

# ENOITALIA

## OENOLOGICAL MACHINES



*Operating Instructions and Technical Manual*

# NASTRO TRASPORTO E CARICAMENTO TC3600-4600

*ITALIA*

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**ATTENZIONE:**  
*Il presente manuale deve essere conservato in prossimità della macchina ed in luogo conosciuto dal personale addetto alle operazioni di utilizzo, manutenzione e riparazione*

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## 2. Manual

*This manual contains full information inclusive of drawing and/or diagrams necessary to install, operate and perform maintenance of the series TC conveyor belts. It also sets out the safety measures that machine operating staff should follow.*



***It is strictly prohibited the use and maintenance of this machinery by those who have not read and understood the health and safety measures explained in this manual. The manual is an integral part of the machinery, and it should be always available for easy and quick consultation.***

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***Place in a clean and dry place where all personnel can have easy access.***

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***Do not attempt to rewrite any part of the manual.***

This manual is strictly reserved for machinery: TC3600 and TC 4600; they are similar machinery with different dimensions.

## 3. SAFETY NORMS

 **FAILURE TO OBSERVE THE HERWITH ENLCOSED INSTRUCTIONS IS DANGEROUS AS IT MAY CAUSE INJUSRIES TO PEOPLE AND DAMAGE TO THE MACHINE**

Before operating the machinery it is necessary to read the manual carefully, and it is required to follow all instructions and directions reported in this manual to be in compliance with health and safety norms.

The moving parts of the machinery can cause serious accidents; therefore, it is important to pay close attention while operating the machinery. Moreover, placing the machinery in a humid environment can cause accidental electrical shocks caused by the electrical contacts in the motor.

Therefore, Enoitalia s.r.l. declines any responsibility in case of:

- Inadequacy of the electrical system used to operate the machinery.
- Inadequacy of the environmental conditions in which the machinery is placed and used.
- Failure to implement the rules for the installation, use and maintenance of the machinery as described in this manual.
- Use of the machinery by not authorized and not qualified personnel.
- Unauthorized changes to the machinery.

**The machinery can only be used for applications clearly indicated in the manual. Enoitalia declines any responsibility for any use of the machinery that is not explicitly authorized.**

