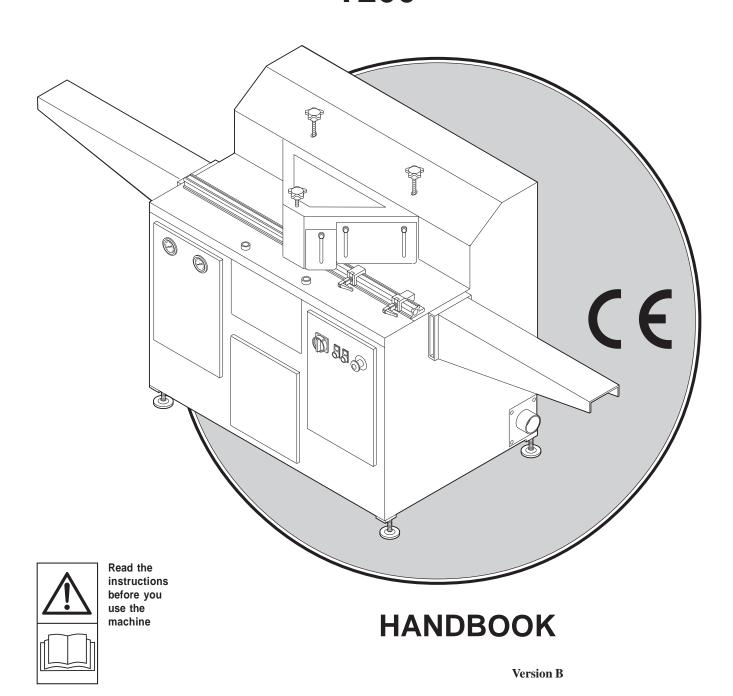


# DOUBLE MITRE SAW T200



# Data shown on the machine's ID plate

Version	Year of construction
ID number	Machine's receipt date
Area Distributor  AMP	

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Description and main characteristics

### 1.1 Introduction

This handbook is meant to inform you about the main procedures to run and maintain the "DOUBLE MITRE SAW T200M AND T200P. The T200M is the Manual Version and the T200P is pneumatic. In the rest of the manual they will be referred to as the SAW.

What is described in this handbook is not intended to be an analytical description of all the components or parts of the machine, but only a guide to advise the user how to use and maintain the machine safely.

The proper functioning & life of the machine is fully dependant upon you observing & implementing the written instructions contained in this handbook



Not observing the contents of this handbook, operator oversight, the wrong use of the machine, and any non-authorized modification of the machine, will cause the warranty to be voided by the manufacturer. The manufacturer denies responsibility for any damages caused by not following what is described in this handbook.



The handbook is an integral part of the machine, and must be provided with the saw. The handbook must be kept close to the machine, in a safe enviroment, and in a place known to the operators. It is the duty of the operators to keep it in good condition. If lost a new handbook has to be ordered immediately.

Some illustrations displayed in this handbook have been drawn without showing the panels and with the safety protections open. This was done to show the details of the machine in the clearest way possible.

## 1.2 Warranty

The Manufacturer guarantees its products for a period of 6 months from the date of purchase. When you receive the machine verify that it has all of it's parts and it is not damaged.

Any claim has to be presented in writing within 5 days from the receipt of the machine.

The warranty takes effect only after the manufacturer verifys a faulty item (electrical parts and tools excluded).

The repairing or the replacement of the parts under this warranty does not extend in any case the terms of the warranty itself.

The buyer can claim their rights only if they have respected the conditions regarding the warranty described in the handbook.

## 1.2.1 Warranty Exclusions

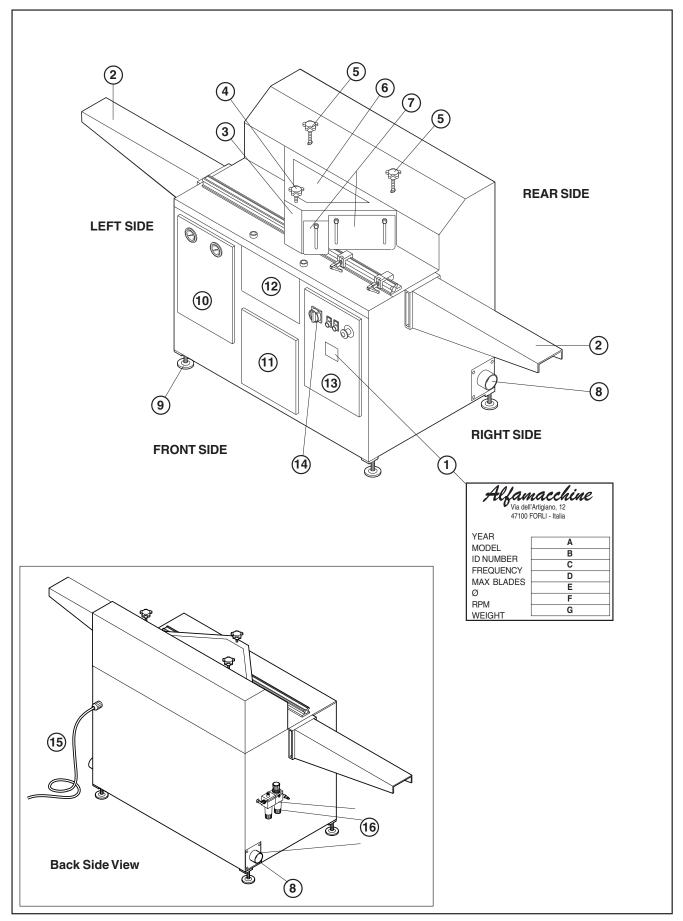
### The warranty is voided:

- Operator error during use.
- Damage caused by insufficient or improper maintenance.
- A repair made by the operator without the permission of the manufacturer or because of the installation of non-original spare parts.
- The operator did not follow the instructions in the handbook .
- Exceptional circumstances.

Also excluded from the warranty is all damages caused by acts of negligence, carelessness, & incorrect use of the machine.

### Legend Re. Pic. 1

- 1) ID plate and its location on machine
- 2) Extension arms
- 3) Front safety guard
- 4) Locking screw for the front safety guard
- 5) Horizontal clamp locking knobs
- 6) Window showing the cutting area
- 7) Adjustable safety shields
- 8) Dust collector ports (n. 2), to be connected to the main dust collector system of the plant
- 9) Leveling feet (n. 4).
- 10) Access panel for the main pneumatic parts
- 11) Access panel for the waste collecting area
- 12) Access panel for the blade's adjustment area
- 13) Access panel for the main electrical connections. For an accurate description of the components, see page. 15.
- 15) Main power cable
- 16) Filter-Regulator-Lubricator



Pic. 1 - Saw with the main components, the ID plate and its location on machine



The removal of the safety devices which are provided with the machine, will automatically void the warranty and the responsibility of the manufacturer.

The return of the machine or it's parts even if under warranty will be shipped at the customers expense.

# 1.3 Description And Use Of The Machine

### 1.3.1 Description

The double mitre saws T200P and T200M consist of a main metallic structure which has two motors installed in it which turn the two saw blades by means of a belt. **In the version T200P**, the blades are moved by a pneumatic control system.

In the version T200M, the blades are moved by a manual control system.

### 1.3.2 Use



The double mitre saws T200P and T200M are machines designed (as explained in this handbook), for only cutting wood profiles (frames, picture and photo frames, door casings, etc...). Two cuts are made with each cycle. Any other use of the machine besides the ones described in this handbook free the manufacturer from any kind of responsibility for damage to persons, animals or things.



The machines are designed for professional use. The operator has to be qualified to read and understand what is written in this handbook.

Furthermore, the operator must use the machine according to the current rules regarding the prevention of accidents, conditions of use and characteristics of the machines themselves.

### 1.4 Identification

Every machine, is equipped with an ID plate (see item 1 in Pic.1), which has the following data:

- Name and address of the manufacturer;
- A) Year of construction;
- B) Model of the machine;
- C) ID number;
- D) Frequency in «Hz»;
- E) maximum blade diameter;
- F) RPM;
- G) Weight of the machine in Kg.

The data shown on the ID plate has to be written on page 2 of the handbook and always must be provided when requesting technical assistance and/or spare parts.

