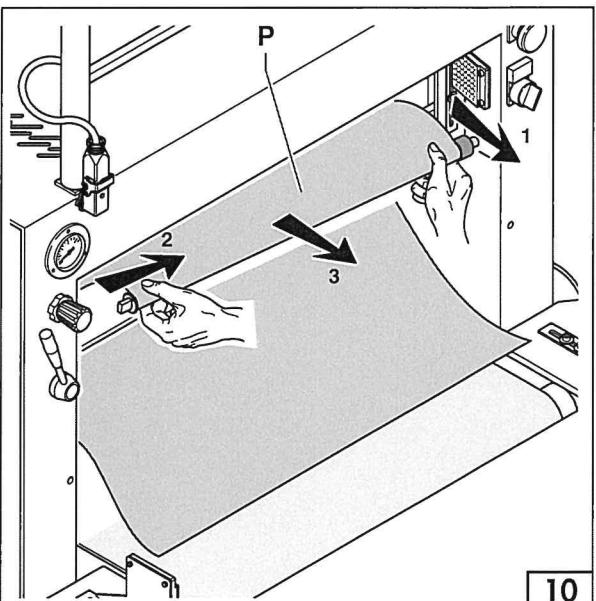
7



8



9



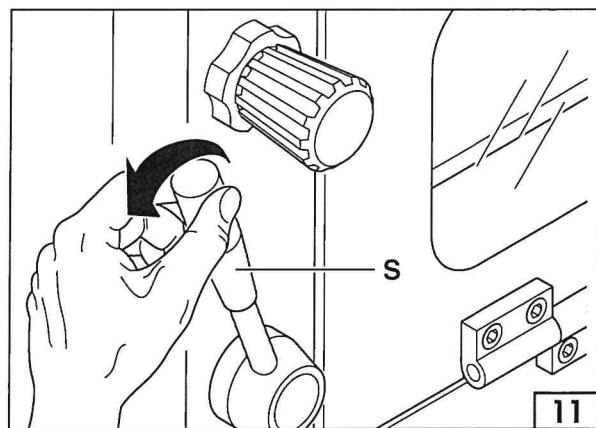
10

LOWER CLEANING CLOTH

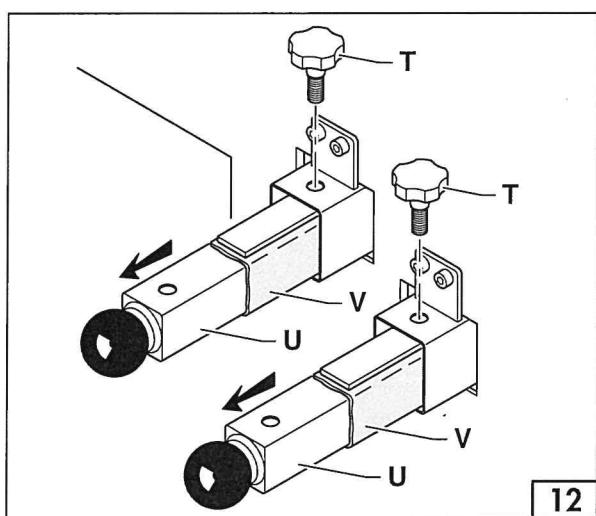
- Set pressure presence lever "S" (fig. 11) to OFF.
- Remove locking pin "T" (fig. 12).
- Unthread supports "U" and clean cloths "V" with a jet of air.
- Reverse the operations described above for reassembly.

Periodically lift and clean the scrapers present on the machine

- Rear scraper "Z" (fig. 13).
- Upper scraper "Z1" (fig. 14).
- Upper scraper "Z2" (fig. 15).
- Front scraper "Z3" (fig. 16).



11

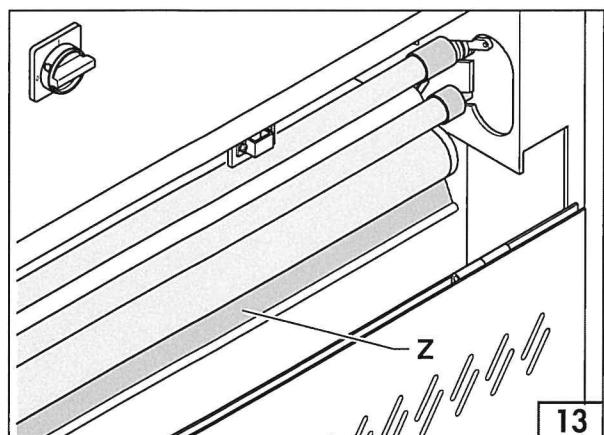


12

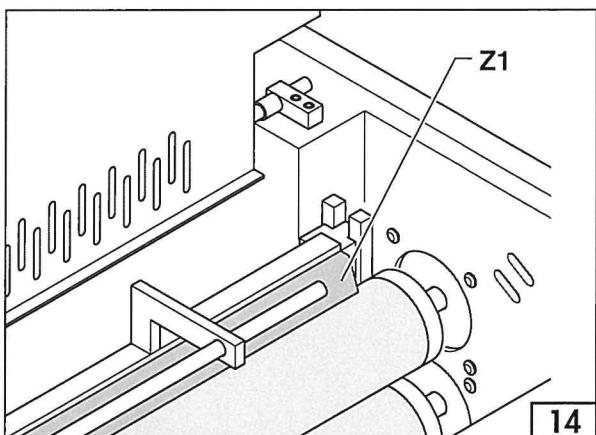
SCRAPER CLEANING

Periodically lift and clean the scrapers present on the machine

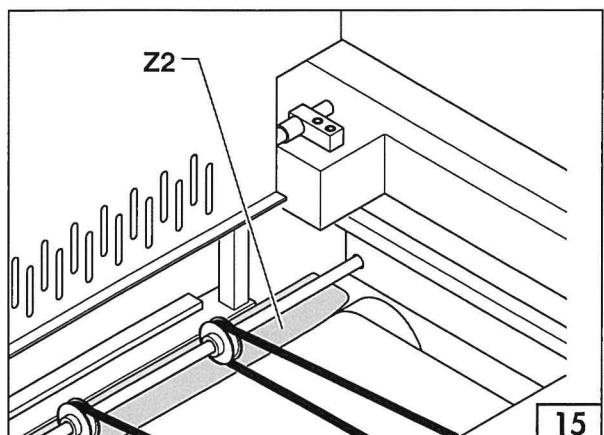
- Rear scraper "Z" (fig. 13).
- Upper scraper "Z1" (fig. 14).
- Upper scraper "Z2" (fig. 15).
- Front scraper "Z3" (fig. 16).



