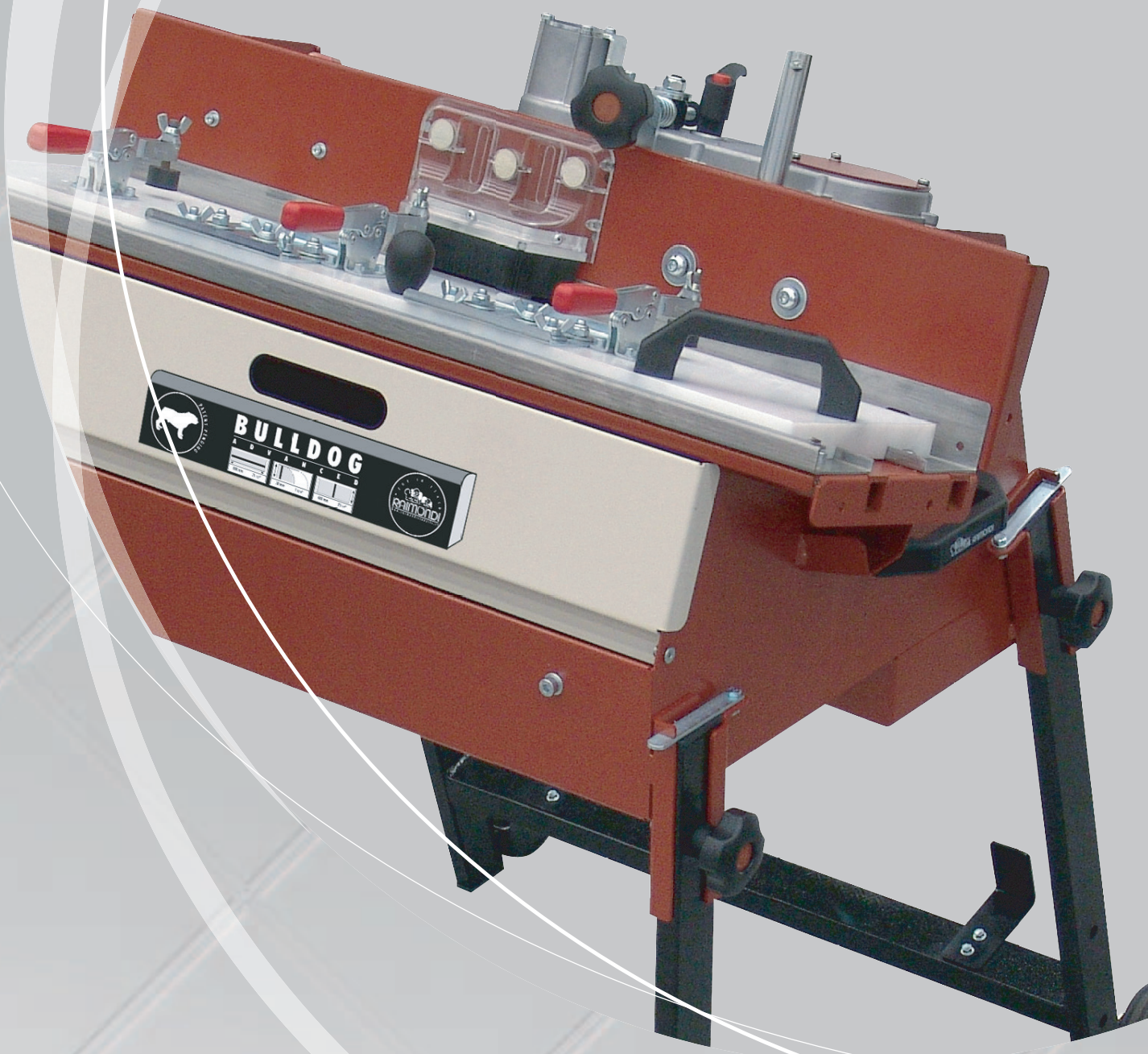
GB

30 YEARS
1974 - 2004

BULLDOG ADV



Use and maintenance manual

RAIMONDI S.p.A.

www.raimondispa.com

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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

XXXX | XXXX
Description | *Type*

XXXX | XXXX | XX XX/XX/XXXX
Serial number | *Year of cosr.* | *Revision*

XXXX
Trade name

XXX
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 2014/30/CE (Electromagnetic compatibility); Directive 2014/35/CE (Low voltage); Directive 2001/95/CE (Directive on general product safety)

Reference to technical standards harmonized:
EN ISO 13857:2019; EN ISO 13850:2015; EN ISO 13849-1:2015; EN ISO 20607:2019; EN 842:1996+A1:2008; EN ISO 14118:2018; EN 894-1:1997+A1:2008; EN 894-2:1997+A1:2008; EN 894-3:2000+A1:2008; EN ISO 14120:2015; EN 60204-1:2018; EN 12418:2000+A1:2009; EN ISO 12100:2010.

AND HE AUTHORIZES

Gianni Lorenzani
Name

c/o G.L. Comunicazione S.r.l. | 43036 | PR
Address | *Zip code* | *Province*

Fidenza | Italia
City | *Country*

TO PREPARE THE TECHNICAL FILE FOR IT

Place and date of issue
Modena

The manufacturer
Mr. Ivan Raimondi

The Declaration of Conformity shown here in facsimile is attached to the manual but is not included inside it. This attached Declaration, and any others, must be kept and made available to anyone who requests it.

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	+10°C ÷ +55°C (50°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 (14°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 sent, by fax, to:

RAIMONDI S.p.A.
Technical Service
Telefax (39) 059 282 808
E.mail: info@raimondispa.com

Specifying:

1. type of machine, registration number, serial number and year of production;
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: info@raimondispa.com

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.

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 the 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

BULLDOG ADV profiling machine is suitable for profiling edges on 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 material feeding is set by human strength and so its feeding speed will have to be proportional to the hardness and thickness of the material to be profiled.
The cutting of materials shall always be made with sharp grinding wheels and clean water, which shall always be present in the tank in the required quantity.

THE MACHINE CANNOT BE USED FOR DRY PROFILING OR WITH INEFFECTIVE GRINDING WHEELS.

2.4 Characteristics of the machine

Type of grinding wheels to be used

A series of grinding wheels, suitable for the BULLDOG ADV machine, have been designed.

Diamond grinding wheel characteristics:

External diameter		115 mm - 160 mm (4 1/2" - 6 5/16")
Hole diameter		20 mm (25/32")
Maximum shaping thickness		30 mm (1 3/16")
Direction of rotation		Counterclockwise
Rotation speed	rpm^{-1}	4300

Types of allowed grinding wheel are defined below:

DIAMOND GRINDING WHEEL	*MEASUREMENT UNIT*	*RADIUS*	*RECOMMENDED FOR*
	(mm) (inches)	8 / 10 / 15 / 20 / 30 5/16” / 3/8” / 19/32” / 25/32” / 1 3/16”	HALF-BULLNOSE SHAPING
	(mm) (inches)	8 / 10 / 15 / 20 / 30 5/16” / 3/8” / 19/32” / 25/32” / 1 3/16”	HALF-BULLNOSE GRINDING / FINISHING
	(mm) (inches)	8 / 10 / 15 / 20 / 30 5/16” / 3/8” / 19/32” / 25/32” / 1 3/16”	BULLNOSE POLISHING
	(mm) (inches)	V 45° H 15 H 19/32”	JOLLY CUT / BEVELLING / MITERING 45°
	(mm) (inches)	90° H 16 / 30 H 5/8” / 1 3/16”	GRINDING
	(mm) (inches)	90° H 38 H 1 1/2”	POLISHING

ALL RESPONSIBILITY WILL BE DECLINED IF NON-ORIGINAL GRINDING WHEELS ARE USED.

Technical characteristics

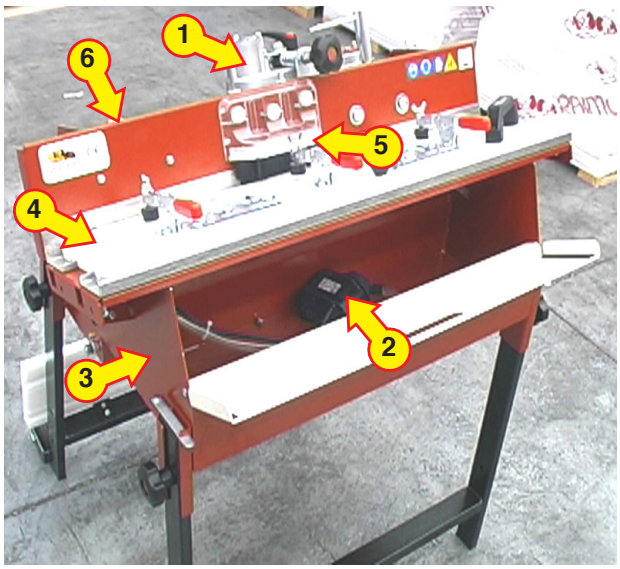
The BULLDOG ADV characteristics are outlined below:

Model		*Bulldog ADV*
Unladen mass *(transport)*	kg	74
	U.S. lb t	163
Mass - running *(driving)*	kg	116
	U.S. lb t	255
Mass - running *(stationary)*	kg	93
	U.S. lb t	205
Tank capacity	Lt	23
	U.S. gal	6,1
Maximum shaping thickness		30 mm (1 3/16")
Maximum shaping size (leght)		80 cm (31 1/2") *

**** 120 cm (47 1/4") using the optional 120 cm (47 1/4") trolley (see the accessories chapter).***

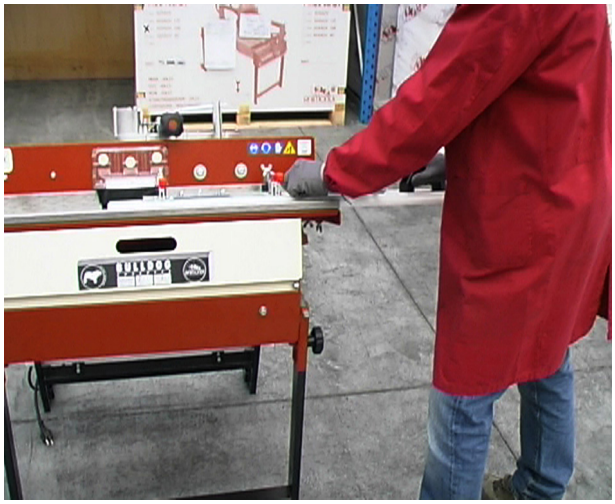
2.5 Description of machine groups

The BULLDOG ADV 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 grinding wheel is positioned. It is equipped with adjustment knobs and handles.
2 Cooling group
It allows for the constant supply of cooling water for cutting, equipped with submersible pump.
3 Frame
It is the load-bearing part of the machine, equipped with telescopic feet to ease transport. A series of wheels, positioned on the rear side, allows for quick and easy handling in the working area. It is equipped with sliding guides for the trolley.
4 Trolley
Equipped with pressing devices to block the material and with movable fences to prevent it from sliding.
5 Protection device
6 Starting device

2.6 Position of the operator



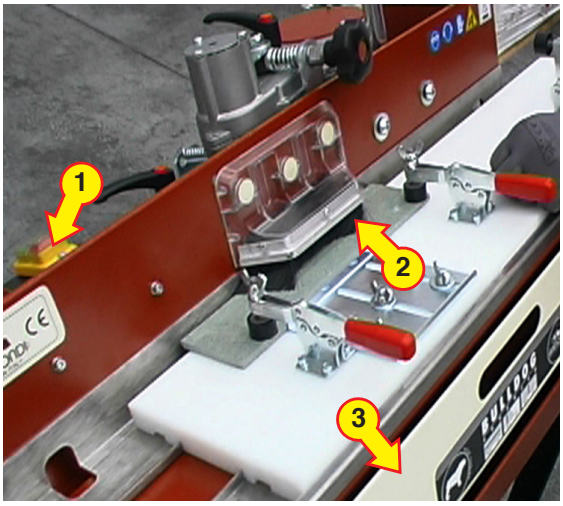
The BULLDOG ADV series shall be used by one single operator, who will have to stand sideways the machine and, by grabbing the trolley handle, will be able to make half-bullnose shapings, bevels and “jolly” (45° mitering) cuts in safe conditions and unstressfully.

During the working phase, the operator shall always stand in the front part and grab the trolley handles with both hands.
The material shall always be leaned against the reference strikers and well-clamped under the pressing devices.

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 GRINDING WHEEL WHILE IT IS RUNNING IS STRICTLY FORBIDDEN.

2.7 Safety devices

The BULLDOG ADV 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 Tool guard
It prevents process water and debris from coming out of the cutting area.
3 Front door
It prevents water and debris, caused by cutting, from coming out of the machine area.

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 BULLDOG ADV series is supplied with the following accessories:

1. 30 mm (1 3/16") hexagon wrench;
2. 8 mm (5/16") socket head screw;
3. 80 cm (31 1/2") trolley for sizes up to 12 cm (4 3/4") of width;
4. 80 cm (31 1/2") trolley for sizes exceeding 12 cm (4 3/4") of width;
5. Dressing grinding wheel and stone holder;
6. Radius10 (3/8") diamond grinding wheel for shaping;
7. Striking plate;
8. 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 grinding wheel		***Type of material***		
		Hollow	Porcelain	Stone
	Continuous	68,8	93,0	88,8
	Segmented	83,1	106,2	102,3

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

Type of grinding wheel		***Type of material***		
		Hollow	Porcelain	Stone
	Continuous	75,5	97,5	95,8

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

Type of grinding wheel		***Type of material***		
		Hollow	Porcelain	Stone
	Continuous	71,6	96,7	92,4
	Segmented	86,4	110,4	106,4

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).

