

MANUALE D'USO
USER MANUAL
MANUEL UTILISATEUR
ANWENDER HANDBUCH
MANUAL DEL LISUARIO

## ELECTRO PLEXY TRIM 218/318

MANUALE D'USO

USER'S MANUAL

MANUEL UTILISATEUR

ANWENDER HANDBUCH

MANUAL DEL USUARIO



## ELECTRO PLEXY TRIM 218/318



**ITALIANO** 

Cod. NLT.PT-E-T-MM-7-3S-IT



USO-IT-EPlexyT-4S.DOC

2007



## ELECTRO PLEXY TRIM 218/318



**ENGLISH** 

Cod. NLT.PT-E-T-MM-7-4S-GB



USO-GB-EPlexyT-4S.DOC

2007





☐ SECTOR: ELECTRO PLEXY TRIM

□ VERSION: EPlexyT-04-02/2007

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□ DATE: 12/01/2005

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#### Data of the manual

1.1

Instruction manual.

Code of Manual NLT.PT-E-T-MM-7-4S-GB

Users 1.2

Instruction manual.

- Transporter.
- Installer.
- User.
- Maintenance personnel.
- Demolition squad.

**√** 

For further details on the users of this manual, see 2.2 Qualifications of the personnel.

# **Property of the information**

1.3

The information contained in this manual is reserved property. All rights are reserved. This manual should be kept for future reference.

This manual cannot be reproduced or copied, as a whole or in parts, without prior written consent of **NEDLT** S.p.A. These documents are provided only for the use of the client whom the manual has been supplied to with the machine, and can be used only for the installation, use and maintenance of the machine the manual refers to.

**NEELT** S.p.A. states that the information of this manual is congruent to the technical and safety requirements of the machine the manual refers to. The manufacturer cannot be held responsible for any direct or indirect damages to people, objects or animals due to the use of these documents or of the machine in conditions other than those authorized.

**NECLT** S.p.A. reserves the right to change or improve, without notice, these documents and these machines, and also other machines marketed of the same model as the one this manual refers to but with a different serial number. The information of this manual particularly refers to the machine specified in 1.6 Identification data of the machine.



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#### **Conventions used**

1.4

#### Conventional terms used

1.4.1

**Machine:** indicates the machine specified in 1.6. Identification data of the machine.

Frame: bearing structure of the machine.

**Qualified personnel:** people, who thanks to their knowledge and preparation and experience, along with the knowledge of the relevant rules, safety requirements and service conditions, are able to recognize and avoid any possible danger for the people, the material and the machine.

The descriptions of **direction**, **sense and position** (on the right of the machine, on the left of the machine) refer to the position of the operator in front of the machine.

#### **Conventional symbols used**

1.4.2

*Text in italics:* indicates the title of a chapter, a section, a sub-section, a paragraph, a table or an illustration of this manual, or another reference manual.

- (generic number as an example): symbolic representation of a command device or signal.
- A (generic letter as an example): symbolic representation of a part of the machine.
- Notes contain important information, and are pointed out after the text they refer to.
- The danger symbols indicate those procedures which, if not respected, could cause physical damages to the operator. The manufacturer cannot be held responsible for any damages to people due to noncompliance with these regulations.
- The warning symbols indicate those procedures which, if not respected, could damage the machines or the devices connected to it. The manufacturer cannot be held responsible for any damages to objects due to the noncompliance with these regulations.



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## Identification data of the manufacturer

1.5

#### NEBLT S.p.A.

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24036 Ponte San Pietro (BG) - ITALY

Tel. +39 035 468 811 Fax +39 035 468 886

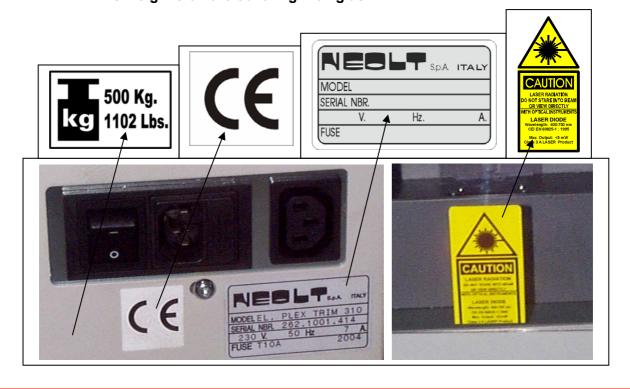
http://www.neolt.it E-mail.: mkt@neolt.it

### Identification data of the machine

1.6

Туре	TRIMMER WITH CYLINDRICAL CUTTER CUTTING HEAD	
Model	el plex trim xxx	
Serial Number		
Year of Construction		

The machine has an identification label on the right side of the machine, under the connection structure, with the EC and weight label on the side. Whereas the laser ATTENTION sign is on the covering Plexiglas.





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## **EC** conformity certification

1.7

Annex A EC conformity certification includes a copy of the EC conformity certification of the machine.

Warranty 1.8

NESL▼ S.p.A. offers a one year warranty on the machine.

The parts subject to normal wear out are not included in the warranty. The warranty is limited to the substitution or repair of the parts that should result damaged or defected.

The assessment of the defects and causes is carried out by **NESLT** S.p.A.

The warranty is cancelled if the machine is used incorrectly, or in an improper or excessive way, if any non-original spare parts are used and for noncompliance with the regulations of this manual.

In no case can the purchaser demand the resolution of the contract, claim for damages or the extension of the warranty.

The term "**Original purchaser**" refers to the person who initially bought the product covered by this warranty for purposes other than selling. The warranty is applicable and valid only for the original purchaser and only for the period (during the warranty period) in which the purchaser himself has the equipment.

The correct and safe operation of the machine is assured only if used in accordance with what is indicated in the manual and the relevant documentation. REDLT S.p.A. cannot be held responsible for damages to people or things due to an incorrect use of the machine or modifications not authorized by the manufacturer himself.

Assistance 1.9

**NESLT** S.p.A. provides, on request, assistance for the installation and the maintenance of the machine.

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#### Use of the manual

1.10

Carefully read the chapters General information, Safety information, Characteristics of the machine and Operator interface.



Please consult the relative chapter for any transportation, installation, use, maintenance and demolition operation.

This manual and the enclosed documentation (Attachment A EC conformity declaration), must be kept for the entire technical life of the machine in order to consult it quickly when necessary.

If the machine is sold as second-hand, this manual and the enclosed documentation must be supplied along with the product..

## **Description of the machine**

1.11

#### Correct use of the machine

1.11.1

The machine must be used only to cut the media which it has been designed for (Plexiglas, Dibond, Alibond, PVC foam, etc...).

The machine is made of physically independent and autonomous groups, therefore the proper use of the machine also refers to the correct functioning of only one part of it.

#### Use of the machine

The installation and the maintenance of the machine must be carried out by qualified personnel only.

The machine was designed to be used in an area with the characteristics indicated in the section *PLACING OF THE MACHINE 5.7* and in the section *POWER SUPPLY DATA 3.2*.



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#### Incorrect use of the machine

1.11.2

Any use other than that indicated in part 1.11.1 Correct use of the machine is to be considered incorrect, especially:

- Using the machine in ways which differ from those which it has been designed for, represents an anomalous condition and could therefore damage the structure of the machine.
- Using the machine without its protections and without the safety equipment it is provided with: particularly without the fixed protections that block access to the internal equipment.
- Not observing the procedures of this manual and especially the maintenance and repair regulations.
- Using the machine in an area at risk of fire or explosions if the machine itself does not have the proper fire equipment.
- Using the machine in areas containing explosive materials.
- Using the machine in an inflammable area.



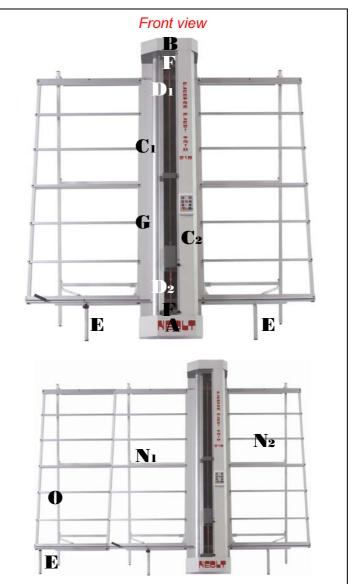
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#### Structure of the machine

1.11.3

The machine includes the following parts:

- A Power unit panel
- **B** Upper panel
- Cı Left sheet holder bar
- C<sub>2</sub> Right sheet holder bar
- Dı Upper Plexiglas protection.
- Lower Plexiglas protection
- Support leg for extension
- F Laser tracer
- **G** Feeding table
- II ON/OFF switch
- Power outlet
- L Keyboard
- M Stop/Emergency switch
- N<sub>1</sub> Left modular extension
- N<sub>2</sub> right modular extension
- Additional left mod. extension
- P Suction tube
- Suction tube power supply
- R Mains fuses
- S Foot pedal



#### Comands







ELECTRO PLEXI TRIM

## **GENERAL INFORMATION**

NESS T spa USER'S MANUAL



# SAFETY

### INFORMATION





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## Safety criteria 2.1

The machine has been designed and made in compliance with the essential safety criteria and regulations set forth by:

EMC Directive 89/336/ EC and follow. Amendments. Machine Directive 89/392/ EC and follow. Amendments.