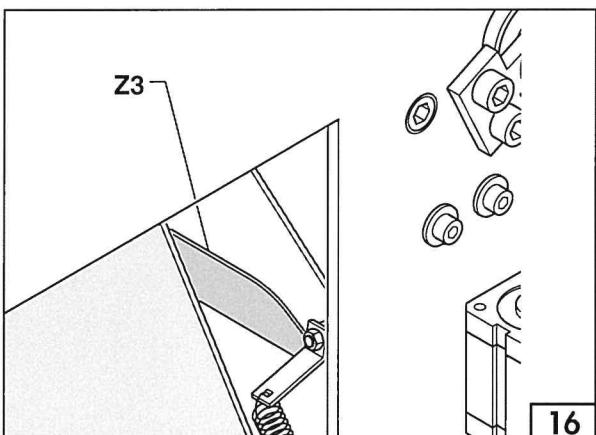
13



14



15



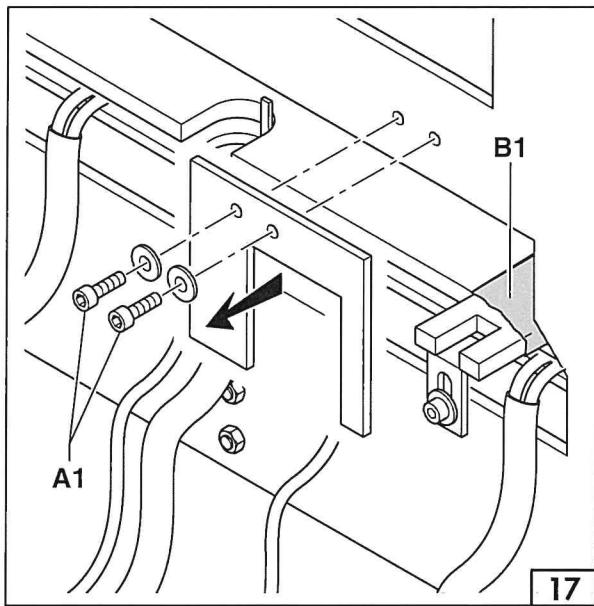
16

CONVEYOR BELT REPLACEMENT

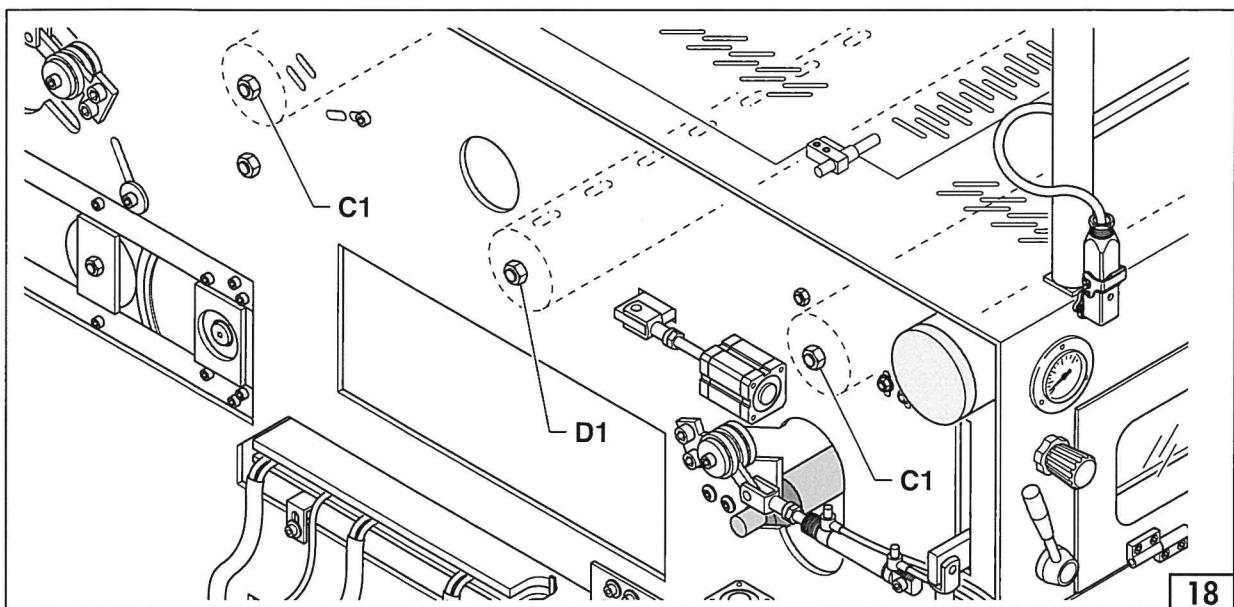
Proceed as follows to replace worn conveyor belts:

Upper conveyor belt

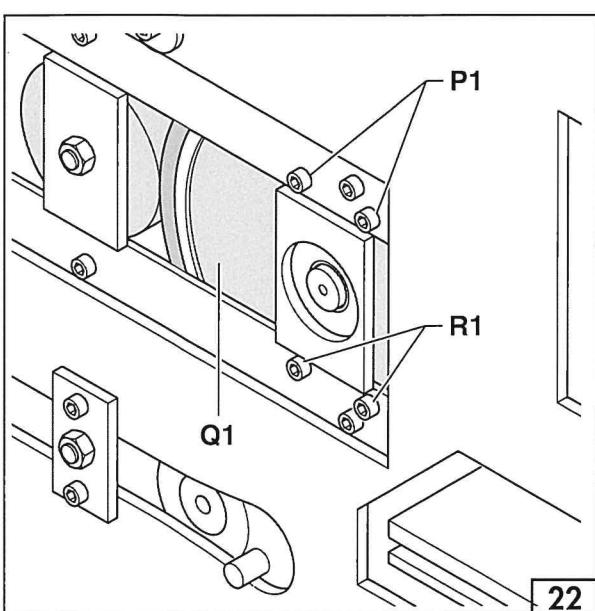
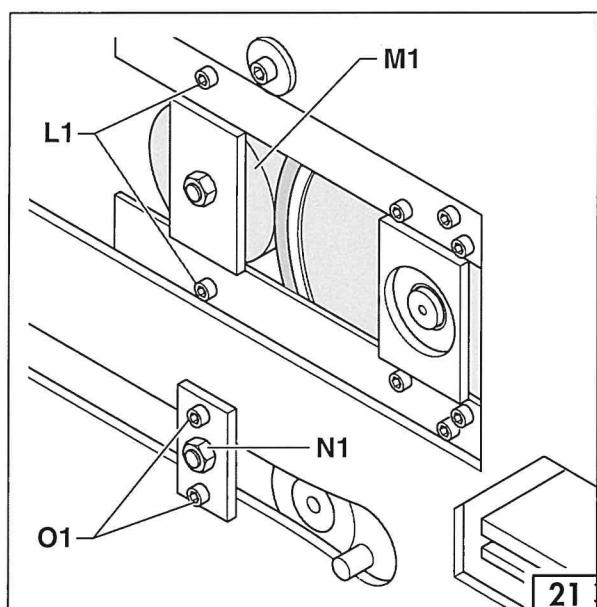
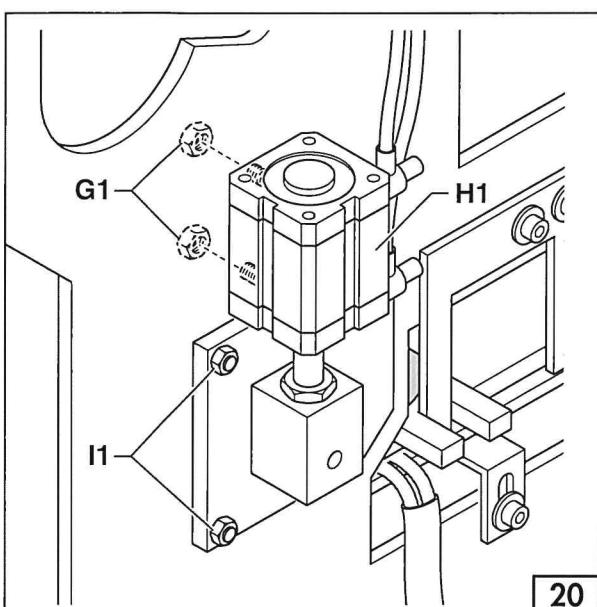
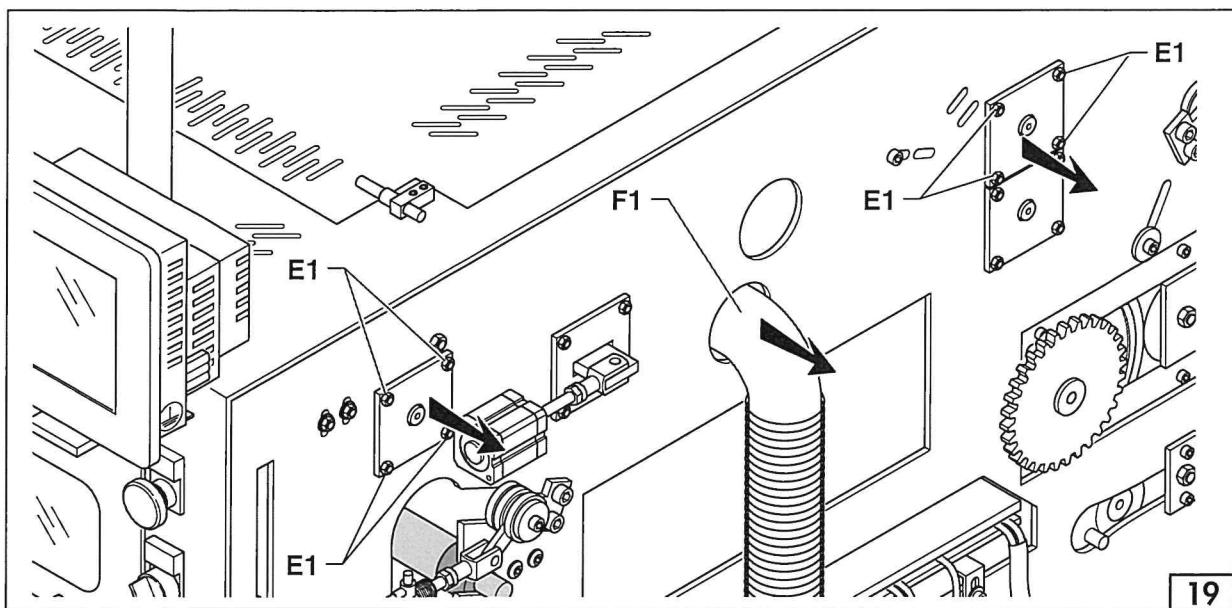
- Lift and remove the side casings.
- Remove and open the rear casing and hatch.
- Unscrew screws "A1" on both sides and unthread cleaning cloth "B1" (fig. 17).
- Unscrew upper roller fixing nuts "C1" and cooling air nut "D1" (fig. 18).
- Remove the upper roller fixing plate nuts "E1" from the rh side of the machine; unthread the two rollers and compressed air pipe "F1" (fig. 19).
- Remove cylinder "H1" fixing nuts "G1" from the rh side (from inside the machine) (fig. 20).
- Unscrew fixing plate nuts "I1" and extract the relative conveyor roller (fig. 20).
- Lower the belt from the rear of the machine, unscrew screws "L1" on the both and extract roller "M1" (fig. 21).
- Loosen nuts "N1" on both sides and unscrew screws "O1" so as to remove the lower roller (fig. 21)
- Remove screws "P1" on both sides and extract roller "Q1" (fig. 22).
- Unthread the worn belt, replace it and repeat the operations in reverse order.



