maggi engineering

WOODWORKING MACHINERY

UK

MACHINE CODE	18501101
MANUAL CODE	00008299
EDITION	05/2009 - REV00

CE

ALWAYS KEEP THIS MANUAL TOGETHER WITH THE MACHINE

EDGING SYSTEM 3.50

USE AND MAINTENANCE MANUAL

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EC Declaration of Conformity

The manufacturer

Maggi Engineering S.r.l.
Via delle Regioni, 299 - 50052 Certaldo (FI) ITALY

Declares that the machinery

The machinery	*EDGE BANDER*
Model	***EDGING SYSTEM 3.50***

complies with all relevant provisions of the directive:

2006/42/EC (Machine)
2004/108/EC (EMC)

and compile the technical file of the above machinery.

Certaldo
The General Manager

CE

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WE WISH TO THANK YOU FOR CHOOSING ONE OF OUR PRODUCTS

All the information, advices and important warnings for a correct use of the machine, have been inserted into this manual. This manual also contains the rules for a correct periodical maintenance to keep this machine in perfect efficiency. We suggest that all the chapters of this manual are thoroughly read before you use the machine for the very first time.

INTRODUCTION

Some information and illustrations in this manual may differ from the machine in your possession, since all the configurations inherent in the machine complete with all the OPTIONALS are described and illustrated. Therefore, refer only to that information strictly connected with the machine configuration you have purchased. The manufacturer in his pursuit of a policy of constant development and updating of the product may make any modifications without any prior notice.

This manual has been drawn up exclusively for our customers' use, guaranteeing that at the date of issue it constitutes the latest update of the documentation related to use of the product. Use of this manual is on full responsibility of the user. The manufacturer does not grant any further guarantee for any imperfections, incompleteness and/or operating difficulties, expressly excluding any responsibility for direct or indirect damage deriving from use of this documentation. MAGGI ENGINEERING reserves the right to make any modifications to the product described in this manual at any time without prior notice.

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1. GENERAL INFORMATION

1.1 MANUFACTURER'S DATA

Manufacturer:	MAGGI ENGINEERING S.r.l.
Adress:	Via delle Regioni, 299 - 50052
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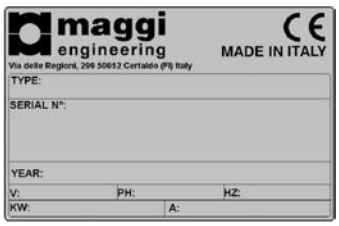
Fax.	+39 0571 664275
E-mail:	maggi@maggi-engineering.com
Web site:	www.maggi-engineering.com

1.2. MACHINE IDENTIFICATION

The data impressed in the plate placed on the left side of the machine (from the point of view of the operator) identify the machine itself. When you eventually order spare parts or ask for any suggestions for use or maintenance, you have always to transmit the model type and identification number contained in the plate.
It is absolutely forbidden to remove the plate or modify the data it contains.



1.3. RECOMMENDATION FOR USE AND MAINTENANCE

In this manual we put into evidence all the operations for a correct use and ordinary maintenance of the machine.
The machine must be used only by qualified users and personnel of age. The responsible for safety must be sure that users of the machine have read and understood all the information contained into this manual.
The personnel for both ordinary and extraordinary maintenance must be well prepared in mechanics and electricity.
Keep off any parts in movement of the machine. Keep particular attention to the finishing tools, the cutting tools, the feeding belt. Do not touch all the parts of the glue unit and the parts nearby: the unit work at very high temperature and there is high danger of burn.
We strongly recommend not to make any other type of work, repair or operation not suggested in this manual. All the operations concerning disassembling parts must be done to authorised technical personnel.
Always follow carefully all the instructions contained in this manual for a correct use of the machine. We suggest also to keep this manual in a place where the user can easily find and read it.
A careful and conscientious observance of all the instructions written in this manual will afford you to use safely and correctly the machine.

ANY ADULTERATION OR REMOVAL OF SAFETY PROTECTION DEVICES CAN CAUSE SEVERE DAMAGE.
ANY REMOVAL, EXCLUSION OR MODIFICATION OF THESE DEVICES IS STRICTLY FORBIDDEN.
YOU MUST VERIFY AND GUARANTEE THE PERFECT RUNNING OF SAFETY DEVICES BY MEANS OF PERIODIC CHECKS. ANY DEFECT OR PROBABLE DRAWBACK MUST BE IMMEDIATELY RESOLVED.

2. SPECIFICATIONS

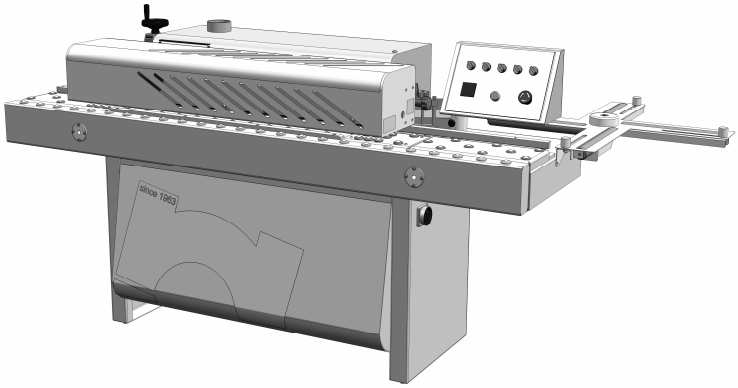
2.1. GENERAL DESCRIPTION OF THE MACHINE

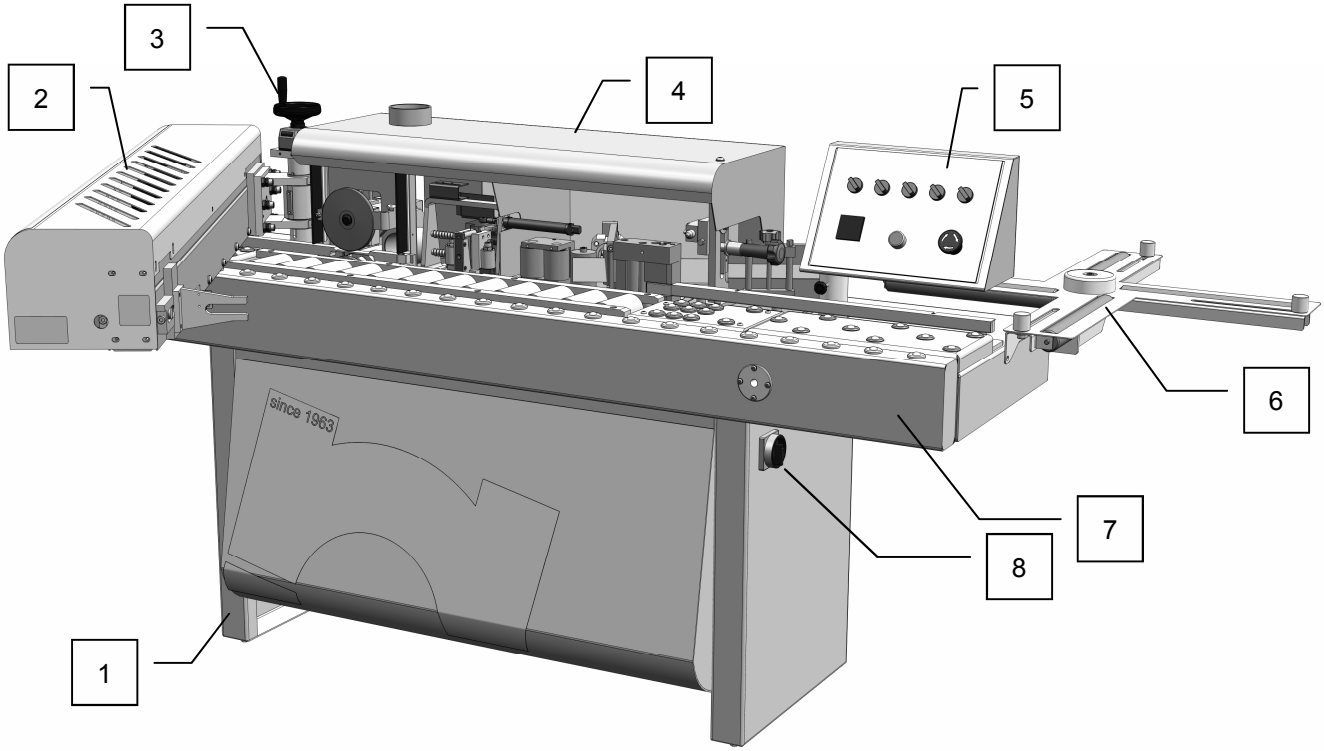
The machine was designed and built to apply edges with automatic feeding on straight wooden panels (and/or made of similar material) having square faces. Here below you can find a brief summary of the main characteristics of the machine:

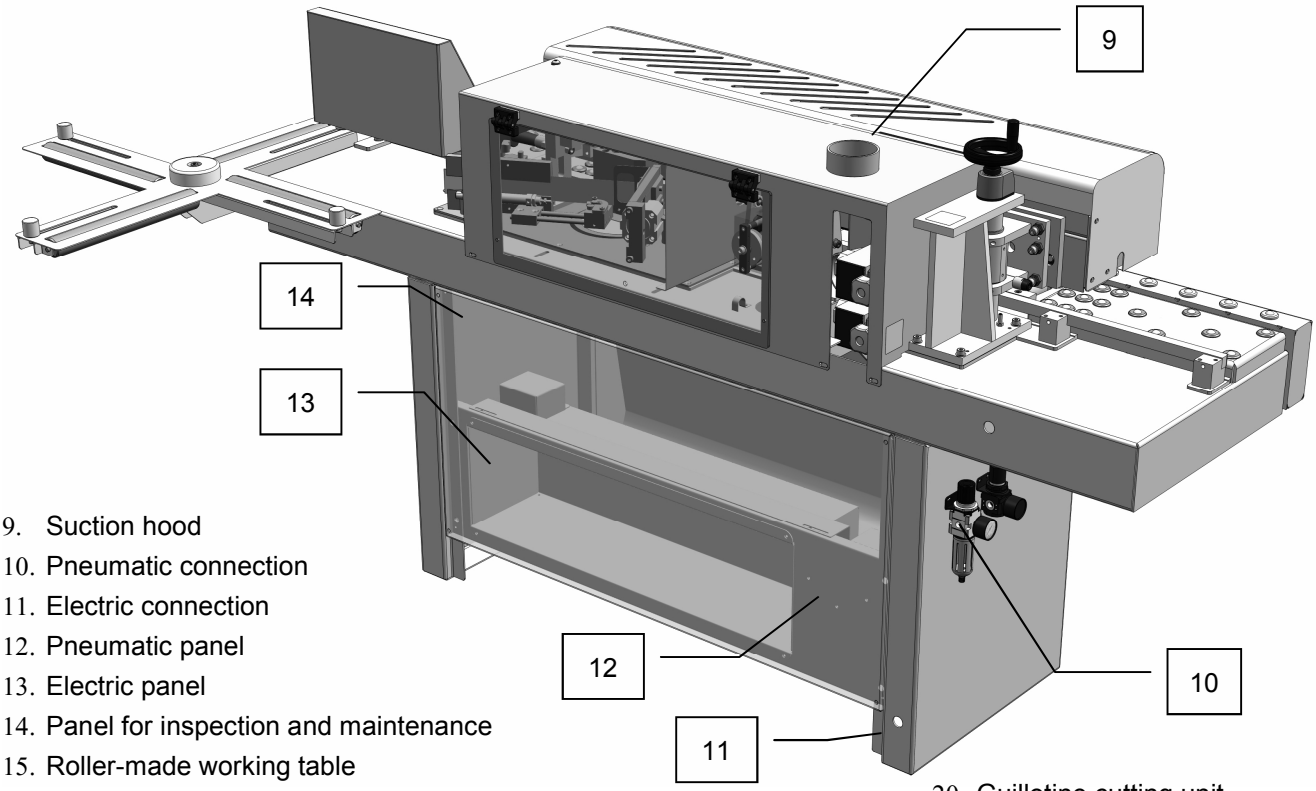
- Automatic edge banding machine for straight panels
- Glue pot with motorized glue roller
- Automatic guillotine with “with self-aligning system” for cutting the edge
- Electronic regulation of the maximum/minimum glue pot temperature
- Front/rear end-cutters with blades
- High-frequency edge-trimming tools with widia-made cutters
- Large copying disks assembled on ball-bearing
- Adjustable input guide for the edge
- Numerical counter for trimmers regulation
- EC standards

The main parts of the machine are:

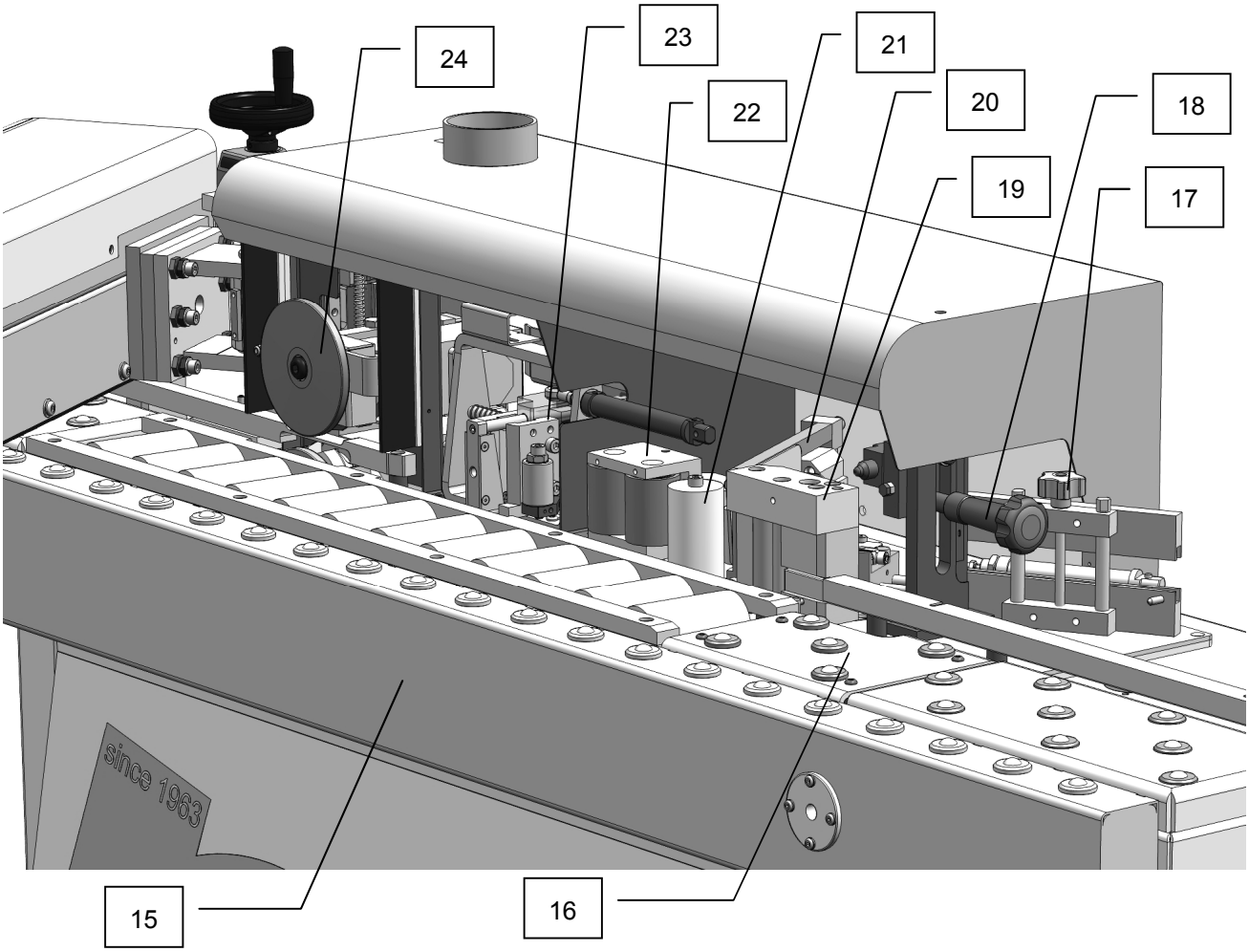
1. Steel frame
2. Feeding belt for panels
3. Handwheel for adjusting height of feeding unit
4. Upper cover
5. Control panel
6. Reel support
7. Adjustable supporting feeding roll unit for large panels
8. Main switch





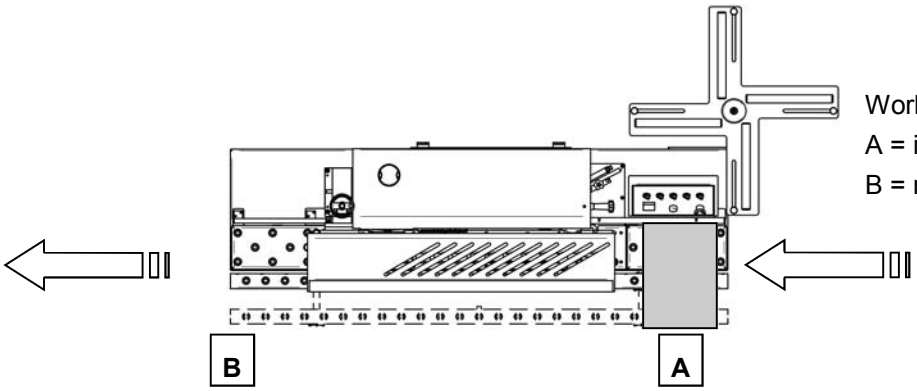


9. Suction hood
10. Pneumatic connection
11. Electric connection
12. Pneumatic panel
13. Electric panel
14. Panel for inspection and maintenance
15. Roller-made working table
16. Sliding rollers
17. Edge banding inserting group
18. Locking system for feeding belt
19. Edge gluing group
20. Guillotine cutting unit
21. Edge-feeder rubber roller
22. Pressing rollers structure
23. End cutter unit
24. Edge trimming unit



2.2. INTENDED USE

- All the materials not similar to wood are not allowed: the end user is directly responsible for any damage caused by a different use of the machine respect the one specified in this manual and with different materials respect the ones the machine was designed for.
- Always connect the machine to a well-dimensioned shaving suction system
- It is strictly forbidden to modify any protection devices and use the machine if all the protection devices are not correctly installed
- Any operation that does not comply with the instructions given herein is to be regarded as improper use.
- It is strictly forbidden to modify any parts of the machine. If modifications are made, the Declaration of Conformity is no longer valid.
- The data impressed in the plate placed on the left side of the machine identify the machine itself. When you eventually order spare parts or ask for any suggestions for use or maintenance, you have always to transmit the model type and identification number contained in the plate.
- The machine was designed to be used by one operator only.



