ORIGINAL USE and MAINTENANCE MANUAL

BORING SYSTEM 21 PRESTIGE

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



MANUAL CODE 00003490 REV 03

MACHINE CODE 16228100





WOODWORKING MACHINERY

DECLARATION OF CONFORMITY

UK CA

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

(TRANSLATION OF THE ORIGINAL LENGUAGE)

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)

In fitness whereof: Giacomo Landi

Jandi Gocarno

Certaldo 2022

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 LENGUAGE)

(TRANSLATION OF THE ORIGINAL LENGUA

Company name and address of the machine manufacturer: Maggi Technology Srl Via delle Regioni, 299 50052 Certaldo (FI) - ITALIA Tel. +39 0571 63541

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: MACHINE MODEL: SERIAL NUMBER: YEAR OF MANUFACTURER:

SINGLE HEAD DRILLING MACHINE BORING SYSTEM 21 PRESTIGE



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.

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- Electromagnetic Compatibility Regulations 2016 S.I. 2016:1091

It also complies with designated standards:

• ISO 12100:2010 (Risk assessment and risk reduction)

Certaldo

In fitness whereof:

Jandi Gocomo



CE Declaration of Conformity

The manufacturer

Maggi Technology S.r.l.

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

Dichiara che la macchina

The machine	BORING MACHINE
Model	BORING SYSTEM 21 PRESTIGE



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

(F

Jandi Gocarno

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SYMBOLS USED IN THIS MANUAL

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

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GENERAL INFORMATION ON THE MANUFACTURER

Manufacturer: Address: Town: Country: Tel. Fax. E-mail: MAGGI TECHNOLOGY S.r.I. Via delle Regioni, 299 - 50052 CERTALDO (FI) ITALY +39 0571 63541 +39 0571 664275 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 anc 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 movin/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



	WARNING - DANGER
<u> </u>	WARNING - HAND SHEARING DANGER
	WARNING - HAND CUTTING DANGER
READING THIS MANUAL IS COMPULSORY	WARNING - HAND CRUSHING DANGER
DISCONNECT THE MACHINE TO ANY POWER SUPPLY AT THE END OF EACH WORKING SHIFT	IT IS FORBIDDEN TO USE THE MACHINE IN MORE THAN ONLY ONE OPERATOR
DISCONNECT THE MACHINE TO ANY POWER SUPPLY BEFORE MAINTENANCE	IT IS FORBIDDEN TO REMOVE SAFETY PROTECTION DEVICES
COMPULSORY ANTI-NOISE DEVICES AND GOGGLES	IT IS FORBIDDEN TO MAKE ANY MAINTENANCE OPERATIONS WHEN THE MACHINE IS WORKING
COMPULSORY PROTECTIVE MASK	IT IS FORBIDDEN TO EAT / DRINK MEALS ON THE MACHINE
WEAR PROTECTIVE CLOTHES	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.





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.

DPI - WEAR PROTECTIVE CLOTHES		
DPI - WEAR SAFETY (MECHANICAL) GLOVES		
DPI - WEAR SAFETY SHOES		
DPI - WEAR GOGGLES		
DPI - 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 drived+n boring machine, it can make holes at fixed distance of 32mm one to each other. The machine consists of:

- 1. a steel frame structure
- 2. one head group equipped with its trasmission system
- 3. clamp group for vertical blocking of the work piece
- 4. pneumatic system for head positioning and head feed
- 5. reference stops to obtain the same drilling distance from vertical to horizontal position
- 6. leaflet for positioning the spindle height, a mechanical counter and the "Spiral System" device to regulate the hole depth from 0 mm to 85 mm



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) $\,$

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



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

<u>^</u>

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.

Fig. A

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.

Fig. B

2.6. TECHNICAL DATA

NUMBER OF SPINDLES	21
CENTRE DISTANCE BETWEEN SPINDLES	32 mm
CENTRE DISTANCE BETWEEN FIRST AND LAST SPINDLE	640 mm
MAX. BORING DEPTH	65 mm
MAX. DIMENSIONS OF THE WORKING PIECE	915 x 3000 mm
HEIGHT OF THE WORKING TABLE	870 mm
NUMBER OF CLAMPS	2
NUMBER OF MOTORS	1
MOTOR POWER	2 (1,5) HP(KW)
MOTOR R.P.M.	2800 RPM
NET WEIGHT	250 Kg



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.