17

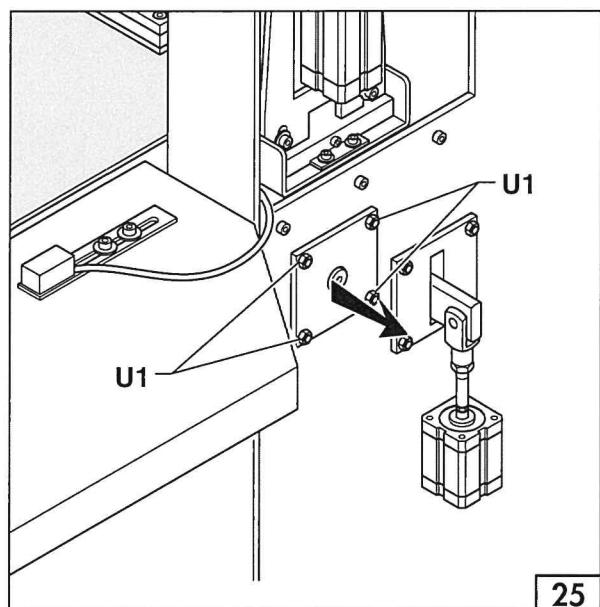
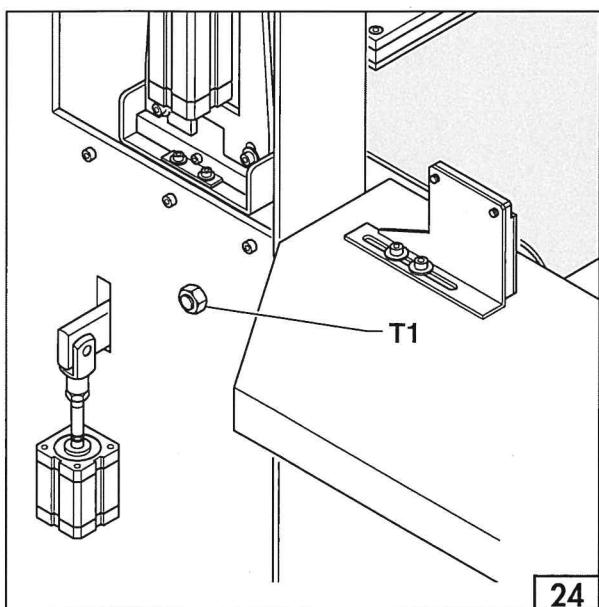
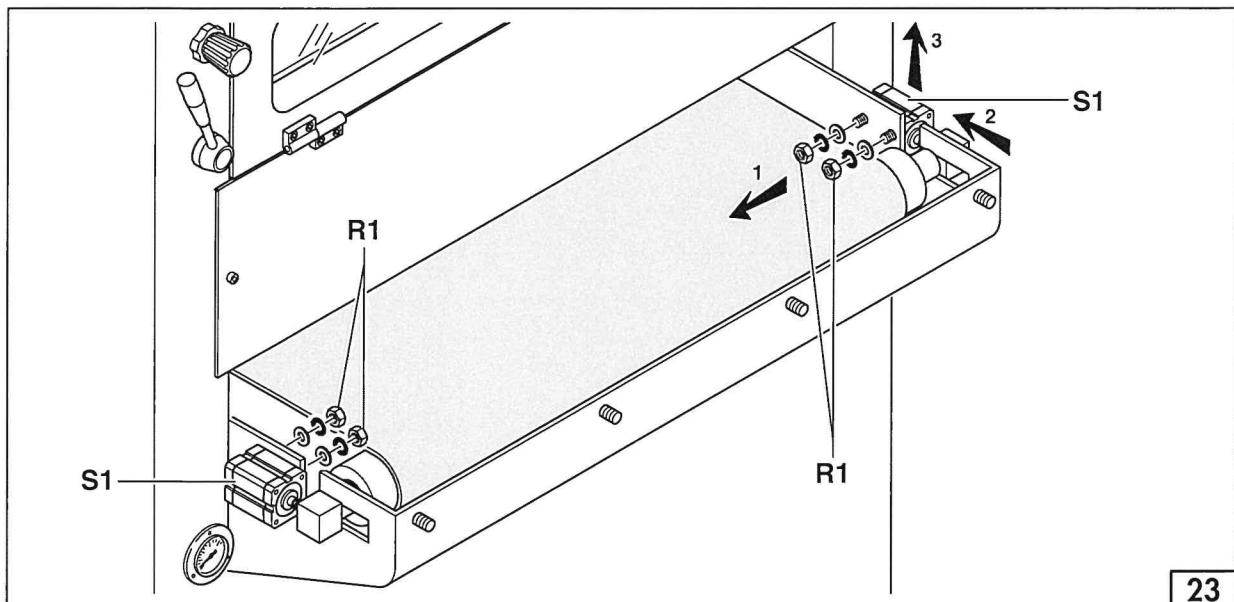


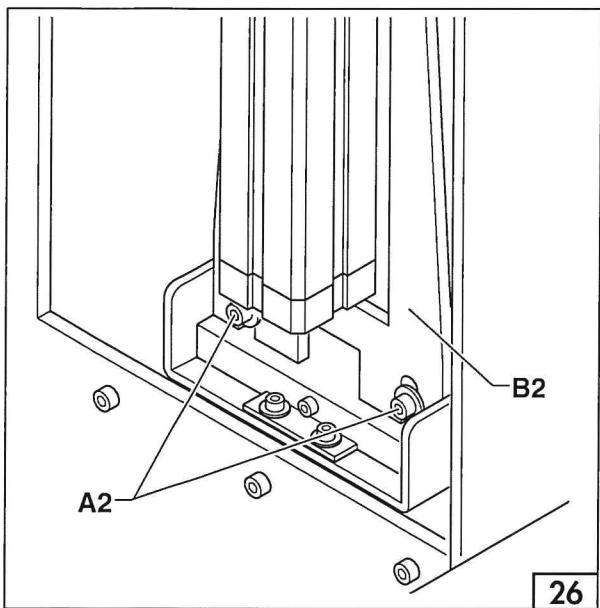
18



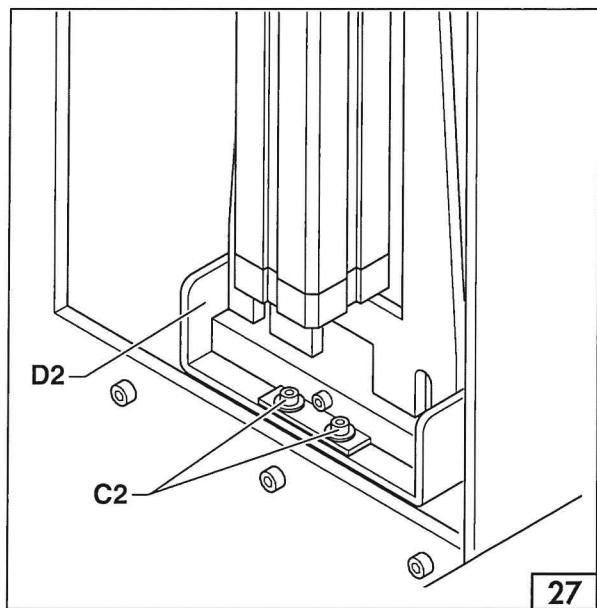
Lower conveyor belt

- Lift and remove the side casings.
- Remove or open the rear casings and the front casing.
- Unscrew screws "A1" on both sides and unthread cleaning cloth "B1" (fig. 17).
- At the front of the machine, below the support surface, remove nuts "R1" of cylinders "S1" and move the roller backwards so as to extract it from the slot in the structure (fig. 23).
- Remove nut "T1" on the left-hand side (fig. 24) while, on the right-hand side, remove fixing plate nuts "U1" and extract the relative roller (fig. 25).
- Remove screws "A2" of the tacking group support brackets so as to detach upper part "B2" (fig. 26).
- Unscrew screws "C2" from both sides and remove the lower part "D2" of the tacking group (fig. 27).
- Remove screws "E2" on the left-hand side and nut "F2" on the right-hand side so as to extract part "G2" (fig. 28).
- Remove fixing plate nuts "H2" on the rh side of the machine and unthread the upper roller (fig. 29).
- Lower the belt from the rear of the machine, unscrew screws "I2" on the both and extract roller "L2" (fig. 30).
- Loosen nuts "M2" on both sides and unscrew screws "N2" so as to remove the lower roller (fig. 30)
- Unthread the worn belt, replace it and repeat the operations in reverse order.

