

# CG 400

USER MANUAL

Translated instruction manual



SAINT-GOBAIN

*clipper*®





# 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 400 400 V**

Code: **70184632733**

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 400

## USER MANUAL

<b>1</b>	<b>BASIC SAFETY TIPS</b>	<b>6</b>
1.1	<i>Pictograms</i>	6
1.2	<i>ID plate machine</i>	7
1.3	<i>Prevention tips at certain phases of operation</i>	7
<b>2</b>	<b>GENERAL DESCRIPTION OF THE MACHINE</b>	<b>9</b>
2.1	<i>Brief description</i>	9
2.2	<i>Composition</i>	10
2.3	<i>Technical data</i>	12
2.4	<i>Vibration emission statement</i>	13
2.5	<i>Noise emission declaration</i>	14
<b>3</b>	<b>ASSEMBLY AND START-UP</b>	<b>15</b>
3.1	<i>Adjusting the height of the man-dead handle</i>	15
3.2	<i>Mounting tools</i>	16
3.3	<i>Adaptation of the machine for grinding to the wall flush</i>	18
3.4	<i>Orientation of the grinding head</i>	19
3.5	<i>Using the oscillating head</i>	20
3.6	<i>Starting the machine</i>	21
<b>4</b>	<b>USE OF CG 400</b>	<b>22</b>
4.1	<i>Work environment</i>	22
4.2	<i>Method of work</i>	22
<b>5</b>	<b>TRANSPORT AND STORAGE OF THE CG 400</b>	<b>23</b>
5.1	<i>Safety in transport</i>	23
5.2	<i>Conduct of transport and lifting</i>	23
5.3	<i>Machine storage</i>	24
<b>6</b>	<b>MAINTENANCE</b>	<b>25</b>
<b>7</b>	<b>BREAKDOWNS: CAUSES AND REPAIR</b>	<b>26</b>
7.1	<i>Failure behavior</i>	26
7.2	<i>Instructions for defect detection and remedies</i>	26
7.3	<i>After-sales service</i>	27
7.4	<i>Spare parts</i>	28

# 1 BASIC SAFETY TIPS

CG 400 is intended exclusively for soil preparation, sanding and polishing of soil (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 GG 400. 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°:	 = 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 400 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	Locking cylinder of the head
2	Adjustment hook	12	Protection skirt
3	Frame		
4	Wheel steering system		
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	Lifting handle		

**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 sand at the raz of the walls 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 sand at the raz of the walls. It is possible to sand the walls on both sides of the machine.

**Power cable (9)**

Allows to power the machine

**Lifting handle (10)**

Allows you to carry the machine

**Locking cylinder of the head (11)**

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.

**Protective Skirt (12)**

Allows to limit dust projections.

**2.3 Technical data**

	CG 400 400V
Engine	4 kW / 5.2 HP 400V 3~ 50 Hz
Engine protection	IP55
Working width	400 mm
Number of heads	1
Diameter of a head	400 mm
Rotational speed	900 <sup>min-1</sup>
Suction diameter	Ø40
Dimensions of unfolded machine (L x W x H)	780 x 450 x 790 mm
Mass	87 kg

## 2.4 Vibration emission statement

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

<b>Machine Model / Code</b>	<b>Measured emission value vibration a m/s<sup>2</sup></b>	<b>Uncertainty K m/s<sup>2</sup></b>	<b>Tool used Model / Code</b>
<b>CG 400 40 0V 70184632733</b>	5.9	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 exposure time to vibration is also a function of the cutting performance (related to the suitability 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
<b>CG 400 400V 70184632733</b>	74 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.

#### 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 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 centre 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 4 screws using a wrench



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



### 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 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 CG 400**

### **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 400 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.

## 5 TRANSPORT AND STORAGE OF THE CG 400

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!

This machine was manufactured by Saint-Gobain Abrasives S.A.:

190 J. F. Kennedy Bd.

L-4930 BASCHARAGE

Grand Duchy of Luxembourg

Tel.: 00352 50 401 1

Fax. : 00352 50 16 63

<http://www.construction.norton.eu>

Email: [sales.nlx@saint-gobain.com](mailto:sales.nlx@saint-gobain.com)

## 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.







SAINT-GOBAIN ABRASIVES  
INDUSTRIEWEG 21  
9420 ERPE-MERE  
BELGIUM  
TEL: +32(0) 2 267 21 00

SAINT-GOBAIN CONSTRUCTION PRODUCTS CZ  
A.S  
DIVIZE ABRASIVES  
SMRČKOVA 2485/4  
180 00 PRAHA 8  
TEL: +420 255 719 326  
FAX: +420 255 719 321

SAINT-GOBAIN ABRASIVES A/S  
DYBENDALSVÆNGET 2,  
DK-2630 TAASTRUP  
DENMARK  
TEL: +45 4675 5244

PO BOX 643706  
FORTUNE TOWER OFFICE 2106  
JLT BLOCK C  
(NEXT TO METRO STATION)  
JUMEIRA LAKE TOWER, DUBAI  
UNITED ARAB EMIRATES  
TEL: +971 4 431 5154  
FAX: +971 4 431 5434