DESCRIPTION	EQUIPMENT	NOTE
BUSHES FOR QUICK CHANGE DRILL	5 PARTS STANDARD	Fig. A
ALUMINIUM FENCE WITH 2 STOPS (1500 + 1500 mm)	STANDARD	Fig. B
FENCE EXTENSION (1000 mm)	OPTIONAL	Fig. C
EXTRA STOP FOR ALUMINIUM FENCE	STANDARD	Fig. D
REFERENCE FENCE FOR QUICK AND EXACT SETUP OF STOPS ON THE LONG FENCE FOR LINE BORING (1088 mm)	OPTIONAL	Fig. E
STOP REFERENCE PIN FOR LINE BORING	OPTIONAL	Fig. F
SET OF REFERENCE FENCES FOR MOULDINGS AT 45° AND 90°	OPTIONAL	Fig. G
REFERENCE STOP TO MATCH THE LONG PANEL DURING TRANSVERSE BORING	OPTIONAL	Fig. H
REFERENCE FENCE FOR REAR FENCE PARALLELISM (500 mm)	OPTIONAL	Fig. I
EXTRA CLAMPING PRESSER	STANDARD	Fig. L





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.



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.





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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 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.







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 (1) with the air line through a rubber or nylon hose with a minimum inside diameter of 8 mm.

If the length of the tube exceeds 5/6 metres it is advisable to increase the inside diameter to 10 mm, 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



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

т) то

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

SELECTOR FOR 0° - 90° HEAD POSITIONING (4): used to activate the pneumatically-controlled rotation mechanism of the spindle head of 0 - 90 °

SPEED REGULATOR FOR DRILLING HEADS LINEAR FEED (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



I =ON



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 boring operations, proceed as described below: a) Insert the suitable drills in the required position on the spindle head(A)



b) Set-up the height of the drill from the working table:

turn the handle (1) when the head is tilted at 90° . The drill height is shown on the digital counter (2) in millimetres. Turn the handle so that the screw is stretched when the required height is reached. The choice of the tool depends on the thickness of the piece to be bored, the position of the hole and the hole diameter.



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



THE SET-UP OF THE DRILLING DEPTH IS CARRIED OUT THROUGH THE "BACKSTOP SPIRAL"

c) Adjust the boring depth: find on the depth selection screw (3) the scale referring to the total length of the drill being used, then set (with no need for calculation) the actual boring depth.

Release the handle (4) and turn the depth selection screw to the required point: the pointer (5) which also acts as a magnifier, will show the chosen depth.

Firmly tighten the handle (4) before starting boring operations.

d) Testing: use a scrap piece of wood to test the machine settings before boring a good piece of wood



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ATTENTION - VERTICAL DRILL

THE <u>DEPTH</u> READ ON THE SPIRAL SCALE IS NOT THE ACTUAL DEPTH: THERE IS A <u>DIFFERENCE OF 10 mm (Fig. C)</u> DUE TO THE PRESENCE OF AN AUTOMATIC DEPTH DIFFERENTIAL.

THIS DIFFERENCE IS USED IN COUPLING PANELS WITH PLUGS: SETTING THE HORIZONTAL DEPTH, WE HAVE AUTOMATICALLY THE CORRECT VERTICAL DEPTH (Fig. D) .



6.4 DRILLING HEAD PARALLELISM ADJUSTMENT

- Partially loosen the screws (A) and work alternately on the screws (B) and nuts (C)
- Set the drills parallel to the working table
- Firmly tighten the screws (A)



6.5 DRILLING HEAD - VERTICAL POSITIONING

To position the drilling head at 90° starting from the 0° position, proceed as follows:

- Loosen the handle (1)
- Use the selector (2) on the machine front and move it to the vertical position
- Tighten the handle again (1)



6.6 DRILLING HEAD - HORIZONTAL POSITIONING

To position the spindle head at 0° starting from 90° position, act as follows:

- Check that the selector (2) on the front is also positioned at 90°
- Release the handle (1) on the left-hand side of the machine
- Use the selector (2) to tilt the head unit taking it to the bottom position
- Tight the handle again (1)







ATTENTION

DO NOT STAND / MOVE CLOSE TO THE HEAD AREA WHEN OPERATING ON THE CONTROL SWITCH TO TILT THE HEAD 0 ° -90 ° RISK OF CRUSHING, CUTTING AND ENCLOSURE







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6.7 DRILLING HEAD - POSITIONING AT AN ANGLE BETWEEN 0° AND 90°

- Take or if already set keep the head unit at 90° as starting position.
- Release the handle (1) to be able to pull out the graduated fence (3)
- Release the handle (4) and position the stop (5) at the required degrees chosen along the graduated fence and then lock into position again.
- Check that the selector (2) on the front is also positioned at 90°
- Release the handle (1) on the left-hand side of the machine
- Use the selector (2) to tilt the head unit taking it to the bottom position
- Tight the handle again (1)







