

TR 201 E

OPERATING INSTRUCTIONS





CE Declaration of conformity

The undersigned manufacturer:

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

Declares that this product:

Tile saw (code):

TR 201 E 230V (70184641371)

is in conformity with the following Directives:

- ***European Machinery Directive 2006/42/CE***
- ***"LOW VOLTAGE" 2006/95/CE***
- ***Electromagnetic Compatibility Directive 2004/108/CE***

and European standard:

- ***EN 12418 – Masonry and stone cutting-off machines for job site – Safety***

A handwritten signature in black ink, appearing to read "Olivier Plenert", with a long horizontal flourish extending to the right.

Olivier Plenert
Machine Design Manager

TR 200 E

OPERATING INSTRUCTIONS

1	Basic Safety Instructions	6
1.1	<i>Symbols</i>	6
1.2	<i>Machine plate</i>	7
1.3	<i>Safety instructions for particular operating phases</i>	7
2	Machine description	8
2.1	<i>Short description</i>	8
2.2	<i>Purpose of use</i>	8
2.3	<i>Layout</i>	8
2.4	<i>Technical Data</i>	9
3	Assembly and commissioning	10
3.1	<i>Assembly on the folding frame</i>	10
3.2	<i>Handles assembly</i>	10
3.3	<i>Cutting head</i>	10
3.4	<i>Transport wheels</i>	11
3.5	<i>Water cooling system assembly</i>	11
3.6	<i>Tool assembly</i>	12
3.7	<i>Electrical connections</i>	12
3.8	<i>Guide-a-cut assembly</i>	13
3.9	<i>Water cooling system</i>	13
3.10	<i>Starting the machine</i>	13
4	Transport and storing	14
4.1	<i>Securing for transport</i>	14
4.2	<i>Long period of inactivity</i>	14
5	Operating the machine	15
5.1	<i>Site of work</i>	15
5.2	<i>Cutting methods</i>	15
5.3	<i>Cutting with an angle</i>	15
5.4	<i>General advice for the cutting</i>	15
6	Maintenance and servicing	16
7	Faults: causes and cures	17
7.1	<i>Fault-finding procedures</i>	17
7.2	<i>Trouble-shooting guide</i>	17
7.3	<i>Circuit diagram</i>	17
7.4	<i>Customer service</i>	18

1 Basic Safety Instructions

The **TR 201 E** is exclusively designed for the cutting of tiles mainly on construction sites. Uses other than the manufacturer's instructions shall be considered as contravening the regulations. The manufacturer shall not be held responsible for any resulting damage. Any risk shall be borne entirely by the user. Observing the operating instructions and compliance with inspection and servicing requirements shall also be considered as included under use in accordance with the regulations.

1.1 Symbols

Important warnings and pieces of advice are indicated on the machine using symbols. The following symbols are used on the machine:



Read operator's instructions



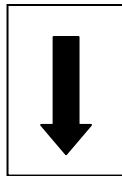
Ear protection must be worn



Hand protection must be worn



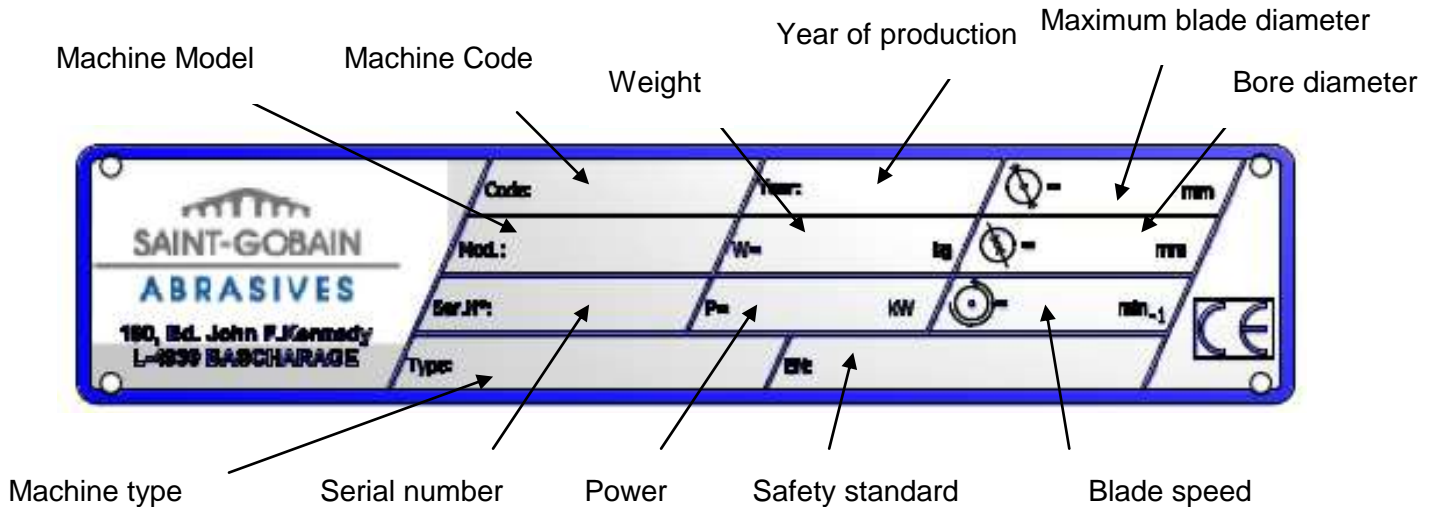
Eye protection shall be worn



Rotation direction of the blade

1.2 Machine plate

Important data can be found on the following plate located on the machine:



1.3 Safety instructions for particular operating phases

Before commencing work

- Before commencing work, make yourself familiar with the working environment at the place of use. The working environment includes: obstacles in the area of work and manoeuvre, the firmness of the floor, necessary protection at the site relating to public thoroughfares and the availability of help in the event of accidents.
- Site the machine on an even, firm and stable base!
- Check for correct mounting of the blade regularly.
- Immediately remove damaged or badly worn blades, as they endanger the operator whilst rotating.
- The material to be cut must be held securely in place on the table to allow no unexpected movement during cutting operation.
- Always cut with the blade guard in position.
- Only fit NORTON diamond blades with continuous rim to the machine! The use of other tools can damage the machine!
- Read the blades' specifications carefully to choose the correct tool for your application.
- Attention is drawn to the use of BS2092 safety goggles in conformity with specified Processes No.8 of the Protection of Eyes Regulation 1974, Regulation 2(2) Part 1.

Electrical powered machine

- Always turn off the machine and separate it from the main source of electricity before any work on the machine is done.
- Make all electrical connections securely to eliminate contact of live wires with spray water or dampness
- When the machine is used with water, it is IMPERATIVE that you earth the machine properly. Let a qualified electrician check in case of doubt.
- Press the red button on the switch to stop the machine in case of emergency.
- In the event of the machine breaking down or stopping for no apparent reason, switch off the main electricity supply, even on power supply failure. Only a qualified electrician is allowed to investigate the trouble and remedy the fault.

2 Machine description

Any modification, which could lead to a change in the original characteristics of the machine, may be done only by Saint-Gobain Abrasives who shall confirm that the machine is still in conformity with the safety regulations.

2.1 Short description

The **TR 201 E** Tile saw is designed for durability and high performance for onsite wet and dry cutting operations of a wide range of tiles.

As with all other CLIPPER products, the operator will immediately appreciate the attention given to detail and quality of materials used in construction. The machine and its component parts are assembled to high standards assuring long life and minimum maintenance.

2.2 Purpose of use

The machine is designed for wet and dry cutting of a large range of tiles. It is not designed for cutting wood or metals.

2.3 Layout



Frame (1)

The frame is made of aluminium and steel to ensure robustness and durability. The folding stand with 4 legs ensures stability while cutting.

