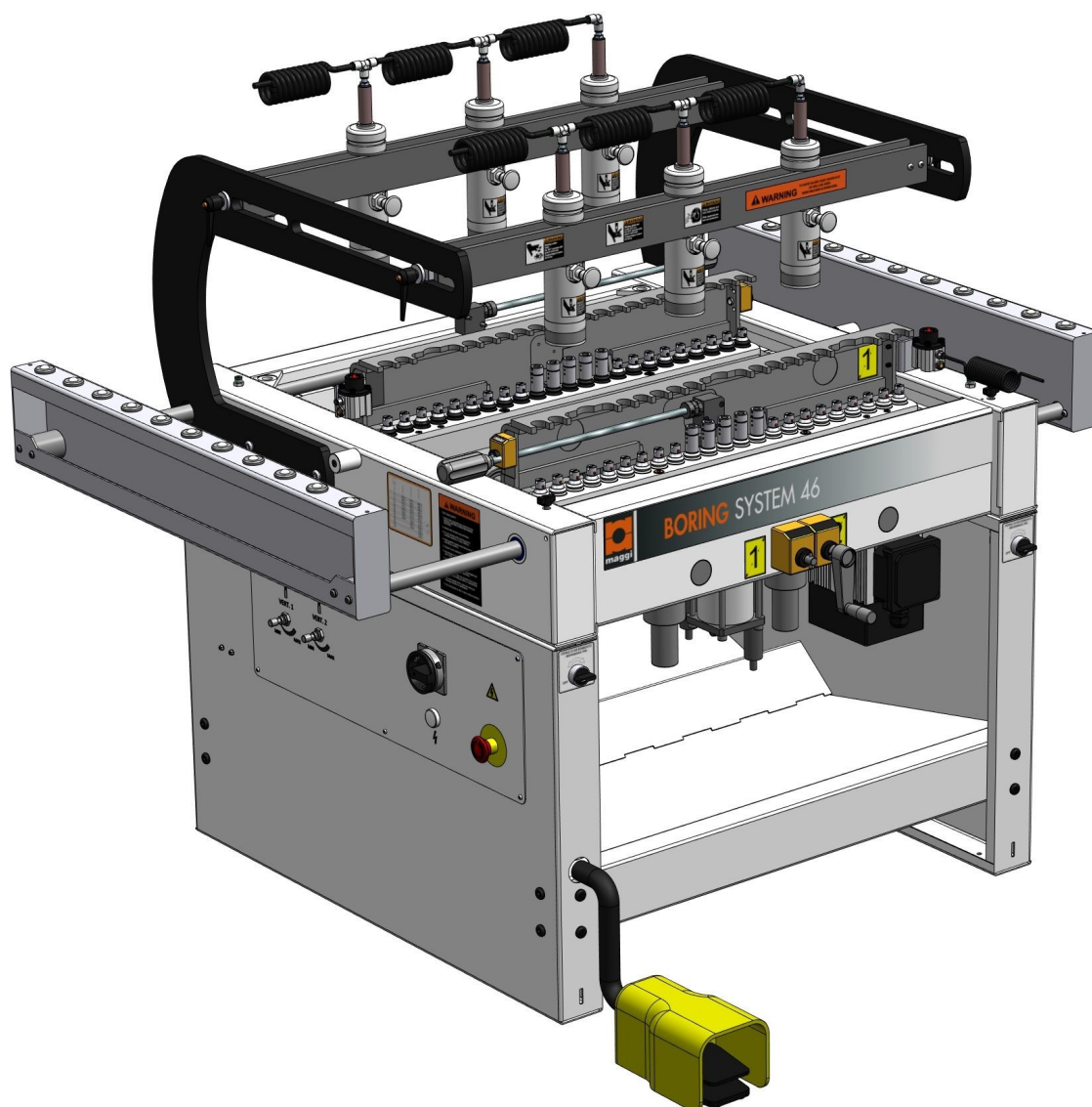
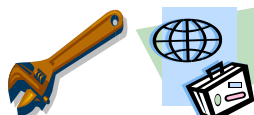




WOODWORKING MACHINERY



MACHINE CODE 16432300
16433300



EN

MANUAL CODE 00008670
REV 00



THIS MANUAL SHOULD ALWAYS BE KEPT NEAR THE MACHINE FOR FUTURE REFERENCE

BORING SYSTEM 46

ORIGINAL USE and MAINTENANCE MANUAL

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 OPTIONAL 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.

The manufacturer reserves the right to make any modifications to the product described in this manual at any time without prior notice.

All reproduction rights are reserved by the manufacturer .

DECLARATION OF CONFORMITY



(S.I. 2008:1597 - ANNEX II A)

(TRANSLATION OF THE ORIGINAL LANGUAGE)

Company name and address of the machine manufacturer:

*Maggi Technology S.r.l.
Via delle Regioni, 299 50052 Certaldo (FI) Italia
Tel. +39 0571 635401*

Name and address of the company authorised to produce the technical folder:

Consafe - Via Mosca, 33 47924 Rimini (RN)- ITALIA

DECLARES

That the machine:

MACHINE DESIGNATION: SINGLE HEAD DRILLING MACHINE

MACHINE MODEL: BS

SERIAL NUMBER: SERIES PRODUCTION

YEAR OF MANUFACTURER: 2022

BRIEF DESCRIPTION:

The machine is a manually operated drilling machine for making a series of holes with a fixed center distance of 32 mm (or multiples of it). The feeding of the pieces to be drilled is manual. The machine is able to cut wooden boards or similar material.

Complies with:

- **Supply of Machinery (Safety) Regulations 2008 S.I. 2008:1597**
- **Electromagnetic Compatibility Regulations 2016 S.I. 2016:1091**

It also complies with designated standards:

- **ISO 12100:2010 (Risk assessment and risk reduction)**

Certaldo 2022

*In fitness whereof:
Giacomo Landi*

A handwritten signature in black ink, appearing to read 'Giacomo Landi'.



CE Declaration of Conformity

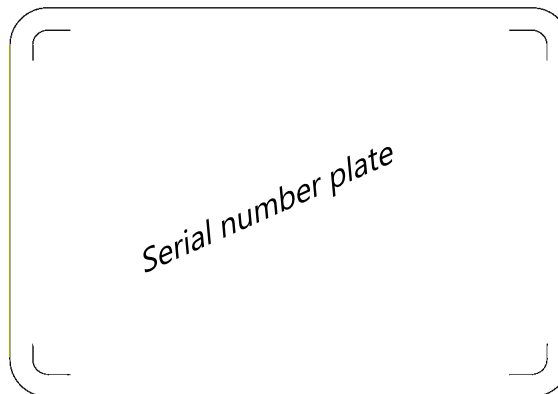
The manufacturer

Maggi Technology S.r.l.

Via delle Regioni, 299 - 50052 Certaldo (FI) ITALIA

Dichiara che la macchina

<i>The machine</i>	<i>BORING MACHINE</i>
<i>Model</i>	<i>BORING SYSTEM 46</i>



is in compliance with all provisions pursuant the following directives:

2006/42/EC (Machine)

2014/30/EU (EMC)

2014/35/EU (Low voltage)

and represents the technical file.

-Certaldo - Issues date :

The General Manager
Giacomo Landi





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SYMBOLS USED IN THIS MANUAL

<i>SYMBOL</i>	<i>MEANING</i>	<i>DESCRIPTION</i>
	DANGER	Shows a danger, also danger of death, for the user
	INFORMATION	Shows instructions or warnings for important functions

GENERAL INFORMATION ON THE MANUFACTURER

Manufacturer:	MAGGI TECHNOLOGY S.r.l.
Address:	Via delle Regioni, 299 - 50052
Town:	CERTALDO (FI)
Country:	ITALY
Tel.	+39 0571 63541
Fax.	+39 0571 664275
E-mail:	service@maggi-technology.com

1. SAFETY RULES AND GENERAL INFORMATION

1.1 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.

We strongly recommend not to make any other type of work repair or operation not suggested in this manual.

We suggest also to keep this manual in a place where the user can easily find and read it.



SAFETY PROTECTION DEVICE

ANY REMOVAL, EXCLUSION OR MODIFICATION OF SAFETY PROTECTION DEVICES IS STRICTLY FORBIDDEN: ANY ADULTERATION OR REMOVAL OF ANY OF THESE DEVICES CAN CAUSE SEVERE DAMAGE

Make regular periodical inspections to check if safety protection devices work well (at the very first use of the machine, at the start of every working shift and after long time of not use of the machine).

If any defects and/or malfunctions are put into evidence on safety protection devices, act as following:

- Immediately stop the machine
- Show and put into evidence the issue to the responsible for safety
- Put on the machine a tag (sign) saying "DO NOT USE THIS MACHINE - OUT OF ORDER" (or something like that) in a place on the machine where it is easy to be seen
- Adopt immediately the necessary countermeasures so solve the problem
- Before using the machine again after repair, check accurately that it is fine and all safety countermeasures are in good state and work well



NEVER LEAVE THE MACHINE UNATTENDED WHEN IN USE, FOR ANY REASON

WHEN THE MACHINE STOPS, WAIT FOR EVERY ORGAN IN MOTION TO BE ACTUALLY STOPPED BEFORE LEAVING THE MACHINE.

MAINTENANCE:

- *Disconnect the machine from any energy sources: the electrical power supply and the pneumatic air supply must be cut off and blocked*
- *Check that any residuals energy has been actually consumed before performing any maintenance interventions on the machine*
- *Any maintenance operation must be performed only by specialized and/or authorized personnel*
- *Put on the machine a tag (sign), in a place easy to be seen, saying that the machine is under maintenance and can not be used for working*

1.2. GENERIC NOTES



WOODWORKING MACHINES CAN BE DANGEROUS

- 1) A safe and correct use can be obtained by carefully and scrupulously following all the instructions contained into this manual.
- 2) The machine must be used only by qualified users and personnel of age. The responsible for safety must be sure that user of the machine have read and understood all the information contained into this manual. The user must be well trained on the correct use of the machine, the safety protection devices and of all the accessories.
- 3) The personnel for both ordinary and extraordinary maintenance must be well prepared in mechanics and electricity.
- 4) Apply any ordinary maintenance operation at the planned time to keep the machine in good and safe state.

The main danger is related to rotating tools and to moving/tilting drilling head and all the parts connected to it.

1.3. OPERATIVE WARNINGS

- 1) 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.
- 2) The connecting cable to the electrical power supply must be safe, well stretched out and not rolled up.
- 3) Do not put any inflammable substances nearby the machine because of risk of explosion and/or fire due to possible sparks production.
- 4) The machine must be turned off when not in use.
- 5) Enter the drilling zone only if the machine is turned off. Keep out from any moving/rotating parts of the machine. Never touch drilling heads and other moving parts while in motion.
- 6) The operator must think carefully about possible consequences before approaching with his hands the most dangerous areas of the machine (the drilling zone, the tools, the working area of the clamp units).
- 7) The machine drilling devices must be correctly blocked and adjusted before use.
- 8) Before you switch on the machine or start any work session, check that the working table is free of the shaving left from the wood previously drilled.
- 9) The operator must pay maximum attention using the pneumatic pedal to work with the machine.
- 10) Never place one working part over one another. Correctly set-up the machine and then drill always only one part at time.

Our machine is equipped with following protection devices to reduce risks to the minimum:

A) Emergency push button

It is inserted in the control panel, in the front side of the machine. All the movements of the machine stop immediately when the emergency push button is pushed.

B) Series of stickers and plates

They describe in details all the safety instructions, the correct working procedures and identify the main parts of the machine. One plate shows the identification and serial number of the machine.




C) Safety clamp (patented)

They are on the surface of the working table or of the already positioned working piece, so that the operator can not put unintentionally his hands below.

D) Safety protection device





No-way-back coil preserve against accidental start. No-way-back coil preserve against accidental start

1.4 PICTOGRAMS AND SYMBOLS

	DANGER - ELECTRIC POWER SUPPLY THE UNIT IS UNDER ELECTRIC TENSION
	DANGER - ELECTRIC POWER SUPPLY 400V
	GREASING POINT



	READING THIS MANUAL IS COMPULSORY
	DISCONNECT THE MACHINE TO ANY POWER SUPPLY AT THE END OF EACH WORKING SHIFT
	DISCONNECT THE MACHINE TO ANY POWER SUPPLY BEFORE MAINTENANCE
	COMPULSORY ANTI-NOISE DEVICES AND GOGGLES
	COMPULSORY PROTECTIVE MASK
	WEAR PROTECTIVE CLOTHES

	WARNING - DANGER
	WARNING - HAND SHEARING DANGER
	WARNING - HAND CUTTING DANGER
	WARNING - HAND CRUSHING DANGER

	IT IS FORBIDDEN TO USE THE MACHINE IN MORE THAN ONLY ONE OPERATOR
	IT IS FORBIDDEN TO REMOVE SAFETY PROTECTION DEVICES
	IT IS FORBIDDEN TO MAKE ANY MAINTENANCE OPERATIONS WHEN THE MACHINE IS WORKING
	IT IS FORBIDDEN TO EAT / DRINK MEALS ON THE MACHINE
	IT IS FORBIDDEN TO USE THE MACHINE OUTSIDE

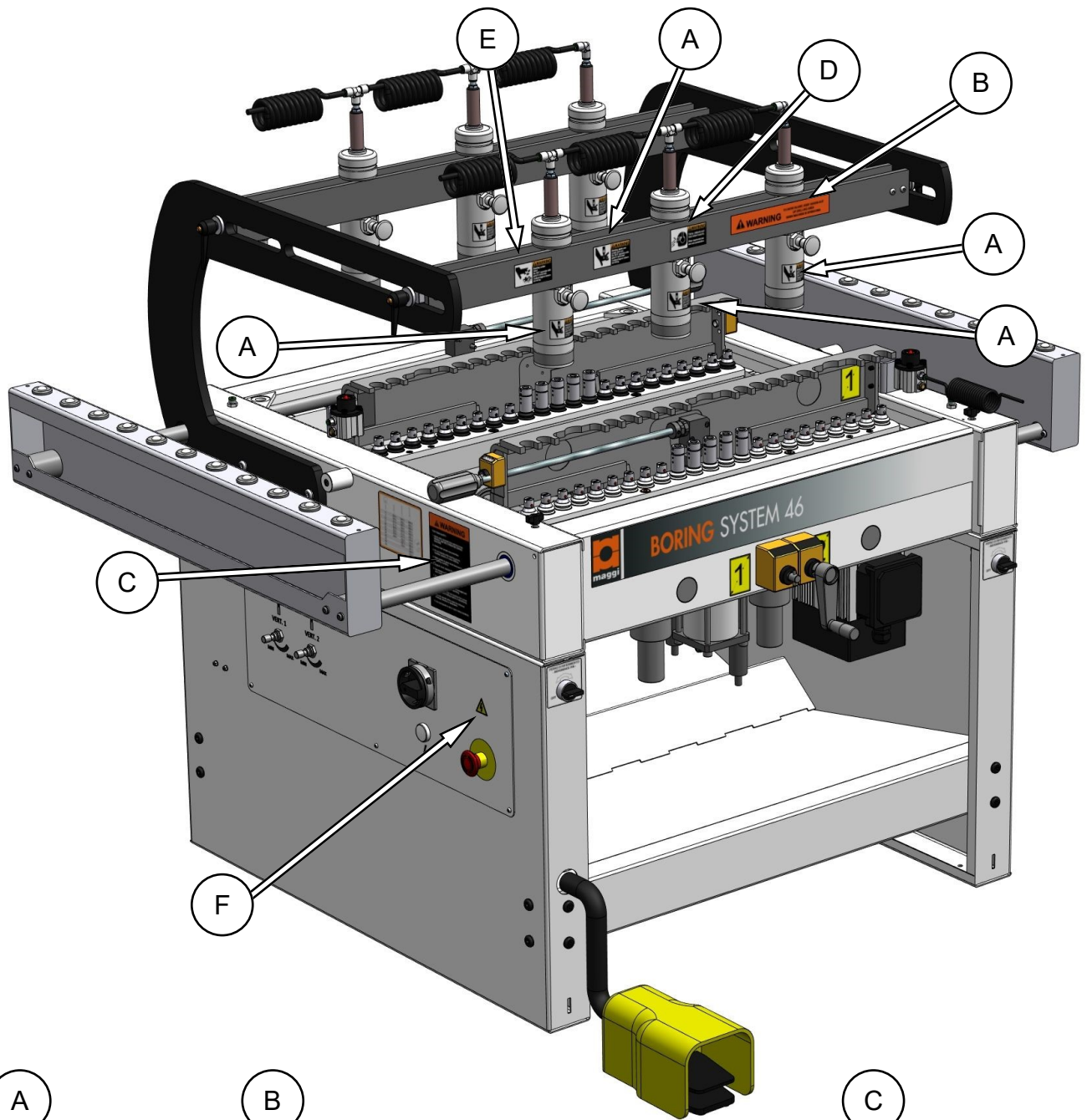


WARNING SYMBOL: ALL THE OPERATIONS HIGHLIGHTED WITH THIS SYMBOLS ARE DANGEROUS TO THE OPERATOR; PLEASE BE VERY CAREFUL PERFORMING THESE OPERATIONS.

WARNING PLATES



WARNING SYMBOLS: THE OPERATIONS MARKED WITH THESE SYMBOLS ARE DANGEROUS FOR THE OPERATOR THEREFORE THEY SHOULD BE PERFORMED PAYING UTMOST ATTENTION.



Cod. 36050507
Cod. 36050508



Cod. 36050505



Cod. 36050005



Cod. 36050506



Cod. 36050509





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

1.5 INDIVIDUAL PROTECTION DEVICES AND RESIDUAL RISKS

Despite all adopted safety protection devices, following situations may be dangerous, due to the normal use of the machine and to the main characteristics of the material to be drilled:

- falling or throwing wood splinters during processing
- entangling parts of clothes in moving parts of the machine
- danger of fire
- danger of electrocution
- danger of damage due to noise emission
- danger of damage due to dust emission
- danger due to crushing and cutting

To prevent risks during placing, installation, adjustment, use, ordinary and extraordinary maintenance, we strictly recommend to use the following individual protection devices (DPI):

- gloves (for example during machine parts and tools handling)
- anti-crushing and anti-sliding shoes
- glasses or face-shields against chip or wood sliver during working or cleaning operation of the machine
- anti-dust masks

Moreover, the clothes must be suited to avoid danger of:

- catching
- dragging
- crushing
- sliding
- abrasion

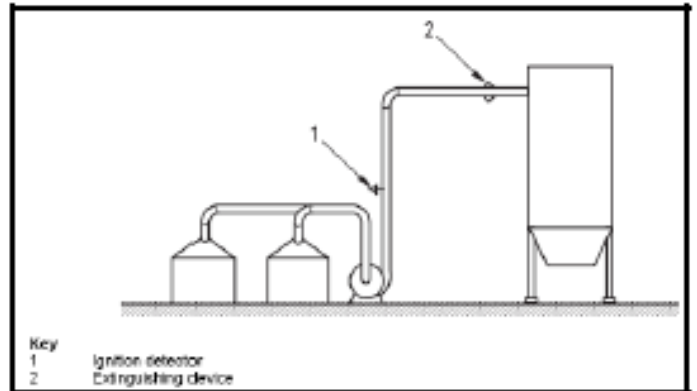
Contact lenses are prohibited.

	WEAR PROTECTIVE CLOTHES
	WEAR SAFETY (MECHANICAL) GLOVES
	WEAR SAFETY SHOES
	WEAR GOGGLES
	WEAR ANTI-DUST MASK

RESIDUAL RISKS RELATED TO THE WORKED MATERIAL

There are also residual risks related to the worked material:

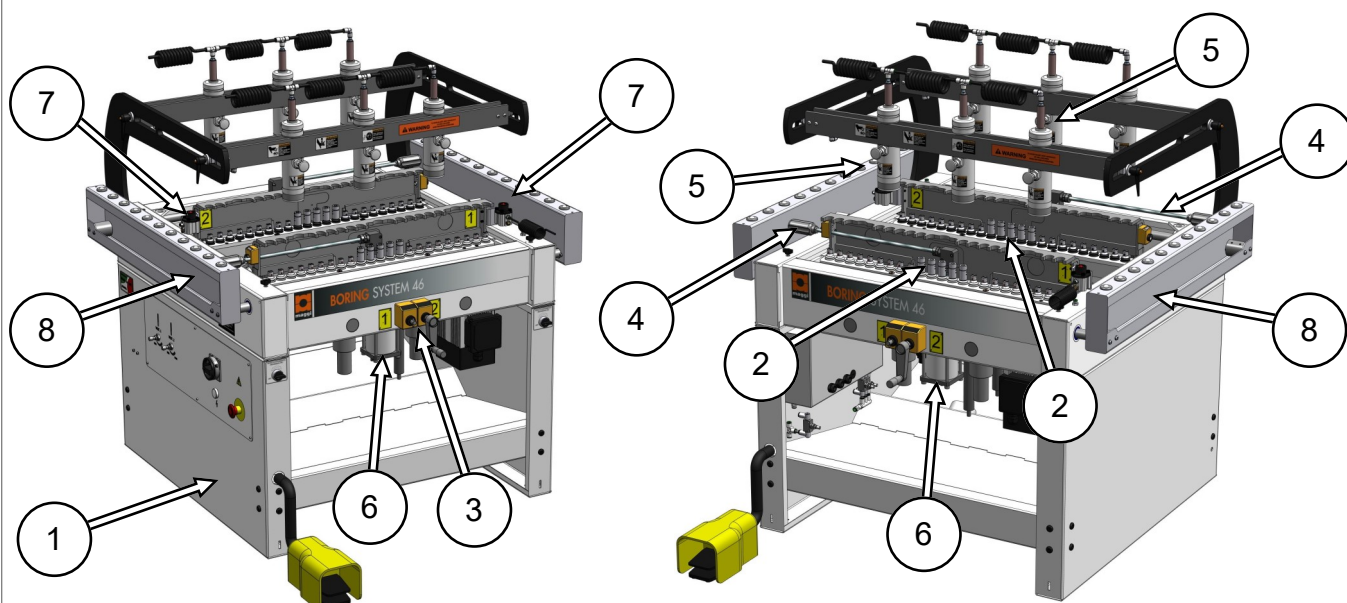
- **Risk of fire:** the worked material is inflammable, so it is forbidden to use free flames close to the machine. A correct cleaning of the machine (as stated in this manual) reduce the probability of fire on the machine;
- **Risk of explosion:** this is related to the possibility of having explosive atmospheres (mixture of wooden dust and air) inside the machine and in the dust extraction tubes. For all these reasons is necessary to adopt the following rules (as in the EN 859 rule):
 - Check regularly that the dust extraction parameters requested by the constructor of the machine are satisfied. These values are studied in designing the machine to avoid explosive atmospheres inside the machine;
 - Connect the machine only to plants declared in keeping with the EN12779 regulation, and in particular having primer sensors and fire extinguisher devices (see the figure on the right, extracted from the above mentioned rule)
 - If the machine is connected to the dust extraction plant using flexible pipes, be sure that they are made of self-fire extinguishing, antistatic material, suitable for grounding any electrostatic charges due to the dust-air mixture passing inside the pipes.



