BOLT

GB

USE AND MAINTENANCE MANUAL

RAIMONDI

raimondispa.com

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Via dei Tipografi 11, 41122 Modena (MO) - Italy
Tel.: +(39) 059 280888 - Fax: +(39) 059 282808

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DECLARATION OF CONFORMITY

(According to Council Directive 2006/42/EC Annex II.a)

THE MANUFACTURER

Raimondi S.p.A.
Company

Via dei Tipografi, 11 | 41122 | MO
Address | *Zip code* | *Province*

Modena | Italia
City | *Country*

DECLARES THAT THE MACHINERY

Bolt | Bolt
Description | *Type*

Bolt | 2015 | 02 05/03/2014
Serial number | *Year of costr.* | *Revision*

Bolt
Trade name

Bridge and trolley saw machines for the building industry.
Intended use

IS IN CONFORMITY WITH THE REQUIREMENTS

Directive 2006/42/EC of the European Parliament and of the Council of 17 may 2006 on machinery, and amending directive 95/16/EC.
in addition to:
Directive 2006/95/CE (Low voltage); Directive 2004/108/CE (Electromagnetic compatibility); Directive 2001/95/CE (Directive on general product safety)

Reference to technical standards harmonized:

UNI EN ISO 13857; UNI EN ISO 13850; UNI EN ISO 13849-1; UNI EN 13236; UNI 10893; UNI EN 10241; UNI EN 842; UNI EN 1037; UNI EN 894-1; UNI EN 894-2; UNI EN 894-3; UNI EN 953; CEI EN 60204-1; UNI EN 12418; UNI EN ISO 12100; UNI EN ISO 14121-2

AND HE AUTHORIZES

Gianni Lorenzani
Name

c/o G.L. Comunicazione S.r.l. | 43015 | PR
Address | *Zip code* | *Province*

Noceto | Italia
City | *Country*

TO PREPARE THE TECHNICAL FILE FOR IT

Place and date of issue
Modena

The manufacturer
Mr. Ivan Raimondi

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1.1 Testing, warranty and responsibility

Testing
The whole machine is sent to the customer ready for the installation, after passing the tests provided for by the manufacturer, in compliance with the laws in force.

Warranty
During the 12-month warranty, RAIMONDI S.p.A. undertakes to supply, free of charge, those parts of its production found to be defective, in terms of material or processing. Such parts will have to be returned to RAIMONDI S.p.A., shipped carriage free.
By warranty, we mean supply of defective parts, if any.
The warranty does not cover all the expenses as to travel, board, lodging, transport and manpower concerning the replacement of parts by the RAIMONDI S.p.A. technicians, which will be charged entirely on the Customer.
The warranty does not cover all the parts subject to wear.
As to purchased components, the supplier warranty will apply.
No compensation will be granted for expenses, damages or loss of profits incurred by customer.
Installation of purchased parts not complying with the specifications of RAIMONDI S.p.A., if purchased or not supplied by RAIMONDI S.p.A., if manufactured by it, as well as improper use of the machine, will make the warranty null and void.

Responsibility
RAIMONDI S.p.A. is in no case responsible for operation anomalies or generic failures, caused by unauthorized use of the machine or by interventions and/or modifications carried out by external persons not authorized by RAIMONDI S.p.A itself.

1.2 Environmental conditions

The environmental working conditions of the machine shall comply with the following indications:

Temperature	0°C ÷ +55°C (32°F ÷ 131°F)
Humidity	10% ÷ 90% (not condensed)

THE MACHINE SHALL BE POSITIONED IN PREMISES PROPERLY PROTECTED FROM THE RAIN.

Environmental conditions other than those specified herein can cause serious damage to the machine and, in particular, to the electrical equipments.

POSITIONING THE MACHINE IN ENVIRONMENTS NOT COMPLYING WITH THE INDICATIONS HEREIN WILL MAKE THE WARRANTY NULL AND VOID.

Storage of the machine, while not working, allows for a temperature variation ranging between +10°C (50°F) and +70°C (158°F) all the other precautions still valid.

USE IN ENVIRONMENTS WITH EXPLOSIVE ATMOSPHERE OR FIRE RISK IS STRICTLY FORBIDDEN.

1.3 Intervention request - technical service

Each intervention request to the Technical Service shall be send, by fax, to:

RAIMONDI S.p.A.
Technical Service
Telefax (39) 059 282 808
E.mail: raiutens@raimondiutensili.it

Specifying:

1. type of machine, registration number, serial number and year of installation;
2. detected defects;
3. retailer where the machine was bought;
4. receipt for item purchased certifying the date of purchase by the user.

1.4 Spare parts orders

Each request of spare parts shall be sent, by fax, to:

RAIMONDI S.p.A.
Technical Service
Telefax (39) 059 282 808
E.mail: raiutens@raimondiutensili.it

specifying:

1. Machine model;
2. Registration number (see manual title page);
3. Code of the part to be ordered (see spare parts manual enclosed);
4. Requested quantity;
5. Shipping modality.

1.5 Marking

The machine identification data are engraved on the plate and shall always be indicated on every communication document exchanged between the user and the manufacturing company, for example in every assistance request or request of spare parts, etc.

The identification plate is placed on the machines.

REMOVING OR TAMPERING WITH THE IDENTIFICATION PLATE IS STRICTLY FORBIDDEN.

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2.1 Safety general rules

THE RULES LISTED BELOW SHALL BE CAREFULLY READ AND SHALL BECOME THE CORE OF THE DAILY PRACTICE IN THE OPERATION AND MAINTENANCE OF ALL THE EQUIPMENT, WITH A VIEW TO PREVENTING ANY TYPE OF INJURY TO PEOPLE AND/OR DAMAGING OF OBJECTS.

1. Do not try to start the machine until its operation has been fully understood.
2. In case of doubts, despite having carefully and entirely read this manual, please contact the RAIMONDI S.p.A. Technical Service.
3. Make sure all the personnel involved in the use of machine are made aware of all the safety-related instructions.
4. Before starting the machine, the operator shall verify the possible presence of visible defects on the safety devices and on the machine. In this case, immediately inform **RAIMONDI S.p.A.** or the closest Technical service Centre on every evident breaking.
5. Never start the machine until all the personnel in the areas surrounding the machine have been warned and moved away.
6. Daily check the correct operation of all the safety devices and switches.
7. Safety devices shall never be removed nor made ineffective.
8. During maintenance, adjustment or repair interventions, it might be necessary to disable some of the safety devices. This operation shall be carried out by authorized personnel only.
9. All the plates and signs applied on the machine shall be kept in perfect conditions. In case of damage, they shall be promptly replaced.
10. The operator shall be familiar with the function and position of the **STOP** and **START** buttons.
11. Replace parts deemed to be broken with original spare parts, warranted by the manufacturing company.
12. Never try reckless solutions!
13. Any intervention on live parts shall be carried out by authorized personnel only, who will have to operate exclusively with the machine disconnected from the mains.
14. Do not make any joint in the electrical connections of electric circuits.
15. Never intervene on moving parts, not even to unblock a jam.
16. Do not wear clothes, ornaments or accessories that might get entangled in the moving members.
17. Keep the area surrounding the machine clear.
18. Always wear protective glasses, hearing protectors, particulate respirator suitable for the product to be worked and any other personal protection equipment in the areas where such equipment is required.
19. Always pay the greatest attention to all the warning and danger signs placed on the machine.
20. Always comply with and ensure compliance with the safety rules; in case of doubts, please consult this manual again before taking any action.
21. The machine shall be used exclusively for the uses it was intended for and in compliance with the provisions set forth in the contract with **RAIMONDI S.p.A.**

DO NOT USE THE MACHINE FOR USES OTHER THAN THOSE INDICATED IN THIS MANUAL. DO NOT HANDLE PRODUCTS OTHER THAN THOSE INDICATED IN THE MANUAL. DO NOT INCREASE THE MACHINE SPEED BEYOND THE VALUE INDICATED IN THE MANUAL.

Improper use of the machine can cause dangers for the personnel in charge of the machine operation and damage the machine itself.

For any problem that might arise during the machine life, and in any case not included in this manual, please contact our **Technical Service**, with a view to solving the problem in the shortest time possible.

2.2 Definition of safety-related terms

In this manual, the following terms will be employed as to safety:

Dangerous area	each area within and/or close to the machine, where the presence of an exposed person constitutes a risk for the safety and health of this person.
Exposed person	anybody standing, either partially or totally, in a dangerous area.
Operator	person in charge of the installation, operation, adjustment, maintenance, cleaning, repair, transport of parts of the machine and all the other activities required for its operation.
Safety component	component specifically designed by the manufacturer and sold separately from the machine, aimed at ensuring safety. Consequently, the device whose failed operation jeopardizes the safety of exposed persons will be considered as a safety component.

2.3 Correct use of the machine

The machine was designed and manufactured to cut and bevel (45° jolly) single- and double-fired ceramic tiles, porcelain gres, marble, natural stone, Tuscan terracotta tiles, cement agglomerates.

THE MACHINE CANNOT BE USED FOR OTHER TYPES OF PRODUCTS WITHOUT PREVIOUS AUTHORIZATION BY RAIMONDI S.P.A., WHICH WILL NOT BE HELD RESPONSIBLE FOR DIRECT OR INDIRECT DAMAGE DERIVING FROM AN IMPROPER USE OF THE MACHINE.

Use

The machine is semi-automatic, the blade advancement is determined by the human strength and so its advancement speed will have to be commensurate with the hardness and thickness of the material to be cut.
Cutting of materials shall be made with sharp blades and water , which shall always be present in the tank, in the required quantity.

THE MACHINE CANNOT BE USED FOR DRY CUTTING AND WITH INEFFECTIVE BLADES.

