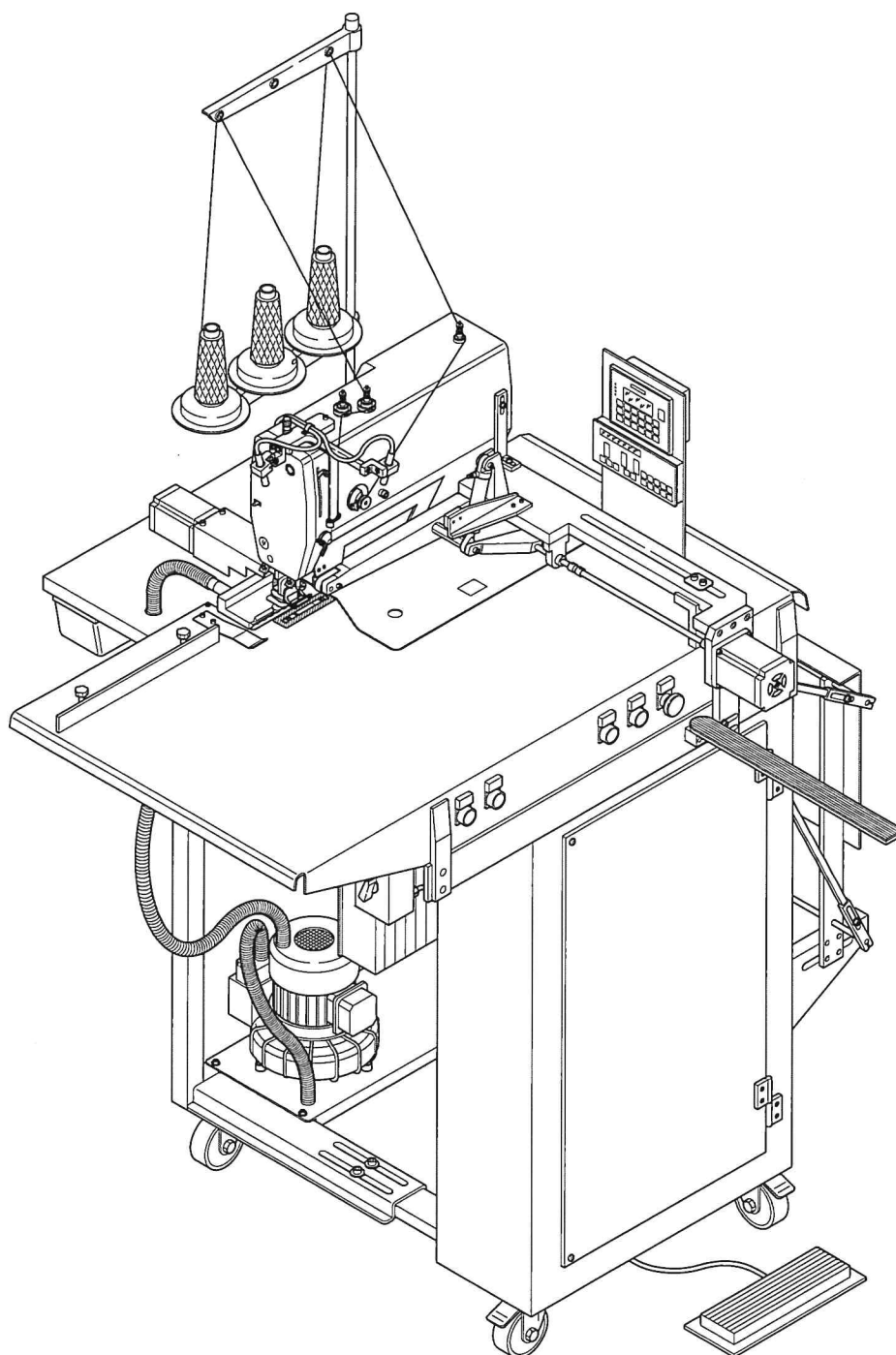


AUTOMATED DEVICE FOR BUTTON HOLING mod. MA 04



Instructions for use and maintenance





Macchine Automatismi Industriali Camicerie Abbigliamento

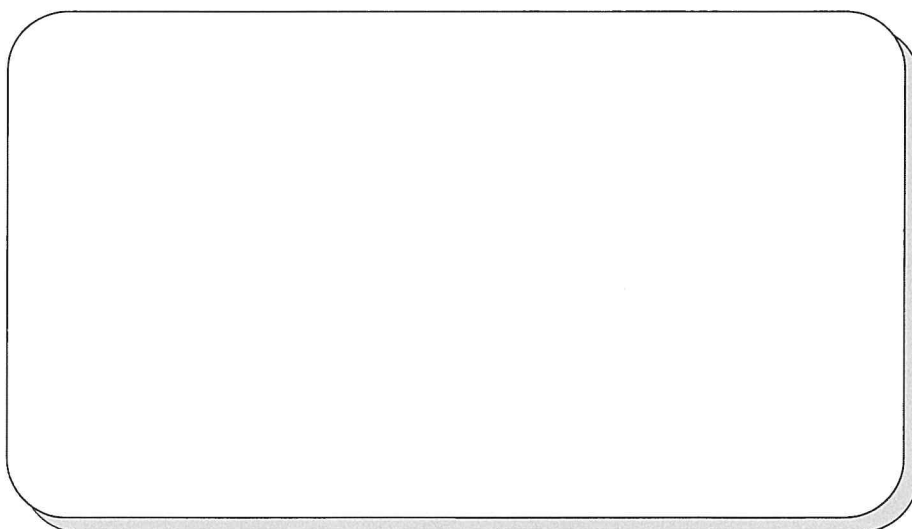
Via Casale, 23 - 24060 Torre de' Roveri (Bergamo) - ITALY

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 **mod. MA 04 automated device for button holing**, 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)

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

01 - GENERALITIES

CHARACTERISTICS AND FIELD OF APPLICATION

This new model MA 04 is a device to perform buttonholes on shirts and has been designed by MAICA to make the buttonhole operation faster.

It is based on a patented system of a self-levelling guide that allows perfect alignment of the fabric during stitching.

The guide is controlled by a motor that allows the operator to perfectly centre the stitching of the buttonholes on the shirt.


There is also the option of performing the buttonholes at a specific distance, even with different sizes for each buttonhole.

The progress of the fabric between one buttonhole and another is performed by a motorised conveyor. At the end of the stitching, a stacker raises the piece which therefore allows one person to follow two or three stitching units.

ADVISED USE

The automatic MA 04 device is **only to be used to make button holes on shirts**.

The manufacturer cannot be held liable for any damage to persons or property arising from the incorrect use of this machine or any use differing from the instructions indicated in this manual.

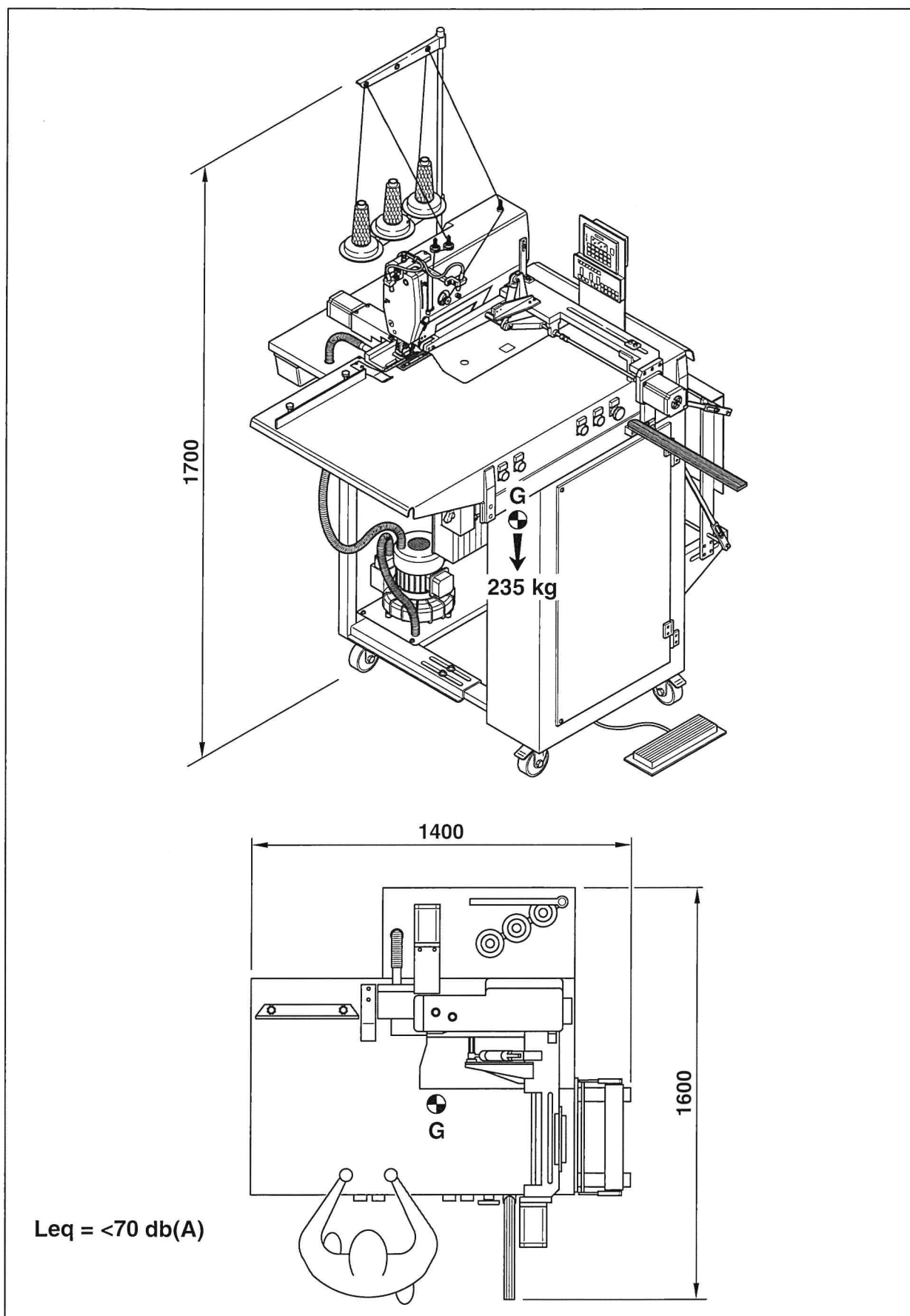
The  symbol indicates there exists a risk or danger for the health of the operator and, therefore, much care must be taken at this point.

The machine is equipped with a sewing unit with moving needles and blades. Be very careful when touching these parts.