## 4. MACHINE

### 4.1. WARNINGS:



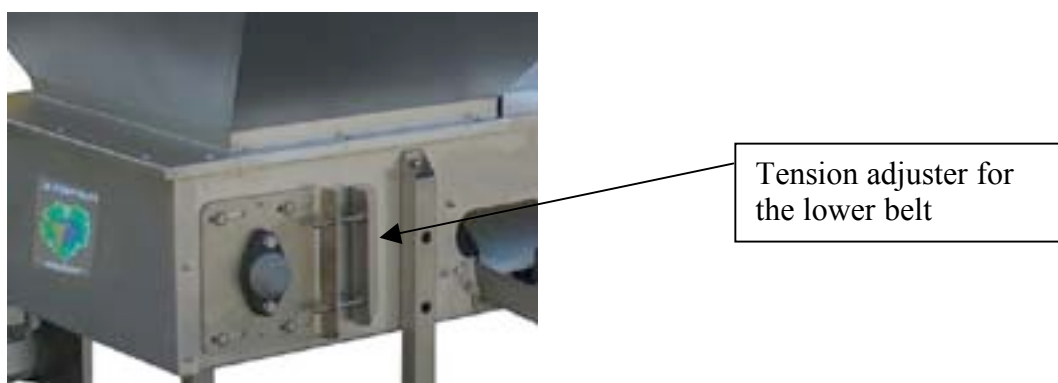
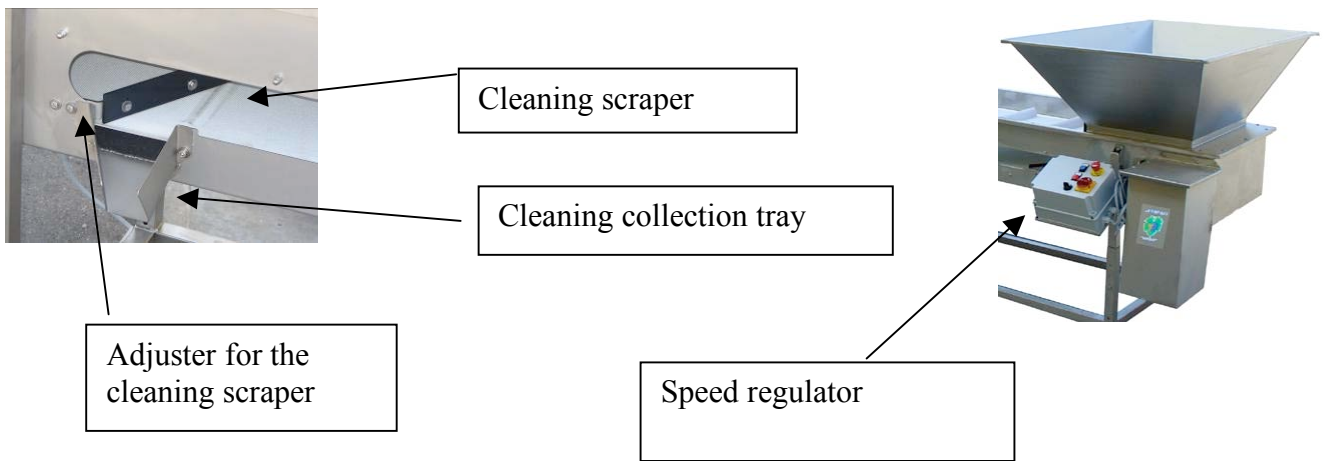
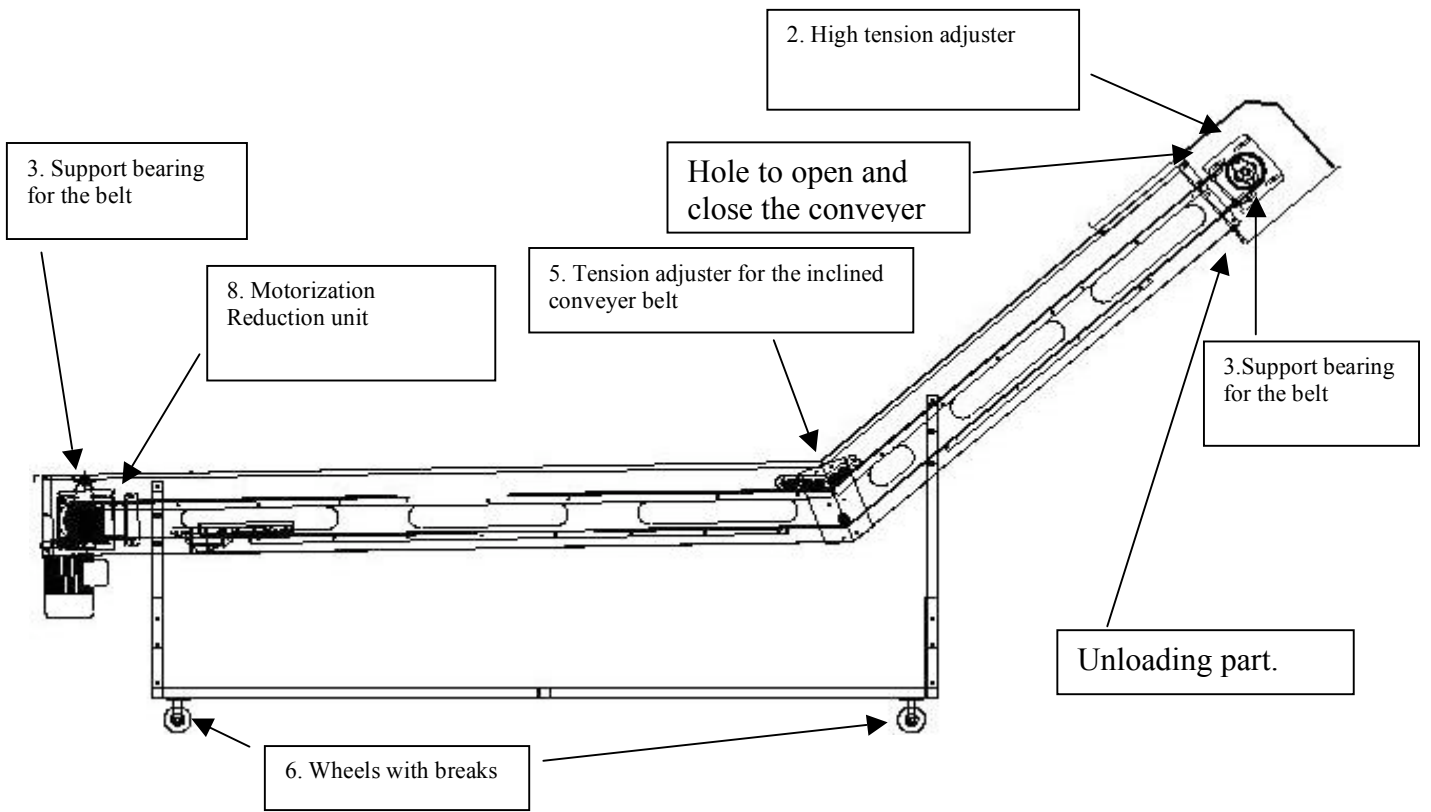
- **The conveyer must be used only for the applications described in this manual.**
- **Do not attempt to install or use the conveyer without having first carefully read this manual.**
- **Do not start the conveyer if one or more warning labels are damaged or missing.**
- **Do not start the conveyer if the machinery has abnormal vibrations, or if the provided protections have not been installed.**
- **Do not perform any maintenance, disassemble or cleaning before the machine comes to a complete stop and the electrical connections have been disconnected for at least few minutes.**
- **Do not operate the machine if the electrical motor or the structure has cracks or flaws. Check at least once a year that all the components are secured and tighten the screws and bolts if necessary.**
- **Ensure that the voltage is correct.**
- **Do not attempt to use the motor when it is overheated. Let it cool down to room temperature.**
- **Only specialized personnel should use, clean and maintain the machine.**
- **Do not start the machine if the rotating elements are prevented from revolving freely.**
- **When using slings to lift the machine, make sure these are suitable for the weight to be lifted.**
- **Wash the machine only with non toxic cleaners and products suitable for food related uses.**
- **This booklet must always accompany the machine. Any reproduction, even if partial, is strictly forbidden.**

