



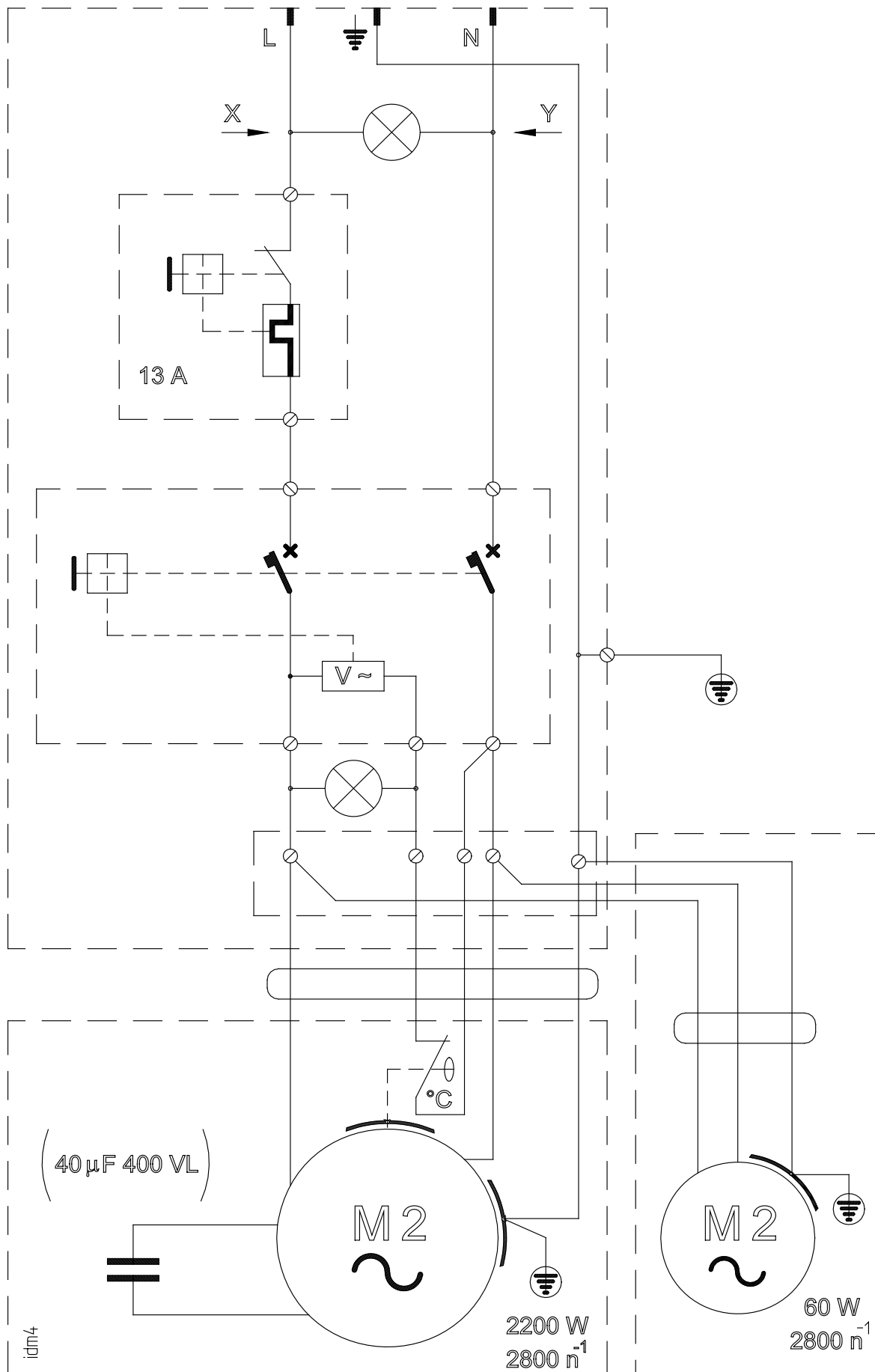
**Operating Instructions  
Masonry saws**

# P-3500



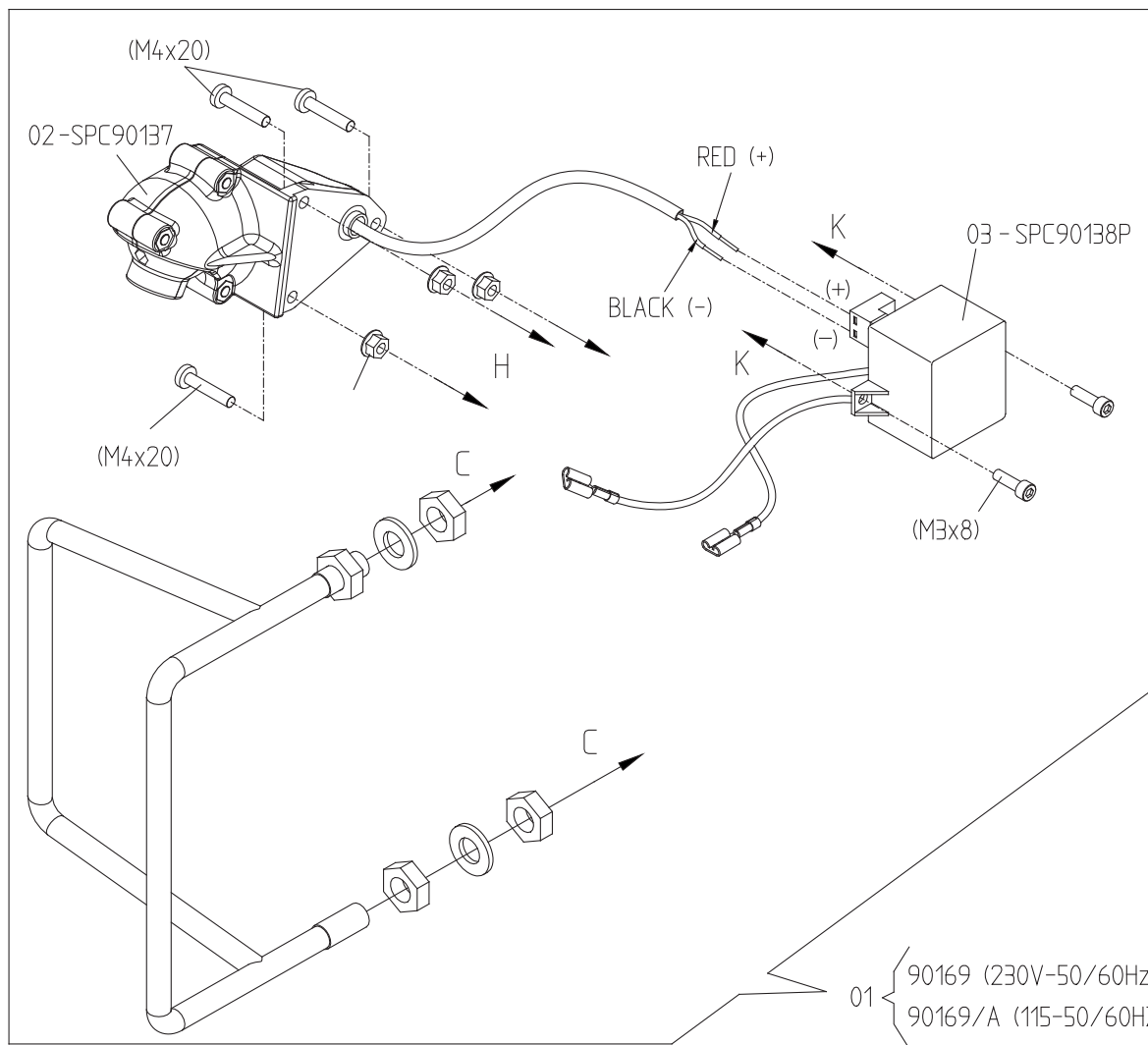
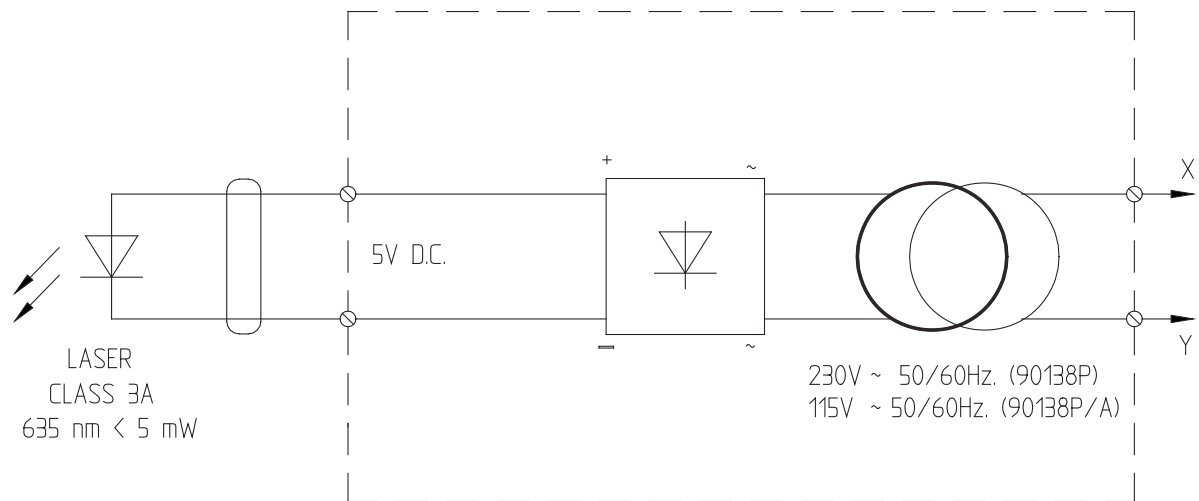
**CARAT<sup>®</sup>**