(see Annex A CE conformity certification).

Thanks to the accurate analysis carried out by the manufacturer, most of the risks depending on the conditions of use of the machine, both foreseeable and reasonably foreseeable, have been eliminated.

The complete documentation including all the safety regulations adopted are in the technical booklet of the machine, which is deposited at the manufacturer's premises.

The manufacturer recommends strict compliance with the instructions, procedures and recommendations of this manual and with the laws in force on the safety in the work place. This also refers to the use of the protection devices foreseen, both those integrated in the machine and personal.



NEELT S.p.A. cannot be held responsible for any damages to people, animals or objects due to noncompliance with the safety regulations and recommendations of these documents.

#### Safety laws and decrees

List of personal protection equipment and safety equipment.

D.P.R 462/01 section I general information

Regulation for the quick procedure for reporting installations and protection devices against atmospheric discharges, ground connections for electric devices and dangerous electric equipment.

Decree 2 May 2001

Criteria for the identification and use of Personal Protection Equipment (PPE).

Notice 3/2001 - Art. 2, section 4 of Law Decree 359/99

Information on the procedure for the periodic controls of certain work equipment.

Law 626/94 Safety and Health of workers.

Law 475/92 (updated on January 2, 1997) PPE.

Decree 303/56 (updated on March 18, 1996) General regulations on work hygiene.

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### **Technical specifications of LASER module**

2.1.1

Laser classification CEI,76-2

Standards CEI EN 60825-1 laser class 3 A.

Emission <5 mW

Safety

Class 3a lasers, in a wave length interval between 400 and 700 nm. do not require particular safety locks or keys for their functioning. The opening of the beam through line generation lens is  $< 40^{\circ}$ .



## **Qualifications of the personnel**

2.2

Stage of the technical life of the machine	Qualification of the operator in charge
Transportation	Qualified transportation
Installation	Qualified personnel
Use	Qualified personnel
Ordinary maintenance	Qualified personnel
Extraordinary maintenance	Technicians appointed by <b>NES□</b> S.p.A.
Demolition	Qualified personnel

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## Responsibility

2.3



NESLT S.p.A. cannot be held responsible for any damages to people, animals or objects due to noncompliance with the safety regulations and recommendations of these documents.



Tampering with the protections and the safety devices is dangerous for the people using the machine and for those exposed to it.



NESLT S.p.A. cannot be held responsible for any damages to people, animals or objects due to tampering with the protections.

Protection 2.3.1

The machine is provided with the following types of protection.

#### Inter-locked moving protections:

• Magnetic microswitch of the lower Plexiglas protection.

#### Fixed protection:

- Lower control panel and driving gear panel.
- Upper protection panel of carriage movement chain return gears.
- Upper Plexiglas protection.
- Cable holder chain panel and material suction tube.

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#### **Active safety devices**

2.3.2

- The machine is provided with a Stop/Emergency button on the keyboard.
- Ground circuit for all the electric, electronic and metal parts of the machine.
- Magnetic microswitch for lower Plexiglas used for the interventions on the cutting head. (fig. 2.1).
- Two carriage end of stroke sensors (upper lower).
- Two end of stroke sensors (open close) both for left and right sheet holder bar.



## Dangerous areas and residual risks

2.4

All the areas around the machine in which people are at risk of injuries or health problems are considered dangerous.



Pay close attention to hands when the electric sheet holder bar is being lowered (*fig. 2.2*) during the cutting operations. Switch the machine off and disconnect it, before carrying out any operation different from the one it has been designed for, or to open the upper and lower panel.

During certain intervention procedures on the machine, which are pointed out each time in this manual, residual risks for the operator may arise. Residual risks can be avoided by carefully complying with the procedures of this manual and using the personal protection devices indicated in *Chapter 2.1 Safety Criteria*.

- Position the power cable so that it is not stepped on or ruined.
- Maintenance and service operations must be carried out only by the engineers authorized by the manufacturer
- During operation, avoid direct exposure to the LASER sources.
- Attention: carrying out procedures or interventions on the LASER different from those specified can cause exposure to dangerous levels of radiation.





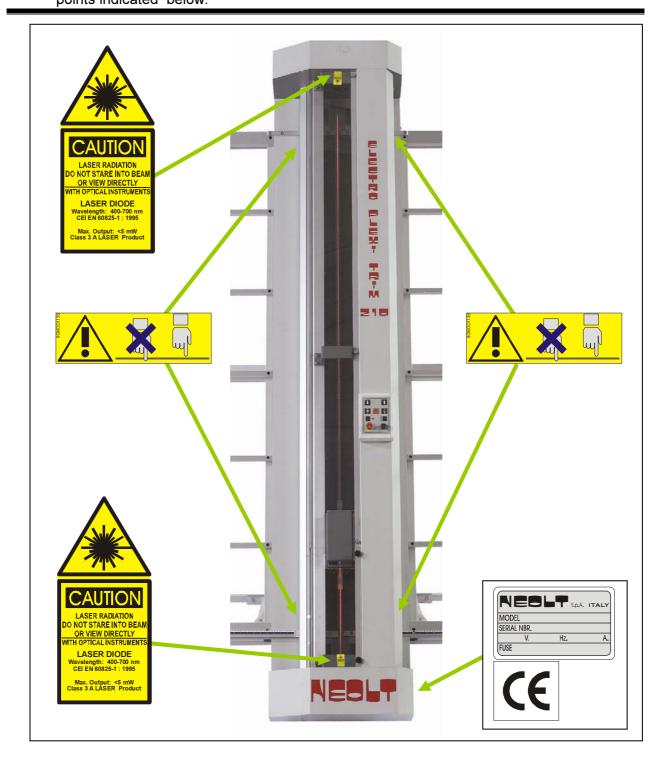
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Pay attention to the danger signs on the trimmer.

The danger labels and the machine identification labels are placed on the machine in the points indicated below.



## SAFETY

#### INFORMATION





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NESLT S.p.A. cannot be held responsible for any damages to people, animals or objects due to non compliance with the standards or for not using the prescribed personal protection equipment. *Chapter 2.1 Safety criteria* 

Noise 2.5

Figures on noises produced by a machine identical to the one described in this manual, measured according to the "Machine Directives" (89/392/EC and following modifications).

Average level of continuous acoustic pressure equivalent pondered, around the machine at a distance of one meter:

• While it is running: lower than ..... db.

#### Information on noise hazards

2.5.1

The levels of exposure of the worker are obviously linked to the emission levels of the machine, however other factors affect the levels of exposure of the workers: duration of the exposure, characteristics of the area and the presence of other machines. The levels of emission of the machine, however, allow the users to assess the danger related to acoustic emissions.



A continuous use of the machine and of other machinery present in the area of installation could lead to a high level of personal daily exposure to noise.

When daily personal exposure is equal to or higher than 85 dB(A) the use of PPE is recommended (protective caps, protective ear plugs, ...).

When daily personal exposure is equal to or higher than 90 dB(A) the use of PPE is obligatory (protective caps, protective ear plugs, ...).

For further information on the protection measures, in Italy refer to the standard UNI EN458 of 1995 and EN457





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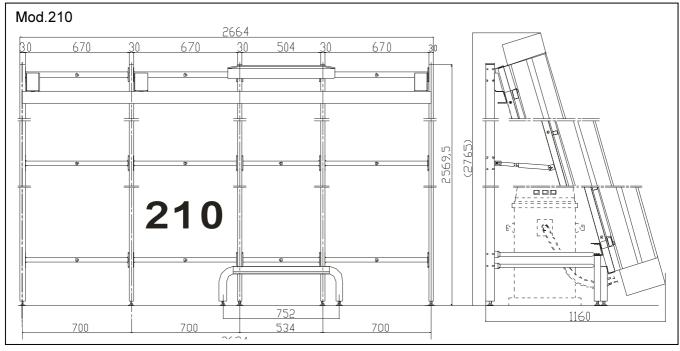
# **Technical specifications**