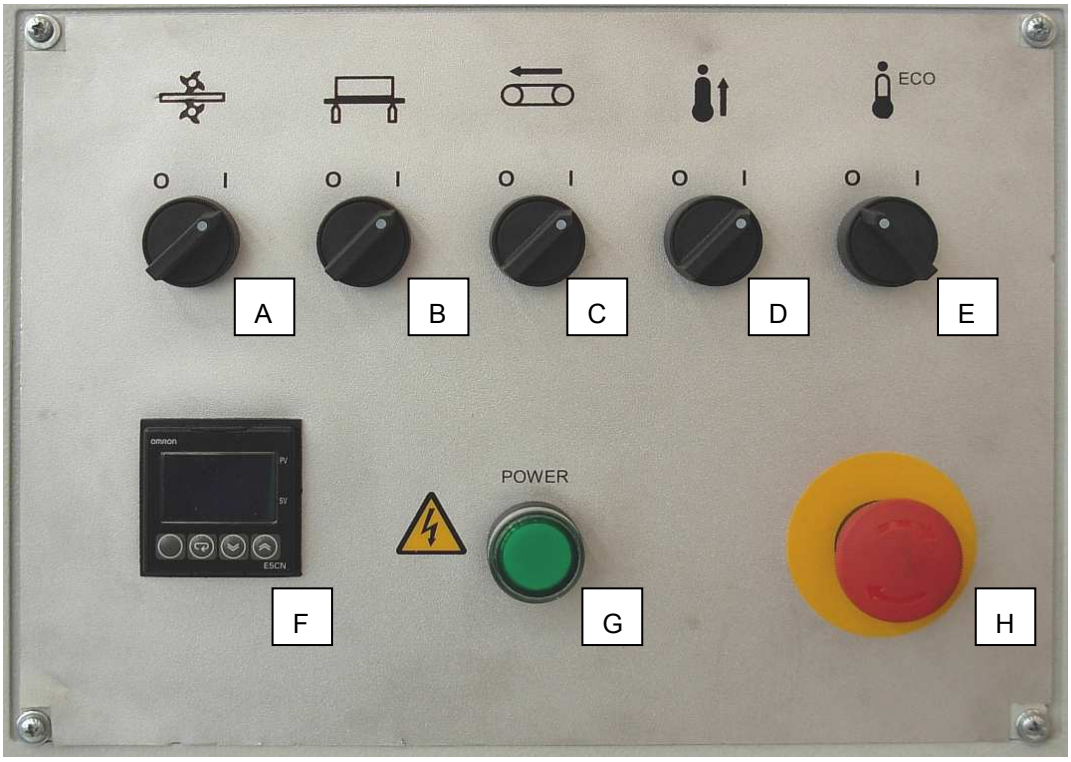
Working position:
A = insertion of the panel
B = removal of the finished panel

The manufacturer cannot be considered liable for any damage caused to people, animals or property resulting from improper use of the machine.

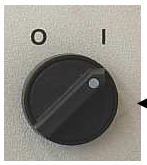
2.3. TECHNICAL DATA

CHARACTERISTIC	*VALUE*
Dimensions of working plane	2000 x 600 mm
Height of working plane	840 mm
Edge banding thickness (min/max)	0,4 / 3 mm
Working panel thickness (min/max)	14 / 50 mm
Motorized feeding belt speed	~ 6 m/min
Trimmer speed	12000 rpm
O.D. of edge trimmers (widia-made tool)	75 mm
O.D. of suction hood	90 mm
O.D. of reel	800 mm
Glue working temperature	~ 190°- 220°C
Glue pot capacity	1,2 kg
Feeling belt motor power	0,25 kW
Edge trimmer motor power	2 x 0,37 kW
Glue roller motor power	0,25 kW
Total installed power	~ 2,4 kW
Net weight	330 kg
Working dimensions (max)	2500 x 1550 x 1200 (H) mm
Shipping dimensions (external)	2100x760x1300 mm

2.4. CONTROL PANEL

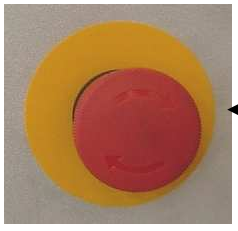


A	Edge trimming unit selector
B	End cutting unit selector
C	Feeling belt for panel selector
D	Glue pot heating (working mode) selector
E	Glue pot heating (stand-by) selector
F	Temperature regulator/display
G	Main power switch
H	Emergency mushroom button - It is a mechanically-operated push-button, to disconnect the button pull and rotate it clockwise



selector:
"O" = non active (OFF)
"I" = active (ON)

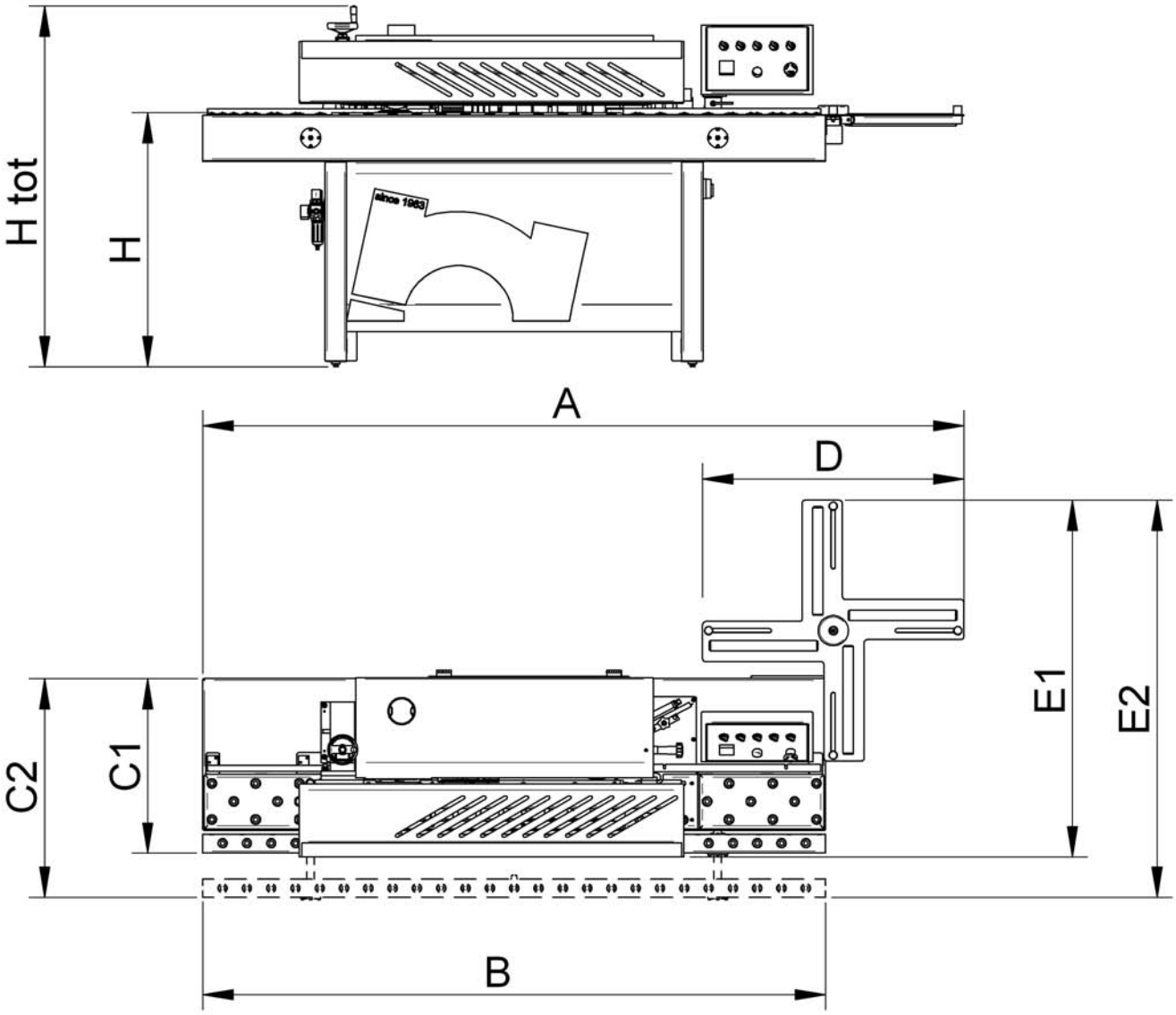
Main power switch:
Push to activate the electric power to the machine (the green light turns on)



Emergency button:
- Push in case of emergency
- Rotate clockwise to re-activate

2.5. MACHINE DIMENSIONS

Below you can find the main working dimensions of the machine (dimension in mm)



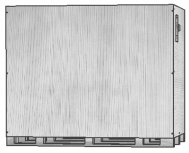
A	B	C1	C2	D	E1	E2	H	H tot
2500	2050	575	915	860	1175	1515	840	1190

3. INSTALLATION

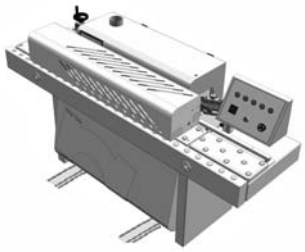
- Lifting and handling should only be carried out by skilled personnel specially trained to execute this kind of operations.
- Make sure that the area all around is free from obstacles and that no one is standing under the overhung load and/or within the system used to lift, move and/or transport the machine.
- During all the handling operations pay maximum attention to prevent danger of damages to persons, things and to the machine itself.

3.1 LIFTING AND TRANSPORTATION

The boring machine is packed in a wooden box and/or in cardboard and nylon. It is possible to move it by means of forklift, bridge crane (or crane), transpallet. Before starting the manoeuvres, free the machine of all the parts used for transport or packaging that have remained on the machine. Check that the capacity of the hoisting means is grater than the gross weight of the machine (please see the chapter named TECHNICAL DATA).
In case of stocking, the machine must be kept in dry places, away from rain, snow or humidity.
If you use a forklift or a transpallet to handle the machine:

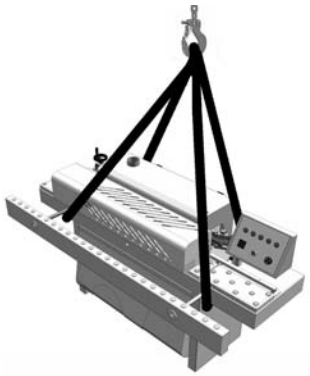


- If the machine is still placed on the pallet, insert the forks for lifting below the upper surface of the pallet until they protrude at least 15 cm from the rear part of the pallet;
- If the machine is no more on the pallet, insert the forks for lifting below the central lower part of the frame of the machine until they protrude at least 15 cm from the rear part of the frame itself;
- lift carefully and slowly, without causing the load to swing, and place the machine in the selected setting.



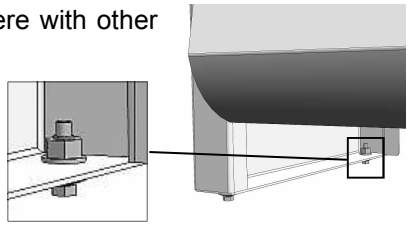
If you use a bridge crane (or crane) to handle the machine:

- Use appropriate lifting belt of the same length (approximately 2000 mm) of suitable capacity;
- Fasten the slings to the bridge crane having adequate lifting capacity;
- Move the bridge crane by small steps to allow the slings to settle, until optimum stability conditions are reached;
- lift carefully and slowly, without causing the load to swing, and place the machine in the selected setting.



3.2. MACHINE PLACING

It must be installed inside an illuminated, ventilated and closed industrial building having a solid and levelled floor, capable to support the weight of the machine itself; any possible difference in height must be in conformity with building rules. When the machine has to be placed on raised plain surface (higher floor) the load-bearing slab must be adequate to the weight of the machine. Temperatures from 5° C to 40° C with a humidity of max. 40% at 40° or max. 90% at 20°.
Put the machine in the right place, as requested operative requirements, where it is easy to connect it to electrical and pneumatic power supply and to the suction system (if any). Put the machine in a place where there is enough lighting to see every part of the machine itself.
The lighting of the premises must comply with the law in force in the Country where the machine has been installed. Lighting must grant complete visibility, avoid dangerous reflections, permit reading of the control panels and individuation of the emergency push buttons and must not interfere with other devices eventually installed on the machine.

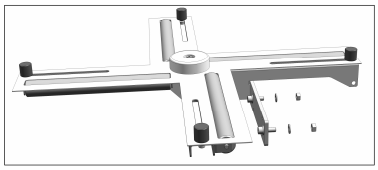


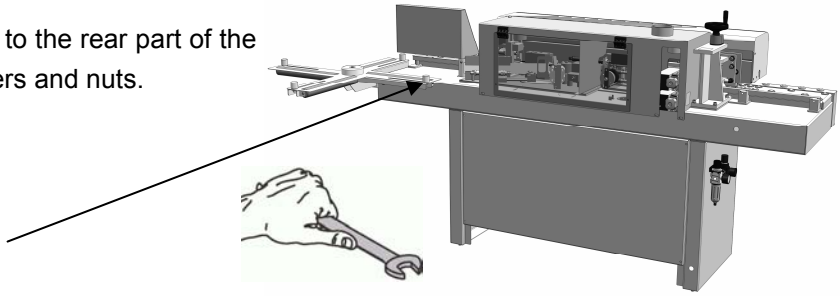
Adjust the levelling feet so that the machine is perfectly leaned on the floor, then align the working table of the machine by using a spirit level.
To clean the machine do not use any solvent as gasoline and diesel oil, because they can damage the paint, making it dull, or oxidize other parts.

3.3. ASSEMBLING PARTS

The machine is shipped partially assembled, so it is necessary to assemble those parts given disassembled due to packaging and shipping requirements. Before starting assembling the parts, check that all the elements of the machine are complete and not damaged after transportation.

REEL HOLDER: fix the reel holder frame to the rear part of the machine frame using screws, plain washers and nuts.





3.4. CONNECTION TO THE ELECTRIC POWER SUPPLY

WARNING: THE ELECTRICAL CONNECTIONS, THE CHECKING AND ALL THE MAINTENANCE INTERVENTIONS ON THE ELECTRIC CIRCUIT MUST BE DONE BY QUALIFIED TECHNICAL PERSONNEL ONLY.

We recommend not to connect the machine to the electrical power supply until it is not correctly placed in the right place. Before connecting the machine to the electrical power supply, it is necessary to verify that the electrical system corresponds to the following necessary power and safety requirements:

- Make sure that the electrical circuit of the building where is placed the machine is correctly grounded and that the part of the circuit to be connected to the machine is perfectly working
- Make sure that a differential thermal circuit breaker has been fitted upstream from the mains section connecting the machine (safety switch)
- **The electrical power line must carry an efficient neutral and ground line** (grounded equipotential electrical system).
- Presence of fuses or protection switches against short circuits on every conducing cable R-S-T, except the grounded one
- The electrical power system must be in conformity with CEI 64.8 (CENELEC HD 384, IEC364-4-41) rules
- Check that the mains voltage (V) and frequency (Hz) are as those indicated.
- The tolerance of admissible voltage is +/-10%

Besides:

- **The cable for ground connection is yellow-green.**
- **The cable for neutral connection is sky-blue**
- **Connect the phases to the R-S-T terminals, the neutral line to the N terminal and the ground line to the terminal with the ground-symbol**

For any further reference, please check the wiring diagram given together with this manual.

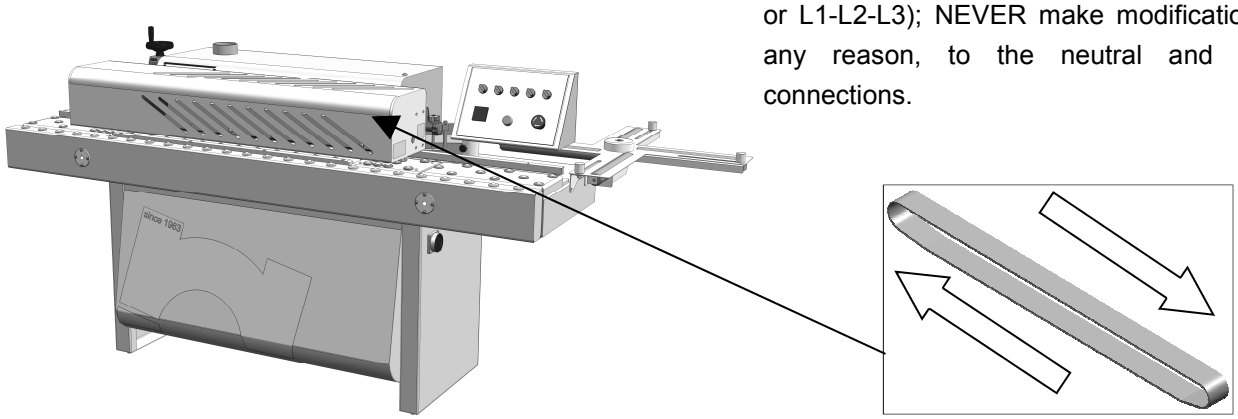
description	*symbol*	*colour*
ground	⏚	Yellow-green
neutral	N	Sky-blue
phase	R - S - T or L1 - L2 - L3	

BE CAREFUL WITH THE ELECTRICAL CONNECTION

- **ALWAYS CONNECT THE NEUTRAL LINE**
- **NEVER CONNECT FOR ANY REASON THE NEUTRAL TO THE GROUND**
- **AN ERROR IN THE ELECTRICAL CONNECTION MAY CAUSE HAZARDOUS SITUATIONS FOR OPERATORS AND IRREPARABLE DAMAGE TO SOME MACHINE COMPONENTS**

The manufacturer is not responsible for damages caused by a wrong electrical connection of the machine or by problems due to malfunctioning of the electric connection or the electric power supply.

Connect correctly the machine to the electric power supply, then start the machine and check that the feeding belt moves in the right direction (clockwise). If the feeding belt moves in the opposite direction, stop the machine, disconnect it to the power supply and invert two phases out of three in the electrical connection (R-S-T or L1-L2-L3); NEVER make modifications, for any reason, to the neutral and ground connections.



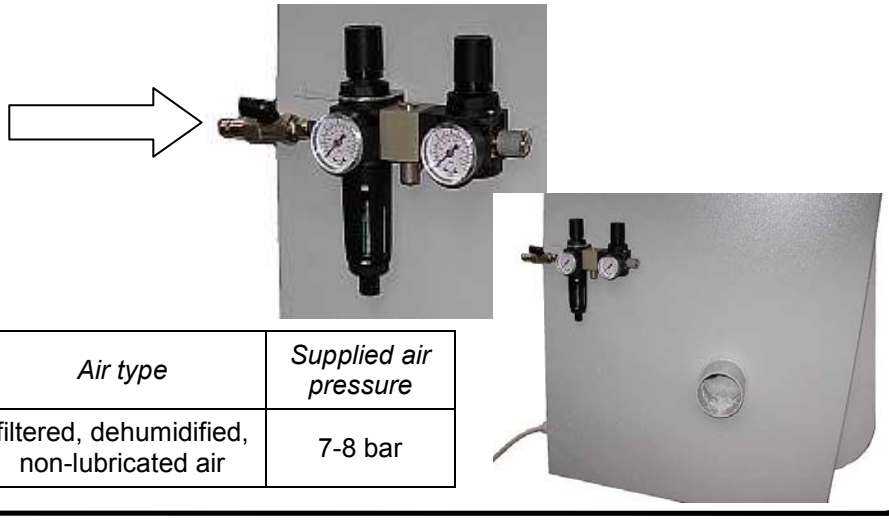
3.5. PNEUMATIC CONNECTION

The required network pressure for the pneumatic system must be 7-8 bar at least. Use filtered, dehumidified, non-lubricated air to preserve all the pneumatic components of the machine from damage (lubrication damages the pneumatic system).

Connect the machine with the pneumatic supply using a rubber-made or nylon-made pipe having a minimum I.D. of 8 mm. If the connecting pipe is longer than 5-6 meters, we suggest you to use a lager pipe, with at least an I.D. of 10 mm.

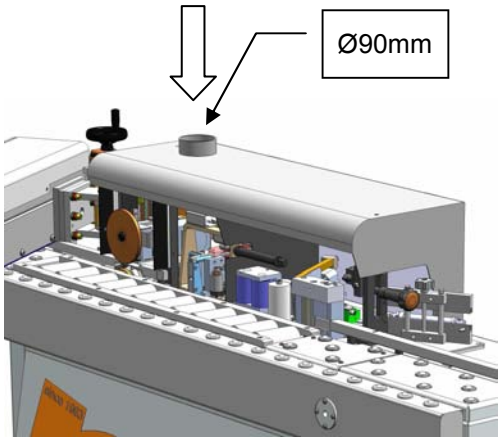
We also suggest you to install a manual ON-OFF valve having a air-discharge system (if not given together with the machine) to easily disconnect the machine from the pneumatic air supply.

ATTENTION: to guarantee the correct working conditions for all the pneumatic components, the machine has a device prevents it from starting if the air pressure is lower than 5 bar.