2.10 Vibrations

The machine was designed to minimize the effects generated by vibrations. In any case, these are associated to relevant factors, such as the type of material to be cut and wear of the disc.

The results of the measurements carried out in the field, implementing UNI EN ISO 8662-12:1999, are the following:

Handle

Linear values (0 = n.a.)		
A lin x	16,0	m/sec^2
A lin y	16,5	m/sec^2
A lin z	12,2	m/sec^2
A (lin) sum	26,4	m/sec^2
Weighted values ISO 5349/2001 (0 = n.a.)		
A lin x	1,5	m/sec^2
A lin y	1,8	m/sec^2
A lin z	1,3	m/sec^2
A (lin) sum	2,7	m/sec^2

A (8) (m/sec^2)							
1,0	**1,4**	**1,7**	**1,9**	**2,1**	**2,3**	**2,5**	**2,7**
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Exposure time (hours)							

Formula to calculate the level of daily exposure to vibrations - A(8)
For the comparison with exposure limit values and action values, the total weighted acceleration, obtained through the vector sum of the components, shall be standardized, namely analytically referred to a reference time of 8 hours.

$$A(8) = A_{(w)\,sum}\sqrt{\frac{T}{To}}$$

where, in line with the standard adopted symbols:

$A_{(w)\,sum}$ It is the total acceleration, sum of the three axial components.

$A(8)$ It is the weighted equivalent acceleration for 8 hours.

T It is the overall acceleration exposure time - $\mathbf{A_{(w)sum}}$

To It is the reference time (8 hours, equal to 480 minutes or 28800 seconds).

In the overall assessment, non-continuous use caused by time fragmentation for material positioning and removal thereof once split up shall be taken into account. RAIMONDI S.p.A. believes BULLDOG ADV shall be included in the group of machines not exceeding the limit values provided for by the Directive 2004/44/EC.
If during the working day the operator foresees several exposures to vibrations of different origin and entity (as for the use of several vibrating equipments), the parameter A(8) will have to be calculated as weighted sum of the different contributions:

$$A(8) = \sqrt{\frac{1}{To}\sum_{i=1}^{n} A^{2}_{(w)sum,i} \cdot Ti}$$

where:

$A_{(w)sum,i}$ It is the total acceleration of the i-th operation.

Ti It is the overall acceleration exposure time - $\mathbf{A_{(w)sum,i}}$

Consequently, in this case, the employer shall compulsorily provide the operator with the protection devices set forth in the Legislative Decree 187/05 in relation to the values of the standardized daily personal exposure level A(8).

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.

2.12 CE Manufacturer's declaration - ROHS/RAEE

DIRECTIVE (UE) 2015/863 (Directive RoHS III) of the European Parliament and of the council of 15 March 2015 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 above Directives and in particular to ENCLOSURES "I A" and "I B" of Directive 2002/96/CE, RAIMONDI S.p.A., declares that its products.

DO NOT FALL WITHIN THE FIELD OF APPLICATION OF THE (UE) 2015/863 DIRECTIVE

Restricted substances referred to in Article 4(1) and maximum concentration values tolerated by weight in homogeneous materials:

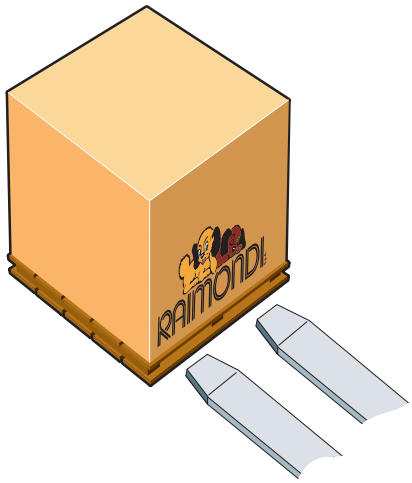
Lead (0,1 %)
Mercury (0,1 %)
Cadmium (0,01 %)
Hexavalent chromium (0,1 %)
Polybrominated biphenyls (PBB) (0,1 %)
Polybrominated diphenyl ethers (PBDE) (0,1 %)
Bis (2-ethylhexyl) phthalate (DEHP) (0.1%)
Benzyl butylphthalate (BBP) (0.1%)
Dibutylphthalate (DBP) (0.1%)
Diisobutylphthalate (DIBP) (0.1%)

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 (UE) 2015/863 directive.

DECLARATION OF THE MANUFACTURER CE - REACH

REGULATION (EC) N. 1907/2006 of the EUROPEAN PARLIAMENT AND THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).
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 / 441 lbs).

3.2 Manual handling

Manual handling

For handling exploit the lever effect, using the wheels in the rear side.

MAKE SURE THE TROLLEY HAS BEEN REMOVED, THE TOOL BOX EQUIPPED WITH THE SPECIFIC SAFETY PIN HAS BEEN BLOCKED AND THE WATER TANK HAS BEEN EMPTIED.

Lifting

Two persons are required to lift the machine.
To do so, grab the handle with one hand and with the other the front side of the machine to avoid its overturning.

MAKE SURE THE TROLLEY HAS BEEN REMOVED, THE TOOL BOX EQUIPPED WITH THE SPECIFIC SAFETY PIN HAS BEEN BLOCKED AND THE WATER TANK HAS BEEN EMPTIED.

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 shall be stored in environments with adequate temperatures (from -10 to + 70°C) / (from 14° F to 158°F).

3.3 Power supply

The “BULLDOG ADV” profiling machine shall be supplied at the voltage corresponding to the value indicated on the “TECHNICAL DATA” plate, 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 “BULLDOG ADV” 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.

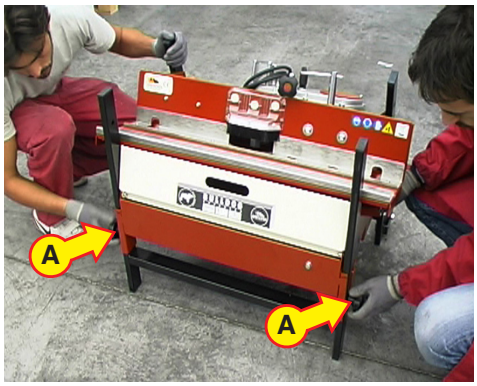
FOR THE CORRECT USE OF THE RESIDUAL CURRENT CIRCUIT BREAKERS, DO NOT FORGET TO CHECK THEIR EFFICIENCY BY MEANS OF THE TEST BUTTON PLACED ON THE FRONT PART OF THE DEVICE ITSELF.

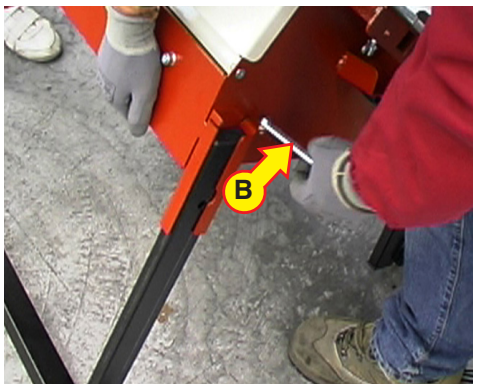
3.4 Assembly of the machine

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

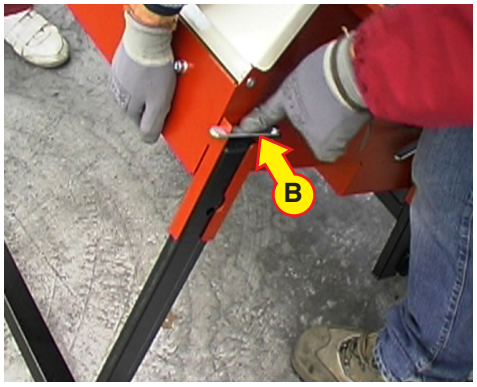
Remove the machine from the pallet and make sure there are no broken or damaged parts.

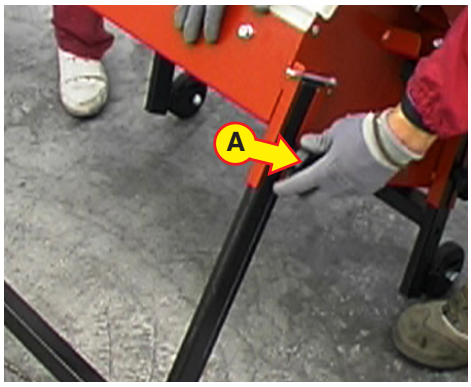
MAKE SURE THE TOOLBOX HAS BEEN FIXED CORRECTLY.

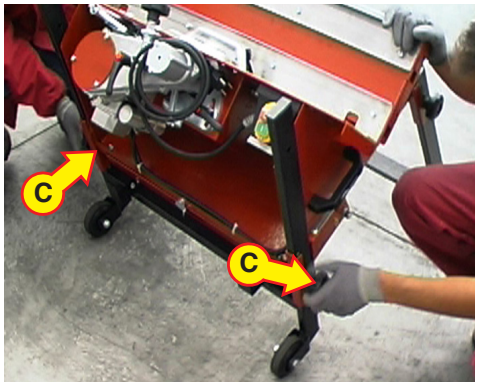




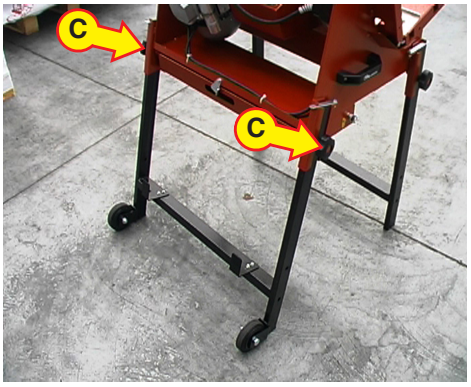
Free the front legs by completely unscrewing the leg fixing knobs (**A**). Go to the front side of the machine and lift it so that the leg goes past the left and right safety bars (**B**) and at this point close the bars.

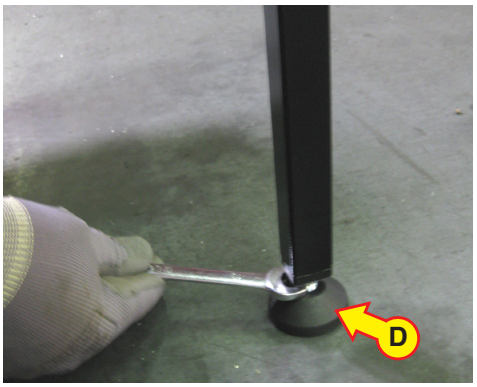






Slowly lower the machine until the leg is resting on the 2 safety bars (**B**) previously closed and firmly screw the leg fixing knobs (**A**).
Go to the rear side of the machine and completely unscrew the leg fixing knobs (**C**).



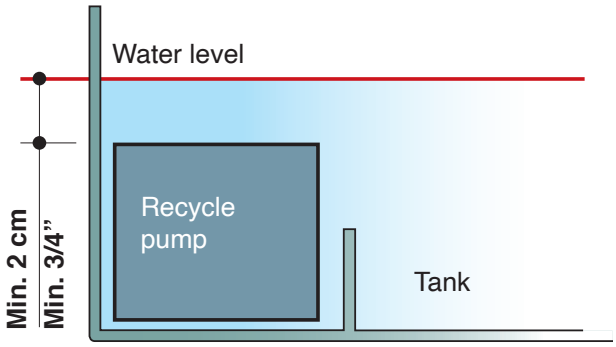


Lift the machine until the two safety bars can be inserted (**B1**). Lower the machine until the leg touches the safety bars (**B1**).
Firmly screw the leg fixing knobs (**C**).
Regulate the adjustable feet (**D**) to stabilize the machine.

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 (3/4") above the recycle pump has been reached.



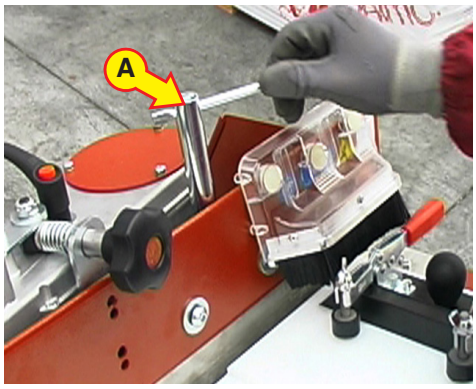
**TO ALLOW FOR THE PUMP CORRECT FUNCTIONING, WATER SHALL BE KEPT CLEAN.
EACH TIME THE TANK WATER IS CHANGED, CLEAN THE FILTER AND THE PUMP IMPELLER.**

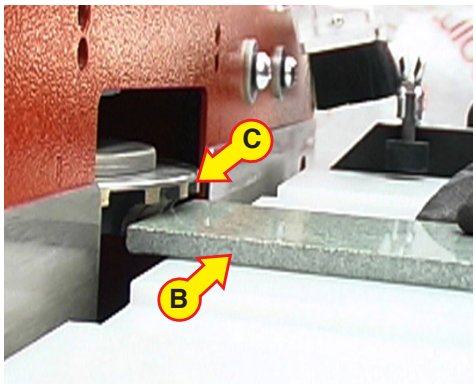
POUR IN ENOUGH CLEAN WATER TO COVER THE PUMP.