230V ~ 50Hz









C sp\_v3

<b>I</b>	<b>GB</b>	<b>F</b>	<b>D</b>
<b>DICHIARAZIONE CE DI CONFORMITÀ</b>	<b>EC DECLARATION OF CONFORMITY</b>	<b>DECLARATION CE DE CONFORMITE</b>	<b>EG-KONFORMITÄTSERKLÄRUNG</b>
Il sottoscritto, rappresentante il seguente costruttore	The undersigned, representing the following manufacturer	Le soussigné, représentant le constructeur ci-après	Der Unterzeichner, der den nachstehenden Hersteller vertritt
<b>Carat Nederland BV</b> <b>Nikkelstraat 18, - 4823 AB Breda</b> <b>The Netherlands</b>			
dichiara qui di seguito che la taglierina da cantiere per ceramica, monocottura, marmo, granito, laterizi, manufatti in cemento e simili	herewith declares that the masonry saws for ceramics, marble, granite, bricks, concrete items and similar materials	déclare par la présente que la scie sur table de chantier pour matériaux céramiques, marbre, granit, briques, ouvrages en béton et similaires	erklärt hiermit, daß die Schneidemaschine für die Baustelle, das sich für Schneidarbeiten auf Keramik, Marmor, Granit, Ziegel, Zementerzeugnissen, usw. eignet
<b>BP35060000, BP35080000, BP35100000, BP35120000, BP35150000</b> <b>230 V ~ 50 Hz 2200 W</b> <b>S6 40% 2800 min<sup>-1</sup></b> <b>MOTOR CLASS F</b>			
risulta in conformità a quanto previsto dalle seguenti direttive comunitarie: DIRETTIVA 2006/42/CE, DIRETTIVA 2006/95/CE, DIRETTIVA 2004/108/CE, DIRETTIVA 2002/96/CE. e che sono state applicate tutte le norme e/o specifiche tecniche indicate.	is in conformity with the provisions of the following EC directives: DIRECTIVE 2006/42/EC, 2006/95/EC, 2004/108/EC, 2002/96/EC and that the standards and/or technical specifications referenced have been applied.	est conforme aux dispositions des directives CE suivantes: DIRECTIVE 2006/42/CE, DIRECTIVE 2006/95/CE, DIRECTIVE 2004/108/CE, DIRECTIVE 2002/96/CE. et que les normes et/ou spécifications techniques ont été appliquées.	in Übereinstimmung ist mit den Bestimmungen der nachstehenden EG-Richtlinien: EG RICHTLINIE 2006/42, EG RICHTLINIE 2006/95, EG RICHTLINIE 2004/108, EG RICHTLINIE 2002/96. und daß die Normen und/oder technischen Spezifikationen, zur Anwendung gelangt sind.
<b>EN ISO 12100-1, EN ISO 12100-2, EN ISO 14121-1, EN 61029-1, EN 60335-1, EN 60335-2-41, EN 12418, IEC 1029-2-7, EN 55014-1, EN 55014-2, EN 610006-1, EN 610006-3, EN 610006-4-2, EN 610006-4-4, EN 610006-4-5, EN 610006-4-6</b>			
Data di costruzione	N° di Serie:	Date de fabrication	Produktionsdatum
Serien N.		Seriennummer	
Direttore Generale Kees van Beek	General Manager Kees van Beek	Le Directeur Général Kees van Beek	Der Generaldirektor Kees van Beek