Supplying pipe dimensions	*Air type*	*Supplied air pressure*
I.D. 8 mm (10 mm for pipes longer than 5 meters)	filtered, dehumidified, non-lubricated air	7-8 bar

3.6. CONNECTION TO SUCTION SYSTEM

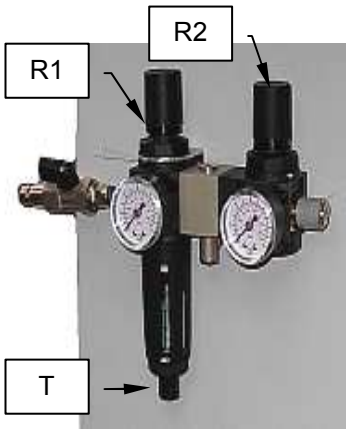


A proper suction reduces at the minimum the risks for the operator of dust and smoke (due to glue heating) inhalation, besides aids better and more efficient functioning of the machine.
Make sure that the suction system to which the machine has to be connected can guarantee a flow rate of at least 900 cu.m/h at a speed of about 20 m/s.
Connect the suction system to the machine with a flexible tube of a 90 mm I.D. on the left side of the machine; tighten the tube with clamps. Position the tube in such a way to not obstacle any movements of the operator during normal working operations.
The machine is delivered without exhaust system. The user has to install a proper exhaust fan depending on the type of use, the material and the timing of use of the machine. This system has to keep the dust concentration below the value allowed by the law of the country where the machine is installed.

ALWAYS WORK WITH THE MACHINE CONNECTED TO THE SUCTION SYSTEM AND WITH THE SUCTION SYSTEM ON

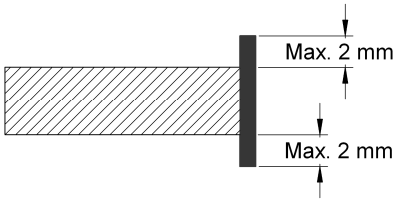
4. SET-UP

4.1. PNEUMATIC PRESSURE SET-UP



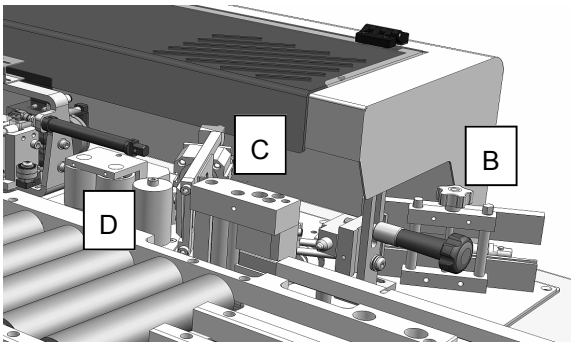
The working pressure has been already set on correct values by the technical personnel of the manufacturer. If necessary, you can operate on the handle of the pressure regulator to turn up/down the air pressure value.
On the machine there are two air regulator groups, one on the left (R1) and one on the right (R2):
R1 = pressure ±6 bar; it is connected to the electrovalves YV1 – YV2 – YV3 controlling the inserting edge cylinder (YV1), the cutting cylinder (YV2) and the end-cutting blades (YV3)
R2 = pressure 3 - 3,5 bar; it is connected to the electrovalve (YV4) which controls the pursuing phase of the end-cutter group.
To unload condensation press upward the cap (T) of the left air regulator (R1)

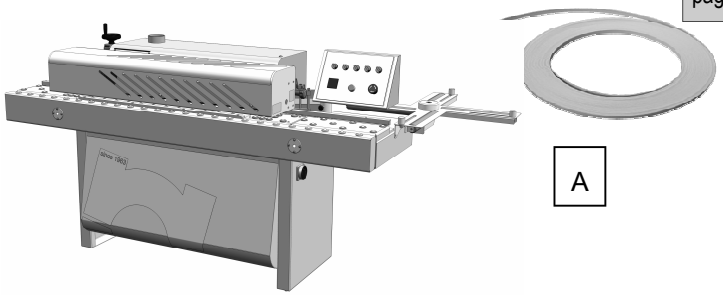
4.2. EDGE SET-UP

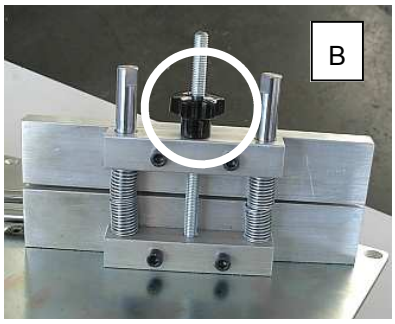


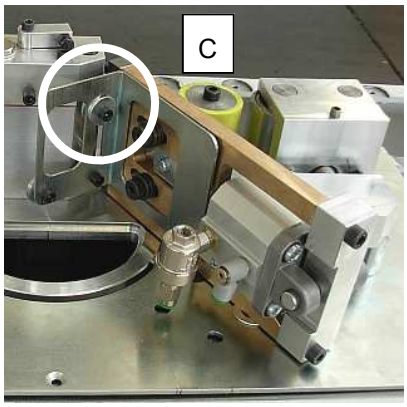
Check that the edge is of the right size for the thickness of the panel. The edge must not overlap more than 2 mm on each size of the panel (respect to the thickness of the panel itself)

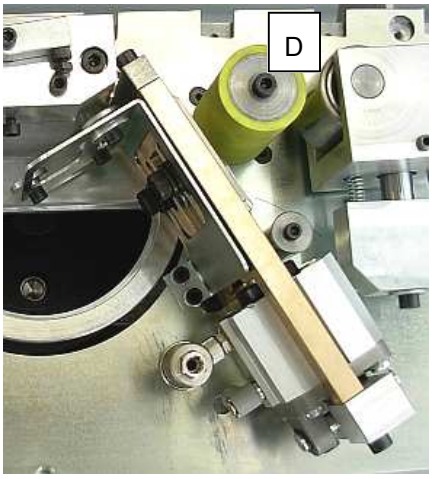
- Place the reel on the reel support as depicted in figure (A)
- Lift the edge-guide up to the maximum necessary height working on the handle (B)
- Lift the set-up washer (C) up to the maximum necessary height and lock it in position
- Insert the edge land et it move on until it is close to the edge feeding roller (D)
- Set-up the height of the edge-guide and then the set-up washer (leave room so that the edge can move freely), then lock in position.



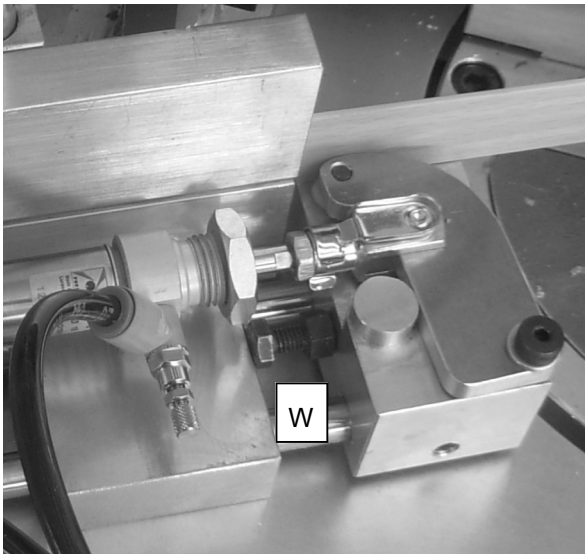


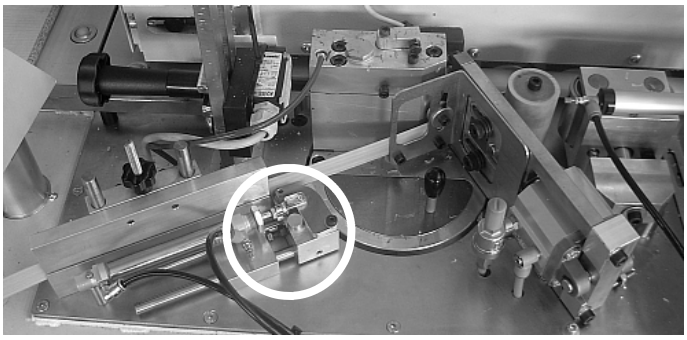






For a correct work, it is important that the edge is properly guided and can move freely



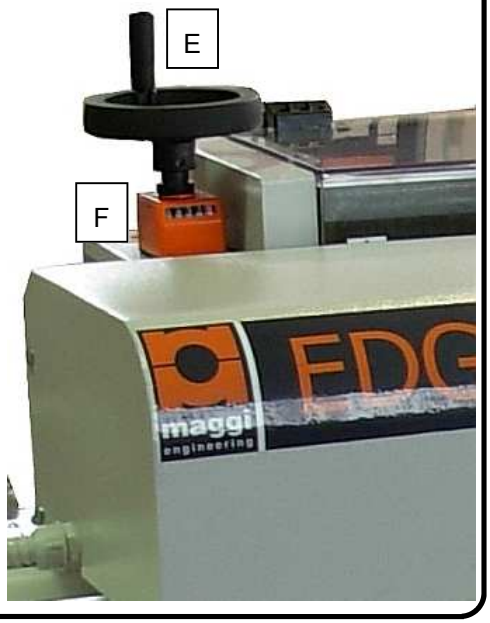


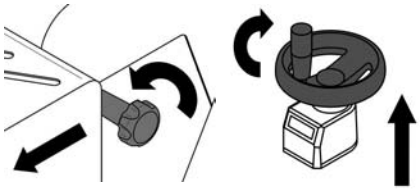
Work on the screw and the nut (W) in the edge-pushing group to regulate the exceeding length of the edge respect to the front side of the panel.
If you increase the length of the screw you reduce the length of the edge respect to the panel

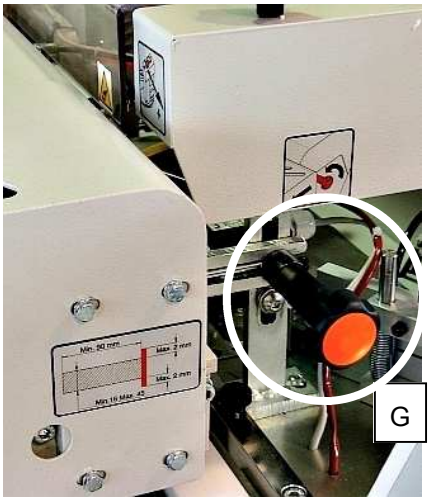
4.3. FEEDER SET-UP

Work on the handwheel (E) until you see on the display (F) the same value of the thickness of the panel to be worked (black digit = millimetre, red digit = tens of millimetre).
To regulate the height of the feeder respect to the working plane:

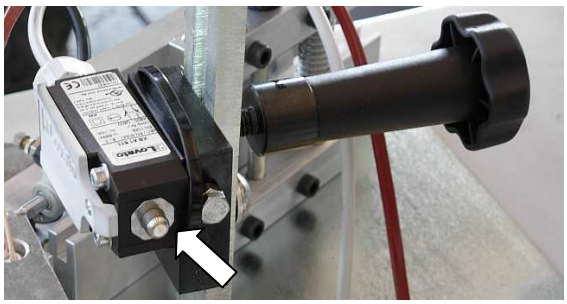
- Unlock the feeder loosening the knob (G)
- rotate the handwheel (E) until you reach the desired height; at the same time also the height of the edge-trimming unit is regulated
- Lock the feeder tightening the knob (G)







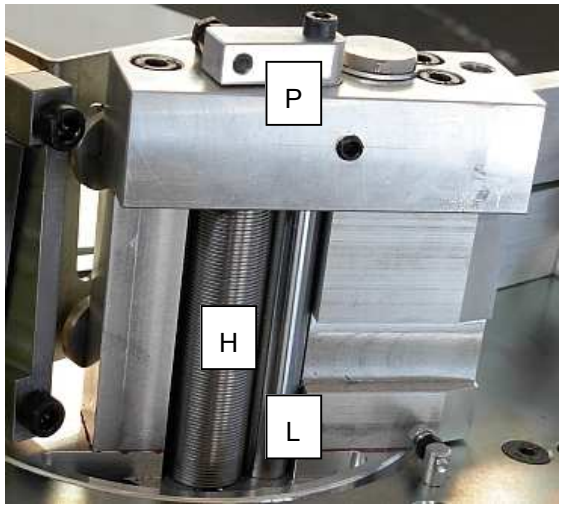
- Incorrect adjustment of feeder height may cause faulty panel feed, thus compromising machine performance and working results
- Always regulate the height of the feeder with the knob (G) loosened
- Tighten the knob (G) before start working



If you regulate the height of the feeder with the locking knob (G) not loosened can cause permanent misalignment and damage the feeding of the panel
Make sure that the feeder is well close and locked: the machine does not start working is the safety sensor placed on the feeder is not pressed.

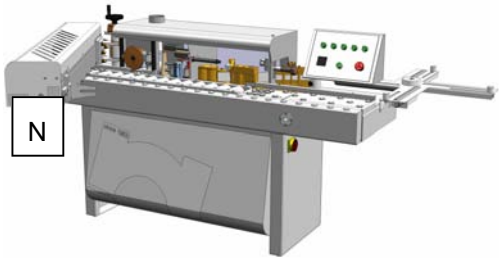
4.4. GLUE QUANTITY SET-UP

The glue is applied on the panel through the glue roller (H). To regulate the quantity of the glue to be applied on the panel rotate the glue-regulator shaft (L) respect to the glue roller (H)
To regulate the glue work on the system (P): the glue-regulator shaft (L) rotates by screwing/unscrewing the set-up screw.



The system is very sensitive: with a small rotation of the glue-regulator shaft (L) we have a great variation on glue quantity.

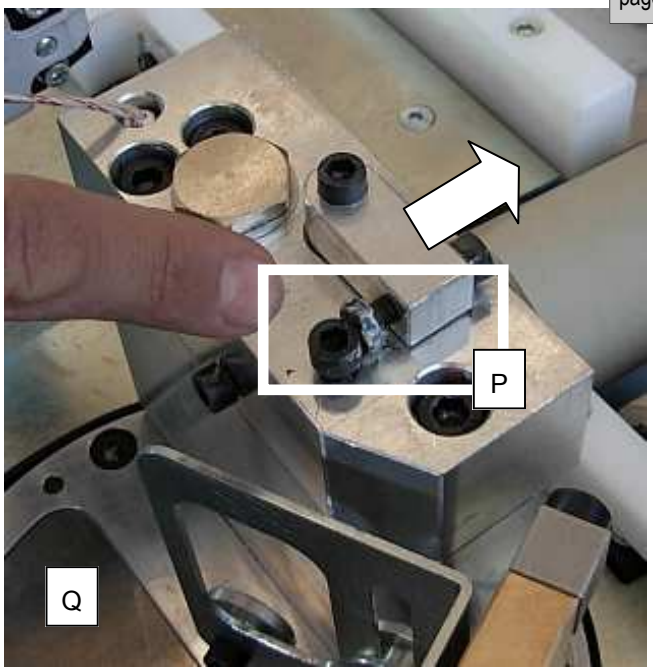
- **WARNING: DANGER OF BURN, ALWAYS WEAR PROTECTIVE GLOVES**
- **THE GLUE WORKING TEMPERATURE IS ABOUT 200°C, ALL THE COMPONENTS OF THE GLUE POT GROUP WORK AT HIGH TEMPERATURE**

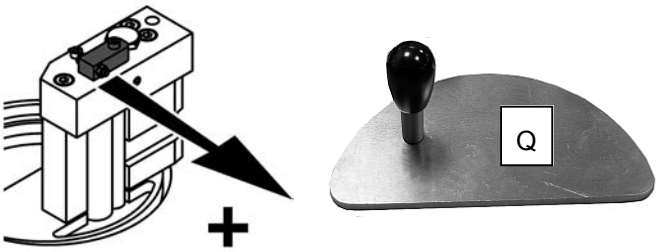


To work easily on the glue regulation system can be useful remove the top polycarbonate-made cover (M) and/or open the feeder (N)

ALWAYS TURN OFF THE MACHINE BEFORE REMOVING THE TOP COVER

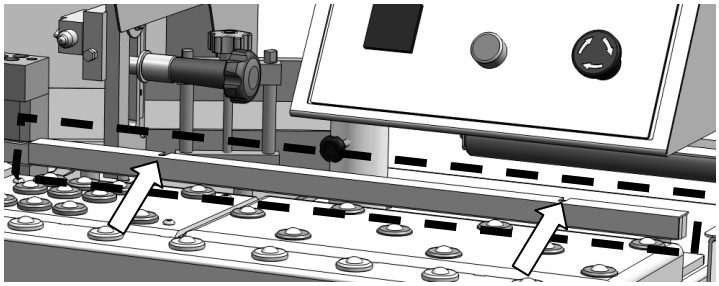
To regolate the quantità of the glue work on the system (P): rotate the device following the direction of the arrow (as depicted in the figure on the right) to increase the quantity of the glue put on the panel (we suggest you to increase the quantity of the glue as the porosity of the surface to be glued of the panel increases). Be careful: the system is very sensitive and with a very small rotation of the device you obtain a great variation in the quantity of the glue





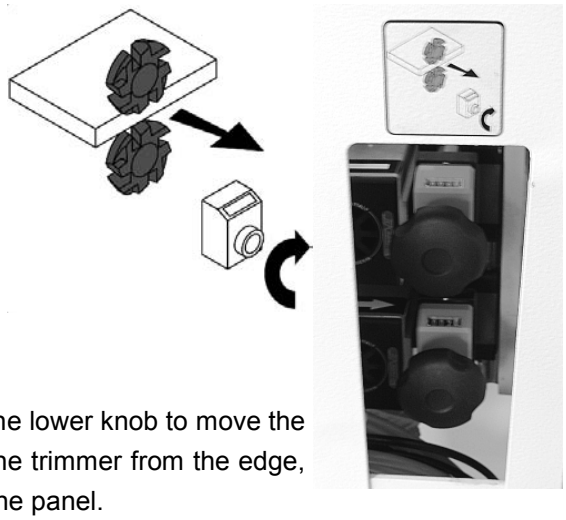
Before any working session check that in the glue pot there is enough glue, by lifting the top (Q)

4.5. ENTRANCE GUIDE SET-UP



An L-shape aluminium profile has given together with the machine. This profile has to be used when working with 2 mm thick edges: assemble the profile upon the fixed entrance guide, make sure it is in contact with the guide and then lock the fixing knobs. To remove the profile, loose the knobs and

4.6. TRIMMING DEPTH SET-UP



The edge-trimmers are tools designed to remove the excess edging strips on both sides of the panel, top and bottom. The depth of trimming must be regulated depending on the thickness of the edge: you move the edge-trimmers close / away respect to the edge, so determining the quality of the finished edge.
To adjust the trimming depth you work on the adjusting knobs placed on the rear part of the machine frame, close to the supporting column of the feeder.
Act on the upper knob to move the upper edge-trimmer, act on the lower knob to move the lower edge-trimmer. Rotate the knob clockwise to move away the trimmer from the edge, rotate the knob counter clockwise to move the trimmer close to the panel.