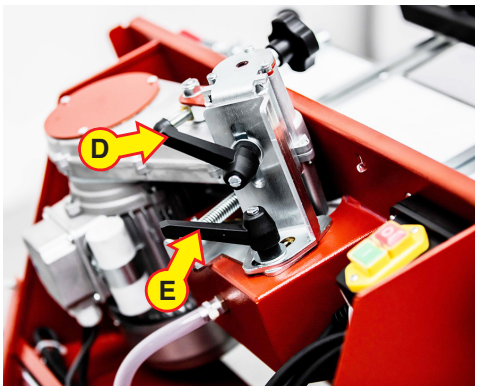
4.1 Adjusting the grinding wheel for half-round shaping

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

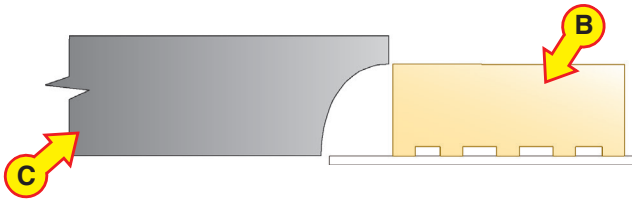
Vertical adjustments



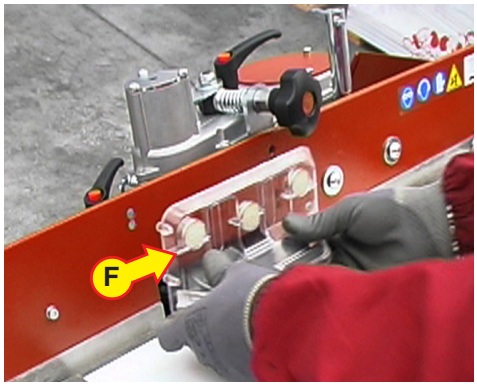


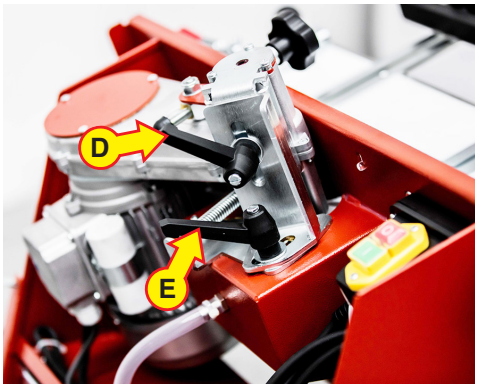


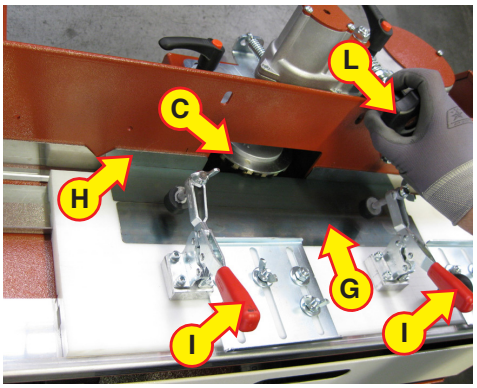
Insert the wrench (**A**) in the nut for vertical adjustment. Place the materiel to be profiled on the trolley (**B**).
Screw or unscrew with the wrench (**A**) until the grinding wheel diamond rim (**C**) touches the material to be profiled. Block the (**D**) and (**E**) handles.



Horizontal adjustments







Remove the spray guard (**F**). Unblock the motor group by slackening the (**D**) and (**E**) handles. Position the striker (**G**) on the trolley base and after checking it is resting on the guides (**H**) block it by means of clamps (**I**). Screw or unscrew the knob (**L**), until the diamond profile (**C**) touches the striker (**G**). Refit the spray guard (**F**).

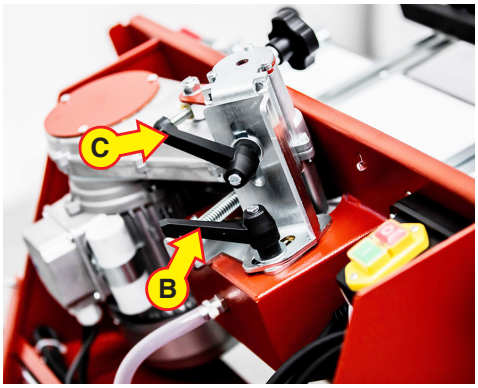
Fine adjustments

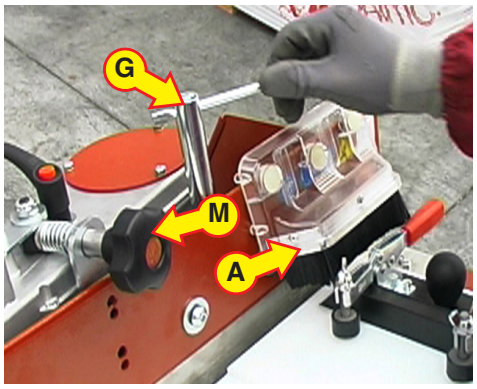
Perform a 4 / 5 cm ($1^{1/2"}$ / 2") chamfer and make sure the cut is as requested. If necessary make any fine adjustments, repeating the previously-illustrated steps.

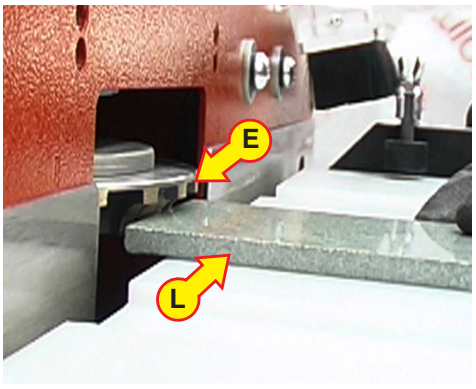
4.2 Adjusting the 45° grinding wheel for Jolly cuts/bevelling

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

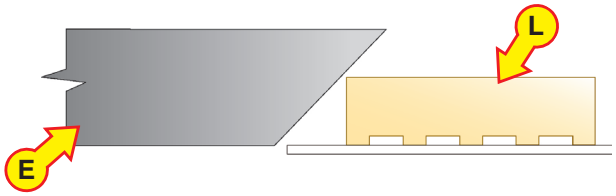
Adjustment for bevelling





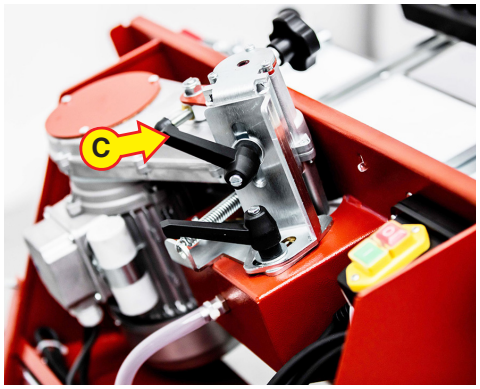


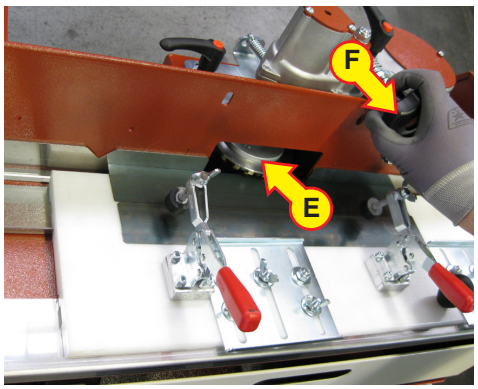
Remove the spray guard (**A**). Unblock the motor group by slackening the (**B**) and (**C**) handles. Insert the wrench (**G**) in the nut for vertical adjustment and screw until the grinding wheel height(**E**) slightly exceeds the thickness of the material to be bevelled. Place on the trolley the material (**L**) to be bevelled with the rear side leaning on the trolley. Lower the grinding wheel (**E**) by unscrewing with the wrench (**G**) until the diamond rim touches the material to be bevelled.



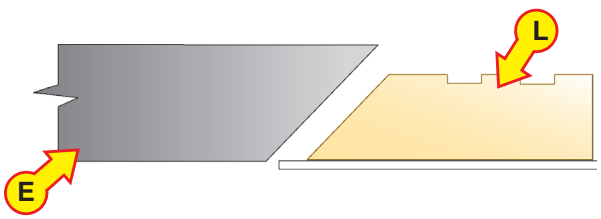
Remove the material (**L**) to be bevelled from the trolley, adjust the quantity of material to be removed using the knob (**M**). Block the motor group screwing again the (**B**) and (**C**) handles. Reposition the spray guard (**A**). Perform a 4 / 5 cm (1$^{1/2"}$ / 2") bevelling and if necessary perfect the adjustment using the knob (**M**).

45° jolly (mitering) cut adjustment



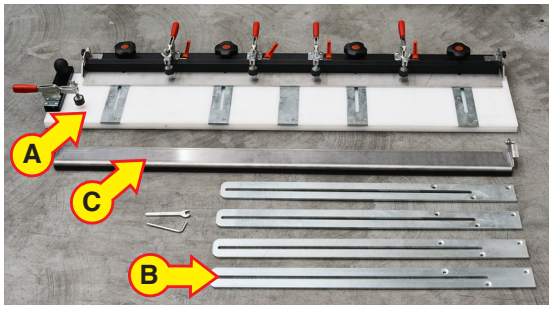


Remove the spray guard (**A**). Unblock the motor group by slackening the (**B**) and (**C**) handles. Insert the wrench (**G**) in the nut for vertical adjustment and screw until the grinding wheel height(**E**) slightly exceeds the thickness of the material to be cut. Place the material to be cut on the trolley (**L**) with the glazed side leaning on the trolley. Lower the grinding wheel (**E**) by unscrewing by means of the wrench (**G**) until the diamond rim removes the desired quantity of material. Remove the material (**L**) to be cut from the trolley, move the grinding wheel closer by means of the knob (**M**) according to the quantity of material to be removed. Block the motor group by screwing the (**B**) and (**C**) handles. Reposition the spray guard (**A**). Perform a 4 / 5 cm (1$^{1/2"}$ / 2") cut and if necessary perfect the adjustment by using the knob (**M**).



4.3 Blocking of material

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



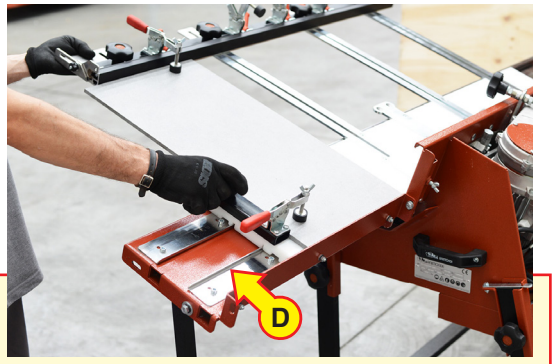
The machine is equipped with no.1 trolley (**A**), no.4 long guides (**B**) and no.1 pressing device (**C**).

The standard trolley consists of no. 4 short guides, no. 1 aluminum black square, no. 1 steel square, no. 1 support, no. 5 movable clamps, and it is set for automatic driving.

The trolley works a corner having a maximum length of 800 mm (31 1/2") and a width determined by the following configurations:

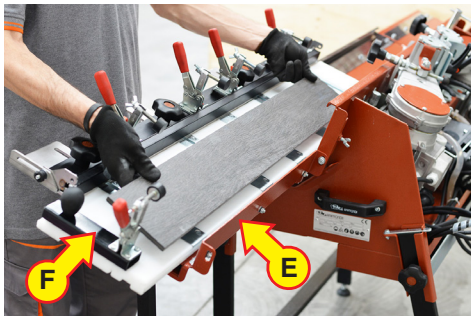
- *width ranging from 100 mm (3 15/16") to 200 mm (7 7/8") with short or long guides and black square;*
- *width ranging from 70 mm (2 49/64") to 100 mm (3 15/16") with short or long guides and steel square;*
- *width ranging from 45 mm (1 25/32") to 70 mm (2 49/64") with short or long guides, steel square and pressing device;*
- *width ranging from 200 mm (7 7/8") to 600 mm (24") with long guides and black square.*

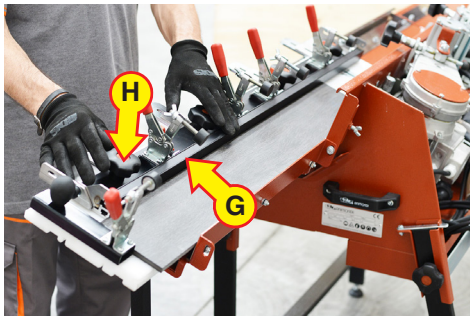
AUTOMATIC DRIVING CANNOT BE USED FOR SIZES BIGGER THAN 400 MM (16"); THE MATERIAL MUST BE CARRIED AND PUSHED BY HAND.



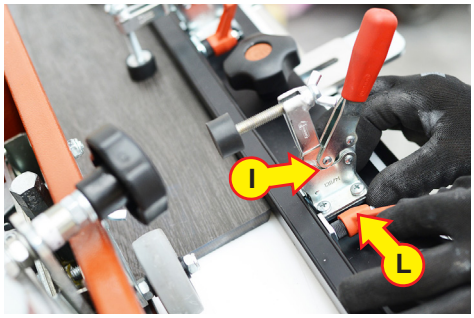
MAKE SURE THAT THE SIDE OF MATERIAL RESTED AGAINST THE SLIDE (D) IS STRAIGHT AND DOES NOT SHOW ANY IRREGULARITY.

Materials with a width ranging from 100 mm (3 1 5/16") to 200 mm (7 7/8")



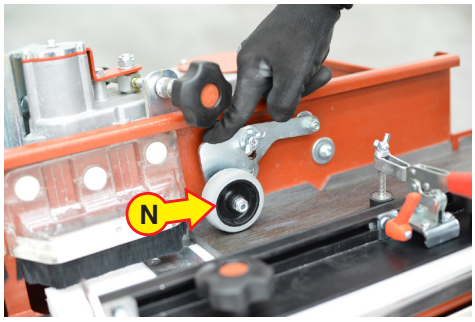


Position the material to be shaped onto the trolley perfectly rested against the frame slide (**E**) and against the rear support (**F**) of trolley. In order to prevent the material from shifting, draw the black square (**G**) near it and lock it by knobs (**H**).