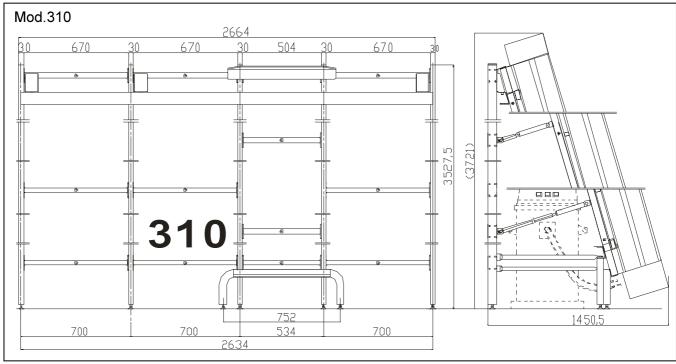
3.1

Model		210	310	
Dimensions with support. mm. inches		2664x1160xh2770 104,8"x45,7"xh109"	2664x1450xh3750 104,8"x57"xh147,6"	
Weight with sup	port.	Kg. Lbs.	380 838	480 1058
Max. cutting for	mat.	mm. inches	2100 82"	3100 122"
Cutting thicknes	S.	mm. inches	6 Plex - 10 Forex <sup>®</sup> ¼"Plex - 0,39" Forex <sup>®</sup>	
Precision.	Edging		±1 m	m/mt.
F 16CISIOII.	Linearity		±0,25 mm/mt.	
Working modalit	ty.		Automatic, Se	mi-Automatic.
Allowed materials.		Plexiglas - Polycarbonate – Acrylic - Dibond - Forex® - PVC		
Cutting speed.		from 0 to 12 m/min		
Type of cutter		30.000 rpm.		
Electric absorpti	ion.		230/240V 50/60 Hz - 100/110V 50/60 Hz	
Absorbed currer	nt		max. 7A - max. 12A	
Temperature int	erval		from 5° C to 55°C	
Relative humidit	y interval		From 30 % to 95°C	
Required lighting	g		200 – 600 lux	
Double electric	Double electric sheet holder bar		standard	
Side extension		Two left and one right side extensions, standard		
Standard suction tank		230-240V 50/60HZ - 110V 60Hz		
	Classification		CEI, 76-2	
Standard laser	ndard laser Standard		CEI EN 60825-1 laser class <b>3 A</b>	
	Emission		<5 mW	
Modular extension with support		Optional (it can be assembled both on the right and left)		







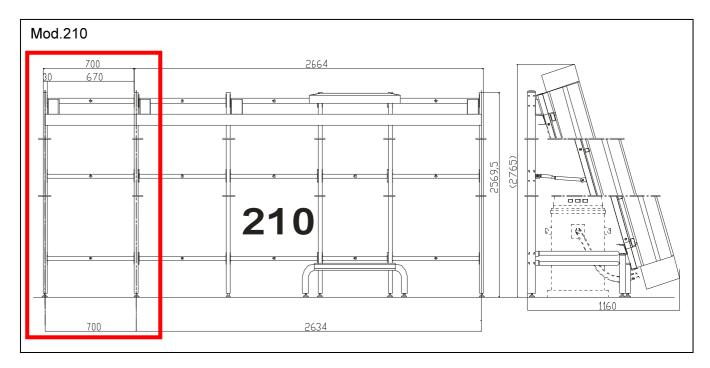


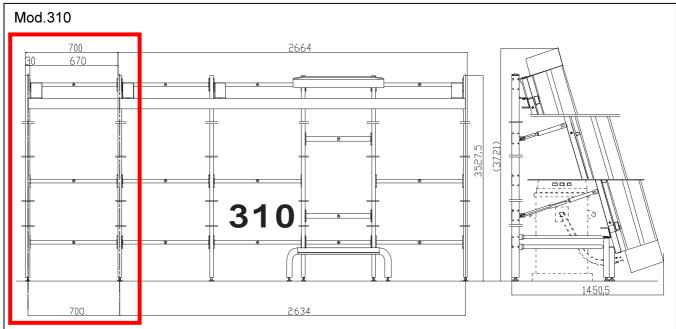




Cod. NLT.PT-E-T-MM-7-4S-GB

The optional extensions can be assembled both on the right or left side, according to the needs. In the illustrations below there is just one extension on the left side as an example. As regards overall dimensions, keep in mind that each optional extension measures about 700 mm in width.









Powe	er supply data	3.2				
_ _ _	Voltage and single-phase frequency: Consumption Absorption:	230V/240V 50Hz — (110V/60Hz). 1600W max. 7A — (max. 12A).				
0	Power fuse 230V Power fuse 110V	T 10A. T 16A. (x2)				
<u>Re</u>	<u>esponsibility</u>					
	NEELT S.p.A. cannot be held responsible for problems, defects that should take place due to non-compliance with the power supply values supplied.					
Mach	Machine performances 3.3					
	Max cutting thickness PLEX material/panels Max cutting thickness FOREX® material/panel	6 mm els 10 mm				

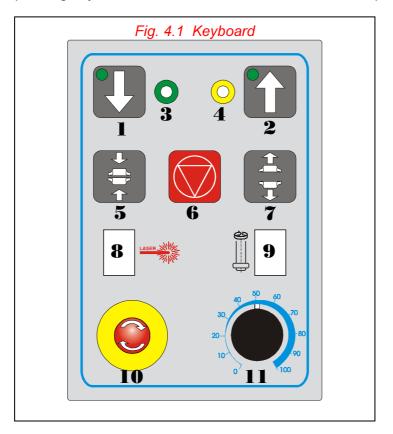




# **Operator interface**

4.1

The keyboard *(fig. 4.1)* is made of easy-to-use command and programming keys. To use the operating keys, switch on the machine and follow the sequence below.



Key	/	Description
		Cut Key Press this key to start the cutting phase and the carriage moves the cutting head from top to bottom. When the carriage is moving the green led of the key lights up.
2		Carriage Up Key Press this key to start the cutting phase and the carriage moves the cutting head from bottom to top. When the carriage is moving the green led of the key lights up.





	Key	Description
3	0	Green led The led switches on when the machine is powered, it flashes during the sheet holder's open and close movements.
4	0	Yellow led The led switches on and flashes when a wrong command is given. The led flashes when the command is not reset.
5		Sheet holder close key Press this key to start closing the sheet holder. The sheet holder is in position when the green led on the carriage up key stops flashing. If the sheet holder is not in position the cut cannot be performed.
6		Reset or stop key Use this key to cancel the operation when a wrong command is given or to stop an operation underway.
7		Sheet holder open key Press this key to start opening the sheet holder, which automatically opens up to the end of travel. The sheet holder open signal is signaled by the green led of the carriage down key which stops flashing.

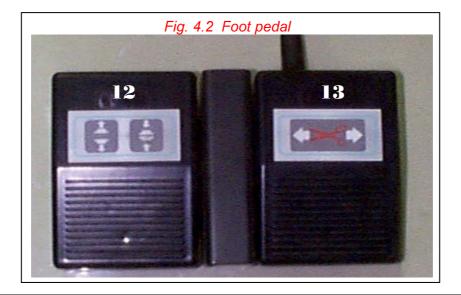




Key	Description
LASER MINIS	LASER tracer key When this key is pressed the laser tracer is switched on. A double laser beam sent from the two ends shows the operator the cutting line.
9	Cutter ON/OFF key When this key is pressed the cutter rotation movement is enabled.
10	Stop/Emergency Key When this key is pressed all the operations of the machine are interrupted. Rotate key from left to right to unlock. After pressing the emergency button, run a set up operation to determine the height of the blade: press the key "height of blade" to position the blade at the right height according to the thickness of the panel to cut.
10 50 60 70 80 100 100 100 100 100 100 100 100 100	Potentiometer speed control knob  The potentiometer knob is used to control the up and down speed of the carriage. This assures a more effective and precise cut, especially for very hard materials.







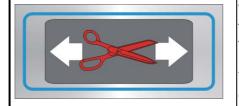




#### Sheet holder close key

Press this key to start closing the sheet holder if the sheet holder is open or vice versa, to open it if the sheet holder is closed.

13



#### Cut key

When this key is pressed the cutting phase starts from the bottom up, if the carriage is down, or vice versa, from top to bottom if the carriage is up.

The cut command given from the foot pedal is enabled only if the sheet holder is closed, thus blocking the material to trim.

#### **Emergency stop**

4.1.1

The machine can be stopped by the operator, in any moment, if he notices an anomaly during the working cycle or for safety reasons. To immediately stop the machine, press the emergency button above the keyboard.

To restore the standard operation of the machine after solving the problem that caused the emergency stop, rotate the button pressed previously clockwise or counter-clockwise.





## Qualifications of the operator

5.1

The transportation, installation and connecting operations of the machine must be carried out by qualified personnel only, transporters and electricians.

## **Transportation**

5.2

#### **Transportation conditions**

5.2.1

The trimmer is shipped in a carton box 1 to protect the panels on the top end and a box 2. (Fig. 5.1) which holds everything. Transportation conditions. The box contains the standard side extensions, the lower stand, the stand for model 160, or the wall assembly components for models 250-310, the tool bag needed to complete the few installation operations of the machine and the user's manual.

The size of the packaging and its total weight (packaging and trimmer and stand) are as follows:

	218	318
Dimension cm. Inches.	380x72xh100 149,6"x28,4"x39,4"	480x72xh100 189"x28,4"x39,4"
Gross weight Kg. Lbs.	440 970	560 1235



The hoisting, transportation and handling operations of the machine or its parts must be exclusively carried out by competent personnel, properly trained for the task.



It is absolutely forbidden to pass or stop under hanging loads.