Cutting head (2)

Aluminium console guided with precision. This console supports the electric motor, the guides and the blade guard. The head can be tilted to cut with an angle from 0 to 45°.

Blade guard (3)

The blade guard assembly with a 200mm-diameter blade capacity is completely closed, but the outside cover can be disassembled to access the blade. It offers maximum operator protection and increased visibility of the work piece.

Water cooling (4)

The coolant system comprises:

- A submersible mechanical water pump.
- Plastic suction pipe delivering the water from the water pan to the cutting head.
- A removable large capacity plastic water pan located under the cutting table to reduce water loss.

Electric Motor

One phase 900W motor. The ON-OFF can also be used as emergency switch.

2.4 Technical Data

Electric motor	900W
Voltage	230V
Protection rating	IP 54
Max. blade diameter	200 mm
Bore	25.4 mm
Rotation speed of the blade	2950 min ⁻¹
Maximum cutting depth	
0°	35 mm
45°	25 mm
Cutting length mm	650 mm
Flange diameter	70 mm
Sound pressure level	72 dB (A) (ISO EN 11201)
Sound energy level	80 dB (A) (ISO EN 3744)
Machine dimensions (LxWxH)	930x470x1200 mm
Weights	
Machine cpl.	35 kg
Ready for use (with water)	45 kg

3 Assembly and commissioning

The machine is delivered fully equipped. It is ready for operation after assembly the diamond blade and after connection to the appropriate power supply.

3.1 Assembly on the folding frame

- Lift the machine from the side of the handles (opposite to the cutting head) and unfold the legs. Then lift the other side and unfold the other pair of legs. Make sure that you don't trap the cable and water hose between the machine and the water tray.



- Put the locking plate in the pin and tighten the knob in order to prevent folding of the leg.



3.2 Handles assembly

- In order to lift the machine easily, assemble the two handles on the side of the machine with bolts.

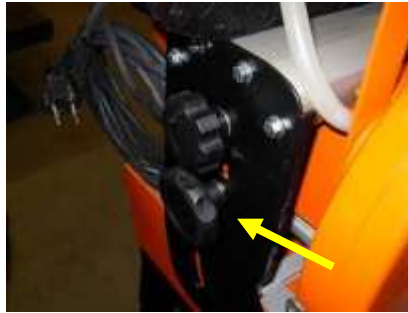


3.3 Cutting head

- Assemble the cutting head handle with two screws.



- You have to detach the cutting head by unscrewing the knob securing the head against one of the column of the machine.



3.4 *Transport wheels*

- In order to move the machine easily, mount the wheels with two wing screws at the bottom of the legs located to the opposite side of the handles.



3.5 *Water cooling system assembly*

- Mount the cable including the water hose along the cutting head guiding rail.



- Mount the water pump in the water tray and the drain plug as well.



3.6 Tool assembly

Only NORTON continuous rim blades with a maximum diameter of 200 mm can be used with the **TR 201 E**.

All tools used must be selected with regard to their maximum permitted cutting speed for the machine's maximum permitted rotation speed.

Before mounting a new blade into the machine, switch off the machine and isolate it from the main source of electricity.

To mount a new blade, follow these steps:

- Loosen on the three screws holding the outer cover of the blade guard, and remove it.



- Loosen the hexagonal nut on the blade shaft with the 19mm wrench, which holds the removable outer flange.



- Remove the outer flange.
- Clean the flanges and blade shaft and inspect for wear.
- Mount the blade on the shaft ensuring that direction of rotation is correct (check with the arrow on the blade guard). Wrong direction of rotation blunts the blade quickly.
- Replace outer blade flange.
- Tighten hexagonal nut.
- Retighten the three screws (1) maintaining the outer cover the blade shaft.

The blade bore must correspond exactly to the diameter of the blade shaft. Cracked or damaged bore is dangerous for the operator and for the machine.