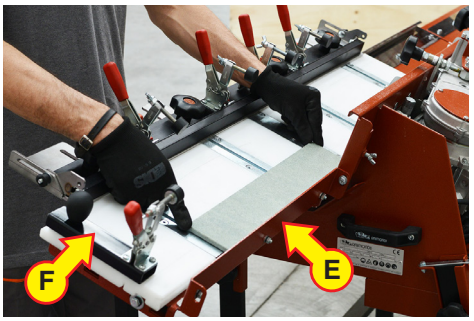
BEFORE STARTING PROCESSING, MAKE SURE THAT THE PRESSING DEVICE OR CLAMPS (I) DO NOT INTERFERE WITH TOOLS OR PROTECTIVE DEVICES.

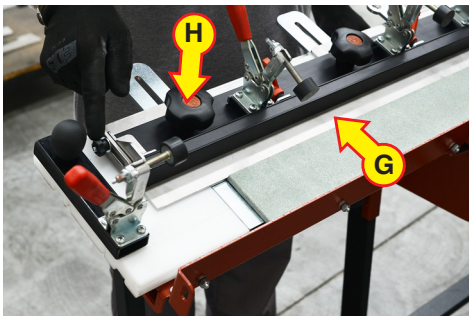
Lock material by means of movable clamps (**I**); they can slide on the black square, thus loosening handles (**L**) and they can be adjusted according to material thickness by means of wing nuts (**M**).



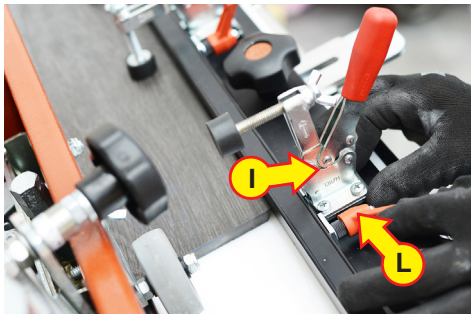
Adjust the two wheels (**N**) and carry on processing the material.

Materials with a width ranging from 70 mm (2 49/64") to 100 mm (3 15/16")



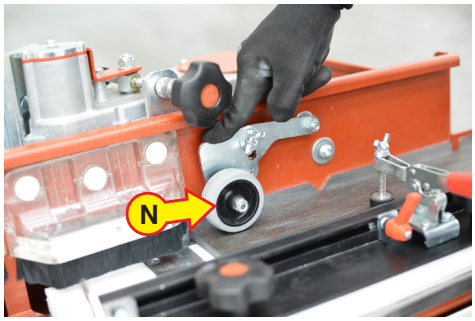


Position the material to be shaped onto the trolley perfectly rested against the frame slide (**E**) and against the rear support (**F**) of trolley. Loosen side knobs (**O**) and extract 2 cm (25/32") of steel square from below the black square and tighten them. In order to prevent the material from shifting, draw the steel square (**G**) near it and lock it by knobs (**H**).



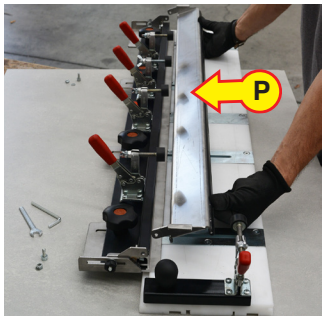
BEFORE STARTING PROCESSING, MAKE SURE THAT THE PRESSING DEVICE OR CLAMPS (I) DO NOT INTERFERE WITH TOOLS OR PROTECTIVE DEVICES.

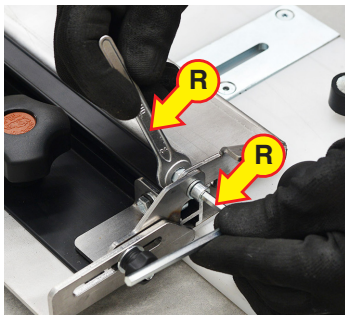
Lock material by means of movable clamps (**I**); they can slide on the black square, thus loosening handles (**L**) and they can be adjusted according to material thickness by means of wing nuts (**M**).



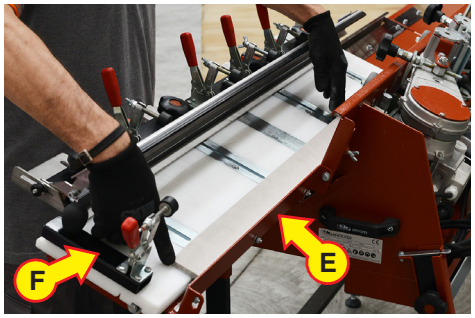
Adjust the two wheels (**N**) and carry on processing the material.

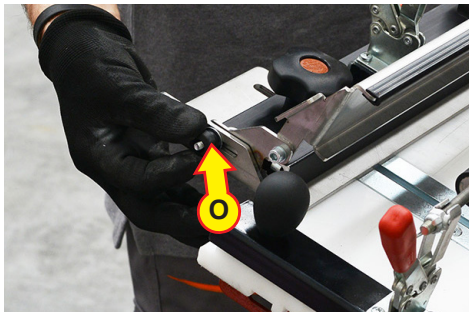
Materials with a width ranging from 45 mm (1 25/32") to 70 mm (2 49/64")

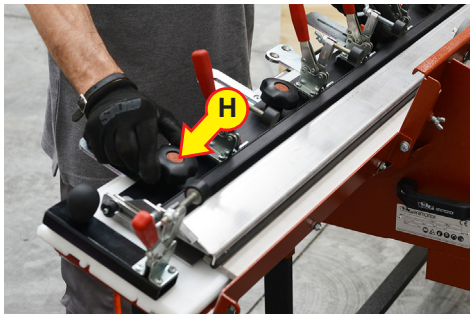




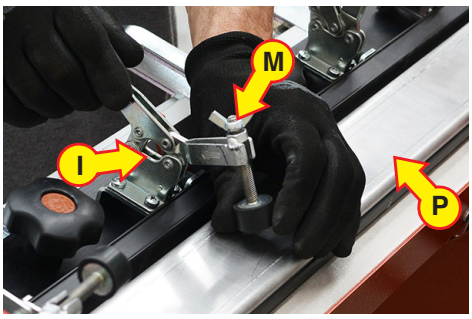
In order to use this material size, the pressing device (**P**) must be assembled onto side supports. Screws (**Q**) must be loose in order to ensure its movement. Use properly sized wrenches (**R**) to assemble the pressing device.



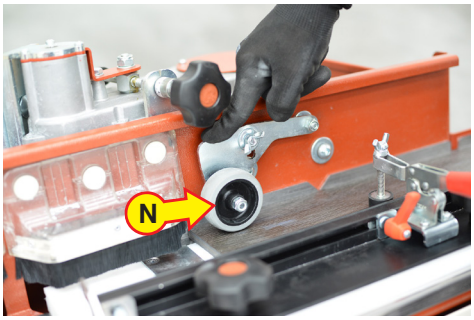




Position the material to be shaped onto the trolley perfectly rested against the frame slide (**E**) and against the rear support (**F**) of trolley. Loosen side knobs (**O**) and extract steel square from below the black square up to its end of stroke and tighten them. In order to prevent the material from shifting, draw the steel square (**G**) near it and lock it by knobs (**H**).

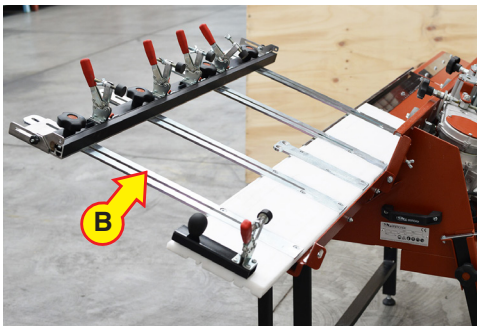


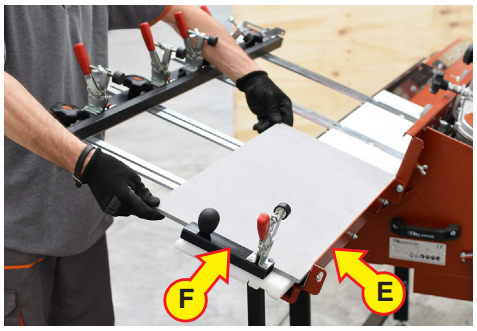
BEFORE STARTING PROCESSING, MAKE SURE THAT THE PRESSING DEVICE OR CLAMPS (I) DO NOT INTERFERE WITH TOOLS OR PROTECTIVE DEVICES.

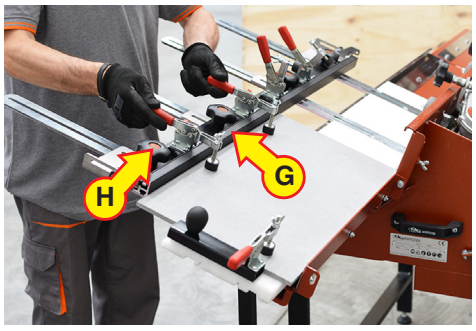


Lock material by means of movable clamps (**I**) onto pressing device (**P**); they can slide on the black square, thus loosening handles (**L**) and they can be adjusted according to material thickness by means of wing nuts (**M**).
Adjust the two wheels (**N**) and carry on processing the material.

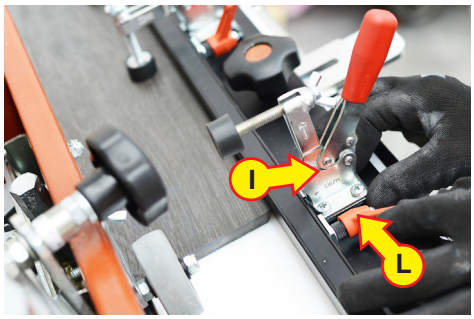
Materials with a width ranging from 200 mm (7 7/8") to 600 mm (24")





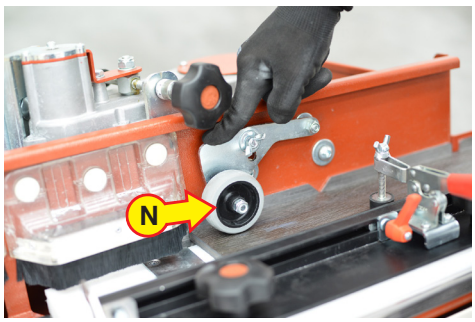


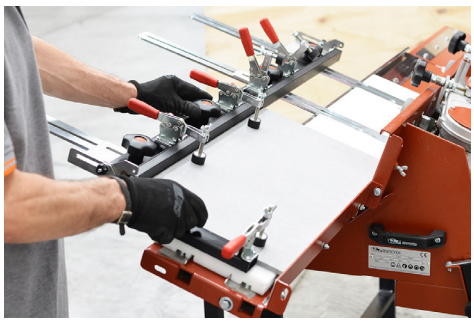
In order to use this material size, the four short guides must be replaced with the long ones (**B**). Position the material to be shaped onto the trolley perfectly rested against the frame slide (**E**) and against the rear support (**F**) of trolley. In order to prevent the material from shifting, draw the black square (**G**) near it and lock it by knobs (**H**).



BEFORE STARTING PROCESSING, MAKE SURE THAT THE PRESSING DEVICE OR CLAMPS (I) DO NOT INTERFERE WITH TOOLS OR PROTECTIVE DEVICES.

Lock material by means of movable clamps (**I**) onto pressing device (**P**); they can slide on the black square, thus loosening handles (**L**) and they can be adjusted according to material thickness by means of wing nuts (**M**).





Adjust the two wheels (**N**) and carry on processing the material.

AN EXCESSIVE LOCKING DEVICE PRESSURE MAY CAUSE THE DEFORMATION OF THE TROLLEY AND JEOPARDIZE THE SLIDING MOVEMENT.

4.4 Comply with the following warnings for all profiling types

BEFORE PROFILING, MAKE SURE THAT THE GRINDING WHEEL IS SHARP, PLACED IN THE CORRECT POSITION AND THAT THE MATERIAL HAS BEEN PROPERLY BLOCKED.

BEFORE PROFILING, MAKE SURE THE KNOB AND THE HANDLE ON THE TROLLEY HAVE BEEN PROPERLY FIXED.

THE FEEDING SPEED DURING THE PROFILING SHALL BE PROPORTIONAL TO THE HARDNESS AND THICKNESS OF THE MATERIAL TO BE PROFILED TO PREVENT THE MATERIAL FROM DISPLACING AND TO AVOID A MOTOR OVERLOAD.

IF THE PROFILING PERFORMANCE IS UNSATISFACTORY , DESPITE THE COMPLIANCE WITH ALL THE ABOVE-LISTED PROCEDURES, IT IS NECESSARY TO CHECK THE CLAMPS TIGHTNESS AND TO DRESS THE GRINDING WHEEL BY MEANS OF THE DRESSING STONE.

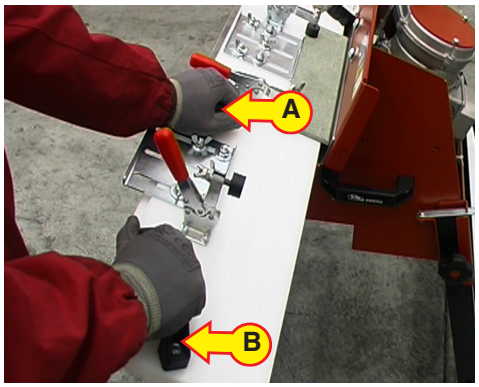
AFTER YOUR WORK AND BEFORE DISENGAGING THE PIECE FROM THE CLAMPS, TURN OFF THE MACHINE BY MEANS OF THE POWER SWITCH.