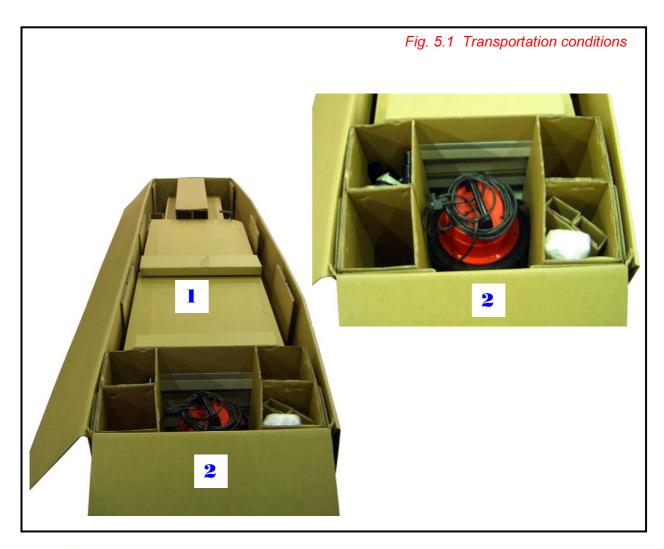
The machine hoisting, transportation and handling means must be adequate for the weight of the machine and the size of the elements to lift, transport and handle and must comply with the laws in force in the area of installation.



Protect the machine from external atmospherics, see paragraph *Characteristics of the area the machine is placed in 5.7.1*.







#### **Assessment of damages during transportation**

5.2.2

Check the conditions of the machine by visually inspecting it, after having removed it from the shipping box. Any defects on the visible parts of the machine indicate crashes during transportation, which could also affect the normal operation of the machine.

Especially assess the conditions of these parts:

- Emergency/Stop key and keyboard.
- Carriage speed adjustment Potentiometer.
- Keyboard.
- Carriage Plexiglas protection, upper and lower.
- Side extensions and guides for side extensions.

Verify that the screws and nuts of the protection panels are tight.



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Assembly 5.3

- Open the packaging box I which contains all parts (fig. 5.1).
- Remove carton protections and all the parts needed to assemble the support and the extensions.



This operation must be carried out by minimum two people.

- Break the carton leaving the trimmer on its polystrene supports (fig. 5.2).
- Assemble the upper fixing support (*fig.* 5.3) and the lower support legs (*fig.* 5.4), by removing the supplied screws and putting them back on.



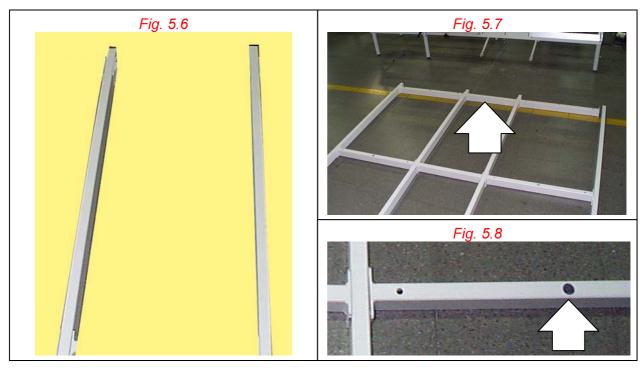




#### **Assembly of stand and extensions**

Follow this procedure to assemble the stand

- Position the long uprights with the supporting feet facing the same way (fig. 5.6).
- Insert the connection cross-bars between the uprights. Attention: there are three different size cross bars in the box that are needed to position to the machine (fig. 5.7).
- All the cross bars must be positioned with the bigger holes facing up (fig. 5.8).



- After inserting the central cross bars, insert the cross bars for the extension on the right and left, always keeping the bigger holes facing up.
- Furthermore, always on the right, insert another upright with relating cross bars (fig. 5.9). Block the bearing frame using the supplied screws (screw washer washer nut), tighten all the screws (fig. 5.10).









This operation must be carried out by at least two (mod. 210) or four (mod. 310) people.

• Lift the frame from the floor and lean it against a wall.

Prepare the corner bars to fix the extensions and the machine. The bars are formed by two pieces to assemble on the top of the support and two pieces on the bottom of the support. Follow this procedure to assemble the corner bars:

- Take a long part A, and a short part B, from the box and join them using the shaped connection plate C (fig. 5.11).
- Position the bars with the inclined part in front of the operator (fig. 5.11), join the two long and short bars, by inserting the shaped plate behind. Block everything using the supplied screws (fig. 5.12). we suggest deciding which one will be positioned in the upper part and which one in the lower part. For the upper bar, the screws go from bottom up and vice versa for the lower bar.



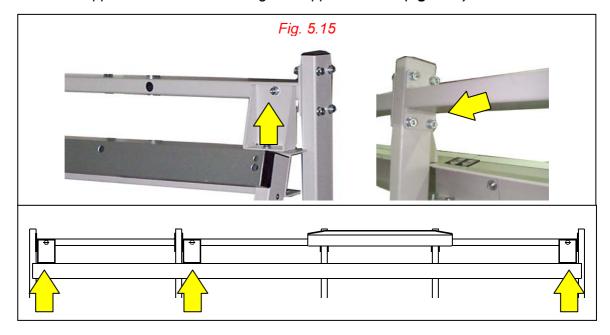
The three plates needed to fix it to the support must be fixed to the upper bar (fig. 5.13), using the two holes at the outer ends and the side hole of the long bar (fig. 5.14).



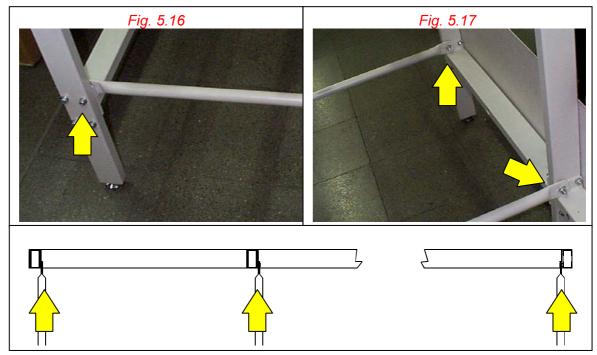




• Fix the upper bar to the stand using the supplied screws (fig. 5.14).



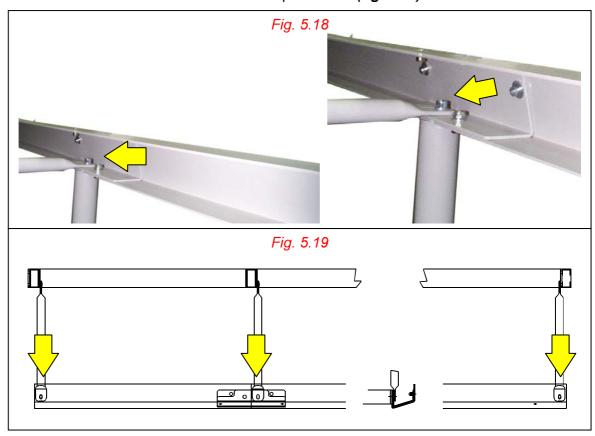
- Fix the first of the three tie rods for the extension at the bottom of the first upright on the left. To fix it remove the nut, of the front upper screw and slide into the hole under the tie rod and screw on the nut (fig. 5.16).
- Same operation for the second tie rod, inserting it on the second upright from the left (*fig. 5.17*). Finish, by fixing the third tie rod for the extensions, on the last upright (the first from the right), and performing the same operation to fix this last one.







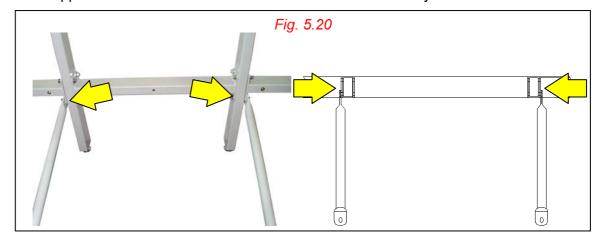
- Now fix the lower inclined bar to the tie rods for the extensions inserting at the same time the supporting feet. The screw must hold in order the tie rod that leans against the inclined cross bar which is supported by the tube for the feet (fig. 5.18).
- The ties rods, the inclined cross bar and the tube for foot are fixed in the three points where the tie rods for the extensions are positioned (fig. 5.19).





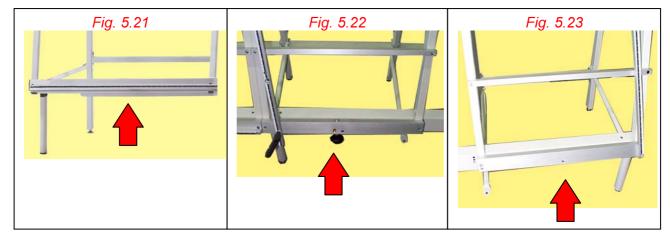


- After blocking the tie rods for the extensions, fix the two tie rods for the machine, inserting them to the outside of upright three and four of the support (the remaining) (fig. 5.17). Avoid, for now, to tighten the screws until the machine is installed.
- The opposite side of the tie rods of the machine is momentarily free.