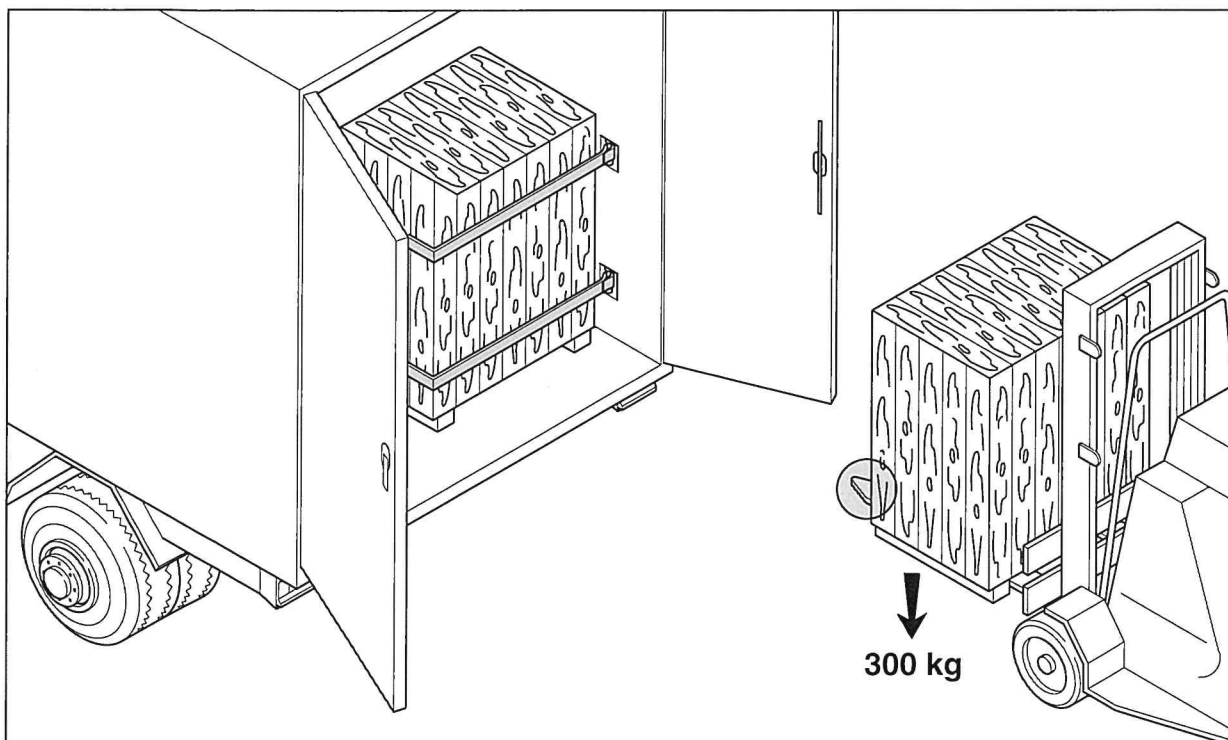
Always disconnect the machine from the mains supply, the compressed air supply and wait for the ironing parts to cool down before undertaking any adjustment, replacement or maintenance work.

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

02 - AUTOMATIC DEVICE mod. MA 04 TECHNICAL DATA

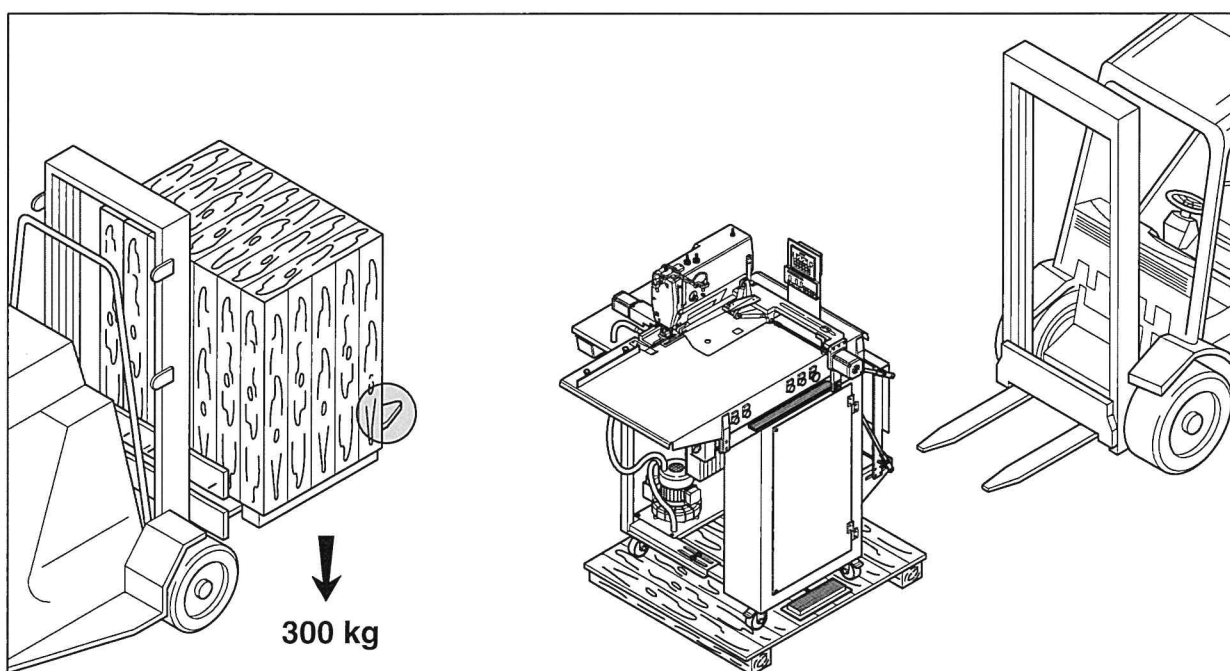


03 - LIFTING AND TRANSPORTATION



The mod. MA 04, 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. To move using a fork-lift truck, place the forks under the machine with the side of the MA 04 facing the fork-lift truck. 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 side facing the fork-lift truck, as in the figure above.
Place on a solid and even surface, not exposed to the weather.

05 - INSTALLATION

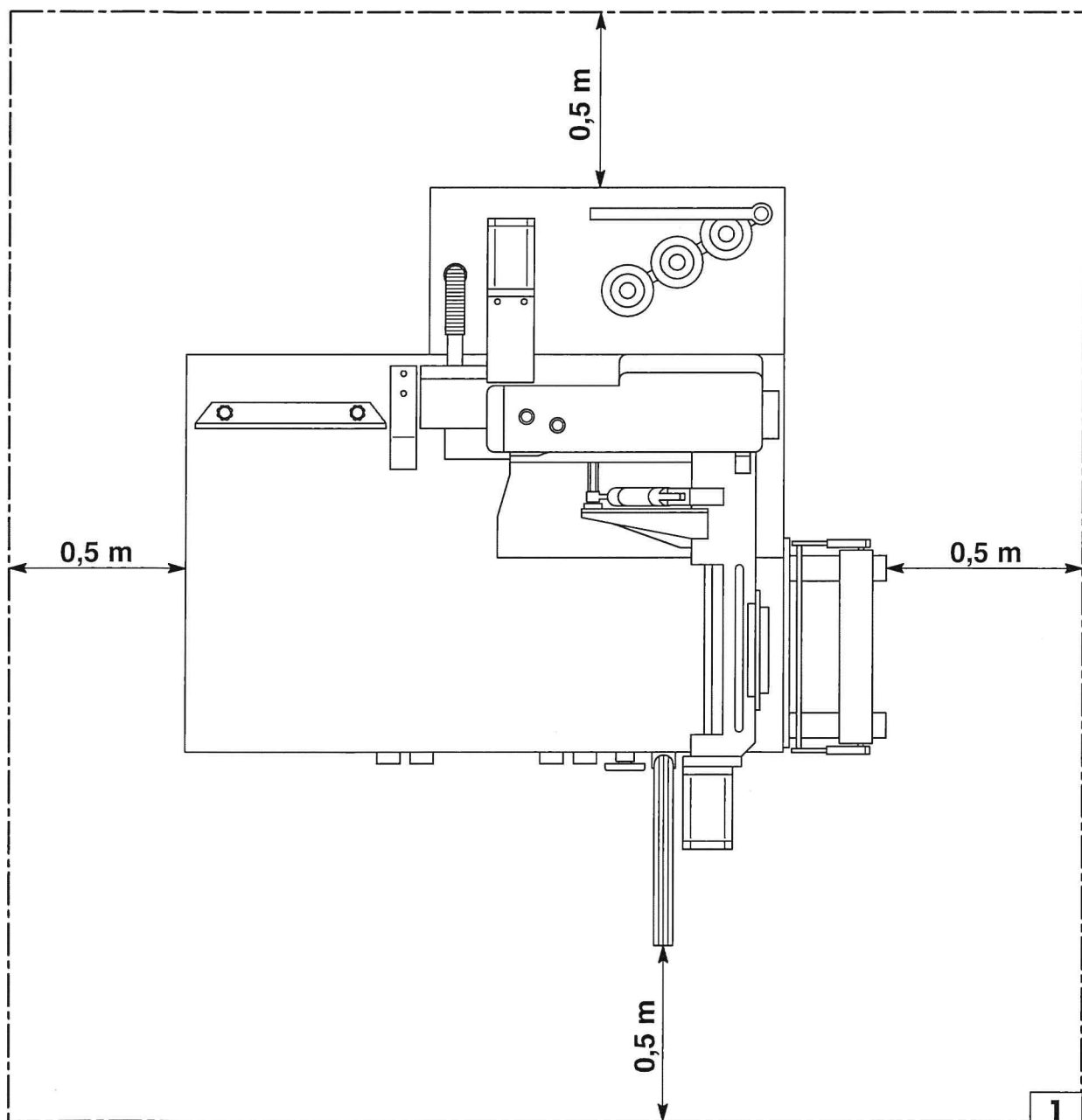
ATTENTION: This machine must only be installed by specialized personnel.

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.



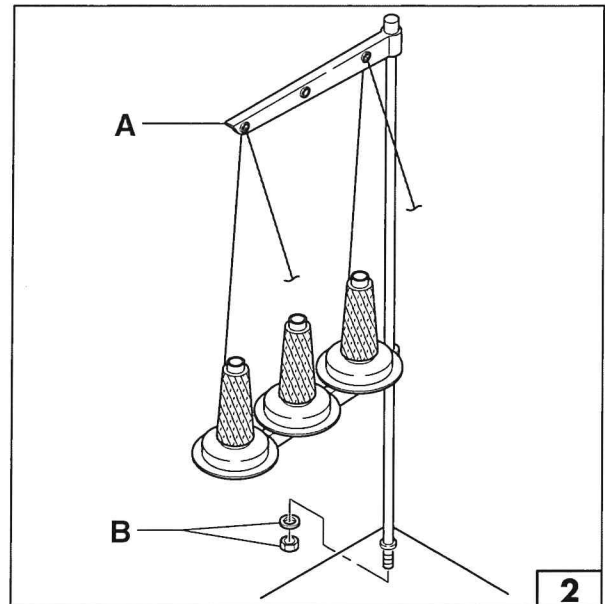
If the machine is installed on a suspended surface, check that the surface can withstand the weight of the machine. This machine must not be installed in areas where there are explosive or inflammable materials and substances.

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

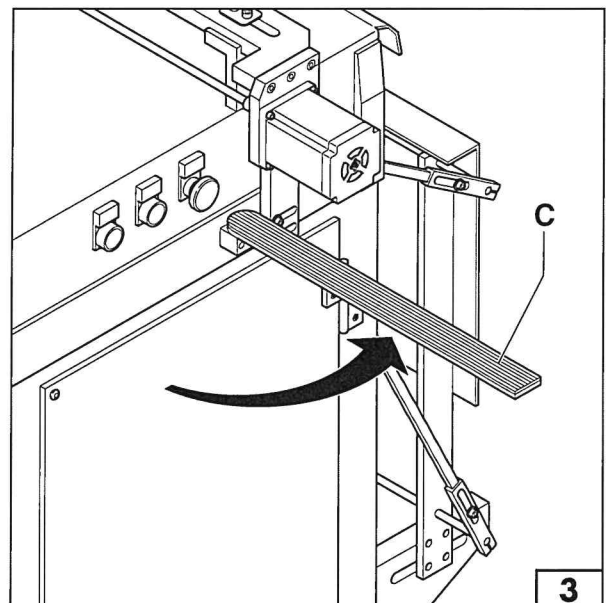


For easier shipping, the machine is delivered with the thread carriage unit removed:

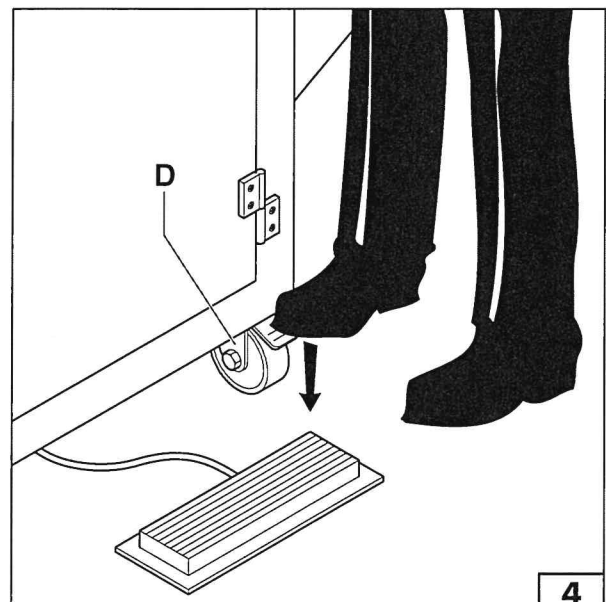
Assemble unit "A" using the washer and fastening nut "B" (fig. 2).