# The double mitre saws T200P and T200M are supplied with the following standard items:

- one set of Allen wrenches;
- Special wrench for mounting/removing the blades;
- Special fence to adjust the angle of the blades (see pic. 9)
- Complete machine handbook, which includes the pneumatic and electrical drawings (only for the version T200P)
- Declaration of conformity to the «CE» norms, released by the manufacturer

### 1.5 Noise Emissions

With the saw on but not cutting moulding, the noise emission at the operators position, is below 70 dB. While cutting moulding the noise emission is:

- Acoustic pressure, operator position LpA dB (A) ...... 84,0
- Acoustic Power correct LwA dB (A) ......88,1



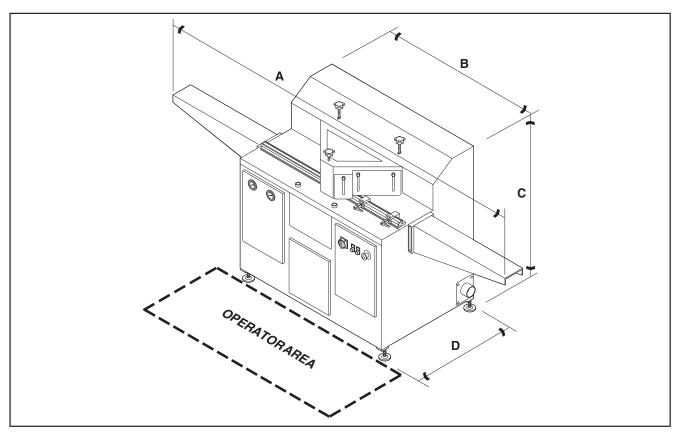
From the values measured during the cutting cycle, the machine presents a high level of noise. Because of this, during the use of the machine, it is required for the operator to wear hearing protection; like headphones or ear plugs, so as to avoid any kind of long term damage.

## 1.5.1 Dust Emissions

During the cutting, the level of dust emission is 7,32 mmg/nm³.



From the values measured during the cutting cycle the machine presents a modest emission of dust. While operating the machine it is advisable for the operator to use a protection mask to protect the respiratory tract.



Pic.2 - Dimensions of the machine

1.6 Technical Data		T200
Operating pressure	Bar	6 ÷ 8 (87 psi - 116 psi)
Power 3 phase (30 Amp Circuit)	Volt	230
Blade's diameter	Ø mm	300 mm(12")
RPM	g/1'	3500
Control motor power (n. 2 motors)	HP	2
Cutting angle	Degrees°	45
Machine weight	Kg	375 (826 LB)
Machine Dimensions		
Length A	mm	2970 (117")
Width <b>B</b>	mm	1470 (58")
Height <b>C</b>	mm	1200 (47")
Depth <b>D</b>	mm	780 (31")

# Safety and Prevention

## 2.1 Safety

The buyer / user, will have to instruct his workers in the risk of accidents, on the devices provided for the security of the operator, and of the general rules on the prevention of accidents contemplated by the law in force in the country in which the machine is installed.

The safety of the operator is one of the main concerns of the manufacturer of the machine.

When designing a new machine, the main goal is to estimate all the possible dangerous situations that may arise, and according to this, adopt all of the correct preventions.

There remains a very high possibilityan accident can occur caused by the improper use of the machine. Distractions and too much confidence when using the machines, are the main cause of accidents; as well as sleepiness and fatigue.

For this reason, it is required to carefully read the handbook and particularly the security norms, paying attention to the operations that may be particularly dangerous.

The manufacturer declines all responsibility for not observing the security norms expressed in this handbook.



Pay attention to this sign when it is shown in the handbook. It indicates a possible dangerous situation.

Dangers can be at three levels:



This is the sign of maximum danger. If the suggestions in the handbook are not followed, it can cause of grievous harm, death, or a long term health risk.



The "WARNING" sign, informs you that if the described operations are not precisely followed, it can cause grievous harm, death, or a long term health risk.



The "CAUTION" sign, informs you that if the described operations are not precisely followed, it can cause grievous damage to the machine and / or persons.

## 2.1.1 Terminology Used

To complete the description of the various levels of danger, we are now going to described the situations, and specific definitions that can be related directly to the machine and/ or persons.

- **USER:** Is the person, or the society, that has purchased or leased the machine and that intends to use it for the conceived use.
- DANGEROUS AREA: Whatever area inside and / or close to the machine, in which the presence of a person can be a risk for the security and the health of that person.
- **EXPOSED PERSONS:** Whatever person which is in proximity to or inside of a dangerous area.
- OPERATOR: The person, or persons, in charge of the cleaning the machine, using the machine, maintaining the machine, and shipping/ moving the machine.
- SPECIALIZED PERSONS: All persons trained and able to perform the maintenance and / or the repairs that requires a particular knowledge of the machine, its functions, & of the safety devices. They are also capable to recognize the dangers arising from the use of the machine and to be able to avoid them.
- AUTHORIZED ASSISTANCE CENTERS: The Authorized Assistance Centers are the companies, legally authorized by the Manufacturer, that can provide trained employees, able to supply the proper technical assistance to the customers to solve all of the most particular and complicated problems, having all parts necessary to keep the machine running at peak efficiency.

# 2.2 General Safety Norms

- The user guarantees the machine is operated only by trained operators.
- The user must prevent access to the machine by non-authorized people.

## 2.2.1 Clothing

- Use only proper clothing. Avoid wearing clothes that could get stuck in the moving parts. Long hair has to be tied up. The operator must not keep any pointed tools in their pockets.
- It is required when performing maintenance and repair, you use protective clothes such as: cut resistent gloves and safety shoes which have a slip resistent sole & crush resistent tops.

## 2.2.2 Ecology & Pollution



- In paragraph «1.5 Noise Emissions» all the values related to the noise measured on the machine are listed. The user has the responsibility to inform the operators of the machine, the dangers caused by the noise, and has to respect the current safetyrules related to this specific subject.
- All the products used for cleaning have to be discarded in conformity with the laws of the country in which the machine is used.
- The waste, the residual parts of the packing, & the scrap work materials have to be given to special companies for disposal.
- In case of the disposal of the machine, it is necessary to conform to the anti pollution norms of the country in which the machine is used.

### 2.2.3 Safety Procedures



- It is absolutely prohibited to let people run and operate the machine, who have not read and understood what is described in this handbook, or by incompetent persons, or persons that are not in good psychological or physical condition.
- Before connecting the machine to power and running it, verify that all safeties work properly.
- Before starting to use the machine, get used to using the new control devices.
- It is forbidden to remove or change the safety devices.

- The area in which the machine is used, has to be considered as a <<dangerous area>>, especially for the persons not trained to use it.
- Before starting the machine, verify that there no unauthorized persons or animals in the work area.
- When a person is inside the dangerous area, the operator has has to stop the machine immediatly.
- Do not put your hands close to the blades when the machine is running.
- It is forbidden to leave the working area when the machine on.
- It is forbidden to touch any of the moving parts.

#### 2.2.4 Maintenance Procedures

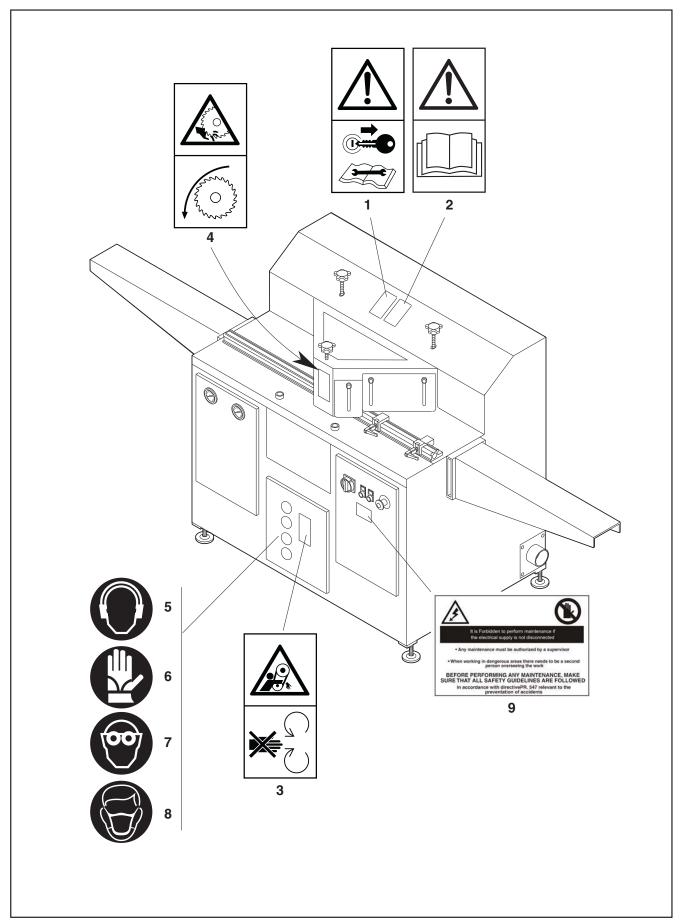


- Before starting any kind of maintenance on the machine, disconnect the power, then disconnect the pneumatic system and wait until every moving part is completely stopped.
- Verify periodically the integrity of the machine and it's security devices.
- During the maintenance and repair of the saw, it is required to use protective clothes such as: cut resistent gloves and safety shoes which have a slip resistent sole and crush resistent tops.
- Only use original spare parts.
- Do not start any maintenance or cleaning operations, if the machine has not been disconnected from the power supplies; (electric & pneumatic).
- To maintain the machine, strictly follow the descriptions in this handbook. The parts have to be replaced only by specialized persons.