2. MACHINE DESCRIPTION

The machine is a manually driven boring machine, capable to make holes at fixed distance of 32mm one to each other, along two lines. The machine consists of:

1. a steel frame structure
2. two head groups, each equipped with its own transmission system (electric motor and gears)
3. crank mechanism, coupled with mechanical counter, to adjust head groups distance
4. special device to adjust hole depth from 0 mm to 100 mm for each head
5. clamp groups for vertical blocking the work piece
6. pneumatic system for heads positioning and heads feed
7. reference stops for easy positioning the panel on left/right side
8. side adjustable supports for large panels



IT IS FORBIDDEN TO GET ON THE MACHINE OR ON A PART OF IT

IT IS NOT RECOMMENDED TO PLACE TOOLS OF ANY KIND AGAINST OR OVER THE MACHINE FOR ANY REASON DURING THE PHASES OF INSTALLATION, USE, MAINTENANCE OF THE MACHINE TO NOT DAMAGE IT

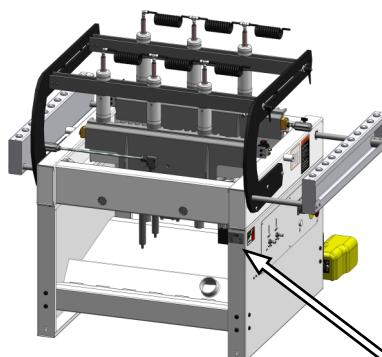
2.1 MACHINE IDENTIFICATION

The data impressed in the plate placed on the machine (see figure) 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.

The following identification plate is placed on the boring system machine described into this manual.



2.2 INTENDED USE

The machine is a manually driven boring machine; it can make holes at minimum fixed distance of 32mm (or multiple distance). The parts to be machined are loaded/unloaded manually

The machine has been designed and built to be used by only one operator.

The operator:

- puts the panel to be drilled on the working table
- makes all the due regulations and set-up procedures
- starts the working cycle acting on the pedal
- block the panel in position using the pneumatic clamp units
- starts the drilling work.

2.3 MATERIALS

The boring system machine has been designed and built to drill the following materials:

- M.D.F
- panels of shaving wood, laminated wood, ennobled wood, etc.

The maximum dimensions of the panel which can be drilled on the machine are shown in the chapter TECHNICAL DATA

Other materials, different from the ones described above, can be machined only after the written approval of the manufacturer.

In particular it is not allowed to machine

- materials having toxic or dangerous substances for operator's health and safety,
- metals
- other materials that can modify the correct working of the machine or cause fire or explosion.

Any modification is forbidden without the written authorization of the manufacturer.

It is not allowed to tamper with the safety protection devices

2.4 USABLE TOOLS

Drills for quick change spindles, 10 mm O. D. and 20 mm length shank (Fig. A)



Fig. A

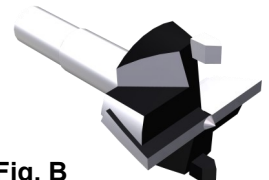


Fig. B

Drills up to 40 mm O. D. can be used (Fig. B)



ATTENTION

USE ONLY TOOLS IN CONFORMITY TO EN 847-1 AND EN 847-2 RULES.



DANGER OF CUT AND BURN.

wear always protective gloves before handling and/or working with tool

DANGER OF BURN: do NOT touch tool just before end working. wait for the temperature has slow down before touching it.

2.5 IMPROPER USE

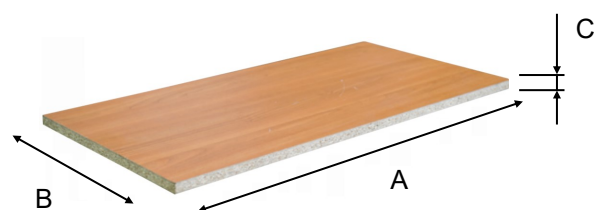
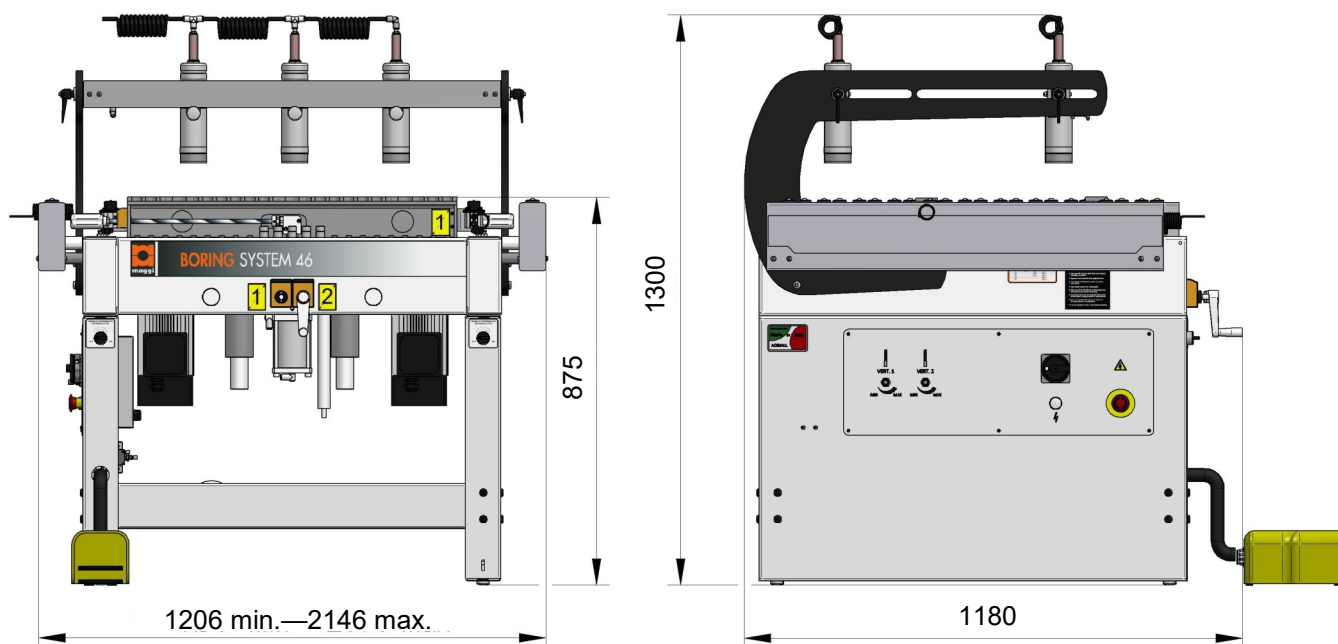
Any operation that does not comply with the instructions given herein is to be regarded as improper use



THE MANUFACTURER CANNOT BE CONSIDERED LIABLE FOR ANY DAMAGE CAUSED TO PEOPLE, ANIMALS OR PROPERTY RESULTING FROM IMPROPER USE OF THE MACHINE.

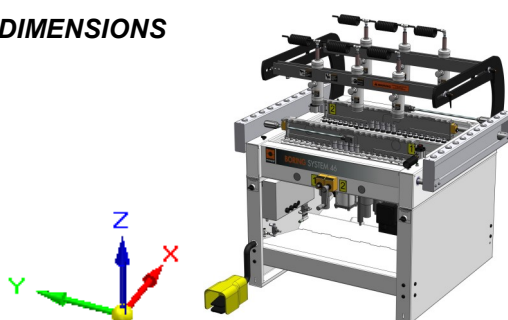
2.6. TECHNICAL DATA

NUMBER OF SPINDLES	46 (2x23)
CENTRE DISTANCE BETWEEN SPINDLES (SAME HEAD)	32 mm
CENTRE DISTANCE BETWEEN FIRST AND LAST SPINDLE (SAME HEAD)	704 mm
MINIMUM / MAXIMUM DISTANCE BETWEEN HEADS	130 mm / 650 mm
MAX. BORING DEPTH	55 mm
NUMBER OF CLAMPS	6
MAX HEIGHT BELOW CLAMPS	75 mm
PNEUMATIC AIR PRESSURE	6-8 bar
PNEUMATIC AIR CONSUMPTION	20 liters/cycle
NUMBER OF MOTORS	2
MOTOR POWER	2,0 Hp each
MOTOR SPEED	2800 rpm
NET WEIGHT	~ 370 Kg



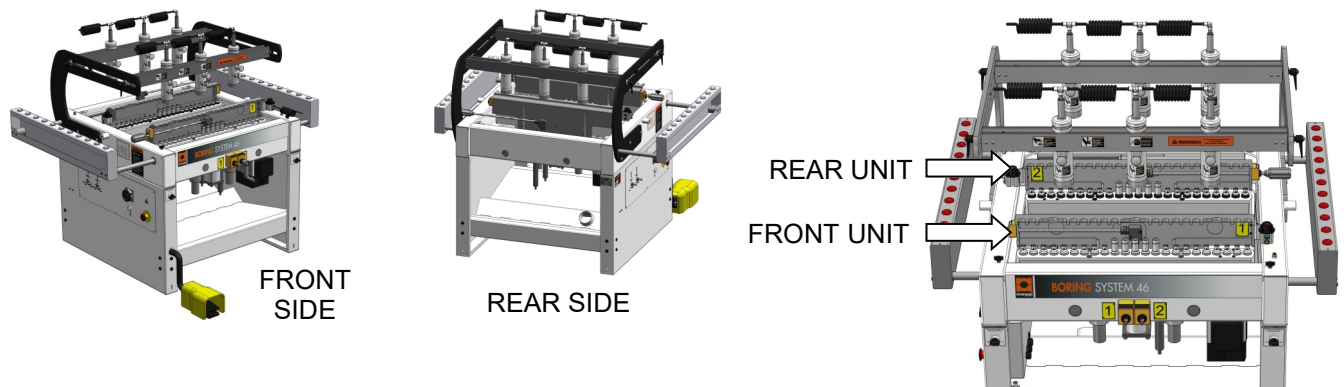
MAX WORKING DIMENSIONS

A (X) = 700 mm
B (Y) = 3000 mm
C (Z) = 50 mm



PACKAGING DIMENSIONS

1150 x 1270 x 1129 H mm



2.7 NOISE EMISSIONS

Noise emission according to correct working of machine and balancing and grinding of tools, is variable and depends on working material, drill diameter and depth drill. The operator permanence expected time is variable during 8 hours a day. Some other factors may determinate the exposure level; the surroundings and other noise sources, and other close machines.

We suggest to inform the operators about risks caused by a prolonged exposure to noise, providing them with suitable individual protection devices.

The acoustic pressure level, collected in the operator place through class 1 integrative noise meter, is 76.1 dB (A).

This measure was done according to ISO3745 rules with usual working values of speed and air pressure, drilling a shaving wood PVC covered panel.

The measure was executed at 1.5 m from ground, in front of the machine, in the operator position.

Moreover the following reference measures were collected with the same procedure:

Acoustic pressure level in Atm. dB(A): 78.3

Acoustic pressure power dB(A): 93.3

2.8 DUST EMISSION

The following results are obtained from the determination of dust emission in 1 hour of continuous work, drilling a fir PVC covered panel 20 mm thick. Dust emission turned out 13,9 mg/N cu.m at 1,5 m from ground in front of the machine in the operator position.

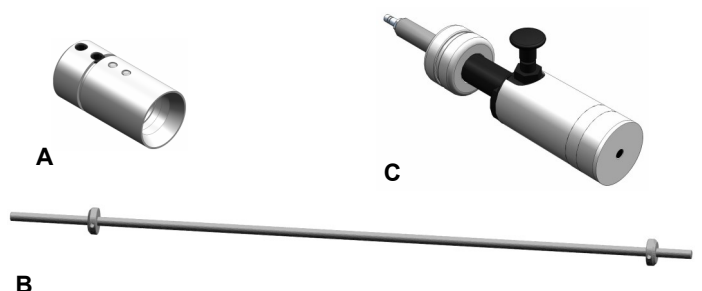
The machine is designed to work in close environment, so it is necessary to connect it to a suitable dust extraction system which complies with the EN 12779 regulation.

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.

2.9.ACCESSORIES

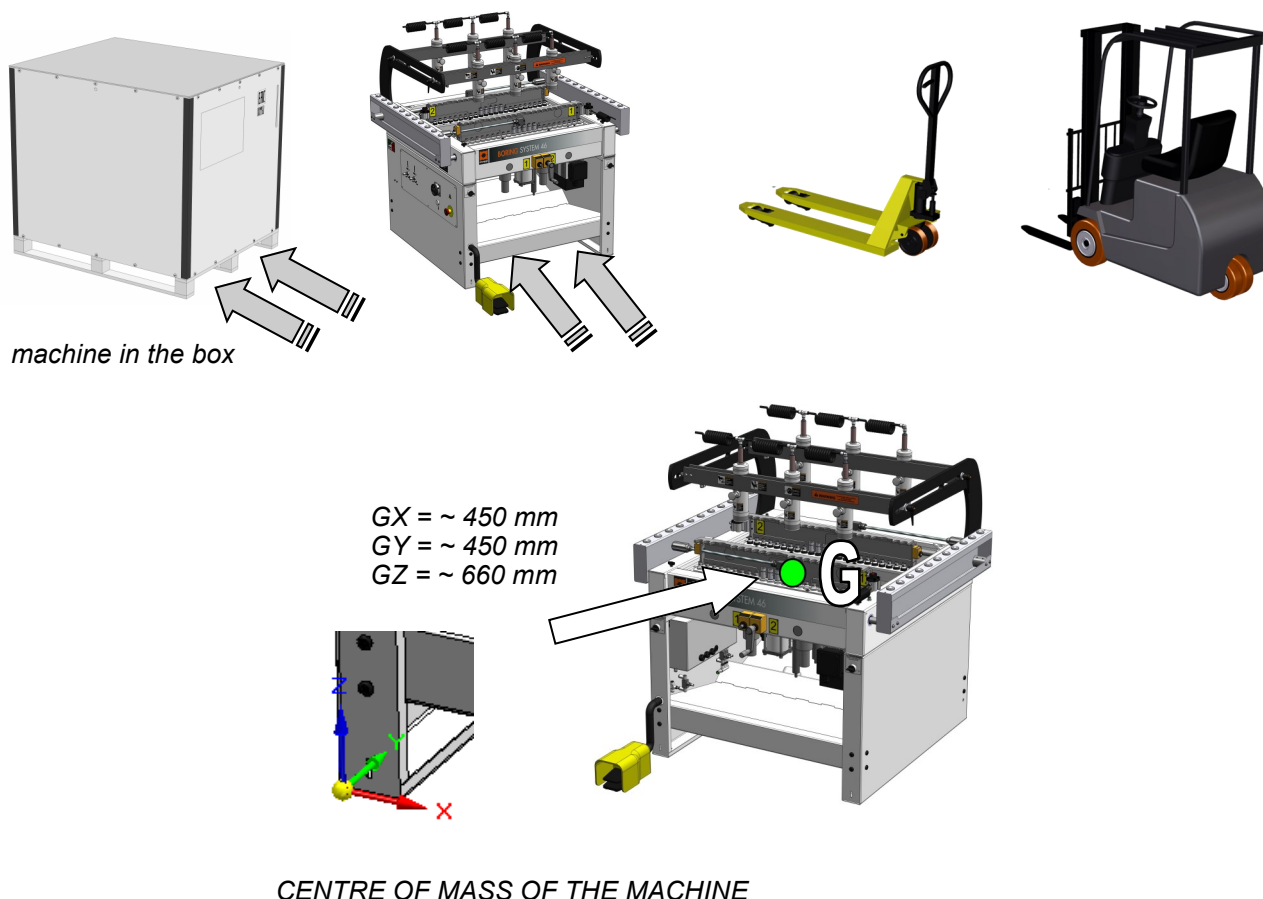
POS	DESCRIPTION
A	BUSHES FOR QUICK CHANGE DRILL
B	REFERENCE FENCE (704 mm)
C	EXTRA CLAMPING PRESSER



3. HANDLING AND TRANSPORT

The machine is packed in a wooden box. It is possible to move it by means of forklift or transpallet.

Weight data are written in the chapter TECHNICAL DATA, lifting points and the position of the centre of mass are shown below.



BE EXTREMELY CAREFUL IN LIFTING, MOVING, TRANSPORTING THE MACHINE

THE DEVICES USED TO LIFT-MOVE-TRANSPORT THE MACHINE MUST BE CAPABLE TO DO THE DUTY WITH NO RISK FOR PERSONS AND THINGS

NO ONE MUST STAY INSIDE A RANGE OF 5 METERS AT LEAST AROUND THE MACHINE DURING LIFTING AND TRANSPORT OPERATIONS



DAMAGE TO THE MACHINE CAUSED DURING TRANSPORT AND HANDLING ARE NOT COVERED BY WARRANTY.

REPAIRS / REPLACEMENTS OF DAMAGED PARTS ARE CHARGED TO THE CUSTOMER.



WEAR
PROTECTIVE
CLOTHES



WEAR PROTECTIVE
SHOES



WEAR PROTECTIVE
GLOVES

4. INSTALLATION

The machine is packed in a wooden box. Please take care in moving correctly the machine
Transport the machine already packed in an area close to the one chosen for placing the machine, then unpack the machine.



4.1 PLACING THE MACHINE

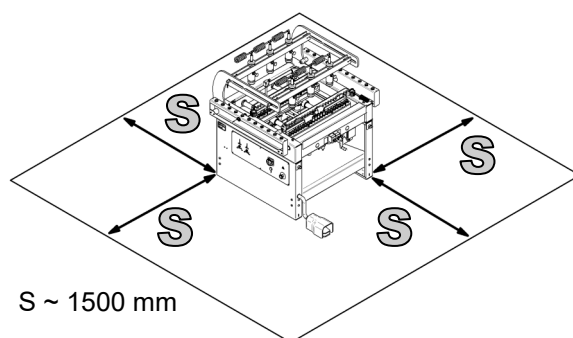
The machine must be placed on a stable plain surface, capable to support the weight of the machine itself; any possible difference in height must be in conformity with building rules. When the machine has to be placed on raised plain surface (higher floor) the load-bearing slab must be adequate to the weight of the machine..

Put the machine in the right place, as requested for operative requirements, where:

- it is easy to connect the machine to electrical power supply
- it is easy to connect the machine to pneumatic power supply
- there is enough lighting to see every part of the machine itself.

4.2 WORKING AREA

For a correct use of the machine, the following zones must be kept clear.

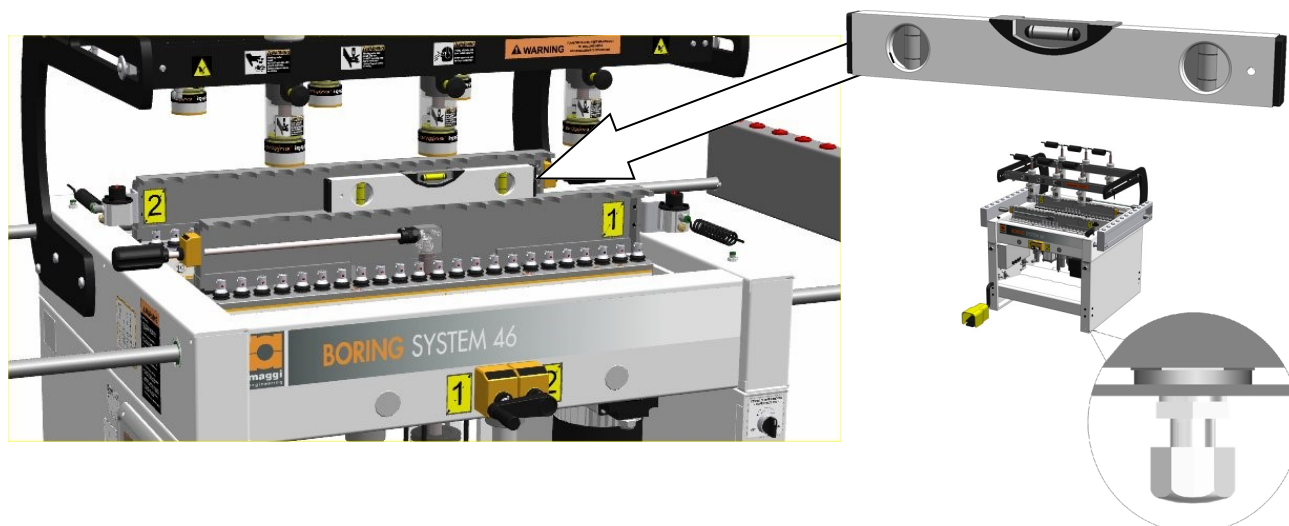


4.3 LEVELLING THE MACHINE

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.

Before going on with levelling, tighten the alignment pins into the threaded holes of the bed frame, remove the protective oil film from planes and every not painted surface, by using petroleum or kerosene only.

Do not use any solvent as gasoline and diesel oil, because they can damage the paint, making it dull, or oxidize other parts.



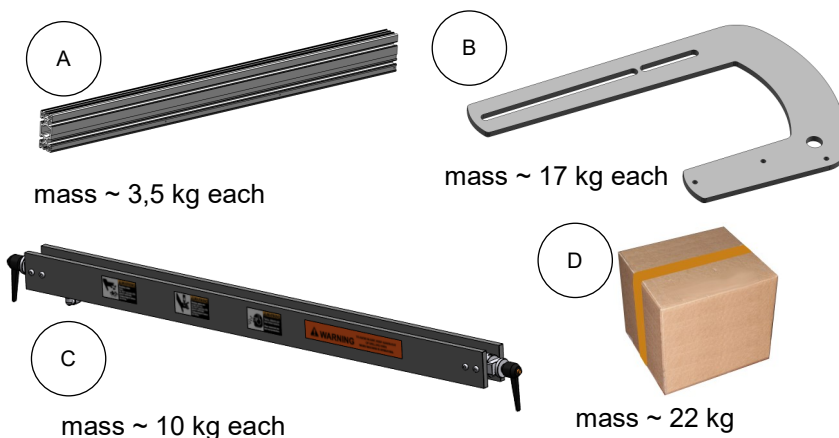
4.4. ASSEMBLY AND PRELIMINARY PREPARATION FOR SET UP

The machine is delivered partially assembled, so it is necessary to mount all those parts left not assembled for packaging reasons. The packaging contains also the long fence group, clamping unit, clamp holder support and a cardboard box with some other accessories inside, as shown in the figure below.