<b>E</b>	<b>NL</b>	<b>DK</b>	<b>P</b>
<b>DECLARACIÓN DE CONFORMIDAD CE</b>	<b>EG-VERKLARING VAN OVEREENSTEMMING</b>	<b>EF OVERENSSTEMMELSESERKLÆRING</b>	<b>DECLARAÇÃO CE DE CONFORMIDADE</b>
El abajo firmante, en representación de	Ondergetekende, vertegenwoordiger van de volgende fabrikant	Undertegnede, der repræsenterer følgende fabrikant	O abaixo assinado, em representação do seguinte fabricante
<p align="center"><b>Carat Nederland BV</b>  Nikkelstraat 18, - 4823 AB Breda  The Netherlands</p>			
declara que la cortadora para obra adecuado para trabajos de corte de cerámica, mármol, granito, ladrillos, manufacturas de cemento y similares	verklaart hiermee dat de professionele steenzaagmachine voor het verzagen van keramiek, marmer, graniet, bouwmaterialen, cement en dergelijke,	erklærer hermed at den professionelle skæremaskine egnet til skæring af keramik, marmor, granit, mursten, cementkonstruktioner og lignende	pela presente declara que a serra circular para obras adequado para trabalhos de corte em cerâmica, mármore, granito, tijolos, artefactos de cimento e semelhantes
<p align="center"><b>BP35060000, BP35080000, BP35100000, BP35120000, BP35150000</b>  230 V ~ 50 Hz 2200 W  S6 40% 2800 min<sup>-1</sup>  MOTOR CLASS F</p>			
es conforme con las disposiciones de las siguientes directivas CE: DIRECTIVA 2006/42/CE, DIRECTIVA 2006/95/CE, DIRECTIVA 2004/108/CE, DIRECTIVA 2002/96/CE y que se han aplicado las normas y/o especificaciones técnicas referenciadas.	voldoet aan de bepalingen van de volgende EG-richtlijnen: RICHTLIJN 2006/42/EEG, RICHTLIJN 2006/95/EEG, RICHTLIJN 2004/108/EEG, RICHTLIJN 2002/96/EEG en dat de aan de achterzijde vermelde normen en/of technische specificaties.	er i overensstemmelse med bestemmelserne i følgende EF direktiver: EF direktiv 2006/42, EF direktiv 2006/95, EF direktiv 2004/108, EF direktiv 2002/96 og at alle standarder og/eller tekniske specifikationer er blevet anvendt.	está em conformidade com o estabelecido nas seguintes directivas comunitárias: DIRECTIVA 2006/42/CE, DIRECTIVA 2006/95/CE, DIRECTIVA 2004/108/CE, DIRECTIVA 2002/96/CE e que foram aplicadas as normas e/ou especificações técnicas referenciadas.
<p align="center"><b>EN ISO 12100-1, EN ISO 12100-2, EN ISO 14121-1, EN 61029-1, EN 60335-1, EN 60335-2-41, EN 12418, IEC 1029-2-7, EN 55014-1, EN 55014-2, EN 610006-1, EN 610006-3, EN 610006-4-2, EN 610006-4-4, EN 610006-4-5, EN 610006-4-6</b></p>			
Fecha de fabricación	Nº de serie:	Produktiedatum	Serien - Nr.
		Fremstillingsdato	Serie N.:
Director General Kees van Beek	Algemeen Directeur Kees van Beek	Direktør Kees van Beek	Diretor Geral Kees van Beek

## “TRANSLATION OF THE ORIGINAL INSTRUCTIONS”

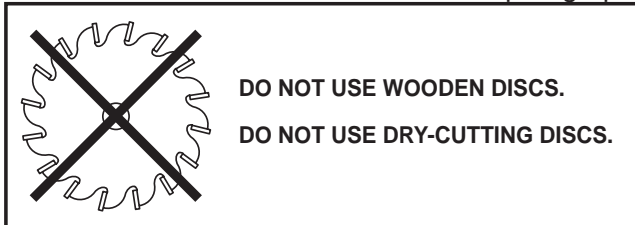
### 1. Purpose of this Manual

This manual is an integral part of the machine. It was produced by CARAT to provide those authorised to work with the machine with the information required for its foreseeable lifespan. Before starting to use this machine read the safety chapter carefully.

Each machine is subjected to a series of tests and carefully checked before leaving our factory. CARAT is constantly striving to develop their machines and therefore reserves the right to make any change without prior notice. Therefore, no claims may be made on the basis of the data and illustrations contained in this manual.

### 2. Safety information

- The manufacturer accepts no responsibility where the P-3500 cutter is used with any tools other than those specified in the “RECOMMENDED USE” paragraph.



- P-3500 is made to operate exclusively under the conditions indicated under “TYPE OF OPERATION ALLOWED”, in the “TECHNICAL DATA” paragraph.
- During cutting operations, allow the machine to rest as indicated.
- P-3500 is not made for use with a continuous load.



### CAUTION!

**DO NOT USE DIAMOND TIPPED DISCS OF LOW QUALITY OR THAT ARE NOT SUITABLE FOR THE SPECIFIC USE FOR WHICH THE MANUFACTURER SUPPLIED THEM. THE USE OF POOR QUALITY DISCS CAN HARM THE OPERATOR AND DAMAGE THE MACHINE, AS WELL AS SIGNIFICANTLY SLOWING THE WORK.**



### CAUTION!

**THE MACHINE IS NOT INTENDED FOR USE IN AN EXPLOSIVE ENVIRONMENT**



### CAUTION!

**ALWAYS USE INDIVIDUAL PROTECTION DEVICES TO REDUCE THE RISKS CAUSED BY WORK. NEVER START THE MACHINE WHEN THE CUTTING TOOL IS MOVING; WAIT FOR IT TO STOP.**

**Warning! When using electric tools, following safety precautions should always be followed to reduce the risk of fire, electric shock and personal injuries. Read and follow all these instructions before attempting to operate this product and save them with care!**

### SAVE THESE INSTRUCTIONS WITH CARE.

#### Keep your work area perfectly clean

- Cluttered areas invite injuries.

#### Consider work area environment

- Don't expose tools to rain.
- Don't use tools in damp or wet locations. Keep work area well lit.
- Don't use tools in presence of flammable liquids or gases.

#### Guard against electric shocks

- Prevent body contact with grounded surfaces.

#### Keep children away!

- Do not let third parties contact tool or extension cord. All visitors should be kept away from work area.

#### Store your tools in a safe place

- When not in use, tools should be stored in dry and safe places, out of the reach of children.

#### Don't force tool

- It will function better and in a safer way at the rate for which it was intended.

#### Use the right tool

- Don't use low duty tools or accessories to do the job of a heavy-duty tools. Don't use tools for purposes not intended.



**Dress properly**

- Rubber gloves and non-skid footwear are recommended when working outdoors. Wear protective hair covering to contain long hair. Use safety glasses.
- Use a mask if working operations are dusty.

**Don't abuse cord**

- Never carry tool by cord or yank it to disconnect it from socket.
- Keep cord from heat, oil and sharp edges.

**Avoid unsteady positions**

- Be sure to work in a safe and balanced position.

**Maintain tools with care**

- Keep tools sharp and clean for better and safer performance.
- Follow all maintenance advice and instructions to replace accessories subject to wear. Inspect tool cords periodically and, if damaged, have them repaired by an authorised expert. Check extension cords periodically and replace them if damaged. Keep handles dry, clean and free from oil and grease.

**Disconnect tools**

- When not in use, before servicing, and when changing accessories subject to wear.

**Remove service keys from tool**

- Form the habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.

**Avoid unintentional starting**

- Be sure that the switch is off when plugging in the tool.

**Extension cords for outdoor works**

- When tool is used outdoors, use only extension cords intended for this particular use and so marked.

**Stay alert**

- Watch what you are doing. Use common sense. Do not operate tool when you are inattentive.

**Check tool for damaged parts**

- Before further use of the tool, check it and the safety devices for damages and be sure that they operate properly. Check for functioning and binding of moving parts, breakage of parts, correct mounting, and any other conditions that may affect the correct operation of the tool.
- Damaged safety devices or other parts should be properly repaired or replaced by an authorised Service Centre unless otherwise

indicated elsewhere in this instruction manual.

- Have defective switches replaced by an authorised Service Centre.
- Do not use tool if its switch cannot be turned on or off.