WHEN SHAPING, BEAR IN MIND THE INSTRUCTIONS GIVEN IN THE "*WORKSTATION* PARAGRAPH" *(see paragraph 2.6).*

4.5 Half-bullnose shaping

Shaping phase (removal of the 90° angle and creation of the quarter round profile)

Suitable to cut bullnose up to 30 mm (1 3/16") of maximum thickness.



1) Press the switch to turn on the machine.
2) Wait for cooling water.
3) Start your work grasping knob (**A**) with your left hand and handle (**B**) on the carriage with your right.
4) Proceed with shaping by pushing the carriage slowly forward towards the grinding wheel.
5) Continue the cut maintaining a constant speed.
6) Slow down towards the end of the cut.
7) If the materials is very hard or thick, repeat the shaping in 2 or 3 passes.
8) Every 50 linear metres (164') shaped, check condition of the grinding wheel profile.
9) Wear may alter the profile of the grinding wheel and lead to incorrect shaping.This will prevent correct execution of the subsequent stages of operation, namely grinding and polishing. To regenerate the grinding wheel profile, contact an authorised dealer.

Grinding / Finishing phase

To grind / finish the profile previously created with the grinding wheel:

1) Use a grinding wheel with the same radius as that of the grinding wheel used for removal.
2) Perfect positioning of the grinding wheel so that it copies the shape previously created.
3) The amount of material removed should not exceed 2/10 of mm (0,008 inches).

Polishing phase

Before polishing, it is essential to perform the grinding / finishing operations

In order to maintain the grinding wheels in good working condition:

1) Use a grinding wheel with the same radius as that of the grinding wheel used previously for grinding / finishing.
2) Perfect positioning of the grinding wheel so that it copies the shape previously created.
3) The grinding wheel must maintain minimum contact with the material. The amount of material removed should not exceed 1/100 of mm (0,00004 inches).
4) Cooling water must be clean. Suspended dust resulting from the operations previously performed may damage the diamond rib.
5) The grinding wheel operating cycle is the following: 400 grain, 800 grain, 1500 grain, 1800 grain, 3500 grain.

THE PASSAGE FROM A GRAIN TO ANOTHER SHALL BE GRADUAL AND COMPLY WITH THE RECOMMENDED PROCEDURE.

4.6 Performing Jolly cuts (mitering 45°) and bevelling

Removal phase

Suitable for Jolly cutting (mitering 45°) and bevelling

1) Adjust the position of the grinding wheel according to the quantity of material to remove.
2) If the material is very hard or thick, repeat the shaping in 2 or 3 passes.
3) Use of the grinding wheel in fixed position can lead to uneven wear of the diamond rib and streaking on its surface. To prevent this inconvenience occurring, change the position of the grinding wheel.

4.7 Grinding edges

Removal / Grinding phase

Suitable for removing / grinding edges up to 30 mm (1 3/16") thick.

1) Adjust the position of the grinding wheel according to the quantity of material to remove.
2) If the material is very hard or thick, repeat the shaping in 2 or 3 passes.
3) Use of the grinding wheel in fixed position can lead to uneven wear of the diamond rib and streaking on its surface. To prevent this inconvenience occurring, change the position of the grinding wheel.

Finishing phase

Suitable for finishing edges up to 30 mm (1 3/16") thick.

To finish the edge previously machined with the grinding wheel for removal:

1) Fit the 100 grain diamond belt on the rubber expander.
2) Adjust the position of the belt to obtain minimal contact with the edge.
3) The amount of material removed should not exceed 2/10 of mm (0,008 inches).
4) Use of the belt in fixed position can lead to uneven wear of the diamond rib and streaking on its surface. To prevent this inconvenience occurring, change the position of the belt.

Polishing phase

Suitable for polishing edges up to 30 mm (1 3/16") thick.

BEFORE POLISHING, IT IS ESSENTIAL TO PERFORM THE GRIND-ING/POLISHING OPERATIONS.

To keep the belt in good working order:

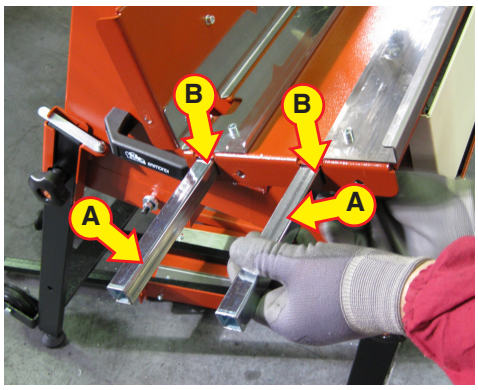
1) Adjust the position of the diamond belt for complete (but minimal) contact with the edge.
2) The amount of material removed should not exceed 1/100 of mm (0,00004 inches).
3) Cooling water must be clean. Suspended dust resulting from the operations previously performed may damage the diamond belt.
4) The belt operating cycle is the following: 400 grain; 800 grain.
5) Final polishing with a 800 grain belt can only be performed after pre-polishing with a 400 grain belt.
6) Use of the belt in fixed position can lead to uneven wear of the diamond rib and streaking on its surface. To prevent this inconvenience occurring, change the position of the belt *(see paragraph "4.2 Adjusting the 45° grinding wheel for jolly cuts/ bevelling")*.

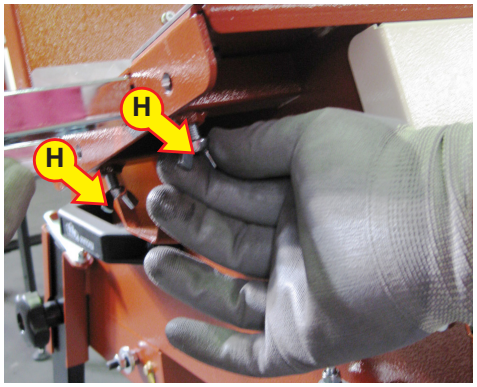
4.8 Combination of different machines

The Bulldog ADV series was conceived to be modular and to combine different machines belonging to the same series or to the BiBulldog series.

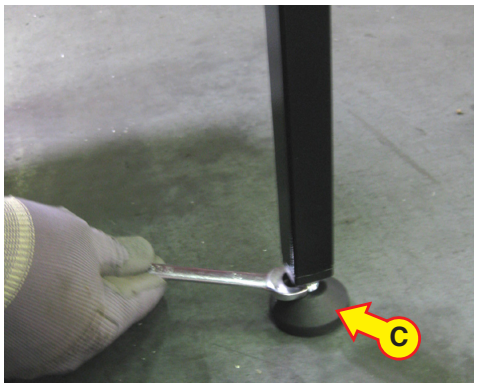
FOR THIS OPERATION THE JUNCTION ACCESSORY *IS NECESSARY (see chapter optional accessories).*

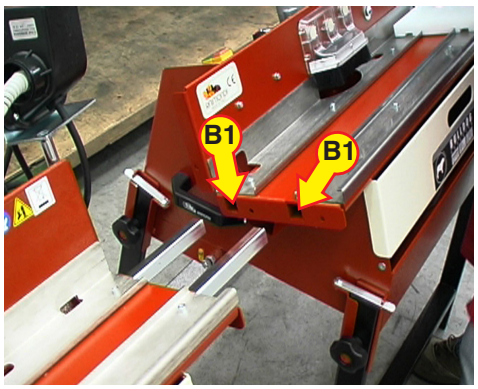
To combine one or more machines comply with the following:

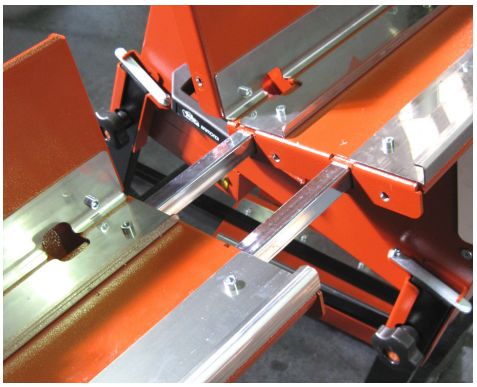




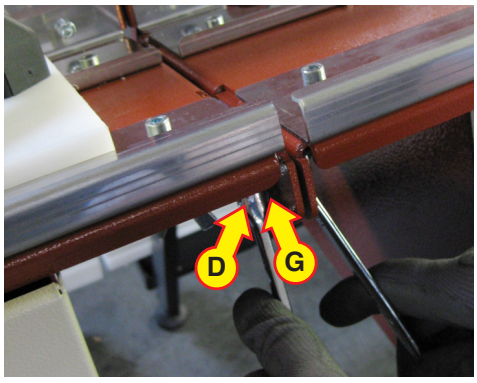
Remove any extension. Fit the tubular junctions (**A**) into a machine through the relevant slots (**B**) making them project of 10 cm (4”). Block the tubular junctions by means of wing nuts (**H**).

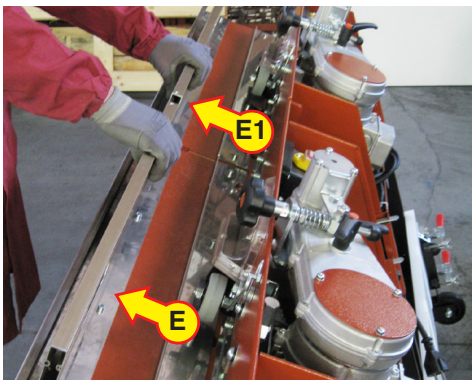


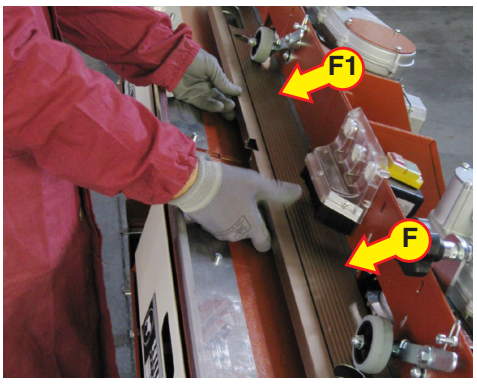




Approachthe two machines and by means of the adjustable feet (**C**) make them reach the same height until the two previously-inserted tubular junctions(**A**) are in line with the slots (**B1**) of the second machine. Fit the second machine into the two previously mounted tubular junctions ofthe former machine, until both frames come into contact.







Insert the junction bolts (**D**) in the holes (**G**) screw the nuts without tightening them completely.
By means of an aluminium rule check the planarity of the tables (**E -E1**) and of sides of the 2 machines (**F-F1**); perfect the alignment using the adjustable feet. Make sure the trolley slides properly in both directions. Tighten the junction bolts (**D**) and make sure the alignment of the two machines has not altered. Then tighten the wing nuts. (**G**).
Reassemble any extension *(see chapter 6.2 Extensions for the sliding surface).*

5.1 Cleaning the machine

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

NEVER USE BLASTS OF WATER. INSTEAD USE A DAMP SPONGE. KEEP THE CARRIAGE GUIDE CLEAN (DO NOT USE GREASE).

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

Lubrication

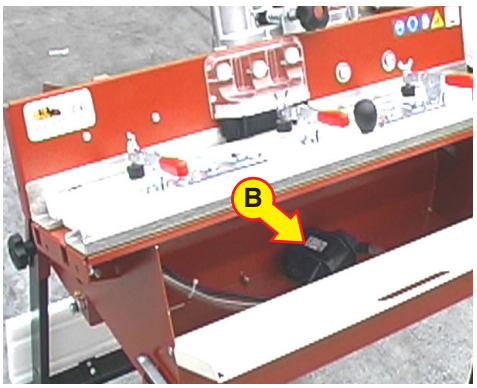
Grease, on a regular basis:
- *The grinding wheel holder in the point where the flange/chuck come into contact.*
- *the vertical adjustment guide.*

5.2 Tank emptying and cleaning

Place a bucket underneath the tank, close to the drain hole. Remove the plug (**A**) and let dirty water outflow. Remove the

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

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



pump (**B**) from the tank. Then clean the tank thoroughly.

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

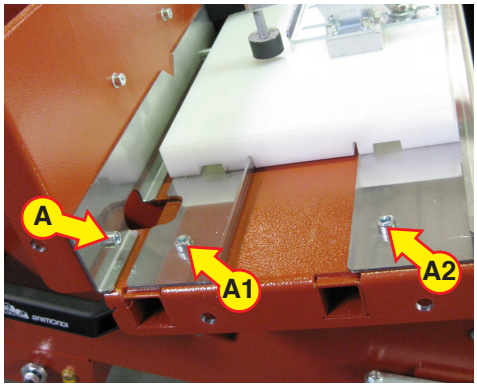
FOR A CORRECT OPERATION OF THE PUMP, WATER SHALL BE KEPT CLEAN.

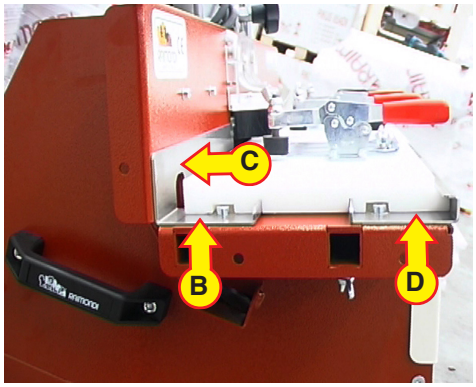
UPON EACH TANK WATER CHANGE, CLEAN THE FILTER AND THE PUMP ROTOR.

