



CU - User manual

ELITE CU User manual



Version May 2024



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1. FIRST STEPS

Congratulations on your purchase of the ELITE model CU knives grinding machine

Read this guide before you start.

The ELITE CU model is our innovative sharpening and grinding machine for straight knives with sharpening capacity from 1000 mm up to 4090 mm. depending on model versions. It is equipped with a control panel very easy to use but very powerful, with which sharpening and preparation times are as fast as possible. Its design and programming make it possible to optimize grinding work in an agile and safe way.

This manual introduces you to the main functions of the grinder in order to avoid risks to your health or that may cause a breakdown or premature wear of the machine.

In case of any doubt, please contact us directly or one of our authorized distributors.

Informative Note: *The use described in the manual of this knives grinder described therein may present some variations in use as our machinery is subject to possible construction modifications, depending on the incorporation of technological advances in our sharpening equipment.*



2.SAFETY

2.1.Safety regulations

Carefully observe and apply the following safety rules, not respecting these rules may cause personal injury or damage to the machine itself.

The installation and maintenance of the machine described in this manual must be carried out only by operators who are familiar with its operation and have sufficient technical knowledge.

The ELITE model CU have been designed for the sharpening and grinding of knives, excluding any other type of operation.



DANGER HIGH VOLTAGE



DANGER OF ACCIDENT



DANGER DUE TO SPARK PROJECTION



WEAR PROTECTIVE SHOES



DANGER FROM SHARP TOOLS



USE HEARING PROTECTORS

These warnings do not include all possible risks that improper use of the machine could cause. For this reason, the operator must proceed with prudence and observing the rules.



2.2. Use and storage of the instruction manual

This instruction manual must be read and understood by all personnel who come into contact with the machine.

This manual is for:

- Indicate the correct use of the machine according to the type of work to be carried out.
- Provide the necessary instructions for the transport, adjustment and maintenance of the machine.
- Facilitate the ordering of spare parts and information of risks.

Limits of use of the manual:

The machine is intended for professional use and therefore the experience of the operator is required and of vital importance.

Importance and conservation of the manual:

This manual must be considered part of the machine and must therefore be attached to it until the end of its use.

Additional information and clarifications:

The user, owner or maintenance person can contact the manufacturer to request any additional information on the use of the machine and possible modalities for maintenance and repair intervention.

Expiration of responsibility:

The manufacturer is considered exempt from any liability in the event of:

- Improper use of the machine.
- Use of the machine by untrained persons.
- Serious failures in scheduled maintenance.
- Unauthorized interventions or modifications.
- Use of non-original spare parts.



2.3. Declaration of conformity

The company hereby **Elite Sharpening Machines, SLU**
C/Joan Oró, 27
ES-08635 Sant Esteve Sesrovires

declares that the product indicated below, based on its conception and construction, as well as the version put on the market by our company, complies with the mandatory basic health and safety requirements of the CE directive.

This declaration loses its validity in the event of unauthorized modifications to the product.

Product name: ***ELITE CU***
Product type: ***Sharpening knives machine***
Serial No.: _____

EC Directive Competences:

- **EC Machinery Directive (2006/42/EC)**
- **European directive on electromagnetic compatibility (2014/30/EU)**
- **The protection purposes of the CE low voltage directive (2006/95/CE) were fulfilled according to annex I, nr. 1.5.1 of the machinery directive 2006/42/EC**

The technical documentation was compiled by Legal representative of the documentation:

Sergi Valls Gramunt
Joan Oró, 27
ES-08635 Sant Esteve Sesrovires

Date / manufacturer - Signature: _____

Signatory data: Sergi Valls Gramunt, manager



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3. TECHNICAL DATA

In the following information table, find the list of technical specifications of the machine described in this manual.

TECHNICAL DATA	ELITE CU
Grinding wheel motor power	5.5 HP 50Hz (7.5 HP 60 Hz) - Optional: 7.5 HP 50 Hz (9 HP 60 Hz)
Grinding wheel diameter	200 mm.
Carriage speed	From 1 to 20 m/min.
Max. distance between grinding wheel and chuck	140 mm.
Magnetic chuck wide	150 mm.
Coolant tank	220 liters with mechanic separation
Max. connected power	8 kW (10 kW for 7.5 HP version)
Width of magnetic clamping chuck	150 mm.
Rotation movement of the magnetic clamping chuck	from 0° to 90°
Grinding wheel holder for grinding wheels	Ø 200 mm.