# 2.3 Safety Labels

The machine has been designed adopting all the possible security norms, in order to protect the persons that operate it. In spite of this, there can exist residual risks that are shown on the machine by adhesive signs. These signs (pictograms) described in Pic. 3, are placed on the machine to show all the various situations of unsafe and dangerous areas.

Keep the safety labels clean, and replace them immediately when worn out.



Pic. 3 - Safety labels & their position on the machine

In reference to Pic. 3, read carefully what is shown and afterwards memorize their meaning.

- Before starting any kind of maintenance and cleaning of the machine, disconnect the power sources and read the handbook.
- **2) Before starting the machine**, read carefully the instruction handbook.
- Danger of cutting. Do not open the front panels before disconnecting the machine from the power supplies (Electric & Pneumatic).
- 4) Danger of cutting hands. When operating the machine, pay alot of attention when you are close to the cutting area. Do not remove the protection shields with the machine turned on. During the installation of the blades, pay attention to the blades direction versus the rotation of the motors
- 5) Danger for a high level of noise Always use headphones or ear plugs when working with the machine.
- 6) While using the machine & while changing the blades. It is required to use cut resistant gloves.

- **7) During the use of the machine**, it is required to wear safety glasses.
- **8) During the use of the machine**, use a special mask (dust mask or respirator).
- 9) Danger of high voltage Do not open the inspection doors before disconnecting the machine from the power supplies.
  - Do not work on electrical devices when there is power being supplied to them.
  - Repairs must be authorized from the manager in charge.
  - Under certain dangerous condtions, there must be another person present besides the main operator.
  - Run the machine only when all the security precautions have been understood.

## **SECTION 3**

Shipping and Installation

# 3.1 Shipping

When shipping refer to section«1.6 Technical data» for the weight and dimensions. The machine is usually supplied wrapped with nylon, banded up and positioned on a pallet in a vertical position. This way it can be easily loaded or unloaded, with a standard forklift of an appropriate lifting power. (Pic.4)



#### **CAUTION**

Before lifting the machine, make sure that all the moving parts are locked down.

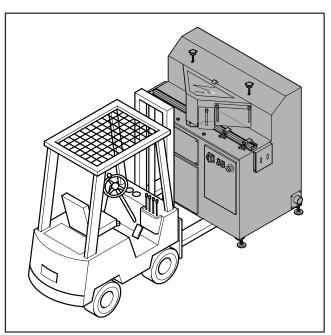


Shipping can be very dangerous if not made with the maximum attention to safety. Move the non official operators to a safe location; Evacuate the operating / shipping area; keep the maximum safe distance; during the moving, the loads must be kept at a max distance of 20cm (8")from floor. Make sure that the operator is able to evacuate the area immediatly in case the load falls.



### **WARNING**

The ground on which the machine has to be loaded, must be perfectly flat, so as to avoid any possibility of movement during the loading.



Pic. 4 - Shipping

After having transferred the machine on a truck or a train, ensure that it remains locked in its position.

Fix the machine tightly on the ground to which it has been loaded onto. After you receive the machine and before you unload/untie it, verify that the state and the position of the machine do not represent a danger to anybody.

### 3.2 Installation

After having verified the integrity of the machine, proceed with the positioning.



In choosing the position of the machine, it is recommended to consider the following things:

- Do not setup the machine in a humid location.
- The setup area is perfectly flat, the floor is a nonsloping one and has an appropriate loading capacity based on the machine's weight.
- No obstacles are present near the working area.
- Keep non-authorized persons away from the machine.
- A sufficient level of light is guaranteed, as per the local norms.
- The machine is positioned close to the main circuit breaker box.
- The electrical system is equipped with an earth ground connection.
- The power of the pneumatic system can produce at least 6 Bars (87PSI).
- The environmental temperature is adjusted between +10° Celsius (50 F) and +40° Celsius (104F).
- The working environment does not have an explosive atmosphere.

As soon as the machine has been positioned, make the longitudinal and tranversal levelling of the machine, by putting a precision level on the working bench, and adjusting the four feet to reach the correct level. (3 Pic. 5).

### 3.2.1 Cleaning Your Machine

After positioning the machine (with the working bench level) and before of connecting it, the machine has to be cleaned from the protecting lubricants, by using a sufficient cleaning solution.

These liquids can not be sprayed, but should be put on a cloth and spread uniformly, in respect to the specific anti-pollution norms.

### 3.2.2 Installing The Extension Arms

After having positioned the machine, proceed with the installation of the extension arms (Pic.5).

To perform this operation it is necessary to have two operators acting as follows:

- Position the guide (1 Pic. 5) so it touches the machine and insert the two screws (2 Fig. 5) inside the two holes as shown on Pic. 5.
- Verify the level of the guide (1 Pic. 5) is at the same level with the machine's bench. Tighten the two screws when the correct level is reached (2 Pic. 5).

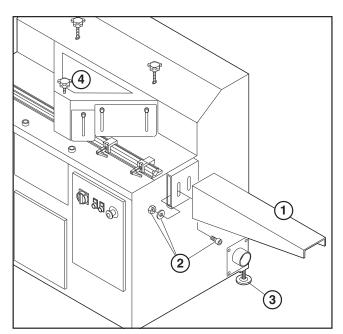
Repeat the above process for the other extension arm.

## 3.2.3 Connecting The Air Supply

The T200P is equipped with a pneumatic system that has a Filter/Regulator/Lubricator group (Pic. 7), which allows the movement of the cutting system.

It is necessary to connect the machine to a pneumatic system that can guarantee at least a pneumatic power of 6÷7 Bars (87-101PSI).

To connect the machine to the pneumatic system it is sufficient to get a flexible pipe connected to a female coupler and insert it into the machine's air inlet connection (1 Pic. 7).



Pic. 5 - Installing the extension arms
1) Lateral supporting guides. - 2) Guide fixing screws. - 3) Machine feet- 4) Working area access window

#### 3.2.4 Dust Collection Connection

Connect the two ports(3 Pic. 6), to hoses with an internal dimension of (10 cm or 4") and lock them in place with hose clamps, (not supplied by the manufacturer) to the dust collection system (Pic. 6).

### 3.2.5 Electrical Connection

Before servicing the electrical system, verify the electrical drawing connections included in the final part of this handbook.



Do not work on the electrical devices when connected to a power source.

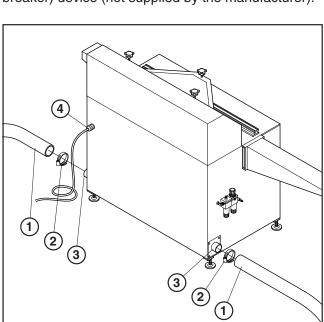


The connection of the saw to the electrical supply must be done by a certified electrician.

Verify that the working voltage of the machine (See at 1.6 Tech Data) corresponds to the working voltage in the factory (place of work).

The machine is supplied with a power cable about 3-4 meters long, but without a plug (4 Pic. 6).

Add a plug to the end of the cable, making sure that it complies with all local norms, and insert the plug into a socket equipped with a thermal protection (circuit breaker) device (not supplied by the manufacturer).



Pic. 6 - Connection of dust extraction pipes
1) Extraction hoses. - 2) Hose clamps - 3) Dust collector ports

Once the electrical connectionhave been made, verify the correct rotation of the saw blades. This operation is made by running the machine for a few seconds and looking through the inspection window. (4 Pic. 5), If the rotation is incorrect have your certified electrician fix the problem.

## 3.3 General Items To Check

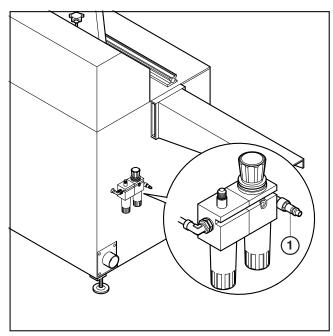


Before working with the machine verify the efficiency of the machine, the perfect functioning of the safety devices and the movement of the blades, which should not be stopped by anything.



#### **DANGER**

If, for whatever reason, the operator should have some doubt on the function of the machine, it is necessary to stop the machine.



