

NORTON

SAINT-GOBAIN

clipper

Transforming
surfaces
...and beyond

CG 280

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 grinder": | CG 280 230V | Code: 70184632723 |
| | CG 280 110V | Code: 70184632992 |

complies with the provisions of the Guidelines:

- **"MACHINES" 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, 25/09/2023.

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

CG 280

USER MANUAL

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1 BASIC SAFETY TIPS

The CG 280 is exclusively intended for floor preparation, sanding and polishing of floor (flat or <2% sloped surfaces).

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. You will find the following symbols on the CG 280. 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>SAINT-GOBAIN</p> <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°: |  = Speed RPM |
| Serial Number | |

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 280 is specially designed for floor preparation. However, it can also achieve light polishing.

- Floor preparation is a rough sanding of the surface performed 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 | Dead man handle | 11 | Lifting handle |
| 2 | Adjustment hook | 12 | Locking cylinder of the head |
| 3 | Frame | 13 | Hour counter |
| 4 | Wheel steering system | 14 | Protection skirt |
| 5 | Suction nozzle | | |
| 6 | Attachment system between engine and frame | | |
| 7 | Engine head | | |
| 8 | Right and left removable housing (flush with the wall) | | |
| 9 | Power cable | | |
| 10 | Selector direction of rotation | | |



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Dead man handle (1)

The dead-man handle allows the machine to be started while being very safe for the user.

Adjustment hook (2)

A hook adjusts the height of the man-dead handle to fit each user

Frame (3)

The frame has a solid but compact construction. It can be separated from the motor head for easy transport.

Wheel steering system (4)

The wheel orientation system makes it possible to grind at the wall flush while having the wheels parallel to the wall.

Suction nozzle (5)

This nozzle allows you to connect a dust vacuum cleaner during use.

Attachment system between engine and frame (6)

Separates the engine head from the chassis for easy transport.

Engine head (7)

Allows grinding.

Removable housing (8)

The removable housing makes it possible to grind at the wall flush. It is possible to grind the walls on both sides of the machine.

Power cable (9)

Allows to power the machine.

Selector direction of rotation (10)

Allows you to choose the direction of rotation of the motor

Lifting handle (11)

Allows you to carry the machine.

Locking cylinder of the head (12)

Makes the head more or less "free" (articulated). This makes it possible to adapt or not to the relief of the surface to be treated and therefore to be more or less aggressive.

Hour counter (13)

Allows to know the running time of the machine.

Protective Skirt (14)

Allows to limit dust projections.

2.3 Technical data

| | CG 280 230V | CG 280 110V |
|--|-----------------------------------|-----------------------------------|
| Engine | 2.2 kW / 3 HP 230V 1~ 50 Hz | 1.5 kW / 2 HP 110V 1~ 50 Hz |
| Working width | 280 mm | |
| Number of heads | 1 | |
| Diameter of a head | 280 mm | |
| Rotational speed | 1400 min ⁻¹ | |
| Suction diameter | Ø 40 mm | |
| Dimensions of unfolded machine (L x W x H) | 650 x 325 x 790 mm | |
| Mass | 70 kg | |
| IP | IP 54 | |

2.4 Vibration emission statement

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

| Machine Model / Code | Measured emission value vibration a m/s ² | Uncertainty K m/s ² | Tool used Model / Code |
|--|--|--------------------------------|---|
| CG 280 230V 70184632723 CG 280 110V 70184632992 | 4.5 | 0.5 | Lutron Type: VB-8201HA Serial Number: 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, considering 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 280 230V 70184632723 | 70 dB(A)* | 2.5 dB(A) |
| CG 280 110V 70184632992 | | |

*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.

3.1 *Adjusting the height of the man-dead handle*

The height of the man-dead handle can be adapted to have a comfortable position. To do this:

- Press on the adjustment hook to release the rotation of the man-dead handle.
- Adjust the height of the handle. The adjustment hook locks automatically.



3.2 Mounting tools

Use only Norton tools. The machine is intended to be used with 6 wings.

To change or mount tools, follow these steps:

- Turn off the power supply to the machine and disconnect it from the power grid.
- Adjust the dead man handle to the highest position using the adjustment hook.



- 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 support until it locks.



- Repeat the same operation for all wings.

3.3 Adaptation of the machine for grinding to the wall flush

To grind the wall flush, the machine must be adapted:

- Remove the protective housing (right or left) by loosening the two holding screws.



- Put the wall guide instead.



- Align the wheels with the wall guide by lifting the handle and rotating the wheels.



3.4 Orientation of the grinding head

It is possible to adjust the orientation of the head to fit the ground.

To do this:

- Disconnect the electrical outlet
- Loosen the 4 screws using a wrench



- Adjust the head position according to the floor to be treated



- Tighten the screws

3.5 Using the oscillating head

On the front of the grinding head is a small cylinder that can be adjusted and locked or left free. To do this, simply loosen the screw with the handle, then tighten it in the desired position or leave it loose.



The locking cylinder of the head permits to have two modes of operation:

- Fixed head: By locking the cylinder with manual adjustment, the head remains rigid in the desired inclination. This allows you to be more aggressive.



- Oscillating head: By leaving the cylinder free of its movements it allows the head to see the hollows and undulations of the ground; and to be less aggressive.



3.6 *Starting the machine*

- Adjust the height of the dead man handle in a comfortable position for you.
- Press on the button below the handle
- Then tighten one of the two handles (right or left)
- Release the button

As long as one of the two handles is held tight the machine remains in operation. As soon as the two handles are released the machine stops.



4 USE OF THE CG 280

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 280 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. (If there are angles to deal with, refer to the specific paragraph)
- 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.

I

5 TRANSPORT AND STORAGE OF CG 280

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

5.1 *Safety in transport*

Always dismantle 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. Elevate the grinding head of the machine by pressing the man-dead 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.

The machine can be split in two (the grinding head on one side and the frame on the other) for easy transport and loading/unloading of the machine.



To do this:

- Unplug the electrical outlet
- Unscrew the 4 screws with a wrench
- Remove the 2 support plates



To reassemble the machine, perform the operations in the opposite order.

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 |
|-----------------------------|--|---------------------------|-----------------------|-----------------------|--------|------------------|--------------|
| 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 | | | | | | |

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

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 power cable |
| | Problem with the switch | Can only be solved by a qualified electrician |
| | Problem with the engine | Consult an electric motor maintenance workshop |
| | Faulty power cable | Change 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 parts 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 Spare 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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