### 4.2. DESCRIPTION

The conveyer is for the transport and selection of grapes, adapted to small to medium size wineries. The models described in this manual are different only in the dimension of the selection platform.

The machine is composed of these elements:

- 1) **Loading hopper:** suitable for unloading boxes of grapes.
- 2) **Conveyer belt:** drags the grapes along the loading platform, and unloads the grapes into the destemmer.
- 3) **Frame on wheels:** made of stainless steel AISI 304; it has telescopic legs and rotating wheels with locking brakes. The height of the unloading arm can be adjusted according to the dimensions of the destemmer.
- 4) **Elevator outlet:** it has adjustable height and it loads the grapes elected inside the destemmer.
- 5) **Collection tank:** it is located underneath the loading hopper and it has a hose connection to which a pump should be attached to remove any liquids from the loading platform.
- 6) **Cleaning scraper:** installed underneath the conveyer belt to clean the belt from extraneous material accumulated during rotation; this guarantees the adherence of the belt to the rotating elements.
- 7) **Electrical motor** with electrical inverter for speed changes, or mechanical change drive unit in an oil bath. The electrical motor regulates the speed of the conveyer belt and allows for an emergency stop in case of emergency. It is important to have an electrical system that is in conformity with norms and regulations and it can sustain the electrical capacity of the machinery.



