

NORTON

SAINT-GOBAIN

clipper

Transforming
surfaces
...and beyond

CG 550 – CG 650

USER MANUAL

Translated instruction manual




SAINT-GOBAIN



CE Declaration of conformity

The undersigned manufacturer:

**SAINT - GOBAIN ABRASIVES S.A.
190 BD. J. F. KENNEDY
L-4930 BASCHARAGE**

Declares that the following new equipment:

"Floor polishing sander": **CG 550 400V**
CG 650 400V

Code: **70184632738**

Code : **70184632747**

complies with the provisions of the Guidelines:

- **"MACHINERY" 2006/42/EC**
- **"LOW VOLTAGE" 2014/35/ EC**
- **"ELECTROMAGNETIC COMPATIBILITY" 2014/30/EC**

Valid for machines with a serial number from: 4503430198001

Where technical documents are kept:

Saint-Gobain Abrasives 190, Bd. J. F. Kennedy 4930 BASCHARAGE, LUXEMBOURG

This declaration of conformity lapses if the product is processed or modified without our consent.

Bascharage, 12/04/2023.

François Chianese, authorized representative and responsible for the technical file.
Bascharage, Luxembourg

CG 550 – CG 650

USER MANUAL

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1 BASIC SAFETY TIPS

The CG 550 and the CG 650 are exclusively intended for floor preparation, sanding and polishing of floors (flat surfaces or with a slope <2%).

Any other - or extended - use, contrary to the manufacturer's advice, will be considered non-compliant. The resulting damage cannot be borne by the manufacturer. The risk will be taken exclusively by the user. Use in accordance with the requirements also includes compliance with the instructions for use and the inspection and maintenance conditions.

1.1 Pictograms

Advice and warnings are represented by pictograms on the machine. The following symbols can be found on the CG 550 and on the CG 650. Here is their explanation:



Mandatory reading of the user manual
before using the machine



Mandatory hearing protection







Mandatory hand protection



Mandatory vision protection

1.2 ID Plate machine

The important information is present on the following plate attached to your machine:

 <p>190, Bd. J.F. Kennedy L-4930 BASCHARAGE LUXEMBOURG</p>	Code:	Machine code	
	Mod:	Machine model	
	Type:	Machine type	
	Year :	Year of production	
	W=	Weight	kg
	P=	Power	kW
	 =	Ø of work	mm
Serial N°: Serial Number	 =	Speed	RPM

1.3 Prevention tips at certain phases of operation

Before work begins:

- Read this user manual carefully.
- Is familiar with the environment at the point of intervention. This working environment includes, for example, difficulties of execution, obstacles to traffic, respect for ground loads, the necessary safety marking delimiting the site in relation to public traffic and the possibility of emergency intervention in the event of an accident.
- Make sure there are no metal parts or a sudden discontinuity at ground level. In case of contact with any anomaly, the machine could jump and cause damage to the operator, other people, or things.
If possible, remove any abnormalities before working with the machine. Otherwise, work at a safe distance from these anomalies.
- Ensuring that the soil is homogeneous.
- Check regularly to see if tools are fixed correctly.
- Use the machine only with its protective housings and electrical case covers attached.
- Check that the protective housing slides vertically and freely. When using the machine, the protective housing must always be in contact with the ground.
- For dry use, use only with a dust vacuum cleaner. (A connection nozzle is provided for this purpose)

- Check that all hoses (suction and water supply) are not damaged and properly connected.
- Wear safety glasses at work.
- Use only NORTON or manufacturer-approved tools. Using other tools may cause damage to the machine.
- Never use the machine in the rain.