Pic. 7 - Pneumatic Regulator

1) Fitting to connect to the pneumatic system.

# USE OF THE MACHINE

# 4.1 Before Using The Machine



Before starting to run the machine, the operator must read and understand all the sections of this handbook, in particular "section 2" regarding the safety.

# 4.2 Adjustments Before Using The Machine



The adjustments of the blades must be performed when the machine is turned off, using cut resistant gloves and the power supplies disconnected.

### 4.2.1 Safety Guard Adjustments

The front safety guards (2 Pic. 8) - both the left and the right side ones - must be adjusted as close as possible to the surface of the piece being cut. This is necessary to avoid your hand or fingers getting caught underneath or between the moulding/blades during the working cycle .

Adjust the safety guards in the following way:

- Disconnect the power supply, if connected.
- Position the piece to be cut on the working bench (1 Pic. 8) in close proximity to the safety guard. Based on the profile shape, move the protection (2 Pic. 8), by loosing their knobs (3 Pic. 8) and then tighten them again. Keep in mind that the working piece cannot touch the shield but that it has to remain at about 5 mm of distance away from it.

Repeat the same operation with the other safety guard.

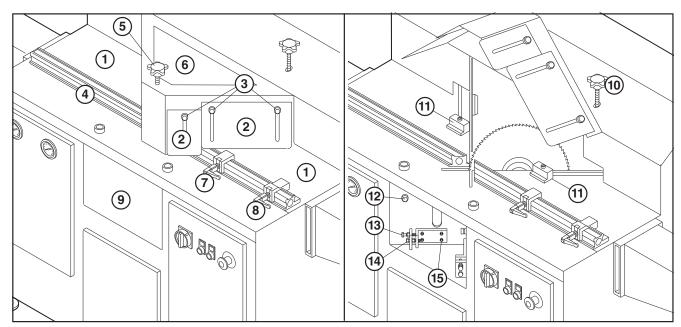
## 4.2.2 Horizontal Clamp Adjustments

The machine is equipped with two horizontal clamps to lock the profile to be cut into position, (one for each blades). It is operated pneumatically.

Before starting to work, with the machine off, it is necessary to adjust the position of these horizontal clamps (11 Pic. 8).

To do this:

- Unscrew and remove the screw (5 Pic. 8) that locks the blades safety guard and lift it up.
- Positioning the profile to be cut on the working bench making sure that it is touching the fence (4 Pic. 8), .
- Loosen the horizontal clamp locking screw (10 Pic. 8) and position the horizontal clamp at about 1 cm (3/8") from the profile to be cut.



Pic. 8 - Adjustments

1) Working bench - 2) Safety guards - 3) Safety guard locking knobs - 4) Fence - 5) Blades safety guard locking screw-6) Working area inspection window - 7) First adjustable stop - 8) Second adjustable stop-9) Panel to access the blades adjustment area - 10) Screw for locking the horizontal clamp into position - 11) Horizontal clamps-12) 2 regulators of the blades moving speed (These regulators are pre-adjusted before shipping the machine and must not be touched) - 13) Screw for adjusting the blades cutting angle-14) Screw for locking the blade position - 15) Screw for locking the blade adjusting plate.

- Tighten the horizontal clamp locking screw (10 Pic. 8).
- Close the blades safety guard and tighten the screw (5 Pic. 8).

## 4.2.3 Blade Adjustments

The machine is shipped with the blades preset to a 45° angle.

To adjust the saw blade angle, proceed as follows:

- Remove the front panel (9 Pic. 8), by removing the four locking screws.
- Position the blades adjustment tool on the working bench (Pic. 9).
- Loosen the four screws (15 Pic. 8) that lock the blades adjustment plate.
- Loosen the nut/screw (13 Pic. 8).
- Loosen or tighten the nut/screw (14 Pic. 8) until the desired angle is reached.
- Tighten the four screws (15 Pic. 8) that lock the blades adjustment plate.
- Lock the nut and the screw in position (14 Pic. 8).
- Tighten the nut/screw (13 Fig. 8) against the plate.

## Follow the same procedure on the other blade

 Mount the front panel (9 Pic. 8) by locking it with its four screws.

### 4.3 Machine Controls

The cycle of the machine is operated by the control pannel (Pic. 10).

- 1) Main control switch. Turning the switch to the right supplies the electrical power to the machine.
- Green button When pushed before you press the two buttons for the blades movement, the two motors are started.
- 3) White light Indicates that the machine has power going to it.
- **4) Emergency button** When pushed, it stops the working cycle immediately. To restore it, turn it to the right.
- 5) Working buttons. Pushing these two buttons at the same time moves the blades forward. Release the buttons to move the blades back.
- **6) Pressure gauge.** It indicates the pressure of the pneumatic circuit. The correct pressure should be between 6÷7 bar (87-101PSI).

7) Horizontal clamps pressure gauge. It shows the pressure of the horizontal clamps circuit. A correct position should indicate 2 bars (30PSI).

# 4.4 Operating The Machine

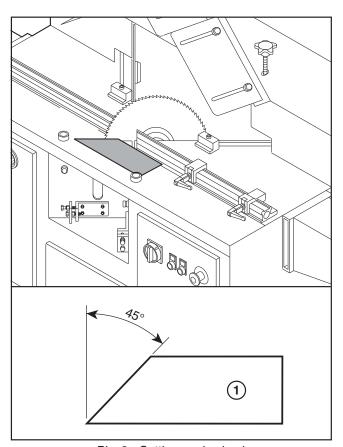
## 4.4.1 Starting The Saw



# With the saw running the operator MUST be facing the machine.

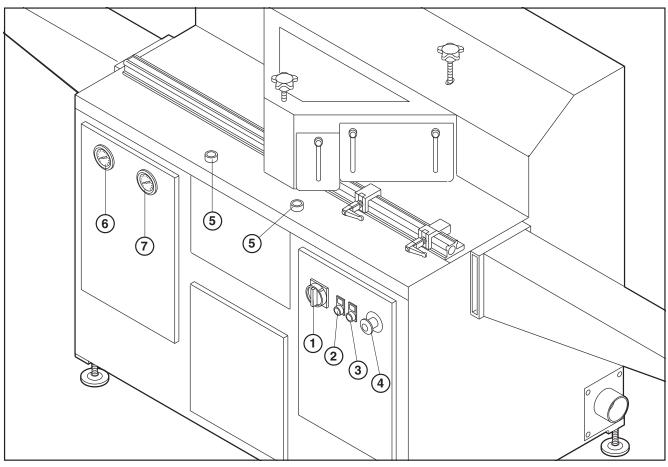
After having made all the adjustments and checked the correct position of the safety guards, turn the machine on and start using it.

- 1) Bring power to the machine by turning the magneto thermical switch (circuit breaker)on.
- 2) Turn the general main switch (1 Pic. 10) on, pos 1. With this operation the white lamp goes on (3 Pic. 10).
- 3) Push the green button to turn the blades on (2 Pic. 10).
- 4) Put the profile to be cut into position and press the two working buttons at the same time (5 Pic. 10).



Pic. 9 - Cutting angle check

1) Blades adjustment tool



Pic. 10 - Machine controls

- 5) At this point the two horizontal clamps (11 Pic. 8) will lock the profile and the blades will move forward and will start to cut.
- 6) As soon as the blades have completed the cut, release the two working buttons (5 Pic. 10), the blades will move back automatically to the start position and will be ready for a new cut.

### 4.4.2 Stopping The Saw

When you are finished using the machine, turn the machine off in the following way:

- Push the emergency stop button (4 Pic. 10);
- Turn the general main switch to the "0" position (1 Pic. 10);
- Disconnect the power to the machine by turning the magneto thermical switch (circuit breaker)off.

## 4.4.3 Emergency Stop

If for whatever reason it should be necessary to stop the machine, press the emergency button (4 pic.10). To restore power to the machine, turn the emergency stop button (4 Pic. 10), clockwise and push the run button (2 Pic. 10).

# 4.5 After Using The Saw

After using the machine it is necessary to clean it out thouroughly to remove any residual working material left (dust, etc..). Keeping the machine as clean as possible will help in getting the best results.

### **WARNING**

After using the machine, be sure to always disconnect the machine from the power supply by switching the magneto thermical switch (circuit breaker)off.

## Maintenance

# 5.1 Ordinary Maintenance

The saw because of its characteristics does not require any particular maintenance. In order to have the best possible performance, it is better to keep the machine fully maintained.



THE MAINTENACE MUST BE DONE WITH THE MACHINE OFF AND DISCONNECTED FROM THE POWER SUPPLIES.

### **Ordinary Maintenance main operations:**

 Every day it is necessary to verify the general state of the machine, keeping it constantly cleaned.