**Warning**

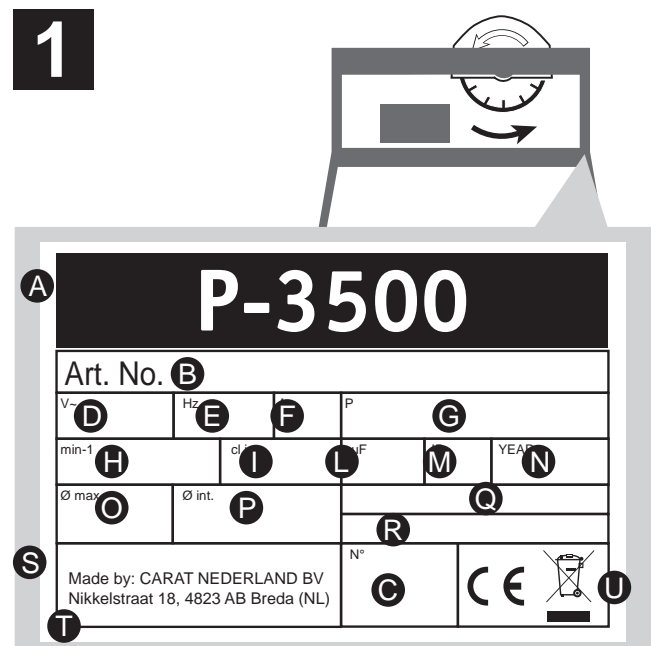
- For your personal safety use only accessories recommended in this instruction manual or in the relevant catalogues. The use of any other accessory or attachment other than those recommended in this instruction manual or in the relevant catalogue may present a risk of personal injury.

**Have tools repaired by qualified personnel**

- This electric appliance is in accordance with the safety rules in force. Only qualified experts may carry out repairing of electric appliances otherwise it may cause considerable danger for the user.

**3. Manufacturer and machine**

The nameplate shown is fitted directly on the machine. It indicates all the references and information necessary for safe operation.



A	Machine model	M	IP Level
B	Item	N	Year of manufacture
C	Serial number	O	Max tool diameter
D	Power supply voltage	P	Internal tool diameter
E	Power supply frequency	Q	Accessories
F	Current absorption	R	Accessories
G	Installed power rating	S	Manufacturer's name
H	Tool rotation speed	T	Manufacturer's name and address
I	Class of protection	U	Certification Marks
L	Starter capacitor		

#### 4. Machine description



The P-3500 site cutter is a machine intended specifically for cutting bricks, natural stone, granite, concrete items and similar materials, up to a thickness of 180 mm.

The machine uses a wet diamond tipped tool cutting system and is intended for personnel specialized in the construction sector. The operator works in front of the narrow side of the machine, within reach of the operating controls, and positions the material to be cut on the moving worktop. He/she starts the machine and moves the cutting head to bring the tool into contact with the material.

#### 5. Signs

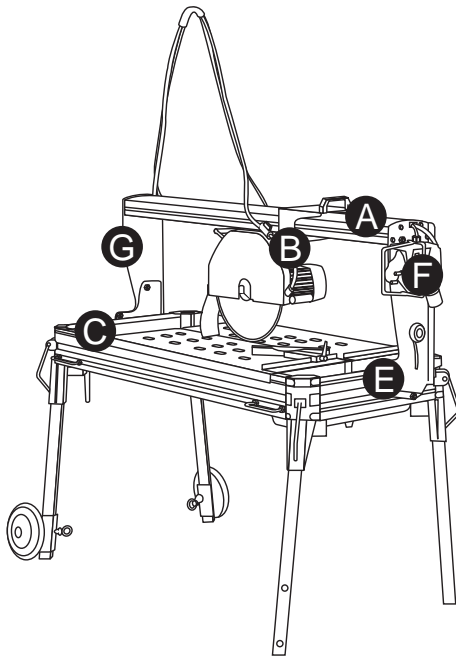
Symbols and signs:

Danger/prohibition stickers are applied to the machine where necessary. Look at these prior to using the machine.

A		<b>Use of prescribed PPE obligatory (Safety eyewear and earmuffs)</b>
A		<b>Read operating instructions before each use.</b>

A		<b>Use of prescribed PPE obligatory ( Protective Gloves )</b>
A		<b>Warning! Danger of accidental contact</b>
A		<b>Do not use discs for wood or metal</b>
A		<b>Earth connection</b>
B		<b>Do not wash with water under pressure</b>
C		<b>Recovery tank water level</b>
E		<b>Instructions</b>
F		<b>Laser Accessory Instructions</b>
F		<b>Presence energy electric</b>
B		<b>Carriage securing</b>
G		<b>Warning! Secure the carriage</b>

2



## 6. Technical data

Voltage:	230V 50Hz~
Power absorbed:	2,2 Kw
<b>Admissible working conditions:</b>	
INTERMITTENT - S6 SERVICE S6 40%	
40%	under load running
60%	loadless functioning
Rotation speed:	2800 min-1
Amperometric circuit breaker:	13 A
Thermal circuit breaker:	160°C
IP Degree:	54

### P-3506 P-3508 P-3510 P-3512 P-3515 P-3520

Weight					
75 Kg	80 Kg	83 Kg	86 Kg	92 Kg	99 Kg
Tank capacity (min/max)					
19/25Lt	21/32Lt	22/34Lt	23/35Lt	25/38Lt	40/60Lt

## RECOMMENDED USE:

### CUTTING TOOL

#### DIAMOND BLADE WET CUTTING CONTINUOUS CROWN:

ceramic, marble, stone, single-fired ceramic

#### LASER/SECTORS:

cement, natural stones, granite, abrasive materials

#### TURBO:

cement, natural stones, granite, refractory.

THE TOOL / MATERIAL TO BE CUT MATCHES  
ARE PURELY INDICATIVE.

ALWAYS FOLLOW THE INTENDED USE  
INDICATIONS PROVIDED BY THE CUTTING  
TOOL MANUFACTURER BEFORE ANY  
APPLICATION.

Max tool diameter:	Ø350 mm
Centre hole:	25,4 mm
Maximum cutting depth:	
90° cut:	110 mm
90° cut in 2 passages:	180 mm
45° cut:	80 mm

### P-3506 P-3508 P-3510 P-3512 P-3515 P-3520

Maximum cutting length					
550 mm	850 mm	1000 mm	1200 mm	1500 mm	2000mm

Water recirculation pump: S3 230V 50/60Hz

### Water recirculation pump:

P-3506	770 x 1280 x h. 1350 mm
P-3508	770 x 1580 x h. 1350 mm
P-3510	770 x 1730 x h. 1350 mm
P-3512	770 x 1930 x h. 1350 mm
P-3515	770 x 2230 x h. 1350 mm
P-3520	770 x 2710 x h. 1350 mm

The noise level of the machine has been measured  
in compliance with standards UNI EN12418,  
EN3744.

LW - SOUND POWER LEVEL = 79.8/0.0 dB(A) /  
mW(A)

LOP - SOUND POWER LEVEL AT THE  
OPERATOR POSITION= 68.5 dB(A)

LOP Max - PEAK SOUND POWER LEVEL AT THE  
OPERATOR POSITION= 80.7 dB(C)

Measurements have been performed without load  
and at maximum speed using a cutting tool with a  
diameter of 350 mm, sectors type, Art. 967.

In working conditions, the machine creates a noise  
emission above 85 dB(A).

The level of vibration transmitted to the hand-arm  
system has been measured according to standard  
UNI EN ISO 5349-1 while cutting poroton bricks.

(L 280 x W 140 x H 100 mm) using a cutting tool  
with a diameter of 350 mm, sectors type, Art. 967.