**The selection and loading tray is not to be used for these purposes:**

- Selection of the grapes
- Transport of the grapes to the destemmer.

*We recommend that you evaluate the place where the machine will be placed considering that : the machine needs to be easily accessible from all sides and in particular the emergency stop button needs to be easy to reach at all times; there has to be at least a meter clearance around the machine; the machine should never be placed where it can create an obstacle for moving carts or other moving machinery; the surface where the machine will be placed has to withstand the machine's full capacity weight and cannot be inclined more than 10%; personnel should not be exposed to the noise of the machine longer than the limits imposed by regulations; temperature, humidity and magnetic fields should be checked to ensure that they will not damage the machine and it will work correctly; there should always be proper lighting when the machine is operating.*



The manufacturer declines any responsibility in case of accidents to people or damage to things and/or machine caused by tampering with the machine and using it for purposes other than those described in this manual ( as per Normative 98/37/CE).

## **5 HEALTH AND SAFETY PROTECTIONS**

### **5.1. GENERAL NOTES**

The machine is designed in such a way as to ensure that the movement of the transmission gear and the motor are protected by covers to prevent direct contact with such parts. The machine is also provided with an anti-accident stop button.

**Do not put hands or tools inside the machine when it is in operation.**



The owner and the person responsible for the machine have to ensure that all staff members using this machine have received and understood all the information in regards to safety norms:

- Nobody can tamper with the machine or modify it in any way.
- The machine can only be used for the purposes explained in this manual.
- The machine should always be kept in its original configuration (no alterations or modifications).
- All health and safety guidelines should be respected at all times as required by law.

After a risk assessment analysis ( Machine Directive 98/37/CE) , it has be proved that using the destemmer has the following risks:



**Figure 2: Danger situations and precautions**

Crush or amputation of upper limbs	Problems with transmission	Do not remove the safety protections Stop and unplug the machine before performing any maintenance or cleaning. Do not attempt to fix the machine while it is operating.
Crush of lower limbs	Machine fall	Wear anti-accident protective footwear. Ensure that the machine and the containers for the collection of grapes re placed in a stable position.
Electrical shock . Fire danger	Electrical motor	Check that the voltage and tension are compatible with those reported on the labels. Ensure that there is not damage to the electrical cables. Protect the electrical motor from humidity. Only qualified personnel should repair the electrical system.

**TABLE 1. Summary of risks of accidents.**

## 5.2. ELECTRICAL PROTECTIONS FOR EMERGENCY STOP

The machine has an emergency stop button that immediately shuts off the electrical connection to the motor.



Red emergency stop button

## 6. INSTALLATION

### 6.1. PRELIMINARY CHECKS

The conveyer comes with all the components already assembled and with an instructional manual.

Once you have received and unpacked the machine, check for any damages or missing elements and inform the supplier. You have up to 15 days from delivery to report in writing any damages.

Verify that the machine reflects the specification of your order.



**To move the machine follow safety norms. If you are using automatic lifts to move the machine be careful to balance the weight.**

Remove the machine from packaging and dispose of the latter in compliance with regulations.

### 6.2. POSITIONING

When choosing a place for the machine follow the already described recommendations.

Place the machine at a height that will allow the staff to safely and easily collect the grapes and unload them in the destemmer.

Ensure that the speed indicator and the emergency stop button can be reached quickly and easily.

Once you have positioned the machine ensure that the wheels rest perfectly on the ground and lock the wheels with the brakes provided.

## 7. WASHING AND CLEANING BEFORE INSTALLATION

Wash the machine thoroughly to eliminate any residue; be careful not to wet the electrical parts and disconnect all the cables.

Unplug the electrical system and reconnect the connector only after washing.

To wash the machine, use hot water at 60°C and use non abrasive liquid detergents.

If any of the electrical components get wet, dry them thoroughly before restarting the destemmer.