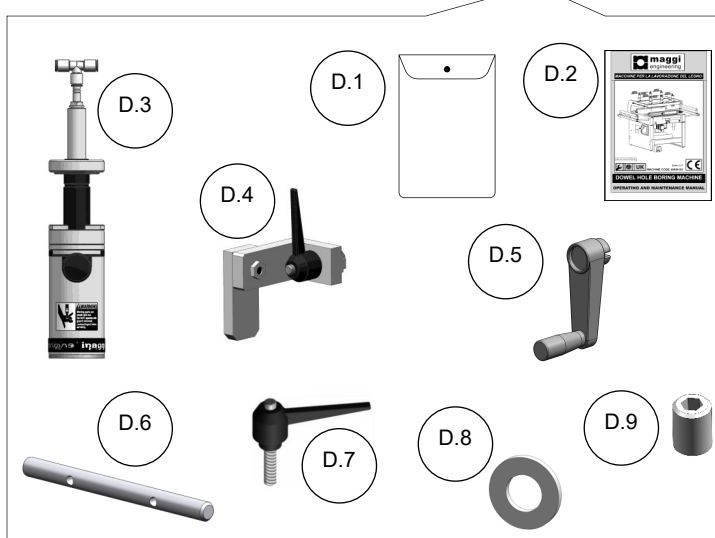
The buyer must verify that all the machine parts are safe and not damaged after transportation, before going on with assembling. In particular we suggest to verify the most delicate parts, as electrical or mechanical components, pneumatic tubing or the safety protection devices of the machine itself.

After assembling, it is necessary to clean all surfaces from protective oil so that the working pieces remain clean during working operations.

ADDITIONAL ITEMS		
POS	PART	Q.TY
A	EXTENSION FENCE	2
B	CLAMP SHOULDER	2
C	CROSSPIECE	2
D	BOX WITH ACCESSORIES	1



ITEMS INSIDE THE BOX		
POS	PART	Q.TY
D.1	USE AND MAINTENANCE MANUAL	1
D.2	TOOL KIT	1
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D.4	MOVABLE STOP UNIT	4
D.5	CRANK HANDLE	1
D.6	LONG FENCE PINS	8
D.7	SNAP LEVER M8X20	4
D.8	PLAIN WASHER FOR M8 SCREW	4
D.9	SCREW VTSTEI M8X20	4



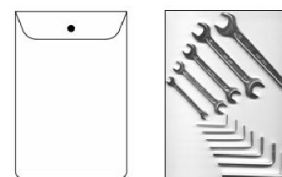
BE EXTREMELY CAREFUL IN LIFTING, MOVING, TRANSPORTING THE MACHINE AND OTHER ACCESSORIES

THE DEVICES USED TO LIFT-MOVE-TRANSPORT THE MACHINE AND THE OTHER PARTS MUST BE CAPABLE TO DO THE DUTY WITH NO RISK FOR PERSONS AND THINGS

ASK OTHER OPERATORS TO HELP YOU SO TO REDUCE AT MINIMUM RISKS AND ANY PHYSICAL EFFORTS IN DOING THE JOB

All the assembling operations described above can be performed using the tools purchased together with the machine

TOOL KIT



WEAR
PROTECTIVE
CLOTHES



WEAR PROTECTIVE
SHOES

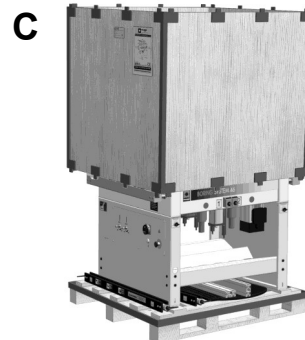


WEAR PROTECTIVE
GLOVES

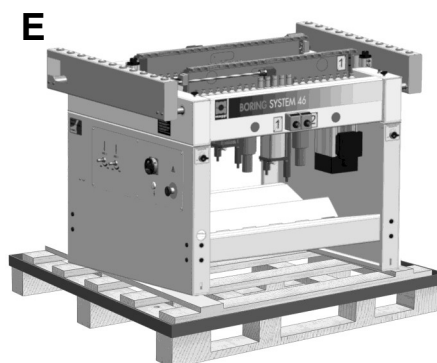
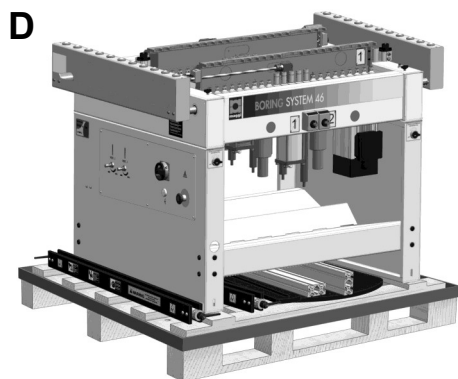
DISASSEMBLE THE MACHINE FROM THE SHIPPING BOX AND PALLET



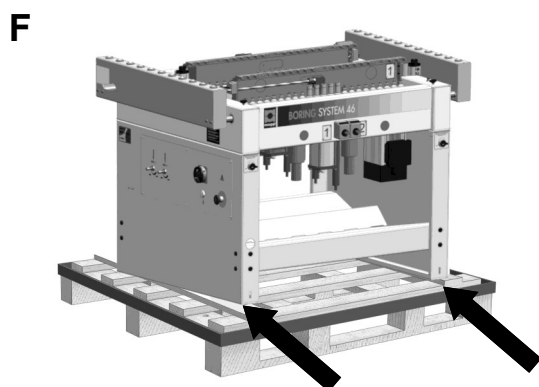
Remove the top (see figure B)



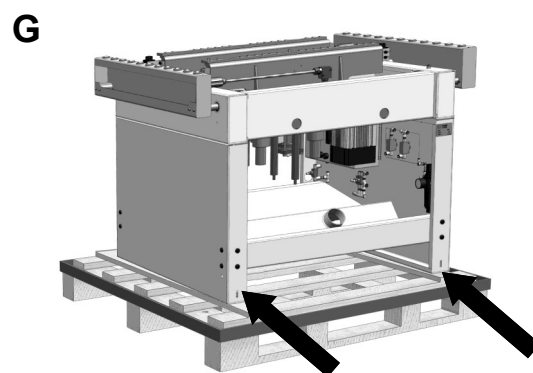
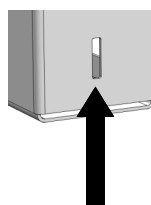
Remove the walls (see figure C)



Remove the items on the floor of the pallet (see figure E)

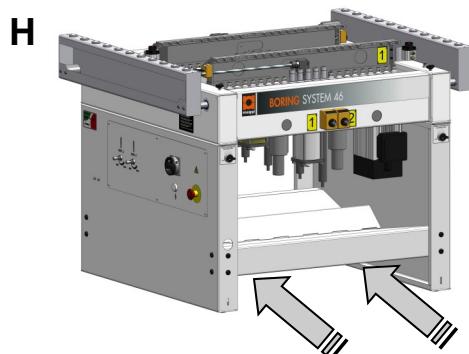


front side



rear side

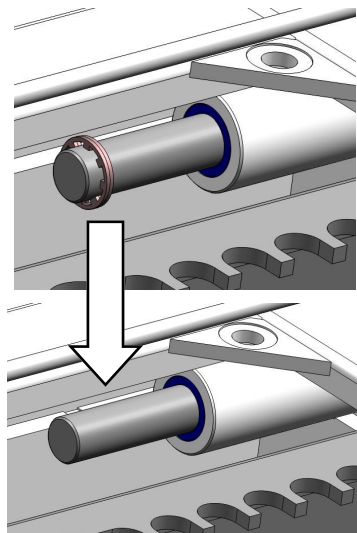
The machine is fixed on the pallet. To unfix the machine, remove the blockings (remove locking screws) placed on the lower part of the machine frame (see figure F and G). Now it is possible to separate completely the machine from the pallet base.



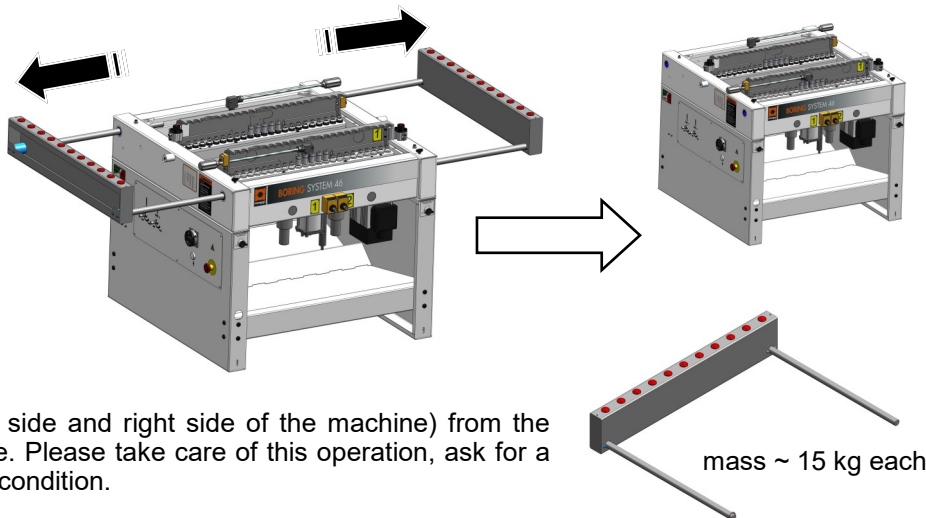
Use a forklift to unload the machine from the pallet and move to the floor to go on assembling other parts and complete the machine

COMPLETE MACHINE ASSEMBLY

CLAMP SHOULDERS

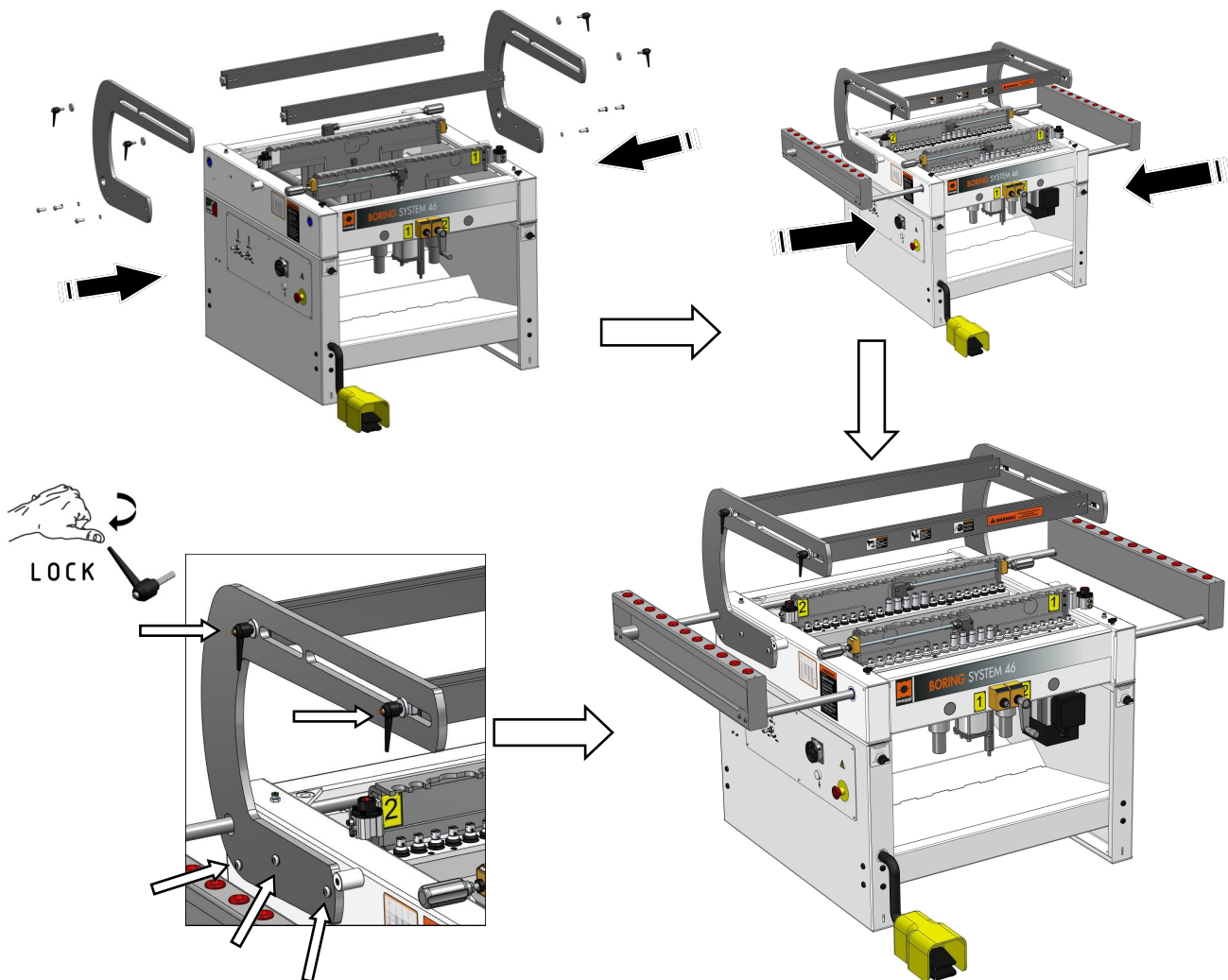


Remove the steel rings from the shaft of the side supports (left side and right side of the machine) . Place the steel rings in an easy place to find them (do not throw them away!!! they have to be re-assemble again!!!)



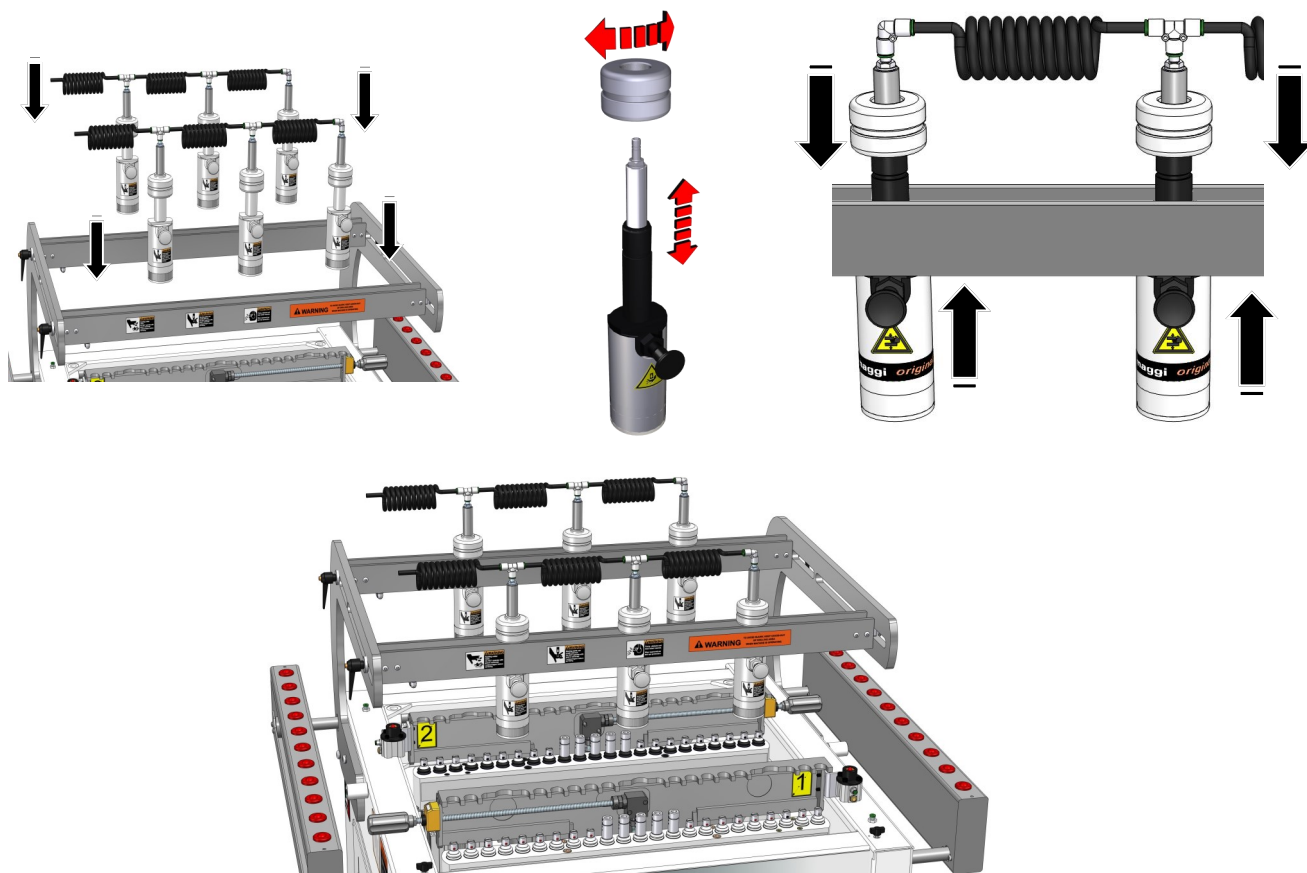
Remove the side supports (left side and right side of the machine) from the main steel frame of the machine. Please take care of this operation, ask for a colleague to do the duty in safe condition.

- assemble the two shoulders close to the base frame but not lock the screws
- assemble the crosspiece and insert it in the buttonholes of the shoulders, then lock it in position with the handles
- lock the screws and lock the clamp shoulders in position
- insert the side supports in the main steel frame of the machine and insert again the steel rings in position



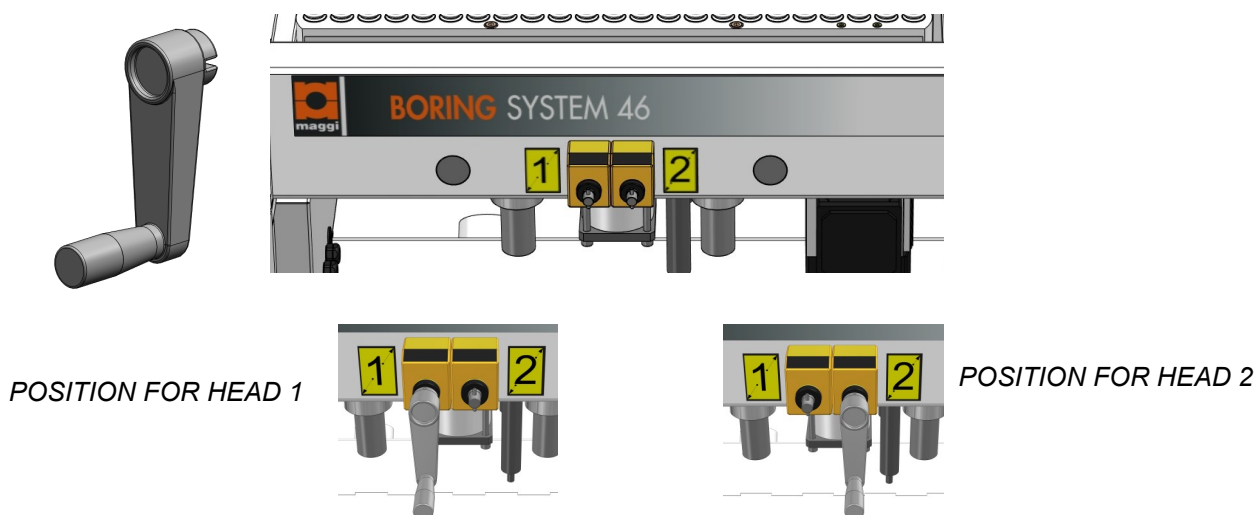
CLAMPING DEVICES (CLAMPS)

- loosen the upper locking part
- insert the main body of the clamping device between the two rods of the crosspiece, moving from bottom to up. Hold the clamps in position
- insert the upper locking part on the main body of the clamp
- lock the upper locking part to fix the clamp in position



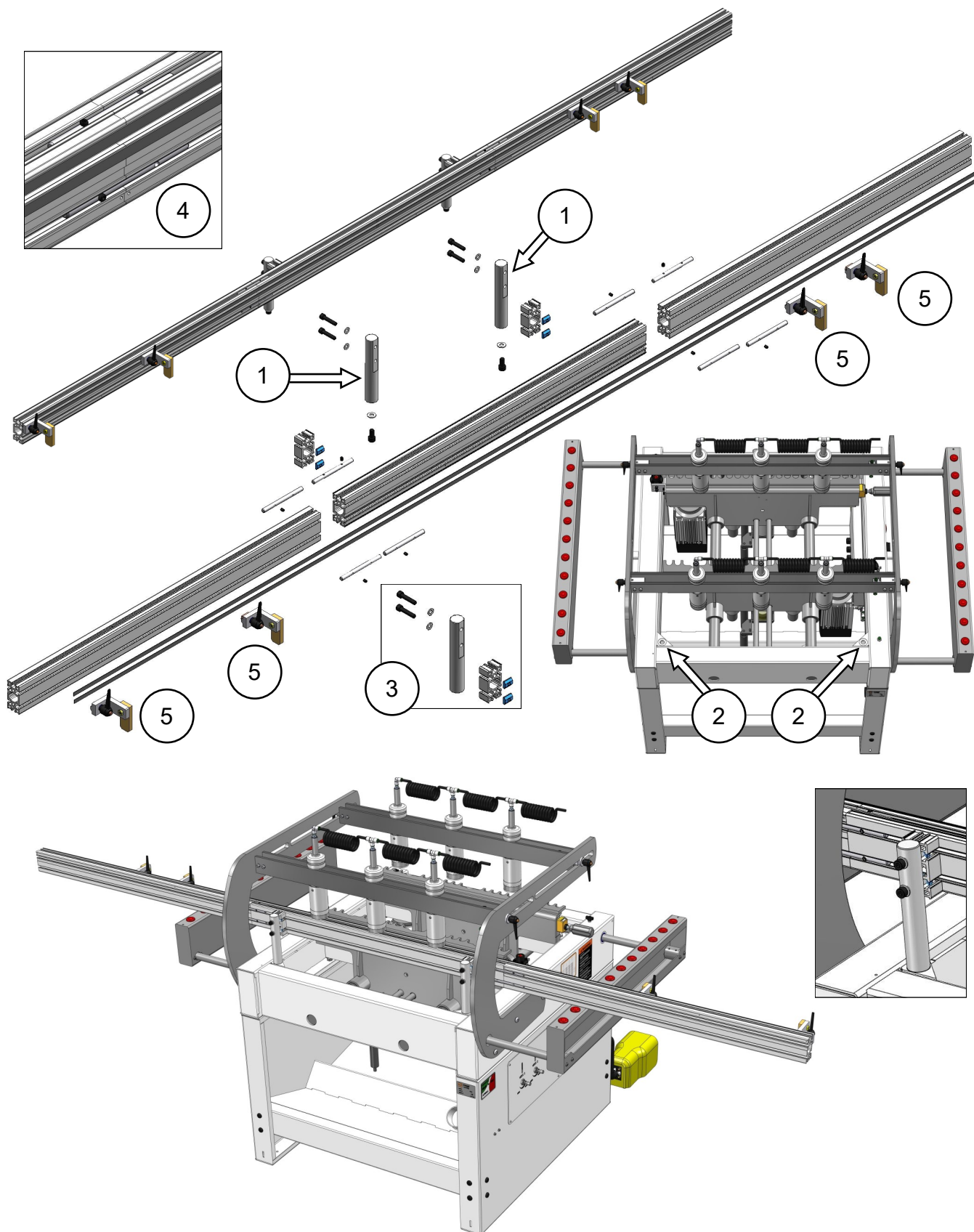
CRANK HANDLE (FOR HEAD POSITION SET-UP)