- The values depicted on the display are not equal to the thickness of the edge, they are used only as independent reference values
- To eliminate errors caused by mechanical play, always reach the required value by turning the knobs counterclockwise (for example to reach the value 10, turn back up to 5 then rotate the knob up to 10)

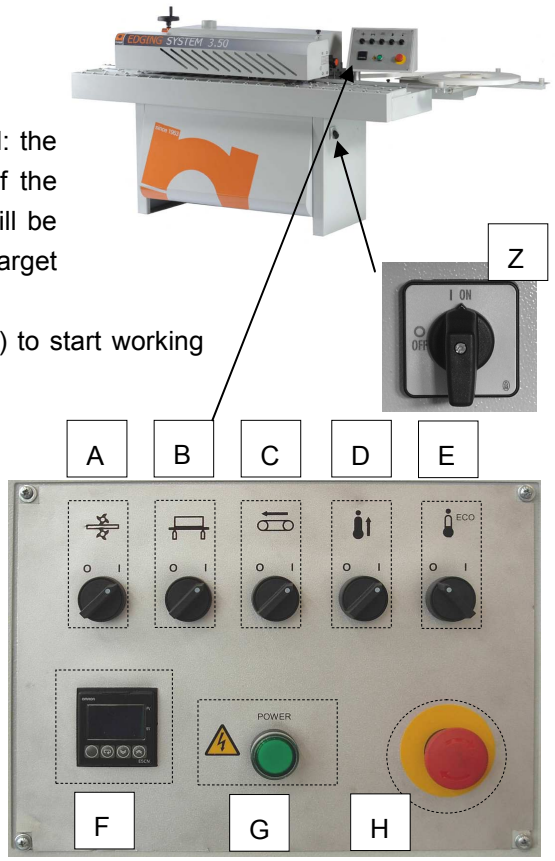
MADE ALL THE ADJUSTMENTS ONLY WITH THE MACHINE TURNED OFF

5. MACHINE USE

5.1 START AND STOP

To START THE MACHINE:

- Turn the main switch (Z) to ON
- Check that the feeder is close and lock in position
- Press the main power button (G) on the control panel
- Turn the glue heating selector (D) to “I” on the control panel: the temperature display (F) will show in red the actual value of the glue temperature, in green the target value. The machine will be ready to work only when the glue temperature reaches the target value.
- Turn on the other working groups of the machine (A - B - C) to start working (turn each selector to “I”)



A	Edge-trimming unit
B	End cutting unit
C	Feeding belt for the panel
D	Glue pot heating (working mode)
E	Glue pot heating (stand-by)
F	Temperature regulator - display
G	Main power button
H	Emergency mushroom button

After that the machine is ready to work, we suggest you to make preliminary edging tests on panels to verify that all the parameters and settings are correct

To STOP THE MACHINE:
Turn the main switch (Z) to OFF or press the emergency button (H)

The open of the feeder causes the stop of the machine, as if the emergency pushbutton was pressed

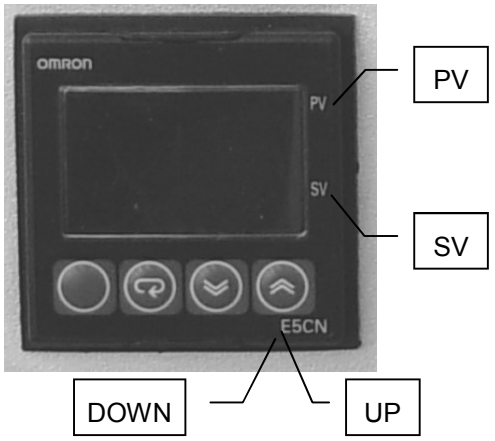
To RESTART THE MACHINE after that the emergency pushbutton has been pressed (or the feeder was opened) it is necessary:

- Reactivate the emergency pushbutton (if it was pressed)
- Press the main power button (G) on the control panel
- Turn the glue heating selector (D) to “I” on the control panel: the temperature display (F) will show in red the actual value of the glue temperature, in green the target value. The machine will be ready to work only when the glue temperature reaches the target value.
- Turn on the other working groups of the machine (A - B - C) to start working (turn each selector to “I”)

GLUE HEATING

To heat completely the glue in the glue pot up to the target temperature you must wait about 25 minutes. When there are short periods of inactivity (break longer than 15 minutes) we suggest to use the stand-by heating mode by selecting in the control panel the (E) button. The glue is maintained at a temperature value lower than the working one: you can easily and rapidly start again working after a period of break and at the same time there is no risk of damage for the glue due to overheating.

The machine is ready to work only when the actual glue temperature reaches the target temperature



PV = target glue temperature (final value)
SV = measured actual glue temperature
SU = increase the temperature value
DOWN = dencrease the temperature value

The working (target) temperature and the stand-by temperature have been set by the manufacturer and locked on the optimal value (working temperature = 195°C, stand-by temperature = 150°C); it is possible to change these values, once unlocked the protection, by following the instructions below:

MODIFY THE WORKING TEMPERATURE

Set the heating method of the glue to working mode turning the D selector on “I” position
Set the target working temperature value using the UP and DOWN buttons on the temperature regulator until you reach the desired value on the display

MODIFY THE STAND-BY TEMPERATURE

Set the heating method of the glue to stand-by mode turning the E selector on “I” position
Set the target working temperature value using the UP and DOWN buttons on the temperature regulator until you reach the desired value on the display

In the following table some useful indications concerning some glue type are described:

GLUE MANUFACTURER	GLUE TYPE	WORKING TEMPERATURE
JOWAT	JOWATHERM 280.00	180/200°C
JOWAT	JOWATHERM 288.30	190/200°C
DURANTE&VIVAN	DUDITERM 551	190/210°C
NOBEL	NOBELMELT NB-15	160/180°C
KLEIBEFIIT	SUPRAMELT 774.4	190/200°C
NATIONAL STARCH&CHEMICAL	INSTAWELD 7100	190/200°C
EMMEBI INTERNATIONAL	POLYBOND 3072	190/200°C
RAKOLL	RSK K4/570	190/200°C
DORUS	DORUS KS 208/2	190/200°C

NOTE: from our direct experience on the machine we have verified that choose the right glue for your application is very important to achieve good results

5.2 EDGE BANDING PANELS

When the machine is ready to work, you can go on working and edging the panels:

- Put the panel on the working table in the entrance side of the machine and move it in contact to the entrance guide. Move gently the panel below the feeding belt and put it always against the entrance guide.
- The machine feeds automatically the panel, applies the edge, cuts the edge and finishes it until the panel ends its paths in the ending part of the working table, at the end of the feeder.
- Take the panel from the working table

5.3 SUGGESTIONS FOR USE

To obtain good edge results it is necessary control many factors and variables occurring in the edging process, all of them can be classified into three categories:

- PANEL TO BE EDGED:
  - Use as much as possible good quality panels, with a sufficiently high density;
  - The cut must be sharp, of high quality, without any chips, with a high quality of rectilinearity (at least ±0,1 mm per linear meter);
  - The cut of the panel must be square (90°): the surfaces of the panel must be squared both compared with surface and to the thickness;
  - The surface to be edged must be clean, free from dust and humidity;
  - The panels must be stored at work room temperature, with no humidity.
- HEAT-FUSIBLE GLUES
  - Check that the glue is spread homogeneously along all the surface to be edged (along the thickness and the length of the panel);
  - Use only heat-fusible glue suitable for the characteristics of the machine, of the edge and of the panel;
  - Change the quantity of glue respect to the thickness and porosity of the panel;
  - The glue deteriorates and losses its characteristics over time. If you use the machine only now and then, we suggest you to fill the glue pot with few glue and replace the glue with new one if and when necessary.
- MACHINE SET-UP

  Start the machine, start the suction system and make the preliminary tests before start working, thus verifying thus following points:
  - The height of the feeder is the same as the thickness of the panel;
  - Regulation of entrance guide;
  - Set-up of pneumatic pressure (if necessary);
  - Check the quantity and quality of the glue in the glue pot;
  - Glue working temperature;
  - Adjust the quantity of the glue according to the kind of work to be done;
  - Correct edge positioning;
  - Set-up of the edge-trimming depth;
  - Check that the edging strip sticks to the panel correctly.

6. SAFETY DEVICES AND RESIDUAL RISKS

6.1. INTRODUCTION

The risk analysis and all the relative considerations in this chapter are based on:

- knowledge of normal conditions and intended use of the machine, as described in this manual;
- supposition that the machine is to be used to make single or multiple longitudinal cuts on wooden boards or composite panels;
- supposition that all the workers have been correctly trained about residual risks of the working environment, as requested by current laws and regulations;
- supposition that any other persons except workers, and especially non adult persons, are not allowed to go inside the working environment

6.2. GENERAL PRECAUTION

A machine of this type can be dangerous if it is not used properly.

We strongly recommend that the operator comply with the following safety guidelines

– The operator assigned to the machine must be well trained on its correct use, its safety protection devices and its accessories.
– The machine devices must be correctly blocked and adjusted.
– The whole machine must undergo ordinary and extraordinary maintenance procedures, following the scheduled timing.
– Before using the machine, make sure to have read and understood this user manual.
– Before making any operation with the machine, verify that the entire working area is free of persons and of any obstacles which could be potentially source of danger.
– Verify that the connecting cable to the electrical power supply is safe, well stretched out and not rolled up.
– Any intervention on the machine can be done only after that electrical and pneumatic connections are off.
– Do not put any inflammable substances nearby the machine because of risk of explosion and/or fire due to possible sparks production.
– The operator must think carefully about possible consequences before approaching with his hands the most dangerous areas of the machine.
– Keep always the machine turned off when not in use; in case of not use for a long time disconnect the machine from electric and pneumatic power supply.
– Avoid contact with hot parts

All safety measures discussed in this handbook exclusively refer to the correct use of the machine authorised by the manufacturer.

The use refers to the preparation, running and maintenance operations of the machine.

Furthermore, it is strictly forbidden to use the machine for purposes other than those permitted by the manufacturer and to modify the machine and/or its parts without the manufacturer's prior authorisation.

The use of the following personal protections is also suggested for the operator, to prevent risks during placing, installation, set-up, use, ordinary and extraordinary maintenance:
– gloves (for example for handling parts and replacing blades)
– anti-crushing and anti-sliding safety shoes (for moving heavy and/or sharp parts)
– goggles or shields (for protection against dust, shavings and residues in general, durino working on cleaning the machine)
– anti-dust masks

Moreover, the clothes must be suited to avoid danger of:
– catching, dragging, crushing, sliding, abrasion
– It is forbidden the use of contact lenses

Besides, the operator must fulfil the main obligations that are listed hereunder:
– keep the machine and the area around the machine clean and neat;
– provide appropriate containers and/or defined areas for the storage of both the pieces to be machined and those already machined;

- do not use the machine if you are not in a good state of health;
- do not wear rings, necklaces, chains or bracelets as they could cause injuries;
- use the personal protections mentioned in this handbook according to the operations to be carried out;
- do not remove or modify the data plates installed on the machine by the manufacturer;
- do not remove or bypass the safety devices of the machine.

6.3. SAFE WORKING OPERATIONS

It is of basic importance that all the operators:
- know perfectly the use, set up and maintenance operations to be performed on the machine;
- know perfectly all the factors influencing the exposition to noise
- know perfectly all the factors influencing the exposition to dust, for example:
    - type of material to be worked,
    - importance of dust extraction,
    - correct setting of dust extraction devices;
- that the dust extraction plant has to be turned on before start working.

It is important that:
- the floor of the area around the machine has to be plain, clean and neat;
- lighting must grant complete visibility the working area;
- raw material and finished parts are to be located close to working position of the operator.

It is of basic importance for the operators:
- use when necessary all the personal safety devices; this could mean:
    - safety protections for ear to reduce risk of deafness,
    - safety mouth mask to reduce the risk of breathing dangerous dust,
    - safety protection gloves to handle blades (blades should be put into specified tool holders),
- stop the machine when not attended;
- report immediately any defect or failure, especially for safety guards or blades;
- use safety procedures for cleaning and maintaining the machine, remove regularly and frequently chips and dust to avoid risk of fire;
- follow the instructions of the constructor, the settings and repairing of the blades;
- do not remove scraps or other residuals from the working area when the machine is turned on;
- be sure that all the safety guards and the other safety devices are in position, in good conditions and subjected to correct maintenance.

6.4. RESIDUAL RISKS

Despite all adopted safety protection devices, the following situations may be dangerous:

- Contact with tools and/or blades
- Contact with moving parts of the machine (chains, gears…)
- Tool insert ejection
- Electrocution from contact with live parts
- danger due to incorrect tool installation
- danger due to dust inhalation in case of working without suction system
- danger of burns in case of contact with glue or other parts of the machine at high temperature, especially all around the area of the glue pot group (the glue pot and the glue roller, where there are the heating resistances, and all the parts nearby). The working temperature of the glue is about 180-200°C, all the parts close to the glue pot are at a decreasing temperature going from the glue pot to outside.

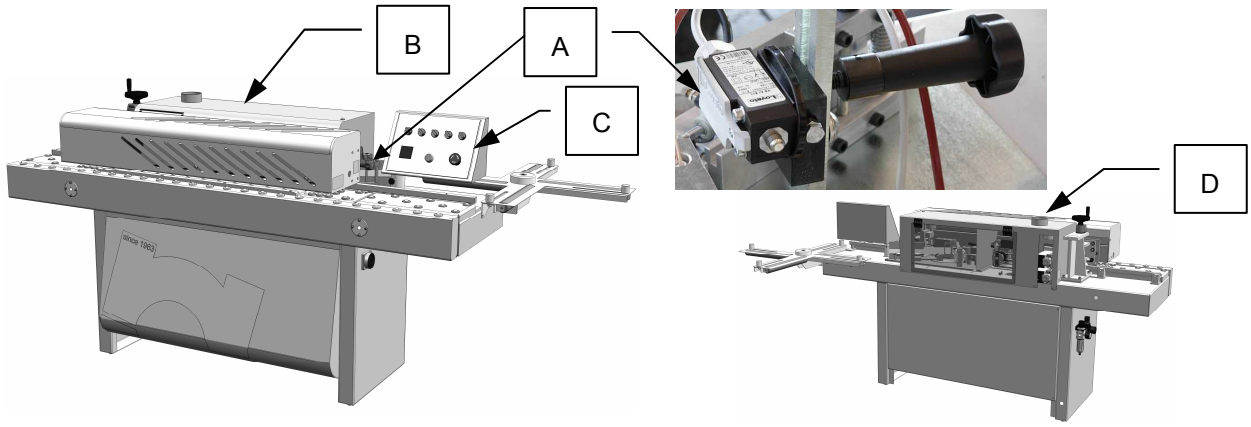
Never touch, either directly or indirectly, any moving parts of the machine while in operation.

Make sure that the machine is disconnected from the main power source before doing any cleaning, lubrication, maintenance, repair, adjustments, or part replacements.

The operator should never leave the machine unattended when in use.

6.5. CHECKING OF THE SAFETY PROTECTION DEVICES

WORK PLACE: before starting any work, check that the machine and the area surrounding it are clean and with no dust and/or scraps. Check that the working area is well enlightened and that the place for the parts to be worked and the ones already worked are tidy and close to the operator.



FEEDER SAFETY SWITCH: the machine is equipped with a safety micro-switch (see A) that is turned on when the feeder is opened and stops all the operations of the machine. Check periodically the integrity of the device and its correct work.

UPPER PROTECTION COVER: the upper cover reduces the access to the functional groups of the machine (see B) so avoiding the operator to touch the main dangerous parts of the machine. Check periodically the integrity of the cover and of the polycarbonate-made door, replace them if necessary.

EMERGENCY PUSHBUTTON: it is placed in the control panel (see C). Check periodically its correct working.

CHIP, DUST AND SMOKE COLLECTION: the machine is equipped with a hood (see D) for the connection with the suction system. Check periodically that the collecting hoods are complete and correctly connected with the suction system.

6.6. RISK DUE TO NOISE EMISSION LEVELS

The machine has been designed so as to reduce at the source the noise emission level. The noise levels of the machine are the following:

Reference standard ISO 7960	Machine on, not working, suction system off	Machine is regularly working
Level of soundpower released LW dB W (A)	83,8	91,3
Level of sound pressure at operator position Lop dB (A)	70,4	81,2

NOTE

The indicated noise levels are emission levels and do not necessarily represent safe operation levels. Even though there is a relation between emission levels and exposure levels, it cannot be used in a reliable way to determine whether additional precautions are to be taken. The factors that determine the exposure level that manpower is subjected to include the length of the exposure, the characteristics of the working place, other sources of dust and noise, etc., that is the number of machines and other adjacent processing. Allowed exposure levels may vary from country to country. In any case, this information will help the user of the machine to better evaluate danger and risks. To not exceed the noise level it is necessary following strictly these rules:

- check and replace periodically all the cutting tools and their fixing devices;
- clean and lubricate all the parts of the machine as suggested in this manual.

6.7. RISK DUE TO DUST AND SMOKE EMISSION

The machine is designed to work in close environment, so it is necessary to connect it to a suitable dust extraction system which complies with the EN 12779 regulation.

To not exceed the dust emission level it is necessary following strictly these rules:

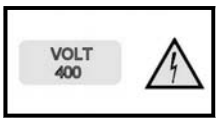
- always turn on the dust extraction system before start working with the machine;
- clean regularly (as written in this manual) the parts of the machine;
- check regularly that the dust extraction system works properly;
- check that the parts of the machine are not damaged or closed by dust and/or scraps.

6.8. RISK DUE TO VIBRATIONS

The vibration level is not so high to cause danger for the operator, during normal and correct use of the machine, as written in this manual.

6.9. PLATES AND PICTOGRAM

Always check that figures, colours, words of the safety signs are in good state.
If damaged or worn, It is necessary to replace them suddenly and call the responsible of the manufacturing plant of your firm.



7. MAINTENANCE

- **The operator must disconnect the machine from the power source (electric and pneumatic) before executing any maintenance operation.**
- **Always wear personal protection devices**

An adequate maintenance is a crucial factor to obtain optimal working condition and a longer life of the machine.
Always follow the procedures and recommendations described in this manual

7.1. CLEANING

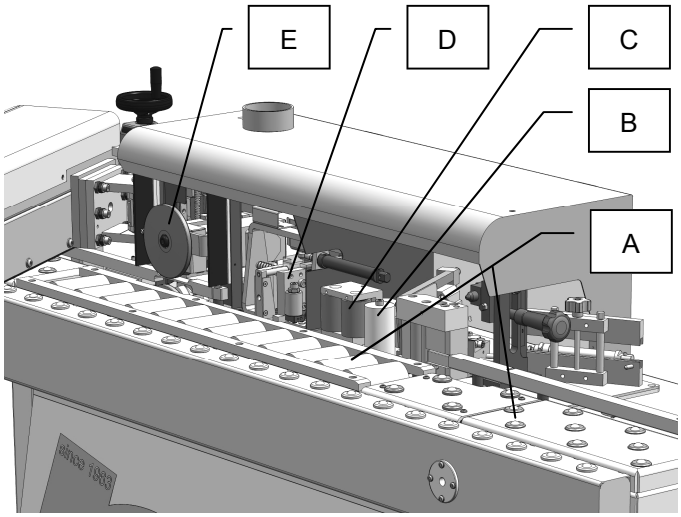
Regular cleaning of all machine parts and the surrounding environment means greater operating safety and a prolonged machine's life.

Before making any kind of cleaning, be sure that all the parts are cold (or at room temperature)

AFTER EACH WORK CYCLE AND AT THE END OF WORK PERIOD

Accurately clean the machine and all its components, removing with a suction hood chips and dust. Use compressed air only when strictly necessary, using protective glasses and a mask. It is very important that the following parts of the machine are as clean as possible from glue residues:

- Sliding rollers and working table (A)
- Edge-feeding roller (B)
- Edge-pressing rollers (C)
- End cutter (D)
- Copying disks and tools, end-trimming unit (E)



We suggest you to protect the cutting parts of the end-trimming unit and of the end-cutting unit using a unlocking spray in order to reduce as much as possible the deposit of glue residuals.
Ask your glue supplier for any information regarding this unlocking spray. Always remember to wear a protective mask when using spray.