2.4 Characteristics of the machine

Type of blades to be used

A series of cutting blades, suitable for the BOLT machine, will ensure optimization of the activity, as well as good results.

Blade characteristics:

External diameter		250 mm / 10”
Hole diameter		25,4 mm / 1”
Direction of rotation		CLOCKWISE
Rotation speed	rpm^{-1}	2800 ÷ 3360

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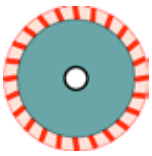
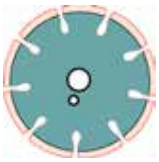
Types of allowed blades are defined below:

	BLADE	RECOMMENDED FOR
	CONTINUOUS RIM	Ceramic, single-fired tiles
	TURBO CONTINUOUS RIM	Ceramic, single-fired tiles
	SEGMENTED	Marble, terracotta tiles, natural stone, concrete
	SPECIAL SEGMENTED	Porcelain gres

USE OF BLADES OTHER THAN THOSE INDICATED HEREIN IS FORBIDDEN.

Technical characteristics of the different models

The BOLT series includes three different models, differing in terms of cut length. The characteristics of each model are outlined below:

Model		BOLT 90	BOLT 120	BOLT 150
Unladen mass (transport)	kg	46	50	54
	U.S. lb t	101	110	119
Mass - running (driving)	kg	56	70	72
	U.S. lb t	123	154	159
Mass - running (stationary)	kg	86	100	114
	U.S. lb t	190	220	251
Tank capacity	Lt	40	50	60
	U.S. gal	11	13	16
Maximum cutting thickness		55 mm / 2 11/64"	55 mm / 2 11/64"	55 mm / 2 11/64"
Cut length		90 cm / 35 1/2"	120 cm / 47"	150 cm / 59"

2.5 Description of machine groups

The BOLT series are made up of a series of groups. These interact to ensure functions are always effective. The groups are:

1 Motor group
On which the cutting blade is positioned. Equipped with an ergonomic handle for an easier use for the operator and connection to the power supply.

2 Cooling group
It allows for the constant supply of cooling water for cutting, equipped with submersible pump, water collection tank.

3 Frame
It is the load-bearing part of the machine, equipped with telescopic feet to ease transport on motor vehicle. It is equipped with aluminum benches where the material to be cut can be leaned on.

4 Square group
It is made up of a series of millimeter instruments that determine the perpendicularity and uniformity of cuts to be made on the materials.

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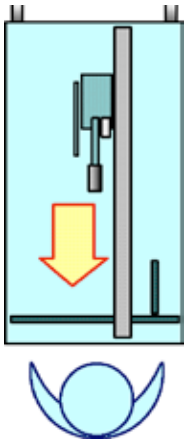
2.6 Position of the operator



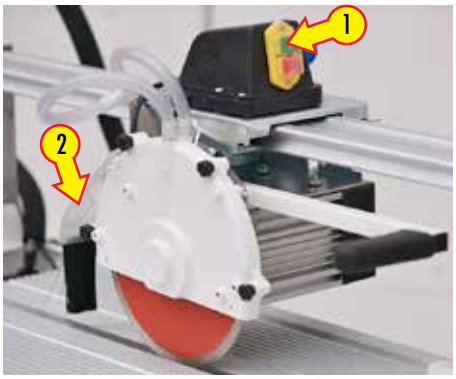
The BOLT series shall be used by one single operator, who will have to stand in front of the machine and, by grabbing the ergonomic handle, will be able to make cuts in safe conditions and unstressfully.

During the working phase, the operator shall always stand in the front part and grab the handle with one hand, while the other hand holds the material to be cut over the work bench. The material shall always be leaned against the reference square.

CUTTING DANGER
THE MACHINE SHALL BE TURNED ON EXCLUSIVELY WHEN THE OPERATOR IS IN THE WORKING POSITION. THE MACHINE SHALL BE TURNED OFF AT THE END OF EACH CUTTING OPERATION.
GETTING THE HANDS CLOSE TO THE CUTTING BLADE WHEN IT IS RUNNING IS STRICTLY FORBIDDEN.

2.7 Safety devices

The BOLT series is equipped with the following safety devices:



1 ON/OFF switch
It allows for the start and stop of the machine. In case of potential danger, the machine shall be turned off by means of the red OFF switch.

2 Splash guards
It prevents water and debris, caused by cutting, from reaching the operator. The brushes of the guards are subject to wear and shall be replaced at regular intervals.

Another safety device is represented by the electric supply plug, which, in case of danger, will have to be immediately disconnected.

RAIMONDI S.P.A. WILL NOT BE HELD RESPONSIBLE FOR DAMAGE CAUSED BY EJECTIONS RESULTING FROM SCARCE MAINTENANCE OF OR TAMPERING WITH THE GUARDS, OR FROM AN ERRONEOUS POSITION OF THE OPERATOR (SEE PICTURE SHOWING THE POSITION OF THE OPERATOR).

2.8 Accessories of the machine

The BOLT series is supplied with the following accessories:

1. 30 mm (1 3/16") hexagon wrench.
2. 4 mm (5/32") and 8 mm (5/16") socket head screw.
3. Dressing stone.
4. Use and maintenance manual in the relative language.

2.9 Noise

The machine was designed and manufactured in such a way as to reduce at source the machine noise level.
Obviously, sound pressure varies in relation to the type of blade, its wear status and the material to be cut; hence, we have made a series of measurements using different types of blades and different materials, both indoors and outdoors.
Measurements made in the operator position on a similar machine have provided the following values, where:

The weighted continuous equivalent sound pressure level A1 [LAeq = dB(A)] Outdoor measurements

Type of blade	Type of material				
	Hollow	Double-firing	Porcelain	Brick	Stone
 Continuous	68,8	88,3	93,0	87,9	88,8
 Segmented	83,1	101,1	106,2	103,7	102,3
 Special segmented	71,9	89,8	96,0	92,4	94,8

Weighted continuous equivalent sound pressure level A1 [LAeq = dB(A)] Indoor measurements

Type of blade	Type of material				
	Hollow	Double-firing	Porcelain	Brick	Stone
 Continuous	75,5	96,7	97,5	88,7	95,8

Weighted maximum instant sound pressure level C1 [Lpc = dB(C)] Outdoor measurements

Type of blade	Type of material				
	Hollow	Double-firing	Porcelain	Brick	Stone
 Continuous	71,6	91,8	96,7	91,4	92,4
 Segmented	86,4	105,1	110,4	107,8	106,4
 Special segmented	74,8	93,4	99,8	96,1	98,6

The conditions for indoor measurements are the following:

Building size:
- length: 8 m (26')
- width: 5 m (16')
- height: 3 m (10')

Type of premises:
- floor: polished concrete
- covering: tile
- walls: masonry with side glass

Instrument used: Bruel & Kjaer mod. 2221 class 1
Reference standard: DIN 45635

The use of the machine is only allowed provided that suitable hearing protection is ensured. The employer shall hence compulsorily provide the operators with personal protection equipment (earphones, plugs).

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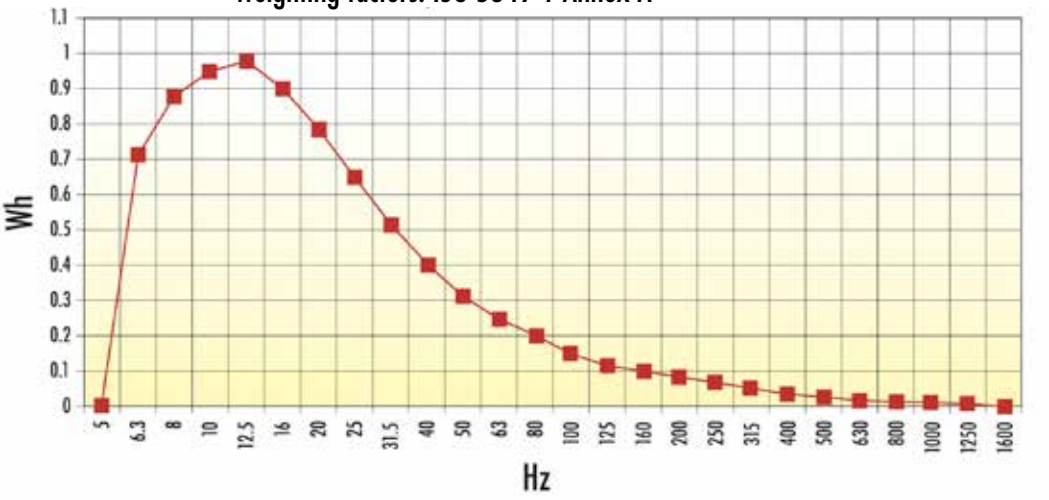
2.10 Vibrations

Determination of the vibration level generated by the equipmen - $A_{(w)sum}$

The magnitude of the vibrating stresses generated by the equipment shall have to be characterized, for every exposure condition, in terms of "Equivalent Frequency-Weighted Acceleration" $A_{(w)}$**m/s²**. The equivalent acceleration, which is preferably expressed (*) in S.I. units of measurement (meters per second squared - m/s²), shall have to be quantified for every handle along three standardized directions **X**,**Y** and **Z**, by applying the weighted frequency provided for by the standard (W_H), which states the maximum hand-arm system sensitivity to vibratory stimuli with a frequency ranging between 5.6 and 1400 Hz. Such an interval turns out to be delimited by the octave-band nominal frequencies 8 and 1000 Hz (included), or by the one-third octave bands with nominal frequency ranging between 6.3 Hz and 1250 Hz (included).