- Worn out or broken parts must be immediately be replaced.
- For whatever doubt you have on the electrical system, verify it with the electrical schematic and/or call the specialized operators.

### 5.1.1 Saw Belts

The movement of the blades coming from the motors is made by the saw belts (1 Fig. 11). It is necessary from time to time to check the wear and tear of the belts and their tension.



# This operation has to be made by specialized operators only.

In order to verify this:

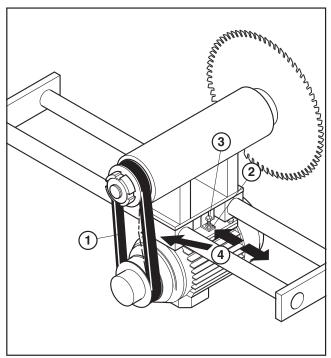
- Disconnect the electrical & pneumatic power;
- Remove the machine's front panel (11 Pic. 1). The correct tension of the belts is acquired by pushing the belt with sufficient pressure, as indicated by the arrow (4 Pic. 11). They should flex about 1cm.

If worn, it is necessary to replace them as follows:

### **BELT REPLACEMENT**

- 1) Disconnect the machine from the electrical and pneumatic power supplies.
- 2) Remove the front panel (11 Pic. 1).
- 3) Loose the nut (2 Pic. 11) and the regulating screw (3 Pic. 11).
- 4) Remove the worn out belt and replace it with a new one
- 5) Bring the belt to the right tension by tightening the adjusting screw (3 Pic. 11).

  Tighten the nut (2 Pic. 11).
- 6) At the end of the operation, verify the belt tension (1 Pic. 11) as previously explained.
- 7) Mount the front panel (11 Pic. 1).



Pic. 11 - Saw Belt

1)Saw belt. - 2) Locking nut of the adjusting scew - 3) Adjusting screw. - 4) Point of pressure to verify the belts tension.

### **5.1.2 Blade Replacement**

Before starting the replacement of the blades, check chapter 1.6 Technical Data, to know the blades diameter.



To replace the blades, it is required to use cut resistant gloves.

In choosing the blades it is advisable to use blades of superior quality. It has been proven that low quality blades do not guarantee the high performance the machine can provide.

To install (or to remove) the blade it is necessary to:

- Disconnect the machine from the electrical and pneumatic supplies and wait until all the moving parts are stopped.
- Open the front safety guard (1 Pic. 12).
- Pull the blades toward you by hand.
- Insert an 8mm allen wrench (2 Pic. 12) in the blade's central screw.
- With a hand protected by cut resistant gloves, insert the special key in the opposite hole located on the flange, and with the other key, unscrew the screw which locks the blade itself.

- Remove the flange and then the blade (4 Pic. 12).



CAUTION

When installing a blade, pay attention to the teeth direction.

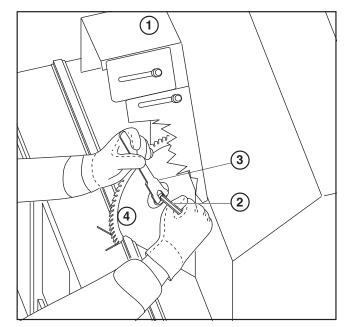


After having correctly installed the blade, check that is well positioned in its seat and that rotates without any hindrance or friction.

### 5.1.3 Cleaning The Inside Of The Machine

It is important from time to time to clean the inside of the machine.

- Disconnect the machine from the electrical and pneumatic supplies, and wait until all the moving parts are stopped.
- Remove the four screws that lock the front panel (11 Pic. 1) and remove it.
- Clean the inside of the machine thoroughly. When finished, mount the front panel back into its position. (11 Pic. 1).



Pic. 12 - Blade replacement

1) Front safety guard - 2) Allen Wrench supplied by the manufacturer - 3) Special key - 4) Blade

# 5.2 Saw Storage



In case of a long period of non-use, it is necessary to clean the machine thououghly & lubricate all the parts subject to rusting, and cover it with a plastic sheet.

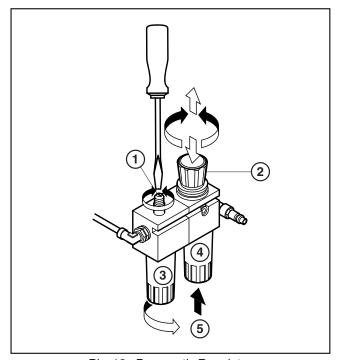
Keeping the machine in good condition helps to have the best performance and efficiency, whenever the use of the machine is required.

## **5.3 Spare Parts**

All the components and spare parts can be obtained from the distributor by supplying the following data:

- Version of the machine;
- ID / Serial number;
- Year of construction;
- Description of the required part and of the quantity;

The distributor is always at your disposal to reply to any needs of assistance and / or spare parts.



Pic. 13 - Pneumatic Regulator

1) Oil stream adjusting screw - 2) Pressure adjusting knob - 3) Oil housing - 4)Air filter - 5) Condensation evacuation knob

# **VERSION T200M**

## 6.1 General Information

The T200M Is a manually operated double mitre saw.



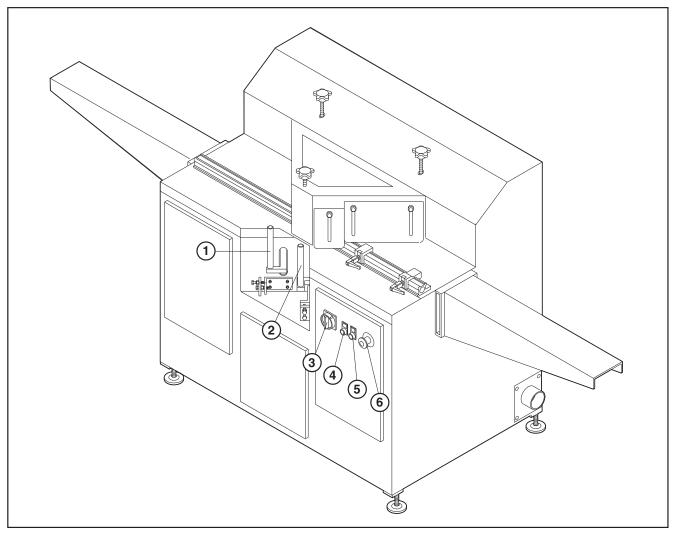
What is described under this section is meant to complete what is written previously in this handbook.

Since this machine, with the exception of the controls, the T200M saw is identical to the T200P (with pneumatic controls), please refer also to the sections reported previously.



The only substantial difference is:

- When cutting, the blades movement is performed manually as listed in the following information.



Pic. 14 - T200M Saw

<sup>1)</sup> Left blade movement handle - 2) Right blade movement handle - 3) General Main Switch - 4) Green run button. - 5) White light. - 6) Emergency Button.

# 6.2 Starting The Saw



With the saw running, the operator MUST be facing head-on to the machine, because this is the only position possible to operate the machine correctly.

After having made all the adjustments and checked the correct position of the safety guards, turn the machine on and start using it.

- 1) Bring power to the machine by turning the magneto thermical switch (circuit breaker) on.
- 2) Turn the general main switch (1 Pic. 10) on pos 1. With this operation the white lamp goes on (3 Pic. 10).
- 3) Push the green button to turn the blades on(2 Pic. 10).
- 4) Put the profile to be cut into position.
- 5) Pull the blade movement handle (1 or 2 Pic. 14) as shown on Pic. 15. With this done, the two horizontal clamps will clamp the moulding and the blade will start the cutting cycle. Releasing the blade movement handle, the blade will go back automatically to the start position, and will be ready for a new cut.

### 6.2.1 Stopping The Saw

When you are finished using the machine, turn the machine off in the following way:

- Push the emergency stop button (6 Pic. 14);
- Turn the general main switch to the off "0" position (3 Pic. 14)
- Disconnect the power to the machine by turning the magneto thermical switch (circuit breaker) off.

### 6.2.2 Emergency Stop

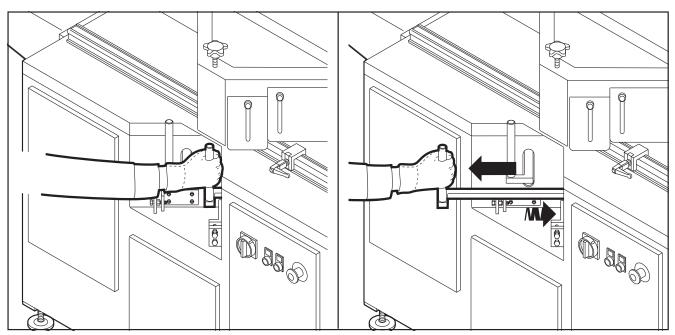
If for whatever reason it should be necessary to stop the machine, press the emergency button (6 Pic. 14). To restore power to the machine, turn the emergency stop button (6 Pic. 14) clockwise and push the run button (4 Pic. 14).