Machine with electric motor

- Unplug the machine from the electrical outlet before starting any repair or handling.
- Avoid contact of electrical connections with splashes of water or moisture.
- The machine can cause explosions when used near flammable materials or flammable steams.
- Do not use this machine near fuels, combustible powders, solvents, or other flammable materials.
- Keep the electric cable away from hot faces.
- Keep electrical components dry. Always store the machine in a dry place.
- The machine must absolutely be properly grounded. If in doubt, have electrical connections checked by a qualified electrician.
- If the machine stops for no apparent reason, turn off the main power supply to the machine. Only a qualified electrician is qualified to study and solve the problem.
- Using the machine with a damaged electrical cable caused short circuits.
- Do not use the electrical cable to move and/or pull the machine.
- Do not plug into the power outlet with a non-regulatory outlet or by forcing on the cable.

2 GENERAL DESCRIPTION OF THE MACHINE

Any modification to the machine, altering the initial properties of the machine, can only be carried out by Saint-Gobain Abrasives S.A., which alone is authorized to confirm the conformity of the machine. Saint-Gobain Abrasives S.A. retains the right to make any technical or design changes to the machine without prior notice.

2.1 *Brief description*

A robust and high-performance machine, the CG 550 or CG 650 is specially designed for floor preparation. It can also achieve polishing.

- Floor preparation is a rough sanding of the surface carried out in order to make the surface flat, but with an accentuated roughness.
- Grinding is the procedure that goes from the initial roughing stage to the polishing stage.
 - The blank is made with aggressive tools to remove the material necessary to obtain a flat surface,
 - Polishing reduces surface roughness to obtain smoothing and gloss of the surface by using tools that are less and less aggressive (finer and finer grains).

2.2 Composition



1	Handle	11	Protective skirt
2	Handle adjustment pin	12	Water nozzle
3	Quick connection for water		
4	Frame		
5	Extra weights (optional)		
6	Lifting hooks		
7	Quick connection for the vacuum cleaner		
8	Water tank		
9	Engine head		
10	DCT actuator		

Handle (1)

The handle is used to start and move the machine.

Handle adjustment pin (2)

The adjustment pin allows you to choose the height of the handle.

Quick connection for water (3)

This connection allows the machine to be connected directly to the water network.

Frame (4)

The frame has a solid construction.

Extra weights (optional) (5)

Additional weights are available as an option. They allow for more intensive work.

Lifting hooks (6)

They allow you to lift and move the machine

Quick connection for vacuum cleaner (7)

Quick connection for the suction nozzle

Water tank (8)

Allows to be autonomous in water with a capacity of 46L

Engine head (9)

Allows grinding

DCT actuator (10)

Allows you to activate or not the Dual Cutting Tech

Protective skirt (11)

Protects the operator from dust splashes as well as ensures a seal to optimize suction.

Water nozzle (12)

Allows wet work thanks to the water tank or water network.

2.3 Technical data

	CG 550 400V	CG 650 400V
Engine	4.1 kW / 5.5 HP 400V 3~ 50 Hz	7.5 kW / 10 HP 400V 3~ 50 Hz
Working width	550 mm	650 mm
Number of heads	3	3
Diameter of a head	200 mm	240 mm
Rotational speed	600 - 1000 min ⁻¹	600 - 1300 min ⁻¹
Suction diameter	Ø 50 mm	Ø 70 mm
Dimensions of unfolded machine (L x W x H)	1200 x 570 x 1250 mm	1120 x 690 x 1210 mm
Mass	210 kg	300 kg
IP	IP 54	IP 54

2.4 Vibration emission statement

Declared vibration emission value according to **EN 12096**

Machine Model / Code	Measured emission value vibration a m/s²	Uncertainty K m/s²	Tool used Model / Code
CG 550 400V 70184632738	5.9	0.5	Lutron Type: VB-8201HA Serial Number: Q258053
CG 650 400V 70184632747	7.2	0.5	Lutron Type : VB-8201HA numéro de série : Q258053

- Values determined according to the procedure described in Annex F of **EN 13862**
- The measurements are made with new machines. The actual values on site can vary significantly (from single to double) with the conditions of use, depending on:
 - Treated materials
 - Machine wear
 - Lack of maintenance
 - Tool not suitable for application
 - Tool in poor condition
 - Non-specialized operator
 - Etc...
- The time of exposure to vibration is also a function of the work performance (related to the adequacy machine / tool / material to be treated / operator)
- In assessing the risks due to hand-arm vibration, account shall also be taken, over a working day, of the time of actual use of the machine at full capacity; It is not uncommon to find that this time of actual use is limited to 50% of the total working time, taking into account all stops (breaks, preparation of work, deployment of the machine, assembly of tools, etc.)