Weighting factors: ISO 5349-1 Annex A



(*) The logarithmic decibel scale (dB ref. 10^{-6} m/s²) is also frequently used

The three axial results shall have to be summed sectorally in order to obtain the total weighted acceleration:

$$A_{(w)\,sum} = \sqrt{a^2_{wx} + a^2_{wy} + a^2_{wz}}$$

The three standardized directions refer to a biodynamic system of coordinates, having their origin connected with the summit of the third metacarpal bone and the Z axis, determined by the longitudinal axis of this bone, the X axis crosses the palm of the hand while the Y axis is orthogonal to the two previous ones.

On the basis of the measurements, carried out through an operative simulation at the test room of the company RAIMONDI S.p.A. by conforming to the UNI EN ISO 5349-1:2004 standard the retrieved values are the following:

Determination of the level of vibrations generated by the equipment

- Porcelain	$A_{(w)\,sum}$ 0,2061 m/s².
- Double-firing	$A_{(w)\,sum}$ 0,1692 m/s².

THE TEST DOCUMENTS AND THE CERTIFICATES OF THE TOOLS ARE HELD BY THE COMPANY RAIMONDI S.P.A. AND THEY ARE KEPT AT THE DISPOSAL OF THE RELEVANT CONTROL AUTHORITIES.

2.11 Demolition and disposal

The manufacturer estimates a life of 15.000 hours of operation under normal conditions of use.
At the end of the life cycle, the company using the machine shall see to the demolition of the machine in compliance with the laws in force, first of all seeing to the emptying of lubricant fluids and overall cleaning of the different elements and, subsequently, separation of the parts making up the machine.
After disassembling the machine in line with the previous disassembling procedure, the different materials shall be separated in compliance with the laws of the country where the machine shall be eliminated. The machine does not contain harmful components or substances requiring particular removal procedures.

DURING THE DISPOSAL PROCESS, COMPLIANCE WITH THE LAWS IN FORCE IN THE COUNTRY IS REQUIRED. POLLUTANTS, SUCH AS OILS AND SOLVENTS, SHALL BE STORED EXCLUSIVELY IN METAL DRUMS.

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2.12 CE Manufacturer's declaration - ROHS/RAEE

DIRECTIVE 2011/65/EU (Directive RoHS) of the European Parliament and of the council of 08 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.
DIRECTIVE 2002/96/EC (WEEE Directive) of the European Parliament and of the Council of 27 January 2003 on waste electrical and electronic equipment.
With reference to the Directives in question, and in particular to the ANNEXES "I A" and "I B" of the Directive 2002/96/CE, RAIMONDI S.p.A., declares that its product.

DO NOT FALL WITHIN THE FIELD OF APPLICATION OF THE 2011/65/EU DIRECTIVE

Restricted substances referred to in Article 4(1) and maximum concentration values tolerated by weight in homogeneous materials:
Lead (0,1 %)
Mercury (0,1 %)
Cadmium (0,01 %)
Hexavalent chromium (0,1 %)
Polybrominated biphenyls (PBB) (0,1 %)
Polybrominated diphenyl ethers (PBDE) (0,1 %)

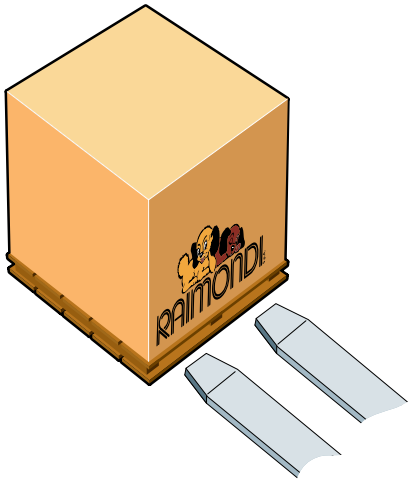
Raw materials used by RAIMONDI S.p.A,in its components, fall within the EXEMPTIONS limits.
All surface treatments and plastic materials in RAIMONDI S.p.A. products do not contain the prohibited substances listed in the 2011/65/EU directive.

DECLARATION OF THE MANUFACTURER CE - REACH

DIRECTIVE 2006/121/EC (Directive REACH) of the European Parliament and the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals.
With reference to the above-mentioned Directive, RAIMONDI S.p.A., declares that the products they market were pre-registered by our suppliers on 1 December 2008.
We hereby inform you also that the products by RAIMONDI S.p.A., do not originally contain any SVHCs (Substances of Very High Concern) exceeding 0.1%.

3.1 Packing transport

Transport shall be made using a fork lift truck, inserting the forks into the specific seats of the pallet. Use a lift truck having a suitable capacity (>200 Kg).



3.2 Manual handling

Lifting

Two people are required to lift the machine. In order to lift it, grab the front sides and rear sides of the machine.

CHECK TO MAKE SURE THE MOTOR GROUP HAS BEEN FIXED CORRECTLY.

TWO PERSONS ARE REQUIRED TO CARRY OUT THE TRANSPORT AND ASSEMBLY OPERATIONS.

In case the machine needs to be stored during idle periods, it shall be kept in covered premises, so that the machine can be protected from bad weather, and free from aggressive chemicals.
Before storing the machine, disconnection from the mains and unloading of the cooling water tank is recommended.
The machine must be kept in a place with a suitable temperature (from +10° C to +70° C) / (from 50° F to 158° F).

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3.3 Power supply

The "BOLT" saw machine shall be supplied at the voltage corresponding to the value indicated on the "TECHNICAL DATA" label. The machine shall be connected to a line only with an effective ground cable. In case of doubt, do not connect the machine.
Connect the machine to a 16A socket.

THE USE OF EXCESSIVELY LONG PATCH CORDS OR POWER SUPPLY WITH CURRENT GENERATORS, MIGHT LEAD TO THE FOLLOWING TROUBLES:

1. SLOW STARTING OF THE MOTOR AND SAFETY DEVICES INTERVENTION;
2. MOTOR OVERHEATING WITH POWER DROP;
3. THE SWITCHING ON-OFF DEVICE DOES NOT WORK.

IF THE MACHINE IS CONNECTED TO THE MAINS BY MEANS OF A PATCH CORD, THIS SHALL HAVE THE FOLLOWING CHARACTERISTICS:

1. MAXIMUM LENGTH 10 METERS (33');
2. HAVING A SECTION SUITABLE FOR THE LOAD;
3. BEING COMPLETELY UNCOILED.

The "BOLT" machines must be connected to a power mains equipped with differential switch or insulation transformer of class II and matching the technical regulations of the destination country.

FOR THE CORRECT USE OF THE RESIDUAL CURRENT CIRCUIT BREAKERS, DO NOT FORGET TO CHECK THEIR EFFICIENCY BY MEANS OF THE TEST BUTTON PLACED ON THE FRONT PART OF THE DEVICE ITSELF.

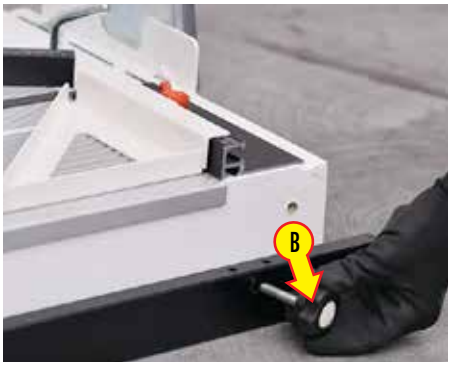
3.4 Assembly of the machine

TO CARRY OUT THIS OPERATION, WEAR THE PROTECTIVE GLOVES AND ACCIDENT-PREVENTION SHOES.

Remove the machine from the pallet and make sure there are no broken or damaged parts.

MAKE SURE THE MOTOR GROUP HAS BEEN FIXED CORRECTLY.


Free the rear leg by completely unscrewing the leg fixing knobs (**A**). Free the rear leg by completely unscrewing the leg fixing knobs (**A**). Place oneself at the rear side of the machine and lift the machine until its leg fully comes out of the frame. Fully screw the leg fixing knobs again (**A**).

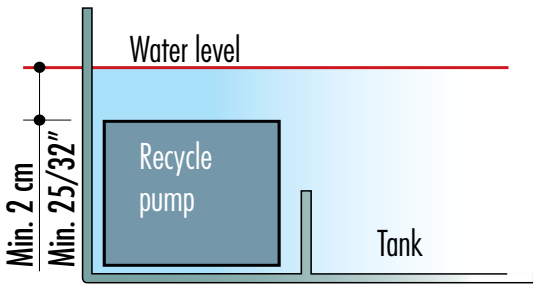



Place oneself at the front side of the machine and fully unscrew the leg fixing knobs (**B**) and lift the machine until all legs are fully opened. Fully tighten leg fixing knobs again (**B**).

3.4.1 Tank filling

TO CARRY OUT THIS OPERATION, MAKE SURE THE MACHINE IS NOT CONNECTED TO THE MAINS.

After closing the drain hole with the specific plug, pour cold and clean water into the tank until a level 2 cm (25/32") above the recycle pump has been reached.



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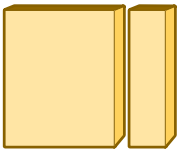
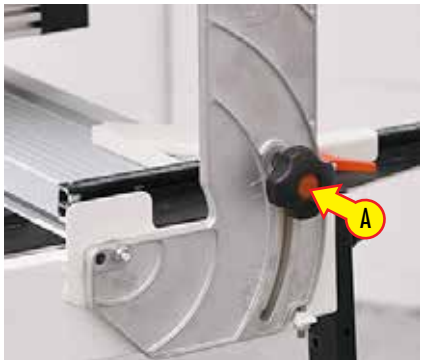
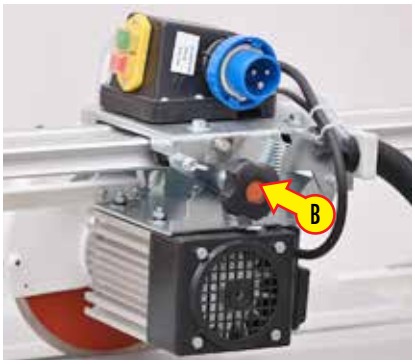
4.1 Cutting



BEFORE CUTTING, MAKE SURE THE UPRIGHT LOCKING KNOB (A) AND LIFT LOCKING KNOB (B) HAVE BEEN SCREWED TO THE END OF TRAVEL AND THAT CUTTING LINE /SQUARE ALIGNMENT IS COMPRISED WITHIN THE TOLERANCE RANGE ± 1,5 MM (1/16") PER METER.