#### **Assembly of side extensions**

- Remove the three extensions that have to be assembled on the stand assembled earlier.
- The first extension to put on the left is easily identified by the millimetric scale, already fastened on the lower bar of the extension (fig. 5.21).
- The second extension to position on the left can be identified for the adjustment knob fastened under the lower bar of the extension (*fig. 5.22*).
- The third extension to fasten on the right, can be identified because it has no particular feature. (fig. 5.23).







• To assemble the side extensions, put the extension on the inclined bar, assembled previously (*fig. 5.24*) and fix it to the bars using the four supplied screws (two in the upper part (*fig. 5.25*) and two in the lower part (*fig. 5.26*)). To perform this operation one person should hold the extensions in position and the second should screws it onto the stand.









We suggest not tightening the screws until the machine is inserted.

## Assembly of the machine

Carefully position the machine to avoid damaging people and the machine itself. To position the machine in the right position follow this procedure:



At least four or six people must carry out this operation (mod. 210 - mod. 310).

 use a lift to bring the machine which we left in the box on the wooden pallet, as close to the stand just assembled, with the legs close to the seat on the stand (fig. 5.27).



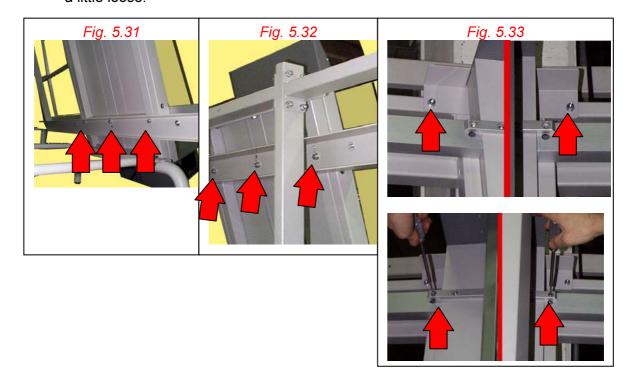




- lift the machine vertically, letting the feet touch the floor (fig. 5.28).
- Rotate the machine towards the supporting stand (fig. 5.29).
- Very carefully bring the machine in its seat on the stand between the extensions just assembled (fig. 5.30).



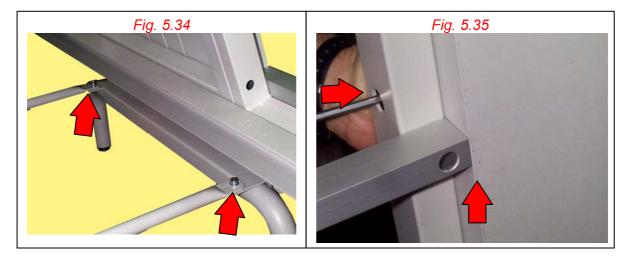
- Tighten the three machine fastening screws to the stand both on the top and bottom (fig. 5.31-32).
- Fasten the upper part of the machine to the supporting stand using the four supplied screws (fig. 5.33).
- Now tighten the screws that support the side extensions to the stand which we had left a little loose.





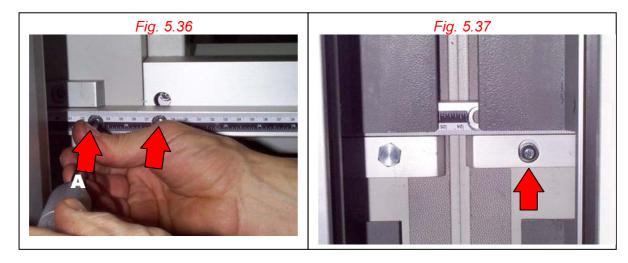


- Fix the machine tie rods to the two external plates on the lower legs of the machine. (fig. 5.34).
- Fix the right and left side extensions to the machine using the screws supplied. As you tighten the screws don't forget to line up the supporting brackets with the work table (fig. 5.35).



Now fix the guides of the right and left extensions.

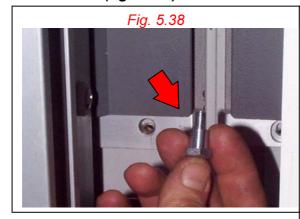
• To fix the right millimetric guide use the supplied screws. Since the guide is already fixed in one point you just need to rotate it and screw it on, with a screw on the right extension (fig. 5.36) and two on the machine work table (fig. 5.36(A)-37).







• Use the relevant pins to fix the left millimetric guide (fig. 5.38). Since the guide is already fixed in one point, just rotate it and screw it on, with a pin on the right extension (fig. 5.39a) and with two on the machine work table (fig. 5.39).



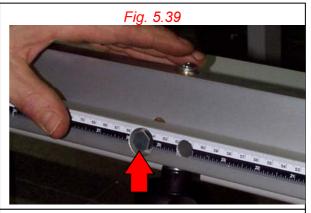
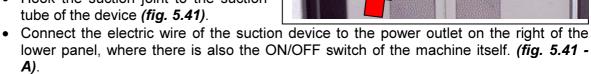


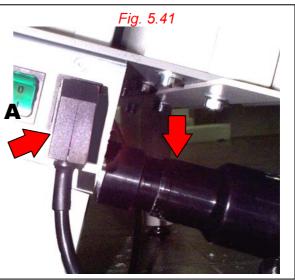
Fig. 5.39a

(0)

- · Position the suction container, behind the machine between the frame and the back of the machine work table (fig. 5.40).
- Hook the suction joint to the suction tube of the device (fig. 5.41).











## Fixing the frame and machine to the wall

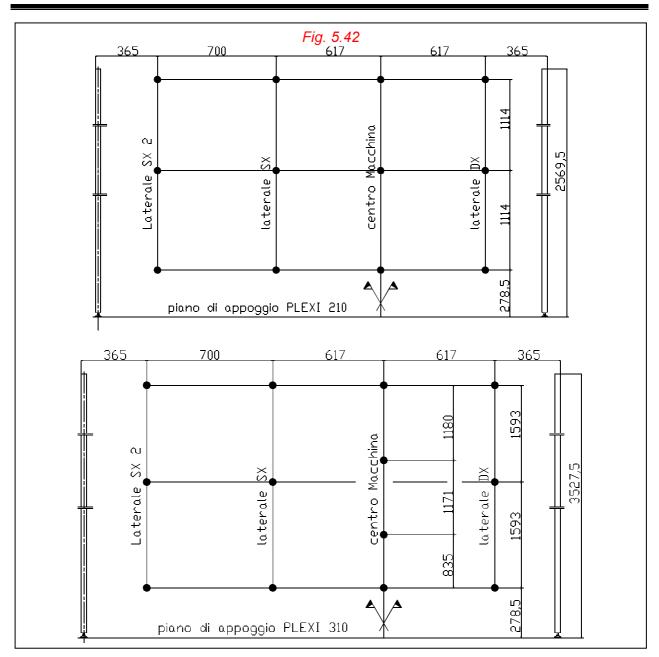
After assembling everything, support, extensions, machine and container, the trimmer is steady and in the best conditions for use, but for those who want the machine can be fixed to the wall for more stability.

Follow this procedure to fix the trimmer to the wall:

• Make a hole using a drill in the wall using the measures indicated as reference (fig. 5.42).



The holes must be made using a drill and bit for walls with a 9 mm diameter.







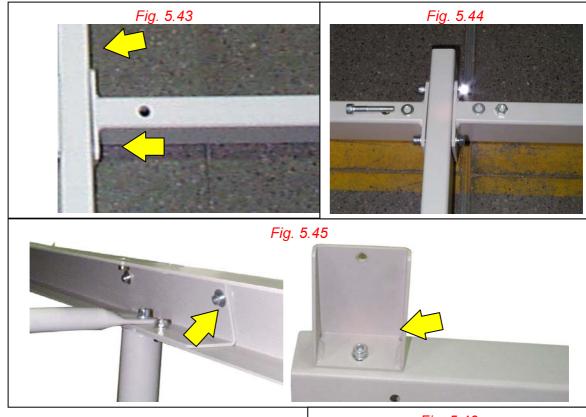
# Assembly of the optional modular extensions

5 4



Before starting the assembly procedure, disconnect the machine from the mains.

- To add one or more extensions, start, but putting together the external side upright and the three cross bars. (*fig. 5.43*).
- Remove the four fastening screws of the upright with the three cross bars of the frame already in position and use them again to fix both the cross bar of the optional stand and the cross bar of the already assembled frame (*fig. 5.44*).
- Fix the two corner bars to the stand both on top and on the bottom using the two supplied plates (fig. 5.45).