Rotate the fabric carriage arm "C" outwards (fig. 3).



The machine must be placed on a solid and flat surface, lock the wheels "D" (fig. 4) to stabilise it.



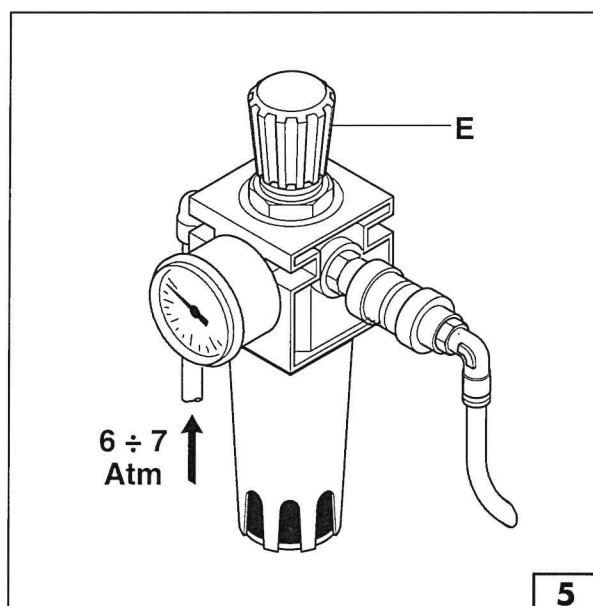
ELECTRICAL CONNECTIONS

The machine is usually delivered with the power cable wired inside the electrical panel.

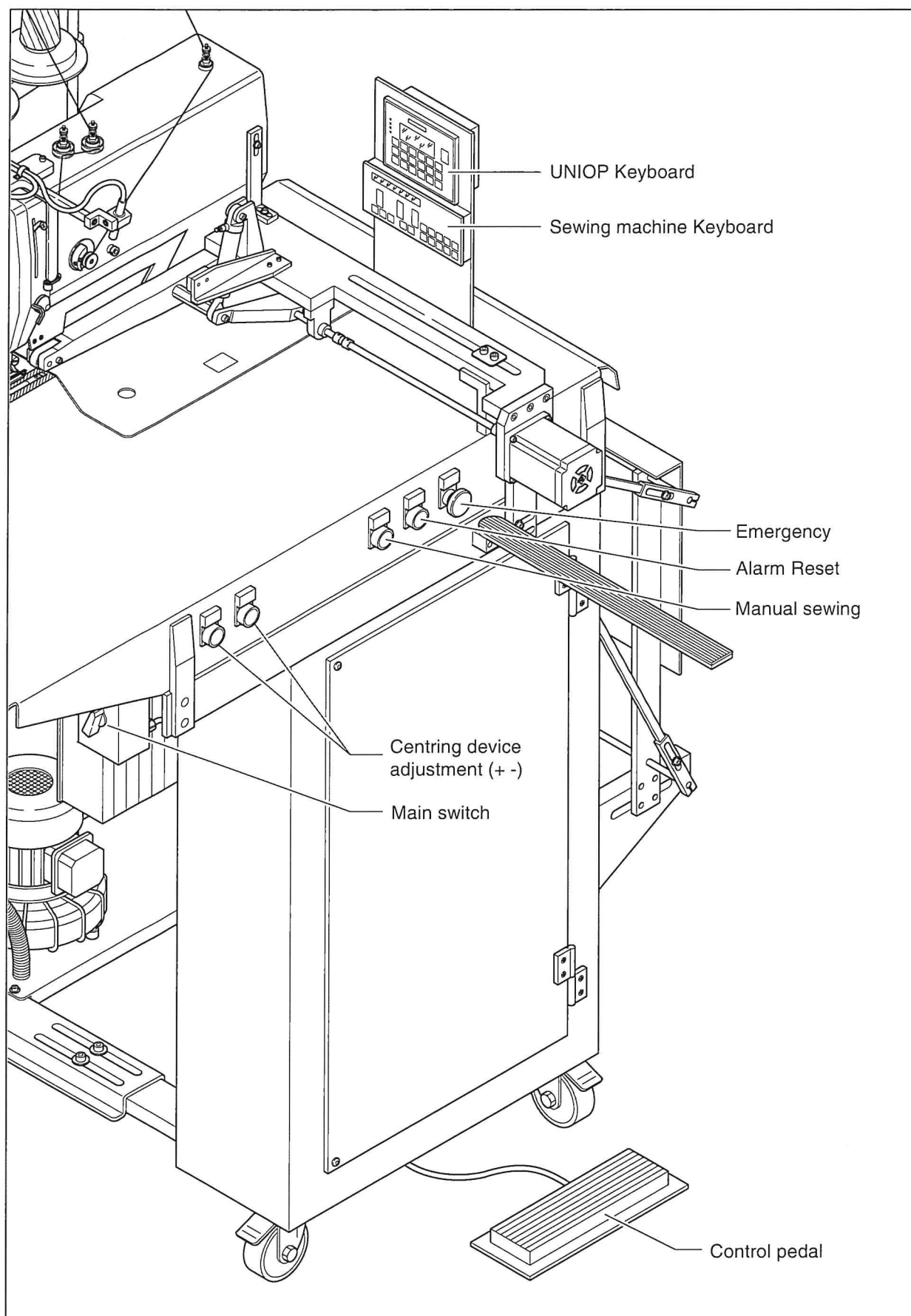
Therefore, all that needs to be done is to connect it to a 220V-50Hz.

PNEUMATIC CONNECTION

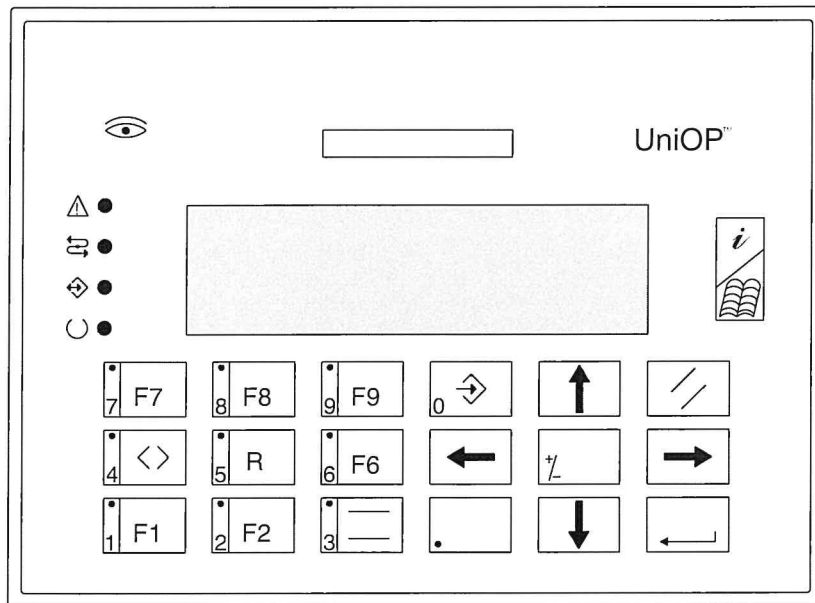
- Connect the machine to the compressed air outlet and make sure that the air flow is sufficient to allow for operation with a constant rate of pressure of $6 \div 7$ Atm.
- Calibrate pressure regulator "E" at between $6 \div 7$ Atm (fig. 5).



06 - MACHINE CONTROLS



UNIOP KEYBOARD FUNCTIONS AND SETTINGS

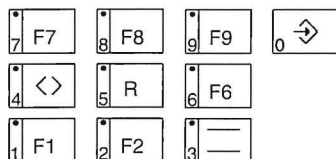


DATA REGULATION FROM KEYBOARD

- Use the keys to move to the page with the value to be edited.

- Press the key ; the value to be edited will blink.

- Enter the new value with the number keys:



- To delete, press the key .

- To confirm, press the key .

- If *** is displayed when finished, the entered value is not admitted.
Repeat the operation.

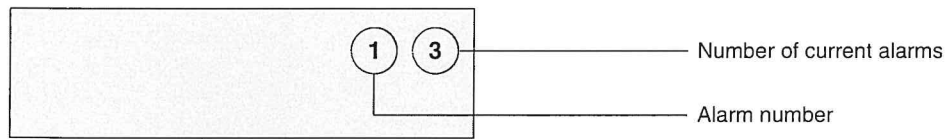
LED DISPLAY



- Led (3) equally sized button hole program on.
- Led (4) different sized button hole program on.
- Led (5) slot size does not match the set one.

WARNING: all operations are inhibited when an alarm is triggered.

ALARM CONTROL


- The keyboard with the current alarm will display the problem.
- If more than one alarm is triggered, the number of the alarm and how many alarms are triggered will be displayed.








- To display current alarms, press the keys  .

WARNING: all operations are inhibited when an alarm is triggered.

PIECE COUNT CONTROL

- The machine has an adjustable piece count; if the piece counter is set, the machine stops at the set number. If set to 0, the piece counter counts without stopping the machine.
- Press F1 to reset the counter .

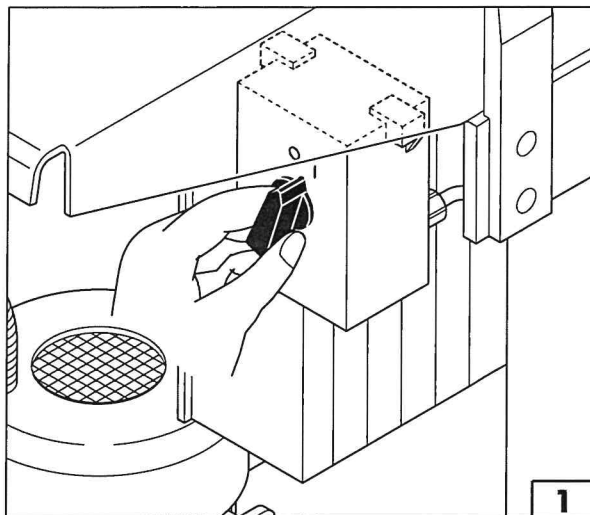
LANGUAGE CHANGE

- Use the keys   to move to the "select languages" page.
- Press the keys   to select the required language.
- Return to the previous page by pressing the key .