AVAILABLE VERISONS		
Model	Magnetic chuck size	Size
CU 1000	1000 mm.	2200 x 800 x 1500 mm.
CU 1500	1500 mm.	2700 x 800 x 1500 mm.
CU 2000	2030 mm.	3200 x 800 x 1500 mm.
CU 3000	3060 mm.	4200 x 800 x 1500 mm.
CU 4000	4090 mm.	5200 x 800 x 1500 mm.

TECHNICAL REQUIREMENTS

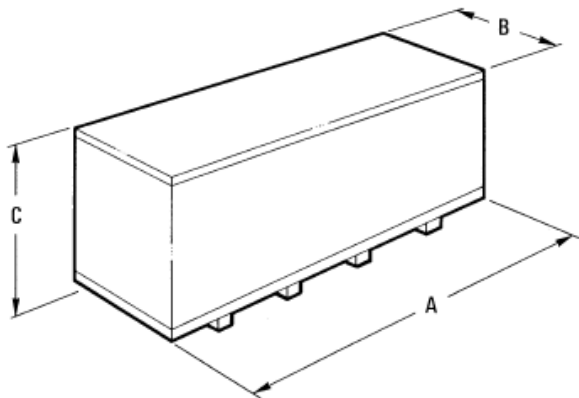
- Connection voltage: 400V 3Ph 50Hz - 480V 3Ph 60Hz - 220V 3Ph 60Hz
- Required connection power: 8 kW (10 kW for the 7.5 HP version)



4. TRASPORT

The ELITE model CU is delivered packed in wooden jail.

During all transport and transfer, the machine must be kept in its original vertical position, any variation in this position may lead to the loss of the guarantee.



Machine model	A (mm)	B (mm)	C (mm)	Weight (kg)
CU 1000	2700	1050	1600	790
CU 1500	3000	1050	1600	990
CU 2000	3600	1050	1600	1390
CU 3000	4600	1050	1600	1590
CU 4000	5600	1050	1600	2290



4.1. Instructions for unpacking and setting up

Take special care when lifting the load: The load may not be centered! To do this, use a fork-lift with blades long enough to support the machine, taking into account the width and depth of the machine for the calculation of the weights to lift.

Approximate gross weight of the machine (may vary depending on the equipment supplied):

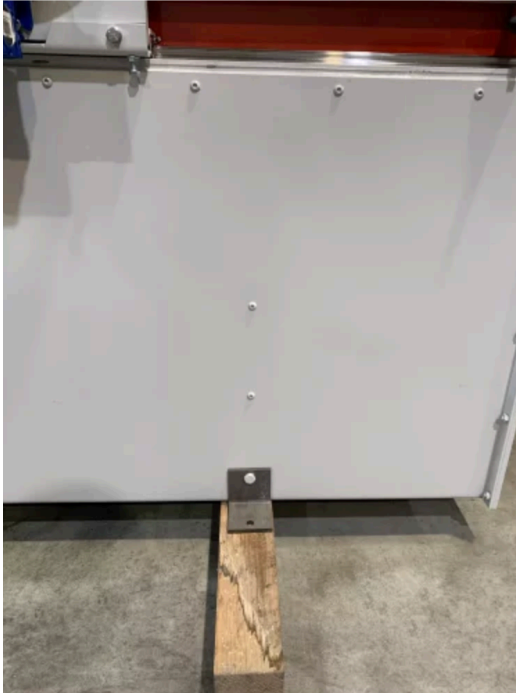
Machine model	Weight (kg)
CU 1000	790
CU 1500	990
CU 2000	1390
CU 3000	1590
CU 4000	2290

To disassemble the packaging, remove only the 4 sides and the roof. Do not remove the wood from the feet (indicated in the photo with red arrows).





The machine is delivered with the base fixed to the lower wood for its transfer.
First, place the machine in its final location. Then remove the M12 hex bolts from the transport angle as shown in the following image.



Once the transport angle has been removed, put the M12 hexagon bolt back into place and tighten it.
Repeat this operation for all transport angles.





With the help of a hoist or a forklift, raise the machine to be able to move the wood to one side.
IMPORTANT: For your safety, do not remove the wood yet.



Use the supplied anti-vibration mounts to mount to and balance the machine.



Just below the machine, where the M12 hex bolt we removed earlier, are the mounting holes for the anti-vibration mounts.

First insert the M12 stud with the nut and washer as shown in the photo.



Once the stud is in place and adjusted to the required size, we can now thread the support.





Support threaded on the M12 stud.



Now tighten the M12 nut to the position needed to free the wood and the forklift.