ATTENTION DO NOT STAND / MOVE CLOSE TO THE HEAD AREA WHEN OPERATING ON THE CONTROL SWITCH TO TILT THE HEAD 0 ° -90 ° RISK OF CRUSHING, CUTTING AND ENCLOSURE



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6.8 USE OF THE REFERENCE STOP FOR STANDARD 0°-90° MACHINING

STEP 1

The side squares (A) and back stops (B) are used to position the piece to be machined in the standard working cycle.

With the spindle head at 90° and the spindle holder unit clamped in place:

- Position and lock the side squares at an appropriate distance from the drills to be used
- Position the clamp cylinder (or cylinders) (C) in the area where the piece will be worked
- Place the piece to be bored against the side squares using them as guides to position the piece under the clamps and against the rack.
- Position the stoppers (B) above the work piece, lower the stopper reference block onto the piece and clamp the stopper itself with the corresponding handles.
- The piece is in the right position and it is now possible to start the working cycle pressing the pneumatic pedal to start drill feed with the engine switched on (make sure that the engine button is on). At the same time the clamps will lock the work piece into position.

STEP 2

When the first step is over, release the pneumatic pedal to release the piece and take the bored piece out of the machine. Release the spindle head unit, operating the overturning lever to re-position the spindle head at 90°. Re-position the head and lock it in place, than you can start the second step:

- position the piece, that has to be joined to the one that has just been machined, against the side square under the clamp (or clamps) (C) and against the back stop block.
- Once you are sure the piece has been positioned correctly, press the pedal to lock the clamp, to turn and feed the drills.
- The piece will be released once the pedal is freed, ending the working cycle.

THE TWO PIECES THAT HAVE BEEN JUST DRILLED ARE NOW READY TO BE JOINED (0°-90°) ...



6.9 USE OF THE 1,5 + 1,5 MT STANDARD EXTENSION FENCE

The extension fence is used to make a series of larger holes than the machine can make or to bore largesized pieces. Use of the extension generally implies complete or partial exclusion of the side squares and positioning the spindle head at 90°. For longitudinal use of the extension, we advise you to exclude the side squares completely, as it is possible to use mobile reference stoppers on the extension itself (the extension is provided with 4 mobile stoppers with positioning screws, stop screw and extension clamping device) for combined positioning of the work piece.









ATTENTION

TAKE CARE OF HANDLING OF THE SIDE SQUARE UNITS: RISK OF CRUSHING AND CUTTING







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6.10 TRANSVERSE POSITION OF EXTENSION FENCE (OPTIONAL)

To use the extension fence transversally you need to fasten it to the side square using the locking knobs provided. Follow the procedure described below:

- Position the extension on the inner side of the side square, locking it in place with the help of the reference pin (1) on the extension itself.
- Clamp the locking knobs (2) on the side square.
- Once the extension fence has been positioned, it is possible to exclude the other side square if necessary.
- It is now possible to use the mobile stops to co-ordinate the relative positions of the sections to be bored on long pieces.
- Add an adequate support (i.e. easel) to the rod and to the panel to be drilled.





6.11 LONGITUDINAL POSITION OF THE EXTENSION FENCE

To use the extension fence longitudinally you need to fasten it to the back stop profile using the handles provided. Follow the procedure described below:

- Turn the side squares over to bring them out of the table, making sure they are under the work table. •
- Place the extension fence over the back stop profile as illustrated in the figure below. •
- Fasten the extension fence to the back stop profile clamping the handle (1) provided with locating pin. •
- It is now possible to use the mobile stops to co-ordinate the relative positions of the sections to be bored on • long pieces.
- Add an adequate support (i.e. easel) to the rod and to the panel to be drilled. ٠



6.12 USE OF THE REFERENCE PIN

CLOTHES

(for sets of holes on large-sized pieces) (OPTIONAL)

The use of the extension fence for large-sized pieces can be complicated. Our machines are provided with a reference pin that can be used for the repetition of a set of holes on a large-sized piece, in which the axial distance between the first drill and the last is higher than those obtainable with the boring machine used. The reference pin is aligned with the axis of the drills and it fits into a slot under the machine table when the first set of holes has been bored. To go on boring, the reference pin can be used again by turning the knob to release the spring that allows the reference pin to come out. The reference pin must be inserted in one of the holes that have just been bored to allow repetition of the set of holes



6.13 USE OF THE TRIANGLE FOR 45° FRAMES (OPTIONAL)

The 45° triangle is particularly useful for 45°-45° jointing, mainly used for quickly manufacturing frames.