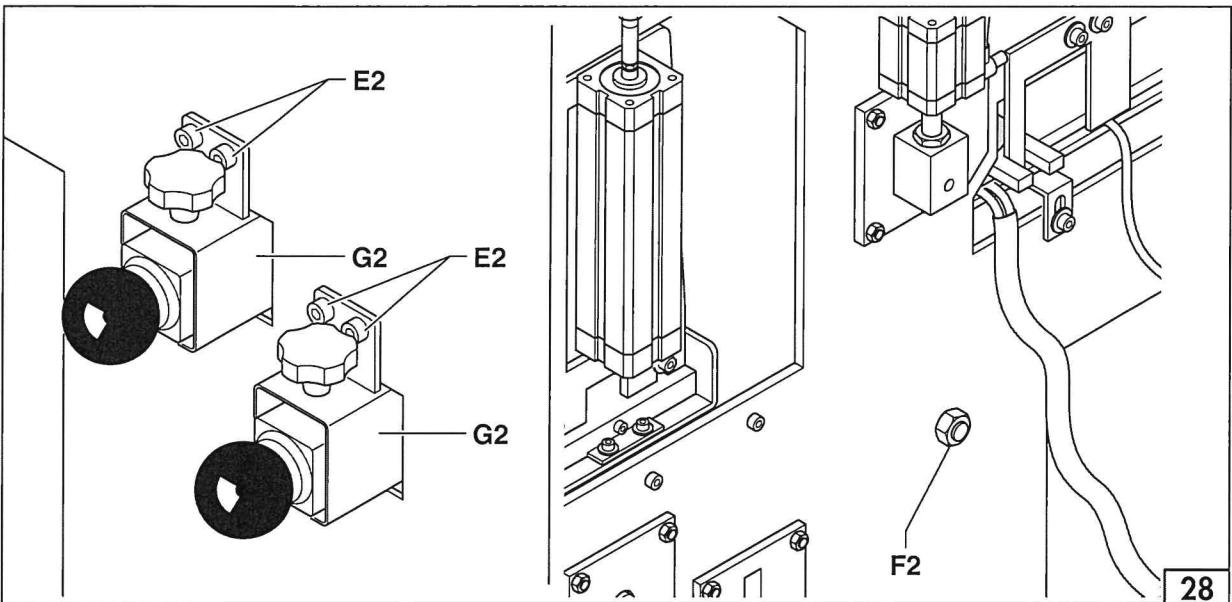




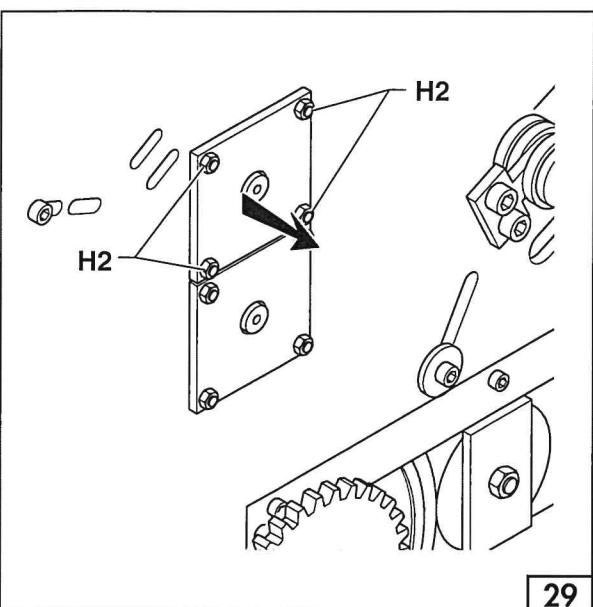
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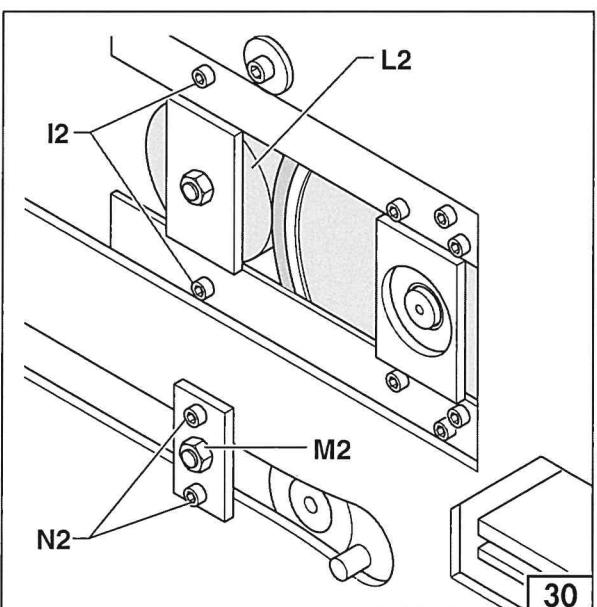
27



28



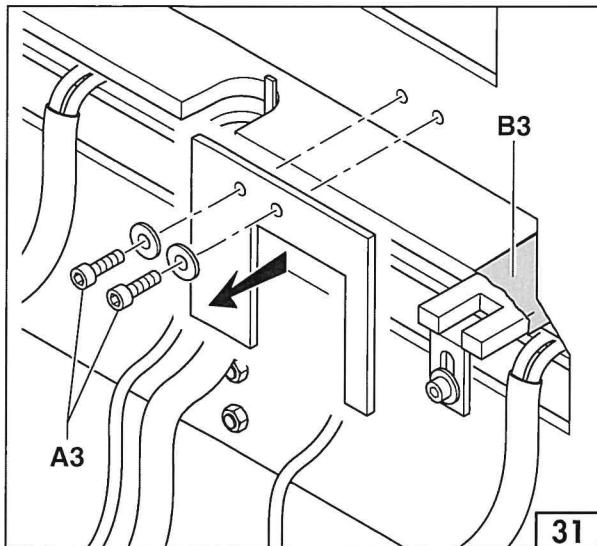
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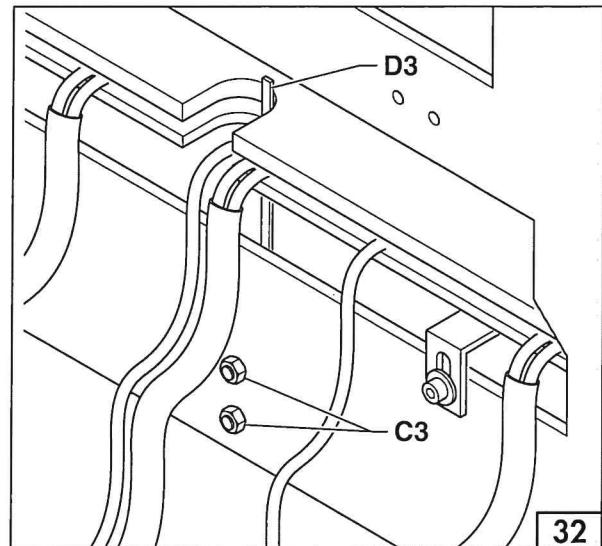
30

RESISTANCE REPLACEMENT

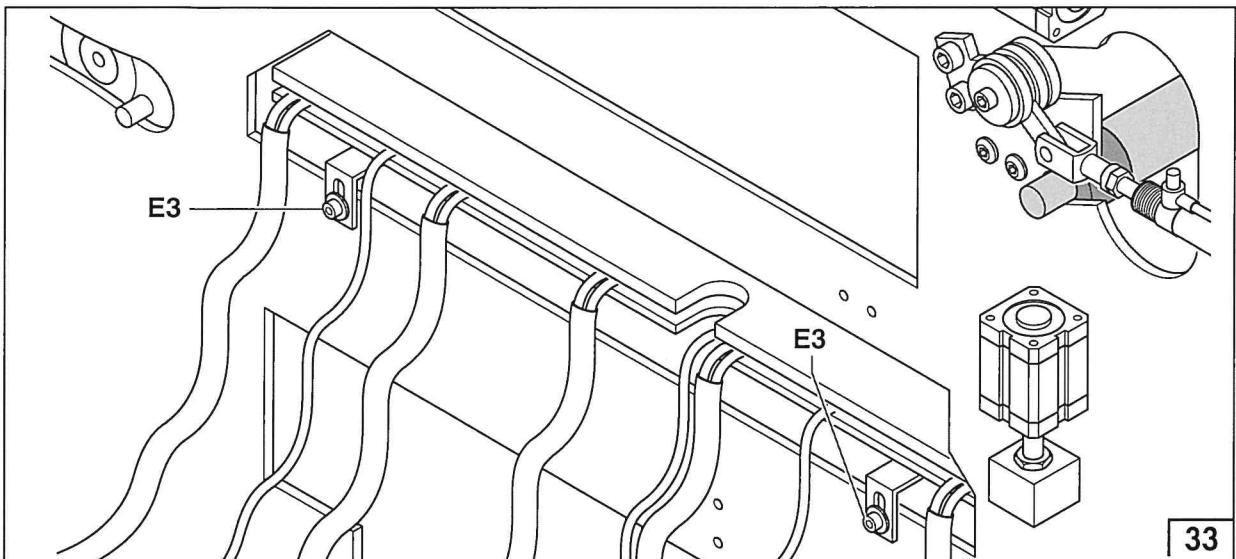
If the gluing process proves to be imperfect, check the efficiency of the resistances and replace them as follows if necessary:



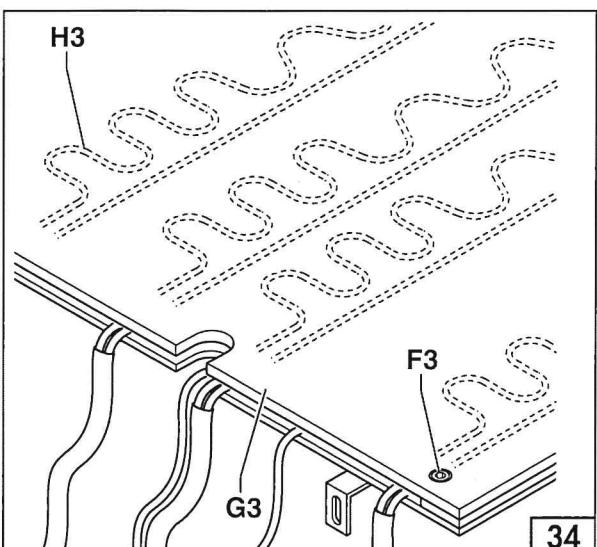
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33