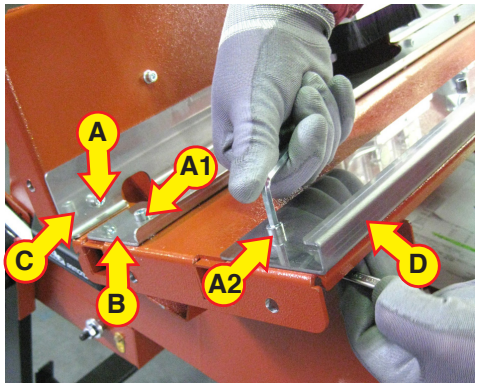
5.3 Sliding device replacement

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

In case the sliding guides wear out, comply with the following:





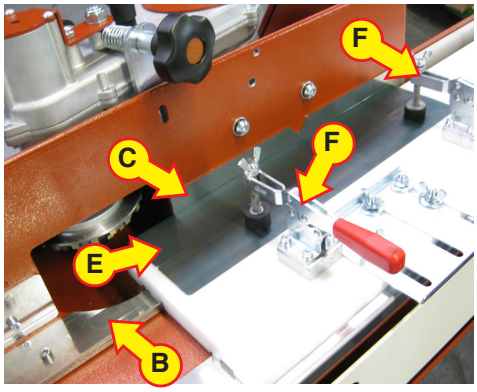


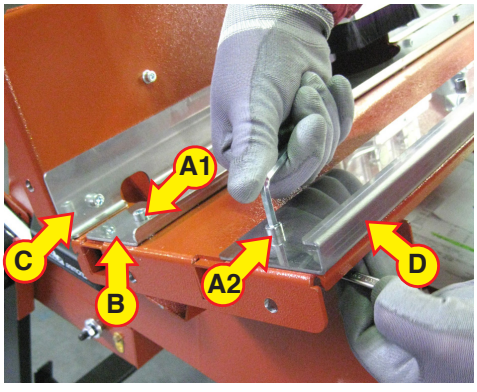
Unscrew all the (**A**) (**A1**) and (**A2**) screws. Remove the guides (**B**) (**C**) (**D**). Clean thoroughly the machine surfaces. Position the new guide (**B**), push it towards the tool and tighten the screws, but not completely (**A1**). Place the new guide (**C**) so that it adheres to the surface and fix it, clamping the screws completely (**A**). Then position the guide (**D**) and tighten the screws, but not firmly (**A2**).

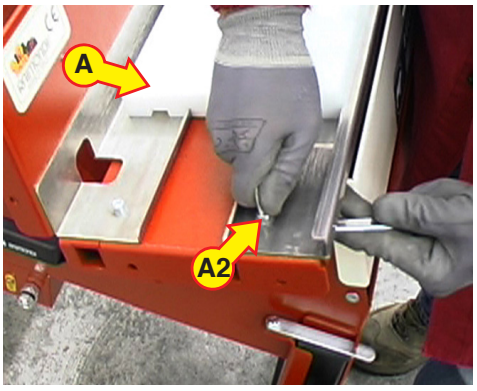
5.3.1 Adjusting the sliding device

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

If you notice that the carriage features excessive clearance, proceed as follows:







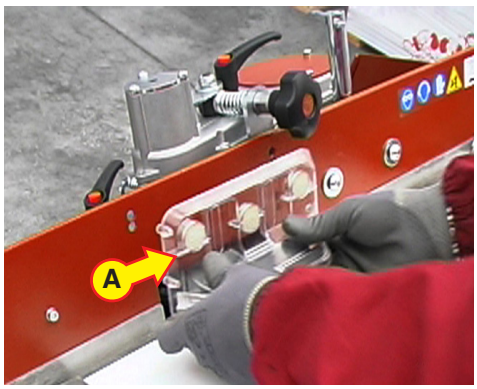
Insert the trolley (**A**) on the guides. Position the striker (**E**) on the trolley surface and after checking it is leaning on the guide (**C**) tighten it with the clamps (**F**). Make the trolley slide and perfect the guide position (**B**) so that the striker (**E**) keeps touching the guide (**C**). Once the right position is found, firmly tighten the screws (**A1**), the ones at the guide end first and then the central two. Push the guide (**D**) towards the trolley edge, leaving room (0,5 mm / 0,02 inches) between the guide and the trolley edge. Firmly tighten the screws (**A2**), the ones on the guide end first and then the central two. Check the correct assembly by making the trolley slide completely (**A**). If the trolley doesn't slide properly, slightly slacken the screws (**A2**) and repeat the above-described operations.

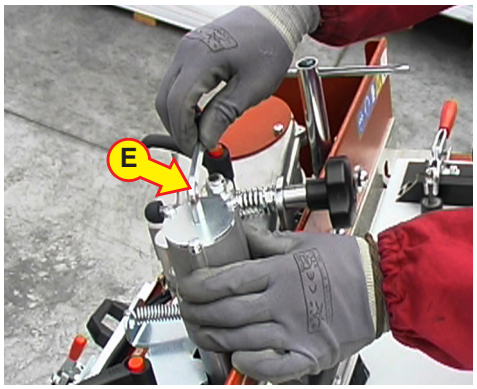
GUIDE ADJUSTMENTS MUST BE MADE ON THE EXTERNAL GUIDE ONLY.

5.4 Replacing the grinding wheel

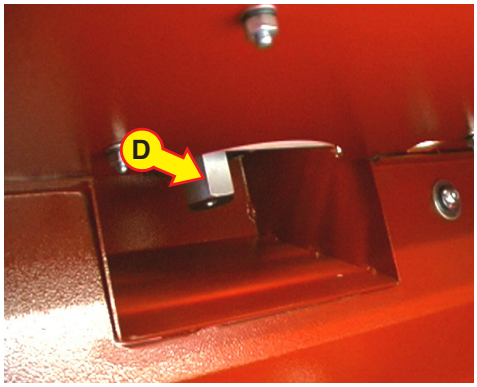
TO CARRY OUT THIS OPERATION, MAKE SURE THE MACHINE IS NOT CONNECTED TO THE MAINS.

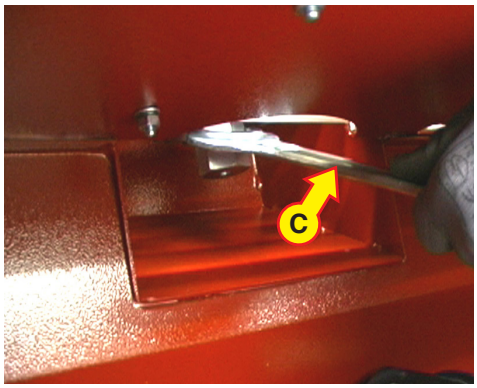
TO CARRY OUT THIS OPERATION, WEAR THE PROTECTIVE GLOVES AND ACCIDENT-PREVENTION SHOES.





Remove the plastic spray guard (**A**). Open the tank door (**B**). Insert the B8 hexagon wrench stem (**E**) in the relevant seat, manually turning the grinding wheel to help the clutch.

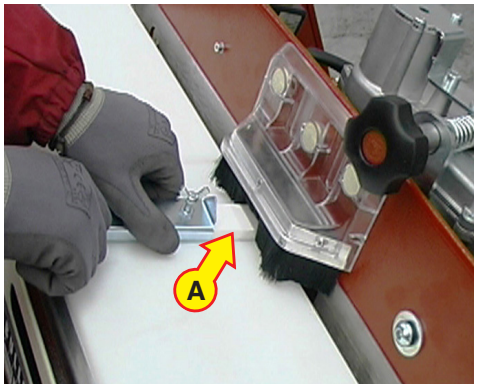


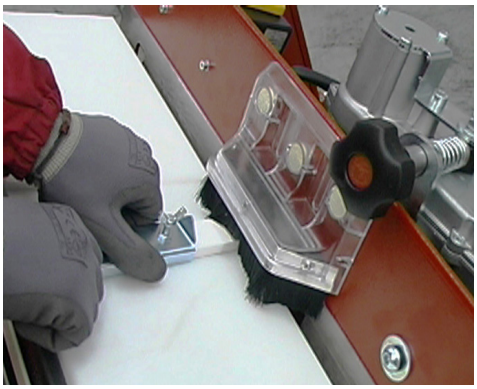


Using a size 30 wrench (**C**), undo the grinding wheel fixing nut (**D**) by turning it clockwise. Fit the new grinding wheel and lock it in place by turning the nut (**D**) counter-clockwise. Remove the B8 hexagon wrench (**E**). Try turning the cutter by hand to make sure it has been correctly fitted. Refit the spray guard (**A**).

5.4.1 Sharpening the grinding wheel

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





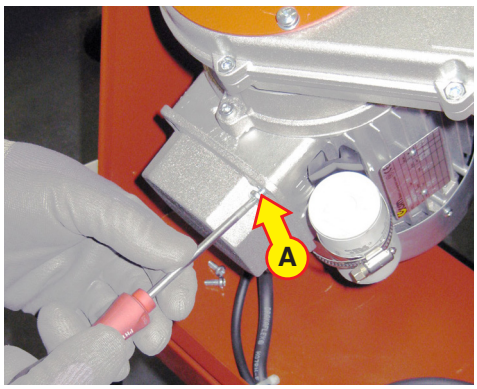
Position the spray guard so that the brushes are in contact with the carriage table. Turn the machine on and wait for cooling water to reach the grinding wheel. Insert the sharpening stone in the stone holder. Hold the sharpening stone (**A**) against the grinding wheel. Hold it down whilst turning it alternately rightwards and leftwards. This operation must be repeated until the grinding wheel is sharp again.

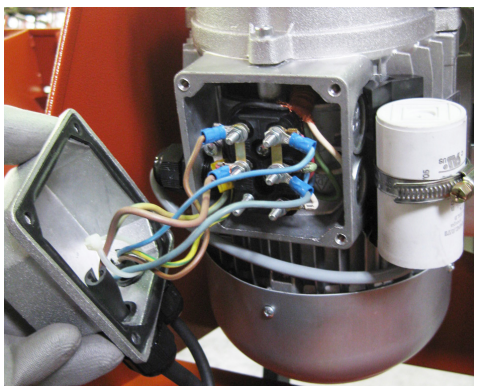
NEVER USE THE SHARPENING STONE WITHOUT THE RELATIVE HOLDER.

5.5 Starter replacement

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

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





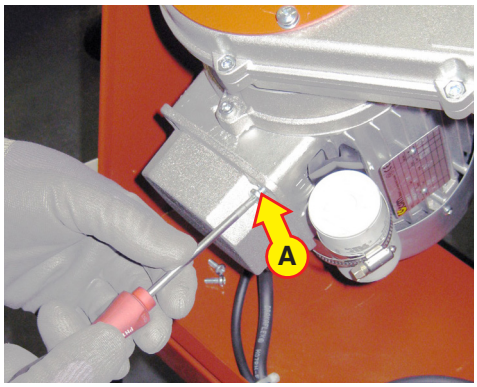
To remove the starter, unscrew the 2 fixing screws. Unscrew the screws of the motor terminal board cover (**A**) and disconnect the connecting cables. Assemble the new starter, restoring the connections in the motor terminal board and paying attention not to crush the wires.

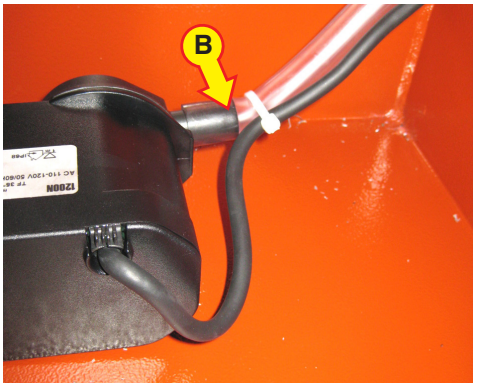
MAKE SURE THE STARTER VOLTAGE CORRESPONDS TO THE MACHINE SUPPLY VOLTAGE.

5.6 Recycle pump replacement

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

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





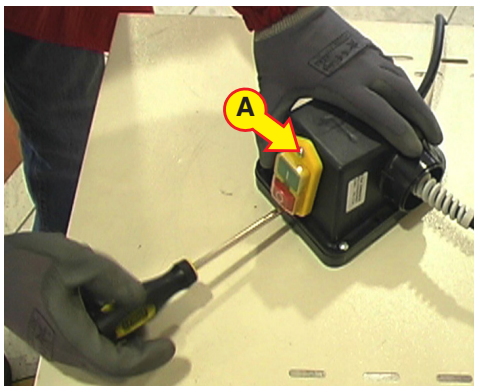
Empty the tank. Open the terminal block cover of the main electric motor (**A**). Unplug the pump's power supply cable. Disconnect the water delivery hoses (**B**). Replace the damaged pump with a new one, and restore connections. Close the terminal board cover, paying attention not to crush the wires. Reconnect the delivery hoses.

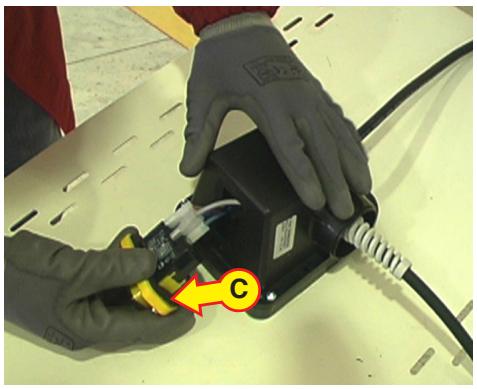
AFTER THE REPLACEMENT, MAKE SURE THE CONNECTIONS IN THE TERMINAL BOARD HAVE BEEN MADE CORRECTLY.