- assemble the crank handle in the front part of the machine simply inserting in the shaft
- switch the position of the handle to head position control 1 or head position control 2 when necessary
- each digit counter shows the actual position of the head to which it refers: left counter is for head 1, right counter is for head 2



LONG FENCE

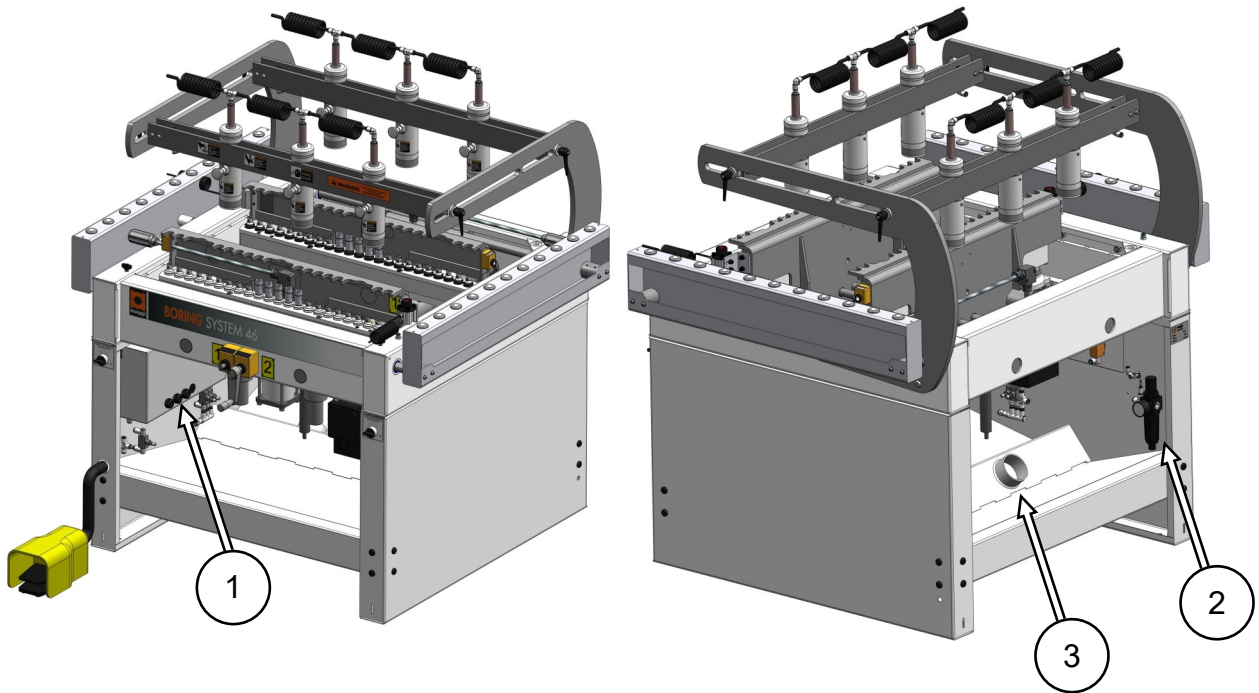
The long fence group is assembled on the machine putting the columns (1) on the seats (2) of the steel frame of the machine and locking in position using plain washers and screws. The columns (1) are connected with the aluminium fence thanks to spacers, special nuts and screws (see detail 3). The fence consists in three separate parts connected with special inserts and screws (see detail 4). At the end of the assembly, remember to insert, position and lock in position (using the snap lever) the movable stop units (5).



5. MACHINE CONNECTION TO EXTERNAL POWER SUPPLY

After that the machine has been correctly assembled and placed in position, connect it with:

- (1) electrical power supply
- (2) pneumatic air power supply
- (3) dust suction system



THE CONNECTION OF THE MACHINE MUST BE CARRIED OUT BY QUALIFIED TECHNICAL PERSONNEL

5.1 CONNECTION TO ELECTRICAL POWER SUPPLY

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:

- grounded equipotential electrical system
- the electrical power system must be in conformity with CEI 64.8 (CENELEC HD 384, IEC364-4-41) rules
- Automatic protection devices installed upstream respect to the machine; they have to be coordinated to guarantee the automatic break according to above mentioned rules.
- the tolerance of admissible voltage is +/-10%

Voltage and frequency for the motors are specified on the plates placed on them

Connect the power supply cable to R-S-T terminals: the electrical connection is done by three-phase plug (or single-phase plug, depending on the panel). The cable for ground connection is yellow-green.

When voltage is applied to the electrical power supply, check that the spindles rotation direction is the one written in the plate placed on the head (Black=Right; Red=Left).

If the rotation direction does not match the one impressed in the plate, please invert the connection cables to three phase power supply.

For any information please see the electrical diagrams included in this manual.



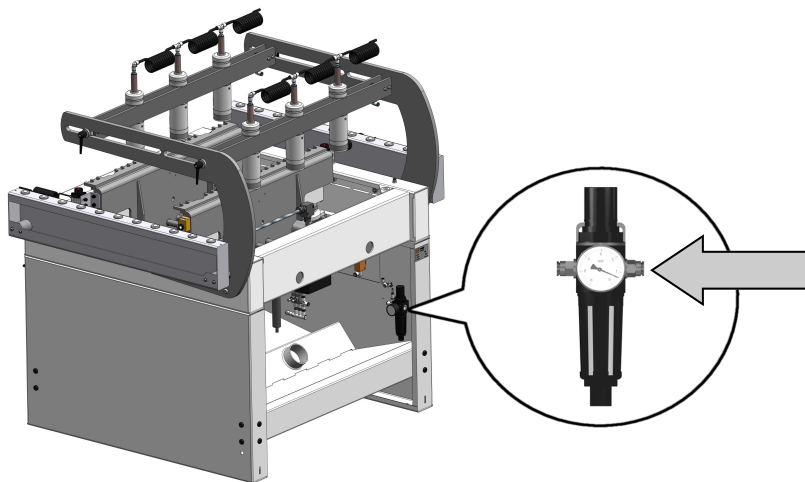
**DO NOT TAMPER WITH THE ELECTRICAL SYSTEM
MAKE SURE THAT THE VOLTAGE OF THE ELECTRIC PLUG CORRESPONDS TO THAT
REQUIRED BY THE MACHINE**

5.2 PNEUMATIC AIR CONNECTION

Connect the Filter regulator unit with the air line through a rubber or nylon hose with a minimum I.D. (inside diameter) of 8 mm.

ATTENTION: if the length of the tube exceeds 5/6 metres it is advisable to use a connection with I.D. of 10 mm

ATTENTION: you are also recommended to install a supply shut-off valve on the machine with manual control complete with air relief.



ATTENTION

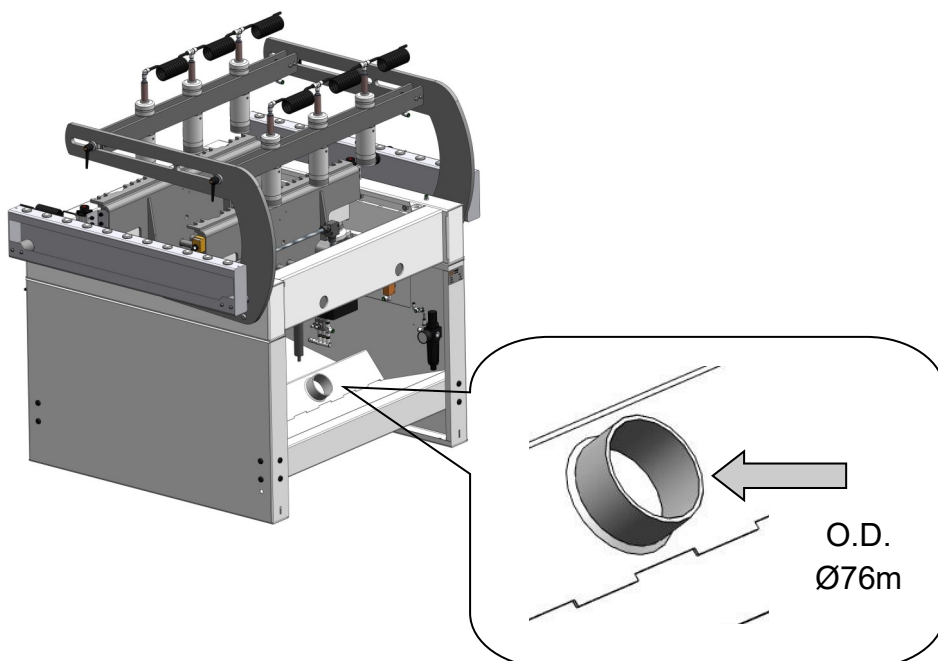
MAKE SURE THAT THE PNEUMATIC SYSTEM OF THE PLACE WHERE THE MACHINE IS INSTALLED IS ABLE TO PROVIDE COMPRESSED AIR WITH FLOW AND PRESSURE VALUES AS SPECIFIED IN THE TECHNICAL DATA CHAPTER.
DO NOT TAMPER WITH THE PNEUMATIC SYSTEM

5.3 DUST SUCTION SYSTEM CONNECTION

The machine must be connected to a suction and filtering system for dust and chips produced during processing.

The system must be connected, through flexible pipes, to the mouth of the installed suction hood.

The characteristics of the intake system must be such as to guarantee an air speed in the pipes of at least 27 m / sec and a flow rate correlated to the section corresponding to the pipes connecting the operating head and other, if any, service pipes. The plant must keep the dust concentration below the safety levels foreseen in the country where the machine is located

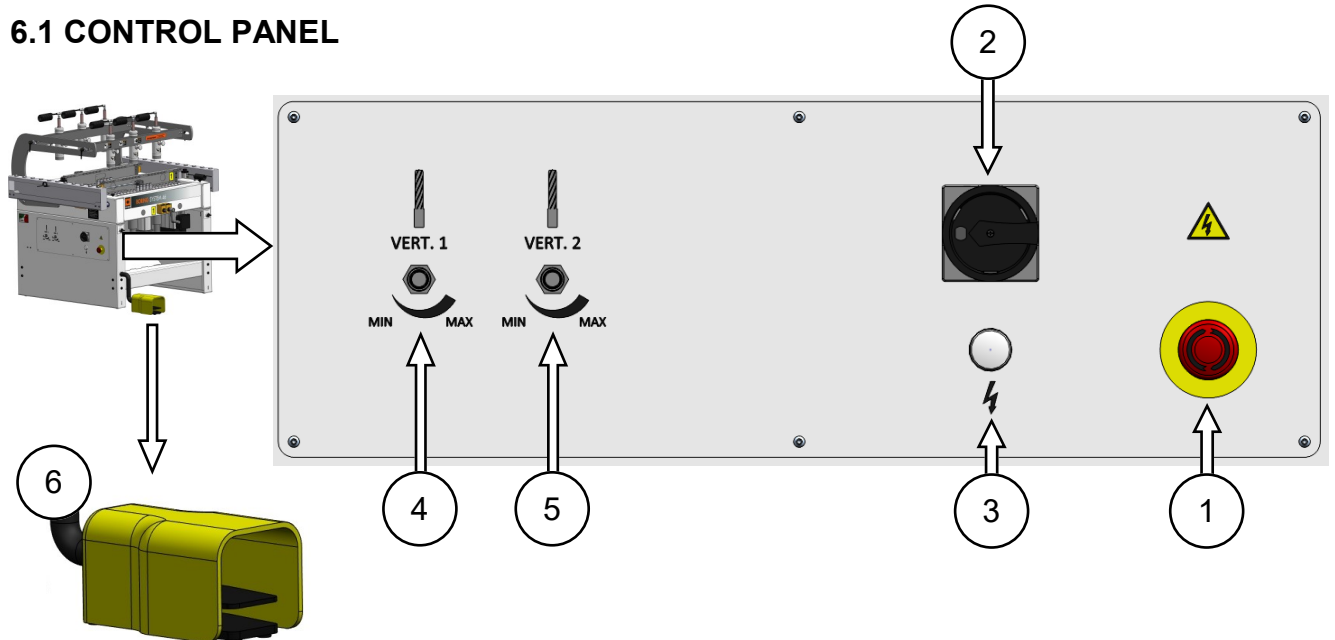


6. OPERATING INSTRUCTIONS

Check that the work area around the machine is in good order and free of residues of processed material, such as sawdust or pieces of wood.

Check that all covers and safety measures are in place, in order and ready for the work to be performed.

6.1 CONTROL PANEL



POS	DESCRIPTION	COLOUR
1	EMERGENCY PUSHBUTTON	RED
2	POWER ON/OFF MAIN SWITCH	BLACK
3	ELECTRIC POWER PRESENCE SIGNAL LAMP	WHITE
4	SPEED REGULATOR FOR DRILLING HEADS LINEAR FEED - HEAD 1	BLACK
5	SPEED REGULATOR FOR DRILLING HEADS LINEAR FEED - HEAD 2	BLACK
6	WORKING CYCLE ON/OFF COMMAND PEDAL	YELLOW

EMERGENCY PUSHBUTTON (1): with its pressure all the electrical functions of the machine are interrupted. To restore the electrical functions, turn the mushroom button in the direction of the arrows



TO STOP THE WORKING CYCLE PRESS THE EMERGENCY PUSHBUTTON



ATTENTION: THE EMERGENCY BUTTON ACTIVATES ONLY ON THE ELECTRIC CIRCUIT ALL THE PNEUMATIC ACTUATORS REMAIN REGULARLY POWERED BY THE PNEUMATIC LINE PRESSURE

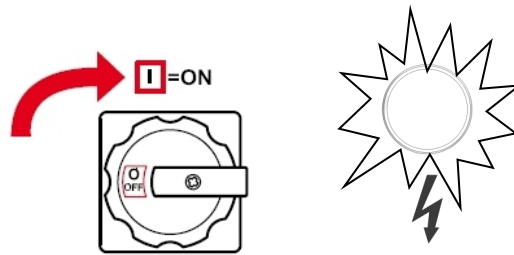
SPEED REGULATOR FOR DRILLING HEADS LINEAR FEED (4, 5): controls the linear feeding speed of the drilling head

WORKING CYCLE ON/OFF COMMAND PEDAL (6): the pedal controls the work cycle of the machine. If you press and hold the pedal, the electric motor is activated and therefore the rotation of the spindles, the advancement of the boring head and the activation of the piece clamping pressers. when the pedal is released, the spindles stop, the head returns to the rest position and the pressers unblock the piece when the head has returned to the starting position.

6.2 WORKING CYCLE

TURNING ON THE MACHINE

Turn the main switch to the ON position "I"
Check that the line presence light is on



WORKING CYCLE EXECUTION

Place the panel to be machined on the working plane of the machine, taking care to position it correctly according to the type of work to be performed

After setting the machine, follow the steps in the following paragraph to start the work cycle:

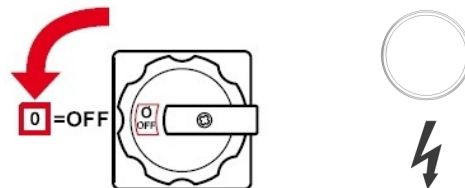
- 1) Turn the main switch (2) to the ON position. The machine is ready for the start of the work cycle.
- 2) By operating the pneumatic pedal, the spindles turn and the head starts the working cycle, while the clamping devices (clamps) block the piece.
- 3) If the pedal is released, the back returns to the rest position and the spindles stop.
- 4) The clamping devices (clamps) unlock the piece when the head returns back to the starting position.



TO STOP THE WORKING CYCLE, PRESS THE EMERGENCY PUSHBUTTON

TURNING OFF THE MACHINE

Turn the main switch to the OFF "O" position
Check that the line presence light is off



**NEVER LEAVE THE MACHINE UNATTENDED WHEN IN USE, FOR ANY REASON
WHEN THE MACHINE STOPS, WAIT FOR EVERY ORGAN IN MOTION TO ACTUALLY
STOPPED BEFORE LEAVING THE MACHINE.**

MAINTENANCE:

- *disconnect the machine from energy sources: the electrical and pneumatic supply must be interrupted and blocked*
- *make sure that any residual energy has dissipated before performing any maintenance on the unit*
- *any necessary intervention must be carried out only by specialized personnel and / or authorized to carry out maintenance operations*
- *affix a clearly visible sign on the machine indicating that the machine is under maintenance and cannot be used for processing*

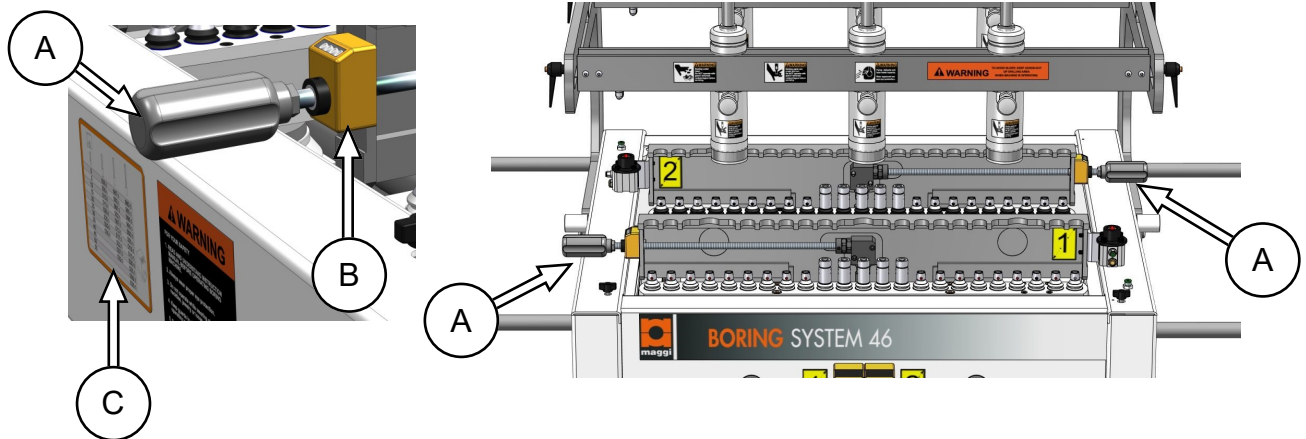
6.3 DRILLING DEPTH ADJUSTMENT

To carry out the required boring depth, use a scrap wood piece to test the machine before working on a good piece of wood.

NOTE: each working head has its own set-up device to adjust the drilling depth, so there is an handle and a counter for the front head (head number 1) and a handle and a counter for the rear head (head number 2)

Follow this procedure:

- Insert suitable drills in the desired position on the spindle heads
- act on the handle (A) to vary the depth of drill and read on the digital counter (B) the actual value.
- check the table (C) on the left side of the machine to see equivalence between the values on the counter and the actual drilling depth, respect to the actual length of the drilling tool used



(C)

Drill Diameter (mm)	Drill Length (mm)	Counter Value	Actual Drilling Depth (mm)
0	000.0	987.5	980.5
5	005.0	992.5	985.5
10	010.0	997.5	990.5
15	015.0	002.5	995.5
20	020.0	007.5	000.5
25	025.0	012.5	005.5
30	030.0	017.5	010.5
35	035.0	022.5	015.5
40		027.5	020.5
45		032.5	025.5
50			030.5
55			035.5

EXAMPLE

DRILLING TOOL LENGTH $L = 57,5$
 VALUE FROM THE COUNTER = 025.5
 ACTUAL DRILLING DEPTH = 25mm

DRILLING TOOL LENGTH $L = 70$
 VALUE FROM THE COUNTER = 022.5
 ACTUAL DRILLING DEPTH = 35mm

DRILLING TOOL LENGTH $L = 77$
 VALUE FROM THE COUNTER = 025.5
 ACTUAL DRILLING DEPTH = 45mm



DANGER OF CUTTING AND BURNS

Handle the tools only after wearing mechanical protective gloves, DO NOT touch the tools that have just worked, wait for the tool to cool down



WEAR
PROTECTIVE
CLOTHES



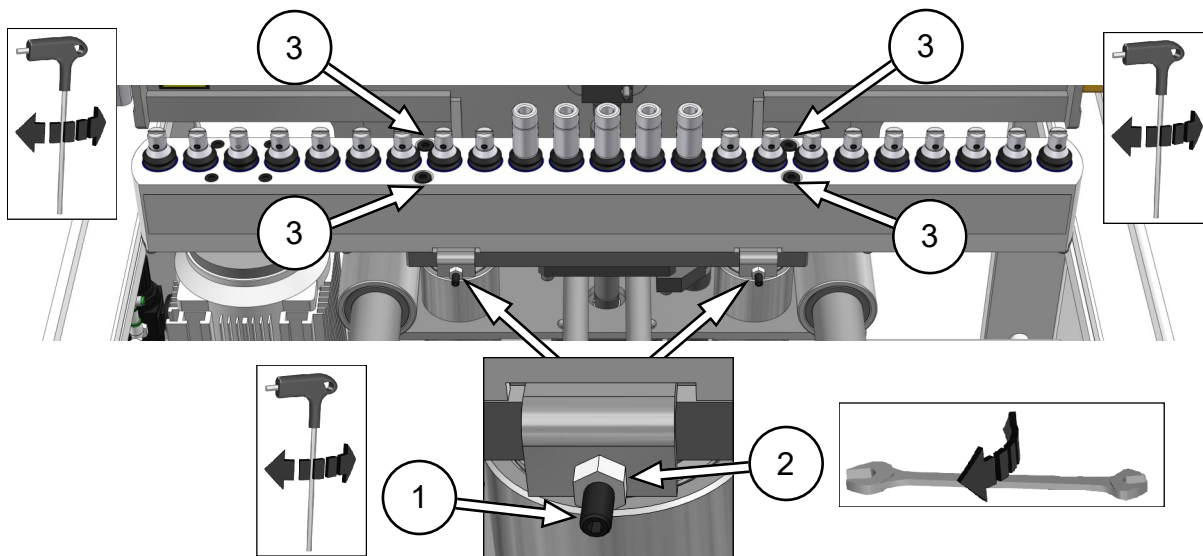
WEAR PROTECTIVE
SHOES



WEAR PROTECTIVE
GLOVES

To adjust head parallelism to reference stop:

- partially loosen the screws (3)
- operate alternatively on the screws (1) and screw nuts (2) located on the spindle head back plate
- set the drills parallel to the working table
- tighten the screws (3) before working on the machine.