SAINT-GOBAIN ABRASIVES  
RUE DE L'AMBASSADEUR - B.P.8  
78,702 CEDEX CONFLANS  
FRANCE  
TEL: +33 (0)1 34 90 40 00  
FAX: +33 (0)1 39 19 89 56

SAINT-GOBAIN ABRASIVES GMBH  
BIRKENSTRASSE 45-49  
D-50389 WESSELING  
GERMANY  
TEL: +49 (0) 2236 703-0  
FAX: +49 (0) 2236 703-730

SAINT-GOBAIN KFT ABRASIVES.  
1225 BUDAPEST  
BÁNYALÉG U. 60/B.  
HUNGARY  
TEL: +36 1 371 22 50  
FAX: +36 1 371 22 55

SAINT-GOBAIN ABRASIVI S.P.A  
VIA PER CESANO BOSCONI 4  
I-20094 CORSICO MILANO  
ITALY  
TEL: +39 02 44 851  
FAX: +39 02 44 78 266

SAINT-GOBAIN ABRASIVES S.A.  
190 J.F. KENNEDY STREET  
L-4930 BASCHARAGE  
GRAND DUCHY OF LUXEMBOURG  
TEL: +352 50 401 1  
FAX: +331 83 717 792  
GREEN NO. (FRANCE): 0800 906 903

SAINT-GOBAIN ABRASIVES, S.A.  
2 ALLEY OF FIG TREES  
AIN SEBAË - CASABLANCA  
MOROCCO  
TEL: +212 5 22 66 57 31  
FAX: +212 5 22 35 09 65

SAINT-GOBAIN ABRASIVES BV  
GROENLOSEWEG 28  
7151 HW EIBERGEN  
P.O. BOX 10  
7150 AA EIBERGEN  
THE NETHERLANDS  
TEL: +31 545 466466  
FAX: +31 545 474605

SAINT-GOBAIN ABRASIVES AS  
KARIHAUGVEIEN, 89  
0186 OSLO  
NORWAY  
TEL: +47 63 87 06 00  
FAX: +47 63 87 06 01

SAINT-GOBAIN HPM POLSKA SP. Z O.O.  
UL. NORTON 1, 62-600 KOŁO  
62-600 KOŁO  
POLAND  
TEL: +48 63 26 17 100  
FAX: +48 63 27 20 401

SAINT-GOBAIN ABRASIVOS, L. DA  
ZONA INDUSTRIAL DA MAIA I-SECTOR VIII, NO.  
122  
APARTADO 6050  
4476 - 908 MAIA  
PORTUGAL  
TEL: +351 229 437 940  
FAX: +351 229 437 949

SAINT-GOBAIN GLASS  
BUSINESS UNIT ABRASIVI  
LUCRU PUNCT: LOC. VETIS, JUD.  
SATU MARE 447355  
STR. CAREIULUI 11  
INDUSTRIAL PARK RENOVATIO  
ROMANIA  
TEL: +40 261 839 709  
FAX: +40 261 839 710

SG HPM RUS  
58, F. ENGELS STR.  
STROENIE 2  
105082 MOSCOW  
RUSSIA  
TEL: +74 955 408 355  
FAX: +74 959 373 224

SAINT-GOBAIN  
ABRASIVES (PTY) LTD  
2 MONTEER ROAD  
ISANDO 1600  
P.O. BOX 67  
SOUTH AFRICA  
TEL: +27 11 961 2000  
FAX: +27 11 961 2184/5

SAINT-GOBAIN ABRASIVOS, S.A.  
CTRA. FROM GUIPÚZCOA, KM. 7,5  
E-31195 BERRIOPLANO (NAVARRA)  
SPAIN  
TEL: +34 948 306 000  
FAX: +34 948 306 042

SAINT GOBAIN ABRASIVES AB  
GÅRDSFOGDEVÄGEN 18A  
168 66 BROMMA • SVERIGE  
SWEDEN  
TEL: +46 8 580 881 00  
FAX: +46 8 580 881 30

SAINT-GOBAIN INOVATIF MALZEMELER VE  
ASINDIRICI SAN. TWITCH. ACE.  
ALTAYÇEŞME MAH. ÇAMLI SOK. NO:21 ESAS  
OFISPAK KAT:9 34843  
MALTEPE, İSTANBUL • TURKEY  
TEL: 0090-216-217 12 50  
FAX: 0090-216-442 40 74

SAINT-GOBAIN ABRASIVES LTD.  
UNICORN HOUSE UNIT 1, AMISON CLOSE  
REDHILL BUSINESS PARK  
STAFFORD ST161WB  
UNITED KINGDOM  
TEL: +44 1785 279 553  
FAX: +44 1785 213 487



Saint-Gobain Abrasifs  
190 Rue J.F. Kennedy  
L-4930 Bascharage  
Grand Duché de Luxembourg  
Tel: +352 50 4011  
Fax: +331 83 717 792  
no. vert (France) 0800 906 903

[www.nortonabrasives.com/fr-fr](http://www.nortonabrasives.com/fr-fr)