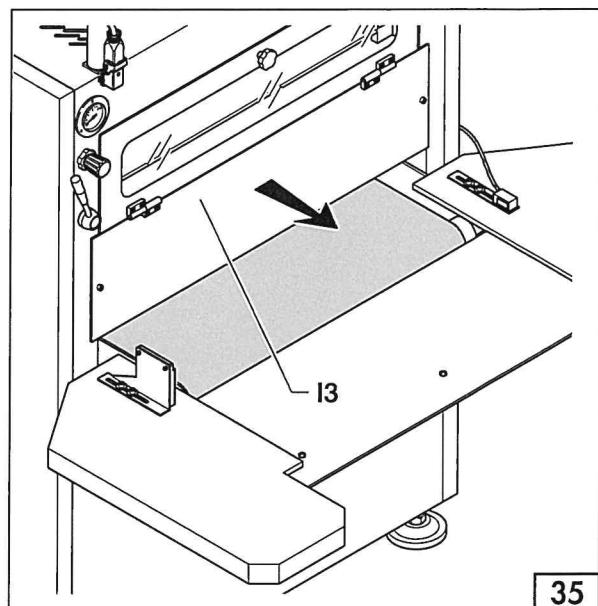


34

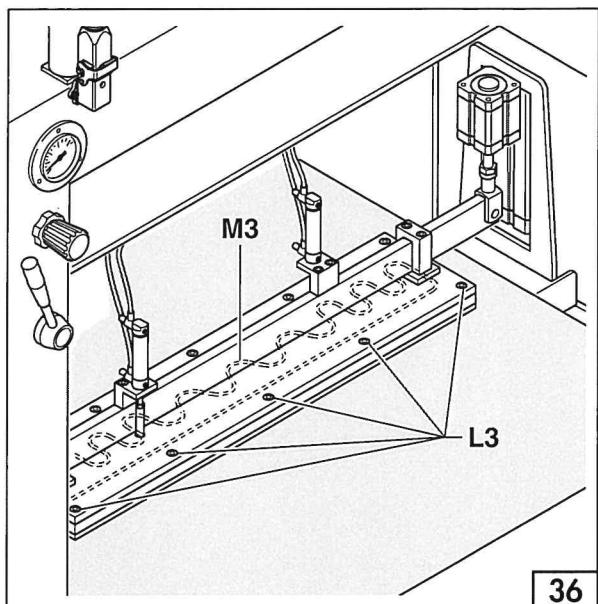
- Lift and remove the side casings.
- Unscrew screws "A3" on both sides and unthread cleaning cloth "B3" (fig. 31).
- Loosen nuts "C3" so as to remove limit switch "D3" (fig. 32).
- Remove screws "E3" on both sides (fig. 33) and extract the resistance-holder group.
- Unscrew the 4 countersunk screws "F3" and remove upper plate "G3" (fig. 34).
- Detach the inefficient resistance's power cable from the terminal board.
- Replace resistance "H3" and reassemble in reverse order.

Tacking resistance

- Remove the left-hand side casing and front casing "I3" (fig. 35).
- Unscrew screws "L3" so as to separate the resistance-holder group (fig. 36).
- Detach the resistance's power cable from the terminal board.
- Replace resistance "M3" and reassemble in reverse order.

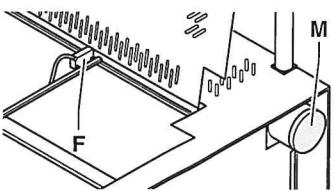


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10 - MALFUNCTIONS, CAUSES AND REMEDIES

MALFUNCTION	CAUSE	REMEDY
The machine will not start	Inefficient PLC Inefficient fuses	Check the efficiency of the PLC inside the electric panel. Check the efficiency of the protection fuses inside the electric panel.
	The machine has been switched off and immediately switched on again using the main switch	Wait 1 minute before switching on the machine again otherwise the belt-turning motor inverter will be blocked.
The machine will not unload the glued pieces	Inefficient photocell or in the wrong position 	Check the efficiency of photocell "F" and adjust its position if necessary. Check that the signal reaches the PLC.
	Inefficient motor	Check the efficiency of motor "M" and replace if necessary.
	Inefficient unloading protection barrier	Check the efficiency of the emergency barrier.
The machine will not heat	Burnt-out resistance Faulty thermal probe Faulty relay Inefficient fuse	Check that current reaches the terminal board and that there is continuity in the resistances. Replace if necessary (see page 24). Check and/or replace. Check the efficiency of the relay on the LH side of the machine. Check the efficiency of the fuse inside the electric panel.
Belt misaligned in RH or LH side	Belt displacement Inefficient or moved belt control photocells	Reverse the movement of the belts using the special selector switch and manually adjust the belt or cut off the compressed air and realign the belts that have become slack. Lift the upper casings and check the efficiency of the photocells and their correct position with the belt centred.
The machine will not cool	Cooling pump motor not working	Check the efficiency of overload cutout A2 inside the electric panel.
Imperfect gluing	Insufficient ironing roller pressure Incorrect resistance temperature	Adjust the pressure of the gluing rollers (see page 16). Increase or reduce the temperature of the resistances from the keyboard.

11 - SPARE PART SHEETS

For prompt part identification, the following data must be provided:

1. Machine model and serial number
2. Spare part code
3. Sheet in which the spare part is shown

Example: ADHESIVE MACHINE mod. MP 2S Serial No. Code Table 1

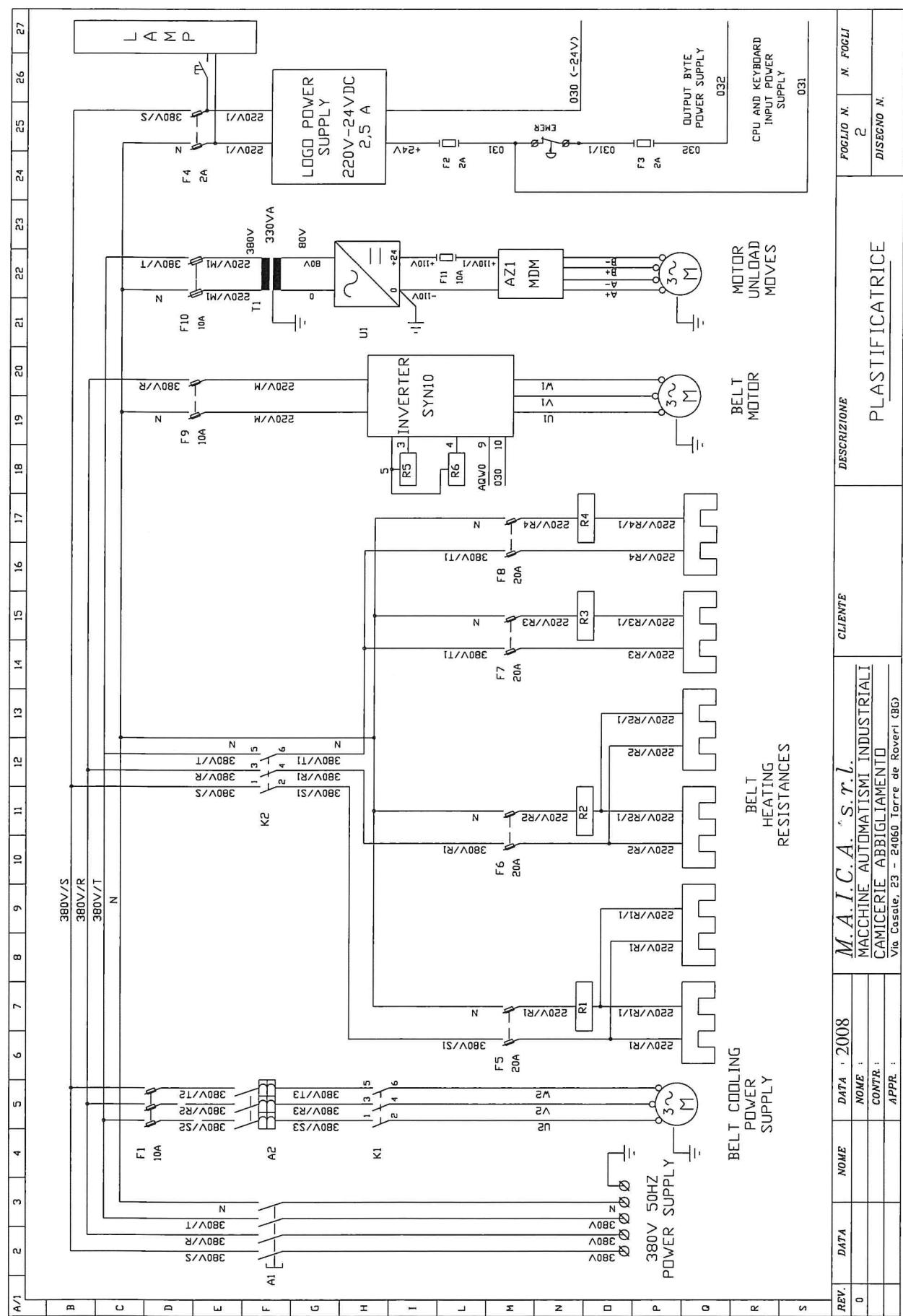
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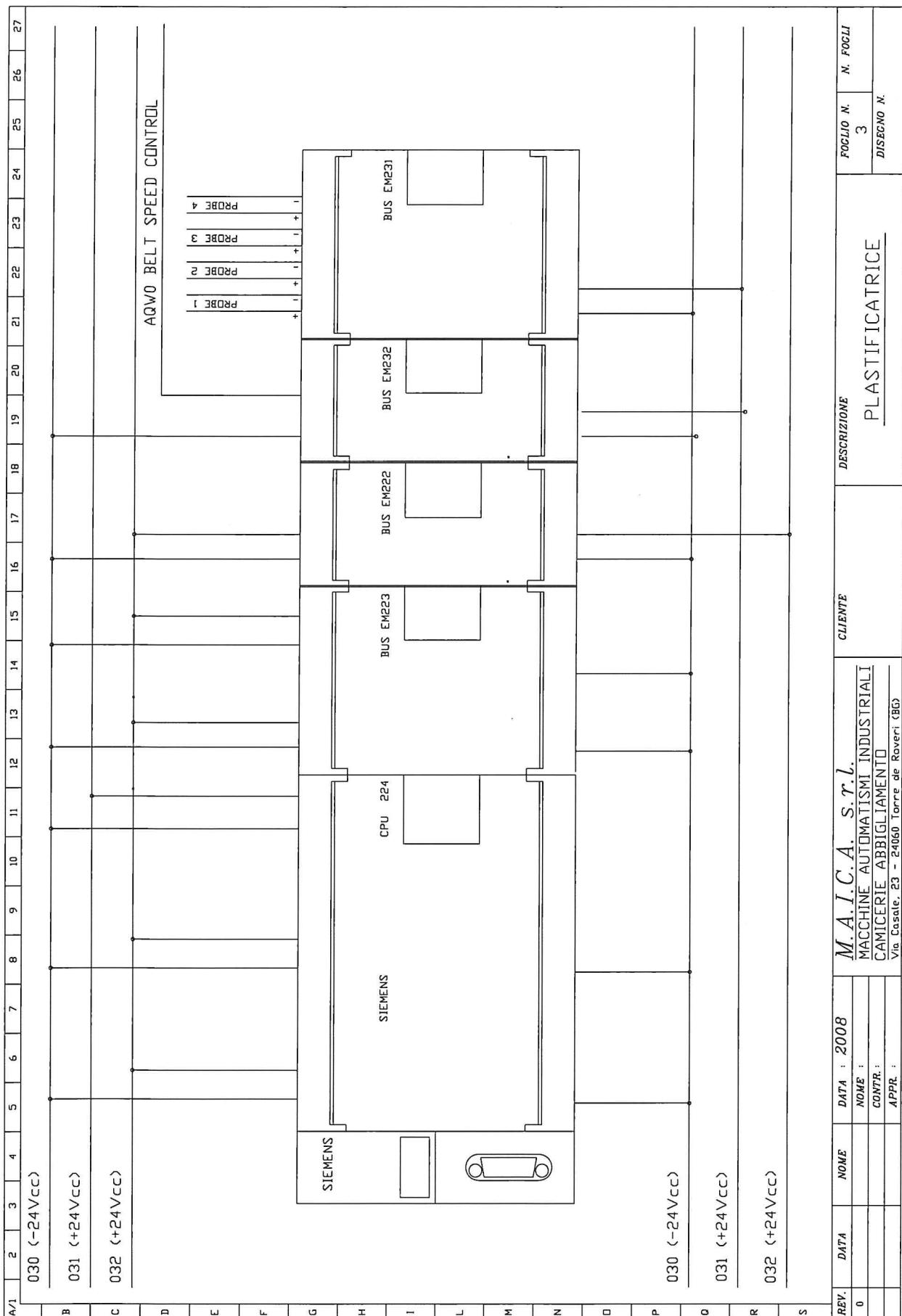
B C D E F G H I L M N O P Q R S