WEAR
PROTECTIVE
CLOTHES



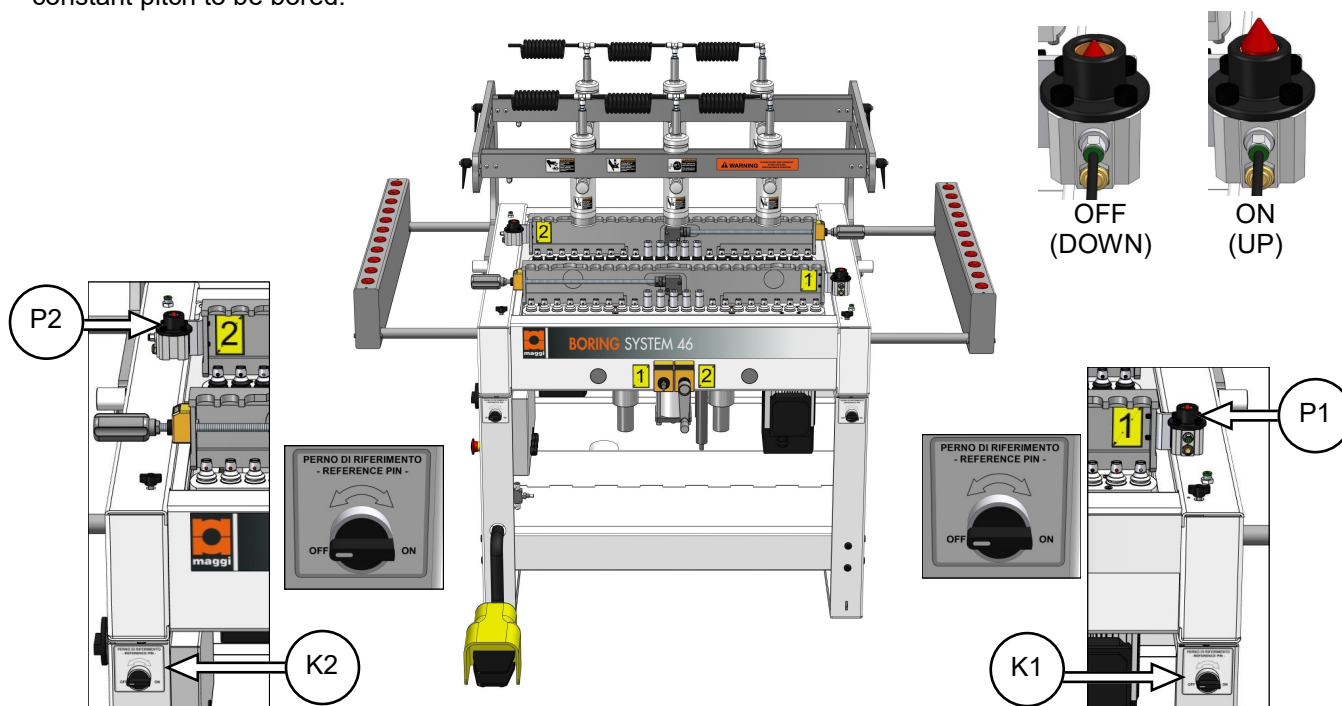
WEAR PROTECTIVE SHOES



WEAR PROTECTIVE
GLOVES

The pin (P1 for head 1, P2 for head 2) is a rapid and safe reference to bore easily sets of holes rows on large pieces: it is aligned with the drills at a distance of 32-mm and mounted on the side of the drilling head .
When the reference pin is not used, it fits into a slot under the table.

To resume piece boring operations, the reference pin can be used once again by turning the knob (K1 for head 1, K2 for head 2) to unlock the spring that allows the reference pin to come out. The reference pin has to be inserted into one of the previously bored holes to make it possible for another series of holes row at constant pitch to be bored.



6.6 HEAD POSITIONING FOR LINE BORING



DANGER OF CUTTING, ENTANGLING AND BURNS

Follow with extreme care the instruction below for a safe set-up and use of the machine contact the Technical Assistance of the manufacturer or of the reseller for any doubt

to position the heads from zero position do as follows:

POINT A - WORKING HEADS POSITIONING

HEAD 1: move head 1 in the desired position. Put the crank handle in position 1 and rotate it: the digits in the left counter change. Stop moving the crank handle when the left counter shows the desired value.

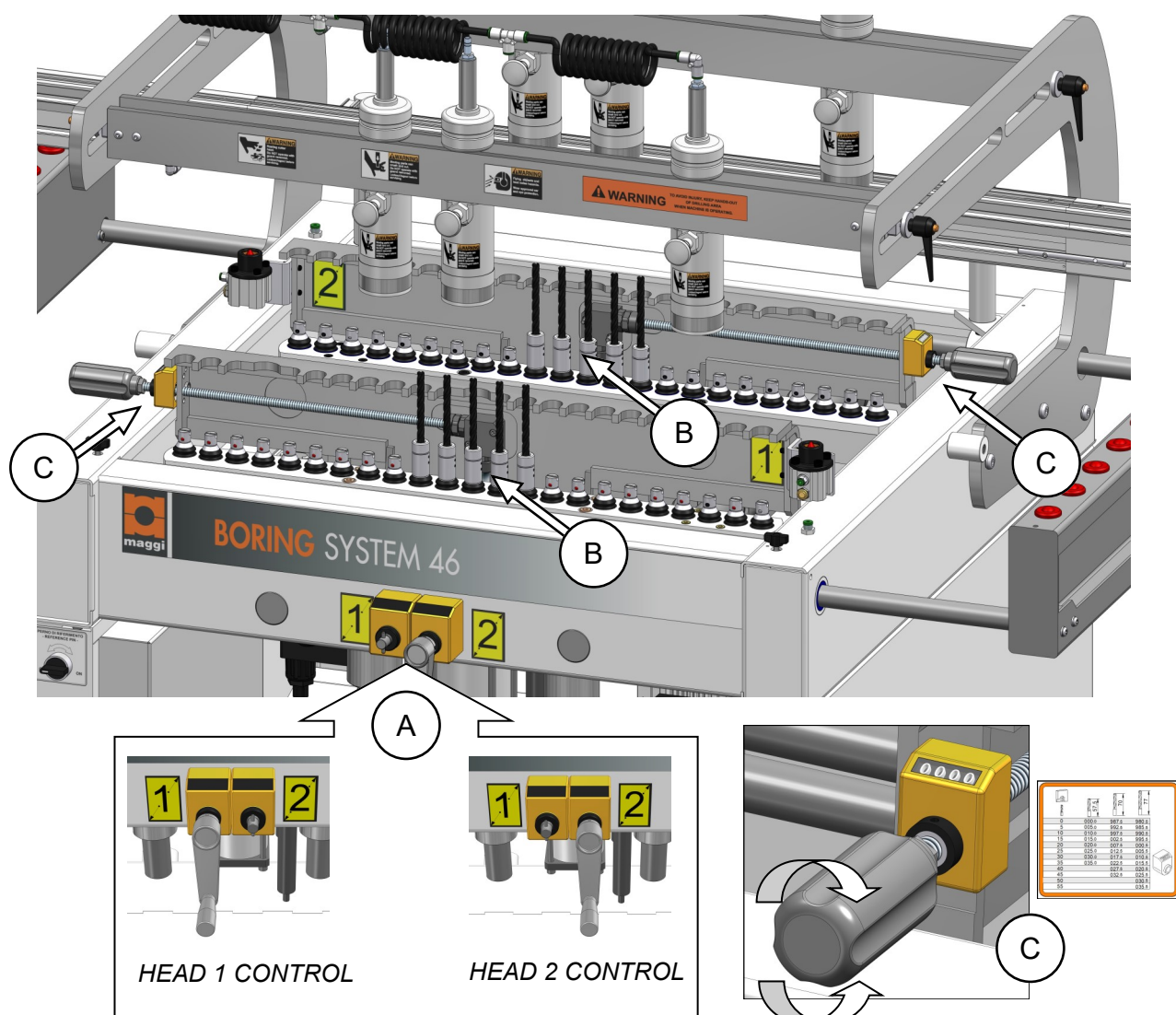
HEAD 2: move head 2 in the desired position. Put the crank handle in position 2 and rotate it: the digits in the right counter change. Stop moving the crank handle when the right counter shows the desired value.

POINT B - DRILLING TOOL SET-UP

insert the chosen drilling tools on the spindles of the heads: please check to put right hand tools in right-hand spindle and left-hand tools in left-hand spindles.

POINT C - DRILLING DEPTH SET-UP

set holes depth by operating on the handle on the side of each head: check the value in the counter and the values on the table to set the right value, depending on the length of the drilling tool .

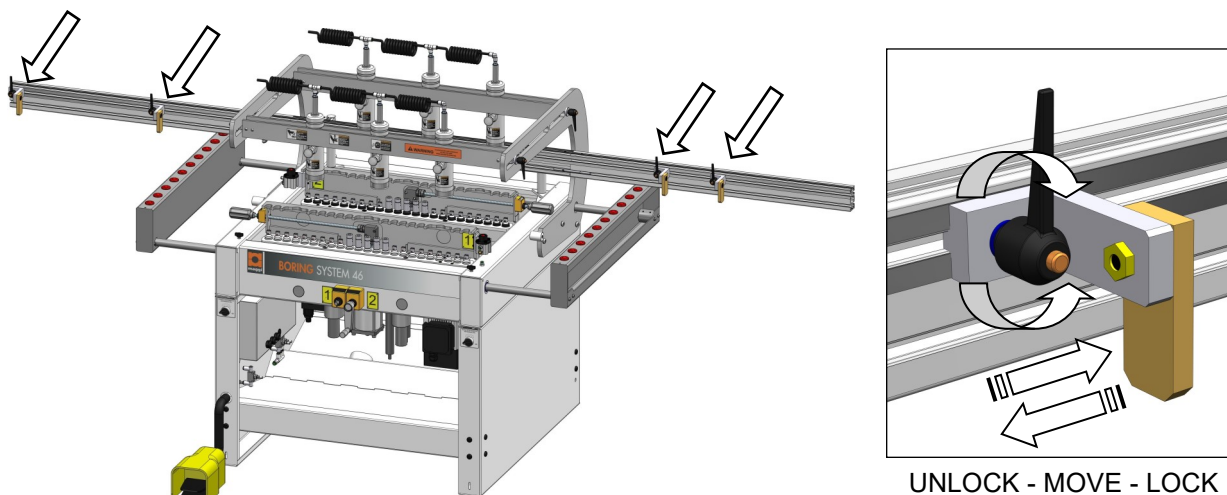


6.7 HOW TO POSITION THE REFERENCE STOPS

This boring machine comes with an extension fence with millimetrical scale related to drills, which makes it possible to determine the starting edge for line boring. Position the extension fence stops in the predetermined points, taking into account piece height: rotate the snap lever and unlock the stop, move the stop left/right along the fence until you reach the desired position, act on the snap lever and lock the reference stop in position.

Positions can be obtained by calculating the overall distance from one point to the other or by using instruments.

The extension fence can be equipped with a separate tool (fixed gauge) to bore longer rows of holes than the ones the boring machine can usually bore.

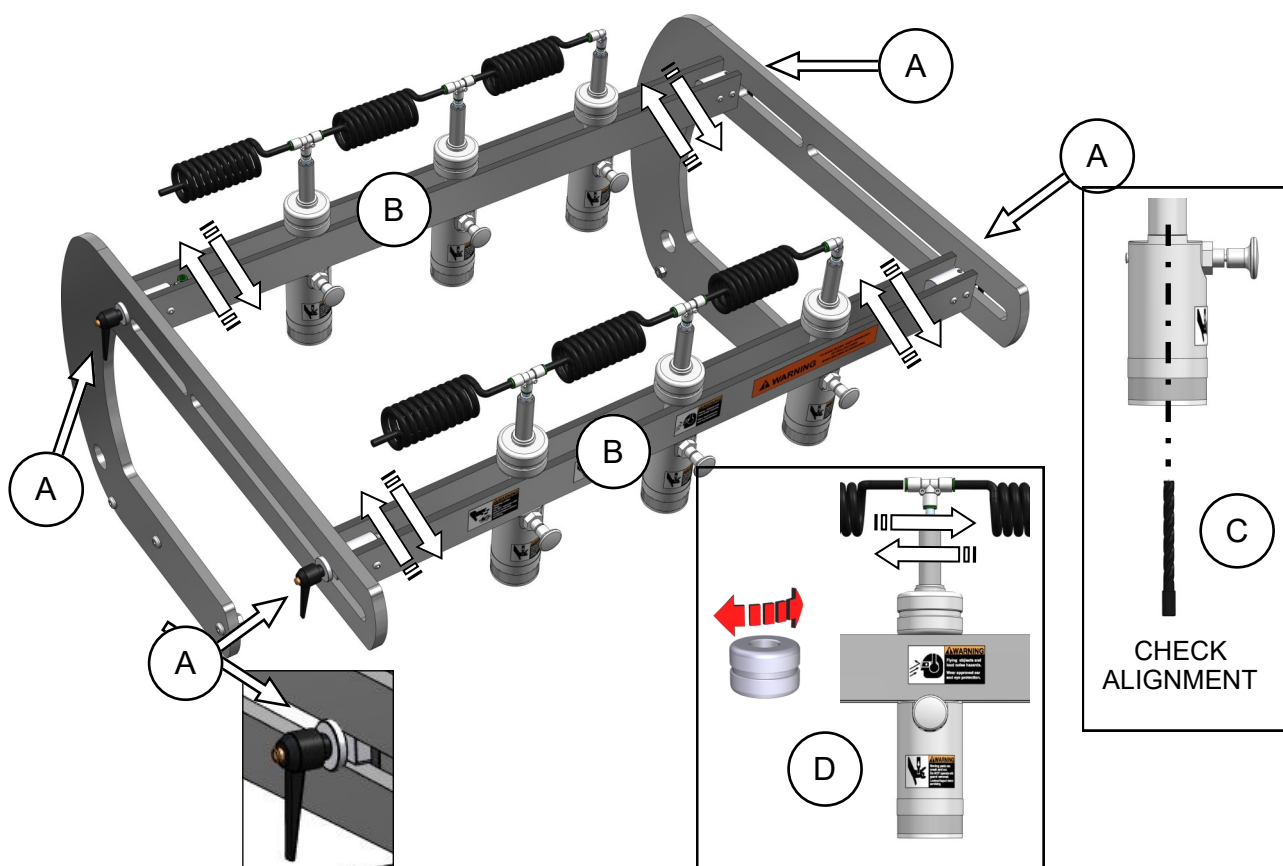


6.8 HOW TO POSITION HOLD DOWN CLAMPS

Once the machine is ready, hold down clamps units must be positioned exactly over the boring points before starting boring operations, to do this, follow the instruction below:

Rotate the snap lever (A) to unlock the bars (B), move the bars (B) so that the clamp units are aligned with the drilling tools (C); rotate the snap lever (A) to lock the bars (B), in position.

If necessary, move left/right the hold down clamps on their bar (D): unlock the unit rotating the upper cylindrical part, move the unit, lock the unit rotating the upper part.



7 BORING OPERATIONS

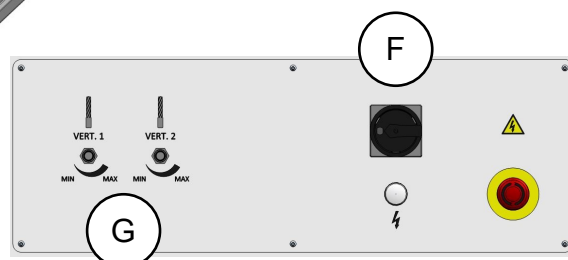
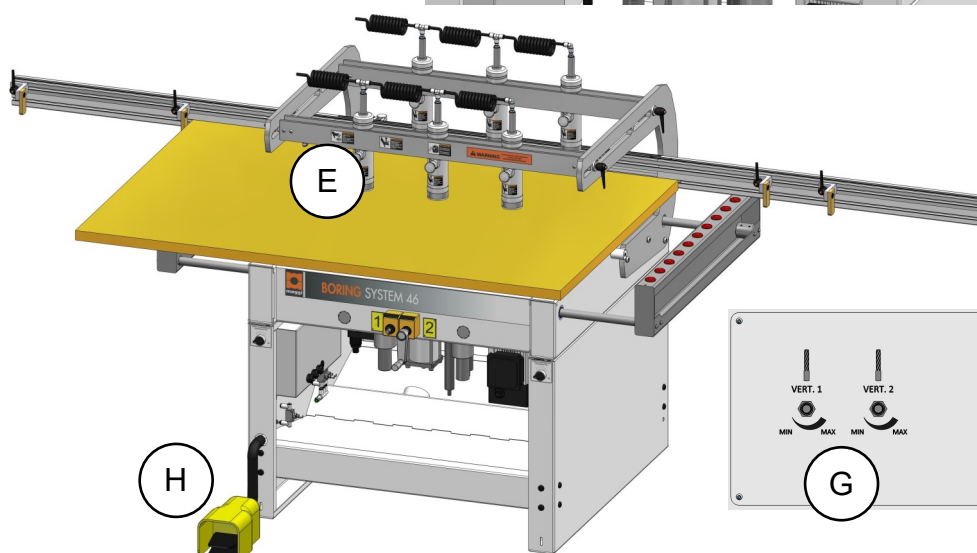
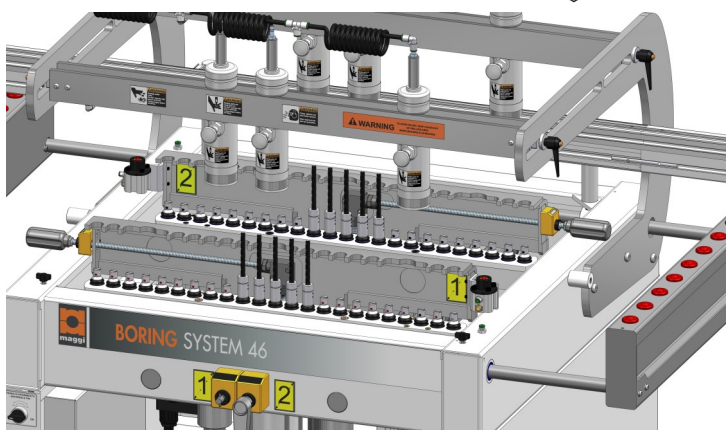
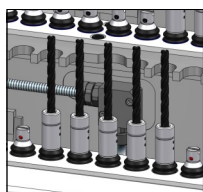
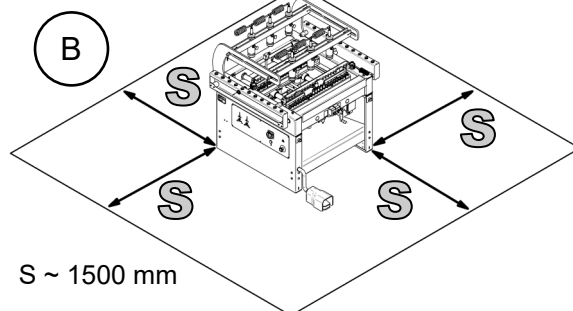
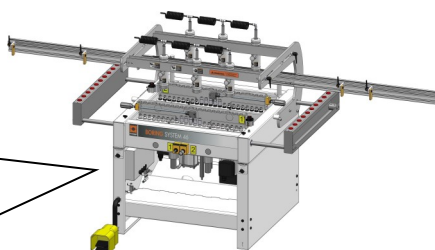
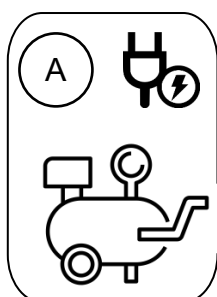
- A - Check that the machine is correctly connected with power source (electrical and pneumatic)
- B - Check that NO ONE is inside a safe area (S) of about 1,5 meters around the machine.
- C - Check that the heads are correctly positioned (see values in the front counters).
- D - Check that the right drilling tools are placed in the right position for each heads.
- E - Place the part to be machined on the working table and lean it against the reference stops.
- F - Check that the main power switch is ON
- G - make the desired set-up for the feeding speed of the heads
- H - Press the pedal to start working: the down clamp units activate and lock the piece in position, the engines start so the drilling tools rotate, the heads move up drilling so the drilling tools go against the part and make holes at desired position and depth.

Each time you reset the machine, it is advisable to simulate a working cycle with a scrap wood panel to check that everything is OK and the machine is in good working order, without damaging a good wood panel.