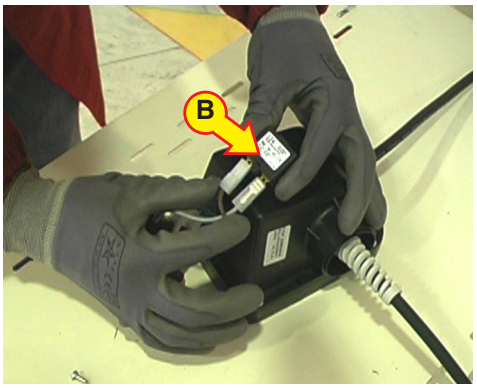
5.7 Starter or thermal relay replacement

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

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





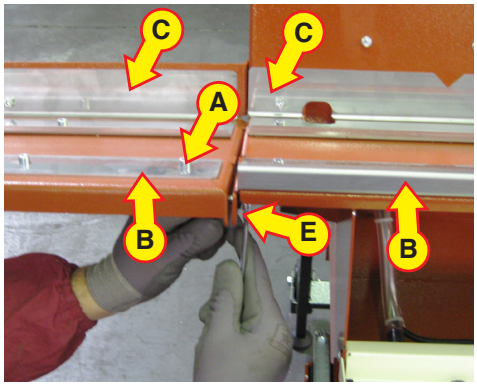


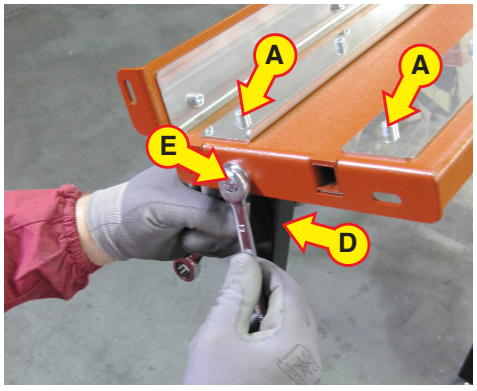
Remove the starting device unscrewing the fixing screws (**A**). Disconnect the electric cables and replace the on/off switch or the damaged thermal relay (**B**). Reconnect the cables and tighten with the previously removed screws.
Make sure the seal gasket (**C**) is not damaged. Replace it if needed.

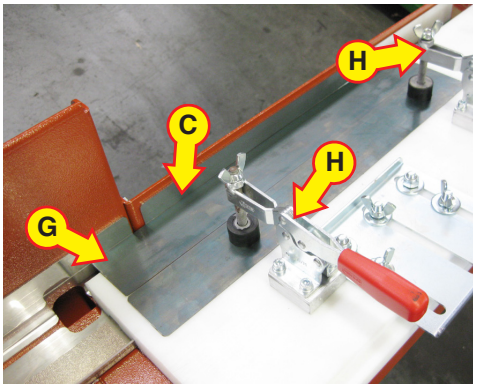
6.1 OPTIONAL ACCESSORIES

6.2 Extension for the sliding surface

The 2 extensions for the sliding surface allow to have a firmer work bench at both infeed and outdeed improving the linearity on long sizes and favouring the material loading and unloading operations.







Remove the trolley from the machine. Approach the extensions to the frame, insert the screws (**A**) in their seats and tighten the relevant nuts, but not completely. Assemble on the extensions the supporting legs (**D**) and completely tighten the screws (**E**). To find the planarity between the machine plane and the extension plane, use a rule and act on the adjustable feet. Insert the trolley on the guides. Position the striker (**G**) on the trolley bench and after verifying it is resting on the machine guide (**C**), tighten it with the clamps (**H**). Perfect the extension position so that, by making the trolley slide, the striker (**G**) keeps touching the machine and the extension guides (**C**). Once the right position is found, tighten the screws completely (**A**). Check the correct assembly by making the trolley slide completely. If the trolley doesn't slide properly, slacken the screws (**A**) and repeat the above-described operations.

6.3 Tubular junction

This tool is used to combine 2 machines, as previously illustrated in chapter 4.8.

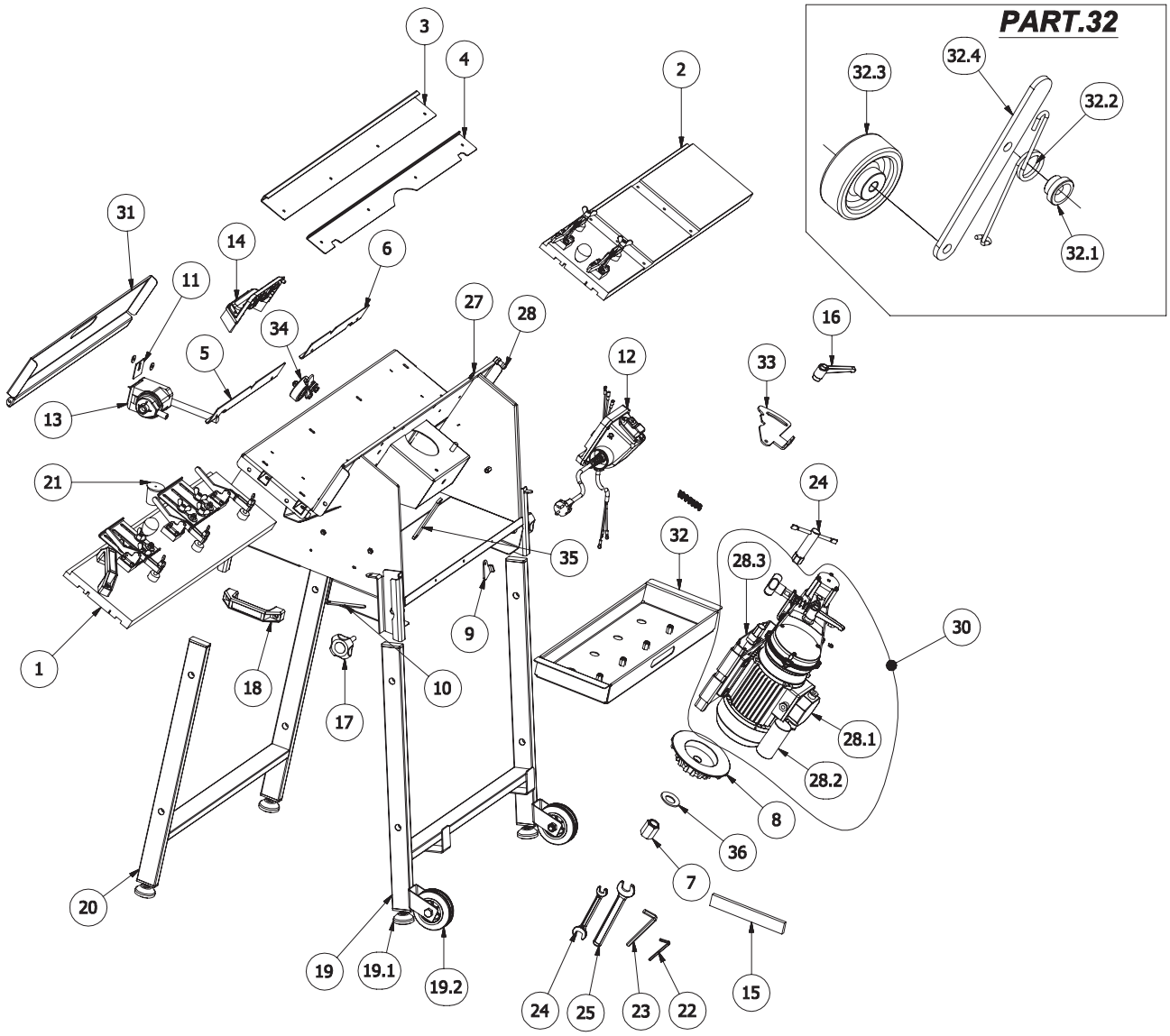
7.1 Trouble-shooting

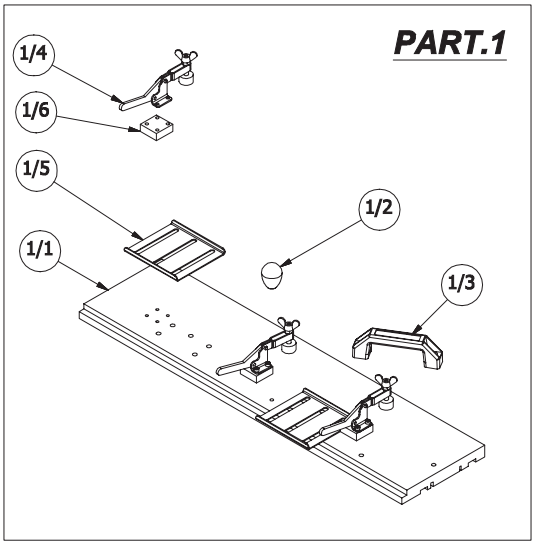
Problem	*Cause*	*Solutions*
The machine does not work	The plug is not correctly inserted in the power socket.	Push the plug completely into the power socket.
	Power socket undervoltage	Check the socket amperage. (Amp.).
	The power supply cable is interrupted.	Check the connection in the terminal board. Replace the power supply cable.
	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 grinding wheel does not turn	The belt is broken or water has got into the drive.	Contact the authorized technical service centre or the retailer.
	Grinding wheel incorrect assembly.	Check correct grinding wheel blocking.
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 grinding wheel	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 tap is clogged.	Clean or replace the tap.
	The water recycle hose is bended or clogged.	Disconnect the water delivery hose from the pump 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 trolley sliding	The guides are not aligned properly.	See paragraph ***"Trolley adjustment".***
The grinding wheel does not cut "Grinding wheel sharpening"	Worn grinding wheel.	Dress the diamond rim, see paragraph.
	Unfit grinding wheel.	Assemble suitable grinding wheel, see paragraph ***"Recommended grinding wheel".***

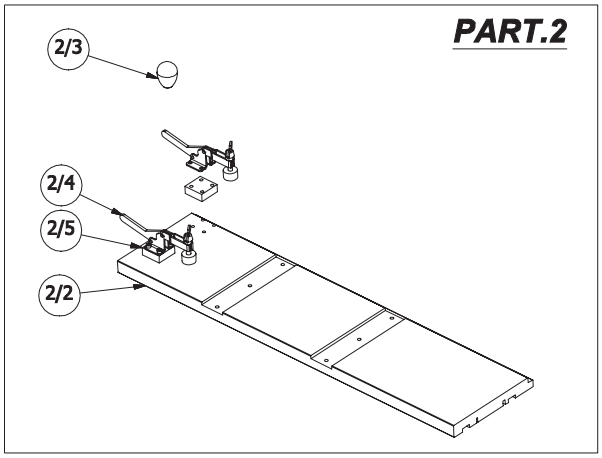
Spare parts and electric diagram

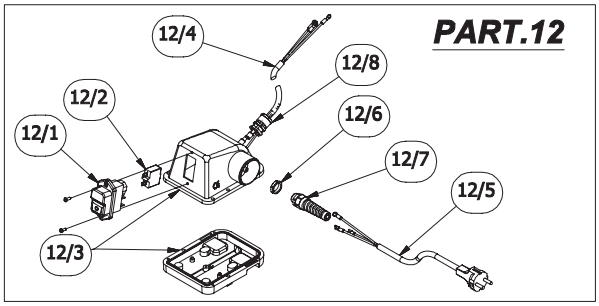
8.1 Spare parts

ITEM	ART. CODE	DESCRIPTION
1	039CA03A1	TROLLEY FOR <80X12 CM (31 1/2" x 4 22/32") SIZES
1/1	256LA06D1	TROLLEY PLANE
1/2	305PF01C	OVAL KNOB
1/3	306IP03C	IHANDLE
1/4	427BLOCOM	TILE STOPPING DEVICE
1/5	427LA12D1	ANTISKID STOP
1/6	202SP02D	DESTAKO SHIM
2	039CA04A1	TROLLEY FOR SIZES EXCEEDING >80X12 CM (31 1/2" x 4 22/32")
2/2	256LA07D1	TROLLEY PLANE
2/3	305PF01C	OVAL KNOB
2/4	427BLOCOM	TILE STOPPING DEVICE
2/5	202SP02D	DESTAKO SHIM
3	114TO04D3	INOX “C” SLIDING GUIDE
4	114TO05D3	INOX SLIDING GUIDE/SLIDE
5	114TO05D3DX	INOX LL 377 RIGHT SLIDE
6	114TO05D3SX	INOX LL 322 LEFT SLIDE
7	129DE03D	LEFT HEXAGONAL NUT
8	179BULL10	GRINDING WHEEL SECTORS Ø120(4 22/32") F20(25/32") 1/2 BULL R.10MM (3/8")
9	202FC01D	DRAWERLOCK
10	202FG02D	LEGS STOP
11	202PP03D	PUMP HOLDER
12	235BU04A	230V 50HZ TR.12A STARTER
12	235BU05A	110V 50/60HZ TR.20A STARTER
12	235BU06A	230V 60HZ TR.15A STARTER
12/1	234MD01C	16A 230V 50/60HZ MICRO CIRCUIT-BREAKER NO THERMAL RELAY
12/1	234MT01A	230V C MICRO CIRCUIT-BREAKER WITH 15A THERMAL RELAY
12/1	234MT04A	115V C MICRO CIRCUIT-BREAKER WITH 20A THERMAL RELAY
12/2	234TR06C	12A THERMAL RELAY
12/3	246PM03D	MICRO CIRCUIT-BREAKER HOLDER + BASE
12/4	312N301C	3X1.5 NEOPRENE CABLE
12/5	312SK01D	NEOPRENE CABLE WITH “EU” PLUG
12/5	312US01D	NEOPRENE CABLE WITH “USA” PLUG
12/6	320GH04C	BS11 CABLE GLAND RING NUT
12/7	320PS01C	BS11 CABLE GLAND RING NUT
12/8	320PR01C	PG11 CABLE GLAND WITH RING NUT
13	240	230V 50HZ SUBMERSIBLE PUMP
13	240422	230V 60HZ SUBMERSIBLE PUMP
13	240110	110V 50/60HZ SUBMERSIBLE PUMP
14	263LX01A1	CUTTER PROTECTION
15	288L	DIAMOND DRESSING STONE
16	305MR16C	RETRACTABLE HANDLE
17	305PM35C	KNOB
18	306IP03C	HANDLE
19	311SI05A	“H” LEG WITH WHEELS
19.1	379PIE03C	ADJUSTABLE FOOT
19.2	315CB05C	RUBBER WHEEL
20	311SI05A1	“H” LEG WITHOUT WHEELS