07 - OPERATION

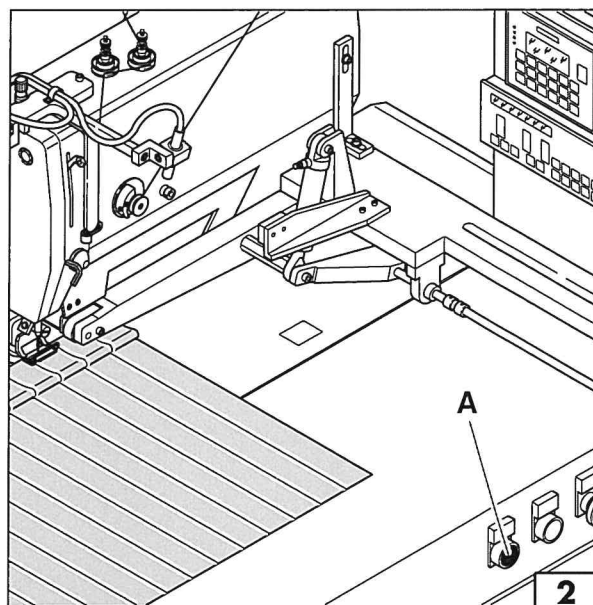
STARTUP

- Turn the main switch to I (fig. 1).

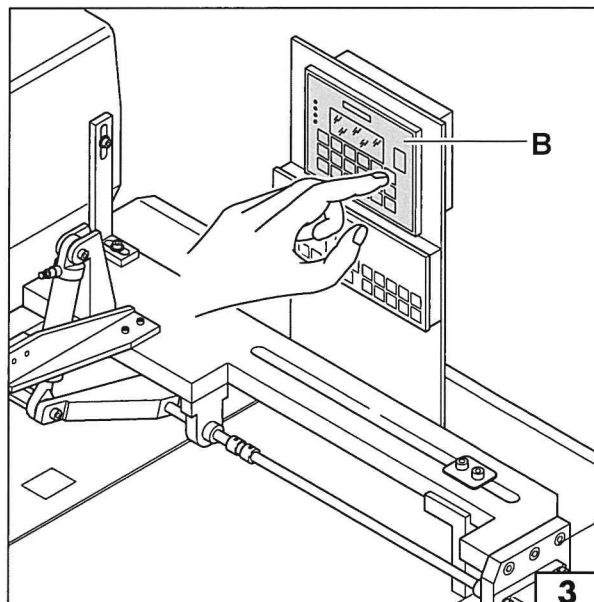


- Select the button hole sewing program referring to the sewing machine manual.

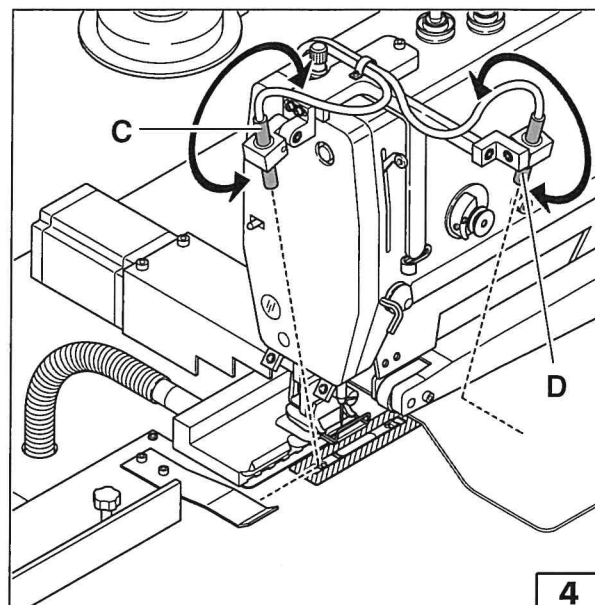
To check, place fabric in the sewing area and press the manual sew button "A" to create a sample hole (fig. 2).



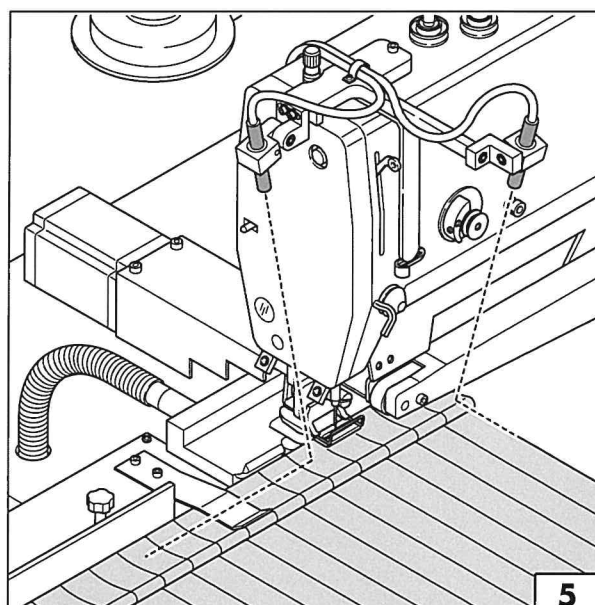
- Use the UNIOP "B" (fig. 3) keyboard to set slot width, the distance between holes and the number of holes to be sewn (see pages 10-11).



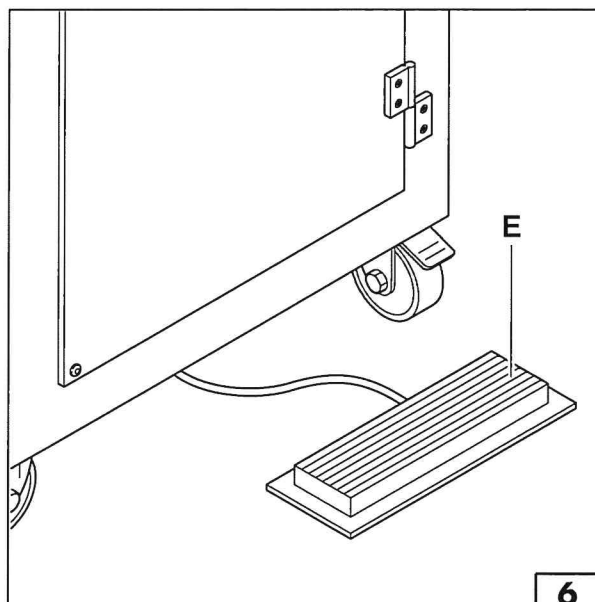
- There are two laser pointers on the sewing head to correctly position the slot. If necessary, adjust the centring laser position "C", which must be in line with the sewing head needle and adjust slot starting laser "D" based on the starting point of the first button hole (fig. 4).



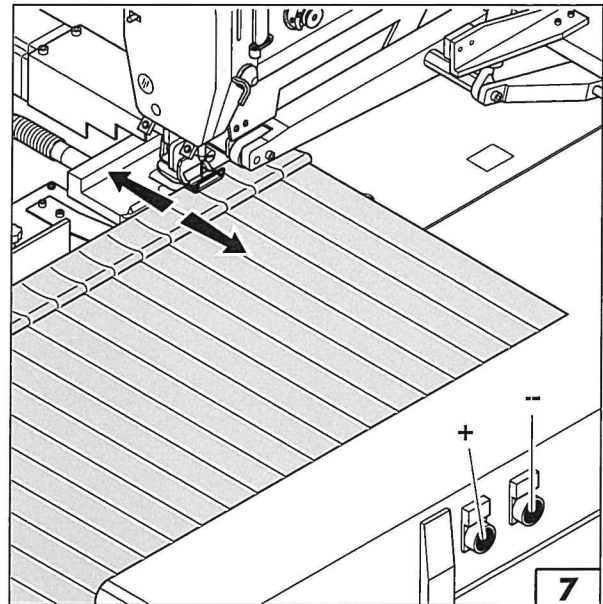
- Place fabric in the sewing area aligning it to the laser rays (fig. 5).



- Press the control pedal "E" (fig. 6) once to suck the fabric under the sewing head.

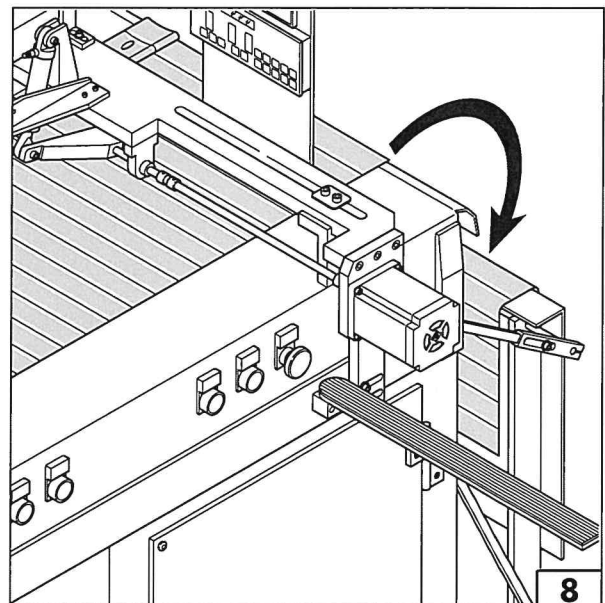


- Use the "+" and "-" (fig. 7) keys to further adjust hole centring; each impulse equals one movement equal to 0.5 mm.



- Press the control pedal "E" (fig. 6) again to start the work cycle.

The button hole sewing and cutting sequence is started according to initial settings; completed pieces are automatically unloaded and stacked (fig. 8).



THREADING THE MACHINE

Sewing is of the knotted stitch type.

Threading is the same as for a normal sewing machine (refer to the relative manual if necessary).

When threading it is advisable to press emergency pushbutton so that any movement of the sewing foot and relative needle is disabled.

08 - ADJUSTMENTS



Always disconnect the machine from the mains supply and the compressed air supply before undertaking any adjustment, replacement or maintenance work.

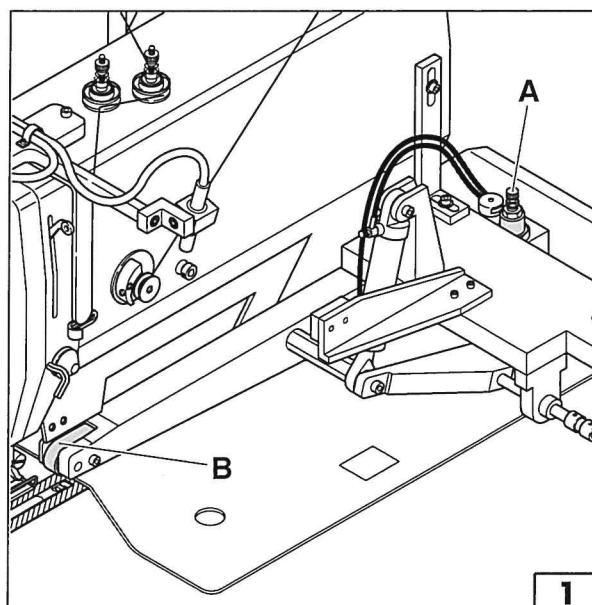
The operations described below must only be carried out by specialized personnel.

STACKER ADJUSTMENT

To adjust the stacker, set the "Stacker Start" values as described in paragraph *"Keyboard functions and settings"* (pages 10-11)

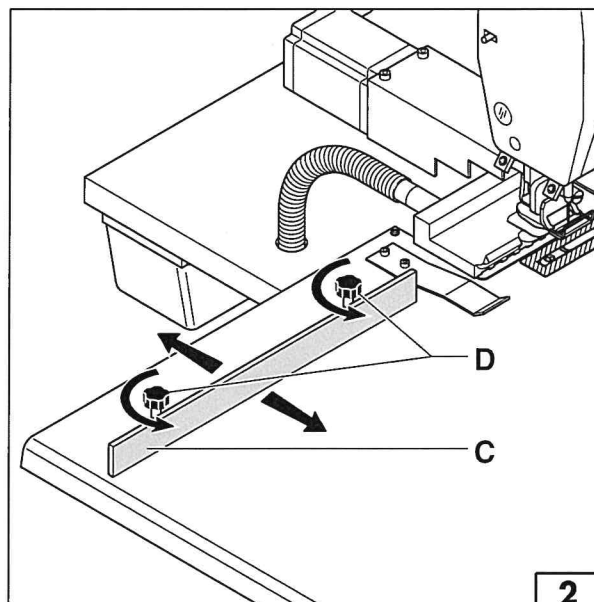
BELT PRESSURE ADJUSTMENT

Use regulator "A" to increase or decrease pressure on the fabric conveyor belt "B" (fig. 1).