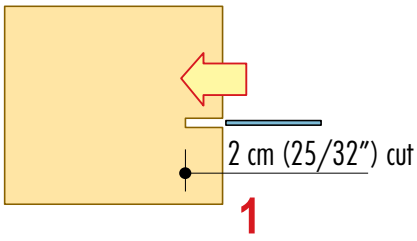


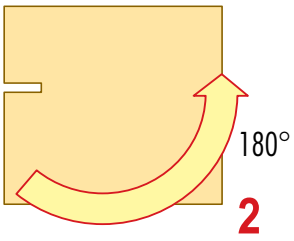
During cutting, advance speed shall be proportionate to the hardness and thickness of the material to be cut, in order to avoid flexure or distortion of the blade and motor overload.

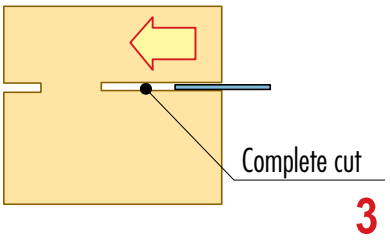
IN CASE OF CUTTING OF THICK MATERIALS, IT IS ADVISABLE THAT CUTTING IS MADE IN SEVERAL PASSES ACCORDING TO THE HARDNESS OF THE MATERIAL.

Push the starting switch, wait until cooling water of the diamond blade has come out.
Start cutting slowly approaching the diamond blade to the material to be cut. Go on cutting keeping a constant advancement speed, slowing down when close to the end of cutting.

In case of breaking of the end part of the tile (last centimeter) sharpen the diamond blade making some cuts with the dressing stone.
If the problem is not solved, comply with the following:
make a cut of about 2 cm (25/32") on one side of the tile, turn it and make the cut until you reach the 2 cm (25/32") cut previously made.



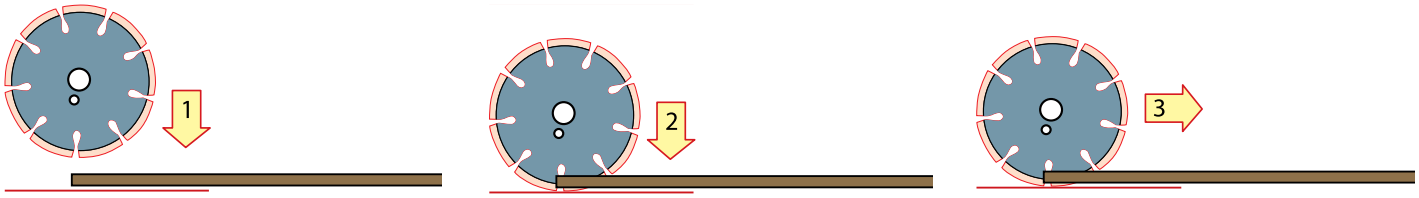




DURING THE CUTTING OPERATION, COMPLY WITH THE INSTRUCTIONS IN THE "OPERATOR POSITION" PARAGRAPH.

VERIFY CLEAN WATER IS IN THE TANK, IN A QUANTITY SUCH THAT THE PUMP IS COMPLETELY SUBMERGED - SEE PARAGRAPH "5.5 TANK CLEANING". TURBID WATER CAN CAUSE MALFUNCTIONING OR BREAKING OF THE PUMP.

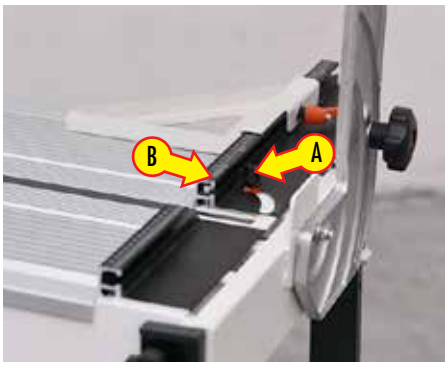
The maximum length of the cut can be obtained as follows:

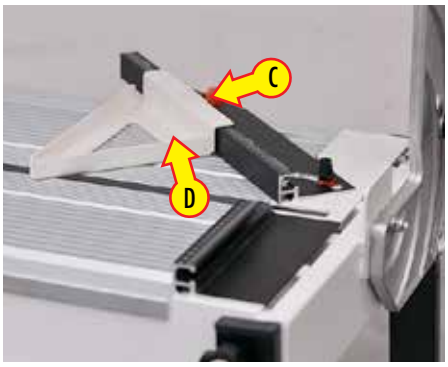


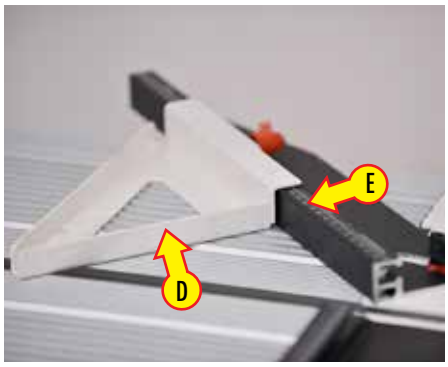
1. Bring the motor group to the beginning of the cut and at the maximum rise position.
2. Get into the material from above, like when using a cutting-off machine.
3. When the low position has been reached, advance with the blade to make a complete cut.

		Cut	Cutting-off machine cut
BOLT 150	tiles size	0 - 135 mm (5 5/16")	135 mm (5 5/16") - 150 mm (5 29/32")
BOLT 120	tiles size	0 - 105 mm (4 9/64")	105 mm (4 9/64") - 120 mm (4 23/32")
BOLT 90	tiles size	0 mm - 75 mm (2 61/64")	75 mm (2 61/64") - 90 mm (3 35/64")

4.2 Diagonal cuts







Slacken the lever (**A**) and position the square (**B**) at 45°, tighten the lever (**A**).
Slacken the lever (**C**) and position the triangle (**D**) as indicated by the mark on the millimeter bar (diagonal) placed on the square (**E**).
While keeping the blade above the surface of the tile, let the motor group slide and perfect, varying the inclination of the square (**B**), the position thereof so that the blade at the beginning and at the end of the cut matches the vertexes of the tile. Once this has been achieved, tighten the lever (**A**) completely, place the triangle (**D**) close to the edge of the tile and tighten the lever (**C**) completely.

IN CASE OF CUTS WITH INCLINATIONS OTHER THAN 90° AND 45°, THE CUTTING LINE SHALL BE DRAWN ON THE TILE.
WITH MOTOR TURNED OFF, PLACE THE TILE ONTO THE MACHINE BENCH, LET THE BLADE SLIDE OVER THE TILE, MAKING SURE THE CUTTING LINE MATCHES THE LINE PREVIOUSLY DRAWN ON THE TILE.
APPROACH THE TRIANGLE (D) TO THE TILE EDGE AND BLOCK IT BY TIGHTENING THE LEVER (C).

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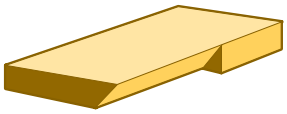
4.3 45° Jolly cuts



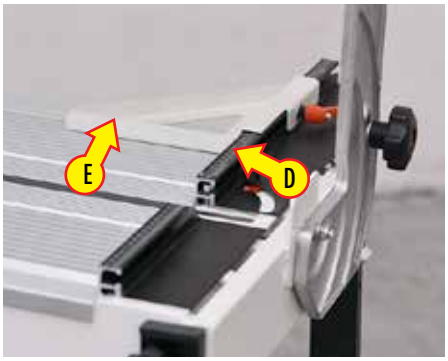
BRING THE MOTOR GROUP TO MAXIMUM HEIGHT POSITION.

Slacken the uprights locking knobs (**A**) (front and rear), tilt the sliding bar (**B**) to the end of travel and block it by firmly screwing the uprights locking knobs (**A**).

BEFORE TILTING THE SLIDING BAR, MAKE SURE THE DIAMOND BLADE DOES NOT HIT THE MACHINE FRAME AND THE MATERIAL TO BE BEVELED.

Lower the motor head so that the diamond blade rim is at the same height of the work bench and block it by tightening the knob (**C**) completely.