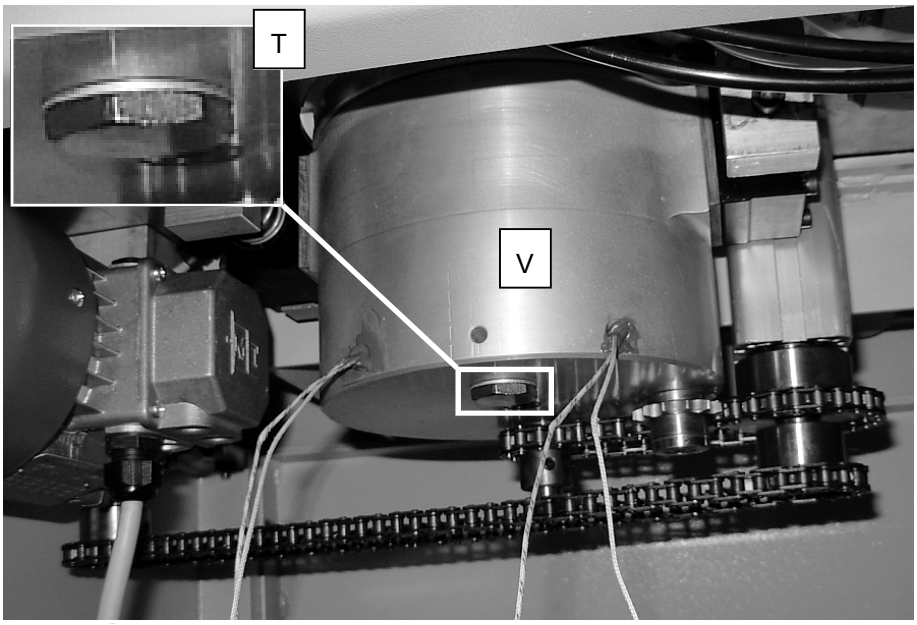
7.2. GLUE REPLACEMENT

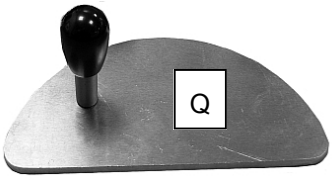
The glue looses its adhesive properties and deteriorates over time. It is necessary replace the glue to be sure to obtain first quality products. It could be also necessary to replace the glue when edging different materials or with other characteristics (edges and/or panels).

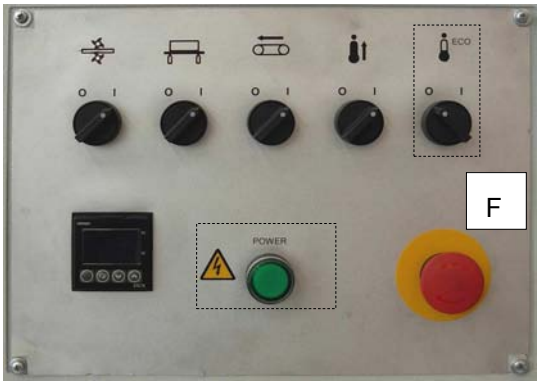
Always wear protective gloves to not burn your hands

EMPTYING OUT PROCEDURE:

- When the machine is cold, loose the emptying top (T) located in the bottom part of the glue pot (V)
- Put a capable container just below the glue pot
- Turn on the machine and activate the heating of the glue pot (F) turning the selector to "I"
- Wait for the glue reaches the target temperature: the solid glue melts gradually when the temperature goes up and pours down into the container through the emptying hole
- Remove the top cover (Q) and clean with a wooden or plastic spatula glue scraps eventually remained inside the glue pot. Please be carefully in using the spatula: do not damage the protective material of the glue pot
- Clean carefully the area where the emptying top (T) is screwed
- When the glue pot is empty and clean, screw the emptying top in the bottom part of the glue pot (please remember to perform the operation when the glue pot is not cold: if any glue residuals are solidified, it is very difficult to tighten again the emptying top in its seat)





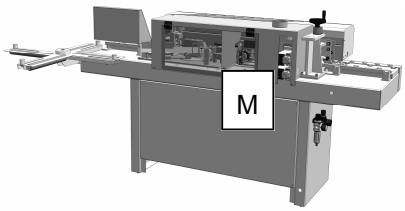


- Do not use metallic tools o clean the glue pot to preserve the protective material of the glue pot from damages
- Unscrew the emptying top from the bottom of the glue pot when the glue pot is cold before starting the emptying procedure
- Tighten the emptying top only before that the glue pot is empty and that the seat of the top is completely clean

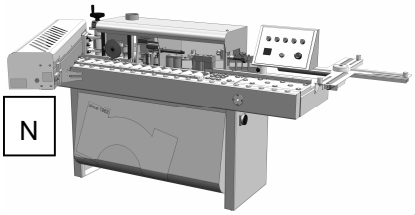
7.3. TOOLS REPLACEMENT

- **Always wear protective gloves to handle tools**
- **Disconnect the machine from the pneumatic air supply and turn of the machine before going on replacing tools**

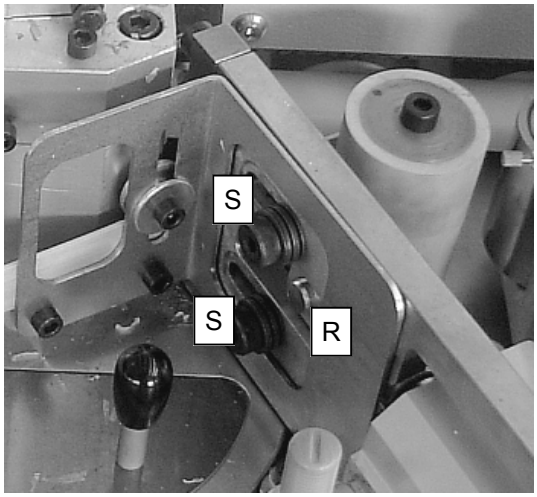
Check periodically the sharpness of tools, if necessary re-sharpen or substitute them. To get access to tools it is necessary to open the feeder (N) and in some cases the upper protection cover (M).

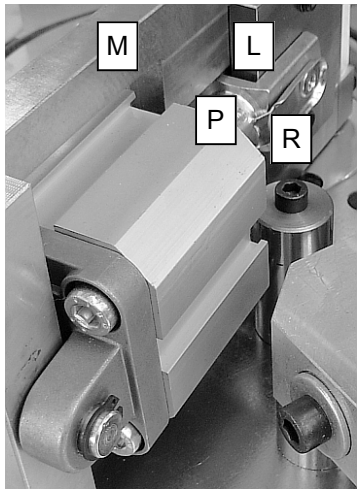


ALWAYS TURN OFF THE MACHINE BEFORE REMOVING THE UPPER COVER



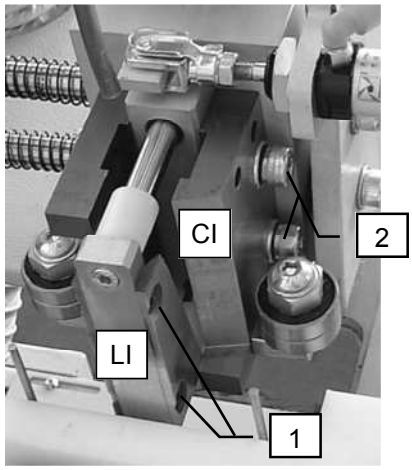
7.3.1. FIRST CUTTING BLADE REPLACEMENT





- Unscrew and remove screws, springs and washer (S)
- Disconnect the blade (L) from the cylinder rod (P) removing the connecting fork (R)
- Replace the blade and mount again the parts following the previous procedure from bottom to top

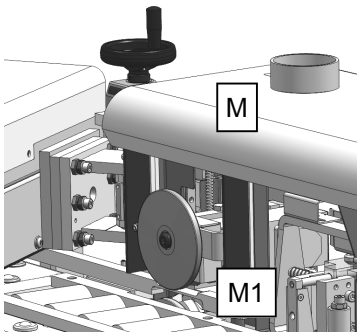
The screws (S) are not to be tighten, they have to be screw gently for the length useful for the blade to slip on the counter blade (M) without excessive plays.



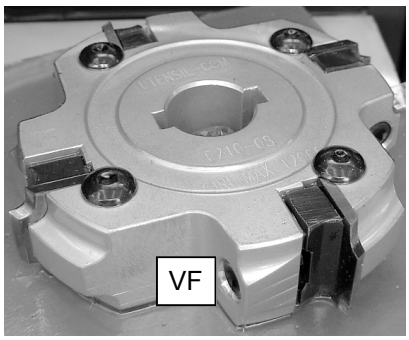
7.3.2. END CUTTING BLADE REPLACEMENT

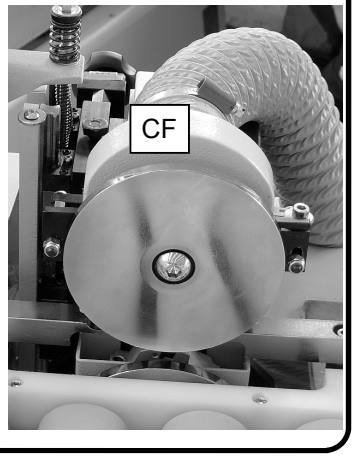
To replace the blade (LI) of the end-cutter unit, unscrew and remove the two screws (1), replace the blade, then screw again and tighten the screws. Repeat the same procedure for the other blade.
Never work on the screws (2) used to fix the counter blade (CL) of the end-cutter unit to the support.

7.3.3. REPLACING INSERTS OF END-TRIMMERS



To change inserts of the end-trimmers you have to follow two different procedures, one for the upper end-trimmer and another one for the lower end-trimmer. In both cases you have to remove firstly the upper protection cover (M) and the cover of the end-trimmers (M1) unscrewing the fixing screws.
The inserts of the end-trimmers must be replaced all together. To replace the inserts you have to unscrew the locking screws (VF) from the body of the end-trimmer.



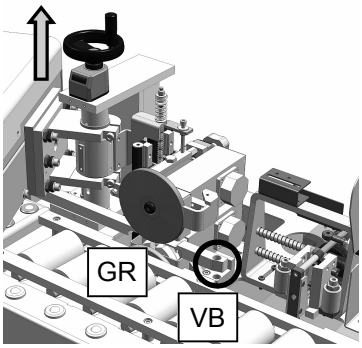


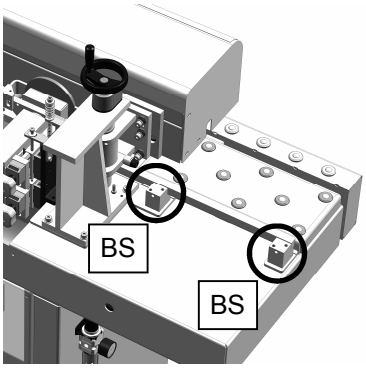
UPPER END-TRIMMER

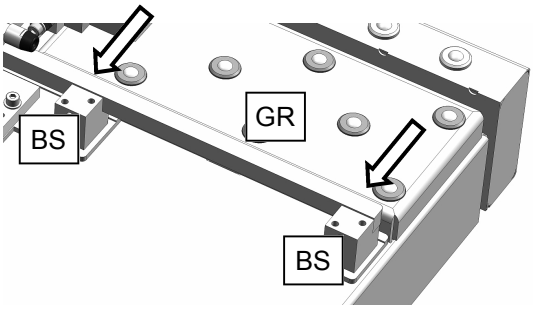
- Remove the top cover (CF) unscrewing the screws which fix it to the steel support: now you can reach the end-trimmer
- Replace the inserts working on the locking screws (VF)
- Mount again the top cover (CF)

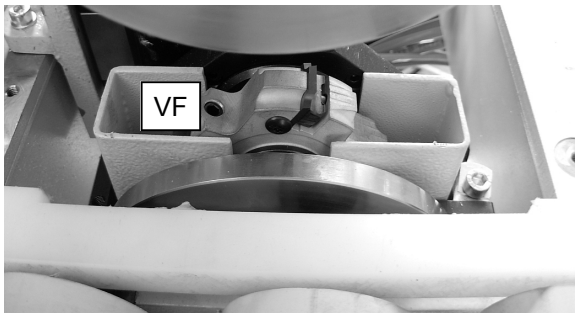
LOWER END-TRIMMER

- Lift up the feeder up to its maximum height turning the handwheel
- Remove the reference guide (GR) unscrewing the locking screws which fix it to the frame
- Replace the inserts working on the locking screws (VF)
- Mount again the reference guide (GR) locking the screws: please be sure that the guide is in contact with the supports (BS)







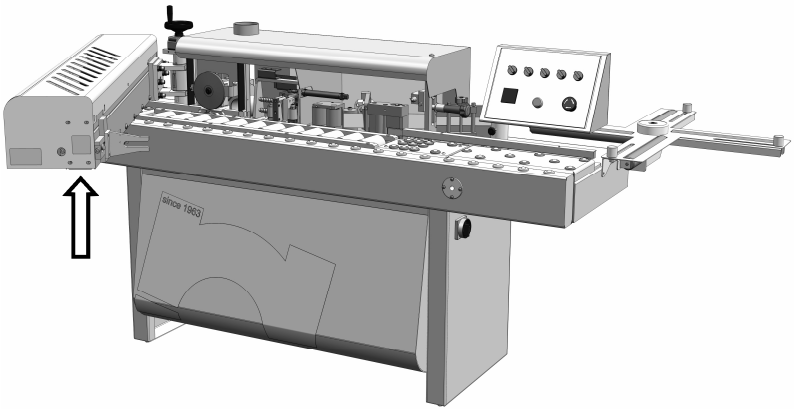


7.4. ADJUSTING TENSION OF FEEDING BELT

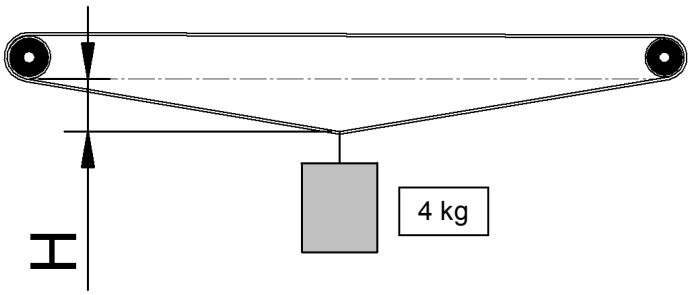
Check the tension after the first 20 working hours and periodically after every 150 working hours.

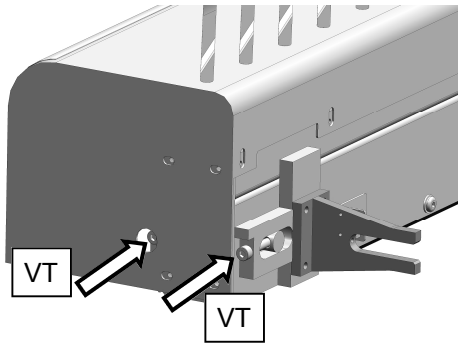
To check the tension follow these instructions:

- Loose the locking knob and open the feeder
- Hang up a weight of 4 kg in the middle of the feeding belt, check that belt stretch (H) is between 20 and 30 mm



If necessary regulate the tension of the belt working on the tensioning screws (VT): act on the two screws in the same manner, rotate them with the same number of revolutions to keep the correct alignment of the tensioning roll.





8. TROUBLESHOOTING

WARNING: BEFORE MAKING ANY INTERVENTION YOU MUST DISCONNECT THE MACHINE FROM ELECTRIC AND PNEUMATIC POWER SUPPLY

PROBLEM	CAUSE	SOLUTIONS
THE MACHINE DOES NOT START WHEN IT IS TURNED ON OR STOPS DURING A MACHINING CYCLE	1. Lack of line voltage 2. Fuses blown 3. Emergency on 4. Safety microswitch on 5. Overload thermal switch triggered because of: – Power supply cable cross-section too small – Drop in voltage due to cable power supply too long – Short circuit in the electric system 6. Air pressure supply too low 7. Glue temperature below 190°C (or too low respect the working target temperature)	1. Check with a tester that there is power on the three phases 2. Check that fuses are complete; if necessary replace them 3. Disconnect the emergency pushbutton pulling and rotating it counter clockwise 4. Check that the feeder is completely and correctly closed: if it is opened, the safety microswitch is turned on and the machine stops 5. The overloads in the electric panels work as thermal protection for the motors. Solve the cause for the machine stop and press the button to re-activate the overloads 6. The machine is equipped with a pressure switch that prevent it from starting if the air pressure is below 5 bar. Restore the correct value of the air pressure supplied (7-8 bar) 7. The machine is ready to start working only when the glue temperature has reached the target working temperature (about 190°C). If the glue can not reach this temperature in 25 minutes or so, you have to check if the electric components are undamaged.
THE PANEL DOES NOT SLIDE	1. Feeder height setting non correct respect panel thickness 2. Feeder not parallel to the working table in direction of panel feed	1. Adjust the height of the feeder respect to panel thickness, check the value on the display of the handwheel. During adjusting operations the locking knob must be loosen. Tighten again the locking knob at the end of the adjustment procedure. 2. Repeat the adjustment of feeder height making sure that the locking knob is loosened
THE EDGE IS NOT FED	1. Incorrect panel insertion 2. Jammed edge 3. Edge not correctly inserted	1. Insert the panel keeping against the entrance guide and accompanying it until it is not fed by the feeder 2. Check that the edge is free to move and slide along the path and that is correctly guided (there must be a play of at least 0.5 mm between the edge and the guiding structure) 3. Check that the edge is correctly inserted in the edge-guiding support and it has been fed by the edge-feeding system
THE EDGE IS NOT CLOSE-FITTING AND PROPERLY GLUED	1. The panel has edges that are not linear or not perpendicular 2. The edge is not glued in the entrance part of the panel and there is too much glue 3. There are traces of humidity and/or dust on the edges of the panel 4. The temperature of the panel is too low 5. The panel is too large 6. Not enough glue applied onto the panel 7. The glue is deteriorated 8. The glue pot is empty	1. The cut must be net, of high quality, with no chips, with high rectilinearity (at least ±0,1 mm for linear meter). The cut must be squared (90°): the faces of the panel must be perpendicular both respect the surface and the thickness. 2. Check that the edge is not too thick (max 2 mm). Adjust the entrance guide respect the edge thickness to apply. 3. The panels must be stored in dry and clean environment, with no humidity. 4. The panel must be stored at room working temperature 5. Support panels and accompany them until the endo of th working path 6. Set-up the quantity of glue: increase the quantity of glue as the total edge-banding area of the panel increases 7. The glue losses its characteristics and deteriorates overtime: it is necessary to replace it 8. Add glue in the glue pot

9. DISMANTLING

Waste and refuse produced during machining must be collected, recycled or eliminated according to the regulations in force of the country where the machine has been installed. Waste produced during machining on this machine are:

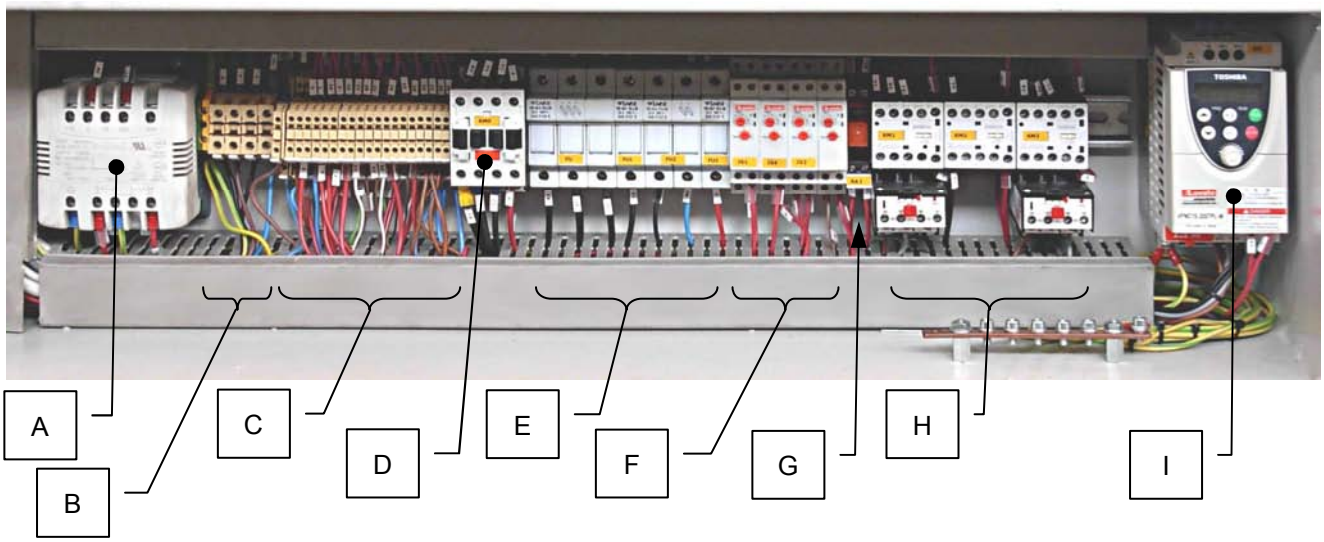
- raw material scrap (chips, shavings, etc.).
- dust

When machine has to be put out of service, please carefully follow our instructions in order to safeguard the safety of people and of environment.