Fasten the triangle (1) on the table in the reference holes and clamp it in the centre hole using the lever (2).

This way it is possible to rest the pieces cut at 45° to be bored and coupled with the wooden "dowel" peg.

The machine spindle head must be set at 0°.

When the position is correct, the clamp is over the piece to be worked; proceed as in a standard working cycle, pressing the pneumatic pedal to start machining and releasing it at the end of the work.

Repeat the procedure on both sides of the triangle to obtain two mirrored frame pieces ready to be joined.





6.14 USE OF THE CENTRAL BAR FOR STRAIGHT 90° FRAMES (OPTIONAL)

The central bar is used to join two pieces with sides at a right angle (mainly used for quickly manufacturing straight frames).

Fasten the central bar (3) in the special reference holes on the work table and clamp it with the lever (2). position the pieces to be worked along the central bar. It is now possible to start boring operations to join frames with wooden "dowel" pegs.

The position is correct when the spindle head is at 0° and the clamp is over the piece to be bored. Proceed as in a standard working cycle, pressing the pneumatic pedal to start machining and releasing it at the end of the



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7. WORKING EXAMPLES

PANEL MATING EXAMPLES





Mating parts (at 0°)



Mating parts (between 0° and 90°)

FRAME MATING EXAMPLE AT 0° AND AT 45°







Reference assembling

SIMULTANEOUS MIRROR DRILLING EXAMPLES



Simultaneous mirror drilling of two panels (drilling head at $0^\circ)$



Simultaneous drilling of two side panels (drilling head at 90°)



Longitudinal positioning of the 1500mm fence, equipped with two reference stops, to drill line holes on large panels. The long fence can be used both on left and right side with high accuracy. The 3000mm long fence, equipped with four reference stops, is particularly suitable to drill line holes on very large panels: thanks to its dimension, it ensures a fast and complete positioning.



Transverse positioning of the fence, equipped with reference stops, to drill transverse holes on side panels for the insertion of support panels



Transverse positioning of two fences, equipped with reference stops, to drill simultaneously transverse holes on side panels for the insertion of support panels



Example of the use of the standard dimension fence to drill simultaneously two frames at 0° - 90°



Example of the use of the triangular fence to drill simultaneously two frames to be joined at 45° - 45°

Reference assembling

EXAMPLES OF AUTOMATIC MATING OF PANELS DRILLED VERTICALLY AND HORIZONTALLY





STEP 1





STEP 3

STEP 4



DRILLING EXAMPLES FOR HINGE SEAT

PROCEDURE FOR TOOLS WITH 35mm MAX O.D.

WARNING - 35mm O.D. MAX TOOLS RISK OF COLLISION MECHANICAL PARTS RISK OF DAMAGE TO THE MACHINE

MOUNT THE 35mm O.D. TOOL MAX ONLY IN THE 3 SPECIAL POSITIONS ON THE MACHINE THE HEAD GROUP MUST BE PLACED IN VERTICAL POSITION OF 0.0



PROCEDURE FOR TOOLS WITH 40mm O.D. OR GREATER

WARNING - 40mm O.D. TOOLS OR GREATER RISK OF COLLISION MECHANICAL PARTS RISK OF DAMAGE TO THE MACHINE

MOVE AWAY THE DRILLING HEAD FROM THE RACK OF A DISTANCE D = TOOL O.D. + 10mm THE TOOL MUST BE COMPLETELY OVER THE LEVEL OF THE RACK THE TOOL CAN BE MOUNTED ON ANY POSITION OF THE HEAD



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 anc can not be used for working







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MAINTENANCE:

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

8.2 ORDINARY MAINTENANCE

WHEN	WHAT	HOW
EVERY DAY	ELECTRIC CABLE	Visual inspection of the electrical connections of the machine with the general system
EVERY DAY	PNEUMATIC PIPES	Visual inspection of piping and pneumatic connections. Check for correct air pressure levels
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 AND SLIDING ROD CLEANING	Remove working residuals from guides and sliding rods. Do not use detergents or lubricants

WHEN	WHAT	HOW
EVERY 30 DAYS	ELECTRIC CIRCUIT	CHECK OF ELECTRICAL SYSTEM SAFETY
EVERY 30 DAYS	MECHANICAL COMPONENTS	VERIFY INTEGRITY OF THE LOCKINGS 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. RUNNING THE OPTIMAL LUBRICATION IF NECESSARY - USE EP2 TYPE GREASE