FABRIC ALIGNMENT GUIDE ADJUSTMENT

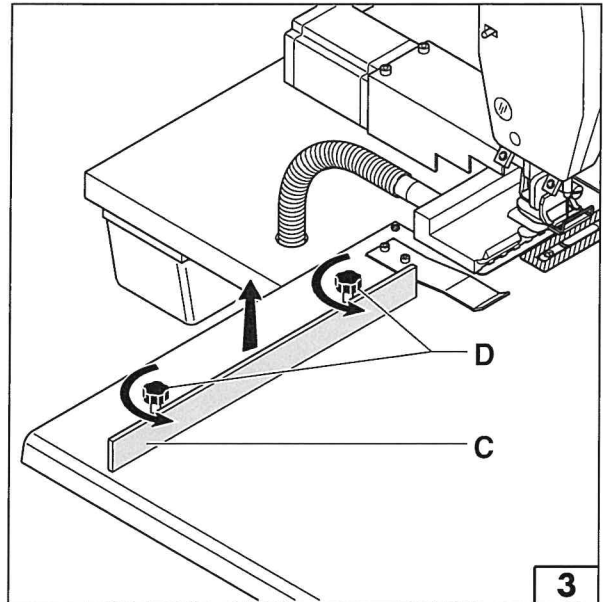
For perfect fabric alignment, adjust the position of the guide "C" using the hand wheels "D" (fig. 2).



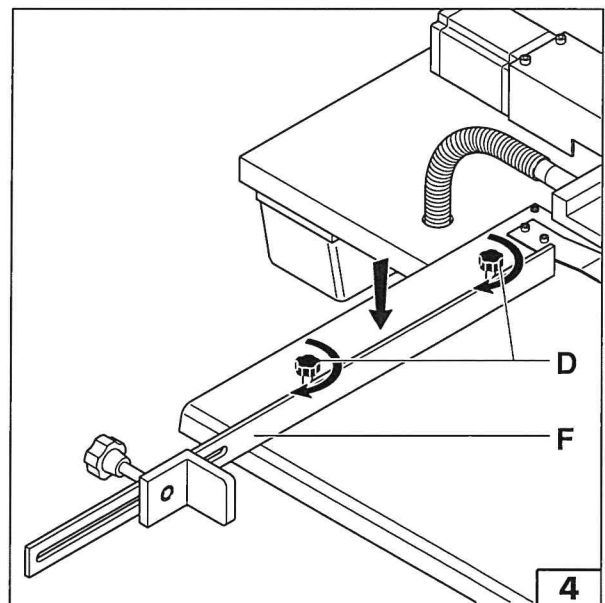
WOMEN'S SHIRT GUIDE

The machine is supplied with a fabric alignment guide to be used for women's shirts.

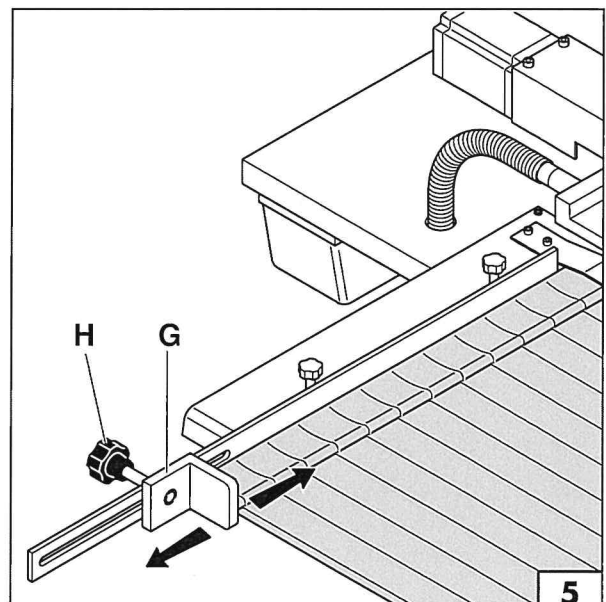
Unscrew the hand wheels "D" and remove the guide "C" (fig. 3).



Assemble the new guide "F" and secure it with hand wheels "D" (fig. 4).



Based on the process to be completed and the starting point of the first button hole, adjust the stop position "G" using the knob "H" (fig. 5).



STACKER ADJUSTMENT

To adjust the stacker, set the "Stacker Start" values as described in paragraph "Keyboard functions and settings" (page 10)

09 - MAINTENANCE



Always disconnect the machine from the mains supply and the compressed air supply before undertaking any adjustment, replacement or maintenance work.

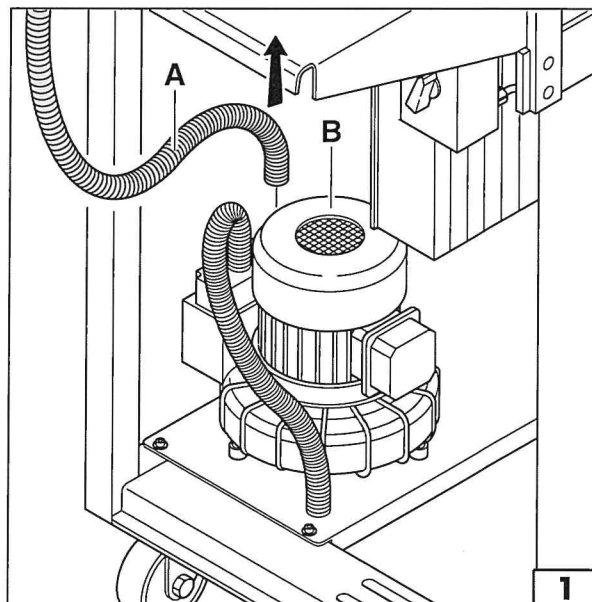
The operations described below must only be carried out by specialized personnel.

The mod. MA 04 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.

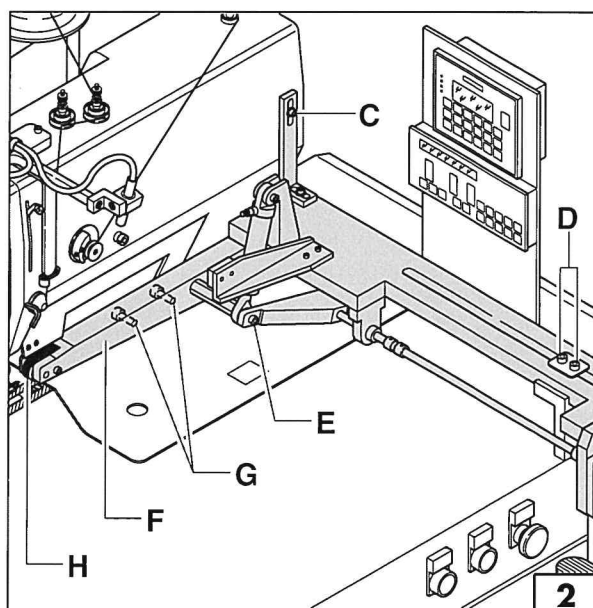
MOTOR CLEANING

- Periodically remove the tube "A" and clean the motor "B" using a jet of air (fig. 1)



REPLACING THE CONVEYOR BELT (FIG.2)

- Unscrew screw "C" and screws "D" to remove the driven belt unit.
- Remove the screw "E" and belt "F".
- Unscrew screws "G" and replace the belt "H".
- Assemble a new belt and repeat the previous operations in reverse order.



DEMOLITION

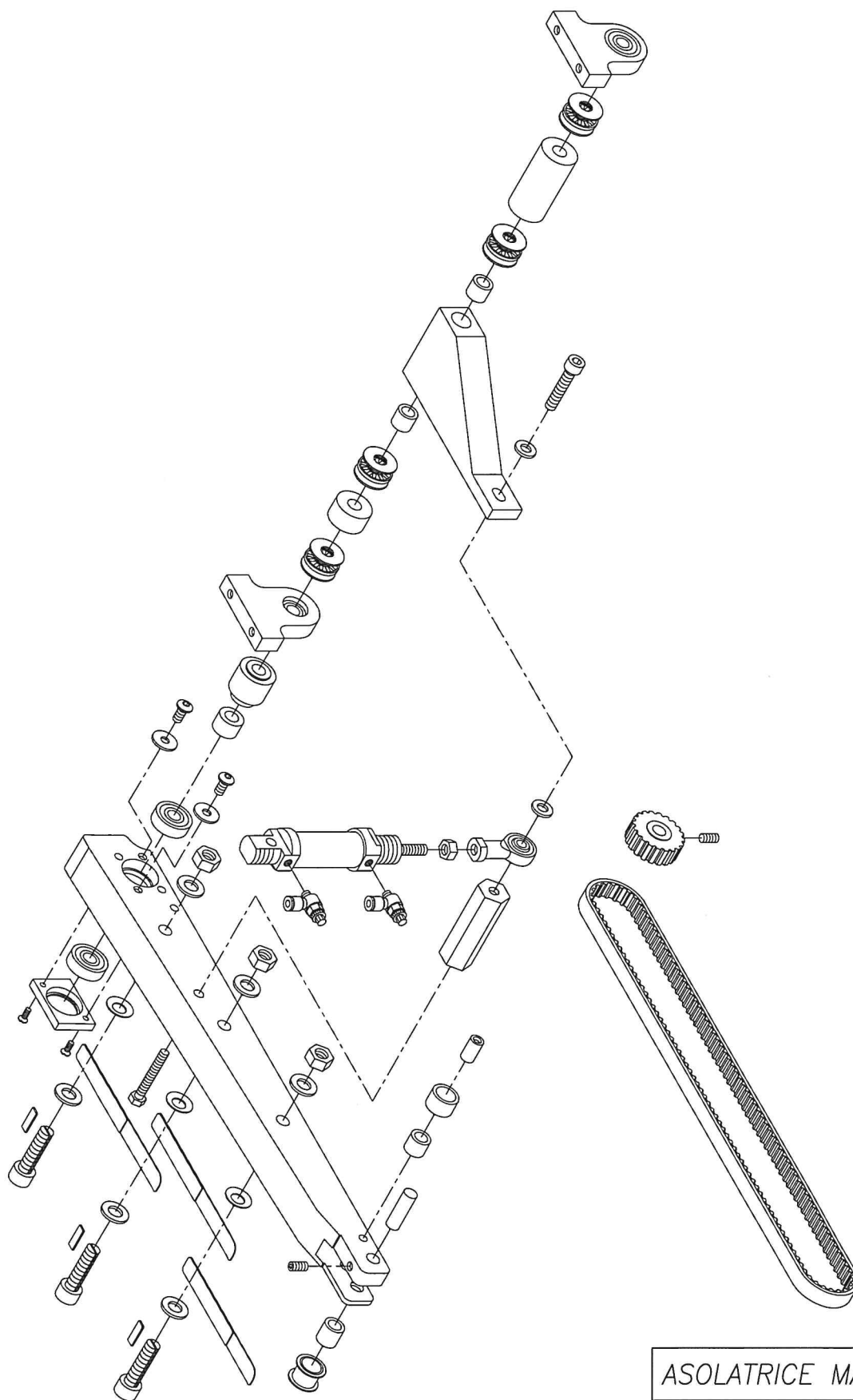
In case of machine demolition, separate the different materials making up the machine so that they can be shipped to designated collection sites for re-cycling.