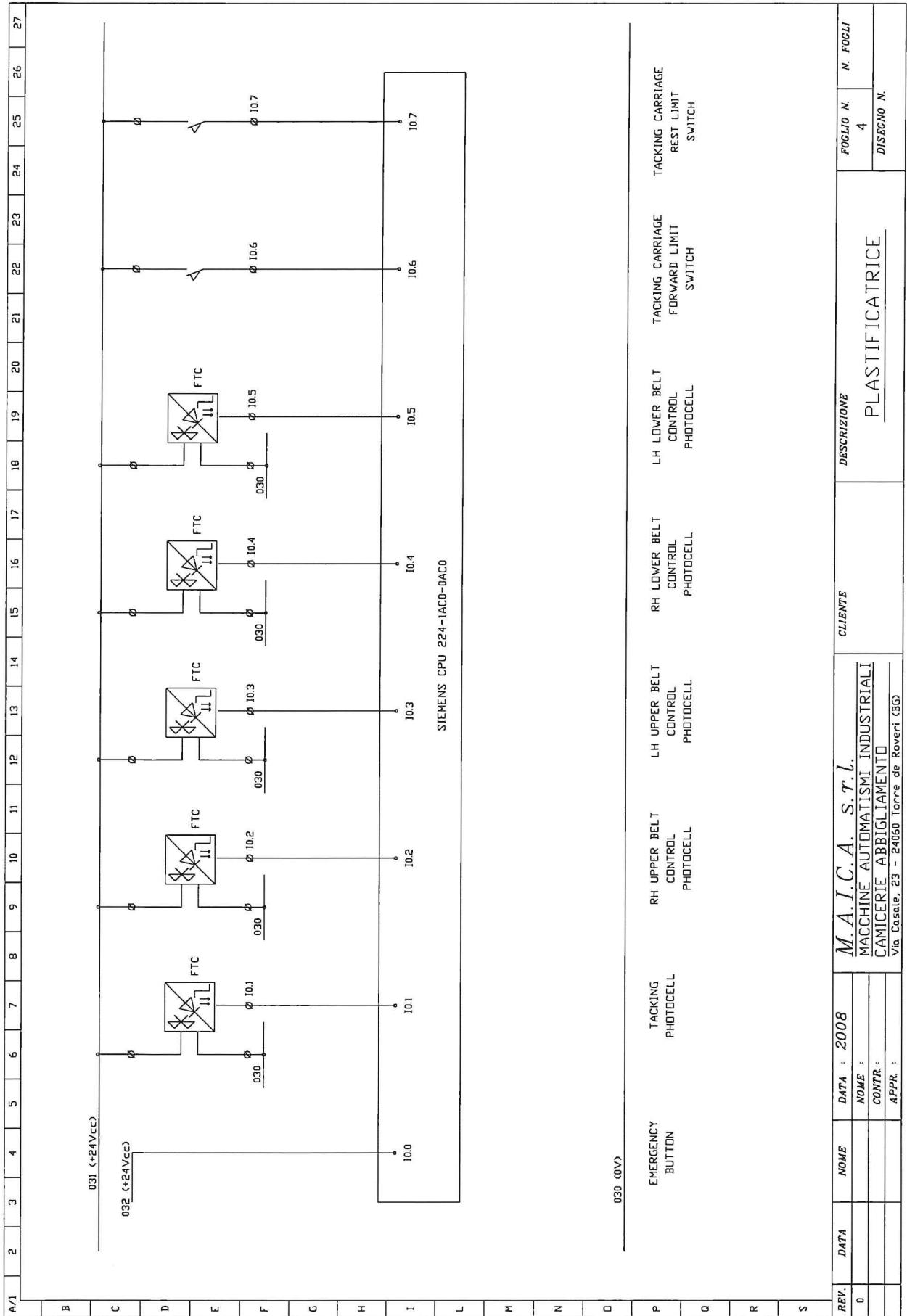
ADHESIVE MACHINE 2008

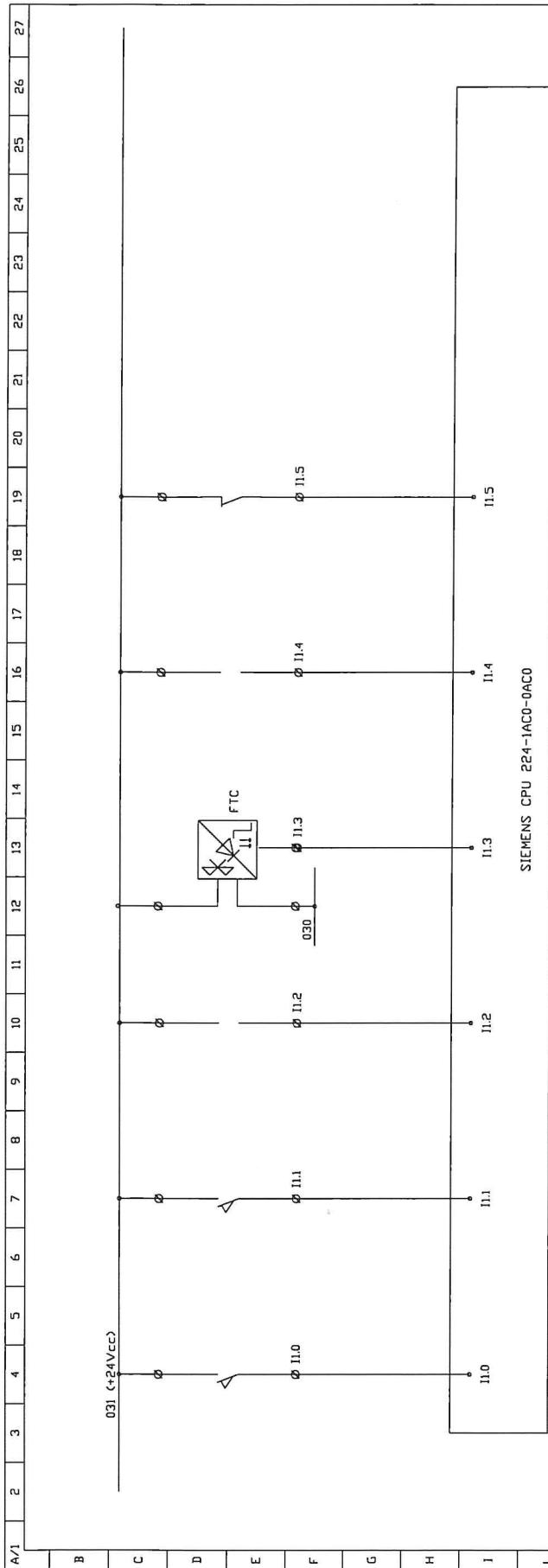
M.A.I.C.A.S.Y.L.

REV.	DATA	NAME	DATA : 2008	CLIENTE	DESCRIZIONE	FOTO N.	N. FOTO
0				M.A.I.C.A.S.Y.L. MACCHINE AUTOMATISMI INDUSTRIALI CARMICERIE ABBIGLIAMENTO Via Casale, 23 - 24050 Torre de Roveri (BG)	PLASTIFICATRICE	1	DISEGNO N.