GREASING DRILLING HEAD PROCEDURE

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)
- 2. fill the pump with EP2 type grease
- 3. nsert the pump into the grease fitting (B) and add a small amount of lubricant



- 4. Switch on the machine and let the spindles turn so that the grease is homogeneously spread within the head
- 5. Switch off the machine
- 6. Verify that some grease has leaked out of the hole (C); if not, please, repeat the whole procedure once again and until the grease is leaking out
- 7. lock the head cover back to the head by inserting the washer and screw in place (A)



THE MOTOR WORKS BUT THE DRILLS DO NOT



PROBABLE REASON	ACTION
Possible failure of:	
- gears and/ or keys - drive joint	 replace them or call technical service



PROBABLE REASON	REASON ACTION	
- the drill is not locked properly - the drills are worn - the working part is not properly fixed	 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
 incorrect levelling of the piece the drills are worn the drills turn backwards 	 Check correct levelling 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
wrong parallel set-up of drills related to the reference bar.	 Check the drills with respect to the stop and the parallelism of the line of the tips of the head

DIFFICULTY IN TURNING THE HEAD

PROBABLE REASON	ACTION
the drilling head does not reach or has difficulty to reach other positions	 check the hinge and the stem of the tilting piston

THE WORKING PIECE IS NOT BLOCKED BY THE SAFETY CLAMP

PROBABLE REASON	ACTION
 Low pneumatic pressure Wear of the pressing blocks in contact with the piece Slippery work surface 	 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 anc can not be used for working











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11. ELECTRIC DIAGRAM AND PNEUMATIC DIAGRAM

Please see attached documents.

12. GUARANTEE

Maggi Technology S.r.l. 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 at Certaldo 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.

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VOUCHER TO BE SHIPPED TO MANUFACTURER	5
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WARRANTY AND ACKNOWLEDGEMENT OF RECEIPT VOUCHER	
Name	
Address	
ZIP codeCity	
Date of purchaseDealer	
Date of purchaseDealerDealerOwner signature	

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



Send to:

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





FRAME UNIT

POS.	CODE	PART NAME
1	00000151	SPECIAL NUT M10
2	00001198	GLAND M20×1,5
3	00001341	ELECTRICAL TERMINAL BOTECO R537126M20.P01
4A	00015220	PEDAL 228.52.10.2/1 + T010818 + SEP18
4B	00001211	SILENCER ART.SEP1-8
4C	00001101	FITTING PNMX T010818
5	00015221	PRESSURE SWICHT 1_8 COD.PMN10A
6	00015229	FLUX REGULATOR 6.01.18NE + N°2 T150818 PNMX
7	00015805	FLUX REGULATOR 290818
8	00015825	REDUCER FILTER + MANOMETER + FITTINGS
9	00015900	FITTING PNMX 10318
10	00018290	SCREW VTCEI M4x12
11	00018325	SCREW TCEI M6X16 UNI-5931 ZINC.
12	00018474	SCREW TSPEI M4x10 UNI-5933 ZINC.
13	00018499	NUT M4 UNI-5588 6S ZINC.
14	00018500	NUT M6 UNI-5588 6S ZINC.
15	00018503	NUT M10 UNI-5588 6S ZINC.
16	00018522	WASHER Ø10 UNI-6592 ZINC.
17	00018620	SCREW VTBEI M4 x 8 ISO 7380
18	00018627	SCREW TBCEI M10X16 ISO-7380 ZINC.
19	00018804	SCREW VTE M10x20
20	26054900	PNEUMATIC KIT
21	26054901	SELECTOR UNIT + FLOW REGULATOR
22	36003014	STICKER LOGO MAGGI
23	36003016	STICKER MAGGI



ELECTRIC CABINET UNIT

POS.	CODE	PART NAME
1	00001189	GLAND PG 13,5
2	00005082	FUSE 10X38 0,5A
3	00005083	FUSE 10X38 1,0A
4	00005086	TAP PG13,5 + NUT
5	00005320	LAMP HOLDER SCHNEIDER XB7-EV67P
6	00005330	EMERGENCY PUSHBUTTON SCHNEIDER EB7ES542P
7	00005340	FUSE HOLDER WIMEX PS 10-1-S 32A 10X38
8	00005341	FUSE HOLDER WIMEX PS 10-2-S 32A 10X38
9	00005353	POSITION SWITCH EATON_PKZM0-63
10	00005360	CONTACT SWITHC EATON DIL EM-10 XTMC9A10
11	00005370	MAIN SWITCH GIOVENZANA SQ0321003B
12	00005380	LAMP 30V 3W
13	00005390	TRANSFORMER NOR-SE VA15 TA-980015
14	36054033	ELECTRIC BOX
15	36028004	CONTROL PANEL