2.5 Noise emission declaration

Machine Model / Code	Sound pressure level	Uncertainty K
CG 550 400V 70184632738	74 dB(A)*	2.5 dB(A)
CG 650 400V 70184632747	85 dB(A)*	2.5 dB(A)

*Average value of four-point measurements with a sound level meter at two meters

- The measurements are made with new machines. Actual values on site may vary with conditions of use, depending on:
 - Machine wear
 - Lack of maintenance
 - Tool not suitable for application
 - Tool in poor condition
 - Non-specialized operator
 - Etc...
- The measured values relate to an operator, in a normal position of use, as described in this manual.

3 ASSEMBLY AND START-UP

The machine is delivered assembled, fully equipped and ready to operate. Before using the machine for the first time, please follow these few instructions.

3.1 *Adjusting the height of the handle*

You can adjust the height of the handle to have a comfortable position. To do this:

- Release the rotation of the handle by removing the pin.
- Adjusts the height of the handle. Place the pin in the desired position.



3.2 Mounting tools

Use only Norton tools. The machine is intended to be used with 9 wings.

It is possible to use polishing tools thanks to hook-and-loop supports (optional: 310593073 (CG 550) or 310593074 (CG 650))

3.2.1 Wings

To change or mount wings, follow these steps:

- Turn off the power supply to the machine and disconnect it from the electrical network.
- Set the dead-man handle to the highest position with the adjustment handle.



- Lay down the machine.



- Remove the tools already present on the tool tray with a mallet.



- Place the tools by positioning the dovetail of each tool in the inner part of the fixing hole. A magnet holds each wing before it is locked.



- Slide the tool into the hole from the center to the outside of the tool tray until it locks.



- Repeat the same operation for all wings.

3.2.2 Polishing tool

The polishing tools are hook-and-loop. To use them, you must set up the hook-and-loop plate supports (optional: 310593073 (CG 550) ou 310593074 (CG 650)):

- Position the plate support by placing the fixing bits in front of the holes



- Turn the support plate in the opposite direction of rotation to lock it



- Put polishing pads or non-woven pads.



3.3 Use of DCT

The DCT (Dual Cutting Tech) allows you to lock or not the rotation of the main plate.



- DCT ON: The rotation of the main plate is locked. This allows you to be more aggressive. (Floor preparation, removal of glue, paint, resin, ...)
- DCT OFF: The rotation of the main plate is released. It rotates in counter-rotation. The machine is then less aggressive. (Polishing)



3.4 Additional weights (optional)

For some jobs, the use of additional weights (optional: XXXXXXXXXXXX) may be necessary to be more aggressive.



3.5 Starting the machine

- Set the height of the handle to a comfortable position for you.
- Check that the emergency stop is unlocked.
- Choose rotation speed
- Put the rotation direction selector in the desired position. The machine starts.



4 USE OF THE CG 550 – CG 650

4.1 Work environment

Before starting the work, check the following:

- Free the machine installation site from anything that could hinder the progress of the work.
- Ensure proper lighting of the site.
- Place the electrical wires and dust hose in such a way as to avoid any possibility of damage by the tools.
- Ensure that the view is constantly clear on the evolution of the machine
- Ensure that it is possible to intervene at any time in the flow of operations.
- Keep any other person away from the area of activity, to avoid any accident.

4.2 Method of work

The CG 550 – CG 650 is a manual driving machine.

To obtain an optimal result when working with the machine, it must not stagnate at one point, it must on the contrary be in perpetual motion under penalty of seriously degrading the floor.