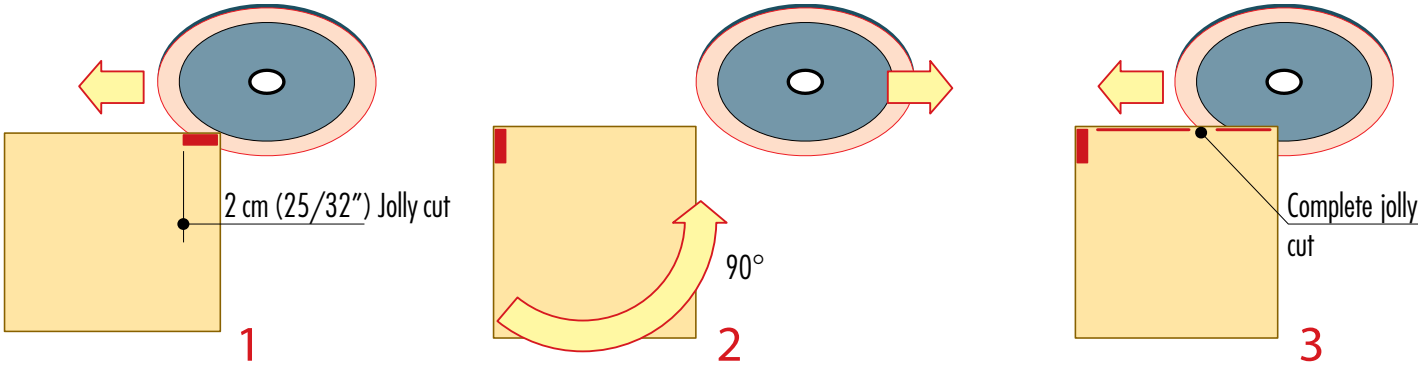
BEFORE MAKING CUTS, MAKE SURE THE UPRIGHT LOCKING KNOB (A) AND MOTOR LIFT LOCKING KNOB (C) HAVE BEEN SCREWED COMPLETELY.



Place the tile to be beveled with glaze side turned upwards on the work bench , making sure it is perfectly resting on the square (**D**). Visually check the diamond blade is at the level of the glaze. Approach the triangle (**E**) to the tile and block it by means of the lever.
Make a 2/3 cm (25/32") / (1 $^{11/64"}$) test jolly cut to verify it is at glaze level, if needed, after slackening the blocking lever of the triangle (**E**) perfect the positioning of the tile. Once the desired positioning has been achieved, approach the triangle (**E**) and block it by tightening the lever.

To carry out the jolly cut correctly, the blade shall be properly sharpened as a blade insufficiently sharpened would bend, not allowing to keep the cutting line at the same height of the glaze. In case of breaking of the end part of the tile, sharpen the blade making some cuts with the dressing stone.

If the problem continues, comply with the following:
make a 2 cm (25/32") jolly cut (**1**) on the orthogonal side to the side to be "jolly cut". Turn the tile by 90° (**2**).
Make the jolly on the desired side (**3**).



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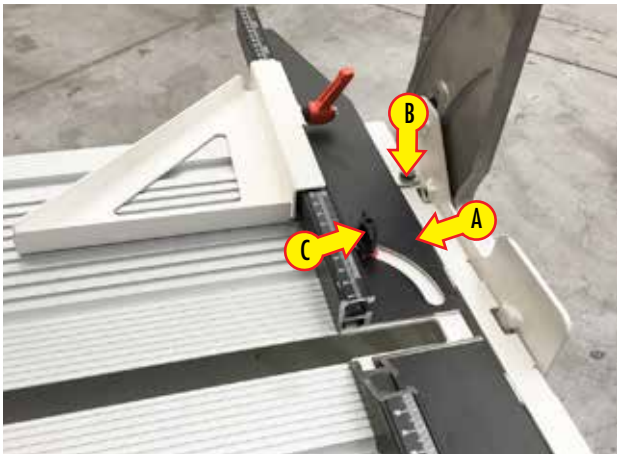
4.4 Diamond blade sharpening

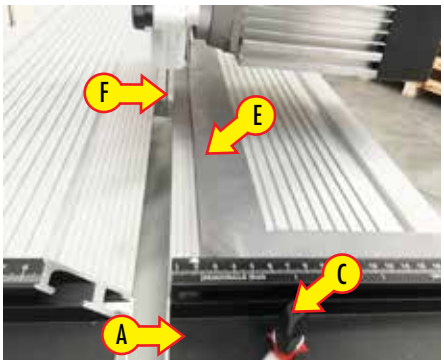
When you notice that during cutting the blade "sparks", that at the end of cutting it "breaks" the tile and that advancement requires too much of an effort, the blade shall be dressed making repeated cuts on the dressing stone supplied with the machine.

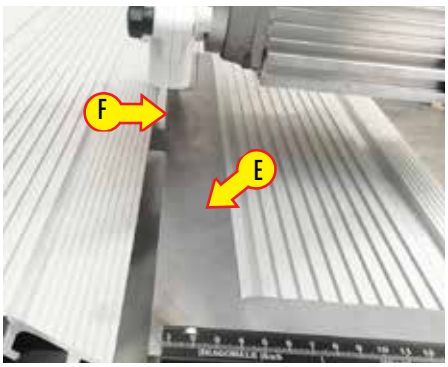
4.5 Square adjustment

FOR THIS OPERATION, MAKE SURE THE MACHINE IS NOT CONNECTED TO THE MAINS.

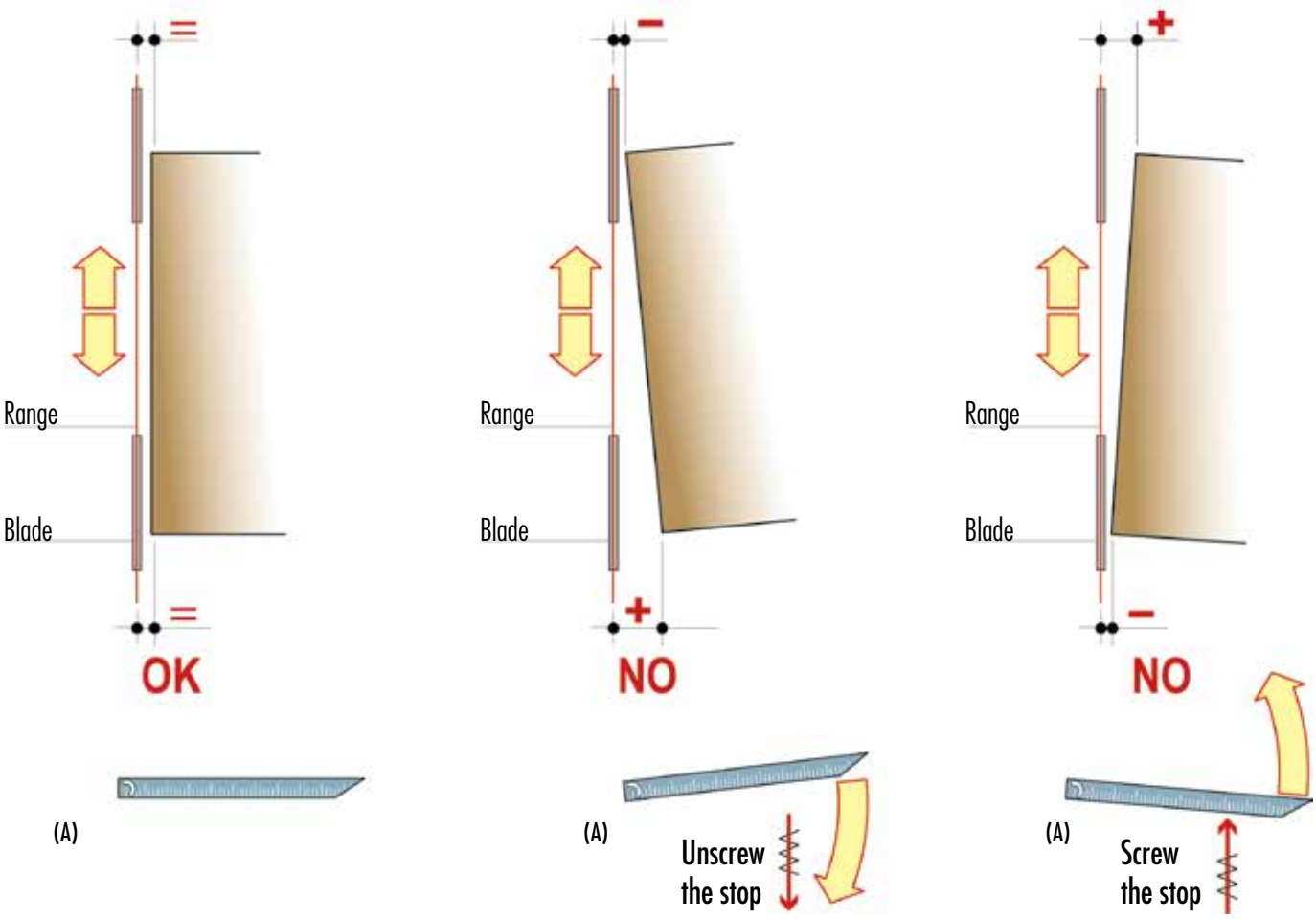


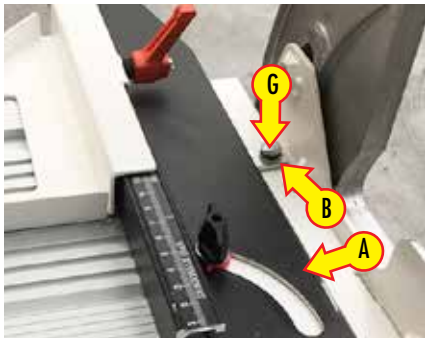
MAKE SURE THE SQUARE (A) IS CLEAN AND IN CONTACT WITH THE STOP (B) AND THAT THE LEVER (C) IS BLOCKED.





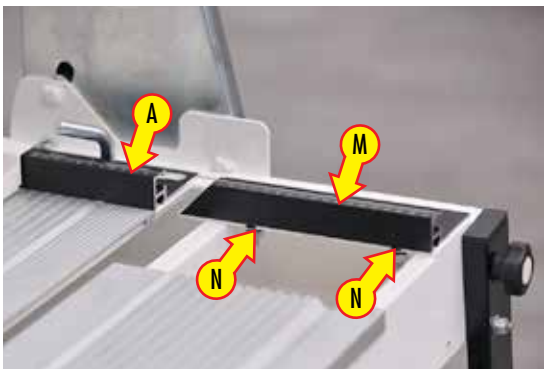
Bring the motor group to end of cutting position, lean the check square (**E**) against the swiveling square (**A**).
Position the check square until it grazes the blade (**F**), have the motor group slide and verify whether the blade follows the square (**E**).