TABLE UNIT

POS.	CODE	PART NAME
1	00003581	BUSHER DU17x19x15
2	00003455	BEARING INA AXK1730
3	00003456	RING INA AS 1730
4	00003582	RIVET Ø 3 x 8
5	00018307	SCREW TCEI M8X16 UNI-5931
6	00018312	SCREW VTCEI M10x60
7	00018521	WASHER Ø8 UNI-6592
8	36206111	ROTATION PIN
9	36217102	MILLIMETRIC LINE SX GF
10	36217103	RILL MILLIMETRATA RIGHT GF
11	36228102	TABLE 21



SQUARE UNIT

POS.	CODE	PART NAME
1	00000042	WASHER SCHNOR Ø8
2	00003936	SNAP LEVER KRP-80 M10 L25
3	00004116	SCREW GN 913-3 M4-6-KU
4	00004214	CYLINDRICAL SPINE Ø8x20
5	00004327	LENS LOBRE Ø32
6	00018308	SCREW TCEI M8X30 UNI-5931
7	00018325	SCREW TCEI M6X16 UNI-5931
8	00018377	SCREW TCEI M8X40 UNI-5931
9	00018521	WASHER Ø8 UNI-6592
10	00018524	WASHER Ø17 UNI-6592
11	00018552	NYLON PLUG
12	00018619	SCREW VTBEI M4 x 12 ISO 7380
13	00018627	SCREW TBCEI M10X16 ISO-7380
14	00040609	SCREW VTCEI M6x45
15	00100614	SCREW STEI M6X20 P.P. UNI-5923
16	26228302	LH PRESTIGE SQUARE UNIT
17	26228303	RH PRESTIGE SQUARE UNIT
18	36050801	SUPPORT
19	36090307	LEFT VERNIER GF
20	36090308	RIGHT VERNIER GF
21	36222139	SQUARE SUPPORT
22	36222141	PUSH PIN
23	36224135	VERTICAL SLIDING BAR
24	36228302	LH SQUARE
25	36228303	RH SQUARE
26	36228304	SLIDING BAR



RACK UNIT

POS.	CODE	PART NAME
1	00000147	NUT M12 UNI-7473
2	00000150	NUT M10 UNI-7473
3	00001160	SEAL CORTECO A2CFW-NADUOP 80-1
4	00003460	BEARING INA AXK1024
5	00003461	RING INA AS 1024
6	00003905	SNAP LEVER ART.562-104 M 12
7	00003521	SEAL RING OR 2300
8	00003920	SNAP LEVER 563-43 M6 L20
9	00003969	THREE LOBE KNOB 6389030 VTB/30 M8
10	00015400	OVERTURNING CYLINDER
11	00015815	ROTATING FITTING PNMX 15 150418
12	00018295	SCREW STEI M4 x 8 UNI-5923
13	00018307	SCREW TCEI M8X16 UNI-5931
14	00018402	SCREW VTE M10x25
15	00018404	SCREW TE M8x35 UNI-5739
16	00018408	SCREW TE M10X30 UNI-5739
17	00018431	SCREW TBCEI M6X20 ISO-7380
18	00018501	NUT M8 UNI-5588 6S
19	00018520	WASHER Ø6 UNI-6592
20	00018522	WASHER Ø10 UNI-6592
21	00018523	WASHER Ø13 UNI-6592
22	00018524	WASHER Ø17 UNI-6592
23	00018534	WASHER Ø12x36 UNI3351
24	00018590	WASHER M20 UNI 6592
25	00018755	SCREW M16x80 UNI 5931
26	36050015	OVERTURNING CYLINDER CATCH
27	36050206	OVERTURNING CYLINDER CATCH
28	36054202	INNER TIE ROD
29	36054203	INNER TIE ROD
30	36054204	LOCKING BUSH
31	36054206	FENCE STOP
32	36054207	RUBBER FENCE
33	36054208	SUPPORT
34	36054209	SPACER
35	36057205	GRADUATED FENCE
36	36271201	CAST IRON RACKS