M12 nut in position.



Once all the supports are in place, you can lower the forklift and remove the timbers.

Then you need to adjust the M12 nuts to the height you need to work.

NOTE: A lower position is more comfortable for loading/unloading the blades, and the machine is more stable.

Before connecting it, remove all packaging protections that the machine has for transport.



5. INSTALLATION

5.1. Machine placement

Before any work we must make sure that the machine is well aligned and does not oscillate at any of its ends, in which case it must be wedged to avoid movements.

The machine must be perfectly level in the depth position (front-rear).

In the transversal position (left-right) it must have a slight drop towards the side where the coolant is evacuated, to better drain the machine bed towards the tank.

For its correct level it is necessary to use a spirit level. This check must be carried out both longitudinally and transversally.



Poorly leveling the machine can cause unwanted vibrations and premature wear of the linear guides.



WARNING: The machine must not be used under any circumstances by unqualified or unauthorized personnel.



5.2. Electrical connection



DANGER HIGH VOLTAGE!

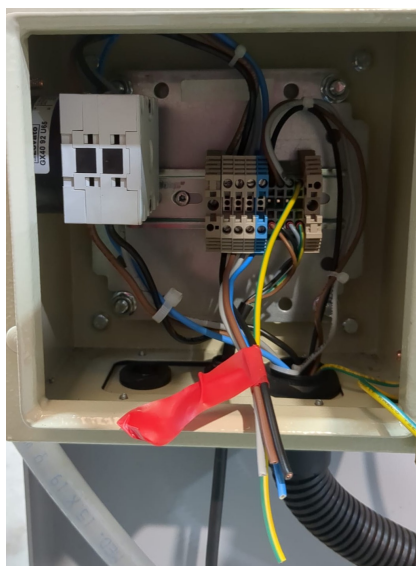
Remember: before connecting the machine, remove any protection that the machine may have to protect the components during transport.

The ELITE model CU grinding machine must be strictly connected to the voltage indicated in the machine order and on the machine itself. The connection to a voltage other than that indicated may cause a breakdown in the machine and represents a risk for people who use the machine.

This installation must be carried out by qualified technical personnel and checked with a voltage meter before turning on the machine.

It is absolutely essential that the cross-section of the connection cable is as required, that the machine has a dedicated outlet and is protected against overloads and shunts, and that it is as close as possible to the electrical outlet.

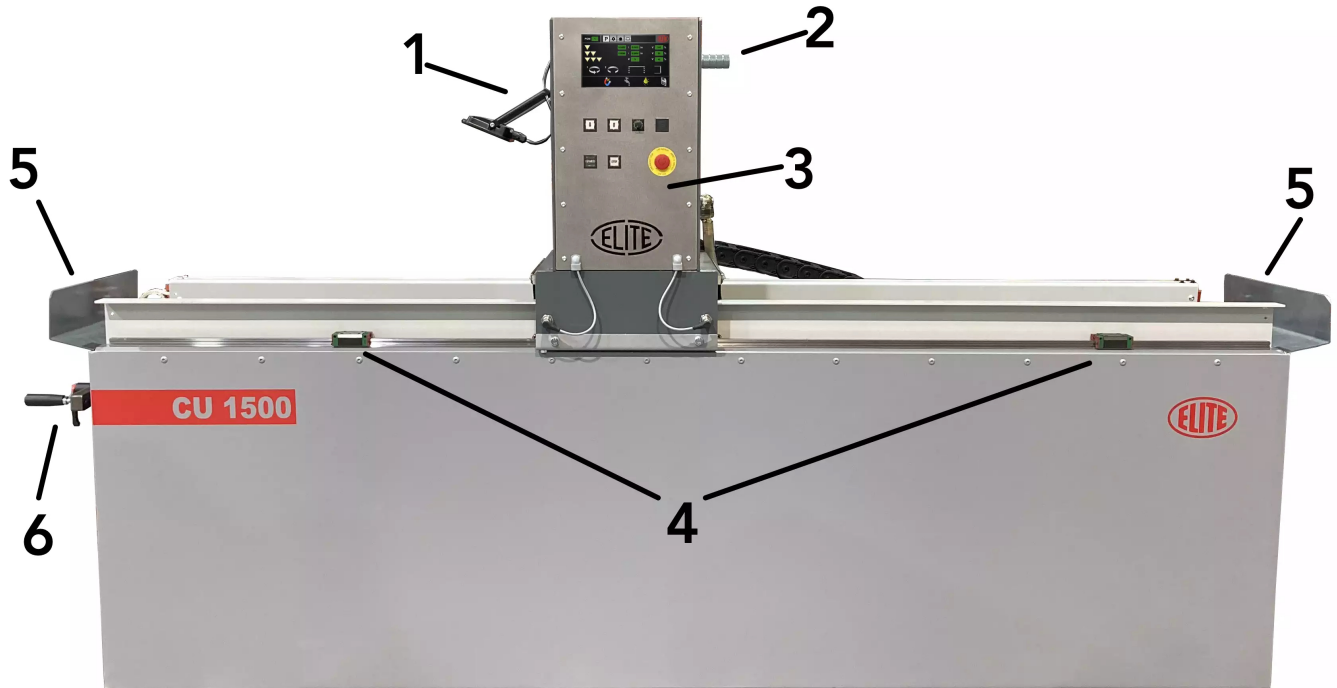
The electrical connection terminals have a red tape to facilitate correct connection.