In order to adjust the square, it is required to:
loosen the bolt (**G**) and adjust the stop (**B**); rest the square (**A**) against the stop (**B**) by means of a tile or check square.

4.5.1 Support alignment



Slacken the fixing screws (**N**) of the support (**M**), lean a rule or a tile against the swiveling square (**A**) previously adjusted.
Make the support (**M**) adhere to the rule or tile and tighten the fixing screws (**N**) completely.

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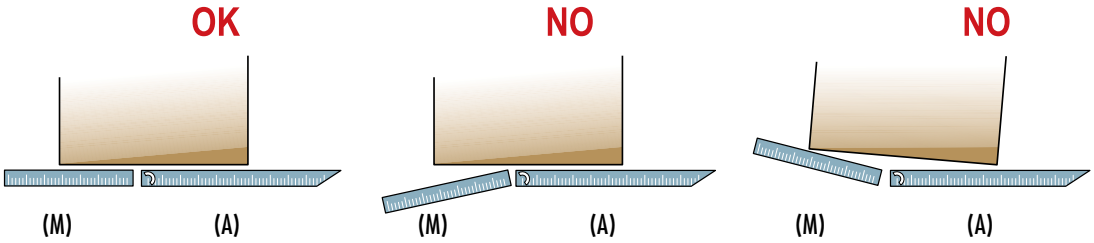
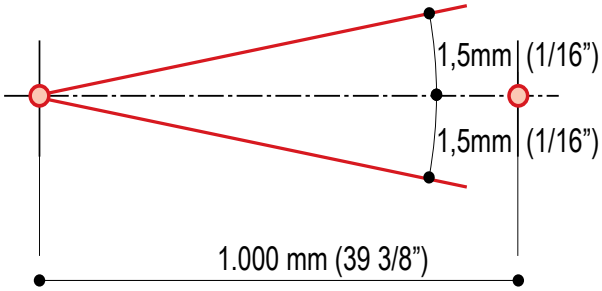


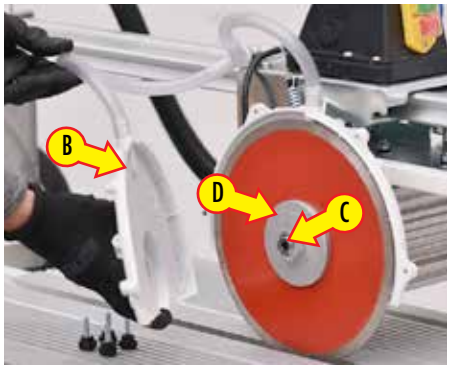


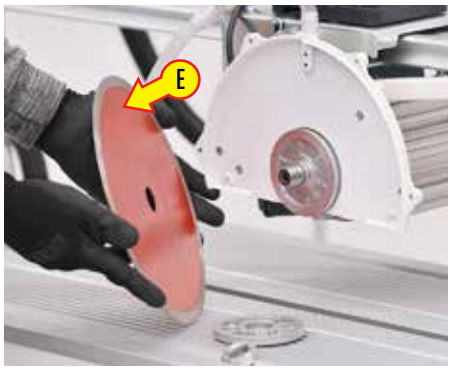
A DEVIATION OF ± 1,5 MM (1/16") PER METER IS FALLS WITHIN THE MACHINE TOLERANCE RANGE.

5.1 Blade replacement

FOR THIS OPERATION, WEAR PROTECTIVE GLOVES.

FOR THIS OPERATION, MAKE SURE THE MACHINE IS NOT CONNECTED TO THE MAINS.





To replace the blade, first remove the plastic splash guards (**A**), then remove the blade guards (**B**). Insert the 8 mm (5/16") socket head screw into the seat located on the flange shaft, with the 30 mm (1 3/16"), hexagonal wrench unscrew the blade stop nut (**C**) clockwise.
Remove the blade flange (**D**), extract the worn blade (**E**), assemble the new blade, matching the arrows indicating the direction of rotation engraved on the blade and on the blade cover. Reassemble the blade retaining flange (**D**). Insert the 8 mm (5/16"), socket head screw into the seat located on the flange shaft, with the 30 mm (1 3/16") hexagonal wrench, screw the blade stop nut (**C**) clockwise. Manually turn the blade to check its correct assembly. The blade shall turn without frictions or rubbing. Reassemble the blade guards (**B**) and the plastic splash guards (**A**). Making some cuts with the dressing stone is recommended in order to ensure better performance.

For a correct operation and long life of the blade shaft, once the blade has been disassembled, it is advisable to extract the blade flange and grease the bearing (**F**).

IF THE BLADE CENTERING HOLE INCLUDES AN ADAPTER RING, UPON INSERTION INTO THE BLADE FLANGE, MAKE SURE IT STAYS IN THE CORRECT POSITION.

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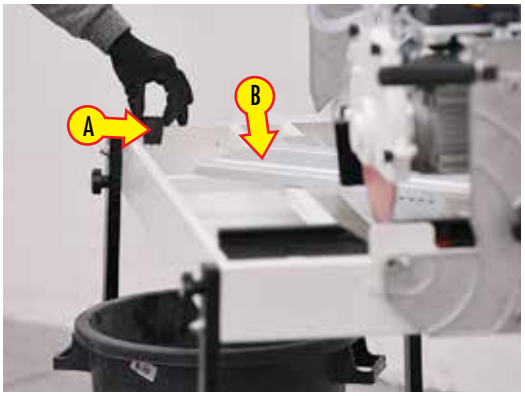
5.2 Tank emptying and cleaning

FOR THIS OPERATION, MAKE SURE THE MACHINE IS NOT CONNECTED TO THE MAINS.



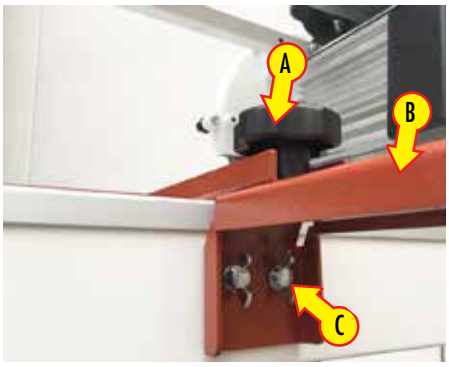
In order to clean the tank, place a bucket under the tank near the drain hole. Remove the plug (**A**) and let dirty water drain; remove the two work benches (**B**) and wash with plenty of water. Once cleaning is over, replace both the plug and work benches.

DISPOSAL OF WATER CONTAINED WITHIN THE TANK SHALL BE MADE IN COMPLIANCE WITH THE LAWS IN FORCE IN THE COUNTRY OF USE.

6.1 ACCESSORIES

6.1.1 Set-square

In case of repeated cuts or jolly on large-sized tiles, the set-square ensures constant cuts or jollies of the preset size.



Set-square must be fastened to the tank side by means of screws.
Loosen knobs (**A**). Fix the set-square onto brackets (**B**) by means of wing nuts (**C**).

6.1.2 Wheel kit

By means of a suitably sized socket wrench (**A**), fasten wheels (**B**) to the machine frame.
Later install handles (**C**) to the machine frame.

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7.1 Trouble-shotting

Problem	Cause	Solution
Il motore non gira	The plug is not correctly inserted in the power socket.	Push the plug completely into the power socket.
	Power socket undervoltage (Amp.).	Check the socket amperage.
	The power supply cable is interrupted. Replace the power supply cable.	Check the connection in the terminal board
	Lack of voltage in the power socket.	Check or provide for the check of the power socket.
	The switch is damaged.	Replace the switch.
	The motor is interrupted.	Contact the retailer or the authorized technical service centre.
The blade does not turn	Blade assembly not correct.	Check correct blocking of the disc.
The motor is difficult to start	Condenser failure.	Contact the authorized technical service centre or the retailer.
	No voltage to the motor.	Check the supply voltage. The power supply cable is longer than 10 mt (33'). The conductors section is undersized.
	Frictions in the drive.	Contact the authorized technical service centre or the retailer.
Drive noise	The bearings are damaged.	Contact the authorized technical service centre or the retailer.
The machine turns off during work	Motor excessive temperature.	Wait for the motor to cool down.
	Thermal-amperometric protection triggered.	Search for the cause of overheating.
No water to the blade	The pump is not working.	Make sure the pump is free from cutting residues. In case pump replacement is required, please refer to the paragraph "Water pump replacement".
	The water level in the tank is too low.	Add water in the tank.
	The water recycle hose is bended.	Disconnect the water delivery hose from the pump or clogged and blow inside it. Clean it or replace it according to the wear status.
	Holes clogged in the pump filter.	Free all the holes in the filter of the rotor cover.
Excessive backlash in the motor	The pulleys shall be adjusted.	See paragraph " Adjustment of the sliding device"
	The pulleys are worn.	Contact the authorized technical service centre or the retailer.
The blade does not cut	Blade worn.	Screw the diamond rim, see paragraph "Blade sharpening".
	Blade not suitable.	Assemble of suitable blade, see paragraph "Recommended blades".
Cut out of square	The square is not at 90°.	See paragraph "Square adjustment".
Jolly not at glaze level	The blade bends.	See paragraph "45° jolly cut".