11 - SPARE PART SHEETS

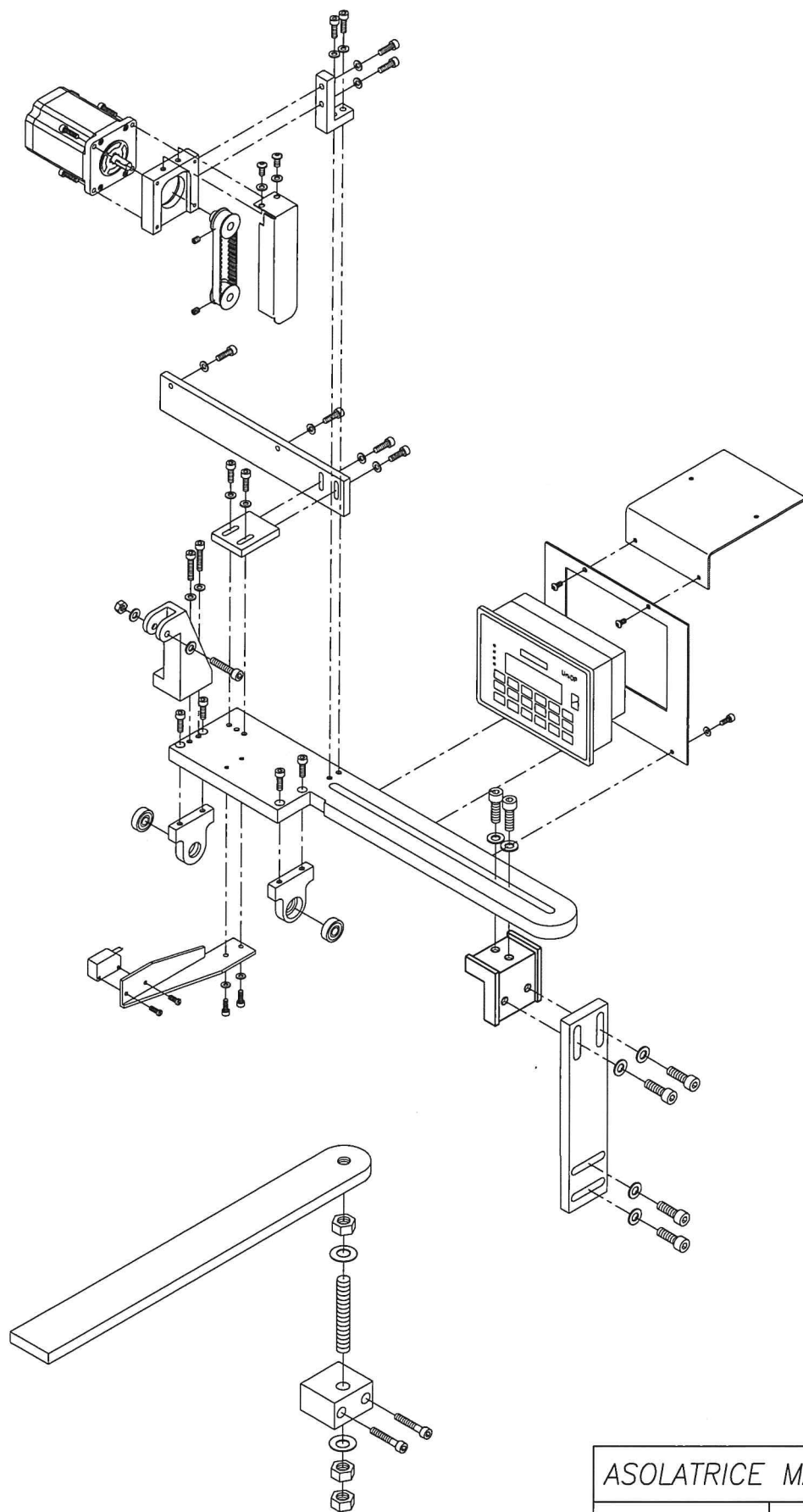
For prompt part identification, the following data must be provided:

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

Example: AUTOMATED DEVICE FOR BUTTON HOLLING mod. MCD Serial No. Code Table 1

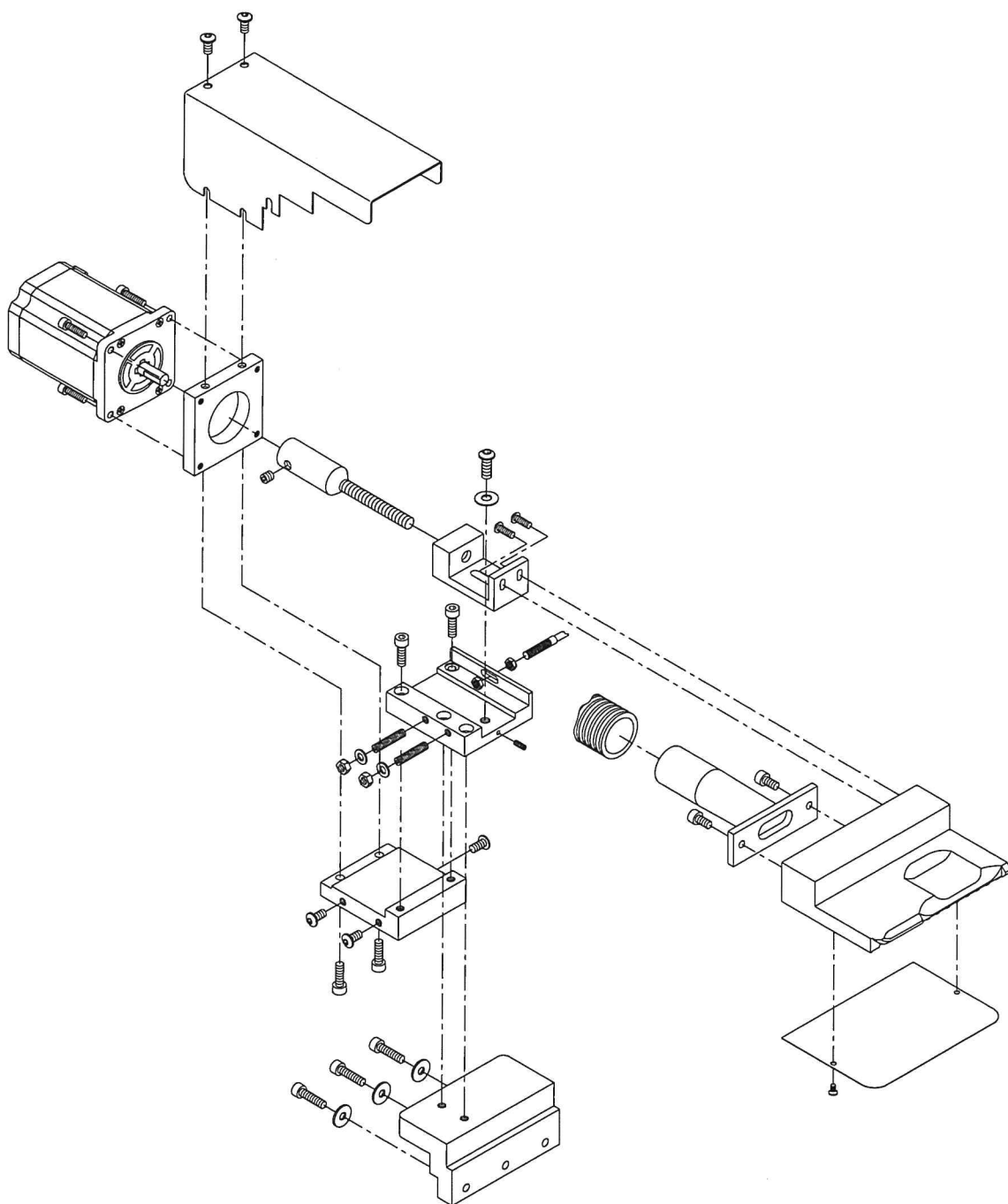


ASOLATRICE MA04	
M.A.I.C.A.	TAV. 1

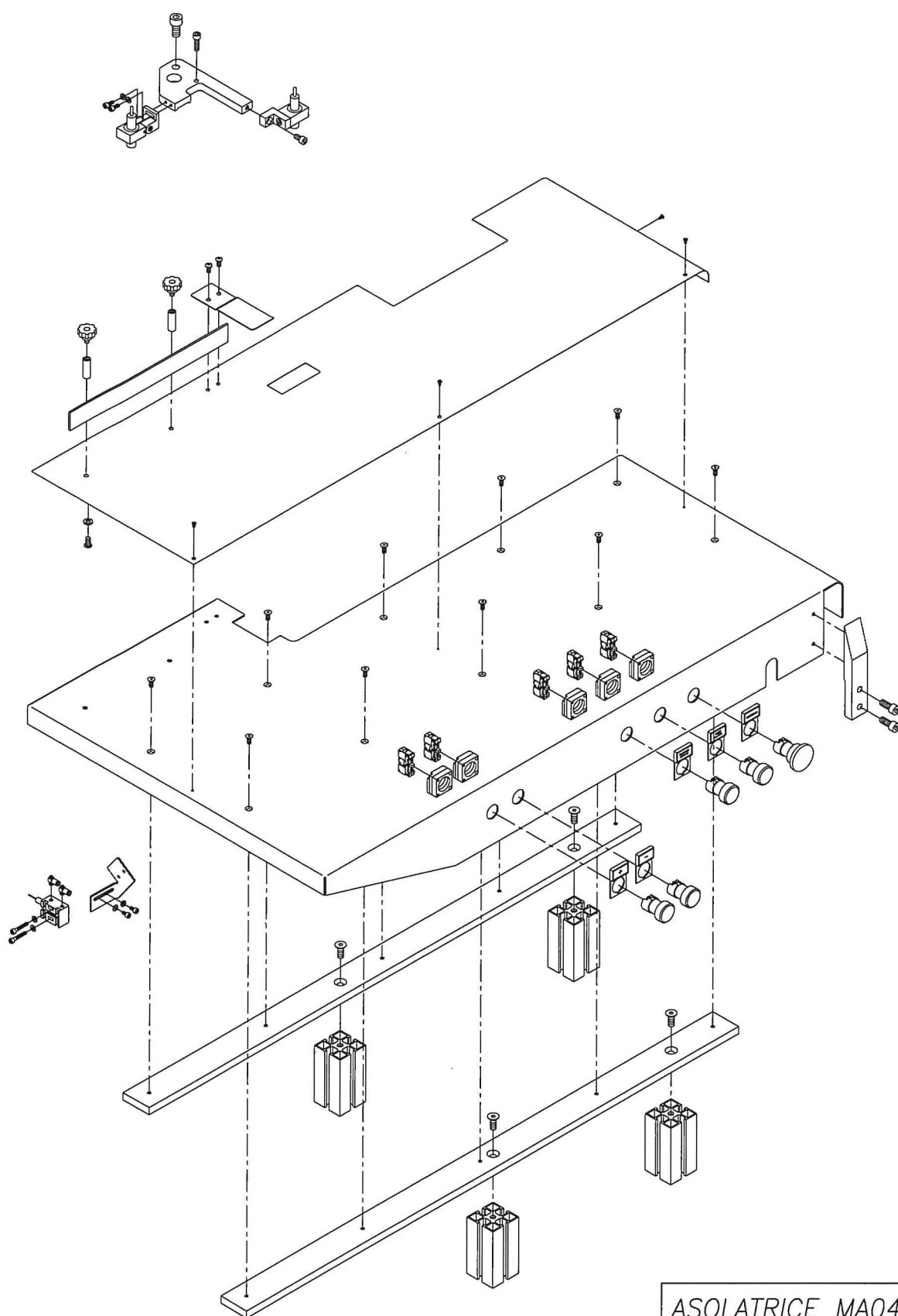


ASOLATRICE MA04

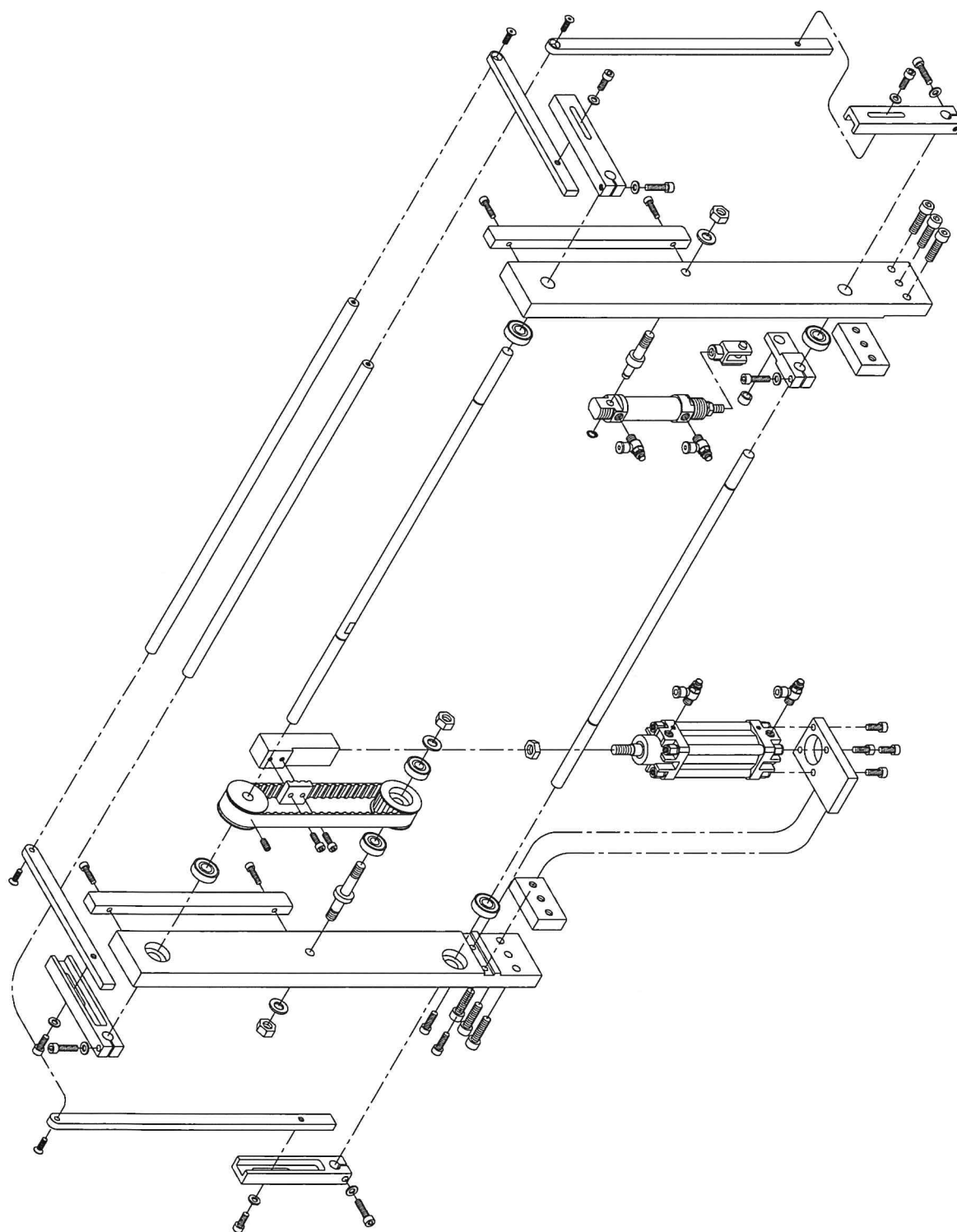
M.A.I.C.A. TAV.2



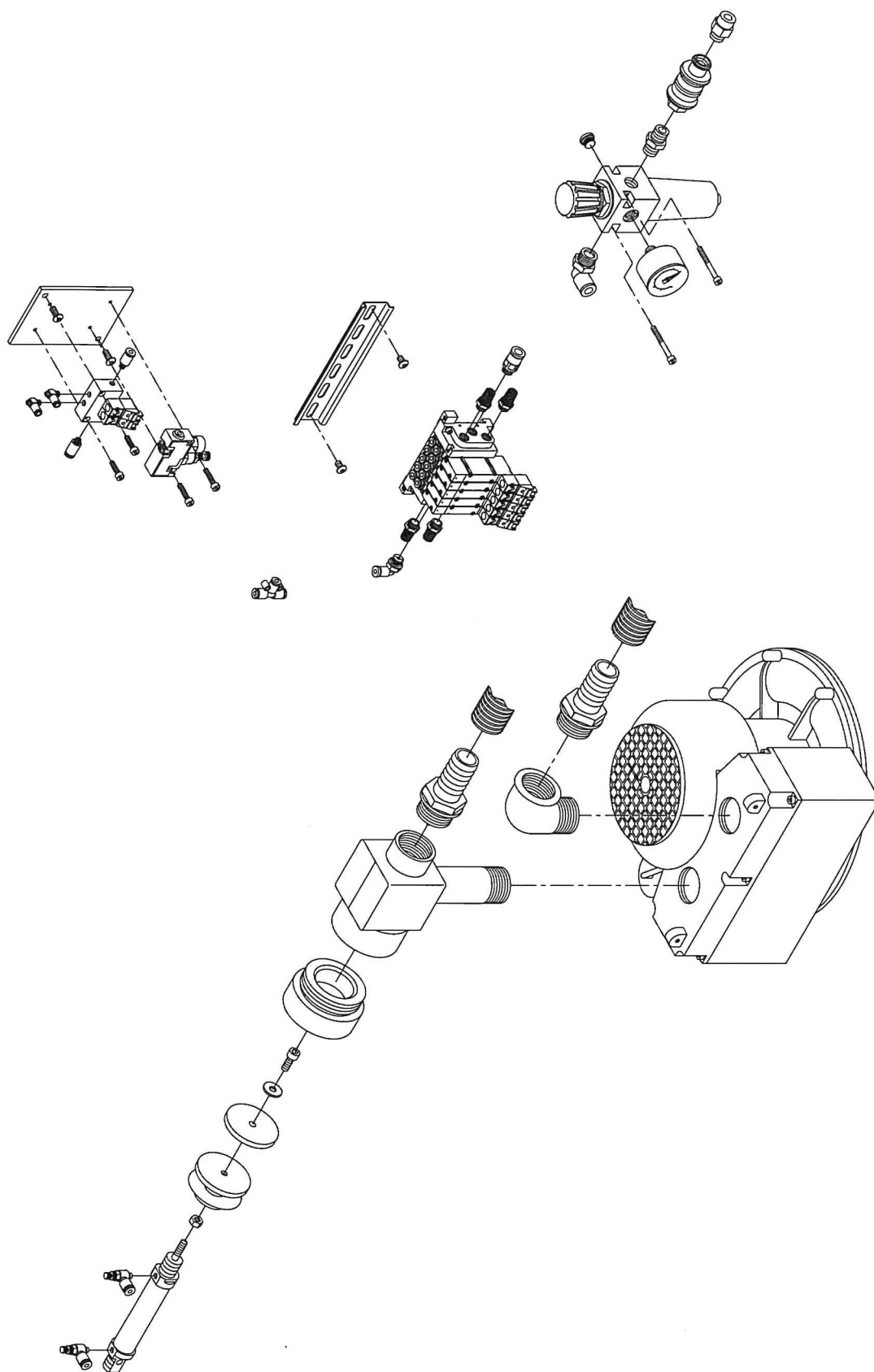
ASOLATRICE MA04	
M.A.I.C.A.	TAV.3



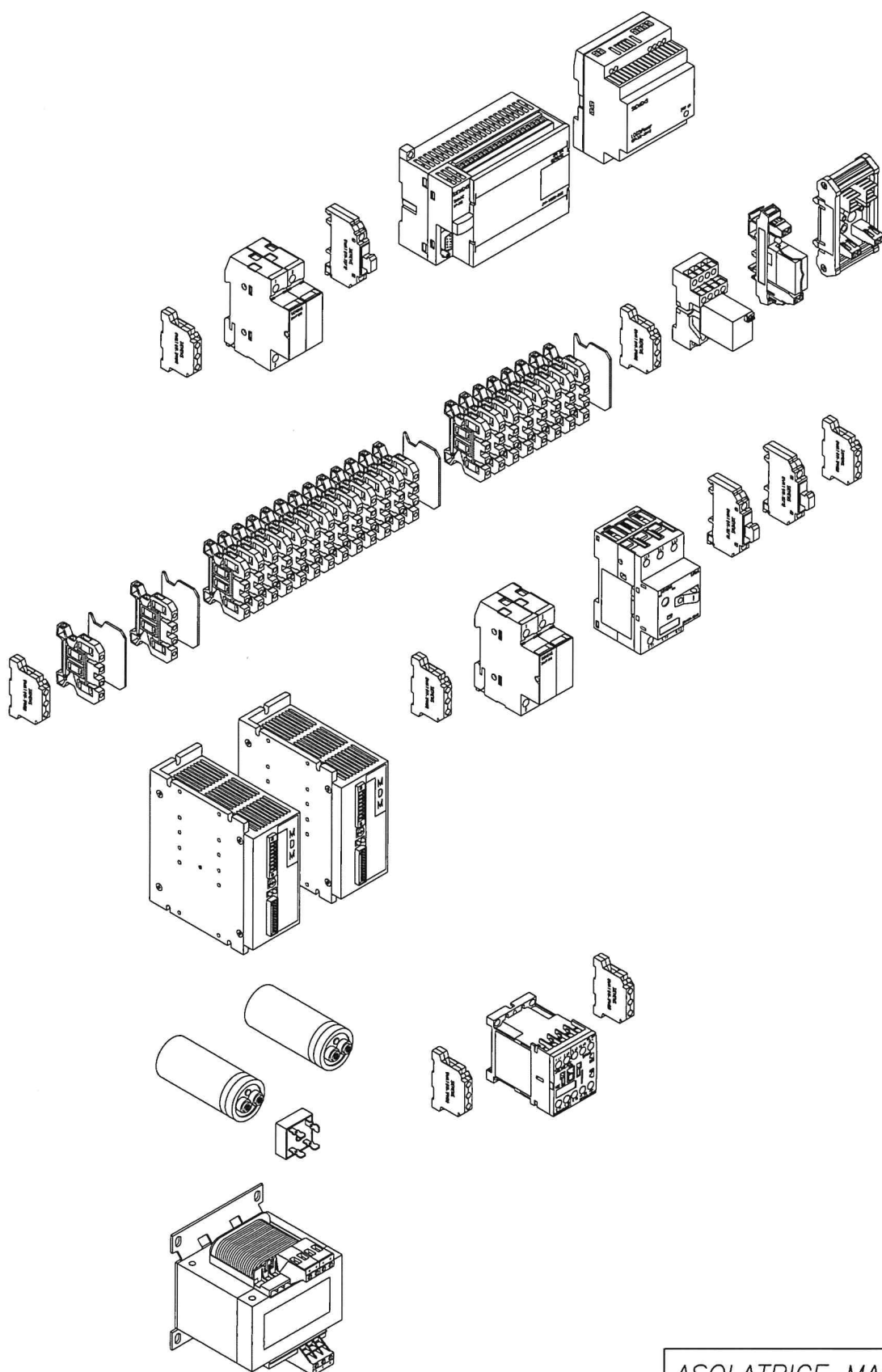
ASOLATRICE MA04	
M.A.I.C.A.	TAV. 4



ASOLATRICE MA04	
M.A.I.C.A.	TAV.5



ASOLATRICE MA04	
M.A.I.C.A.	TAV.6



ASOLATRICE MA04	
M.A.I.C.A.	TAV.7

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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			CONTR.	
			APPR.	