- Acceleration analysed at =1.15 m/s<sup>2</sup>  
(measurement uncertainty 0.28 m/s<sup>2</sup>)

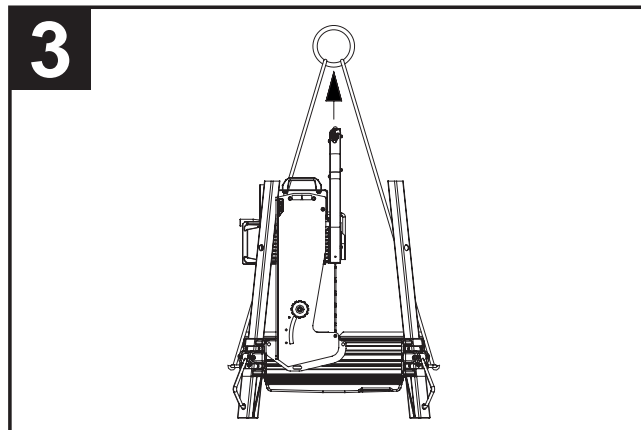
## 7. Installation

### TRANSPORT

The P-3500 machine can be easily moved by using the transport handles.

Before carrying the machine make sure that:

- the motor carriage is locked by means of the locking knob located on the slide rail;
- the legs are in transport position (see picture 9);
- the motor head is locked by means of the locking lever;
- the tube-holder rod is out of its housing.



**To move the machine, use a four-arm tie rod with the capacity to lift 200 kg or at least 20% more than the machine weight, by making use of the hooks in the transport handles (see picture 3).**

### HANDLING

By using the “transport wheels” accessory, the machine can be moved with the aid of a second person.



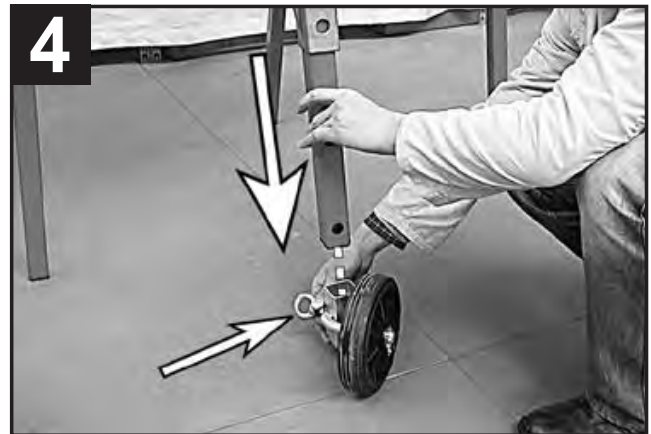
**CAUTION!**

**IN ORDER NOT TO COMPROMISE THE MACHINE STABILITY, KEEP STRICTLY TO THE FOLLOWING PROCEDURES. WITH THE AID OF A SECOND PERSON, HOLD THE MACHINE DURING THE WHEEL KIT INSTALLATION OPERATIONS.**

When the machine is in working position (See paragraph: Positioning):

- a) loosen the left leg locking pin (motor side);

- b) lift the leg and put it in the wheel support (see picture 4);
- c) lock the leg with the relative locking pin;
- d) tighten the wheel support setscrew (see picture 4);
- e) repeat the operation for the right wheel.



**CAUTION!**

**IN ORDER TO FACILITATE THE P-3500 MACHINE MOVEMENT IN THE YARD, WE RECOMMEND LOWERING IT UNTIL THE LOWERED POSITION WITH THE AID OF A SECOND PERSON AS DESCRIBED BELOW:**

- a) loosen the leg locking pins on the front side, one at a time, holding the machine from the transport handles;
- b) lower the machine front side, making the legs slide inside the supports until the leg middle hole matches the hole of the supports (see picture 5);
- c) lock the legs by means of the relevant leg locking pins;
- d) repeat the operations indicated in points (a), (b), (c) for the rear side.



**MOVE THE MACHINE AS INDICATED IN PICTURE 6**





## POSITIONING

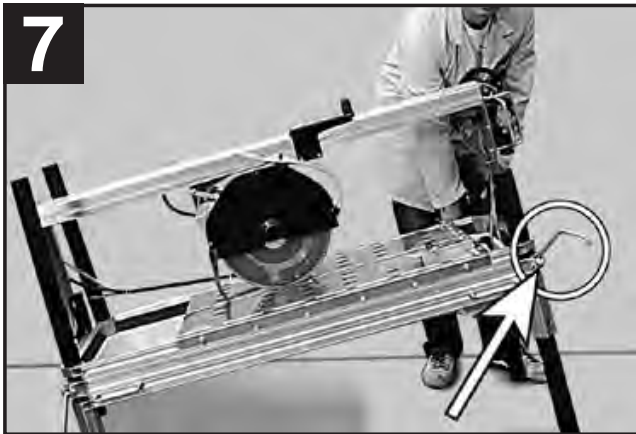
Place the machine on a stable surface.  
To place the machine in working position, proceed as follows:



### CAUTION!

**MAKE SURE THAT THE MOTOR HEAD IS LOCKED BY MEANS OF THE LOCKING KNOB LOCATED ON THE SLIDE RAIL (see picture 9).**

- a) put the leg locking pins in release position (see picture 7);
- b) by means of the transport handles, lift one side of the machine until the working position (see picture 7).



**FOR CORRECT MACHINE POSITIONING, MAKE SURE THAT THE LEG UPPER HOLE MATCHES THE LEG COUPLING HOLE, BEFORE FINALLY LOCKING IT (SEE PICTURE 8).**

- c) lock the legs one at a time (see picture 8).



### CAUTION!

**HOLD THE MACHINE DURING THE LOCKING PHASES.**

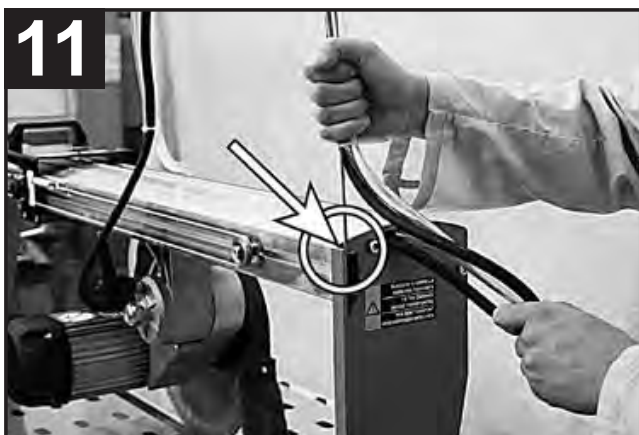
- d) Repeat the operation for the opposite side;
- e) Loosen the carriage locking knob located on the slide rail (see picture 9);



- f) Engage the water hose on the water on-off valve (see picture 10).