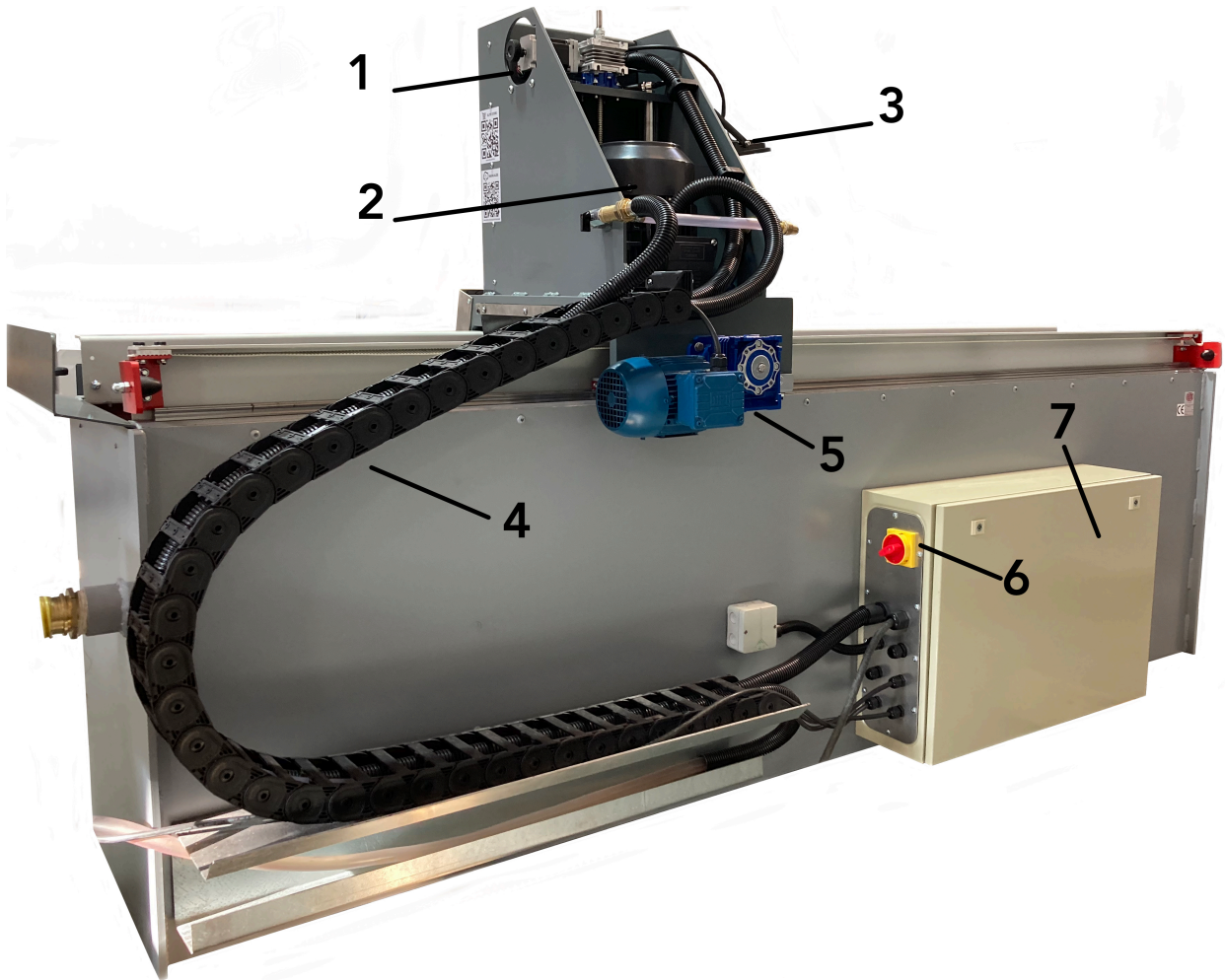
ELITE does not assume any responsibility in the event of an incorrect electrical installation that may cause a malfunction of the machine and even personal or material damage.