For each tool chosen (depending on the work to be done), here are the different steps to follow:

- Set up the tools (Do not forget to disconnect the machine before any intervention)
- Connect the vacuum cleaner to the nozzle provided for this purpose.
- Start the vacuum cleaner.
- Start the machine.
- Carry out a passage with the machine on the entire surface to be treated.
- Turn off the machine.
- Turn off the vacuum cleaner.
- Check the condition of the floor: the marks left by the tools must be homogeneous.
- If necessary, the previous steps can be repeated until the desired result is obtained.

5 TRANSPORT AND STORAGE OF CG 550 – CG 650

Follow the instructions below for the transport and storage of the machine.

5.1 *Safety in transport*

Always disassemble tools before transporting or moving the machine.

5.2 *Conduct of transport and lifting*

The machine can be moved on flat ground using its wheels. Raise the grinding head of the machine by pressing the handle so that it no longer touches the ground and then move the machine using its wheels.

A carrying handle is provided, for manual transport.

5.3 *Machine storage*

Before a long period of machine inactivity, clean the machine completely. Store the machine in a dry, clean, temperature-stable place.

6 MAINTENANCE

In order to maintain quality over time, during the preparation of your floors and for a safe and trouble-free operation of the machine, follow the following maintenance plan:

		Before the start of labor	During tool switching	At the end of the day	Weekly	During an outage	After damage	After 50h and then every 100h
Whole machine	Visual inspection (general condition, tightness)							
	Clean							
Tool and removable housing	Clean							
Electric motor cooling fins	Clean							
Motor housing	Clean							
Accessible screws and nuts	Tighten							
Planetary (gear box)	Grease							

Machine maintenance

Perform machine maintenance with the engine off and tools stationary. Separates the machine from the electrical network before carrying out its maintenance.

Machine cleaning

The lifespan of your machine depends a lot on its maintenance. Clean it at the end of each day.

Lubrication

To grease the planetary, it is necessary to:

- Lay down the machine
- Remove all tools
- Add grease thanks to the pump provided in all lubricators according to the following table:

Type of grease	
Grade NLGI	2
Classification DIN51502:	KP 2 P - 25
Working temperature	-25 / +170 (°C)
Oil base	Mineral
Viscosity (40°)	840 mm ² /s
Thickener	AL complex soap

Quantity	
Satellite bearing	10g for each lubricator
Cogwheel	30g for each lubricator

7 BREAKDOWNS: CAUSES AND REPAIR

7.1 Failure behavior

In the event of a breakdown during use, turn off the machine, and disconnect it from the electrical network. Work on the electrical system of the machine can only be carried out by a qualified electrician.

7.2 Instructions for defect detection and remedies

Failure	Possible source	Resolution
Difficulty starting	No electricity	Check the fuse of your power supply
	Power cable section too weak	Change r power cable
	Problem with the switch	Ne can only be solved by a qualified electrician
	Problem with the engine	Consult an electric motor maintenance workshop
	Faulty power cable	Change r power cable

7.3 *After-sales service*

When ordering spare parts, always indicate:

- a. The serial number (seven digits)
- b. Part Number
- c. Exact description
- d. Number of rooms desired
- e. Exact address
- f. Please avoid indications such as "as soon as possible" or "urgent" but clearly indicate the desired shipping method: "express", "by plane", etc.

If you do not indicate the desired shipping method, we will send the parts by the means considered the most reasonable, without necessarily being the fastest.

With accurate indications, you will avoid problems and sending errors.

In case of uncertainty, please send us the defective part.

In the event that the parts are covered by the warranty, the shipment of the defective part is mandatory.

Order engine spare parts directly from the manufacturer or a representative: you will save time and money!

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7.4 Parts

For spare parts lists, please visit the Norton Clipper Aftermarket website at:

<https://spareparts.nortonabrasives.com>

For quick access, you can also use the QR Code below using your mobile phone:



This electronic catalog provides you with exploded and spare parts lists for different Norton Clipper machines so you can find the references you need.

You can get technical support, spare parts and diamond blades from our local distributors.

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