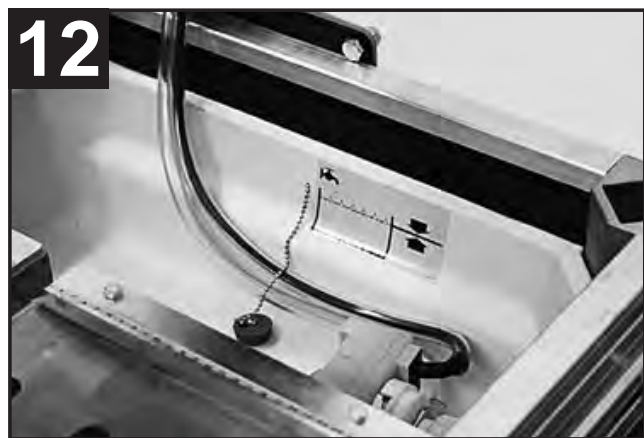
- g) Insert the tube-holder rod in its seat (see picture 11).



### CHECKING BEFORE USE



THE P-3500 MACHINE HAS BEEN DESIGNED FOR WORKING EXCLUSIVELY WITH WATER.



- Before any cutting operation, make sure that the water level inside the tank is correct.



Before using the machine, check there is power supply.

### CONNECTING TO POWER SUPPLY



The machine is to be connected to the power supply by a residual current circuit breaker (RCCB) with the following characteristics:

RCCB **In 16 A Id 30 mA**

**N.B.** To ensure correct functioning, periodically check the efficiency of RCCBs by pressing the push-button on the front of the device.

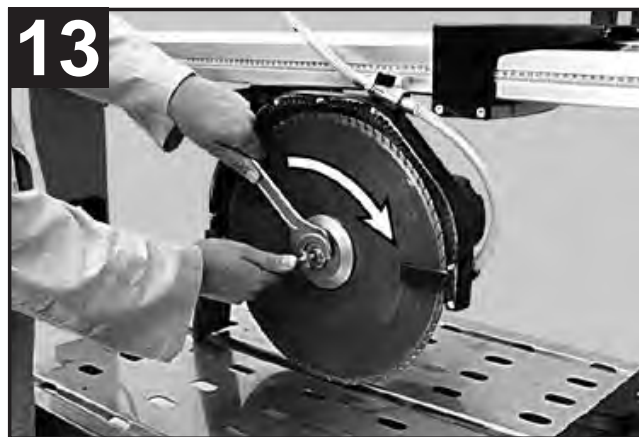
- Make sure that the section of the power supply cable cores has been measured according to the starting current and its length.  
For cables up to 50 m long, a section of 4 mm<sup>2</sup> is enough.
- Before connecting the machine to the power socket, check that the power supply voltage corresponds to that shown on the plate on the machine.
- The machine must be connected to an effective earth wire.  
In case of doubt, do not connect the machine.

### BLADE ASSEMBLY / DISASSEMBLY

**Before performing any operation or adjustment, disconnect the machine from the supply mains.**

Loosen the 5 (five) nuts located on the blade cover guard and remove it.

Remove the blade fixing nut using the 30 mm spanner and the 5 mm Allen wrench.



**THE BLADE FIXING NUT HAS A LEFT-HAND THREAD.**

- Install the new blade, checking for correct direction of rotation as clearly indicated on the tool.
- Tighten the blade and put the blade cover guard back in position.



## CONTROL DEVICES



The P-3500 machine is equipped with a control board made up of:

### 1) START BUTTON: (GREEN COLOUR)



Press the button fully to activate machine starting.

### 2) REGULAR STOP BUTTON: (RED COLOUR)



Press the button fully to activate machine stop.

### 3) DEVICE FOR DISCONNECTION FROM THE MAINS (Plug):

Machine power supply point.

During the maintenance phases, take out the plug from the device in order to disconnect the machine from the mains.

### 4) MAINS PRESENCE WARNING LIGHT (WHITE):

On: presence of mains voltage.

Off: lack of mains voltage.

### 5) MACHINE OPERATION WARNING LIGHT (GREEN):

It indicates that the machine is working.

### 6) OVERCURRENT CIRCUIT BREAKER:

It intervenes when there is overcurrent, interrupting the machine supply.

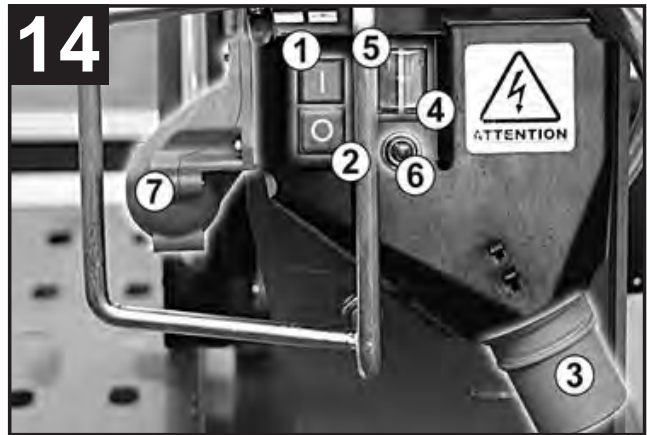
Its intervention is indicated by the expulsion of the manual reset.

In case of intervention of the circuit breaker, wait a few minutes and reset it by pressing its central pin.

### 7) LASER MARKER

It projects the cutting line on the table.

It is enabled when the machine is connected to the mains.

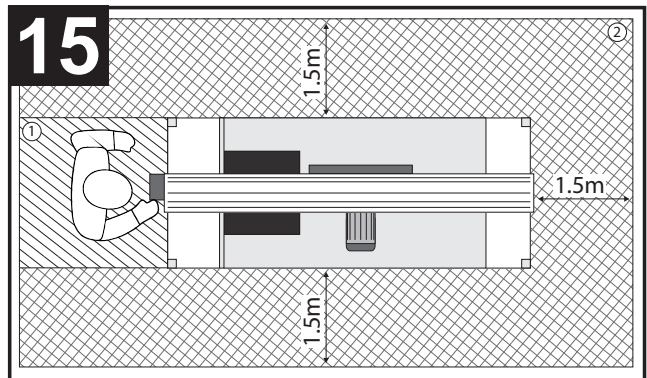


## 8. Cutting on the table



### CAUTION!

**BEFORE STARTING THE CUTTING OPERATIONS, THE OPERATOR MUST MAKE SURE THAT AT LEAST 150 cm ARE LEFT FREE AROUND THE MACHINE (See picture 15). IN ORDER TO WORK IN SAFETY CONDITIONS, DO NOT LET OTHER PEOPLE REMAIN NEAR THE MACHINE DURING THE CUTTING OPERATIONS.**



### CAUTION!

**BEFORE PERFORMING THE CUTTING OPERATIONS, MAKE SURE THAT THE MATERIAL IS PROPERLY LEANED AGAINST THE TILE STOPPER.**

### CUTTING FOR THICKNESS OF UP TO 110 mm

With the locking lever, lower the motor head until placing the cutting blade some millimetres below the working table level.



- Arrange the piece to be cut on the working table at the desired measurement (see picture 17);
- Start the machine and wait until cutting blade cooling water comes out, adjusting the necessary amount by means of the water on-off valve located on the blade guard, and cut (see picture 17).



### CUTTING FOR THICKNESS OF UP TO 180 mm

By adjusting the position of the cutting head using the locking lever, it is possible to cut materials of a height of up to 180 mm in two passages.

By making use of the graded index located on the side of the motor head, lower the head until reaching the desired measurement, as indicated in picture 18.