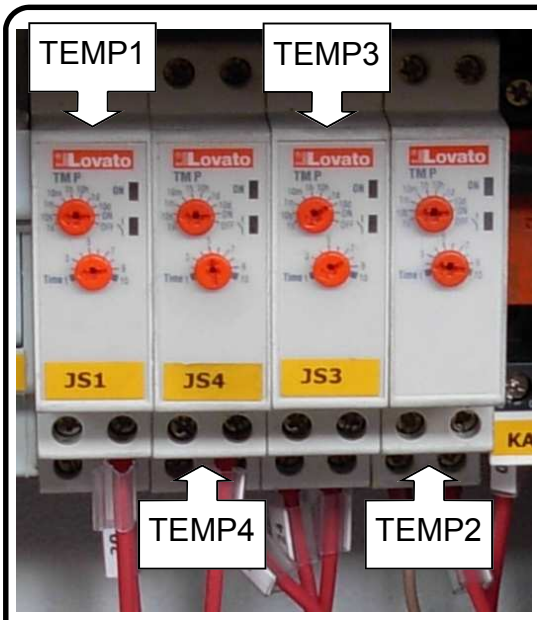
- Separate all plastic-made parts to be disposed as differentiated materials following the current rules and laws
- The mechanical component parts, built of steel, aluminium etc. or alloys shall be sorted in order to facilitate the process by which these are either sent to storage or to recycling
- Dismantle electric and pneumatic components so that you can re-use them after a check or a revision
- Do not waste in the environment non-biodegradable products, lubricant oils and non-ferrous components (rubber, resins,…)
- Call a specialized company to rescue and eliminate solid and liquid materials; dispose all the collected materials following the current rules and laws

10. ELECTRIC DIAGRAM AND ELECTRIC COMPONENTS

For the wiring diagram please see the document attached with this manual. In the following pages you can find a description of the main electric components of the machine.



A = TRANSFORMER
B = POWER TERMINAL BOARD
C = AUXILIARY TERMINAL BOARD
D = POWER CONTACTOR
E = FUSES
F = TIMERS
G = AUXILIARY POWER RELAY
H = POWER CONTACTOR + OVERLOAD CUTOUT
I = INVERTER

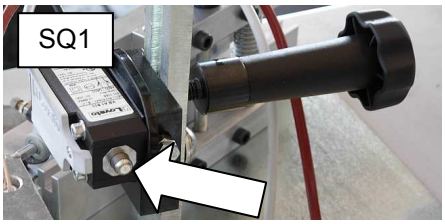


TIMER

TEMP1 = edge insertion (1,5 seconds) (*)
TEMP2 = cycle reset (4 seconds) (*)
TEMP3 = cutting group moving delay (0,1 – 0,2 seconds) (*)
TEMP4 = cutting group delay (1,8 – 2 seconds): it regulates the overlenght of the edge respect to the rear part of the panel (*)
(*) = these approximate values with a tolerance of +/-10%

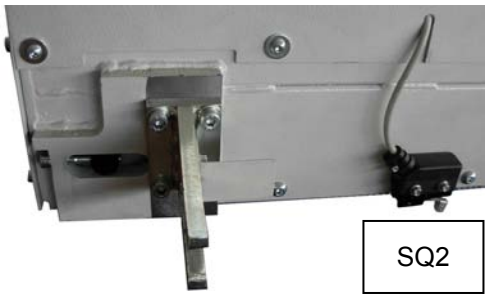
POWER CONTACTOR + OVERLOAD CUTOUT

They work only if there is a failure in the motors (the motor does not move, the contactor is out of service or there is an overload for the motor)

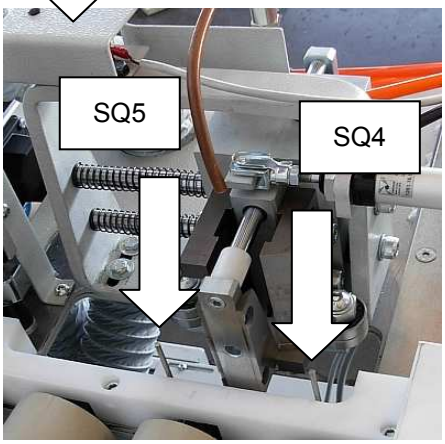


SAFETY SWITCH

SQ1 = safety switch to detect that the feeder is correctly closed: if its NOT correctly pressed, the machine DOES NOT start; if you open the feeder when the machine is working (so the safety switch is not pressed) the machine stops

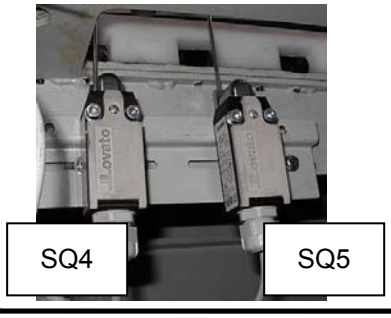


SQ6



SWITCH OF THE CUTTING GROUP

- SQ3 = presence switch to detect that the panel has passed; it is connected to timers and controls the action of the edge insertion group and the cutting group
- SQ2 = presence switch to detect that the panel has passed; it regulates the timing of the inserting group and the cutting group

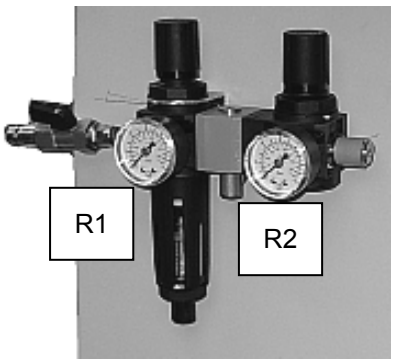


SWITCHES OF THE END-CUTTING GROUP

- SQ4 = it has two main functions:
  1. if it is pressed, allow the YV3 electrovalve to cut the edge (cutting group)
  2. if it is pressed and also SQ5 is still pressed, the YV4 electrovalve can not allow the moving cylinder to move the cutting group to reach the panel
- SQ5 = if it is pressed, the YV4 electrovalve allow the moving cylinder to move the end-cutting group to reach the panel
- SQ6 = end-stroke sensor

11. PNEUMATIC DIAGRAM AND PNEUMATIC COMPONENTS

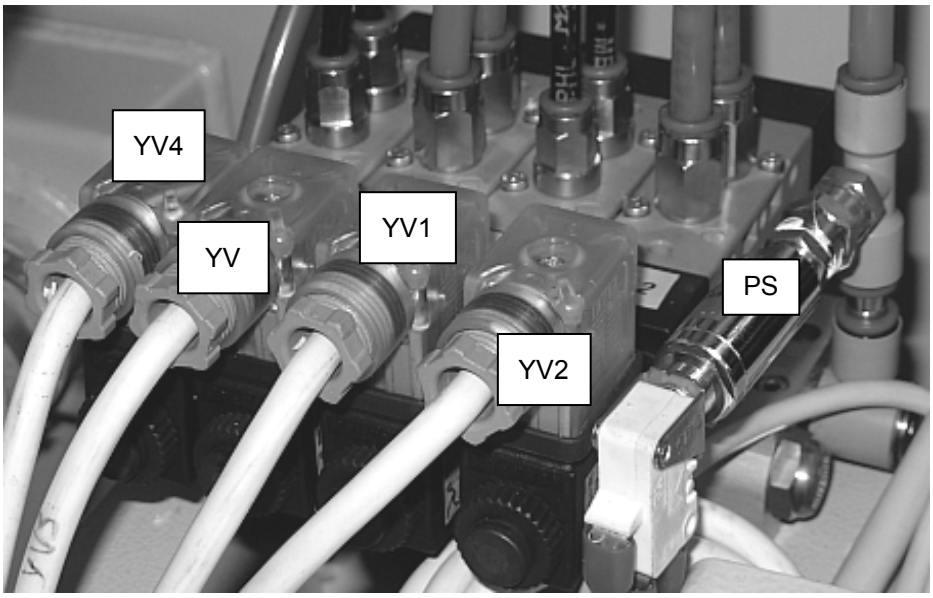
For the pneumatic diagram please see the document attached with this manual. In the following pages you can find a description of the main pneumatic components of the machine.



INLET PRESSURE REGULATOR

R1 = air pressure ±6 bar, It is connected to the electrovalves named YV1 – YV2 – YV3

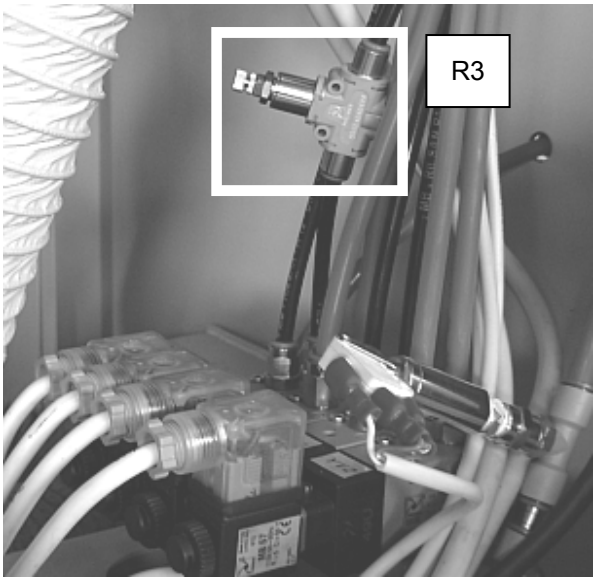
R2 = air pressure 3 - 3,5 bar, It is connected to the electrovalve named YV4 which controls the cutting unit



ELECTROVALVES

YV1 = it controls the cylinder for edge insertion (black Ø6 pipes)
YV2 = it controls the cylinder for edge cutting (orange Ø8 pipes)
YV3 = it controls the cutting cylinder (which moves the cutters) of the cutting group (orange Ø8 pipes)
YV4 = it controls the moving cylinder of the cutting group (black Ø6 pipes)

PS = pressure switch; it is powered at 110 V, if there is no (or low) pressure the machine does not start



PRESSURE REGULATOR

R3 = about 1 bar
It regulates the pressure that works against the panel when it is in contact with the cutting group

12. TERMS OF GUARANTEE

The guarantee provided with this certificate is valid for the period of one year from the date of purchase. Consequently, during such guarantee period, the manufacturer undertakes to replace any parts found to be faulty because of manufacturing defects. Only carriage expenses will be on the customer's account. The guarantee is void if the machine has been used improperly or damaged during transport.

GUARANTEE CERTIFICATE

The machine has been built according to technological and safety criteria and has been checked in our factory before being forwarded.
MAGGI ENGINEERING guarantees machine working and quality in agreement with law rules, for a period of 12 months. Improper use and incorrect maintenance, not following the rules contained in this manual, as well as adjustments or modifications not approved by the manufacturer, cancel all the terms of guarantee. The conditions of guarantee about the correct working of the machine are strictly connected to the respect of all the indications described in the USE AND MAINTENANCE MANUAL. The free replacement of any parts found to be faulty is done only after having checked that the machine had been properly used.
Claims and guarantee interventions request are accepted only against presentation of the machine number engraved into the identification plate.
Upon receipt of the machine carefully check that packaging is safe and not damaged. Except for different agreement, the manufacturer is not responsible for any damages done during transport.
In case of evident damages on packaging, we suggest to contact immediately the carriers. Our firm will be available to give the necessary support.

COUPON TO BE FORWARDED TO THE MANUFACTURER

GUARANTEE AND LOOK-OVER COUPON

Model...……..Serial number……...

Name……..

Address……..

ZIP Code……...City……

Date of purchase……. Dealer……...

Owner's signature

……..

The purchaser states to accept all the terms of guarantee and to have checked the machine to work well

NOTE

Send to:

maggi engineering

Sales and technical Assistance

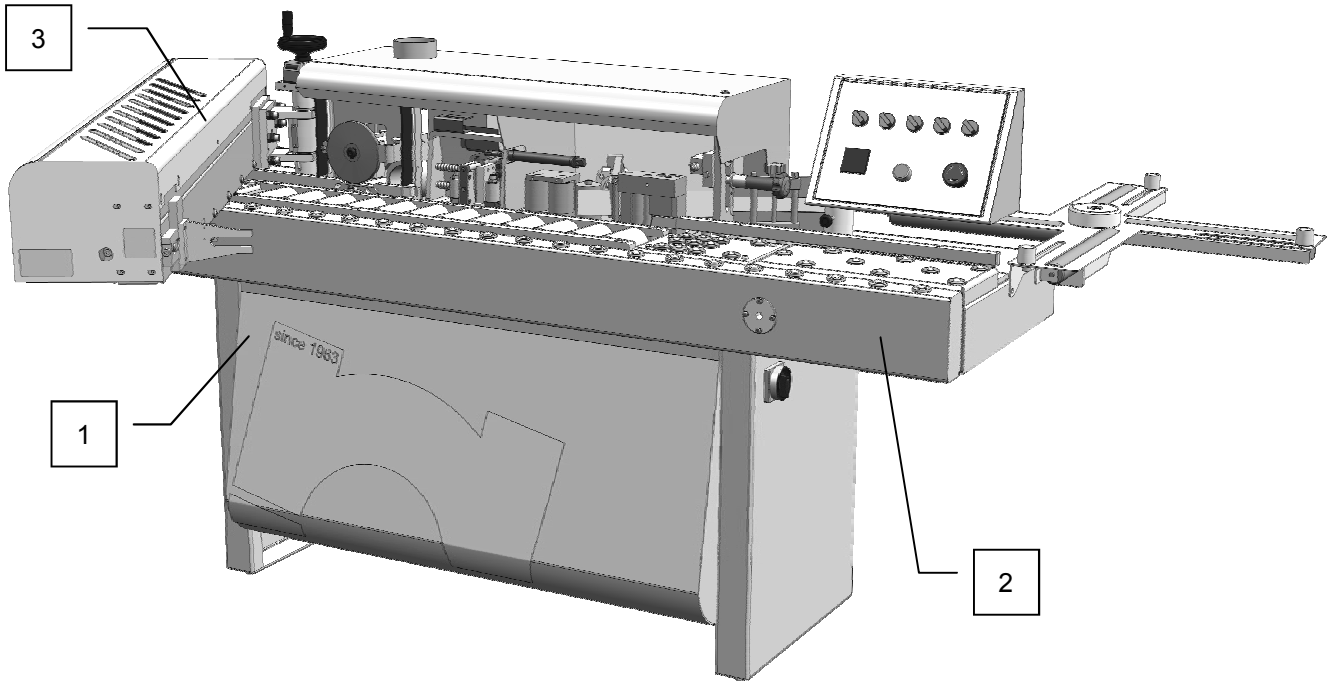
Via delle Regioni n°299

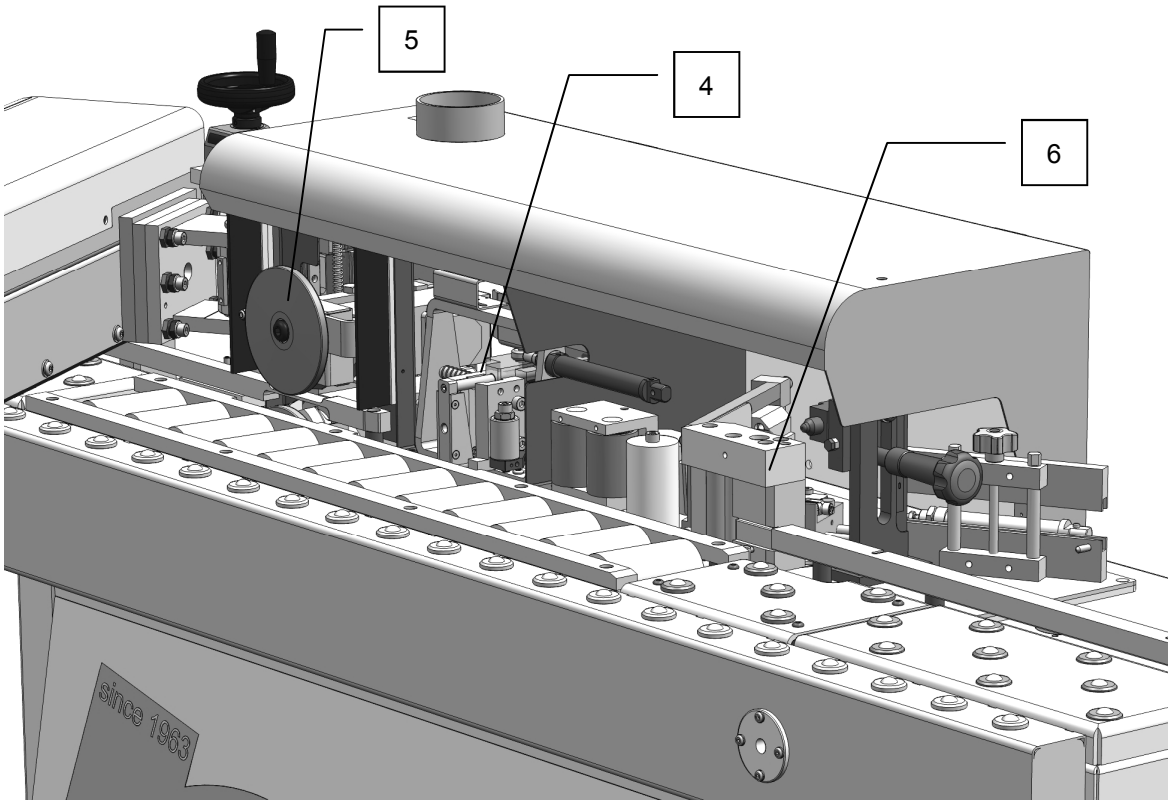
50052 CERTALDO (Fi)