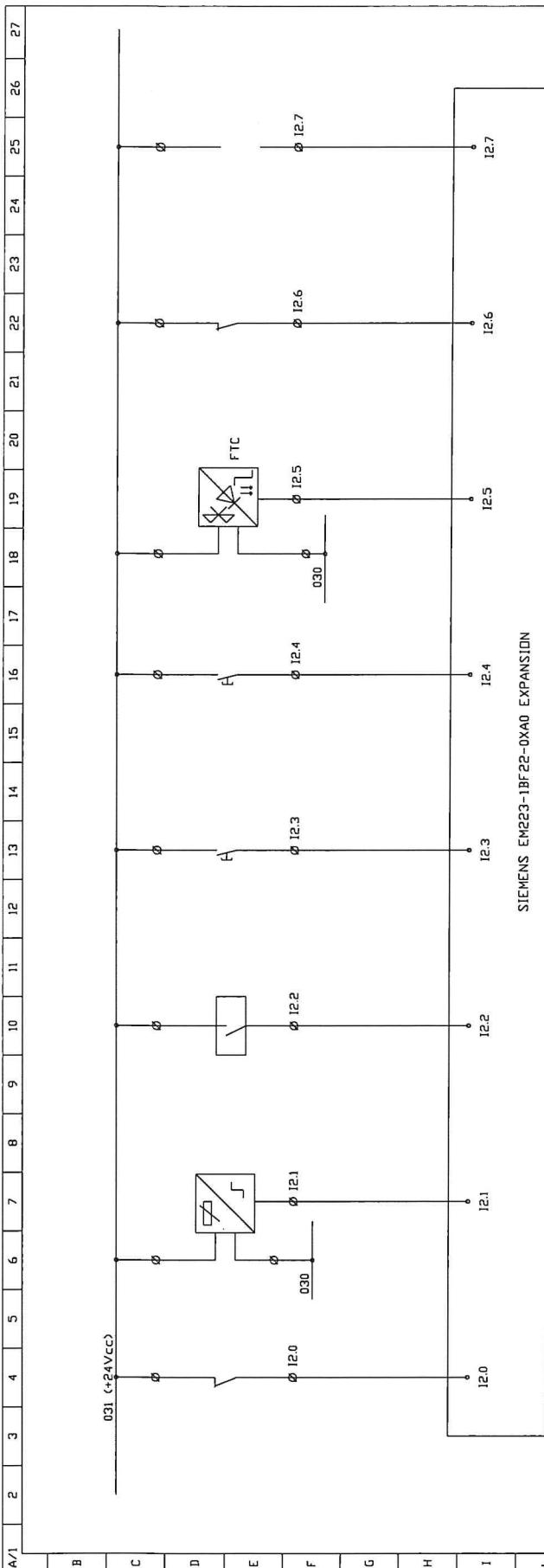




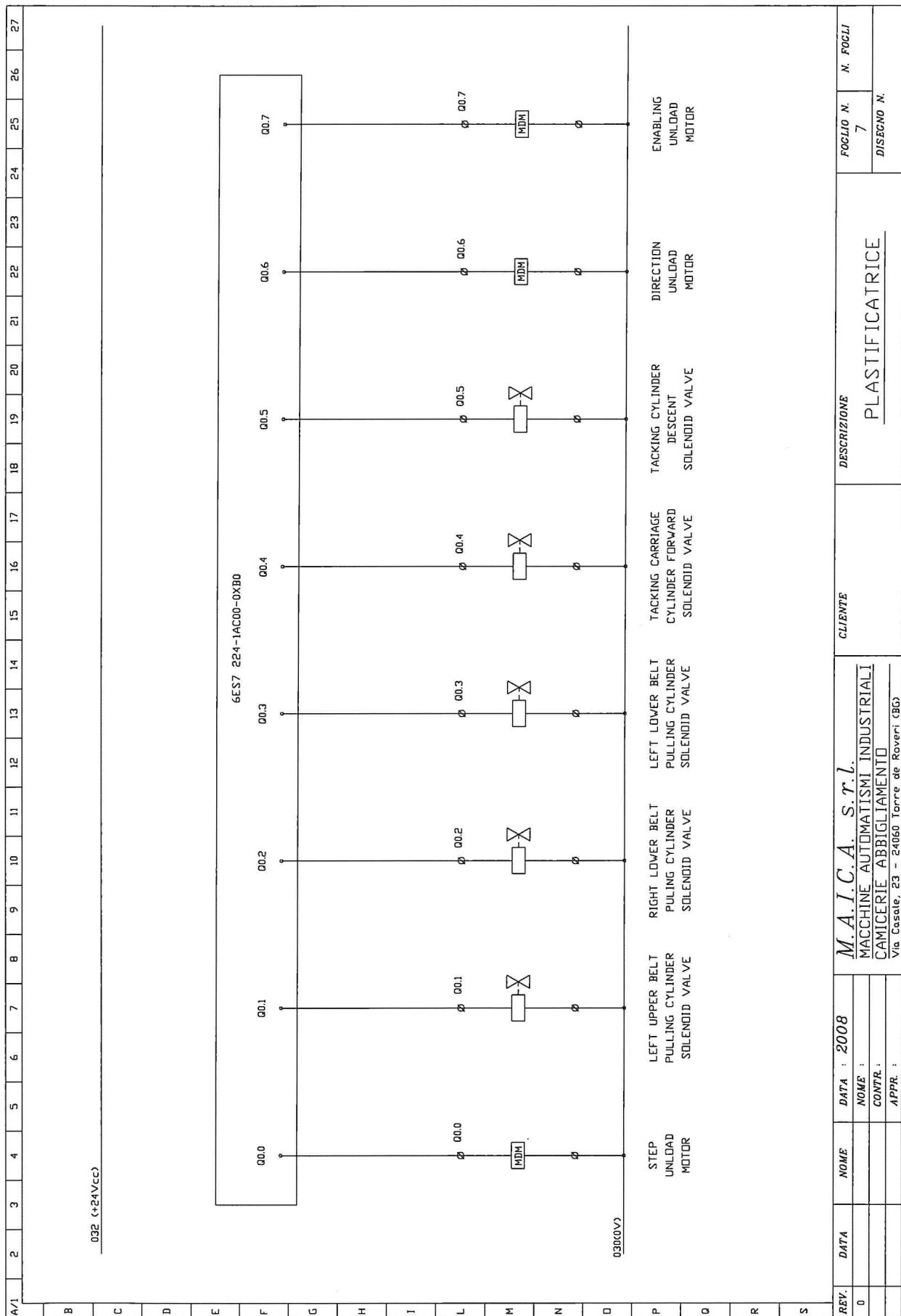




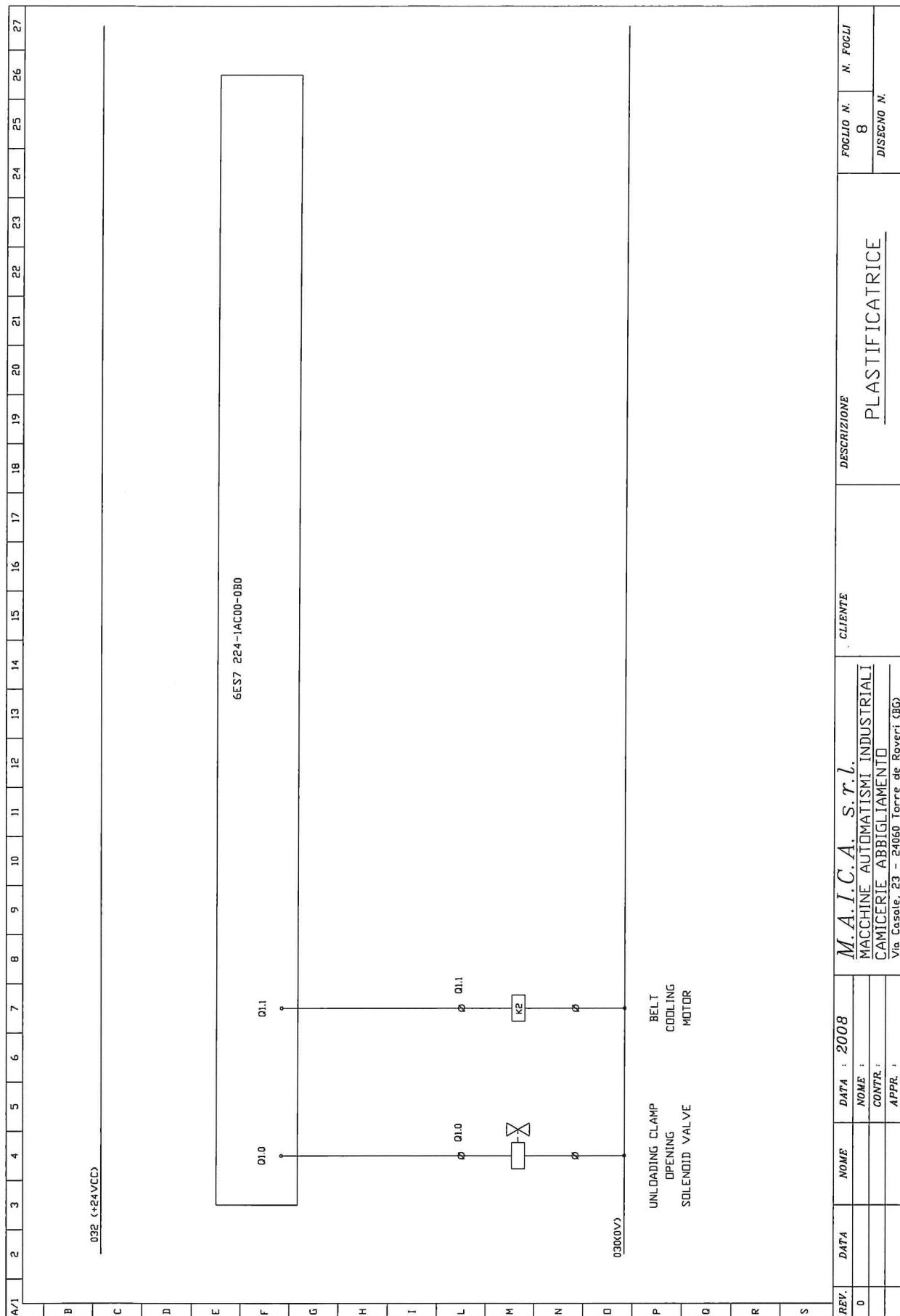
030 (0v)		POINT (D) UNLOADER HIGH LIMIT SWITCH		AVAILABLE UNLOADING START PHOTOCELL LIMIT SWITCH		AVAILABLE UNLOADING START PHOTOCELL		BELT'S LIMIT ON RIGHT LIMIT SWITCH		DESCRIZIONE <u>PLASTIFICATRICE</u>		FOGLIO N. 5 DI SECONDO N.		
P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D
POINTER HIGH LIMIT SWITCH	POINT (D) UNLOADER HIGH LIMIT SWITCH	AVAILABLE UNLOADING START PHOTOCELL LIMIT SWITCH	AVAILABLE UNLOADING START PHOTOCELL	AVAILABLE UNLOADING START PHOTOCELL LIMIT SWITCH	MACCHINE AUTOMATISMI INDUSTRIALI CASICERIE ABBIGLIAMENTO Via Cesate, 23 - 24050 Torre de Roveri (BG)	M.A.I.C.A. S.r.l. MACCHINE AUTOMATISMI INDUSTRIALI CASICERIE ABBIGLIAMENTO Via Cesate, 23 - 24050 Torre de Roveri (BG)	CLIENTE	DESCRIZIONE	FOGLIO N. 5 DI SECONDO N.	N. FOGLIO	N. FOGLIO			