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

MACCHINE AUTOMATISMI INDUSTRIALI

CAMICERIE ABBIGLIAMENTO

Via Casale, 23 - 24050 Torre de Roverè (BG)

CLIENTE

DESCRIZIONE

ASOLATRICE X DAVANTI

FOGLIO N.

1

N. FOGLI

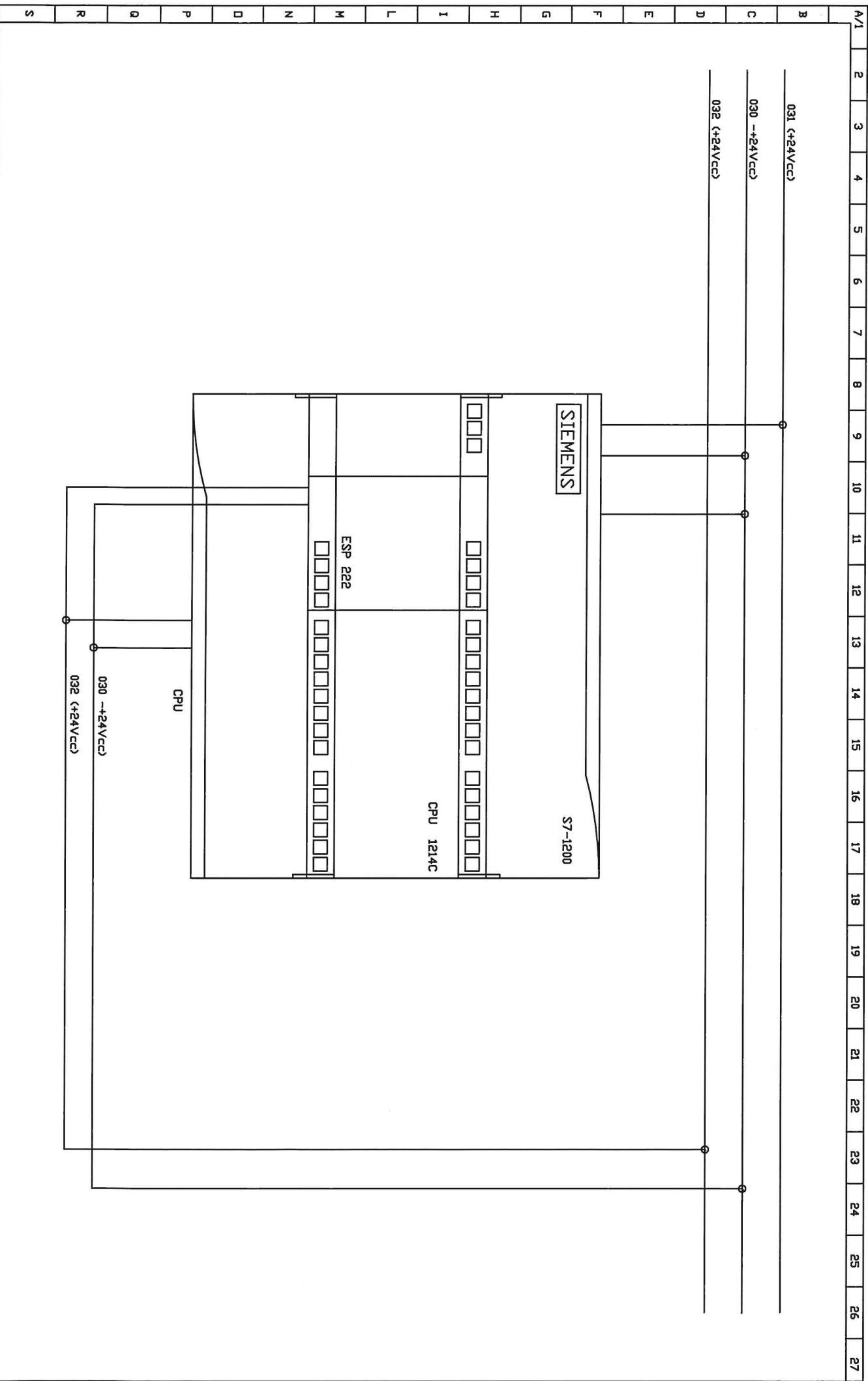
DISCEND N.

ASOLATRICE

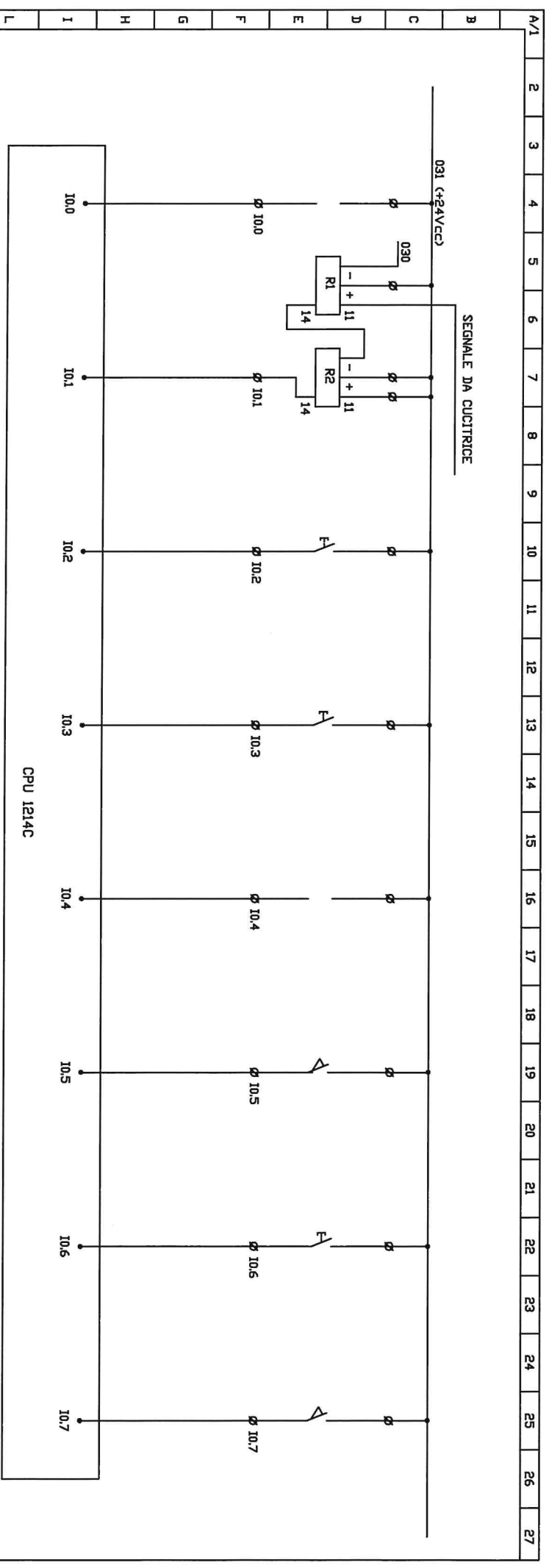
X DAVANTI S7_1200

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

[illegible]



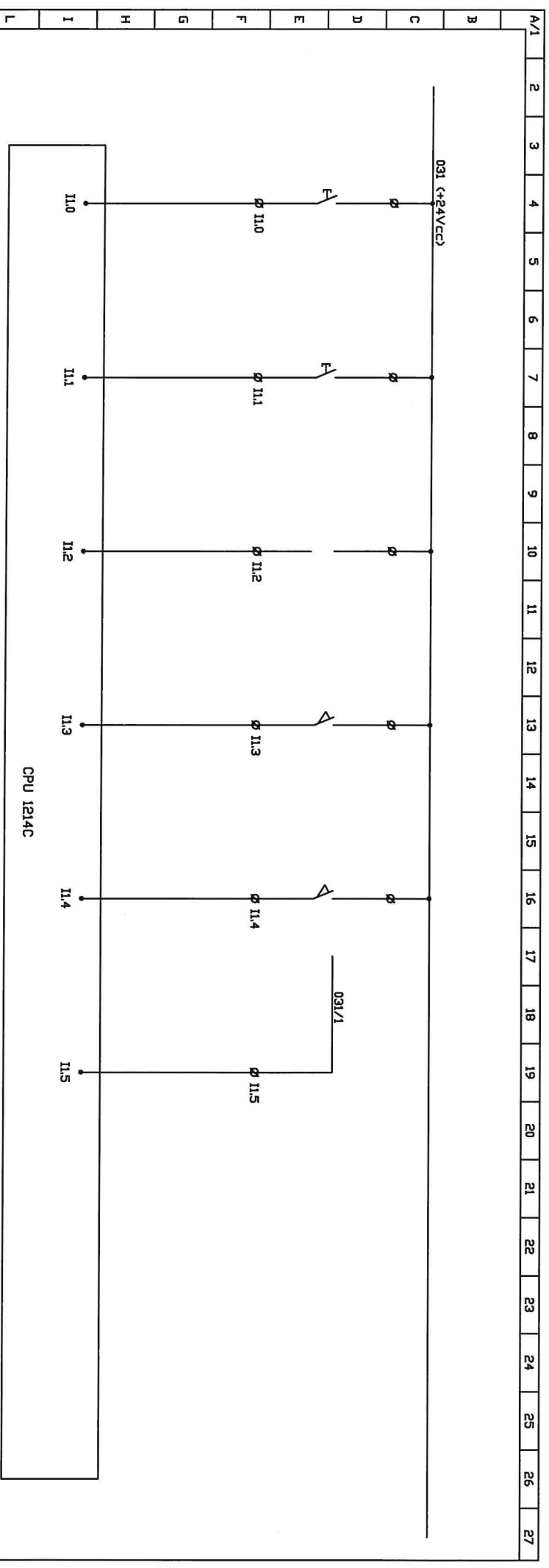
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0			NOME		MACCHINE AUTOMATISMI INDUSTRIALI		ASOLATRICE X CAMICIE	3	
			COGNOME		CAMICERIE ABBIGLIAMENTO				
			APPR		Via Casale, 23 - 24060 Torre de Rovere (BG)				



030 (0V)

DISPONIBILE DA CUCITRICE
 ROTTURA FILD
 PULSANTE AVANTI CENTRATORE
 CANNOLD
 PULSANTE INDIETRO CENTRATORE
 CANNOLD
 DISPONIBILE
 FINECORSA CONTROLLO CENTRATURA
 CANNOLD
 PULSANTE CUCITURA
 MANUALE
 FINECORSA TAGLIO ASOLA

REV.	DATA	NOME	DATA	2016	M.A.I.C.A. S.r.l.	CLIENTE	DESCRIZIONE	FOGLIO N.	N. FOGLI
0					MACCHINE AUTOMATISMI INDUSTRIALI		ASOLATRICE X DAVVANTI	4	
					CAMICERIE ABBIGLIAMENTO				
					APPR.				
					Via Casale, 23 - 24060 Torre de Rovere (BG)				



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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030 (0V)

PEDALE
START CICLO

PULSANTE
RESET ALLARMI

DISPONIBILE

FINECORSRA
PUNTO (0) CARRO
SPESA STOFFA

FINECORSRA
PIEDIND CUOTTRICE
BASSO

PULSANTE
EMERGENZA

REV.	DATA	NOME	DATA	2016	M.A.I.C.A. S.r.l.	CIENTE	DESCRIZIONE	FOGLIO N.	N. FOGLI
0			NOME		MACCHINE AUTOMATISMI INDUSTRIALI		ASOLATRICE X DAVANTI	5	
			CONTR.		CAMICERIE ABBIGLIAMENTO				
			APPR.		Via Casale, 23 - 24060 Torre de Rovere (BG)				