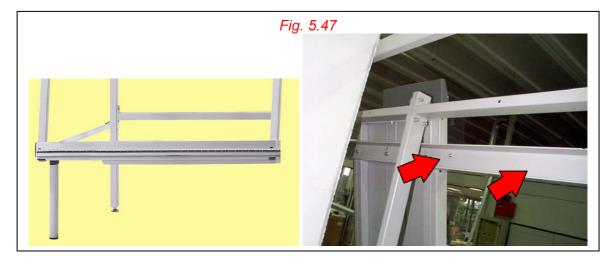
 Fix the lower tie rod and the foot of the new optional extension. (fig. 5.46).



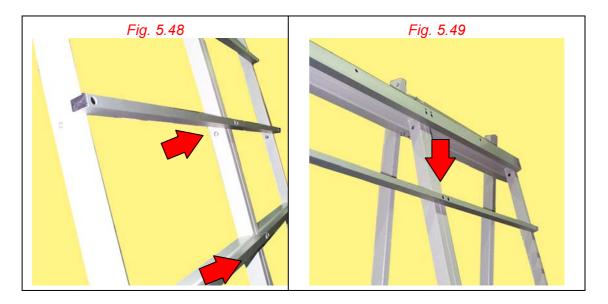




• Lean the optional extension on the frame that was just put together and screw it from the back with the supplied screws (three above and three below) (fig. 5.47).



• Screw the optional side extensions on the adjacent standard extension, with the supplied screws (*fig. 5.48*). As we tighten the screws don't forget to line up the aluminum supporting frames between themselves (*fig. 5.49*).

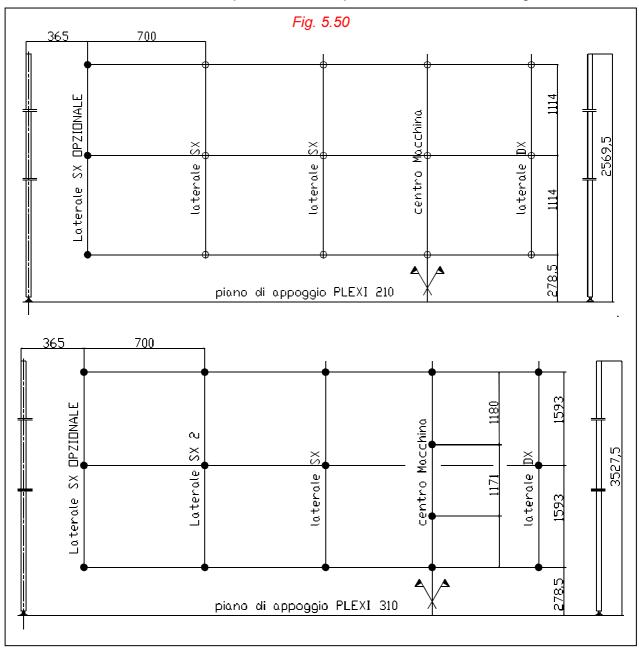


If the structure of the machine is not fixed to the wall the assembly operations of the optional extensions is considered completed and the machine is ready to be used. If on the other hand the structure is fixed to the wall continue following the procedure described below.





• Drill the wall for the optional extensions as indicated in *(fig. 5.50)*. The measurement depends on just one modular extension, for more than one count the multiples of the measure indicated in the photo. The example is valid for the left and right extension.







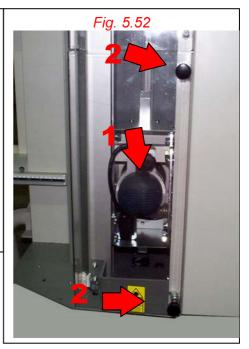
## Assembly of work tool

5.5

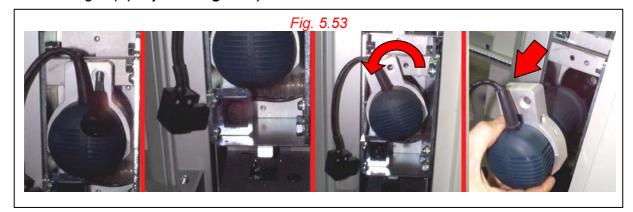
The machine is packed and shipped with the cutting head on the carriage but without the cutter. Follow this procedure to fix the cutter:

- The machine is supplied with four different cutter models, to be used to trim the various type of media, with different thickness and rigidity (*fig. 5.51*).
- To choose the right cutter for the media to cut, bring the carriage down in the position accessible from the lower inspection door (fig. 5.52 1).
- Remove the two knobs that fix the transparent Plexiglas door and remove it (fig. 5.44 2).





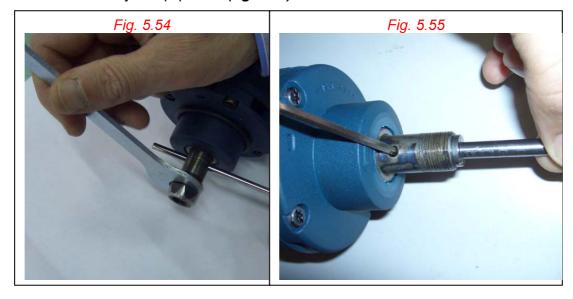
• Remove the knob that fixes the tool holder motor ring nut, disconnect the electric wire of the motor, rotate the ring nut with the motor counter-clockwise and slide out the entire group (sequence fig. 5.53).



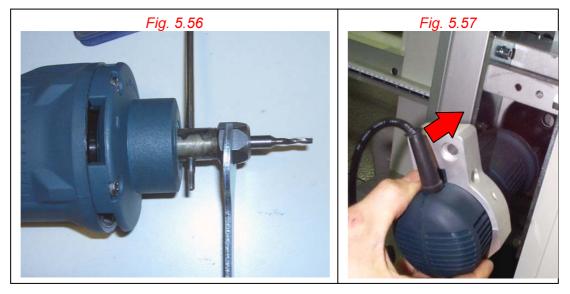




• To install the new router insert the mandrel block in the hole placed on the router rotating axis. With the key in equipment unscrew the bush that acts as mandrel (*fig. 5.54*), insert the router upto the mandrel counter boring (*fig. 5.55*), and secure the bush with the same key in equipment. (*fig. 5.56*).



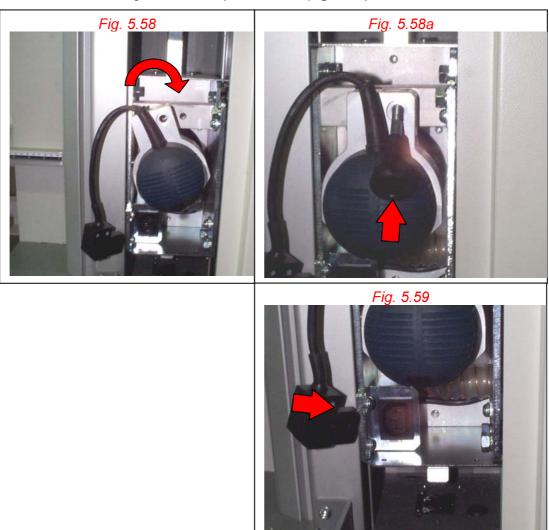
• Slide the cutter in the support on the carriage, until the cutter supporting ring nut is in position (fig. 5.57).







- Rotate the cutting head clockwise and block it with the knob that was removed earlier. (fig. 5.58 58a).
- Reconnect the cutting head motor power cable (fig. 5.59).



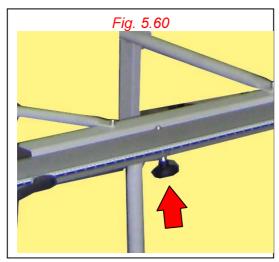




Adjustments 5.5.1

Verify that the cutting angle is 90°

- Make a perpendicular cut on a panel of about 1mt by 1mt.
- Reposition the same panel on the right side and verify that the vertical cut performed earlier is perfectly parallel with the cutting line.
- If possible use the knob that adjusts the inclination of the left millimetric guide, screwing it on or off to increase or decrease the angle (fig. 5.60).



Follow this procedure to line the guide supports with the panel:

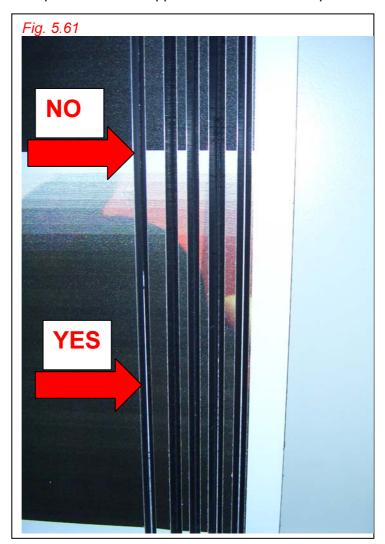
- Put a rigid panel on the extensions with a straight side leaning on the millimetric guides.
- Loosen the screws that are behind each millimetric guide and adjust them so that the panel leans evenly on all.