REV.	DATA	NOME	DATA :	M.A.I.C.A. S.r.l.	CLIENTE	DESCRIZIONE	FOLIO N.	N. FOGLI
0			2008	MACCHINE AUTOMATISM INDUSTRIALI CASICERIE ABBIGLIAMENTO		PLASTIFICATRICE	6	
				Via Casale, 23 - 24060 Torre de Roveri (BG)			DISEGNO N.	

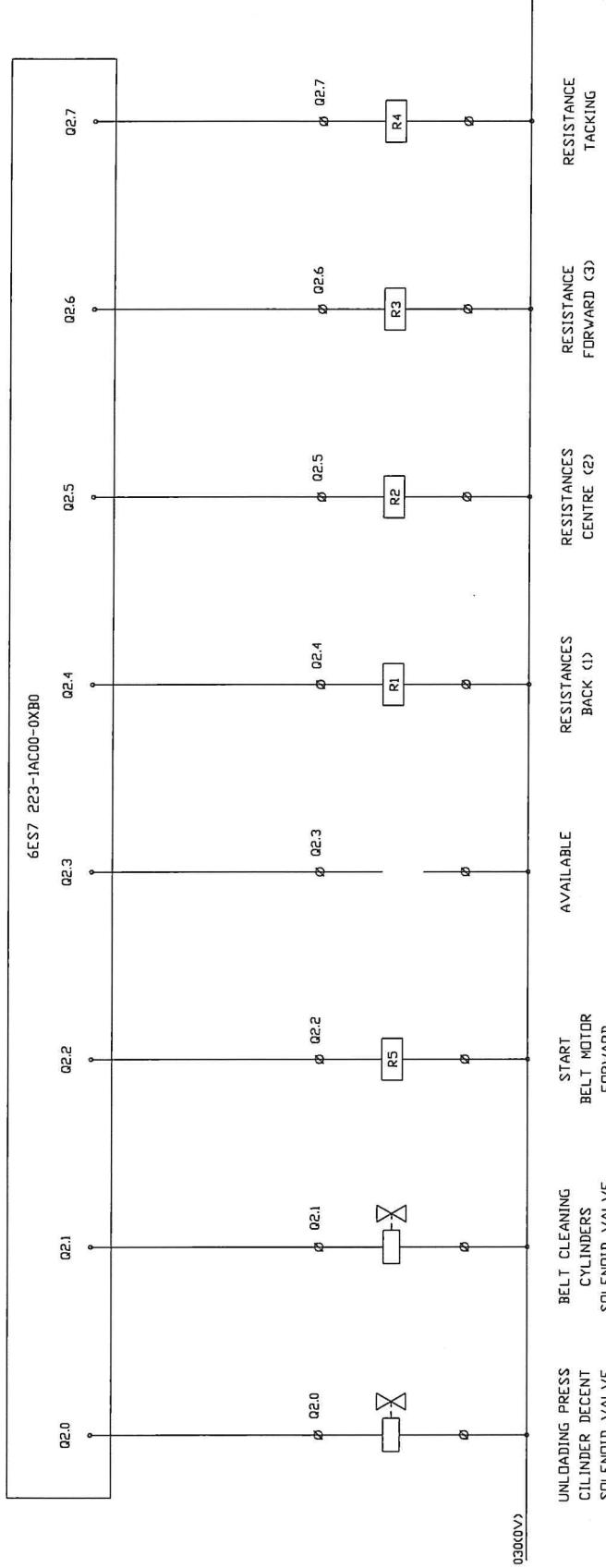


REV.	DATA	NOME	DATA :	M.A.I.C.A. S.r.l.	DESCRIZIONE	FOGLIO N.	N. FOGLI
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				CONTR. : APPR. :		DISCENDO N.	
					PLASTIFICATRICE		



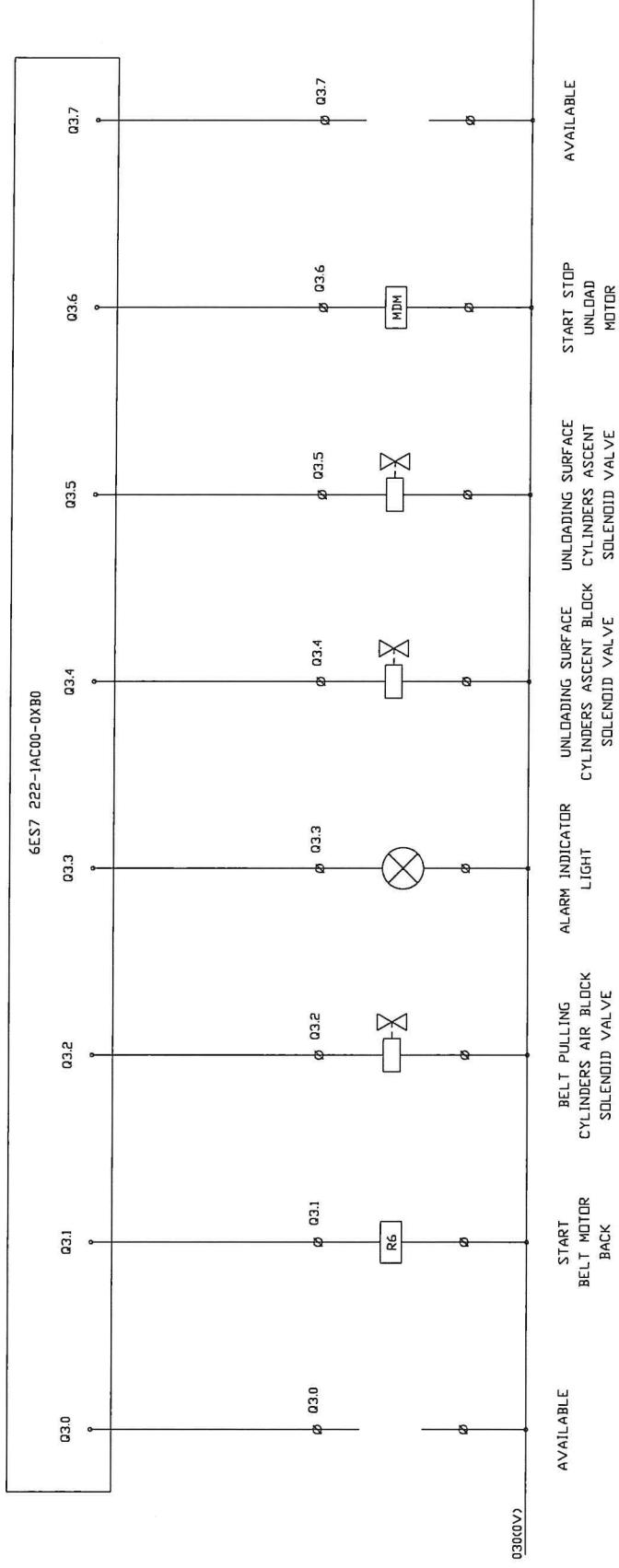
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REV.	DATA	NOME	DATA :	M.A.I.C.A. S.r.l.	DESCRIZIONE	FOGLIO N.	N. FOGLI
0				NAME : MACCHINE AUTOMATISM INDUSTRIALI CASICERIE ABBIGLIAMENTO		9	
				CONTR. : Via Casale, 23 - 24060 Torre de Roveri (BG)			
				APPR. :			
							DISEGNO N.
					PLASTIFICATRICE		

	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
A ₁₁	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



REV.	DATA	NOME	DATA :	M. A. I. C. A. S. r.l.	CLIENTE	DESCRIZIONE	FOGLIO N.	N. FOGLI
0				NAME : MACCHINE AUTOMATISM INDUSTRIALI CAMICERIE ABBIGLIAMENTO			10	
				CONTR. : APPR. :				
				Via Casale, 23 - 24060 Torre de Roveri (BG)				
						PLASTIFICATRICE	DISEGNO N.	