ITALY

13. SPARE PARTS

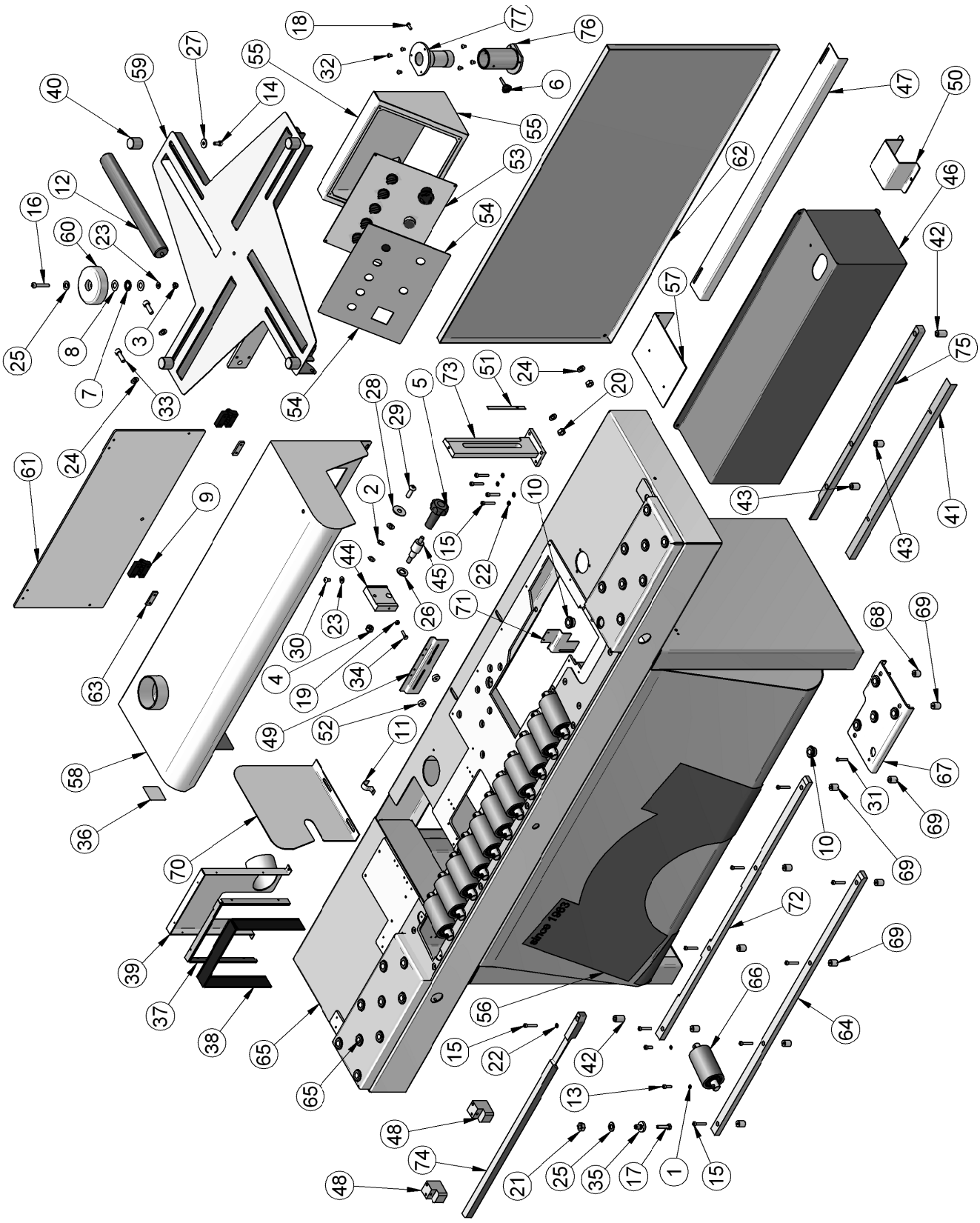
POS.	GROUP NAME	REFERENCE SHEET
1	FRAME UNIT	*SHEET 1*
2	SUPPORTING ROLL UNIT	*SHEET 2*
3	FEEDING UNIT	*SHEET 3*
4	END CUTTER UNIT	*SHEET 4*
5	END TRIMMING UNIT	*SHEET 5*
6	GLUE POT UNIT	*SHEET 6*





FRAME UNIT

SHEET 1

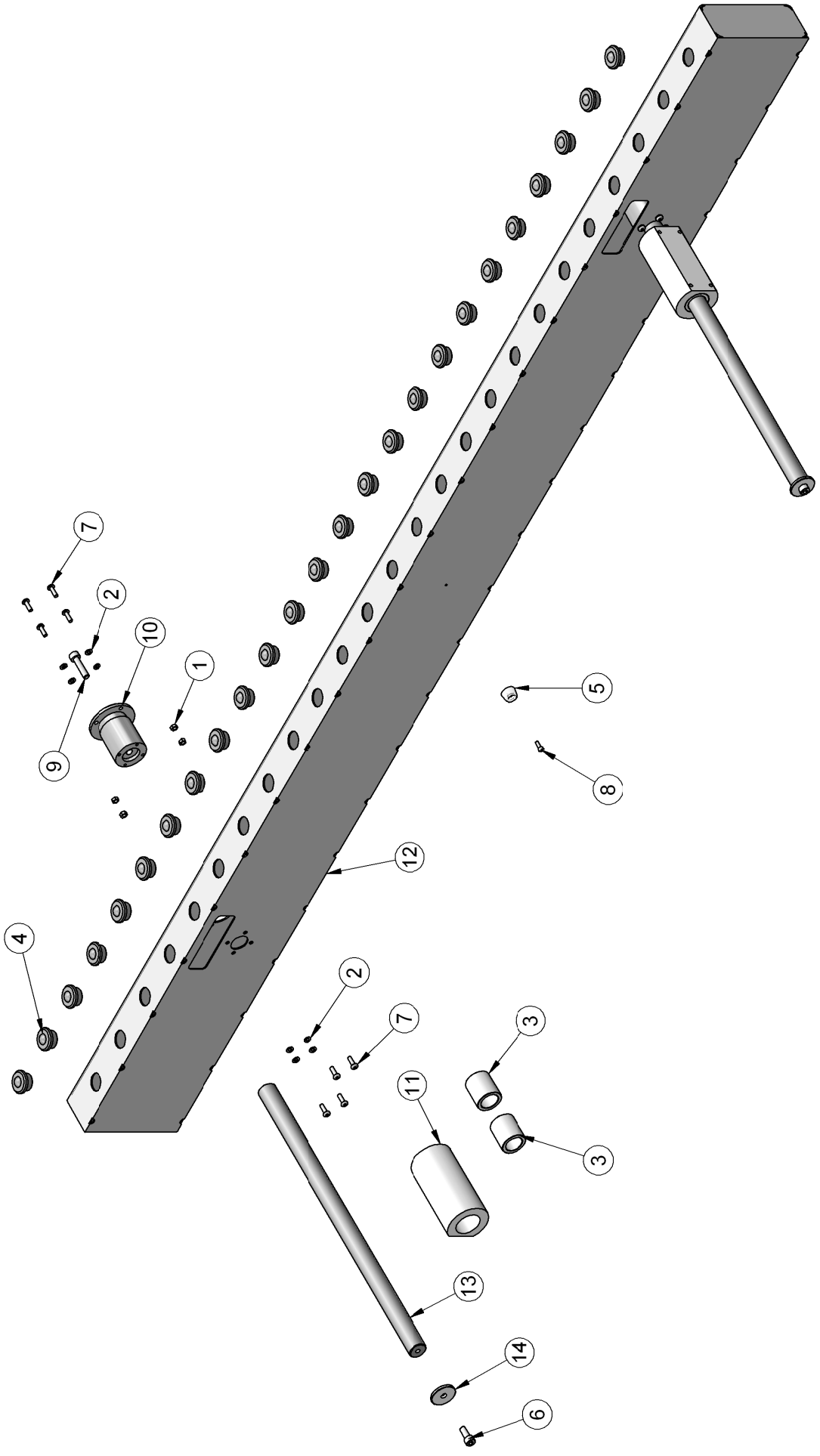


FRAME UNIT

POS.	CODE	PART NAME	Q.TY
1	00000041	PLAIN WASHER SCHNOR M6	24
2	00000048	SPRING Øe18,8 Øi10,2 s0,35	2
3	00000145	SELF-LOCKING NUT M8 UNI-7473 ZINC.	1
4	00000150	SELF-LOCKING NUT M10 UNI-7473 ZINC.	1
5	00003118	HANDWHEEL ELESA VTL 3580B M10 (FEMMINA)	1
6	00003125	BOTECO HANDLE 732-30 M6x30	1
7	00003430	BEARING INA AXK1528	1
8	00003431	RING INA AS 1528	2
9	00004004	GAMM C48/A HINGE	2
10	00004111	SLIDING ROLLER SP15LBD	23
11	00008507	HOOK 509 DIAM19	1
12	00014213	PVC ROLLER Ø40 L350 MOLLA (RS 301-5904)	4
13	00018303	SCREW VTCEI M6x20 ZINC	24
14	00018307	SCREW TCEI M8X16 UNI-5931 ZINC.	4
15	00018335	SCREW VTCEI M6x35 ZINC.	13
16	00018378	SCREW VTCEI M8 x 45 UNI5931 ZINC.	1
17	00018404	SCREW TE M8x35 UNI-5739 ZINC.	4
18	00018462	SCREW VTBEI M6x16 ISO7380 ZINC.	1
19	00018500	NUT M6 UNI-5588 6S ZINC.	1
20	00018503	NUT M10 UNI-5588 6S ZINC.	2
21	00018507	NUT M12 UNI-5588 6S ZINC.	4
22	00018520	PLAIN WASHER Ø6 UNI-6592 ZINC.	5
23	00018521	PLAIN WASHER Ø8 UNI-6592 ZINC.	2
24	00018522	PLAIN WASHER Ø10 UNI-6592 ZINC.	5
25	00018523	PLAIN WASHER Ø13 UNI-6592 ZINC.	5
26	00018524	PLAIN WASHER Ø17 UNI-6592 ZINC.	1
27	00018527	PLAIN WASHER Ø8x24 ZINC	4
28	00018534	PLAIN WASHER Ø12x36 UNI3351 ZINC.	1
29	00018602	SCREW TBCEI M10X30 ISO-7380 ZINC.	1
30	00018613	SCREW VTBEI M8X10	1
31	00018622	SCREW TBCEI M6X30 ISO-7380 ZINC.	4
32	00018720	SCREW TBCEI M6 x 8 ISO-7380 ZINC.	6
33	00061003	SCREW VTCEI M10x30	2
34	00340607	SCREW VTE M6x20	1
35	36050032	FOOT	4
36	38500230	MILLING PLATE	1
37	38500236	BRUSH PROFILE	3
38	38500237	BRUSH	3
39	38500241	MILL SUCTION STRUCTURE	1
40	38500308	ROLLER	4
41	38500322	EDGE SPACER	1
42	38500367	MEDIUM SPACER	2
43	38500368	LOW SPACER	2
44	38500375	FEEDER BLOCK	1
45	38500376	CONTROBLOCCO TRASCINATORE	1
46	38500377	ELECTRIC BOX	1
47	38500380	COVER	1
48	38500388	ADJUSTING SUPPORT	2
49	38500390	MICROSWITCH SUPPORT	1
50	38500399	CABLE COVER	1
51	38500554	FEEDER MILLIMETRED RULE	1
52	38500721	MICROSWITCH SUPPORT SPACER	2
53	38500908	CONTROL PANEL FRONT PANEL	1
54	38500909	CONTROL PANEL PLATE	1
55	38510302	CONTROL PANEL CONSOLLE	1
56	38510306	FRONT PLATE	1
57	38510316	PNEUMATIC BOX	1
58	38510330	REAR COVER	1
59	38510336	DISK SUPPORT	1
60	38510340	CENTRAL DISK	1
61	38510342	REAR COVER DOOR	1
62	38510345	REAR CLOSING PANEL	1
63	38510346	HINGE SPACER	2
64	38510348	SLIDING PLATE	1
65	38510355	FRAME	1
66	38510356	ROLL	12
67	38510365	CENTRAL SLIDING PLATE	1
68	38510367	LOW SPACER	1
69	38510368	PLATE SPACER	11
70	38510369	SEPARATION WALL	1
71	38510391	ENTRANCE MICROSWITCH SUPPORT	1
72	38520348	SLIDING PLATE	1
73	38520361	LOCKING COLUMN	1
74	38520363	ENTRANCE FENCE	1
75	38520364	EXIT FENCE	1
76	38520381	CONSOLLE FIXING TUBE	1
77	38520382	CONSOLLE PIN	1

SUPPORTING ROLL UNIT

SHEET 2

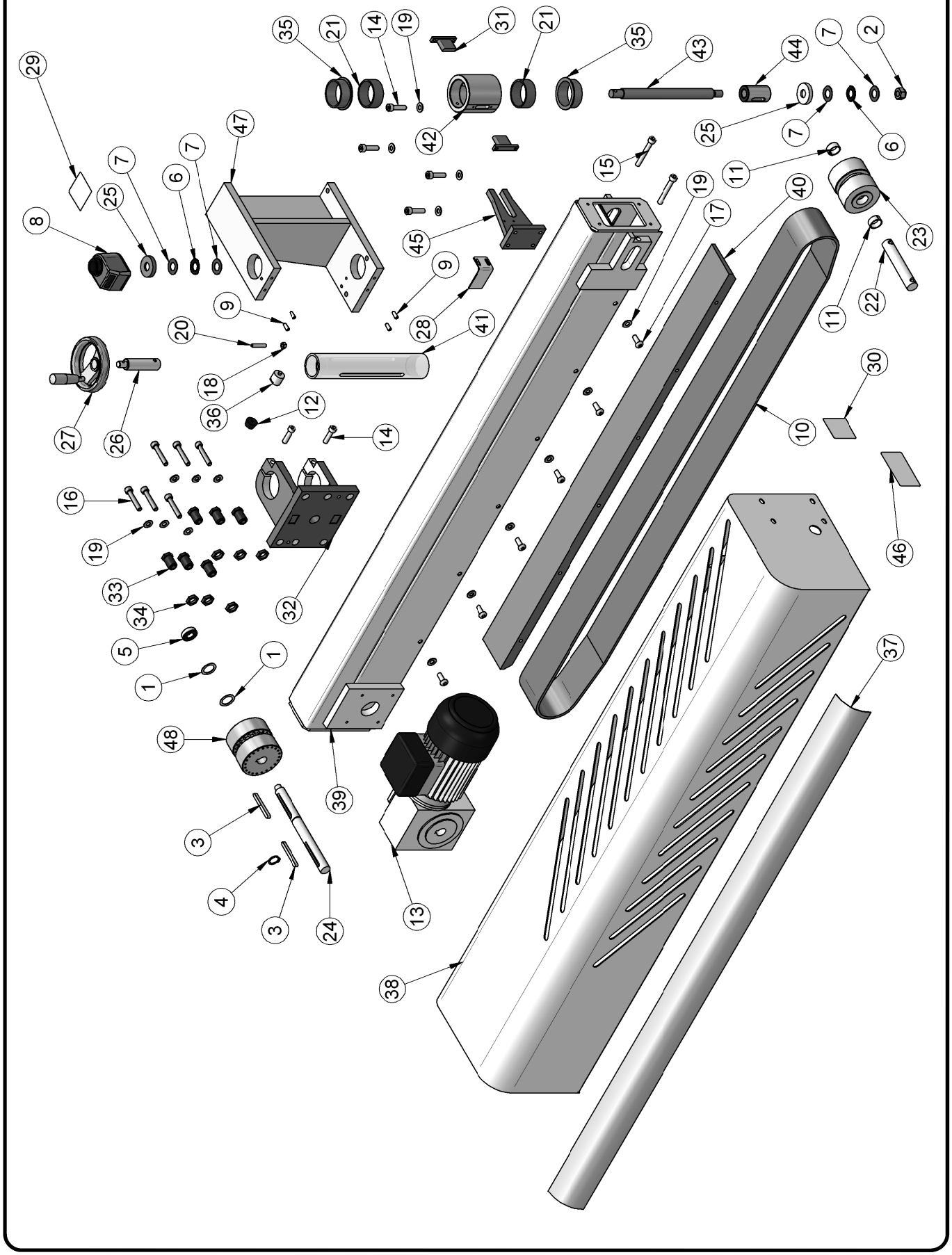


SUPPORTING ROLL UNIT

POS.	CODE	PART NAME	Q.TY
1	00000139	NUT M5 UNI-5588 6S ZINC.	8
2	00000140	PLAIN WASHER Ø5 UNI-6592 ZINC.	16
3	00003033	BALL-BUSHING KH2540PP	4
4	00004111	SLIDING SUPPORT SP15LBD	25
5	00005201	END STOPPER	1
6	00018322	SCREW TCEI M8X20 UNI-5931 ZINC.	2
7	00018609	SCREW TBCEI M5X16 ISO-7380 ZINC.	16
8	00020404	SCREW VTCEI M4 x 12	1
9	00050808	SCREW VTCEI M8x35	2
10	38500911	SUPPORTING ROLL BASE	2
11	38510901	ROLL UNIT SUPPORT	2
12	38510902	ROLL UNIT BEAM	1
13	38510906	ROLL UNIT GUIDE	2
14	49900051	TRANSVERSE WASHER	2

FEEDING UNIT

SHEET 3

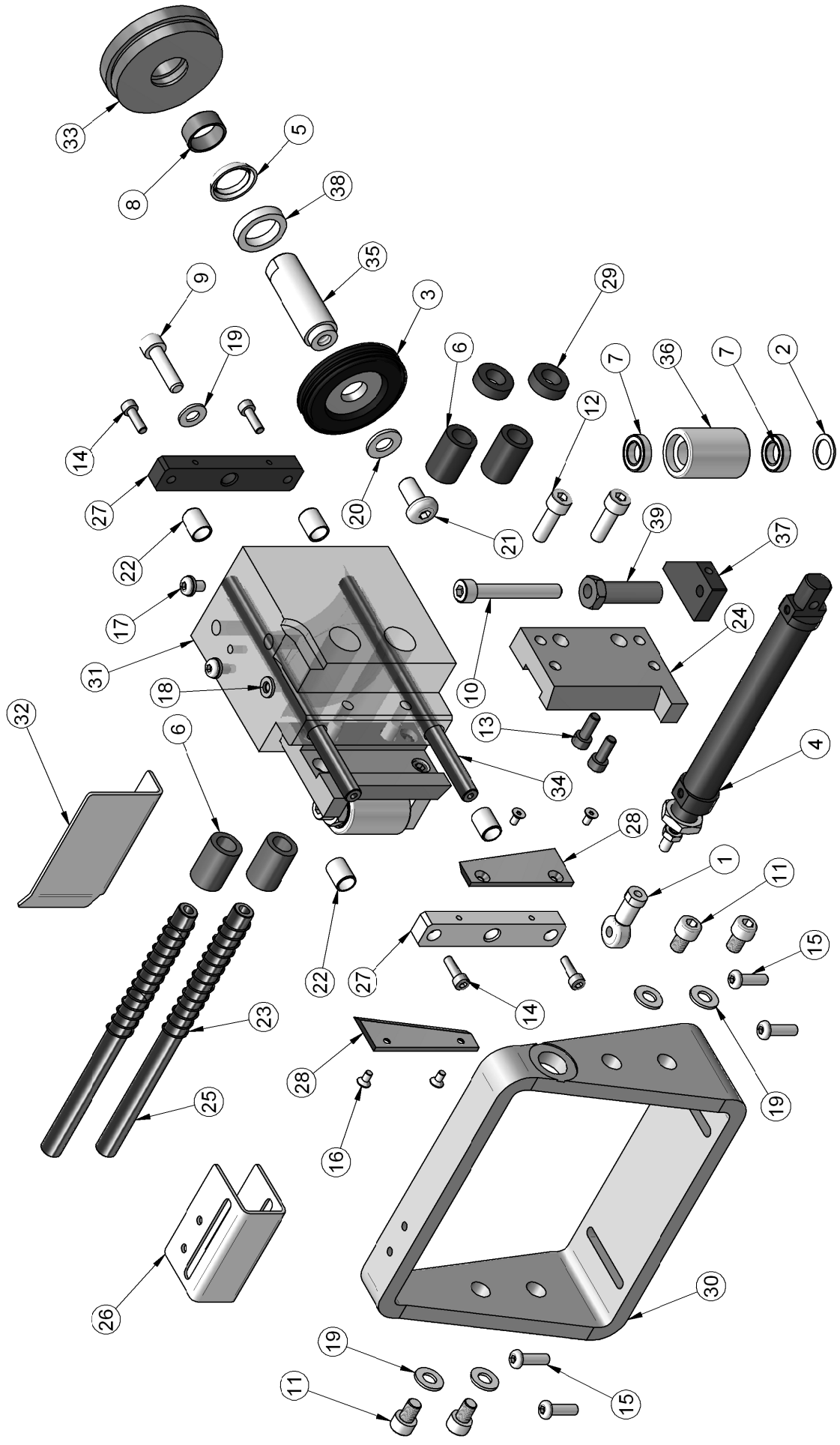


FEEDING UNIT

POS.	CODE	PART NAME	Q.TY
1	00000034	SPACING WASHER PS-20X28X1	2
2	00000147	SELF-LOCKING NUT M12 UNI-7473 ZINC.	1
3	00000223	PARALLEL KEY 6x6x60 UNI-6604 A	2
4	00003388	SEEGER RING E18	1
5	00003424	SKF BALL BEARING 6001 2RS1	1
6	00003430	BEARING INA AXK1528	2
7	00003431	RING INA AS 1528	4
8	00003959	COUNTER ELESA DD52-AR-0002.5-D-AR	1
9	00004048	SCREW M 6 X 16 UNI-5927	4
10	00004600	FEEDING BELT	1
11	00005095	BUSH PAP 2010 P10	2
12	00005201	END STOPPER	1
13	00014307	MOTOR CHT63B4 0,18 Kw + REDUCER NMRV040 PAM 1/60+FLANGE F(FA) D110	1
14	00018308	SCREW TCEI M8X30 UNI-5931 ZINC.	6
15	00018323	SCREW TCEI M8X60 UNI-5931 ZINC.	2
16	00018378	SCREW VTCEI M8 x 45 UNI5931 ZINC.	6
17	00018418	SCREW VTBEI M8X20	12
18	00018500	NUT M6 UNI-5588 6S ZINC.	1
19	00018521	PLAIN WASHER Ø8 UNI-6592 ZINC.	22
20	00140601	SCREW VTSTEI M6x30	1
21	00150818	BUSH FE-PTFE 45X50X20	2
22	38500520	BELT TENSIONING SHAFT	1
23	38500522	TENSIONING ROLLER	1
24	38500523	BELT MOTOR SHAFT	1
25	38500527	LIFTING SEAT	2
26	38500530	LIFTING SHAFT	1
27	38500538	BOTECO HANDWHEEL D207 130 D12 RAL2004	1
28	38500539	SAFETY PLATE	1
29	38500542	HANDWHEEL PLATE	1
30	38500544	LOCKING KNOB PLATE	1
31	38500545	LIFTING PARALLEL KEY	2
32	38500548	ROTATION FORK	1
33	38500549	ADJUSTING BUSH	6
34	38500550	ADJUSTING NUT	6
35	38500553	FEEDER BUSH	2
36	38500555	END STOP SPACER	1
37	38500907	FRONTAL PLATE	1
38	38510501	FEEDING COVER	1
39*	38510511	FEEDING BEAM	1
40	38510519	BELT GUIDE	1
41	38510524	LIFTING SUPPORT	1
42	38510525	FEEDER ROTATION SUPPORT	1
43	38510526	LIFTING SCREW	1
44	38510528	LIFTING NUT	1
45	38510531	LOCKING FORK	1
46	38510543	THICKNESS PLATE	1
47	38520505	FEEDING COLUMN	1
48	385XX534	MOTOR ROLLER	1