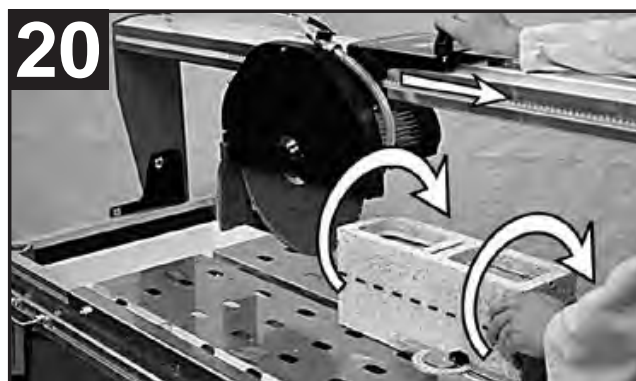


- By means of the cutting square, arrange the piece to be cut on the working table at the desired measurement.

- Start the machine and carry out the first cut (see picture 19).



- Turn over the piece 180°, and repeat the cut (see picture 20).



### 9. Cutting a surface at 45°



### CAUTION!

Before positioning the motor head, make sure that:

- the machine is off;
- the cutting tool is not moving;

### 45° CUT MAX H. 80 mm

Referring to the graded scale located on the machine upright, move the motor head to the jolly position and tighten the knobs (see picture 21).

- With the locking lever, lower the cutting head until placing the blade some millimetres below the table level (see picture 22)
- Position the piece to be cut on the working table and perform the cutting operation.



### LASER MARKER



**CAUTION!**

#### **CLASS IIIA LASER INSTRUMENT**

By means of the laser marker accessory, the cutting operations can be accelerated.

As a matter of fact, the special laser system is able to indicate the tool cutting line on the working table.



**CAUTION!**

THE LASER MARKER STARTS WORKING ONCE THE MACHINE IS CONNECTED TO THE POWER SUPPLY.

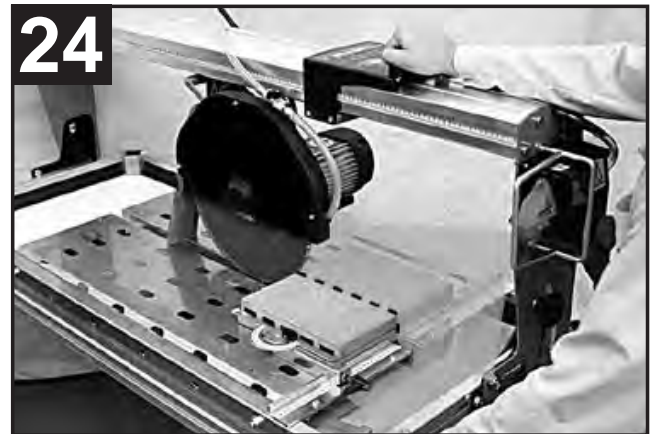


**CAUTION!**

DIRECT EXPOSURE TO SUNLIGHT MAY REDUCE THE LASER MARKER EFFECTIVENESS. IT IS THEREFORE ADVISABLE TO USE THE MACHINE INDOORS.

#### **CUTTING WITH LASER MARKER**

- connect the machine to the power supply;
- position the piece to be cut making sure that the line indicated by the laser marker matches the reference on the material to be cut;
- perform the cutting operation as indicated in the paragraph: "CUTTING ON THE TABLE".



**CAUTION!**

DO NOT MODIFY THE MARKER POSITION BY TURNING THE BEAM TOWARDS THE OPERATOR'S EYES.

DO NOT GAZE AT THE BEAM WITH THE NAKED EYE OR LOOK DIRECTLY WITH OPTICAL INSTRUMENTS.

#### **MARKER ADJUSTMENT**

In case the marker is not aligned with the cutting line, its correct alignment can be adjusted.

In order to correctly position the marker, proceed as follows:





- loosen the three bulb locking screws so that it can be moved (see picture 25);
- position a reference properly on the tool cutting line (see picture 24);
- insert the 5 mm Allen wrench provided in the hexagonal slot located on the bulb (see picture 25);
- using the Allen wrench, turn the bulb until aligning the mark with the tool cutting line (see picture 25).



### CAUTION!

**DURING THE ADJUSTMENT OPERATIONS, MAKE SURE THAT THE LINE PRODUCED BY THE MARKER DOES NOT REACH THE OPERATOR'S EYES.**



### CAUTION!

**ALWAYS KEEP A SAFETY DISTANCE BETWEEN THE OPERATOR'S EYES AND THE END OF THE LINE.**



### CAUTION!

**THE MANUFACTURER DECLINES ANY LIABILITY FOR THE USE OF THE LASER MARKER IN APPLICATIONS OTHER THAN THE INDICATED APPLICATION.**

## 10. Cutting progress system

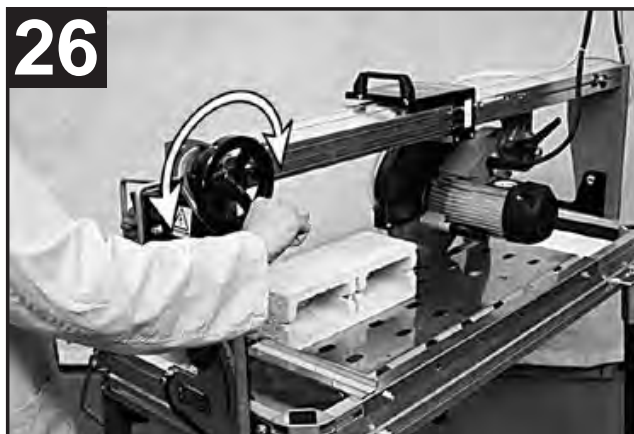
The "CUTTING PROGRESS SYSTEM" can be used to adjust – in a very precise manner and by means of the hand wheel located on the machine front upright – the cutting head forward or backward movement.



### CAUTION!

**GIVEN THE ACCESSORY HIGH SENSITIVITY, PROCEED WITH CAUTION SO AS NOT TO ACCIDENTALLY LOCK THE CUTTING TOOL.**

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## 11. Residual Risk

During the design phase, CARAT paid particular attention to the aspects that may generate risks for the safety and health of operators.

In spite of this, there are still some potential risks, which are described below:



### CAUTION!

- Danger of presence of electric current:  
The machine has an internal electric system.  
**CONNECT THE MACHINE TO A SYSTEM WITH DIFFERENTIAL PROTECTION AND EFFECTIVE EARTH WIRE.**



### CAUTION!

- Danger of prolonged exposure to noise:  
The continuative use of the machine causes an exposure to noise levels above 85 dB (A).  
**OPERATORS MUST USE PROPER EAR DEFENDERS.**



### CAUTION!

- Danger of exposure to fragments of materials.  
**OPERATORS MUST WEAR PROTECTIVE GOGGLES.**

**CAUTION!**

- Danger of accidental contact with the moving tool.

**OPERATORS MUST WEAR HEAVY PROTECTIVE GLOVES**

**ALWAYS STAY IN THE WORKING POSITION (Pos. 1 picture 15) DURING THE MACHINE OPERATION PHASES:**

- During material loading;
- During material cutting;
- During the cutting tool deceleration following the machine stop.