# 6.3 After Using The Saw

After using the machine it is necessary to clean it out thoroughly to remove any residual working material left (dust, etc..). Keeping the machine as clean as possible will help in getting the best results.

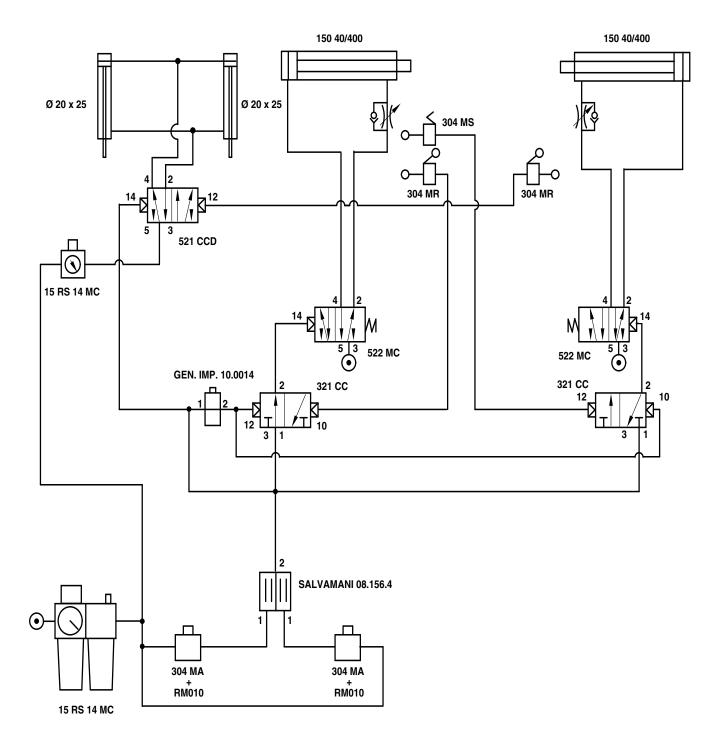


After using the machine, be sure to always disconnect the machine from the power supply by switching the magneto thermical switch (circuit breaker)off.

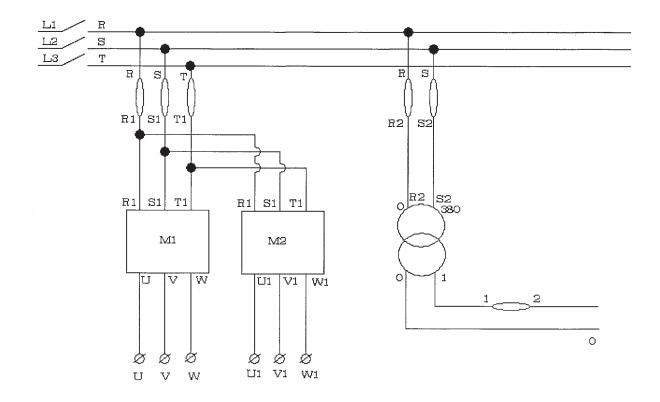


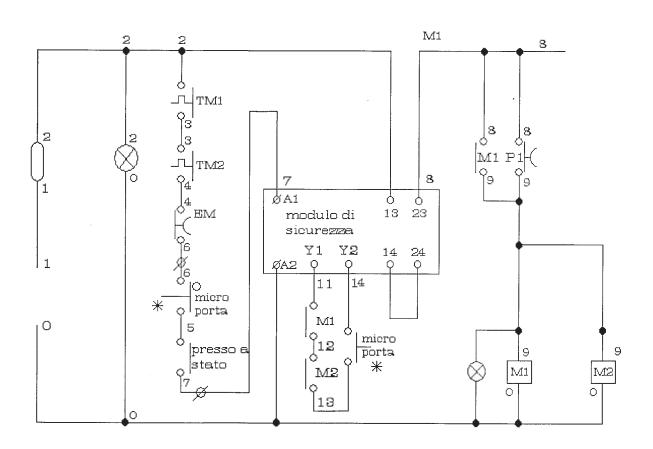
Pic. 15 - Cutting Cycle

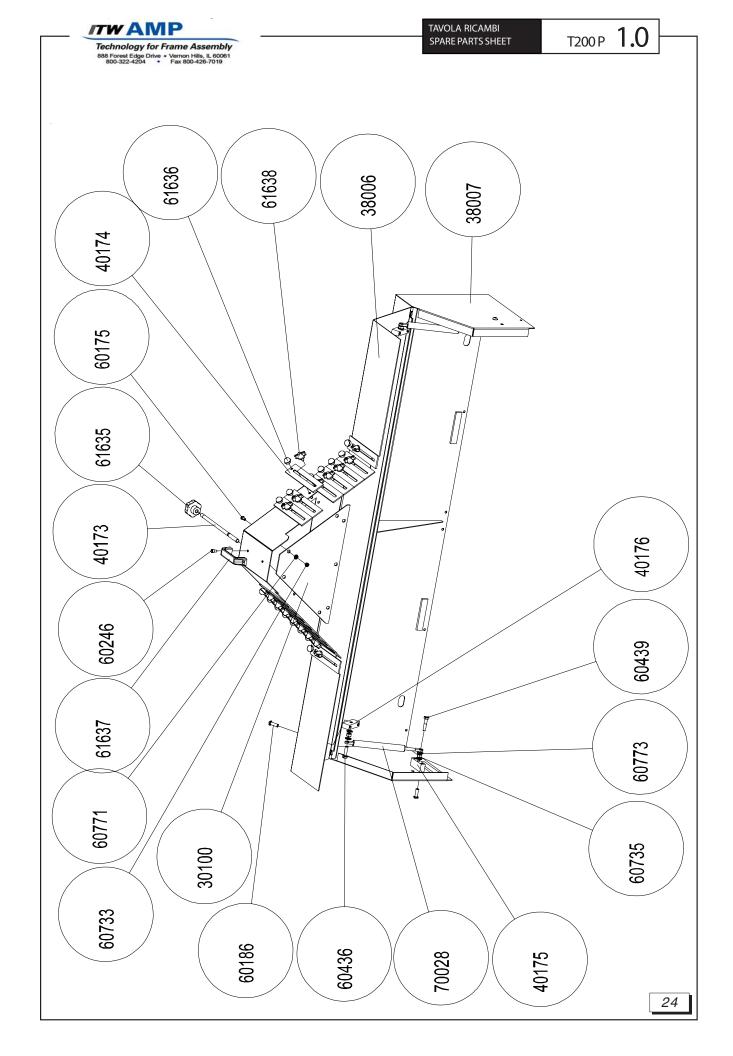
# **PNEUMATIC DRAWING - T200 SAW**

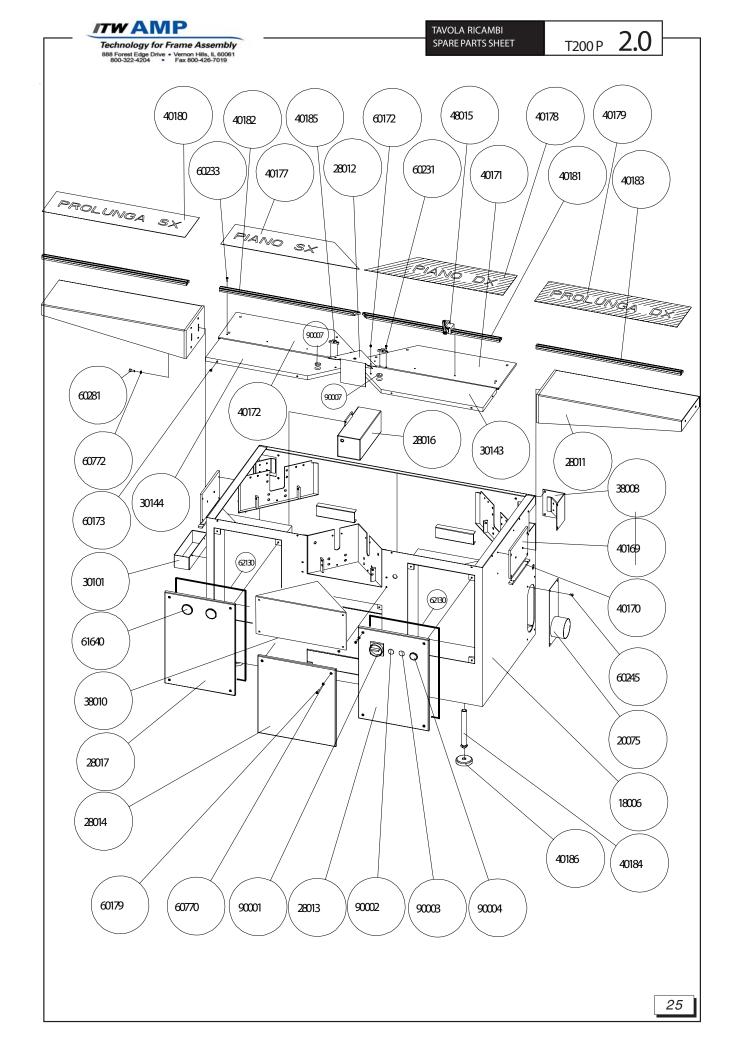


## THREE PHASE ELECTRICAL DRAWING FOR THE T200 SAW











Technology for Frame Assembly
888 Forest Edge Drive • Vernon Hills, IL 60061
800-322-4204 • Fax 800-426-7019