DANGER OF CUTTING, ENTANGLING AND BURNS

*Follow with extreme care the instruction below for a safe set-up and use of the machine
contact the Technical Assistance of the manufacturer or of the reseller for any doubt*



8. MAINTENANCE

8.1 INSULATION PROCEDURE



MAINTENANCE:

- *Disconnect the machine from any energy sources: the electrical power supply and the pneumatic air supply must be cut off and blocked*
- *Check that any residuals energy has been actually consumed before performing any maintenance interventions on the machine*
- *Any maintenance operation must be performed only by specialized and/or authorized personnel*
- *Put on the machine a tag (sign), in a place easy to be seen, saying that the machine is under maintenance and can not be used for working*



WEAR
PROTECTIVE
CLOTHES



WEAR PROTECTIVE
SHOES



WEAR PROTECTIVE
GLOVES



MAINTENANCE:

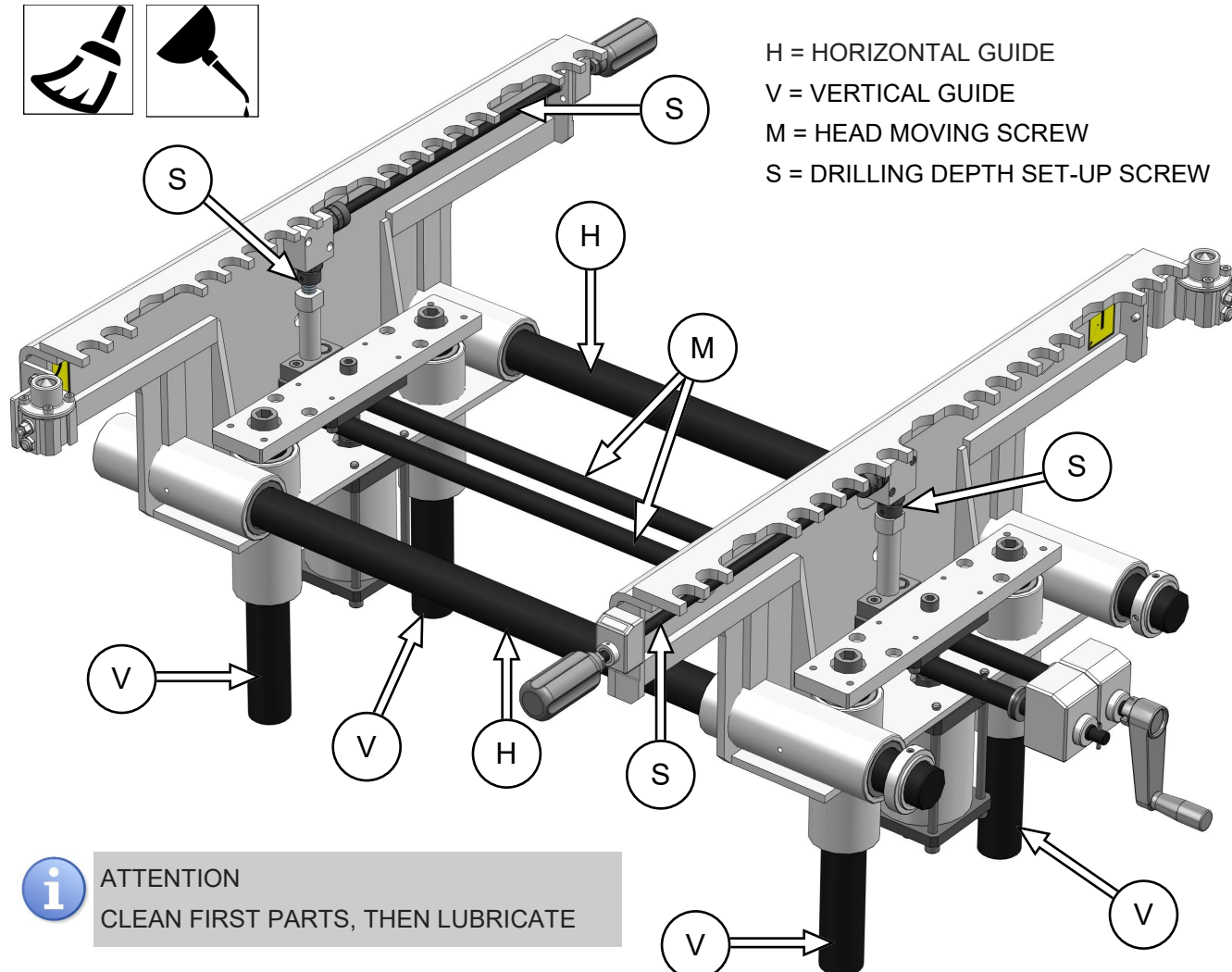
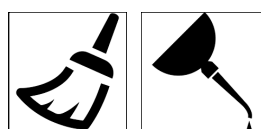
A SUITABLE MAINTENANCE IS A DECISIVE FACTOR FOR INCREASED LIFE OF THE MACHINE, AND TO GET OPTIMAL WORKING CONDITIONS

8.2 ORDINARY MAINTENANCE

WHEN	WHAT	HOW
EVERY DAY	ELECTRIC CABLE INTEGRITY CHECK	VISUAL INSPECTION OF THE ELECTRICAL CONNECTIONS OF THE MACHINE WITH THE GENERAL SYSTEM. REPLACE SUDDENLY DAMAGED AND/OR WORN PARTS IF NECESSARY
EVERY DAY	PNEUMATIC PIPES INTEGRITY CHECK	VISUAL INSPECTION OF PIPING AND PNEUMATIC CONNECTIONS. CHECK FOR CORRECT AIR PRESSURE LEVELS. REPLACE SUDDENLY DAMAGED AND/OR WORN PARTS IF NECESSARY
EVERY DAY	MACHINE AND WORKING PLACE CLEANING	REMOVE WORKING RESIDUALS, DUST, SHAVINGS AND ANYTHING ELSE THAT COULD HINDER THE PROCESSING OR ACCESSIBILITY OF THE MACHINE
ONCE A WEEK	GUIDES, SLIDING ROD AND MOVING SCREWS: CLEANING AND LUBRICATION	CLEAN: REMOVE WORKING RESIDUALS FROM GUIDES AND SLIDING RODS. DO NOT USE DETERGENTS OR LUBRICANTS LUBRICATE CLEANED PARTS WITH OIL

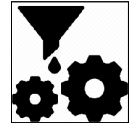
WHEN	WHAT	HOW
EVERY 30 DAYS	ELECTRIC CIRCUIT	CHECK ELECTRICAL SYSTEM SAFETY. REPLACE SUDDENLY DAMAGE AND/OR WORN PARTS IF NECESSARY
EVERY 30 DAYS	MECHANICAL COMPONENTS	VERIFY INTEGRITY OF THE LOCKING OF THE VARIOUS MECHANICAL COMPONENTS
EVERY 30 DAYS	AIR FILTER UNIT INLET	CHECK THE LUBRICANT OIL LEVEL IN THE FILTER UNIT, RESTORE THE LEVELS IF NECESSARY
EVERY 30 DAYS	AIR FILTER UNIT INLET	CHECK CONDENSATION LEVEL AND PRESENCE OF IMPURITIES. REMOVE THEM IF NECESSARY
EVERY 500 WORKING HOURS	DRILLING HEAD	CHECK LUBRICATION LEVEL. LUBRICATE IF NECESSARY - USE EP2 TYPE GREASE

CLEAN AND LUBRICATE GUIDES, SLIDING RODS AND MOVING SCREWS



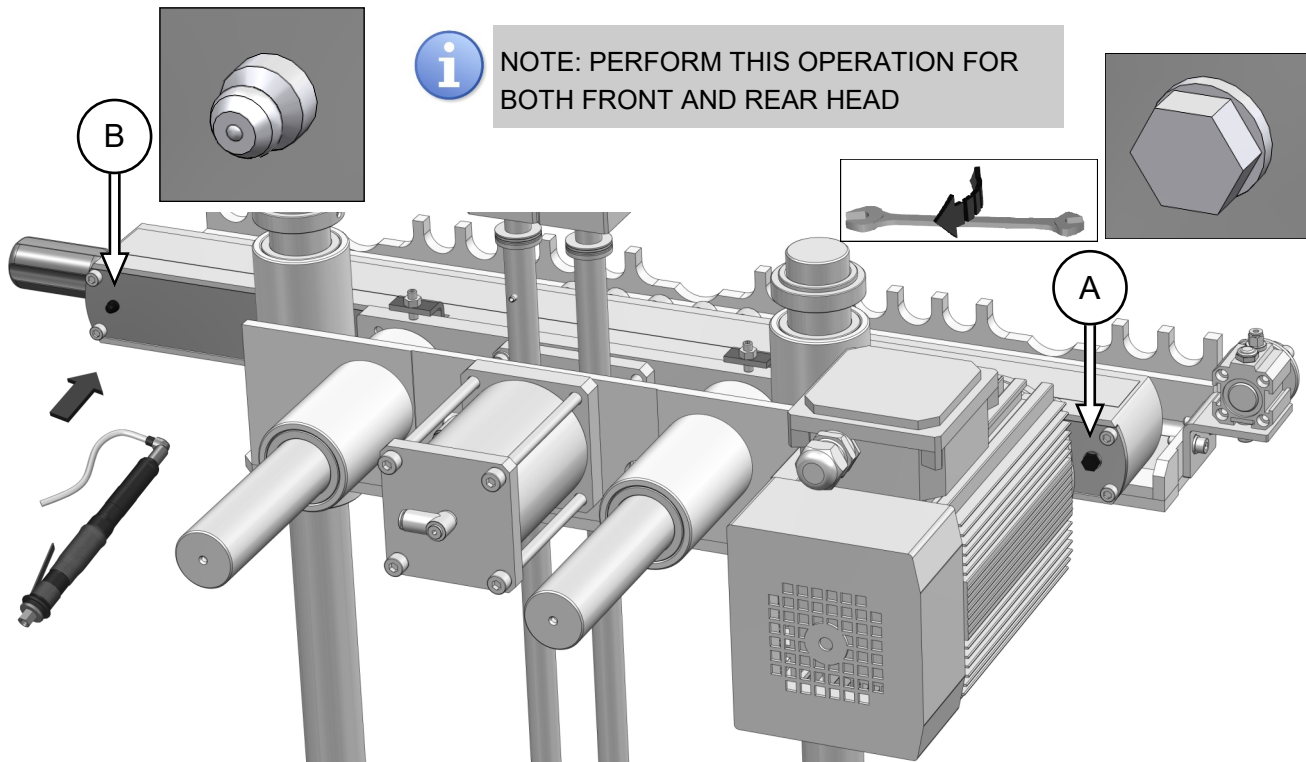
ATTENTION
CLEAN FIRST PARTS, THEN LUBRICATE

GREASE DRILLING HEADS (FRONT HEAD AND REAR HEAD)



The greasing operation of the spindle holder head must be carried out when the unit is hot so that the grease inside is more fluid.

1. remove the screw (A) so that there is a open hole in the head cover
2. Use EP2 type grease, insert the pump into the grease fitting (B) and add a small amount of lubricant
3. Switch on the machine and let the spindles turn so that the grease goes all around the gears in the head
4. Switch off the machine
5. Verify if some grease has leaked out of the hole (position A); if not, please, repeat the whole procedure once again and until the grease is leaking out
6. Lock the head cover back to the head by inserting the washer and screw in place (A)



9. COMMON FAILURES: REASONS AND REMEDIES

Some failure causes can be eliminated directly by the operator, other by qualified personnel only.



TRY TO RESOLVE THE FAULTS FOLLOWING THE DESCRIPTION INDICATIONS

PUT THE MAXIMUM CAUTION IN PERFORMING THE OPERATIONS

WEAR INDIVIDUAL PROTECTIVE EQUIPMENT MORE SUITABLE FOR THE SPECIFIC OPERATION TO BE PERFORMED

CONTACT THE ASSISTANCE SERVICE FOR ANY NEED



WEAR
PROTECTIVE
CLOTHES

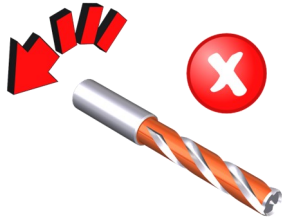


WEAR PROTECTIVE
SHOES



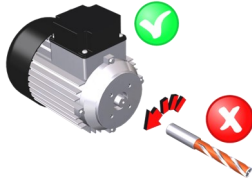
WEAR PROTECTIVE
GLOVES

DRILLS DO NOT WORK



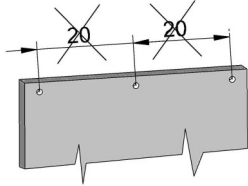
PROBABLE REASON	ACTION
<p>A - the motor does not work</p> <p>B - the motor is out of service</p>	<ul style="list-style-type: none"> • push the motor start push button • release the emergency push button and/or check fuse • check air pressure value (to turn on the pressure sensor) • replace the motor

THE MOTOR WORKS BUT THE DRILLS DO NOT



PROBABLE REASON	ACTION
<p>Possible failure of:</p> <ul style="list-style-type: none"> - gears and/ or keys - motor joint 	<ul style="list-style-type: none"> • replace them or call technical service

THE HOLE IS NOT ACCURATE



PROBABLE REASON	ACTION
<ul style="list-style-type: none"> - the drill is not locked properly - the drills are worn - the working part is not properly fixed 	<ul style="list-style-type: none"> • Check locking. If it is correct to call the service department • Replace or call the service department

BURN-TRACES DUE TO DRILLS

PROBABLE REASON	ACTION
<ul style="list-style-type: none"> - incorrect leveling of the piece - the drills are worn - the drills turn backwards 	<ul style="list-style-type: none"> • Check correct leveling of the piece • Replace drills • Invert the electrical connection of the machine (contact the assistance service)

DRILLED PIECES ARE NOT PARALLEL TO THE REFERENCE BAR

PROBABLE REASON	ACTION
<p>wrong parallel set-up of drills related to the reference bar.</p>	<ul style="list-style-type: none"> • Check the drills with respect to the stop and the parallelism of the line of the tips of the head

THE WORKING PIECE IS NOT BLOCKED BY THE SAFETY CLAMP

PROBABLE REASON	ACTION
<ul style="list-style-type: none"> - Low pneumatic pressure - Wear of the pressing blocks in contact with the piece - Slippery work surface 	<ul style="list-style-type: none"> • Check the pneumatic pressure level of the system • Check the correct operation and integrity of the pneumatic connections • Check the correct operation of the pressure cylinders • Clean the work surface

10. PUTTING THE MACHINE OUT OF SERVICE

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.

Firstly execute the insulation procedure, then dismantle the drills and put them into a suitable packaging box.

Dismantle electric, hydraulic and pneumatic components so that you can re-use them after a check or a revision.

Empty out completely from oil the hydraulic power unit, avoiding scrupulously to disperse the oil in the environment. Dismantle metal components grouping them for materials.

Call a specialized company to rescue and eliminate solid and liquid materials.



- *Disconnect the machine from any energy sources: the electrical power supply and the pneumatic air supply must be cut off and blocked*
- *Check that any residuals energy has been actually consumed before performing any maintenance interventions on the machine*
- *Any maintenance operation must be performed only by specialized and/or authorized personnel*
- *Put on the machine a tag (sign), in a place easy to be seen, saying that the machine is under maintenance and can not be used for working*



WEAR
PROTECTIVE
CLOTHES



WEAR PROTECTIVE
SHOES



WEAR PROTECTIVE
GLOVES

11. ELECTRIC DIAGRAM AND PNEUMATIC DIAGRAM

Please see attached documents.

12. GUARANTEE

The manufacturer guarantees the mechanical parts of their machines against faulty construction for a period of 12 (twelve) months after the date of despatch of the machines.

The guarantee is limited to the obligation to repair or replace free of charge any parts that prove to be faulty. The transportation cost is charged by the customer. All motor, electric and electronic equipment are excluded from the guarantee.

It is understood that, in all cases, the guarantee does not entitle the customer, to any refund for damages, interruption of work or any indirect damage caused to person or things.

All parts to be replaced must be sent carriage paid to our works and any parts that have been made faulty due to inexpert use of the operators, to deterioration caused by lack of lubrication or to normal wear and tear, will not be replaced.



Handwriting practice lines consisting of 20 horizontal lines.



VOUCHER TO BE SHIPPED TO MANUFACTURER



WARRANTY AND ACKNOWLEDGEMENT OF RECEIPT VOUCHER

Model.....Serial number.....

Name.....

Address.....

ZIP code.....City.....

Date of purchase.....Dealer.....

Owner signature

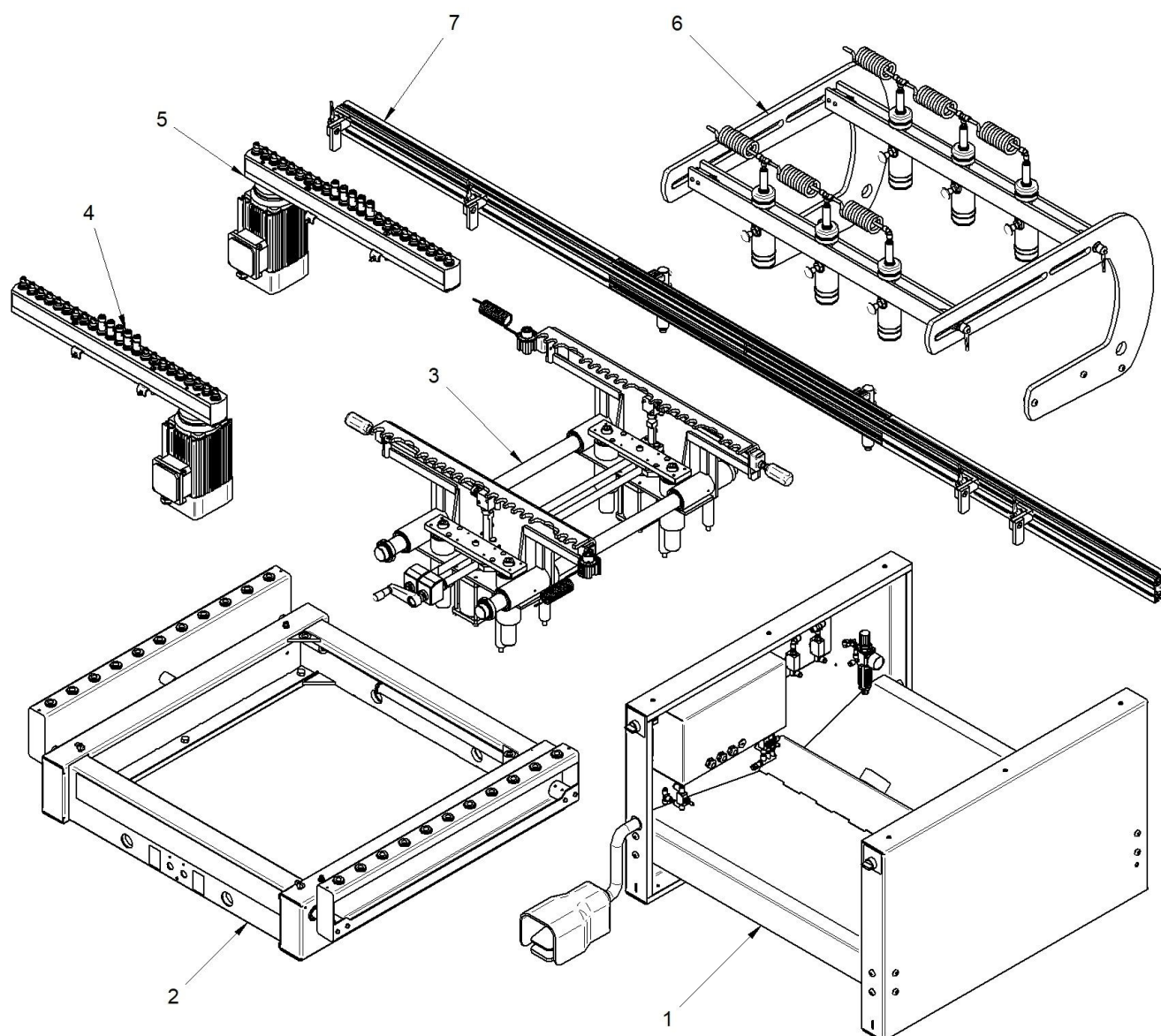
.....

The owner declares that he agrees with the warranty conditions and that he checked the proper functioning of the machine



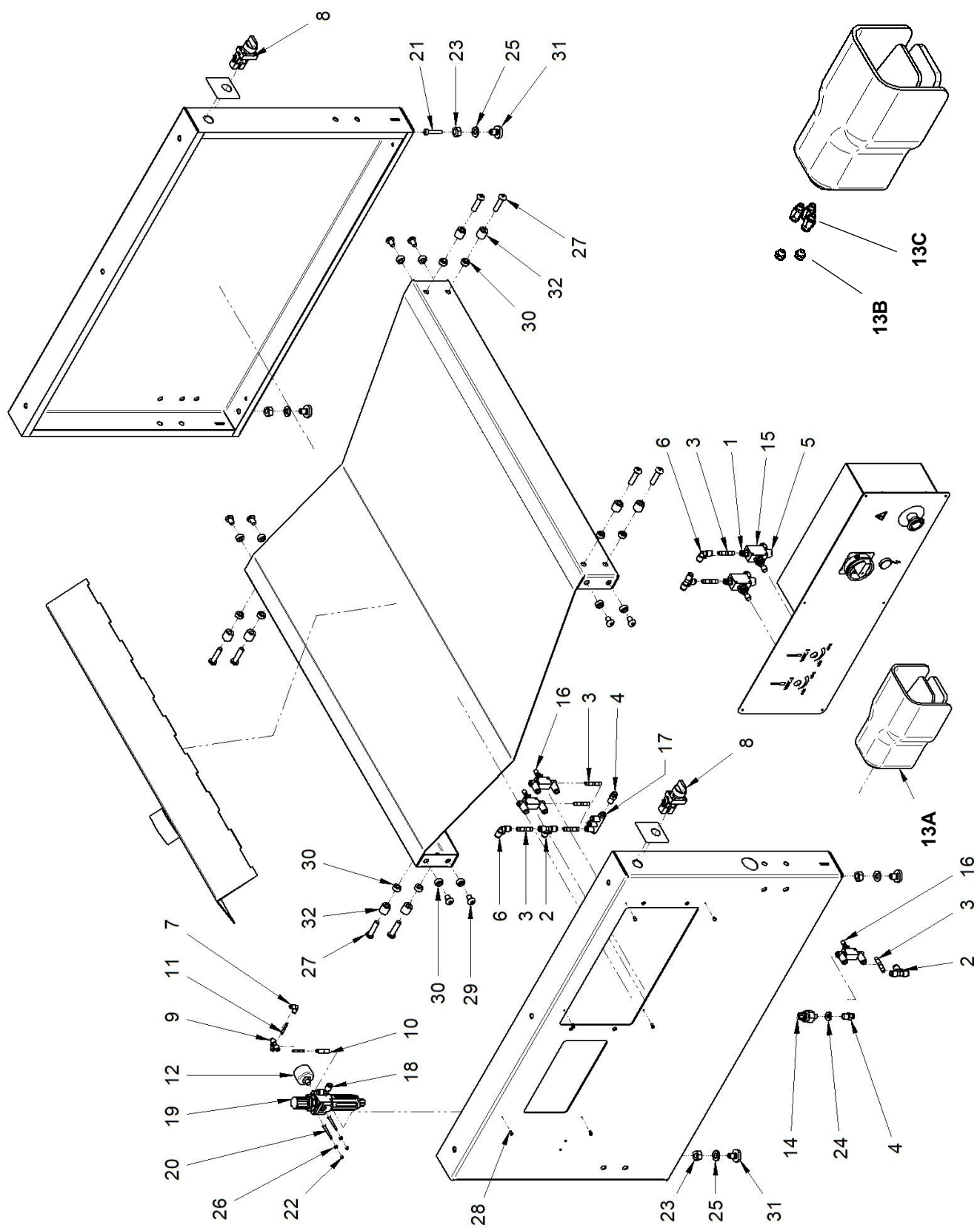
MAGGI TECHNOLOGY srl
Vendita ed Assistenza Tecnica
Via delle Regioni n°299
50052 CERTALDO (Fi)
ITALY

13. SPARE PARTS



<i>POS.</i>	<i>CODE</i>	<i>PART NAME</i>
1	26432050	FRAME UNIT
2	26432001	TABLE UNIT
3	26432100	PLANE UNIT
4	26432750	FRONT HEAD UNIT
5	26432751	REAR HEAD UNIT
6	26432500	PRESSING UNIT
7	26401800	LONG FENCE UNIT