## 12. Maintenance

**CAUTION!**

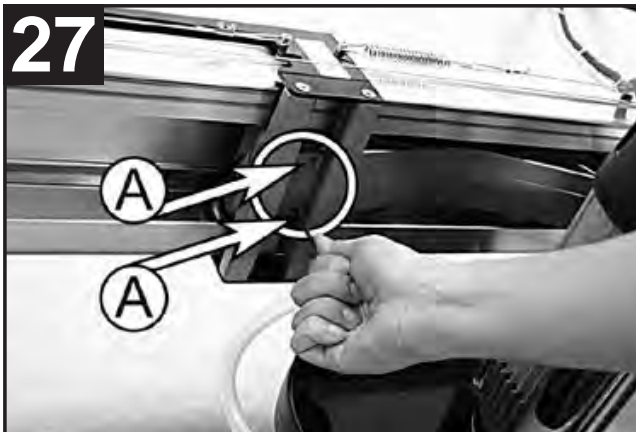
**BEFORE PERFORMING ANY OPERATION OR ADJUSTMENT, DISCONNECT THE MACHINE FROM THE SUPPLY MAINS.**

**MOTOR CARRIAGE ADJUSTMENT**

The motor carriage is provided with two registers for the motor head vertical play adjustment.

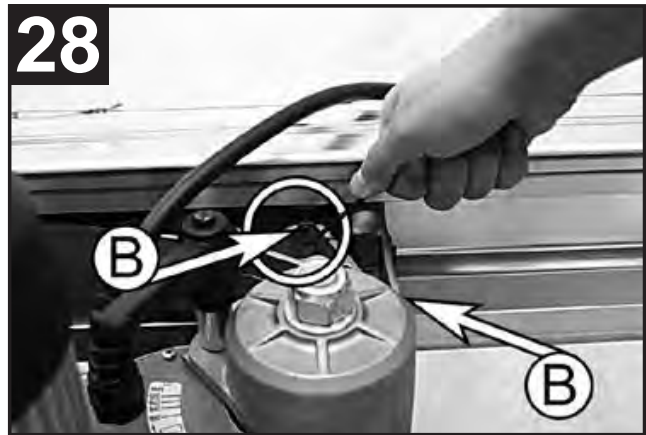
For correct adjustment, proceed as follows:

- with a 3 mm Allen wrench, screw both front adjustment dowels (A), until the play is eliminated (see picture 27);



- repeat the operation for both back adjustment dowels (B) (see picture 28).

28

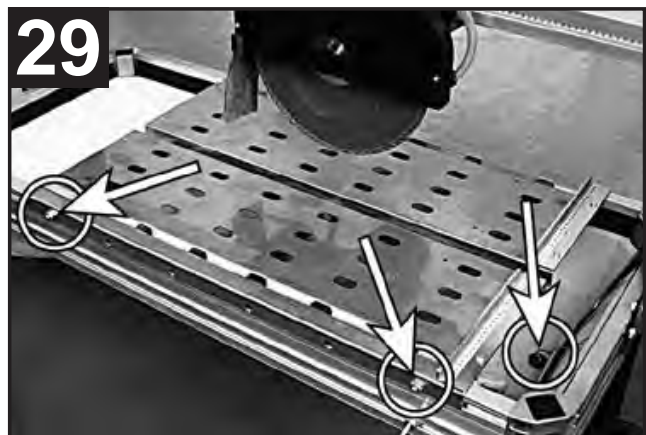
**CAUTION!**

**TIGHTEN THE FOUR REGISTERS EQUALLY IN ORDER TO OBTAIN SUITABLE SMOOTHNESS.**

**CLEANING****CAUTION!**

**DO NOT WASH THE MACHINE WITH HIGH PRESSURE WATER JETS**

29



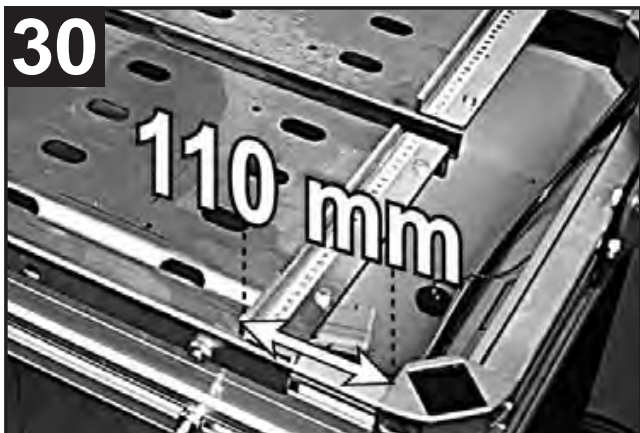
It is extremely easy to clean the P-3500 machine by loosening the locking nuts and dismantling the working table.

Through the tap located on the bottom of the recovery tank, remove any working residual from the machine.

**CAUTION!**

**AFTER THE TANK CLEANING OPERATIONS, PLACE THE WORKING TABLE BACK IN POSITION, OBSERVING THE DISTANCE FROM THE LEG SUPPORT (SEE PICTURE 30).**

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Clean the sprayer regularly as indicated (pictures 31 and 32).

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32



### 13. Disposal

In the event of scrapping the entire machine, it must be disposed of in accordance with the methods laid down by current legislation.



#### Electric Motor

Aluminium	AL
Steel	AC
Copper	CU
Polyamide	PA

#### Main Casing

Steel	AC
Polyamide	PA
Aluminium	AL

#### Submerged Pump

Polyamide	PA
Steel	AC
Aluminium	AL
Copper	CU
Epoxy Resin	



## 14. Troubleshooting

### ***THIS TOOL MUST ONLY BE REPAIRED BY TRAINED PERSONNEL***

***This electric tool complies with the relevant safety standards. Repairs are only to be carried out by trained personnel, using original spare parts. Where this is not done, the user may be placed in significant danger.***

<b><u>Problem</u></b>	<b><u>Cause</u></b>	<b><u>Solution</u></b>
The power supply LED does not come on.	The power supply cable is not properly connected or damaged.	Push the plug all the way in. Check the power supply cable.
	There is no power at the socket.	Have the power supply socket checked.
The machine does not run and the green running LED does not come on.	The amperometric trip switch has tripped.	Press the reset pin.
	The motor high temperature trip switch has tripped.	Wait a few minutes for the motor to cool down.
	The excess current trip switch is damaged.	Contact your local dealer for a replacement.
	The high temperature trip switch is damaged.	Contact your local dealer for a replacement.
Lubrication does not reach the cutting tool.	The control switch is damaged.	Contact your local dealer for a replacement.
	The sprayer unit is clogged.	Remove the sprayer inside the disc cover and clean any deposits off of it.
	The circulation pump is damaged.	Contact your local dealer for a replacement.
The motor emits unpleasant smells.	The lubrication hose is being flattened.	Eliminate any kinks in the lubrication hose.
	Water has filtered into the motor.	Contact your local dealer for a replacement.
The motor does not start properly.	The capacitor is damaged.	Contact your local dealer for a replacement.
	The motor's bearings are damaged.	Contact your local dealer for a replacement.
The laser marker does not work.	The capacitor is damaged.	Contact your local dealer for a replacement.
	The laser unit is damaged.	Contact your local dealer for a replacement.
	The marker feeder is damaged.	Contact your local dealer for a replacement.



## **CARAT NEDERLAND BV**

Nikkelstraat 18, 4823 AB Breda

Netherlands

[www.carat-tools.nl](http://www.carat-tools.nl) | [www.carat-tools.com](http://www.carat-tools.com) | [www.carat-tools.dk](http://www.carat-tools.dk)