



GBT 850 - User manual

ELITE GBT 850

User manual



Version April 2024



THIS PAGE IS NOT WRITTEN INTENTIONALLY



1. FIRST STEPS

Congratulations on your purchase of the ELITE model GBT 850 carbide plate circular saw flank grinder.

Please read this guide before you begin.

The GBT 850 is an automatic grinding machine with double grinding wheels for both sides of the teeth simultaneously, for repairing or manufacturing carbide-tipped circular saw blades from $\varnothing 100$ to $\varnothing 850$ mm.

Its operation is CNC with a color touch LCD screen. Allows precise and fast polishing of the sides of the teeth.

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 manual of the circular saw sharpener 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 sharpening machines of the GBT 850 model range have been designed for the grinding of the sides of circular saws with carbide teeth, 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/Juan 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 GBT 850***
Product type: ***Circular saws sharpening 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



3. TECHNICAL DATA

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

TECHNICAL DATA	GBT 850
Saw blade diameter	From $\varnothing 100$ to $\varnothing 850$ mm. (4" to 33.5")
Saw blade hole diameter	From $\varnothing 10$ mm.
Sawtooth thickness	Up to 14 mm.
Saw body thickness	Up to 8 mm.
Tooth pitch	From 1 to 125 mm.
Grinding wheel diameter	$\varnothing 100$ mm. (2 units)
Grinding wheel hole diameter	$\varnothing 20$ mm.
Automation	Using 4 CNC axes (X, Y1, Y2, A)
Manual axes	B, Z
Saw holding	By pneumatic clamp
Motor wheel	0,75 kW x 2 units
Grinding wheel speed	Adjustable from 5000 to 9000 RPM
Dimensions of the machine	1650 x 1200 x 1900 mm.
Machine weight	740 kg.
FLANK GRINDING	
Grinding path	Up to 40 mm. (1,57")
Rake angle	From -15° to $+30^{\circ}$
Radial cutting angle	From -5° to $+6^{\circ}$
Tangential cutting angle	From 0° to 8°
REFRIGERATION EQUIPMENT	
Tank capacity	220 liters
Coolant flow rate	Up to 40 liters/minute



3.1 TECHNICAL REQUIREMENTS

A 6 bar air connection is required.

Connection voltage: 220/240V 2Ph 50/60 Hz

Required connection power: 2.5 kW

3.2 ÉQUIPEMENT INCLUS

- Saw holder for small saw blade diameter of 100 to 210 mm.
- Saw holder for saw blades with a diameter of 210 to 850 mm.
- Centering ring: $\varnothing 30$ mm.
- Grinding wheel holder for sharpening wheels (two units).
- Feeding pawl of 3 mm.
- LED lamp lighting inside the work area
- Device for production of equal diameter saw blades.
- Machine closed by enclosure.
- Prepared for connection to a machine filtration system or a centralized filtration system.



4. TRANSPORT

The ELITE GBT 850 is delivered packed in a wooden crate.

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	Dimensions (mm)	Weight (kg)
GBT 850	1920 x 1420 x 2020	780



4.1. Instructions for unpacking and setting up

Take special care when lifting the load: The load may not be centered!

To lift or move the load, use a forklift 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.

Once the packaging has been opened, remove the fixing stops from the feet of the machine.



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



5.INSTALLATION

5.1.Machine placement

Before any work 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. For its correct level it is necessary to use a leveling tool. 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.

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



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



5.2. Electrical connection



DANGER HIGH VOLTAGE!

The electrical connection of the machine must be carried out by qualified technical personnel only at the voltage indicated in the machine order / machine identification plate.
For any doubt about the voltage, consult the manufacturer before the connection.

Any claim for an incorrect connection will be out of warranty.



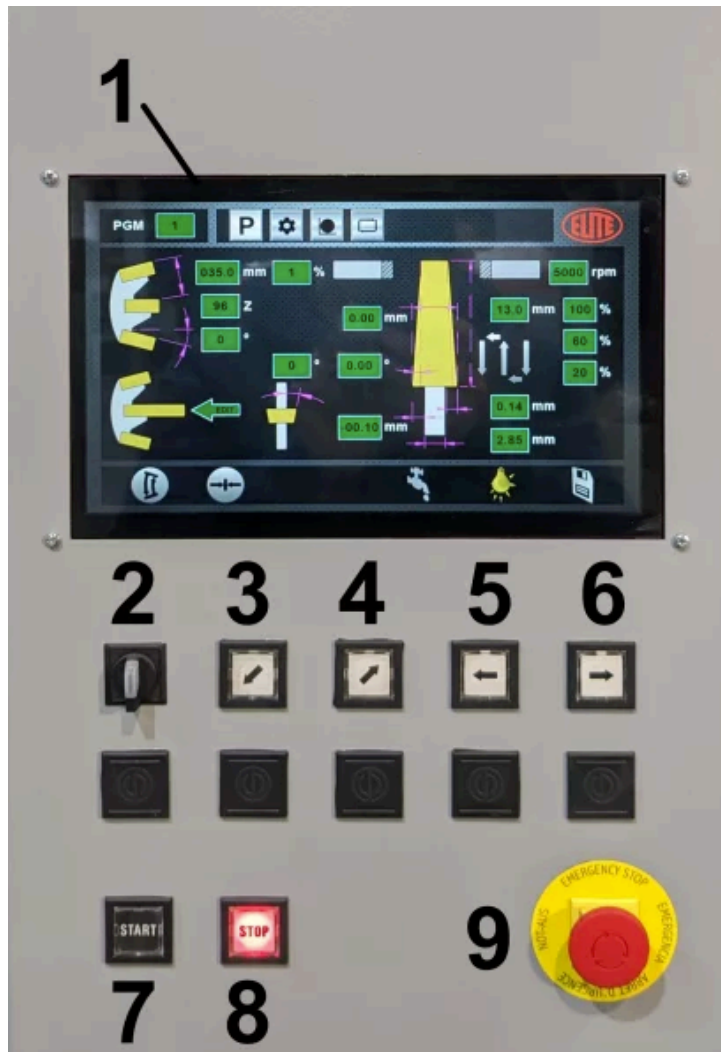
5.3. Main components of the machine



1. Machine operation door.
2. Full enclosure.
3. Machine control panel.



5.4. Control panel



1. LCD screen.
2. Y axis movement selector: To the left: Y1 axis movement. To the center: Movement of both axes. On the right: Y2 axis movement.
3. Y axis open wheels.
4. Y axis close wheels.
5. X axis zoom out.
6. X axis zoom in.
7. START button.
8. STOP button.
9. 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/gbt-850



9.ACCESSORIES AND CONSUMABLES

9.1.Grinding wheels

For the grinding wheel use the ref. nr. 2310-A. 1A1 D107 C75 ϕ 100x4x5x10x ϕ 20 mm.



Flank grinding wheel

9.2.Coolant agents

We recommend to use ELITE SintoCut PRO MIX or equivalent to mix with water emulsion. If you prefer to grind with oil, you can use our SintoCut PRO MD. Both coolant are available in 20 liters can or 200 liters barrel.



SintoCut PRO MIX 20 L



SintoCut PRO MIX 200 L



SintoCut PRO MD 20 L

9.3. Equipment

Additional equipment of the machine.

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



Filtering system integrated in the machine to save space.



9.3.1.2 FILTRAmag SOLO

Independent filtering system for one machine.



9.3.1.3 FILTRAmag PRO

Centralized filtering system for up to 5 machines.





www.elite.es/en/support/manuals/gbt-850

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