ITEM	ART. CODE	DESCRIPTION
21	322CN03C	CONICAL PLUG
22	323BR03C	ALLEN WRENCH 5
23	323BR05C	ALLEN WRENCH 8
24	323CH01C	13/17 SOCKET GALVANIZED WRENCH
25	323CH20C	CH 30 WRENCH
26	323TU19C	SOCKET WRENCH19
27	324DA01C	1/4” GAS NUT
28	324PG02C	RUBBER COUPLER Ø12 1/4” GAS
29	325VT01D1	FRAME TANK
30	427GR	BULL ADV/BI-BULL MOTOR GROUP
30.1	297IN86D	MOT.1.1KW 1,5HP 230V 50/60HZ
30.1	297IN86D60H	MOT.1.1KW 1,5HP 230V 60HZ
30.1	297IN86D/110	MOT.1.1KW 1,5HP 110V 50/60HZ
30.2	2871601C	16MF (230 V 50/60HZ) CAPACITOR
30.2	2878001C	80MF (110 V 50/60HZ) CAPACITOR
30.3	114TO01D	SLIDING LIFT GUIDE
31	427LA05D1	DOOR
32	427LA13D1	CUTTERS DRAWER
32.1	310BS02D	HEAD
32.2	314TO03D	TORSION SPRING
32.3	315CB07C	WHEEL
32.4	377PR03D	WHEEL HOLDER
33	427LA15D	MANDREL STOP
34	427PRE01A	PRESSING DEVICE
35	428LA07D	MOTOR GROUP FIXING BRACKET
36	900ROND50T	GRINDING WHEEL STOP BELLEVILLE WASHER

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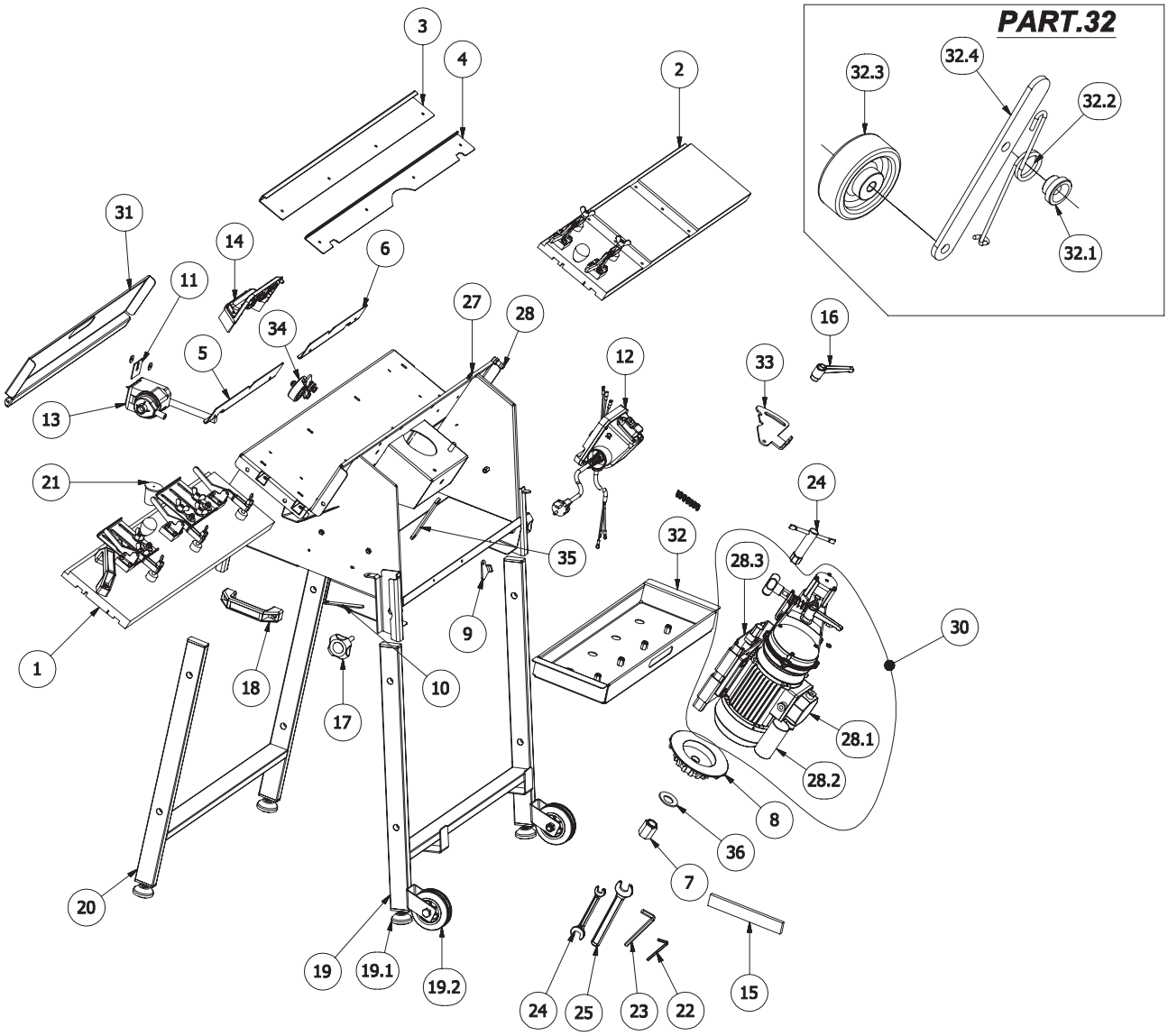
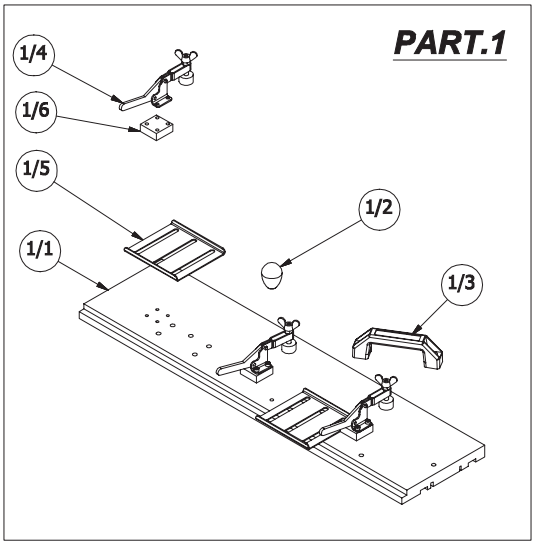
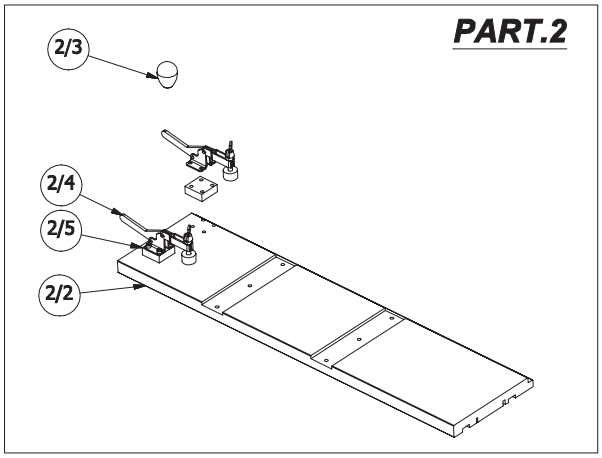
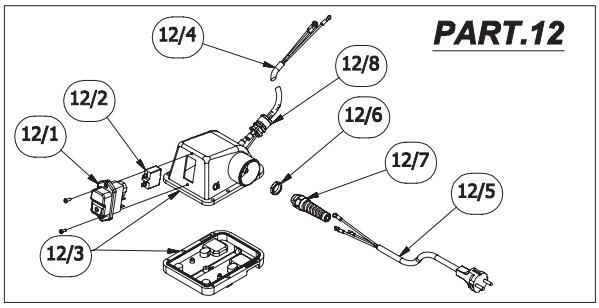
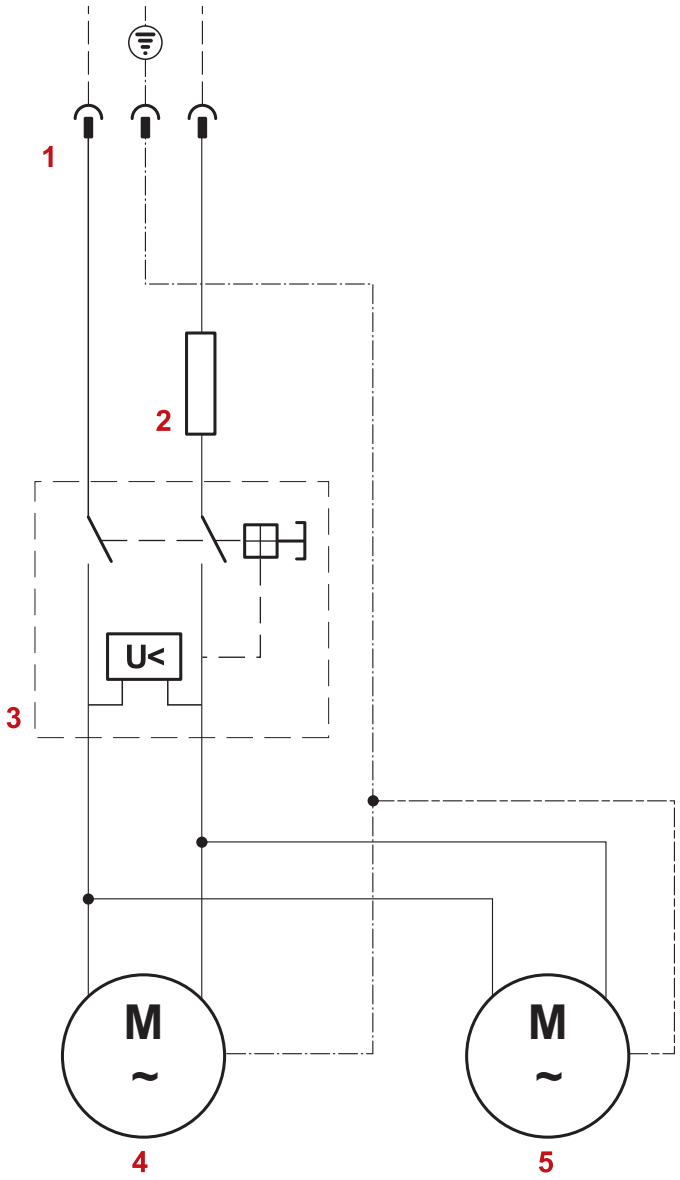








8.2 Electric diagram



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.

RAIMONDI WARRANTY

Raimondi electrical machines for professional use satisfy the highest qualitative requirements.
For this reason Raimondi guarantees that your product is free from manufacturing faults.

Warranty Clauses

1. The device is guaranteed for a period of 12 months from the date of purchase.
2. The date indicated on the official receipt or invoice released at the delivery of the device by the seller is valid as date of purchase.
3. The warranty refers to the replacement or free repair of components acknowledged to be faulty due to manufacturing defects.
4. The complete replacement of the product is not provided for.
5. The replacement of components if carried out by the seller will be recognised free after the replaced components will be returned to our place to be examined and found faulty. The costs of labour are not included in the warranty.
6. All transport costs are at the expense of the buyer.
7. The parts subjected to wear are excluded from the warranty. Damages caused by negligence, improper use and installation and any event not dependent from the normal operation of the device.
8. The warranty expires if the devices has been tampered with or repaired by not authorized personnel.
9. The possible repairing intervention under warranty does not imply the extension of the original duration terms of the product warranty.
10. Nobody is authorized to modify the warranty terms or release other warranties, spoken or written, without the written authorization of RAIMONDI S.p.A.
11. The compensation of direct or indirect damages of any nature to people or things for the use or the suspension of use of the device is excluded.
12. Outside the Italian territory and where official importers are present the implementation of the after-sales service falls within the competence of the importers mentioned above.

REGISTER YOUR DEVICE

Raimondi machines are guaranteed for a period of 12 months from the date of purchase.
By registering your Raimondi machinery you will receive a rapid and efficient assistance service. And the advantages do not end here!

How do you register?

Register your own Raimondi device is very easy.

Go to the specific page of the website by scanning the QR CODE on the side with your smartphone or go to the site:
www.raimondispa.com/en/warranty-registration

You will find a simple form to compile where you will be asked few essential data to identify your device.

Thanks for choosing Raimondi