Connect hose to the machine so that the liquid can be removed from the loading hopper.

We recommend flexible spiral hoses, smooth inside and suitable for food.

## 8 ELECTRICAL CONNECTIONS

Before starting the machine, ensure that the power source is 230V, 60Hz, monophasic.



**We guarantee electrical safety of the machine only if it is connected using a safety “ground system” according to law.**

The electrical connection should be carried out by a qualified technician.

We do not recommend using multiple plugs or adaptors; when it is absolutely necessary to use them, ensure that they can meet the voltage requirements and that they are in compliance to norms. We suggest using a section wire of 1.5mm for extension cords up to 20 m, and wire section of 2.5 mm for longer extension cords.

## 9 START AND STOP



**Important: before starting the machine, ensure that there is nothing that prevents the mechanical parts from moving freely and, above all, that nobody is close to the moving parts of the machine. More specifically, hands, arms and other body parts must be kept well away from the stalk outlet opening and from the inside of the box.**

Verify that safety protections are installed in the machine.

Verify that the emergency stop button is in proper working condition.

If from this first inspection you find problems of any kinds, stop and unplug the machine, inform the owner or if necessary the supplier or Enoitalia s.r.l.

If from the first inspection you do not find any problems, proceed as following:

- start the conveyor.
- Regulate the rotating speed by adjusting the power.
- Load the grapes using the hopper.
- The conveyor will move the grapes along the platform, up on the inclined arm and into the destemmer.
- To stop the machine, press the red emergency button.

**IMPORTANT: the grapes should be loaded in the hopper gradually, so that they distribute evenly along the conveyor belt. Do not overload the machine, otherwise the machine might not work at the best of its capability.**



**While the machine is functioning, verify that the conveyor belt runs parallel. If the conveyor belt run to the left or to the right, readjust the rods . This readjustment is small, in millimeters.**

Should it be necessary to access the inside of the machine (in case of blockage or foreign bodies), proceed as follows;

1. Turn off and unplug the machine.
2. Remove debris from inside using a suitable tool; if necessary open the machine.
3. Close and begin start up operations.



**It is forbidden to insert limbs or tools in the machine while it is operating.**

## 10 WASHING

After using the machine and in any case at the end of each working day, remember to interrupt the electrical power connections by switching off the mains and by unplugging the machine. This operation must be carried out to avoid accidentally starting the machine, which would cause injuries to people and damages to the machine itself.

**Do not leave any residue that might damage the machine.**

## 11. MAINTENANCE

During maintenance and repair operations, the electrical connections must be switched off and the machine must be unplugged. Maintenance operations are necessary to guarantee the proper and safe operation of the machine.



**Each maintenance and repair operation must be carried out by authorized and qualified personnel . Always use lubricant products that are suitable for foodstuffs.**

In case of repair it is necessary to use original parts that can be bought from the supplier directly from the manufacturer.

It is strictly forbidden to disassemble the electrical motor. When necessary refer to the supplier or directly to Enoitalia s.r.l.



**Repairing the machine using parts that are not original and not authorized by Enoitalia s.r.l. voids the warranty and the Declaration of Conformity of the machine.**

Before starting the machine, verify :

- Electrical power and voltage.
- All bolts and nuts are properly tightened.
- All hose and pipes are properly sealed.

Ensure that all anti-accident safety features and the emergency stop are working correctly. At the end of each working day, verify that there are no residues on the conveyor belt or in the collection tank, then clean the machine.

Perform periodical checks of the conveyor belt and electrical wiring.

After each use, grease all bearing supports.