END CUTTER UNIT

SHEET 4

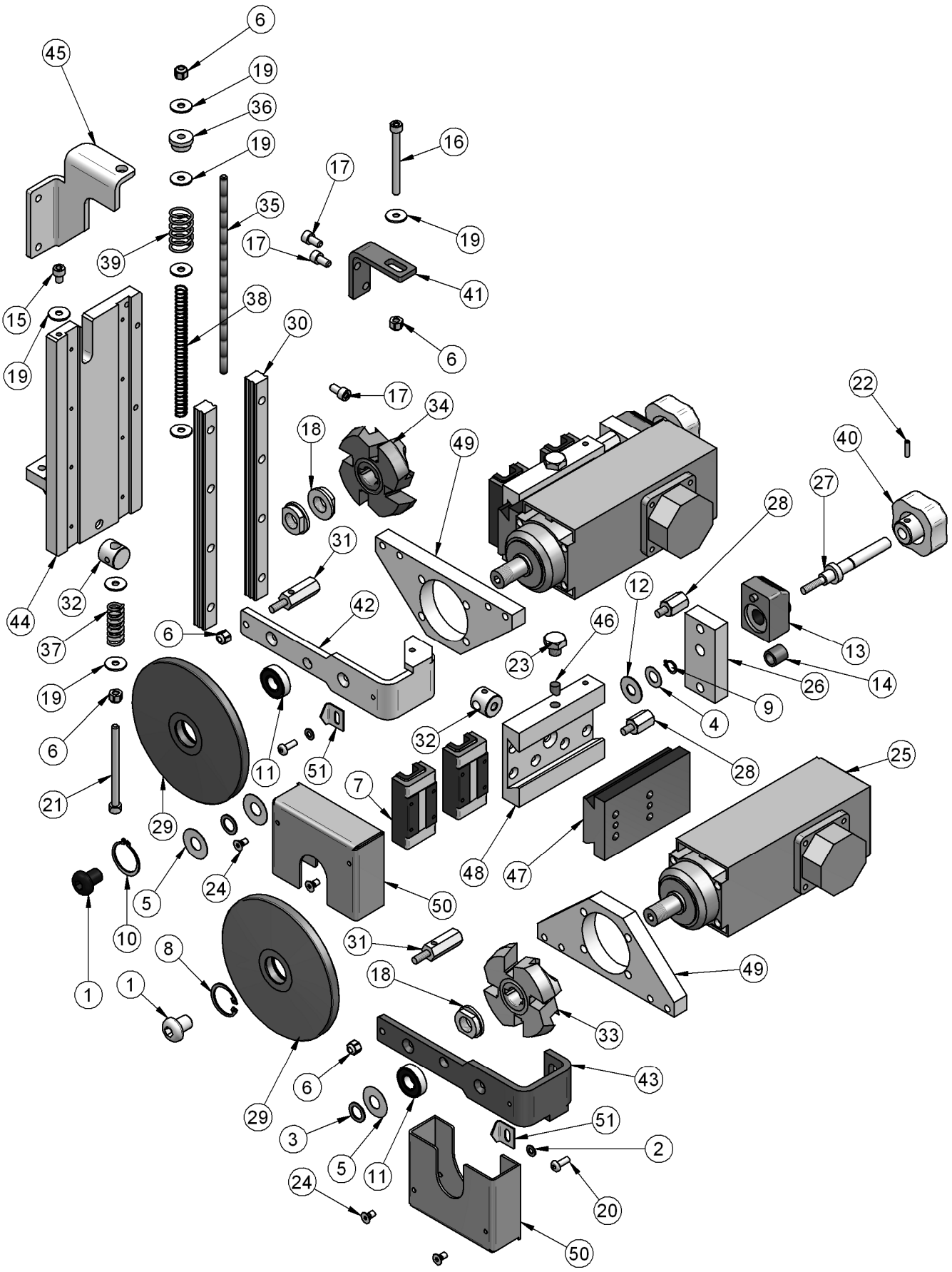


END CUTTER UNIT

POS.	CODE	PART NAME	Q.TY
1	*	KPN JOINT RD000003	1
2	00000044	SPACING WASHER PS Ø14X20X1	2
3	00001161	GASKET CORTECO NADUOP 63-1	1
4	00001163	PNEUMATIC CYLINDER 1260 Ø16 100	1
5	00001501	GASKET Øi20 Øe28	1
6	00003028	BALL BUSHING SKF LBBR 12-HV6	4
7	00003421	BALL BEARING 61801-2RS	4
8	00005095	BUSH PAP 2010 P10	1
9	00018308	SCREW TCEI M8X30 UNI-5931 ZINC.	1
10	00018323	SCREW TCEI M8X60 UNI-5931 ZINC.	2
11	00018339	SCREW VTCEI M8x12 ZINCATA	4
12	00018340	SCREW TCEI M8X25 UNI-5931 ZINC.	4
13	00018344	SCREW TCEI M6x16 UNI 5931 ZINC	4
14	00018344	SCREW TCEI M5x16 UNI 5931 ZINC	4
15	00018431	SCREW TBCEI M6X20 ISO-7380 ZINC.	4
16	00018439	SCREW TSPEI M4x8 UNI-5933 ZINC.	4
17	00018441	SCREW VTBCEI M6x10	2
18	00018520	PLAIN WASHER Ø6 UNI-6592 ZINC.	3
19	00018521	PLAIN WASHER Ø8 UNI-6592 ZINC.	5
20	00018522	PLAIN WASHER Ø10 UNI-6592 ZINC.	1
21	00018601	SCREW TBCEI M10X20 ISO-7380 ZINC.	1
22	001508024	BUSH IGUS GSM-1012-15	4
23	37600617	SPRING	2
24	38500703	END CUTTER COUNTERBLADE	2
25	38500704	SLIDING GUIDE	2
26	38500706	END STROKE PLATE	1
27	38500708	END CUTTER SUPPORT	2
28	38500716	END CUTTER BLADE	2
29	38500717	CARRIAGE STOPPER	2
30	38510701	END CUTTER SUPPORT	1
31	38510702	END CUTTER CARRIAGE	1
32	38510709	END CUTTER CAM	1
33	38510711	CYLINDER HEAD 63	1
34	38510712	END CUTTER GUIDE	2
35	38510713	END CUTTER CYLINDER ROD	1
36	38510722	END CUTTER ROLLER	2
37	38520707	END CUTTER BEARING SUPPORT	2
38	38520718	BLADE STOPPER	1
39	38530705	END CUTTER ECCENTRIC PIN	2

END TRIMMING UNIT

SHEET 5

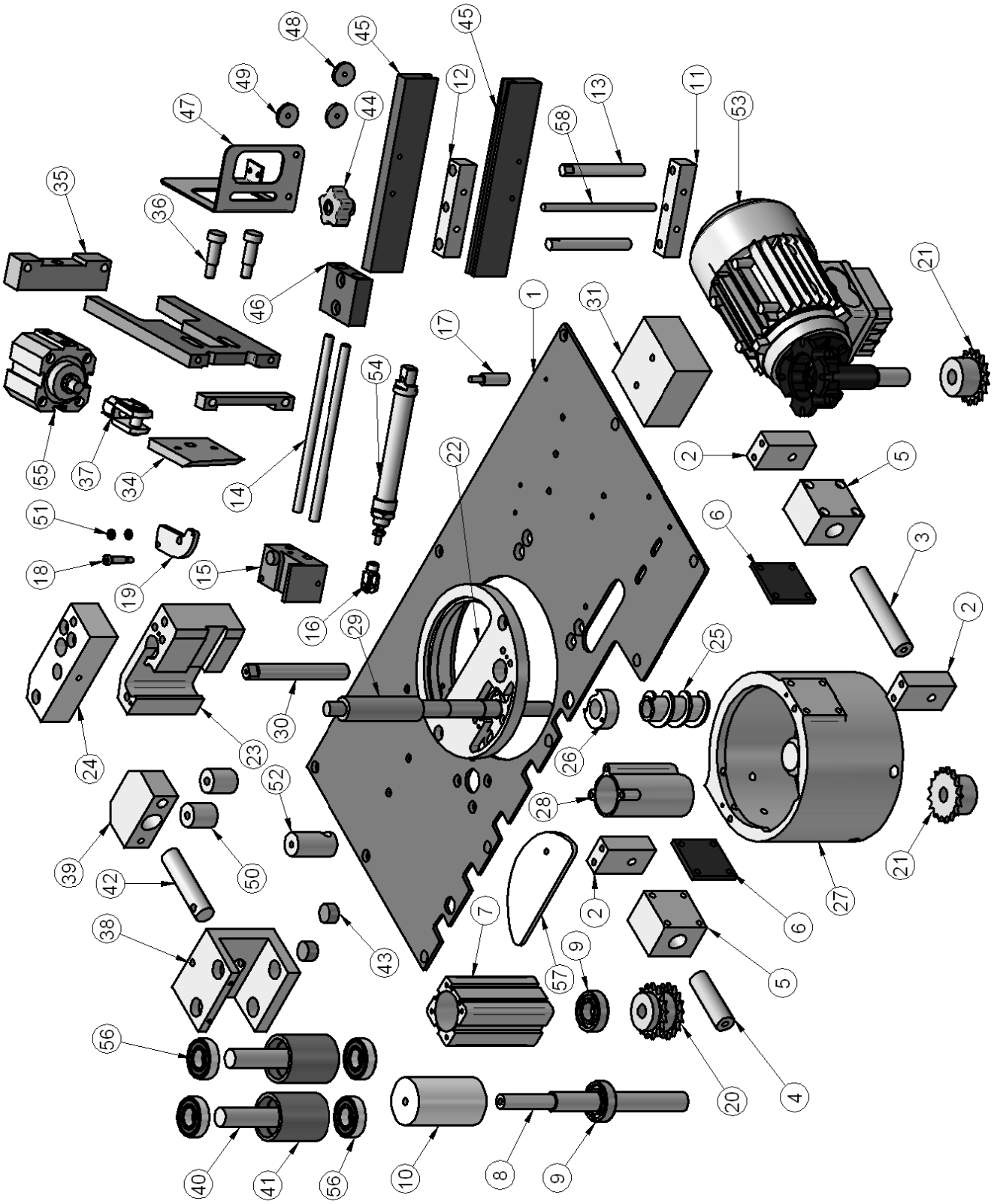


END TRIMMING UNIT

POS.	CODE	PART NAME	Q.TY
1	*	SCREW TBCEI M12X16 ISO-7380 ZINC	2
2	00000017	PLAIN WASHER Ø5 UNI-6592 BRUN.	2
3	00000037	SPACING WASHER PS Ø12X18X1	2
4	00000048	SPRING Øe18,8 Øi10,2 s0,35	2
5	00000049	SPRING Øe28 Øi12 s1	3
6	00000144	SELF LOCKING NUT M6 UNI-7473 ZINC.	5
7	00003038	RUNNER BLOCK ABBA BRS 15-B	4
8	00003337	SEEGER RING I28	1
9	00003350	SEEGER RING 10 E	2
10	00003365	SEEGER RING E28	1
11	00003424	SKF BALL BEARING 6001 2RS1	2
12	00003461	RING INA AS 1024	2
13	00003986	COUNTER VO-SX_1.0 AR.D.10	2
14	00005015	BUSH Ø14-Ø10-L14	2
15	00018317	SCREW VTCEI M6x8	1
16	00018320	SCREW VTCEI M6x65 ZINC.	1
17	00018333	SCREW TCEI M 6X12 UNI 5931 ZINC.	3
18	00018498	MOTOR NUT M16x1-5	3
19	00018526	PLAIN WASHER Ø6x18 UNI3351 ZINC.	8
20	00018621	SCREW TBCEI M5x14 ISO 7380 ZINC.	2
21	00040616	SCREW VTCEI M6x80	1
22	00120406	SCREW VTSTEI M4x15 UNI 5923	2
23	00361003	SCREW TE M10 X 10 5739 bru.	2
24	00530505	SCREW VTSPEI M5x10	4
25	28500204	ELECTROSPINDLE NC35-B TEKNOMOTOR	2
26	38500203	END TRIMMING PLATE	2
27	38500207	LOWER END TRIMMING MOVING SCREW	2
28	38500208	INDEX SUPPORT	4
29	38500209	END TRIMMING DISK	2
30	38500210	END TRIMMING GUIDEABBA BR_15_RIF	2
31	38500211	END TRIMMING DISK COLUMN	2
32	38500214	END TRIMMING COLUMN	3
33	38500218	RH TRIMMER	1
34	38500219	LH TRIMMER	1
35	38500229	ADJUSTING THREADED BAR	1
36	38500232	SPRING REFERENCE	1
37	38500233	LOWER SPRING	1
38	38500234	MEDIUM SPRING	1
39	38500235	UPPER SPRING	1
40	38500239	ADJUSTING HANDWHEEL	2
41	38500240	END STROKE SUPPORT	1
42	38500244	END TRIMMING DISK ARM	1
43	38500245	LOWER END TRIMMING DISK ARM	1
44	38501201	END TRIMMING SUPPORT	1
45	38510202	END TRIMMING CONNECTING SUPPORT	1
46	38510204	END TRIMMING PLUG	2
47	38510212	END TRIMMING CARRIAGE	2
48	38510213	END TRIMMING SLIDE	2
49	38510217	END TRIMMING DISK SUPPORT	2
50	38520225	END TRIMMING COVER	2
51	45400027	POSITIONING INDEX	2

GLUE POT UNIT

SHEET 6



GLUE POT UNIT

POS.	CODE	PART NAME	Q.TY
1	38510601A	GLUE POT PLATE	1
2	38510602A	SLIDING COLUMN	3
3	38510603A	SLIDE	1
4	38510604A	SHORT SLIDE	1
5	38510605A	SUPPORT	2
6	38510606A	INSULATION PLATE	2
7	38510607A	PINION AXIS SUPPORT	1
8	38510608A	EDGE FEEDER ROLL SHAFT	1
9	38510609A	EDGE FEEDER BEARING	2
10	38510610A	EDGE FEEDER ROLL	1
11	38510611A	EDGE INSERTION BASE	1
12	38510612A	EDGE INSERTION BEAM	1
13	38510613A	EDGE INSERTION SLIDE	2
14	38510614A	EDGE PUSHING ROD	2
15	38510615A	EDGE PUSHING BLOCK	1
16	38510616A	EDGE PUSHING FORK	1
17	38510617A	EDGE PUSHING PIN	1
18	38510618A	CURSOR PIN	1
19	38510619A	EDGE PUSHING CURSOR	1
20	38510620A	DOUBLE PINION	1
21	38510621A	MOTOR PINION	2
22	38510622A	GLUE POT COVER	1
23	38510623A	GLUE SPREADER BODY	1
24	38510624A	GLUE SPREADER TOP	1
25	38510625A	GLUE SPIRAL	1
26	38510626A	SPACER	1
27	38510627A	GLUE POT	1
28	38510628A	SUCTION PROFILE	1
29	38510629A	GLUE ROLLER SHAFT	1
30	38510630A	GLUE REGULATOR SHAFT	1
31	38510631A	MOTORGEAR BLOCK	1
32*	38510632A	CUTTER BODY	1
33*	38510633A	FRONT COLUMN	1
34	38510634A	CUTTER BLADE	1
35	38510635A	REAR COLUMN	1
36	38510636A	CUTTER PIN	2
37	38510637A	CUTTER FORK	1
38	38510638A	CASTLE	1
39	38510639A	EDGE PRESSER SUPPORT	1
40	38510640A	EDGE PRESSER ROLL SHAFT	2
41	38510641A	EDGE PRESSER ROLL	2
42	38510642A	EDGE PRESSER PIN	1
43	38510643A	CASTLE SUPPORT	2
44	38510644A	KNOB	1
45	38510645A	EDGE INSERTION	2
46	38510646A	EDGE FEEDER SLIDE	1
47	38510647A	EDGE PLATE	1
48	38510648A	EDGE GUIDE WASHER	2
49	38510649A	UPPER EDGE GUIDE WASHER	1
50	38510650A	EDGE PRESSER COLUMN	2
51	38510651A	EDGE FEEDER WASHER	2
52	38510652A	REFERENCE COLUMN	1
53	38510653A	MOTORGEAR	1
54	38510654A	EDGE PUSHING CYLINDER	1
55	38510655A	CUTTER CYLINDER	1
56	38510656A	EDGE PRESSER BALL BEARING	4
57	38510657A	GLUE POT TOP	1
58	38510658A	EDGE INSERTION SCREW	1

SPARE PARTS REQUEST

ATTENTION! FILL IN DETAILS THIS FORM

Customer …….. Address …… ……..……..……	Date……. Telefon number …….. Telefax ……..

MACHINE TYPE	SERIAL NUMBER	PURCHASE DATE	
GROUP CODE	**CODE**	**PART NAME**	**QUANTITY**

NOTE

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……

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N.B.: Please attach a copy of each table where the requested part is.

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Associato ACIMALL Member Company

TWT Tuscany Woodworking Technologies

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Azienda con Sistema di Gestione della Qualità Certificato ISO 9001:2000

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MAGGI ENGINEERING