Verify the correct distance between the work table and the cutting device needed to cut the Dibond. To cut the media correctly the machine must be adjusted so that the media is trimmed evenly along the entire length of the cut. Follow this procedure to adjust the machine:

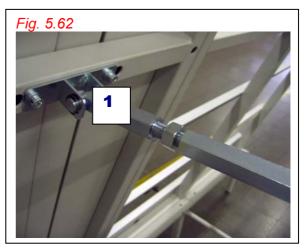
- Lay a panel of the media to cut (Dibond) on the machine. The media should have the same dimensions of the length of cut of the machine.
- Perform the first cut along the panel. After the first cut, at both ends (on the top and bottom) where the machine was factory adjusted, the blade removed all the first layer and even the media in-between, without touching the layer of media on the opposite side. Perhaps this did not happen towards the middle part of the cut. (fig. 5.61).



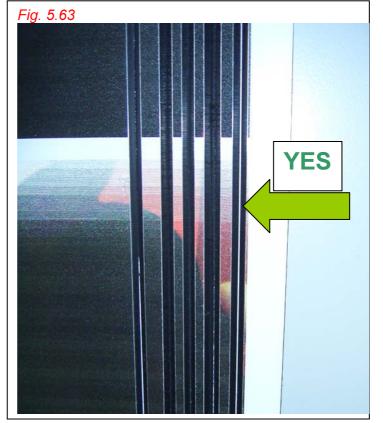




To adjust the table use the back tie rod and tighten (if I need to push the table towards the balde), or loosen (if I have to move the table away from the blade), the screw pin 1 of the tie rod. (fig. 5.62)



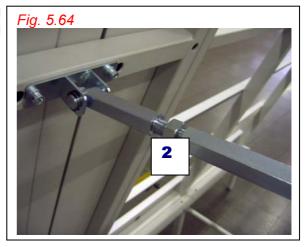
 Run a trial cut after every adjustment until the cut is even along the entire cutting line. (fig. 5.63).







 When the cut is perfect along the cutting line, lock the screw of the tie rod using the lock nut 2 of the tie rod (fig. 5.64)



1

No other adjustments are necessary because the machine is factory tested.





Storage 5.6

The indications contained in this section must be followed during the periods of temporary storage of the machine which could take place in the following situations:

- When the machine is not installed immediately after it is delivered.
- When the machine is disconnected and stored while waiting for it to be relocated

If possible the machine must be stored so no unauthorized people can reach it, it must be protected against damages due to dust, humidity, heat, cold, sun rays or substances able to corrode and attack it.

The storage areas must not be near any dangerous areas.

Characteristics 5.6.1

- Allowed temperature interval: from -5°C to +55°C, maximum temperature for short periods.
- Allowed humidity interval: from 30% to 95% without condensate. Ideal humidity ~55%.
- Proper natural and/or artificial illumination.
- Proper protection from atmospherics.
- Adequate space to carry out the hoisting and transportation operations in a safe and easy way.
- Horizontal surface with a capacity higher than the mass of the machine.
- Adequate space to carry out the ordinary maintenance and technical operations.





Placing of the machine	5.7	
Characteristics of the area the machine is placed in	5.7.1	

### Power supply

The area where the machine is installed must be equipped with the power supply connections described in 3.2 Power supply data.

### Space requirements

For the normal use of the machine and the loading and unloading operations, it is important to have an area directly proportional to the size of the media to cut.

### Protection from atmospherics

The machine must be placed in a suitably protected room, away from atmospherics.

## Floor requirements

Prepare the stable horizontal surface of the machine keeping in mind the mass of the machine itself. Also take into account all extra accessories.



Optimal stability and using conditions can be obtained with a maximum planarity error of ± ... mm/m.

#### Illumination

A good illumination is necessary to safely use and carry out maintenance operations (indicatively 200 - 600 lux), according to the standard UNI10380:1994.

### Atmospheric characteristics of the area

- Temperature: from 18°C to 35°C.
- Humidity: from 30 % to 95% without condensate. Ideal humidity ~55%, with maximum temperature of 40°C.

### General features of use

- The machine must not be used in explosive atmospheres
- The machine must not be used near acids, corrosive agents, salt, etc.
- The machine must not be used with ionizing and non-ionizing radiations (X rays, microwaves, ultraviolet rays).





5.7.2

Cod. NLT.PT-E-T-MM-7-4S-GB

## Electric connection



Check that the electric line is able to carry the absorption of the machine.



Electric hazards. Before making any connections to the mains make sure the system has been grounded.

- Position the power cable so it is not stepped on or ruined.
- Do not put the power cable where it can be damaged.
- Maintenance and service operations must be performed only by the assistance office authorized by the manufacturer.
- Disconnect the mains that power the machine.
- If the disconnection device is the mains plug, the relating outlet must be easy to access and near the machine.
- Power the line that feeds the machine.
- The electric system must be fitted with:
- Protection against over-currents thanks to devices with appropriate intervention current, according to the maximum absorption of the machine.
- An intervention device for insulation problems (differential) appropriate for the type of machine.
- An external equipotential protection circuit (ground connection) adequate and complaint with the laws in force in the place of installation of the machine.

Testing 5.7.3

Before using the machine continuously check the general operation of the machine by doing some sample cuttings.



If you hear vibrations or unusual noises, immediately switch off the machine and contact the **NESLT** assistance office see *Identification data of manufacturer 1.5*.





## **Qualifications of the operator**

6.1

The machine must be used by qualified personnel only.

Place of work 6.1.1

Position of the operator:

during the start up and cutting operations in front of the machine with the control panel in the center. During maintenance operations the position depends on the specific operation that needs to be carried out.

## Switching the machine on and off

6.1.2

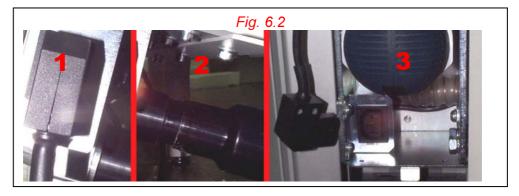
The main switch is placed on the lower right side of the power unit panel. After pressing the main switch on "I", the trimmer is ready to perform the cutting operations. *(fig. 6.1)*. Switching the machine off

After finishing the operating cycle, press the main switch on "0" to switch off the machine.



The power cables of the following components must be connected to use the machine correctly: (see sequence fig. 6.2).

- 1. Power supply of suction device (1).
- 2. Connection of the suction tube to the suction joint at the bottom of the machine behind the machine (2).
- 3. The cutting head motor power supply (3).







## **Cutting procedure**

6.1.3

Before starting the cutting procedure, you need to choose the right cutter for the media to trim. The machine comes with four cutters each with different cutting features each marked with a different code. The code of the cutter is stamped on the back of the cutter.



MEOLT A1: it can cut rigid acrylic media, like PLEX, up to 6mm. thick.

it can cut media with Aluminum, type Alibond, Dibond, up to 6mm. thick.

**NEOLT** B1: it can cut PVC Foam, like FOREX<sup>®</sup>, up to 6mm. thick.

MEOLT D1: it can cut PVC Foam, like FOREX®, from 6mm. to 10mm. thick.

MEOLT E1: to cut Dibond, with a 90° angle up to a 6mm thickness. It can be used to

fold the cut media to cover or create structures.

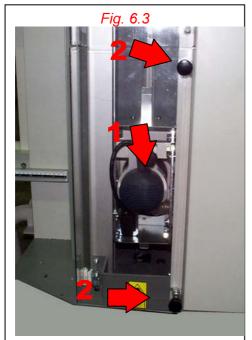


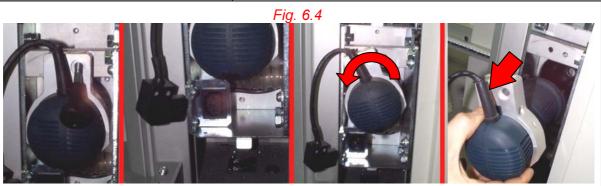




It is highly recommended, before carrying out any cutting operations, to verify that the cutter chosen is right for the thickness of the panel to cut. This will prevent low or high cuts, or breaking the cutter.

- After selecting the right cutter, to fix it to the cutter, bring the carriage down to the position accessible from the lower inspection door (fig. 6.3 1).
- Remove the two knobs that fix the transparent Plexiglas door and remove it (fig. 6.3 2).
- Remove the knob that fixes the tool holder motor ring nut, disconnect the motor power cable, rotate the ring nut with the motor counter-clockwise and slide out the entire group (sequence fig. 6.4).

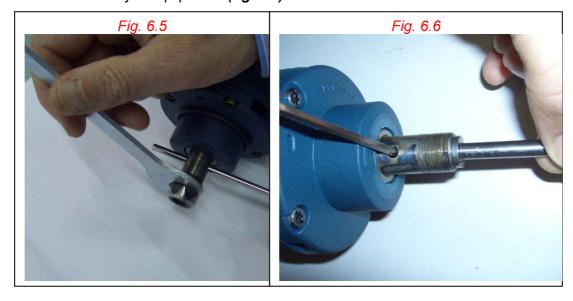




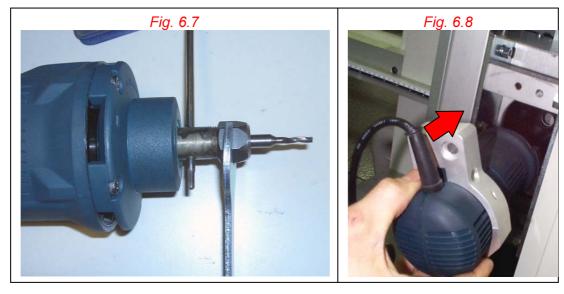




• To install the new router insert the mandrel block in the hole placed on the router rotating axis. With the key in equipment unscrew the bush that acts as mandrel (*fig. 6.5*), insert the router upto the mandrel counter boring (*fig. 6.6*), and secure the bush with the same key in equipment. (*fig. 6.7*).