Spare parts and electric diagram

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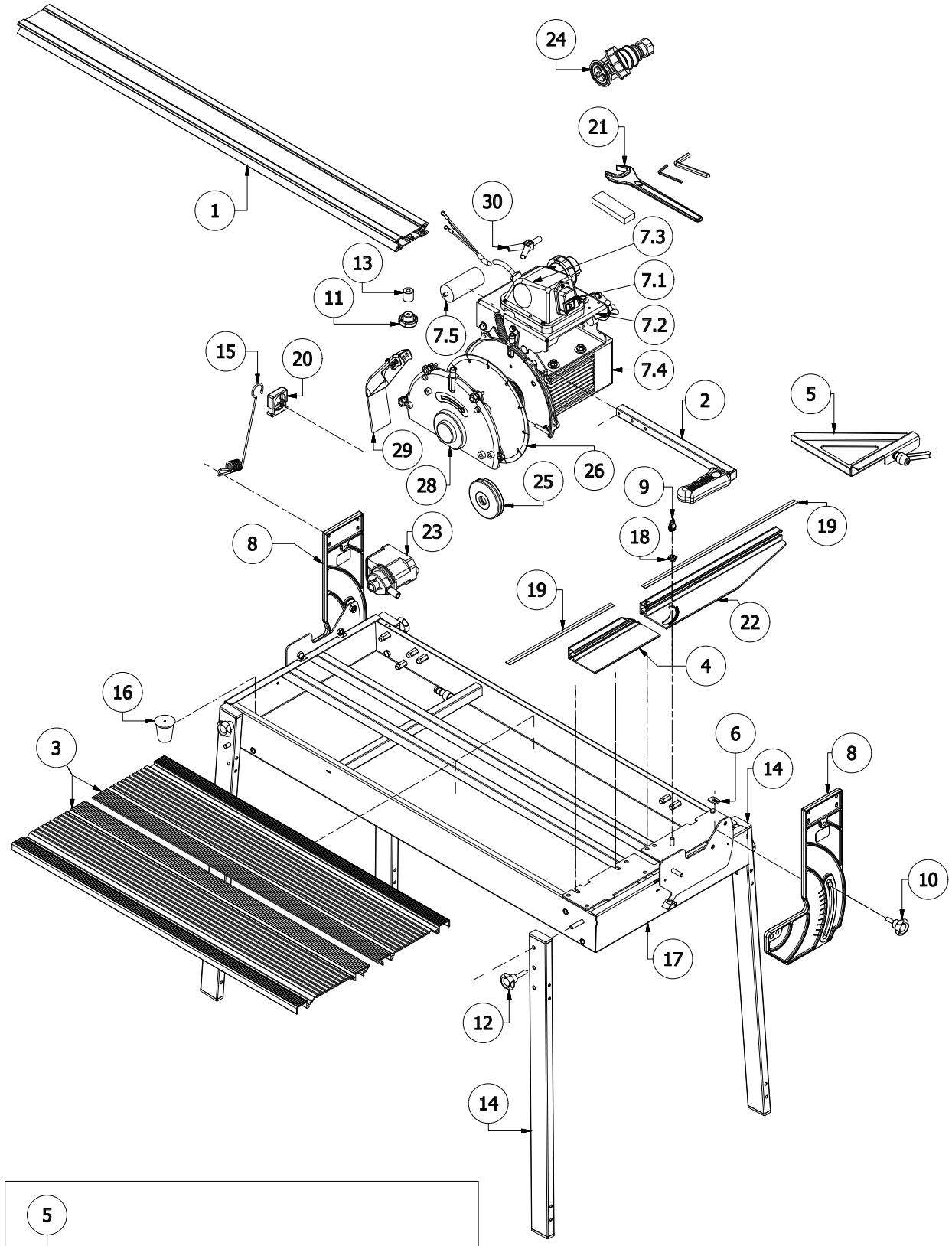
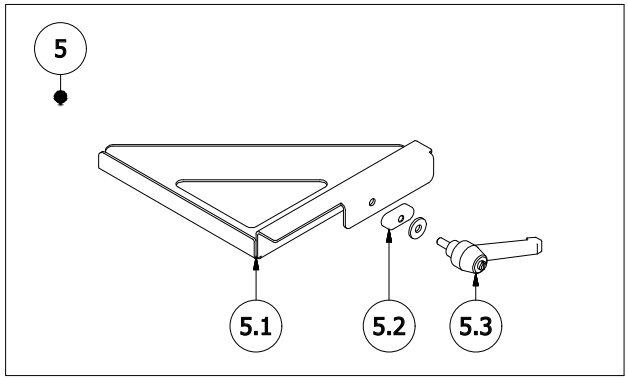
8.1 Spare parts

ITEM	ART. CODE	DESCRIPRION
1	114RE24D	SLIDING BAR LL 1128 BOLT 90
1	114RE22D	SLIDING BAR LL 1428 BOLT 120
1	114RE23D	SLIDING BAR LL 1728 BOLT 150
2	154SE05A1	HANDLE WITH KNOB BOLT 90
2	154SE03A	HANDLE WITH KNOB BOLT 120
2	154SE21A	HANDLE WITH KNOB BOLT 150
3	156NL15D	SIL. ALUM. GRID LL 850MM (BOLT 90 150)
3	156NL15D1	SIL. ALUM. GRID LL 1120MM (BOLT120)
3	156NL09D	SIL. ALUM. GRID LL 600MM (BOLT 150)
4	191AE10D	LH FRONT SUPPORT SQUARE
5	191SQ04A1	RIGHT-HAND TRIANGULAR SQUARE WITH HANDLE
5.1	191TL07D	RIGHT-HAND TRIANGULAR SQUAR
5.2	900CH8X12	KEY 8X12 M6
5.3	305MR03C	RETRACTABLE HANDLE 6X15
6	202FS07D	SQUARE ADJUSTMENT
7	225GM	MOT. GRID BOLT NO DISC D.250 RAIM
7.1	234MT01A	MICRO CIRCUIT-BREAKER 230V WITH THERMAL RELAY 15A
7.1	234MT04A	MICRO CIRCUIT-BREAKER 115V WITH THERMAL RELAY 20A
7.2	309CS01A	PULLEY WITH BEARINGS
7.3	235PR01A	STARTER 230V 50Hz T12A
7.3	235PR02A	STARTER 115V 50 60Hz T20A
7.3	235GB01A	STARTER 110V T25A
7/4	297IN91D	PLATE MOT. 1,1KW 1,5HP 230V-50Hz
7/4	297IN91D1	PLATE MOT. 1,1KW 1,5HP 230V-60Hz
7/4	297IN91D2	PLATE MOT. 1,1KW 1,5HP 115V-60Hz
7/4	297IN91D3	PLATE MOT. 1,1KW 1,5HP 115V-50Hz
7/5	2875001C	CONDENSER 100MF (110V)
7/5	2873001C	CONDENSER 25MF (230V)
8	251RE05D	AL. UPRIGHT
9	305GF01C	BLACK PLASTIC WING NUT F M8
10	305PM19C	KNOB F D.40 M8
11	305PF12C	KNOB F D.40 M6
12	305PM23C	KNOB M D.40 M8X35
13	310BC15D	BUSHING D.E22 F D.I8
14	311SI15A	LEG WITH PLUGS
15	314AN02D	ANTENNA SPRING F
16	322CN03C	CONICAL RUBBER PLUG D.45XH45