SPINDLE HEAD SUPPORT UNIT

POS.	CODE	PART NAME	
1	00000168	SELF LOCKING NUT M17x1	
2	00000180	LOW NUT M10 UNI-5589 6S	
3	00000236	PARALLEL KEY 4x4x8 UNI 6604 A	
4	00001105	FITTING T150818 PNMX	
5	00001160	SEAL CORTECO A2CFW-NADUOP 80-1	
6	00001501	SEAL Øi20 Øe28	
7	00003455	BEARING INA AXK1730	
8	00003456	RING INA AS 1730	
9	00003521	SEAL RING OR 2300	
10	00003934	HANDLE BOTECO 522-104 M10	
11	00003942	HANDLE BOTECO 216-80	
12	00003960	COUNTER	
13	00004116	SCREW GN 913-3 M4-6-KU	
14	00004250	CYLINDRICAL PIN Ø6x40	
15	00004308	ELASTIC PIN Ø5 x 25	
16	00004326	LESS LOBRE De32	
17	00004380	ELASTIC PIN Ø4x26 UNI-6873	
18	00005047	BEARING PAP 4020P10	
19	00015415	FEED CYLINDER	
20	00018337	SCREW TCEI M10X100 UNI-5931	
21	00018403	SCREW TE M12X35 UNI-5739	
22	00018430 SCREW TBCEI M 6X12 ISO-7380		
23	00018520 WASHER Ø6 UNI-6592		
24	00018523	WASHER Ø13 UNI-6592	
25	00018524	WASHER Ø17 UNI-6592	
26	00018760	SCREW TCEI M16x30 UNI5931	
27	00040512	SCREW TCEI M5X20 UNI-5931	
28	36000048	VERTICAL SLIDING FENCE	
29	26271400	HEAD SUPPORT BLOCK GROUP	
30	26271410	SPIRAL STOP GROUP	
31	36000050	LIFTING SCREW	
32	36000053	RUBBER STRIKER	
33	36000111	CYLINDER SHANK EXTENSION	
34	36000163 OVERTURNED STRIKER		
35	36000164 INTERNAL OVERTURNED STRIKER		
36	36050401	LIFTING SCREW CROSSPIECE	
37	36054046	SPIRAL	
38	36054402	HEAD HOLDER PLATE	
39	36057403	SPIRAL LABEL	
40	36090401	SPIRAL SUPPORT	
41	36090405	SPIRAL HOLDER	
42	36090406	WASHER	
43	36091402	LENS HOLDER Ø32	
44	36091403	PROTECTION	
45	36250407	HORIZONTAL SLIDING FENCE	
46	36251403	WASHER	
47	7 41600004 SINTERED BUSHING		



HEAD UNIT

POS.	CODE	PART NAME
1	0000037	WASHER PS Ø12X18X1
2	00000041	WASHER SCHNORR Ø6
3	00000042	WASHER SCHNOR Ø8
4	00000211	PARALLEL KEY 4x4x12 UNI-6604 A
5	00000220	PARALLEL KEY 5X5X18
6	00000250	PARALLEL KEY 4x4x18
7	00003305	SEEGER E12
8	00003337	SEEGER I28
9	00003424	BEARINGS 6001 2RS
10	00003703	GRASING NIPPLE M6 x 1
11	00004103	SPHERE 1 / 8
12	00004289	PIN 3x20 DIN1473
13	00005025	SPRING Ø4 L=9
14	00005097	SEAL Øi 20 Øe 25,5
15	00018302	SCREW TCEI M6X10 UNI-5931
16	00018338	SCREW TCEI M6X85 UNI-5931
17	00018500	NUT M6 UNI-5588 6S
18	00018520	WASHER Ø6 UNI-6592
19	00018655	SCREW TCEI M8x75 UNI-5931
20	00100614	SCREW STEI M6X20 UNI-5923
21	00130501	SCREW STEI M5X5 P.P. UNI-5923
22A	26251701	ELECTRIC MOTOR M802T V.230/400-50/60HZ HP2
22B	26251717	ELECTRIC MOTOR M802T V.575-60-3PH HP2 "CSA"
22C	26251719	ELECTRIC MOTOR M802T 230-50-1PH
22D	26251723	ELECTRIC MOTOR M802T 230-60-1PH
22E	26251752	ELECTRIC MOTOR M802T 230-60-1PH HP2 "CSA" CEG
22F	26251753	ELECTRIC MOTOR M802T 230-60-3PH HP2 "CSA"
23	36000061	BUSHES FOR QUICK CHANGE DRILL
24	36000062	GEAR Z21
25	36000063	BEARING SPACER
26	36001059	DRIVING SPINDLE
27	36001060	DRIVEN SPINDLE
28	36051712	ENGINE JOINT
29	36054020	MOTOR ROTATION LABEL
30	36203704	HEAD
31	36220700	STICKER 21 MAGGI
32	36250703	ENGINE PLATE
33	36250705	HEAD COVER
34	36367710	GREASING STICKER
35A	45400082	STICKER VOLTAGE 400V
35B	45400092	STICKER VOLTAGE 230V
36A	26254701	HEAD GROUP BS21 + MOT. V.400-50/60-3PH
36B	26254702	HEAD GROUP BS21 + MOT. V.230-50/60-3PH
36C	26254717	HEAD GROUP BS21 +MOT. V.575-60-3PH CSA
36D	26254719	HEAD GROUP BS21 + MOTORE V.230-50-1PH
36E	26254723	HEAD GROUP BS21 + MOTORE V.230-60-1PH
36F	26254752	HEAD GROUP BS21 +MOT. V.230-60-1PH CSA
36G	26254753	HEAD GROUP BS21 +MOT. V.230-60-3PH CSA
37	26254700	HEAD GROUP BS21 PRESTIGE SENZA MOTORE