## 11. POSSIBLE CAUSE OF MALFUNCTIONING

<i>PROBLEMS</i>	<i>SOLUTIONS</i>
The belt does not run in alignment	Clean the surface. Clean out debris; check the scraper and if needed readjust its settings. Readjust the tension of the conveyor belt until it stops skidding. Verify that all supports located between the platform and the inclined arm are working correctly.
Blockage of the collection tank	Clean the drain outlet and hose of debris.
Breakage of the belt	Proceed to replace it as follows: <ul style="list-style-type: none"> <li>• Loosen the adjusters.</li> <li>• Place a new belt (it is open and not close with a ring)</li> <li>• Remove the bolt to place the new conveyor belt</li> <li>• Readjust the tension of the belt.</li> </ul>
The machine does not start	Verify that the machine is plugged in. Verify that the emergency stop has not been activated. Open the control panel and check fuses. Use the inverter's instruction manual to check for possible error and communicate the problem to the nearest assistance center. Verify that the motor switch is on;

## 12. TECHNICAL CHARACTERISTICS

The label on the machine shows all the information regarding the manufacturer and the machine:

	TC 3600	TC 4600
Dimension LxPxH mm	4900x700x1600	5900x700x1600
Weight	200g	230 Kg
Hourly production kg/h	2000-10000	2000-10000
Electrical motor KW	2 hp (1,5 Kw)	2hp (1,5 Kw)
Electrical tension and voltage	230V -60 Hz	230V -60 Hz
Temperature for functioning	4C°-50 C°	4C°-50 C°

Noise level: weighted Leq A 70,9-73,8 db. (measured outdoors in normal working conditions, in compliance with the methods indicated in UNI EN ISO 11202) less the limits established by the regulations 2006/42 CEE (<85dB)

## 13. WARRANTY



The warranty is valid for twelve month from receipt of the machine.

The warranty does not include transportation which is responsibility of the buyer.

The warranty does not include the following:

- Wrong installation.
- Tampering with the machine.
- Inexperience, lack of maintenance, failure to promptly report defects with the machine.
- Failure to follow the instructions contained in this manual.
- Repairs made by personnel not authorized by Enoitalia s.r.l.
- Damages occurred during transportation that are not due to fabrication defects or packaging problems.
- Failure to follow the directions contain in this manual in regard to electrical connections and placement of the machine.
- Expenses and risks involved with the transport of the machine to an authorized assistance center.
- Electrical components.
- Everyday maintenance costs (as explained in this manual).

The warranty does not oblige us to reimburse for damages to things or people due to the use of our machine (not even in case of defects or damages)

If the terms and conditions of payment are not met, the warranty is voided.

All complaints must be made in write to Enoitalia s.r.l. within 8 days from purchase.

As per articles 1523-1524 of the civil code, the ownership of the machine can be transferred only after the established purchase price has been paid in full.

For any legal matters that needs to be resolved in court, please refer to the Florence Court. Every legal dispute, even when involves foreign buyers will be resolved according to Italian law.

# EC DECLARATION OF COMPLIANCE

MANUFACTURER AND SELLER  
ENOITALIA s.r.l.  
Via Prov. Pisana, 162 Cerreto Guidi (Fi)

## MODEL

**TC3600 TC4600**

Nastro di selezione e caricamento

MANUFACTURE YEAR: 2009

The undersigned company hereby declares under its own responsibility that the machines 3600 and TC 4600 complies with the essential health and safety directives :  
2006/42/EC (machine directive) with all its modifications and national provisions.  
2006/95/CE (low voltage directive) with all its modifications and national provisions.  
2004/108/CE (electromagnetic compatibility directive) with national provisions.

The machine is also in conformity with the Harmonized tariffs:  
UNI EN : 349; 954/1; 1050; 547-1-2-3 ; 894-1-2-3 ; 953; 981; 1005-1-2-3-4-5; 1037.  
UNI EN ISO: 3744; 7000; 12100-1-2; 11202; 11205 ; 11688-1-2; 14121-1; 13857;  
UNI EN ISO 1186.  
Technical norms and specifications :CEI EN 60204/1.  
National technical norms and specifications : UNI ISO 1819; UNI ISO 7149;  
UNI 7544; 45020; 60447; 60447.

Cerreto Guidi 01/01/2009

Il Responsabile di produzione

Falorni Fabio

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