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20077         Cerniera         1           20078         Cerniera         1           20079         Bloc chetto         1           20080         Tubolare         1           20081         Pias tra         2           20082         Staffa         1           20087         A sta         2           20088         Bloc chetto         2           28007         Telaio saldato         1           28009         Particolare di saldatura         2           28010         Particolare di saldatura         2           28011         Particolare di saldatura         2           28013         Particolare di saldatura         1           28014         Particolare di saldatura         1           28015         Cerniera         1           28016         Particolare di saldatura         1           28017         Particolare di saldatura         1           28017         Particolare di saldatura         1           3007         Lamiera         1           3007         Lamiera         1           3007         Lamiera         1           3008         Lamiera         2			
20078         Cerniera         1           20079         Blocchetto         1           20080         Tubolare         1           20081         Piastra         2           20082         Staffa         1           20087         Asta         2           20088         Blocchetto         2           20089         Blocchetto         2           28007         Telaio saldato         1           28009         Particolare di saldatura         2           28010         Particolare di saldatura         2           28011         Particolare di saldatura         2           28013         Particolare di saldatura         1           28014         Particolare di saldatura         1           28015         Cerniera         1           28016         Particolare di saldatura         1           28017         Particolare di saldatura         1           28017         Particolare di saldatura         1           28017         Particolare di saldatura         1           3007         La miera         1           3007         La miera         1           3007         La miera         1		_	<del> </del>
20079         Blocchetto         1           20080         Tubolare         1           20081         Pias tra         2           20082         Staffa         1           20088         Blocchetto         2           20089         Blocchetto         2           28007         Telaio saldatu         2           28009         Particolare di saldatura         2           28010         Particolare di saldatura         2           28011         Particolare di saldatura         2           28013         Particolare di saldatura         1           28014         Particolare di saldatura         1           28015         Cerniera         1           28016         Particolare di saldatura         1           28017         Particolare di saldatura         1           28017         Particolare di saldatura         1           3007         La miera         1           3007         La miera         1           3007         La miera         1           3007         La miera         1           3008         La miera         2           3008         La miera         2 <td>-</td> <td></td> <td></td>	-		
20080         Tubolare         1           20081         Piastra         2           20082         Staffa         1           20087         A sta         2           20088         Blocchetto         2           20089         Blocchetto         2           28007         Telaio saldato         1           28009         Particolare di saldatura         2           28010         Particolare di saldatura         2           28011         Particolare di saldatura         1           28013         Particolare di saldatura         1           28014         Particolare di saldatura         1           28015         Cerniera         1           28017         Particolare di saldatura         1           3007         Lamiera         1           3007         Lamiera         1           3007         Lamiera         1           3007         Lamiera         1           30080         Lamiera         2			
20082         Staffa         1           20087         A sta         2           20088         B loc c hetto         2           20089         B loc c hetto         2           28007         Telaio saldato         1           28009         Particolare di saldatura         2           28010         Particolare di saldatura         2           28011         Particolare di saldatura         1           28014         Particolare di saldatura         1           28015         Cerniera         1           28016         Particolare di saldatura         1           28017         Particolare di saldatura         1           28017         Particolare di saldatura         1           3007         Lamiera         1           3007         Lamiera         1           3007         Lamiera         1           3007         Lamiera         1           3008         Lamiera         2           3008         Lamiera         2           3008         Lamiera         2           3008         Lamiera         2           3008         Lamiera         1           3009			1
20087         A s ta         2           20088         B loc c hetto         2           20089         B loc c hetto         2           28007         Te laio saldato         1           28009         Particolare di saldatura         2           28010         Particolare di saldatura         2           28011         Particolare di saldatura         1           28013         Particolare di saldatura         1           28014         Particolare di saldatura         1           28015         Cerniera         1           28016         Particolare di saldatura         1           28017         Particolare di saldatura         1           3007         La miera         1           3007         La miera         1           3007         La miera         1           3007         La miera         1           30080         La miera         1           30081         S ca tola         2           30082         La miera         2           30083         La miera         2           30084         La miera         2           30085         Protezione         2	20081	P ia s tra	2
20088         B loc c hetto         2           20089         B loc c hetto         2           28007         Telaio saldato         1           28009         Particolare di saldatura         2           28010         Particolare di saldatura         2           28011         Particolare di saldatura         1           28014         Particolare di saldatura         1           28015         Cerniera         1           28016         Particolare di saldatura         1           28017         Particolare di saldatura         1           28017         Particolare di saldatura         1           3007         La miera         1           3007         La miera         1           3007         La miera         1           3007         La miera         1           3008         La miera         1           3008         La miera         2           3008         La miera         2           3008         La miera         2           3008         La miera         2           3008         La miera         1           3009         La miera         1	20082	Staffa	1
20089         Blocchetto         2           28007         Telaio saldato         1           28009         Particolare di saldatura         2           28010         Particolare di saldatura         2           28011         Particolare di saldatura         1           28013         Particolare di saldatura         1           28014         Particolare di saldatura         1           28015         Cerniera         1           28016         Particolare di saldatura         1           28017         Particolare di saldatura         1           30078         Lamiera         1           30079         Lamiera         1           30078         Lamiera         1           30080         Lamiera         1           30081         Scatola         2           30082         Lamiera         2           30083         Lamiera         2           30084         Lamiera         2           30085         Protezione         2           30096         Lamiera         1           30097         Lamiera         1           30098         Lamiera         1 <t< td=""><td>20087</td><td>A s ta</td><td>2</td></t<>	20087	A s ta	2
28007         Telaio saldato         1           28009         Particolare di saldatura         2           28010         Particolare di saldatura         2           28011         Particolare di saldatura         1           28013         Particolare di saldatura         1           28014         Particolare di saldatura         1           28015         Cerniera         1           28016         Particolare di saldatura         1           28017         Particolare di saldatura         1           3007         Lamiera         1           3007         Lamiera         1           3007         Lamiera         1           3007         Lamiera         1           3008         Lamiera         1           3008         Lamiera         2           3008         Lamiera         1           3008         Lamiera         1           3009         Lamiera         1           3009			
28009         Particolare di saldatura         2           28010         Particolare di saldatura         2           28011         Particolare di saldatura         1           28013         Particolare di saldatura         1           28014         Particolare di saldatura         1           28015         Cerniera         1           28016         Particolare di saldatura         1           28017         Particolare di saldatura         1           3007         La miera         1           3007         La miera         1           3007         La miera         1           3007         La miera         1           3008         La miera         1           30080         La miera         2           30081         S ca tola         2           30082         La miera         2           30083         La miera         2           30084         La miera         2           30085         Protezione         2           30096         La miera         1           30091         La miera         1           30092         La miera         1 <td< td=""><td></td><td></td><td><del>_</del></td></td<>			<del>_</del>
28010         Particolare di saldatura         2           28011         Particolare di saldatura         2           28013         Particolare di saldatura         1           28014         Particolare di saldatura         1           28015         Cerniera         1           28016         Particolare di saldatura         1           28017         Particolare di saldatura         1           30077         La miera         1           30078         La miera         1           30079         La miera         1           30080         La miera         1           30081         Scatola         2           30082         La miera         2           30083         La miera         2           30084         La miera         2           30085         Protezione         2           30090         La miera         1           30091         La miera         1           30092         La miera         1           30093         La miera         1           30094         La miera         1           30095         La miera         1           30096			
28011         Particolare di saldatura         1           28013         Particolare di saldatura         1           28014         Particolare di saldatura         1           28015         Cerniera         1           28016         Particolare di saldatura         1           28017         Particolare di saldatura         1           30077         Lamiera         1           30078         Lamiera         1           30079         Lamiera         1           30080         Lamiera         1           30081         Scatola         2           30082         Lamiera         2           30083         Lamiera         2           30084         Lamiera         2           30085         Protezione         2           30090         Lamiera         1           30091         Lamiera         1           30092         Lamiera         1           30093         Lamiera         1           30094         Lamiera         1           30095         Lamiera         1           30096         Lamiera         1           30097         Lamiera			
28013       Particolare di saldatura       1         28014       Particolare di saldatura       1         28015       Cerniera       1         28016       Particolare di saldatura       1         28017       Particolare di saldatura       1         30077       Lamiera       1         30078       Lamiera       1         30080       Lamiera       1         30081       Scatola       2         30082       Lamiera       2         30083       Lamiera       2         30084       Lamiera       4         30085       Protezione       2         30086       Lamiera       1         30090       Lamiera       1         30091       Lamiera       1         30092       Lamiera       1         30093       Lamiera       1         30094       Lamiera       1         30095       Lamiera       1         30096       Lamiera       1         30097       Lamiera       1         30098       Lamiera       1         30100       Protezione       1         30104 <td< td=""><td></td><td></td><td></td></td<>			
28014         Particolare di saldatura         1           28015         Cerniera         1           28016         Particolare di saldatura         1           28017         Particolare di saldatura         1           30077         Lamiera         1           30078         Lamiera         1           30080         Lamiera         1           30080         Lamiera         2           30081         Scatola         2           30082         Lamiera         2           30083         Lamiera         2           30084         Lamiera         2           30085         Protezione         2           30096         Lamiera         1           30091         Lamiera         1           30092         Lamiera         1           30093         Lamiera         1           30094         Lamiera         1           30095         Lamiera         1           30096         Lamiera         1           30097         Lamiera         1           30098         Lamiera         1           30099         Staffa         4			
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30078       Lamiera       1         30079       Lamiera       1         30080       Lamiera       1         30081       Scatola       2         30082       Lamiera       2         30083       Lamiera       2         30084       Lamiera       4         30085       Protezione       2         30086       Lamiera       1         30090       Lamiera       1         30091       Lamiera       1         30092       Lamiera       1         30093       Lamiera       1         30094       Lamiera       1         30095       Lamiera       1         30096       Lamiera       1         30097       Lamiera       1         30098       Lamiera       1         30100       Protezione       1         30103       Lamiera       2         30104       Lamiera       2         30105       Lamiera       1         30106       Staffa       1         30109       Lamiera       1         30109       Lamiera       1         30104	28017	Particolare di saldatura	1
30079       Lamiera       1         30080       Lamiera       1         30081       Scatola       2         30082       Lamiera       2         30083       Lamiera       2         30084       Lamiera       4         30085       Protezione       2         30090       Lamiera       1         30091       Lamiera       1         30092       Lamiera       1         30093       Lamiera       1         30095       Lamiera       1         30096       Lamiera       1         30097       Lamiera       1         30098       Lamiera       1         30099       Staffa       4         30100       Protezione       1         30103       Lamiera       2         30104       Lamiera       2         30105       Lamiera       1         30106       Staffa       1         30109       Lamiera       1         30104       Lamiera       1         30104       Lamiera       1         30105       Lamiera       1         30106		Lamiera	
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30085       Protezione       2         30086       Lamiera       2         30090       Lamiera       1         30091       Lamiera       1         30092       Lamiera       1         30093       Lamiera       1         30095       Lamiera       1         30096       Lamiera       1         30097       Lamiera       1         30098       Lamiera       1         30099       Staffa       4         30100       Protezione       1         30103       Lamiera       2         30104       Lamiera       2         30105       Lamiera       1         30106       Staffa       1         30109       Lamiera       1         30143       Lamiera       1			<del></del>
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30095       Lamiera       1         30096       Lamiera       1         30097       Lamiera       1         30098       Lamiera       1         30099       Staffa       4         30100       Protezione       1         30103       Lamiera       2         30104       Lamiera       2         30105       Lamiera       1         30106       Staffa       1         30109       Lamiera       1         30143       Lamiera       1			
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30106       Staffa       1         30109       Lamiera       1         30143       Lamiera       1			
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	3 0 1 4 3	Lamiera	1