BACK STOP UNIT

POS.	CODE	PART NAME
1	00003305	SEEGER E12
2	00003424	BEARING 6001 2RS
3	00003520	RING OR 2031
4	00004044	SNAP LEVER M6 x 30
5	00005102	SCREW TC Ø2,9 x 6,5 ISO7049
6	00018307	SCREW TCEI M8X16 UNI-5931
7	00018308	SCREW TCEI M8X30 UNI-5931
8	00018350	SCREW TCEI M8x10 UNI 5933
9	00018431	SCREW TBCEI M6X20 ISO-7380
10	00018521	WASHER Ø8 UNI-6592
11	00018526	WASHER Ø6x18 UNI3351
12	00018552	NYLON PLUG
13	00150800	SCREW STEI M 8x8 ISO-4026
14	26271602	MOBILE BACK STOP GROUP
15	36255607	BACK SUPPORT 21
16	36050608	ECCENTRIC PIVOT
17	36050609	FIXED DRILL SLEEVE
18	36050610	FIXED DRILL PIN
19	36050801	DOWEL
20	36204812	REFERENCE DOWEL
21	36800228	DOWEL M6
22	46050602	BACK STOP HOLDER
23	46050613	RH BACK STOP RULE
24	46050614	LH BACK STOP RULE



CLAMPING UNIT

POS.	CODE PART NAME		
1	00000051	WASHER SCHNOR Ø10	
2	00000151	NUT M10	
3	00001102	FITTING PNMX T050800	
4	00001110	FITTING PNMX T040800	
5	00001120	GASKET PNMX R/1502/50/7 RS/Z850	
6	00001121	RING OR PNMX COD R-1502.50.5 OR2187	
7 00001128 SPIRAL F		SPIRAL RILSAN 11 8x6	
8 00001250 FITTIN		TTING PNMX T060814	
9	00001999	METALLIC BRACKET D.10 (GMP 10)	
10	00004022	SNAP LEVER A583065 M8X20	
11	00018439	SCREW TSPEI M4x8 UNI-5933	
12	00018460	SCREW TSPEI M6x25 UNI-5933	
13	00018500	NUT M6 UNI-5588 6S	
14	00018520	WASHER Ø6 UNI-6592	
15	00018602	SCREW TBCEI M10X30 ISO-7380	
16	00018706	SCREW TSPEI M6x60 UNI-5933	
17	29971019	AUXILIARY PRESSURE GROUP	
18	36254508	CROSSPIECE	
19	36052502	SPACER BLOCK	
20	36056501	CLAMP SHOULDER	
21	49900051	WASHER	
22	49900095	NYLON BUFFER	



EXTENSION FENCE

POS.	CODE	PART NAME
1	26054821	REFERENCE PIN FOR EXTENSION FENCE
2	36001078	ALIGNMENT PIN
3	36050801	DOWEL
4	26228822	RH 1,5 mt LONG FENCE GROUP - NO STOP GROUP
5	26228821	LH 1,5 mt LONG FENCE GROUP - NO STOP GROUP
6	26028814	RH 1,5 mt LONG FENCE GROUP + N°2 STOP GROUPS
7	26028813	LH 1,5 mt LONG FENCE GROUP + N°2 STOP GROUPS
8	26091801	TILTING STOP GROUP
9	36090802	GF ALIGNMENT PIN

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