5.3. Main components of the machine



1. LED light
2. Manual adjustment of the raising or lowering of the wheel
3. Control panel
4. Carriage travel limiters to the left or right.
5. Side tray
6. Lever to adjust grinding angle.



1. Z axis up/down manual handwheel
2. Grinding wheel motor
3. LED light
4. Carriage chain
5. Carriage conduction
6. Main switch
7. Electrical panel



5.4. Control panel



1. LCD screen
2. Z axis down
3. Z axis up
4. Carriage speed selector
5. START button
6. STOP button
7. Emergency stop



For sections 6 to 8 of this manual, as well as for more up-to-date information and useful videos on the operation of the machine, please refer to our website

www.elite.es



www.elite.es/en/support/manuals/cu

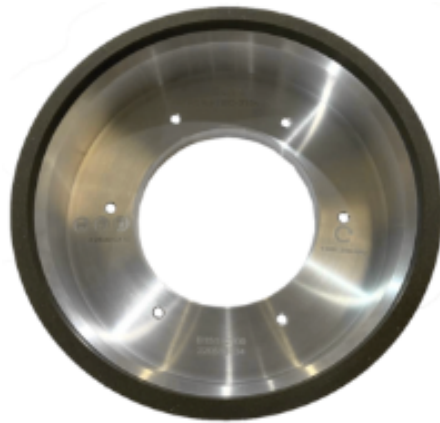


9.ACCESSORIES AND CONSUMABLES

9.1.Grinding wheels

9.1.1 Grinding wheel for carbide knives

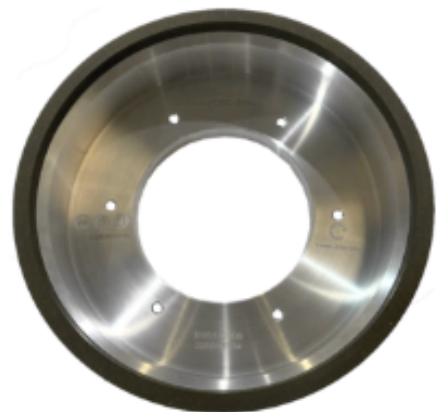
We recommend to use ELITE ref. nr. 3040-A. 6A2 Diamond $\phi 200 \times 8 \times 4 \times 50 \times \phi 127$ mm.



Grinding wheel for carbide knife

9.1.1 For HSS knives

We recommend to use ELITE ref. nr. 3140-A. 6A2H CBN $\phi 200 \times 6 \times 3 \times 50 \times \phi 127$ mm.



Grinding wheel for HSS knife



9.1.3. For steel knives

We recommend to use ELITE ref. nr. 3551-A. 6A2 Corundum $\varnothing 200 \times 100 \times \varnothing 127$ mm.



Grinding wheel for steel knife

9.2. Coolant agents

9.2.1. Working only with steel and HSS

We recommend to use ELITE SintoCut MIX or equivalent when working only with steel.



SintoCut MIX 20 L

9.2.2. Working with steel and carbide

If the machine should work with steel and also with tungsten carbide then it is better to work with SintoCut PRO MIX or equivalent, with is a better choice in order to work with carbide.



SintoCut PRO MIX 20 L



9.3.Equipment

9.3.1. Filtering systems

Machine could be equipped with one of the following ELITE filtering systems. If your machine already has one of this systems and you need information or help, please refer to the manual of the filtering system.

9.3.1.1. FILTRAmag UNO

An autonomous equipment for the filtration of grinding/sharpening liquids, up to $2\mu\text{m}$. It is ready to be installed inside the tank of ELITE model machines like CU or CU PRO.



9.3.1.2. FILTRAmag SOLO



Independent filtering system for one machine.



9.3.1.3. FILTRAMAQ PRO

Centralized filtering system for up to 5 machines.



9.4. Demagnetizer



For blades or tools that become magnetized, we recommend using the ELITE demagnetizer.



www.elite.es/en/support/manuals/cu

For more up-to-date information and useful videos on how to operate the machine, see our website www.elite.es