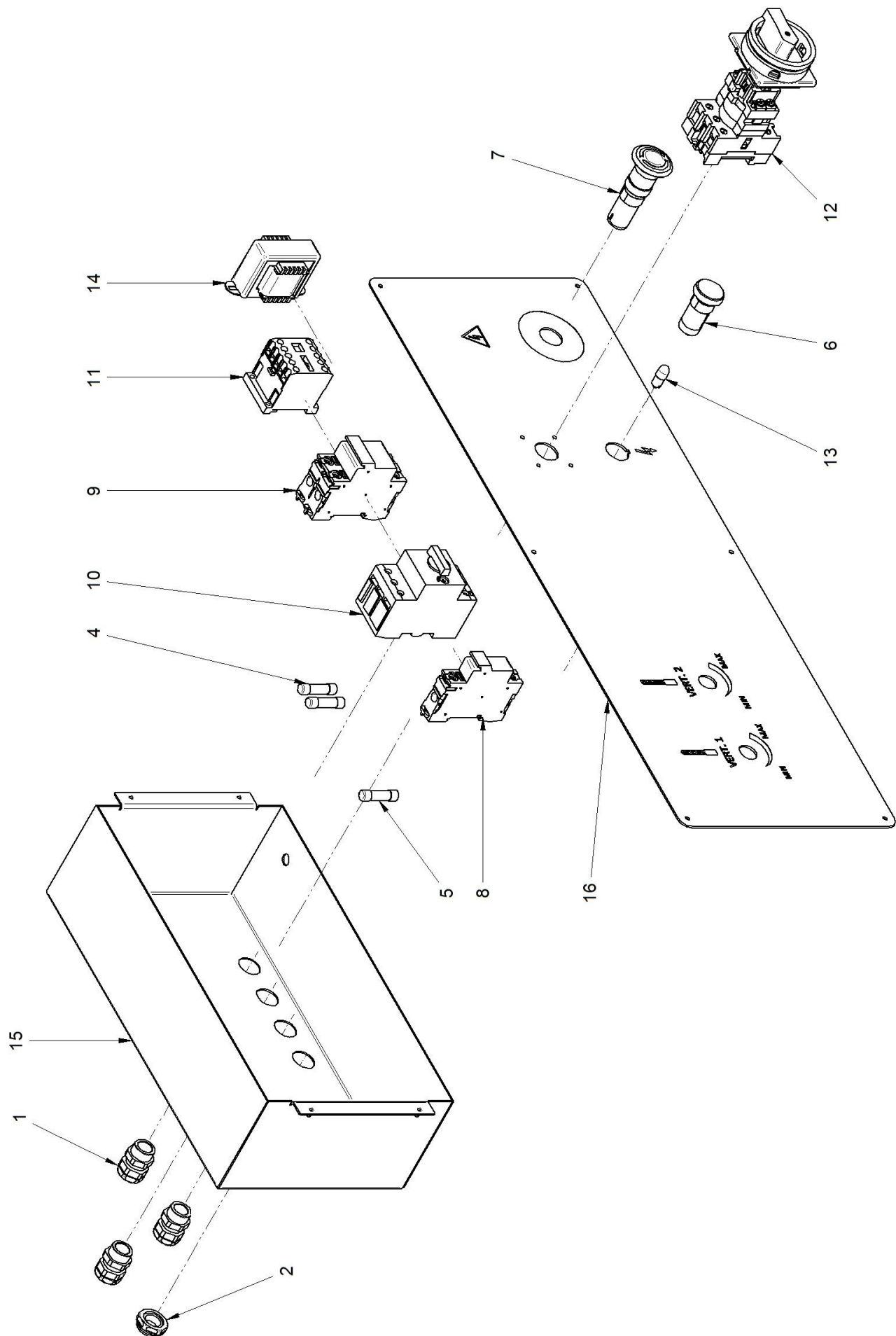
FRAME UNIT



FRAME UNIT

POS.	CODE	PART NAME
1	00001013	FITTING PNMX T010814
2	00001102	FITTING PNMX T050800
3	00001104	EXTENSION ART. 07-8
4	00001107	FITTING ART.02-8-1_8-DIR-FEM
5	00001108	FITTING ART. 015-8-1_4
6	00001110	FITTING PNMX T040800
7	00001114	FITTING PNMX L 04 4
8	00004013	SELECTOR PNMX 104 32 6 30 LC
9	00004065	FITTING PNMX T050400
10	00004067	REDUCER PNMX 08 08 04
11	00004068	EXTENSION PNMX 07 070400
12	00015219	MANOMETER PNMX 17070 AC
13A	00015220	PEDAL 228.52.10.2/1 + T010818 + SEP18
13B	00001211	SILENCER ART.SEP1-8
13C	00001101	FITTING PNMX T010818
14	00015221	PRESSURE SWITCH 1_8 COD.PMN10A
15	00015224	FLOW REGULATOR 6.01.14N PNMX
16	00015229	REGULATOR 6.01.18NE + N°2 T150818 PNMX
17	00015650	FITTING ART.34 340818
18	00015651	FITTING "T"
19	00015804	FILTER REDUCER 17104BBCP G1/4 PNMX
20	00018289	SCREW TCEI M4X40 UNI-5931 ZINC.
21	00018377	SCREW TCEI M8X40 UNI-5931 ZINC.
22	00018499	NUT M4 UNI-5588 6S ZINC.
23	00018507	NUT M12 UNI-5588 6S ZINC.
24	00018522	PLAIN WASHER Ø10 UNI-6592 ZINC.
25	00018523	PLAIN WASHER Ø13 UNI-6592 ZINC.
26	00018531	PLAIN WASHER Ø4 UNI-6592 ZINC.
27	00018612	SCREW VTBEI M10 x 40
28	00018620	SCREW VTBEI M4 x 8 ISO 7380
29	00018627	SCREW TBCEI M10X16 ISO-7380 ZINC.
30	36050011	PRESSURE NUT
31	36050032	FOOT
32	36401014	SPACER

ELECTRIC CABINET UNIT



ELECTRIC CABINET UNIT

POS.	CODE	PART NAME
1	00001189	GLAND C/NUT PG 13,5
2	00005086	TAP PG13,5 + NUT
3	36430001	ELECTRIC CABINET
4	00005082	FUSE 10X38 0,5A
5	00005083	FUSE 10X38 1,0A
6	00005320	LAMP HOLDER SCHNEIDER XB7-EV67P
7	00005330	EMERHGENCY PUSHBUTTONSCHNEIDER EB7ES542P
8	00005340	FUSE HOLDER WIMEX PS 10-1-S 32A 10X38
9	00005341	FUSE HOLDER WIMEX PS 10-2-S 32A 10X38
10	00005353	PROTECTION SWITCH EATON PKZM0-63
11	00005360	CONTACT SWITCH EATON DIL EM-10 XTMC9A10
12	00005370	MAIN SWITCH GIOVENZANA SQ0321003B
13	00005380	LAMP 30V 3W
14	00005390	TRANSFORMER NOR-SE VA15 TA-980015
15	36430051	ELECTRIC BOX 46
16	36430053	CONTROL PANEL

TABLE UNIT

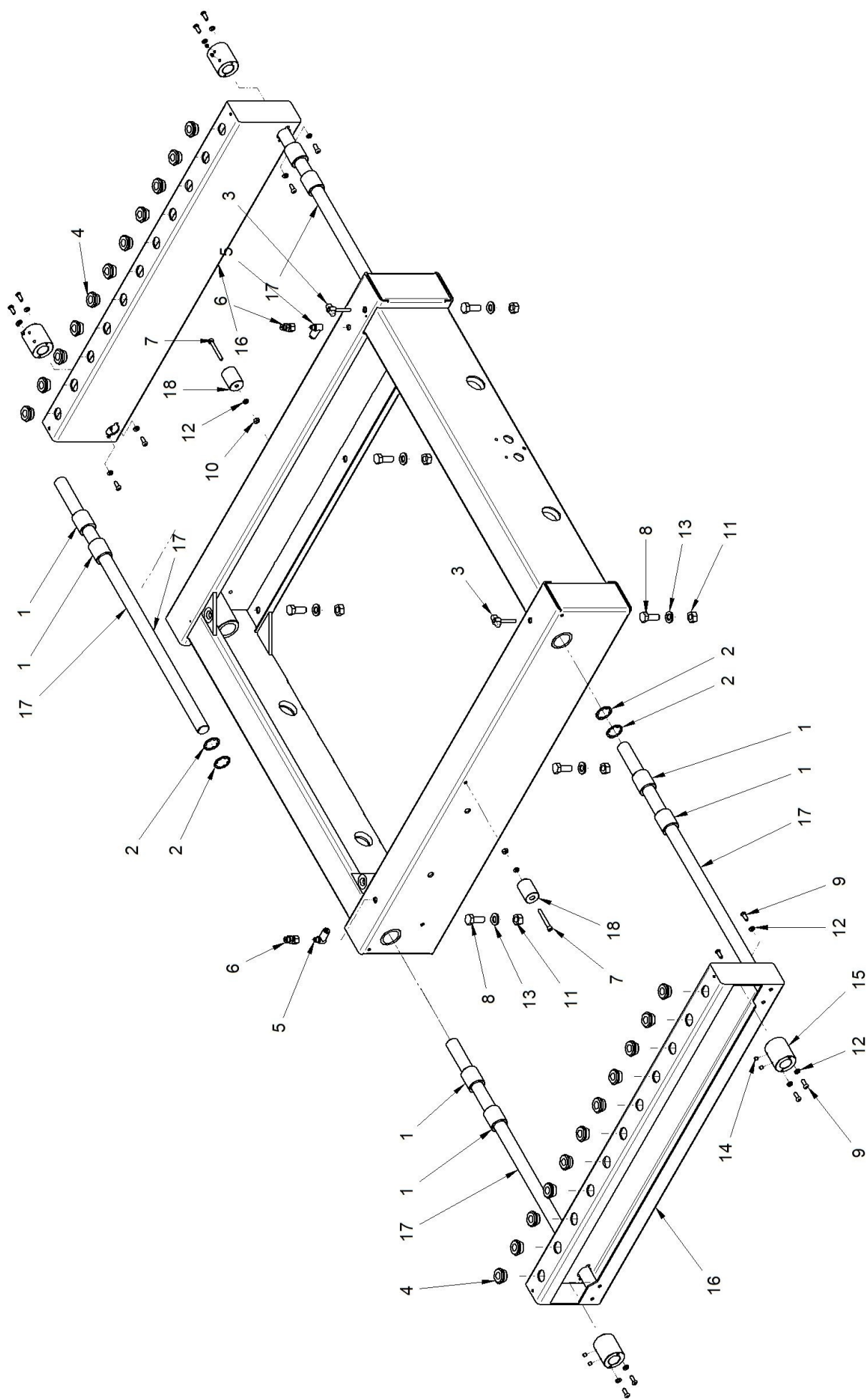
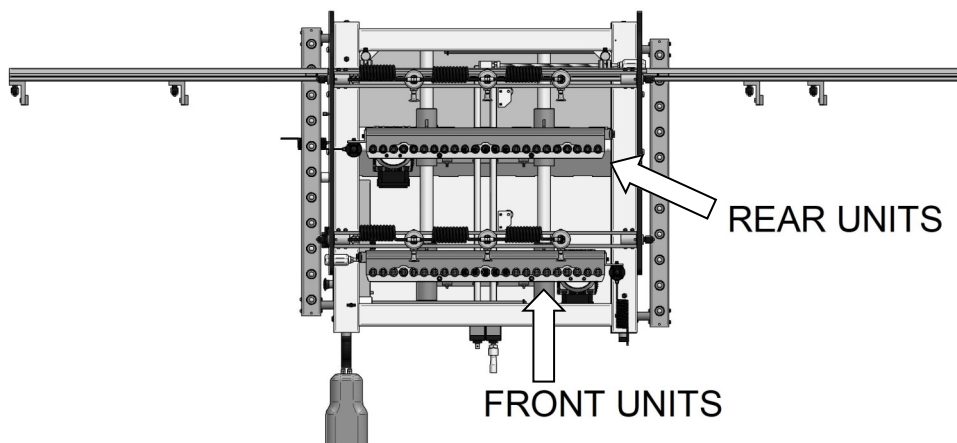
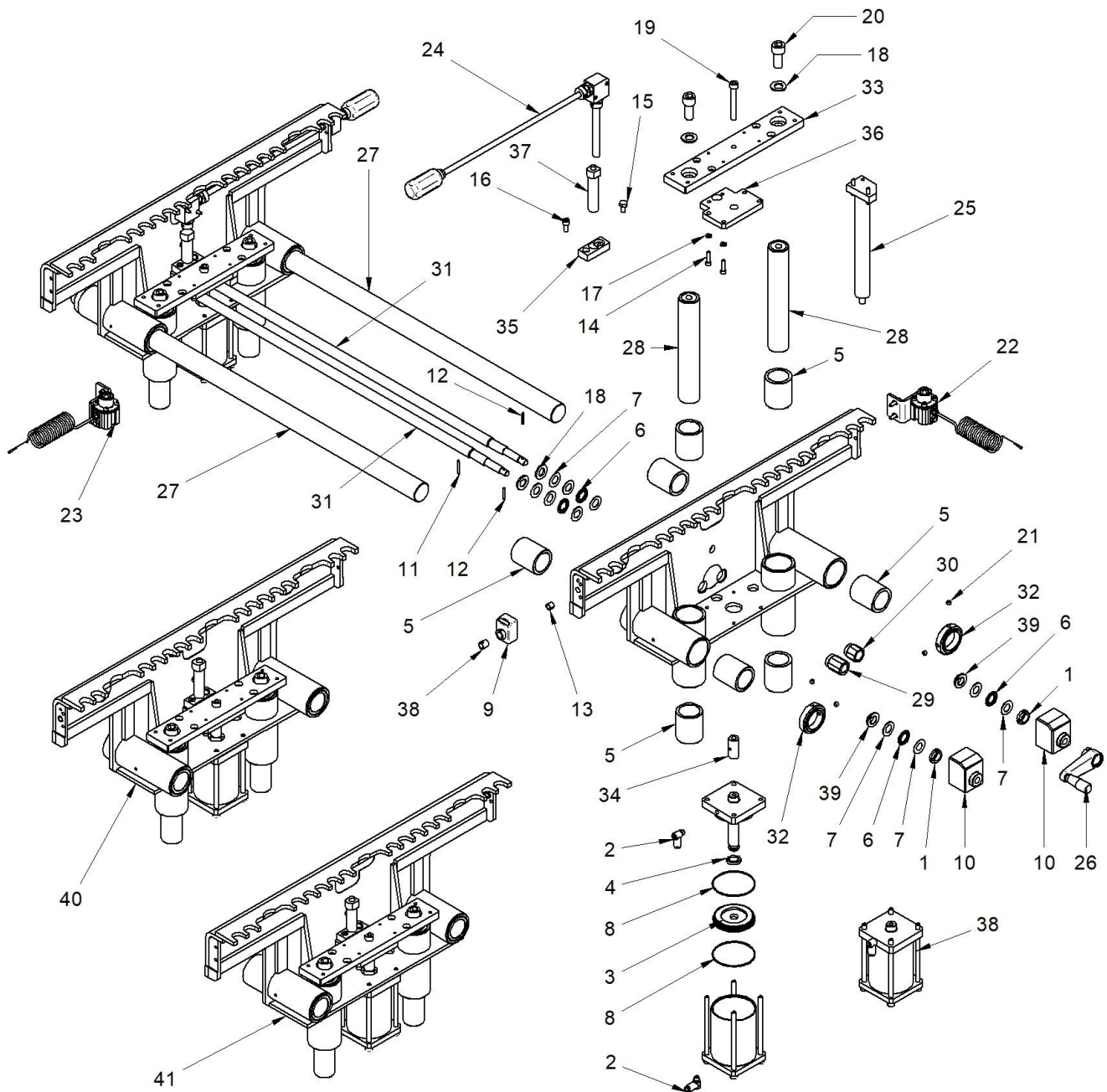


TABLE UNIT

<i>POS.</i>	<i>CODE</i>	<i>PART NAME</i>
1	00003033	BALL BUSHING KH2540PP
2	00003343	SEEGER RING ZA25
3	00003913	LEVER L749-28 M6X40
4	00004111	SUPPORTING BALL SP15LBD
5	00015815	FITTING PNMX 15 150418
6	00015816	FITTING PNMX 250418
7	00018321	SCREW VTCEI M6x50
8	00018417	SCREW TE M 12X30 UNI 5739 ZINC.
9	00018462	SCREW VTBEI M6x16 ISO7380 ZINC.
10	00018500	NUT M6 UNI-5588 6S ZINC.
11	00018507	NUT M12 UNI-5588 6S ZINC.
12	00018520	PLAIN WASHER Ø6 UNI-6592 ZINC.
13	00018523	PLAIN WASHER Ø13 UNI-6592 ZINC.
14	00140603	SCREW STEI M6X8 P.C. UNI-5927
15	36405012	BUSH 46
16	36405013	SUPPORTING BEAM
17	36405014	ROLL HOLDER GUIDE
18	36405016	STOPPER

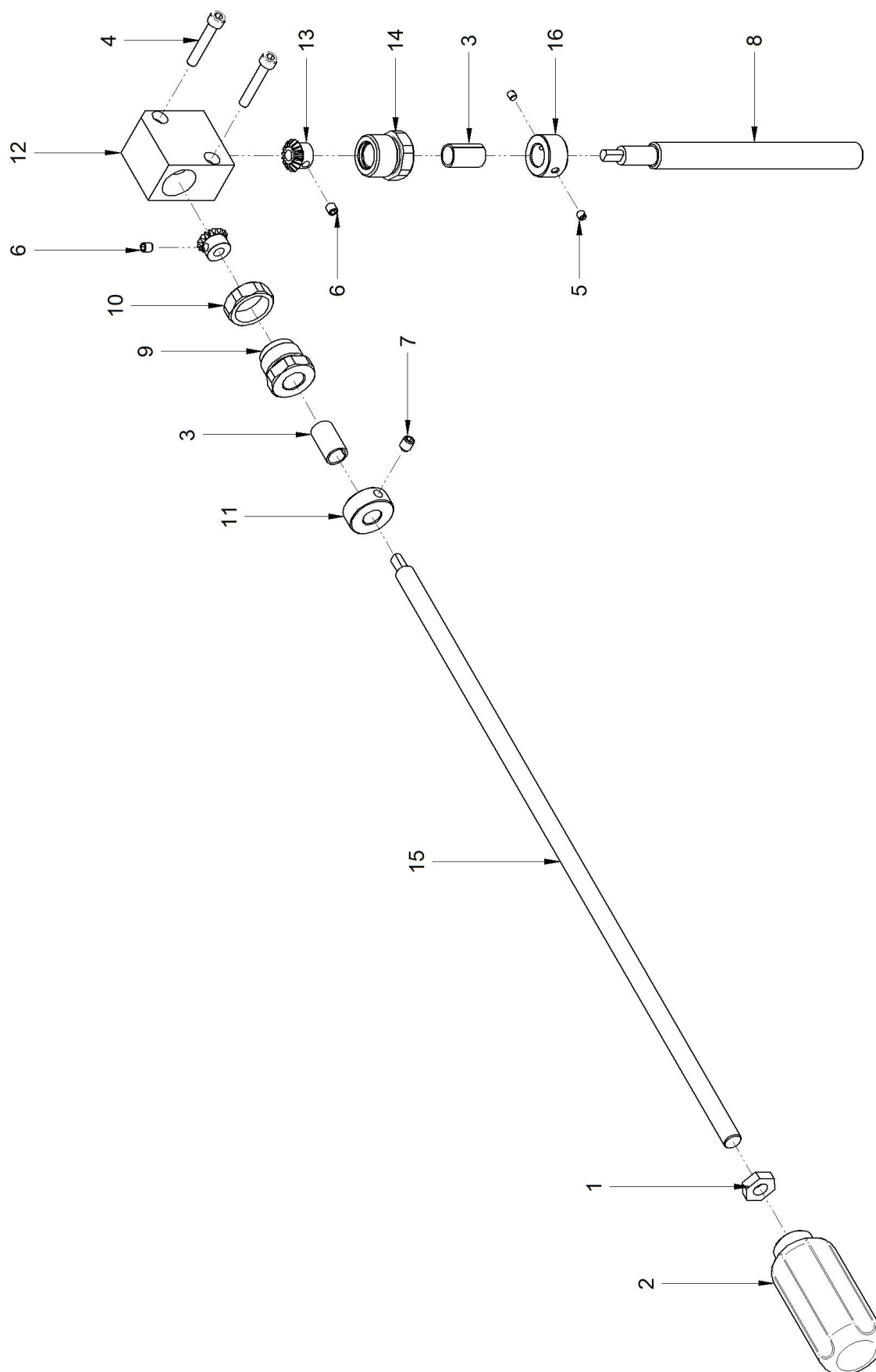
PLANE UNIT



PLANE UNIT

POS.	CODE	PART NAME
1	00000168	SELF LOCKING NUT M17x1
2	00001105	FITTING T150818 PNMX
3	00001160	SEAL CORTECO A2CFW-NADUOP 80-1
4	00001501	SEAL Øi20 Øe28
5	00003034	BALL BUSHING KH4060PP
6	00003455	BEARING INA AXK1730
7	00003456	RING INA AS 1730
8	00003521	SEAL RING OR 2300
9	00003961	COUNTER VO-DX-2.0 AR.D.14
10	00003964	COUNTER
11	00004304	ELASTIC PIN Ø4X30
12	00004380	ELASTIC PIN Ø4x26 UNI-6873
13	00005046	BUSH PAP 1010P10
14	00018304	SCREW TCEI M6X25 UNI-5931 ZINC.
15	00018405	SCREW TE M8X16 UNI-5739 ZINC.
16	00018407	SCREW VTCEI M8X18
17	00018520	PLAIN WASHER Ø6 UNI-6592 ZINC.
18	00018524	PLAIN WASHER Ø17 UNI-6592 ZINC.
19	00018756	SCREW TCEI M10X75 UNI-5931 ZINC.
20	00018759	SCREW TCEI M16x35 UNI5931 ZINC
21	00150802	SCREW VSTEI M8x8 PC UNI5927
22	26401900	RH REFERENCE PIN GROUP
23	26401901	LH REFERENCE PIN GROUP
24	26405104	ANGULAR REFERENCE GROUP
25	26405107	HYDRAULIC BRAKE GROUP
26	36401135	HANDLE B216-80
27	36432117	HORIZONTAL GUIDE
28	36405118	VERTICAL SLIDING ROD
29	36405120	SLIDING NUT
30	36405121	SLIDING BUSH
31	36432123	SLIDING SCREW
32	36405126	LOCKING GUIDE
33	36405127	HEAD HOLDING PLATE
34	36405136	CYLINDER ADDITIONAL ROD
35	36405155	GUIDE BLOCK
36	36405708	HOLDER
37	36405709	VERTICAL SLIDING NUT
38	38509273	REDUCING BUSH
39	41600004	BUSH
40	26405101	FRONT PLANE GUIDE GROUP
41	26405101	REAR PLANE GUIDE GROUP