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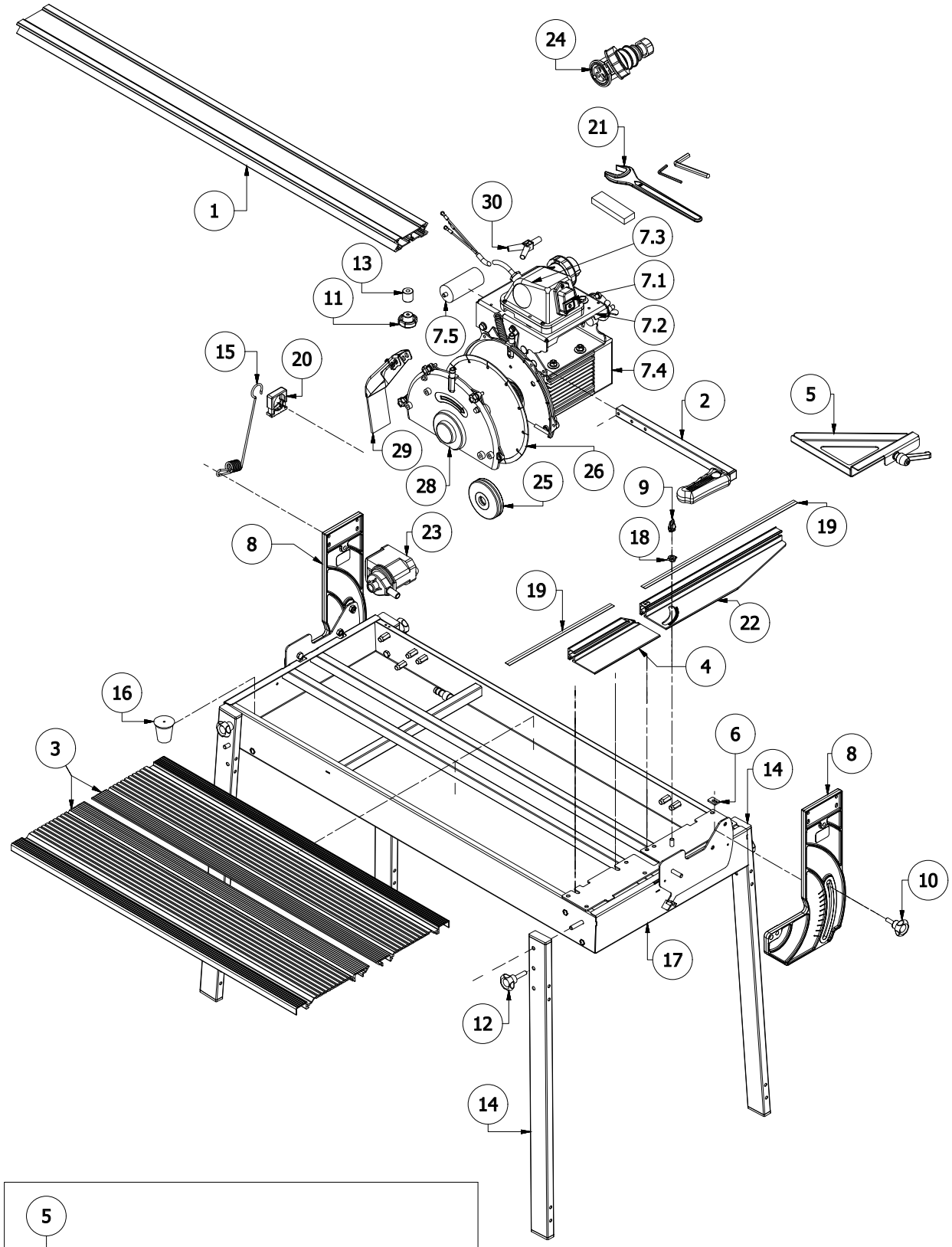
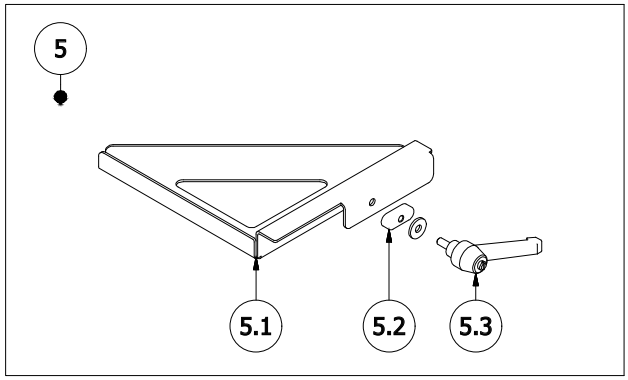
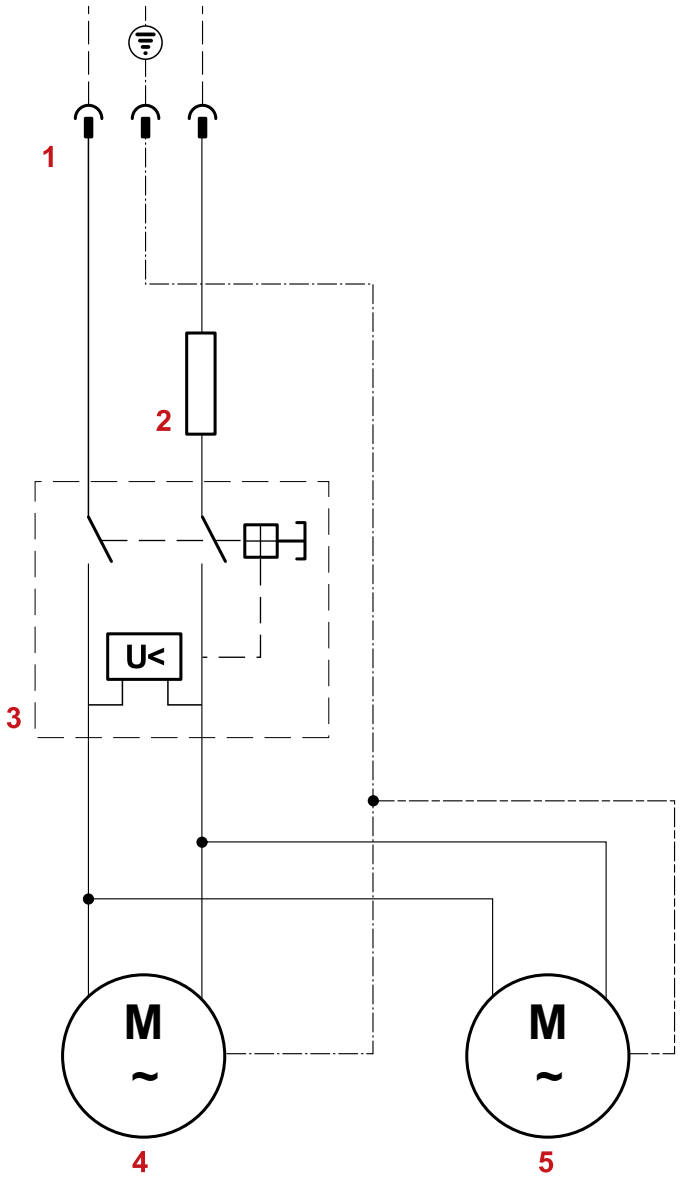
ITEM	ART. CODE	DESCRIPRION
17	325VP11D	FRAME TANK 900mm
17	325VP12D	FRAME TANK 1200mm
17	325VP13D	FRAME TANK 1500mm
18	420LETTOR	DEGREE INDICATOR
19	903MMPIK	POL. MM. RULE (2 PIECES)
20	320PG04C	CABLE GLAND
21	225KITCOR	BOLT SUPPLIED KIT
22	191GE06D	SLOTTED SQUARE GUIDE LL 400MM BOLT
23	240	SUBMERSIBLE PUMP 13W 230V 50HZ (BOLT90-120)
23	240110	SUBMERSIBLE PUMP120V50 60HZ 25W EXP S99 ZOE (BOLT90)
23	240422	SUBMERSIBLE PUMP 230V.50 60HZ 15W (BOLT90)
23	240JET230V50H	SUBMERSIBLE PUMP WITH FILTER 230V.50HZ (BOLT150)
23	240JET230V60H	SUBMERSIBLE PUMP WITH FILTER 220V.60HZ (BOLT120-150)
23	240JET110V50H	SUBMERSIBLE PUMP WITH FILTER 100V.50HZ (BOLT120-150)
23	240JET110V60H	SUBMERSIBLE PUMP WITH FILTER 120V.60HZ (BOLT120-150)
24	264PV04C	HANDWHEEL OUTLET IP67 230V 50 60HZ BLUE
25	278CP09D	FLANGE PAIR D.E88 C25,4
26	179SET250BE	DIAMOND BLADE 250 F25,4 PORCELAIN
27	305PM06C	MALE KNOB D.20 M6X20 3 LOBES
28	262CO05D1	WHITE BLADE COVER
29	263PE01A	SPLASH GUARDS WITH BRUSH
30	324DE01C	THREE-WAY DEVIATOR 3 8”” (ZOE)
31	324PG04C	MALE PLASTIC RUBBER COUPLER D.16 19





raimondispa.com
Via dei Tipografi 11, 41122 Modena (MO) - Italy
Tel.: +(39) 059 280888 - Fax: +(39) 059 282808

8.2 Electric diagram



1	Power socket
2	Thermal protection
3	ON/OFF switch
4	Disk motor
5	Pump motor (if any)

AS TO TECHNICAL DATA SEE THE PLATE VALUE ON EACH COMPONENT.

TO BE FRANKED

RAIMONDI S.p.A.
MACHINES & TOOLS FOR THE TILE & STONE PROFESSIONAL

Via dei Tipografi, 11
41122 MODENA (Italy)

30 YEARS 1974 - 2004

RAIMONDI S.p.A.
MACHINES & TOOLS FOR THE TILE & STONE PROFESSIONAL

WARRANTY CERTIFICATE

raimondispa.com
Via dei Tipografi 11, 41122 Modena (MO) - Italy
Tel.: +(39) 059 280888 - Fax: +(39) 059 282808

B WARRANTY

Model: BOLT

Registration number:

Purchaser

Address

Postal code | Town | Province

Phone / Fax | E-mail

Activity ☐ Floor layer ☐ Bricklayer ☐ Building enterprise
☐ Other

Date of purchase ☐☐ ☐☐ ☐☐ 2 0 ☐☐

Name, address and stamp of the retailer

Data have been entered in our lists with a view to sending information and promotional material.
At any time, in line with art.13 of the law 675/96, you will be able to access your data, request modification or erasure thereof, or oppose their use by writing to:

RAIMONDI S.p.A.
Via dei Tipografi n. 11 - 41122 MODENA (Italy)

TO BE SENT ENTIRELY FILLED IN, WITHIN 10 DAYS FROM THE DATE OF PURCHASE.

A WARRANTY
TO BE SHOWN TO THE TECHNICIAN

Model: BOLT

Registration number:

Purchaser

Address

Postal code | Town | Province

Date of purchase ☐☐ ☐☐ ☐☐ 2 0 ☐☐

Warranty clauses:

1. The machine warranty covers a 12-month period since the date of purchase.
2. The purchase date is the one indicated on the receipt for item purchased or invoice issued upon delivery of the machine by the retailer.
3. Any warranty becomes null and void if the B part is not entirely filled in and if sent later than 10 days after the date of purchase (postmark date).
4. By warranty we mean replacement or repair free of charge of components found to be defective since manufacturing.
5. Replacement of components, if made by the retailer, will be recognized free of charge once replaced components have been returned to our headquarters to be examined and declared as defective. Labor expenses are not included in the warranty.
6. All transport expenses will be charged on the purchaser.
7. The warranty does not cover parts subjected to wear, damage caused by negligence, improper use and installation and, in any case, issues not resulting from ordinary operation of the machine.
8. The warranty becomes null and void if the machine is tampered with or repaired by unauthorized personnel.
9. The warranty does not cover replacement of the machine and extension of the warranty following intervention for failure issues.
10. Nobody is entitled to modify the warranty conditions, nor to issue other warranties, in written or oral form, without the written authorization of RAIMONDI S.p.A.
11. The warranty does not cover compensation for damage, either direct or indirect, of any nature, to persons or objects, resulting from use or suspension of use of the machine.

Date of production ☐☐/☐☐/☐☐

Registration number