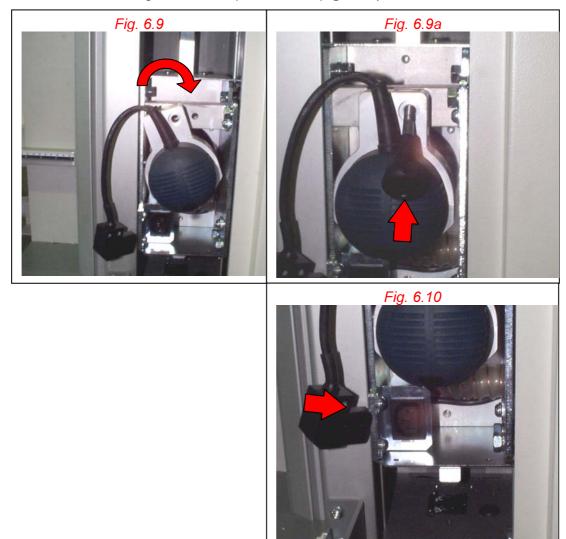
• Slide the cutter in the support on the carriage, until the cutter supporting ring nut is in position (*fig. 6.8*).



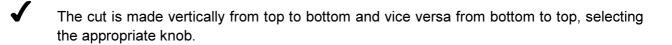




- Rotate the cutting head clockwise and block it with the knob that was removed earlier (fig. 6.9 9a).
- Reconnect the cutting head motor power cable (fig. 6.10).



• After positioning the tool and closing the transparent Plexiglas door, bring the cutting carriage up or down.







- Position the panel to trim on the left extensions. (Fig. 6.11). Select the cutting sizes using the reference brackets.
- Lower the sheet holder bar, by using the close key and wait for the green led on the carriage down side, stops flashing, before starting any operation. The sheet holder bar closing operation can be performed also using the foot pedal (fig. 6.12).





Pay close attention to the position of the hands (Fig. 6.13).





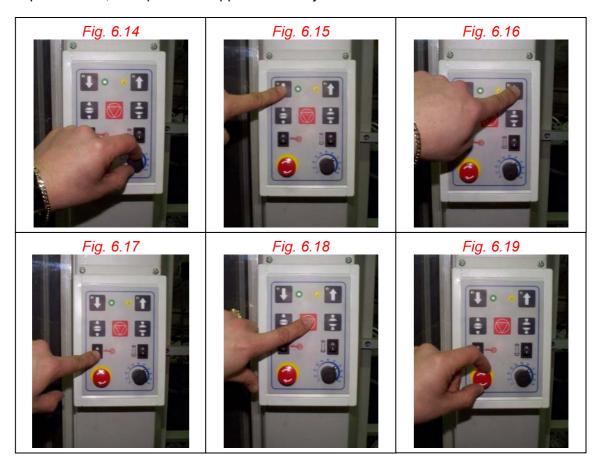


Do not perform any cuts until the green led stops flashing.





- Adjust the speed of the carriage, according to the type of material, slow for rigid media and thicker media, increasing the speed for softer and thinner media (*fig. 6.14*).
- Press the carriage up (*fig. 6.15*), or down key (*fig. 6.16*), according to the position of the carriage. When one or the other key is pressed, both the motor of the cutter and the motor of the scrap material suction device start automatically. If the panel to trim already has guide lines for the cut, we suggest switching on the laser tracer before cutting and position the material appropriately along the cutting line (*fig. 6.17*).
- Press the Stop Key (fig. 6.18) during the cutting phase, the carriage can be stopped right after completing the cut on the material, when the height of the panel to cut has been reached, and before it reaches the end of travel, at the top or bottom. Move the panel to cut, then press the opposite Cut key for the other cuts.



**√** 

Press the emergency button (fig. 6.19) to interrupt all machine functions. Rotate the button from left to right to unlock.





• After finishing the cut, press the sheet holder open key and wait for the green led, on the carriage up key to stop flashing before performing any operation. The sheet holder bar can also be opened by using the relevant foot pedal. (fig. 6.20).





If you press the sheet holder bar and then again the same key, with the sheet holder open, the machine emits an error signal and the yellow led starts flashing. To delete the error press the Stop key. The same problem occurs with the sheet holder close key. Follow the same procedure to delete the error. If the foot pedal is used to open and close the bar, the pedal automatically switches the pedal to the open function if the sheet holder bar is closed and to close if the bar is open.



Do not lean against or put any objects on the feeding table.





## Characteristics of the media to cut

6.1.4

This machine was designed to cut acrylic media, like Plex, with a maximum thickness of 6mm., PVC Foam (FOREX®) with a maximum thickness up to 10mm. (using the appropriate cutters) and materials with an aluminum part like Alibond or Dibond with maximum thickness of 6mm.



We recommend not trying to cut materials different form those which the machine has been designed for. They could seriously damage the machine.

NESLT spa USER'S MANUAL



Cod. NLT.PT-E-T-MM-7-4S-GB





# **Ordinary maintenance**

7.1



Risk of electric shocks and untimely movements during maintenance. Isolate the machine from power supply sources by unplugging the power cable.

Ordinary maintenance includes all those periodical and preventive operations that allow the machine to be used safely.

## **Qualifications of the operator**

7.1.1

Ordinary maintenance of the machine must be carried out by qualified personnel only.

Procedures 7.1.2

Please carry out the periodic operations listed in the table below.

Operation to be carried out	Frequency of execution		Procedure	Precautions
General dusting.	At user's discretion.	•	Clean the entire machine with a damp cloth.	Do not use aggressive products.
Cleaning the scrap material.	When the scrap material the suction tube did not remove is too much.	•	Remove the screws from the Plexiglas.  Remove the plexiglas.  With a suction tube and/or compressed air eliminate the scrap material the suction tube did not remove.	Wear a pair of protection gloves.





Operation to be carried out	Frequency of execution	Procedure	Precautions
Testing the safety microswitch.	At user's discretion.	Open the Plexiglas door, press the Cut Button and make sure the motor does not start.	After the test, close door.
Blade replacement.	If the cut is not regular.	See procedure assembly of work tool 5.5	Wear a pair of protection gloves.
Grease the chain.	If there are noises and/or the carriage doesn't run smoothly.	<ul> <li>Remove the Plexiglas protection.</li> <li>Remove the Plexiglas</li> <li>Grease the chain with a drop of oil</li> </ul>	After carrying out the operation, reassemble the carriage Plexiglas shield.
Replacing the power fuse.	If the fuse is burned.	<ul> <li>Open the fuse holder panel of the main switch.</li> <li>Remove the burned fuse.</li> <li>Replace it with a new one (T 10A).</li> </ul>	Isolate the machine from the mains by unplugging the power cable from the mains





Operation to be carried out	Frequency of execution	Procedure	Precautions
Empty out the suction container	Empty out the suction container when it is too full.	<ul> <li>Open the two clamps on the sides of the device and lift it by lifting the motor block using the relevant handle.</li> <li>Lift the suction motor protection filter.</li> <li>Empty out the container</li> <li>Close by reassembling everything in sequence filter, motor.</li> </ul>	Isolate the machine from the mains by unplugging the power cable from the mains.





# **Extraordinary maintenance**

**7.2** 

Directly contact **NEBLT** S.p.A for any extraordinary maintenance operation non contained in this manual.





## **Qualifications of the operator**

8.1

The machine can be demolished by qualified personnel only.

## **Deactivation of the machine**

8.2

Once the machine has reached the end of its technical and operating life, it must be deactivated. The machine must be deactivated and put in the condition of not being used for the purposes which it had originally been designed for. However, it must allow the reuse of the raw materials which it was built with.



NESLT S.p.A. cannot be held responsible for damages to people or animals due to the reutilization of single parts of the machine for purposes or in situations different from those which it has been designed for.

Procedure 8.2.1

- Disconnect the power supply.
- In case the machine has to be moved, refer to 5.2 Transportation.



The machine is made of non biodegradable materials. It must therefore be brought to an authorized center for its disposal.

If for any reason the user decides to put the trimming machine out of order, it is important to comply with certain rules to protect the environment. Aluminum, Iron, Plastic, generic electric material and electronic boards must be disassembled and disposed of separately. Qualified personnel must carry out these operations.

NESLT spa USER'S MANUAL



Cod. NLT.PT-E-T-MM-7-4S-GB