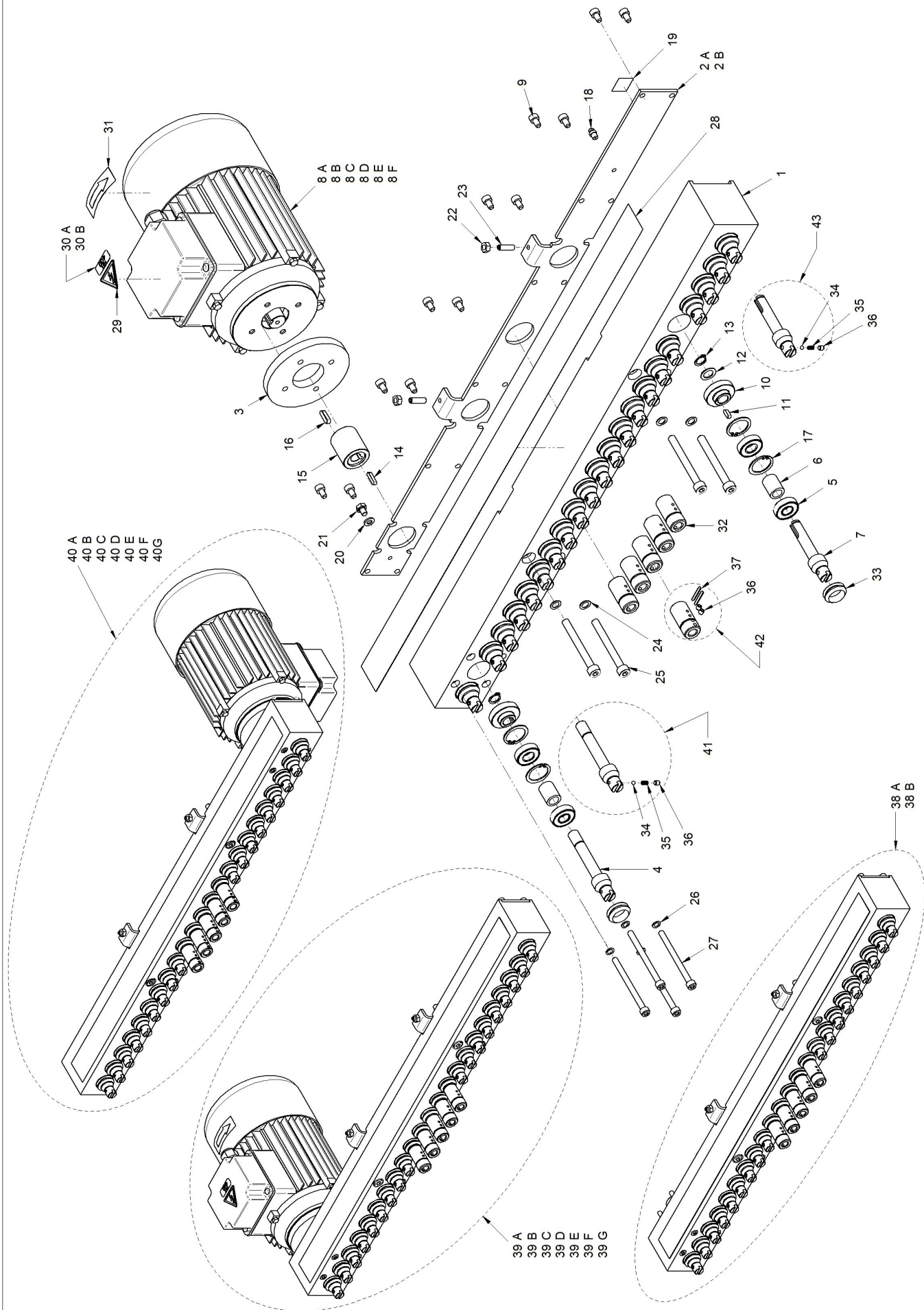
ANGULAR REFERENCE GROUP



ANGULAR REFERENCE GROUP

<i>POS.</i>	<i>CODE</i>	<i>PART NAME</i>
1	00000113	NUT M10 UNI-5589 6S BRUN.
2	00003954	HANDLE BOTECA 775-38 M10
3	00006080	BUSH PAP 1020P10
4	00030509	SCREW TCEI M5X30 UNI-5931 BRUN.
5	00120404	SCREW STEI M4X4 P.P. UNI-5923
6	00130501	SCREW STEI M5X5 P.P. UNI-5923
7	00140603	SCREW STEI M6X8 P.C. UNI-5927
8	36401129	SCREW_PROFONDITA_46_ITG
9	36401130	THREADED BUSH
10	36401131	NUT
11	36401132	STOP DISK
12	36401133	BEVEL GEARBOX
13	36401134	CONICAL GEAR M1-Z16
14	36401138	THREADED BUSH OR_46_ITG
15	36405128	HANDLE HOLDER
16	36405137	THREADED TUBE

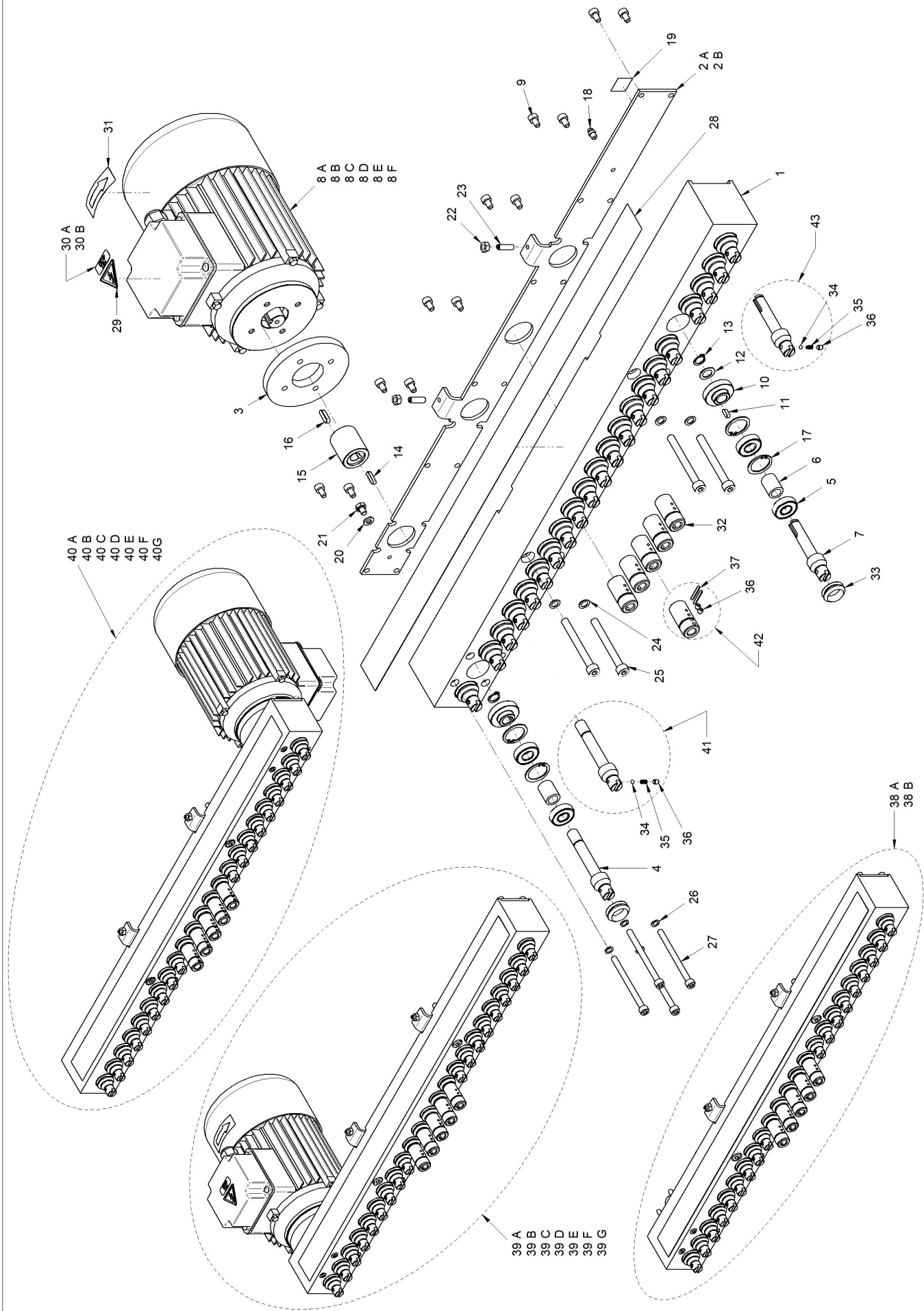
FRONT HEAD UNIT / REAR HEAD UNIT



FRONT HEAD UNIT / REAR HEAD UNIT

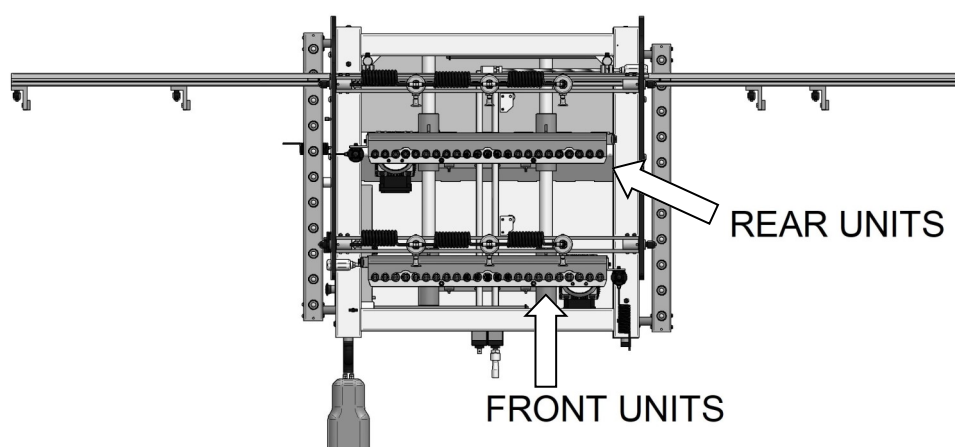
POS.	CODE	PART NAME
1	36432704	HEAD BODY
2A	36432700	FRONT HEAD COVER
2B	36432701	REAR HEAD COVER
3	36250703	MOTOR ROUND PLATE
4	36001059	DRIVING SPINDLE
5	00003424	BEARING 6001 2RS
6	36000063	BEARING SPACER
7	36001060	DRIVEN SPINDLE
8A	26251701	MOTOR M802T V.230/400-50/60HZ HP2
8B	26251717	MOTOR M802T V.575-60-3PH HP2 "CSA"
8C	26251719	MOTOR M802T 230-50-1PH
8D	26251723	MOTOR M802T 230-60-1PH
8E	26251752	MOTOR M802T 230-60-1PH HP2 "CSA" CEG
8F	26251753	MOTOR M802T 230-60-3PH HP2 "CSA"
9	00018302	SCREW VTCEI M6X10 UNI-5931 ZINC.
10	36000062	GEAR Z21
11	00000211	PARALLEL KEY 4x4x12 UNI-6604 A
12	00000037	THK. WASHER PS Ø12X18X1
13	00003305	SEEGER RING E12
14	00000250	PARALLEL KEY 4x4x18
15	36051712	MOTOR JOINT
16	00000220	PARALLEL KEY 5X5X18
17	00003337	SEEGER RING I 28
18	00003703	GREASER M6 x 1
19	36367710	ADESIVE
20	00018520	WASHER Ø6 UNI-6592
21	00018436	SCREW VTE M6x8 UNI5739
22	00018500	NUT M6 UNI-5588 6S
23	00100614	SCREW VSTEI M6X20 P.P. UNI-5923
24	00000042	WASHER SCHNOR Ø8
25	00018655	SCREW VTCEI M8x75 UNI-5931
26	00000041	WASHER SCHNORR Ø6
27	00018326	SCREW VTCEI M6X80 UNI-5931
28	36052710	ADESIVE
29	37824018	ADESIVE
30A	45400082	ADESIVE VOLT 400 V
30B	45400092	ADESIVE VOLT 230 V
31	36054020	ADESIVE
32	36000061	QUICK CHANGE BUSH
33	00005097	SEAL Øi 20 Øe 25,5

FRONT HEAD / REAR HEAD UNIT

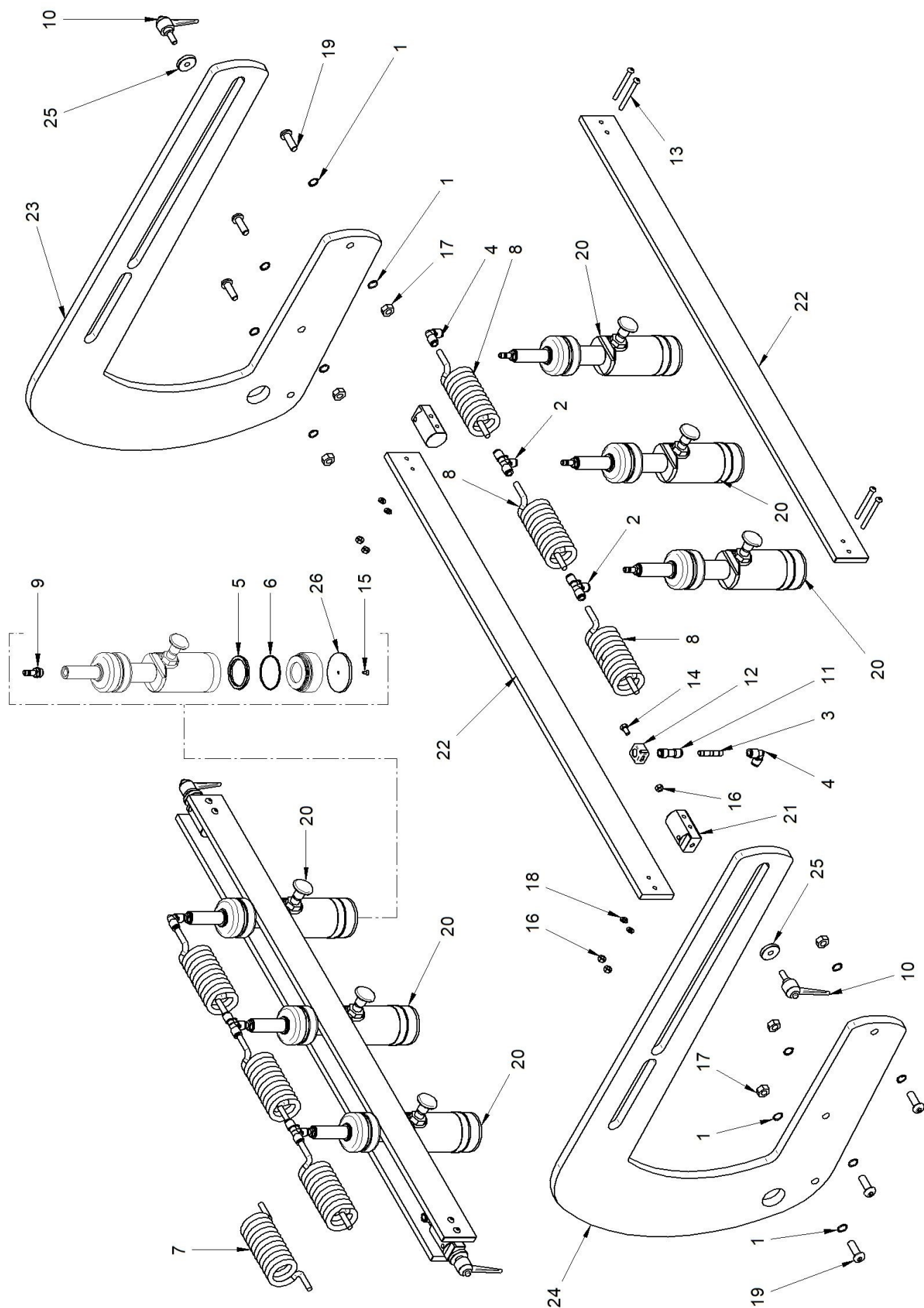


FRONT HEAD / REAR HEAD UNIT

<i>POS.</i>	<i>CODE</i>	<i>PART NAME</i>
34	00004103	SPHERE 1 / 8
35	00005025	SPRING Ø4 L=9
36	00130501	SCREW VSTEI M5X5 P.P. UNI-5923
37	00004289	PIN Ø3x20 DIN1473
38A	26432710	FRONT HEAD GROUP NO MOTOR
38B	26432711	REAR HEAD GROUP NO MOTOR
39A	26432701	FRONT HEAD GROUP + MOTOR V.400-50/60-3PH
39B	26432702	FRONT HEAD GROUP + MOTOR V.230-50/60-3PH
39C	26432717	FRONT HEAD GROUP + MOTOR V.575-60-3PH CSA
39D	26432719	FRONT HEAD GROUP + MOTOR V.230-50-1PH
39E	26432723	FRONT HEAD GROUP + MOTOR V.230-60-1PH
39F	26432752	FRONT HEAD GROUP + MOTOR V.230-60-1PH CSA
39G	26432753	FRONT HEAD GROUP + MOTOR V.230-60-3PH CSA
40A	26433701	REAR HEAD GROUP + MOTOR V.400-50/60-3PH
40B	26433702	REAR HEAD GROUP + MOTOR V.230-50/60-3PH
40C	26433717	REAR HEAD GROUP + MOTOR V.575-60-3PH CSA
40D	26433719	REAR HEAD GROUP + MOTOR V.230-50-1PH
40E	26433723	REAR HEAD GROUP + MOTOR V.230-60-1PH
40F	26433752	REAR HEAD GROUP + MOTOR V.230-60-1PH CSA
40G	26433753	REAR HEAD GROUP + MOTOR V.230-60-3PH CSA
41	26432712	DRIVING SPINDLE GROUP
42	26432713	QUICK CHANGE BUSH GROUP
43	26432714	DRIVEN SPINDLE GROUP



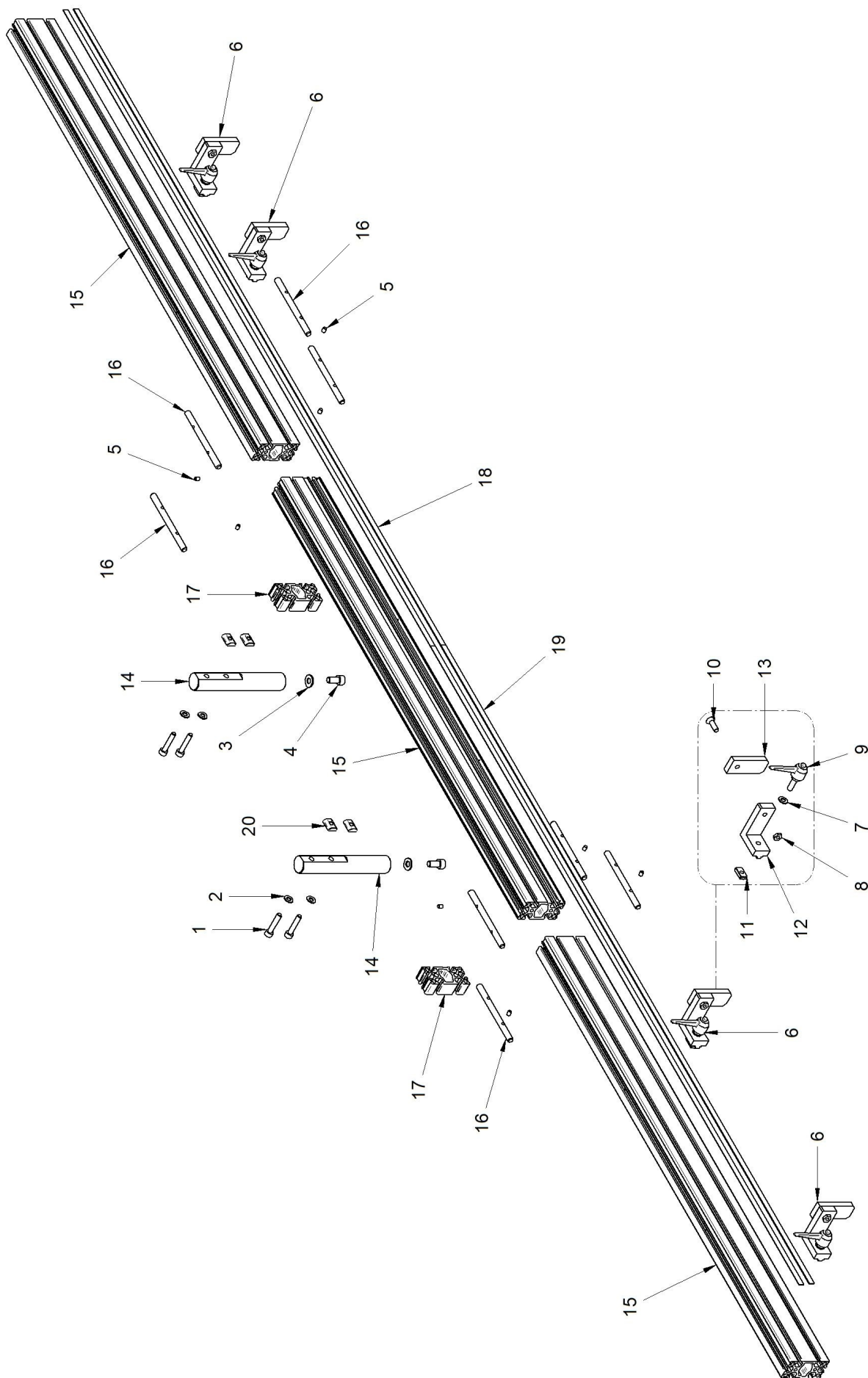
PRESSING UNIT



PRESSING UNIT

<i>POS.</i>	<i>CODE</i>	<i>PART NAME</i>
1	00000051	WASHER SCHNOR Ø10
2	00001102	FITTING PNMX T050800
3	00001104	EXTENSION ART. 07-8
4	00001110	FITTING PNMX T040800
5	00001120	SEAL PNEUMAX R/1502/50/7 RS/Z850
6	00001121	SEAL RING OR PNEUMAX COD R-1502.50.5 OR2187
7	00001123	BLACK SPIRAL PIPE TR 8x6
8	00001128	RILSAN SPIRAL PIPE 11 8x6 BLACK
9	00001250	INSERT PNEUMAX T060814
10	00004022	SNAP LEVER A583065 M8X20 EUROMODEL
11	00004070	FITTING PNMX T030800
12	00005041	SUPPORT FISCHER-SCH-8-12-GR
13	00009083	SCREW TBCEI M6X60 ISO-7380 ZINC.
14	00018400	SCREW VTE M6x12
15	00018439	SCREW TSPEI M4x8 UNI-5933 ZINC.
16	00018500	NUT M6 UNI-5588 6S ZINC.
17	00018503	NUT M10 UNI-5588 6S ZINC.
18	00018520	PLAIN WASHER Ø6 UNI-6592 ZINC.
19	00018602	SCREW TBCEI M10X30 ISO-7380 ZINC.
20	26054501	PRESSURE GROUP
21	36051502	SPACING BLOCK
22	36432504	CROSSPIECE 46
23	36402505	RH SHOUDER 46 ITG
24	36402506	LH SHOUDER 46 ITG
25	49900051	CROSSPIECE WASHER
26	49900095	NYLON STOPPER

LONG FENCE UNIT



LONG FENCE UNIT

<i>POS.</i>	<i>CODE</i>	<i>PART NAME</i>
1	00018377	SCREW TCEI M8X40 UNI-5931 ZINC.
2	00018521	PLAIN WASHER Ø8 UNI-6592 ZINC.
3	00018522	PLAIN WASHER Ø10 UNI-6592 ZINC.
4	00060803	SCREW TCEI M10X20 UNI-5931 BRUN.
5	00140602	SCREW STEI M6X8 P.P. UNI-5923
6	26400606	MOVABLE STOP UNIT 46
7	00000020	PLAIN WASHER Ø8 UNI-6592 BRUN.
8	00000109	NUT M8 UNI-5589 6S BRUN.
9	00004023	SNAP LEVER KRP-63 M8 L25
10	00018426	SCREW TSPEI M 8X25 UNI 5933 ZINC.
11	36050801	DOWEL
12	49970082	STOP UNIT HOLDER
13	49970084	STOP
14	36401805	SUPPORT
15	36401806	FENCE 1M x 46 ITG
16	36401807	INSERT PIN
17	36432808	SPACER
18	46050805	RH RULE
19	46050806	LH RULE
20	49970077	LARGE DOWEL





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Service

since 1993

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