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38006	Particolare disaldatura	1
38007	Particolare disaldatura	1
38008	Particolare disaldatura	2
38010	Particolare di saldatura	1
40092	B lo c c h e tto	11
40093	B lo c c h e tto	1
40094	B lo c c h e tto	1
40095	B locchetto	1
40121	B o c c o la	4
40122	B lo c c h e tto B lo c c h e tto	2
40123	B loc c he tto	2
40125	B lo c c h e tto	2
40126	Flangia	2
40127	B lo c c h e tto	2
40128	P ia s tra	2
40129	A s ta	4
40130	S ta ffa	4
40131	P u le g g ia	2
40132	P ia s tra	1
40133	Staffa	2
40134	A s ta	2
40135	Pia s tra	1
40136	B lo c c h e tto A lb e r o	1
40137	B locchetto	<u>'</u>
40139	D is tanziale	2
40140	S ta ffa	2
40141	S ta ffa	2
40142	S ta ffa	2
40143	D is ta n z ia le	2
40144	D is ta n z ia le	2
40145	R o te lla	4
40146	Particolare disaldatura	1
40147	Protezione	2
40148	Pia s tra	2
40149	Albero	2
40150	Particolare disaldatura Canna	2
40151	Molla	4
40153	P is to ne	2
40154	S te lo	2
40155	T e s ta ta	2
40156	A lb e r o	1
40157	Blocchetto	1
40158	B lo c c h e tto	2
40159	B lo c c h e tto	2
40160	A lbero	2
40161	Coperchio	2
40162	L in g u e tta	2
40163	Rondella	2
40164	F la n g ia F la n g ia	2
40169	Pia s tra	2
40170	Pias tra	2
40171	Pia s tra	1
40172	Pia s tra	1
40173	A s ta	1
40174	Protezione	1 6
40175	D is ta n z ia le	2
40176	D is ta n z ia le	2
40177	Piano diagrammato	1
40178	Piano diagrammato	1
40179	Piano diagrammato	11
40180	Piano diagrammato	1
40181	Asta	1
40182	A s ta	1
40183	A s ta	4
40184	G rano Pie de	4
40188	Pia s tra	2
10107		

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40191	Particolare disaldatura	2
48015	Assieme di montaggio	<u>2</u>
48020	Assieme di montaggio	<del></del>
48021	Assieme di montaggio	<u>·</u>
48022	Assieme di montaggio	2
48023	Assieme di montaggio	2
48024	Assieme di montaggio	1
48025	Assieme di montaggio	1
48026	Assieme di montaggio	2
48027	Assieme di montaggio	2
48030	Assieme di montaggio	1
48033	Assieme di montaggio	1
48036	Assieme di montaggio	1
60006	Boccola a strisciamento	4
60072	Grano	5
60080	Grano	8
60087	Grano	2
60091	Grano	2
60175	V ite	3
60186	V ite	4
60216	V ite	1
60239	V ite	2
60245	V ite	2
60246	V ite	1
60247	V ite	1
60248	V ite	4
60251	V ite	7
60252	V ite	2
60254	V ite	4
60277	V ite	1
60279	V ite	2
60281	V ite	2
60282	V ite	2
60284	V ite	2
60292	V ite	2
60302	V ite	2
60311	V ite	<u>2</u> 1
60430	V ite	<del></del> 1
60440	V ite	4
60442	V ite	2
60669	V ite	2
60677	V ite	2
60692	V ite	5
60730	Dado	2
60733	Dado	5
60735	Dado	4
60736	Dado	8
60737	Dado	2
60768	R o n d e lla	2
60770	R o n d e lla	8
60771	R on de lla	7
60772	R o n d e lla R o n d e lla	<u>7</u>
60941	G u a r n iz io n e	2
61314	Воссова	6
61374	S p in a	1
61635	P o m e llo	1
61636	P o m e llo	1 6
61637	M a n ig lia	1
61638	P o m e llo	1 6
61640	M a n o m e tr o	2
61644	G u a r n iz io n e	2
61649	G hie ra	2
61664	Rosetta disicurezza	2
61738	Cuscinetto	4
70000	Pias tra	1
70000	M a n ig lia M a n ig lia	1
70000	Motore elettrico	2
		<del></del> _



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70026	Disco	2
70027	C in g h ia	1
70027	C in g h ia	1
70028	C ilindro	2
70028	Cilindro	2
80001	C ilindro	2
80033	Cilindro	2
80097	Forcella	2
90001	In te rr u tto re	1
90002	Bottone	1
90003	Bottone	1
90004	Bottone	1
90007	Bottone	2