3.7 Electrical connections

Check that,

- the voltage/phase supply corresponds to the information indicated on the motor plate.
- Available power supply must have ground connection in conformity with safety regulations.
- The connecting cables should have at least a 2.5mm²-section per phase.

3.8 *Guide-a-cut assembly*

Angle guide-a-cut



- Secure the materials stop on the table.
- Insert the guide-a-cut in the materials stop on the table
- Set the guide in the desired position before tightening the screws

Lateral guide-a-cut



- Put the guide-a-cut on the table
- Slightly tighten the two knobs.
- Slide the guide-a-cut to the proper distance from the cutting line.
- Strongly tighten the two knobs.

3.9 *Water cooling system*

- Fill the water pan with clean water to 1cm of the edge of the water tray.
- Ensure that water is delivered adequately to the blade, as insufficient water supply may result in premature failure of the diamond blade.
- The water pump must never run without water. Always make sure that there is enough water in the pan and refill if necessary.
- In case of frost, empty the water cooling system from its water.

3.10 *Starting the machine*

Connect the machine to the electrical supply. You can start it pressing the green button on the switch. To stop the machine, press the red button. The red button is also the emergency switch.

4 Transport and storing

4.1 *Securing for transport*

Before transporting the machine, always remove the blade and empty the water pan. Secure the cutting head on a column by using the knob.

4.2 *Long period of inactivity*

If the machine is not going to be used for a long period, please take the following measures:

- Completely clean the machine
- Empty the water system
- Take the water pump out of the water tray, and clean it thoroughly.

The storage site must be clean, dry and at a constant temperature.

5 Operating the machine

5.1 Site of work

5.1.1 Sitting the machine

- Remove from the site anything, which might hinder the working procedure!
- Make sure the site is sufficiently well lit!
- Observe manufacturer's conditions for connecting to power supplies!
- Place electric cables in such a way that damage by the device is excluded!
- Make sure you have a continual adequate view of the working area so you can intervene in the working process at any time!
- Keep other staff out of the area, so you can work securely.

5.1.2 Space required for operation and maintenance

Leave 2 m in front of the machine and 1,5 m around it for usage and maintenance of the TR200E.

5.2 Cutting methods

To use the machine correctly, you must face it with one hand on the cutting head, and one on the tile to be cut to maintain it against the material stops. Always keep your hands away from the moving blade.

5.3 Cutting with an angle

You can cut from 0° to 45° by tilting the head. To this purpose:

- Loosen the two knobs maintaining the head to tilt the head to the desire angle.
- Retighten the two knobs.

5.4 General advice for the cutting

- Only tiles with max. dimensions 650x400x15mm and max. weight 3kg can be cut with the machine.
- Before commencing work make sure tools are firmly seated!
- Select the right tools as recommended by the manufacturer depending on the material to be worked, the working procedure (dry or wet cut) to be carried out and the required efficiency.
- Make sure the water pan contains enough water.
- Set the guide-a-cut to the desired width of cut, and to the desired angle using the two engraved measurements to align it correctly.
- Do not force on the motor. This machine is not designed for a continuous use.

6 Maintenance and servicing

To ensure a long-term quality from the cutting with the **TR 201 E**, please follow the maintenance plan below:

		Begin of the day	During the changing of tool	End of the day or more often if required	After a fault	After a damage
Whole machine	Visual control (general aspect, watertightness)					
	Clean					
Flange and blade fixing devices	Clean					
Motor cooling fans	Clean					
Water pan	Clean					
Motor housing	Clean					
Reachable nuts and screws	Tighten up					

Maintenance of the machine

Always perform the maintenance of the machine with the machine isolated from the electrical supply.

Lubrication

The TR200E uses life-lubricated bearings. Therefore, you don't need to lubricate the machine at all.

Cleaning of the machine

Your machine will last longer if you clean it thoroughly after each day of work, especially water pump, water pan, motor and blade flange.

7 Faults: causes and cures

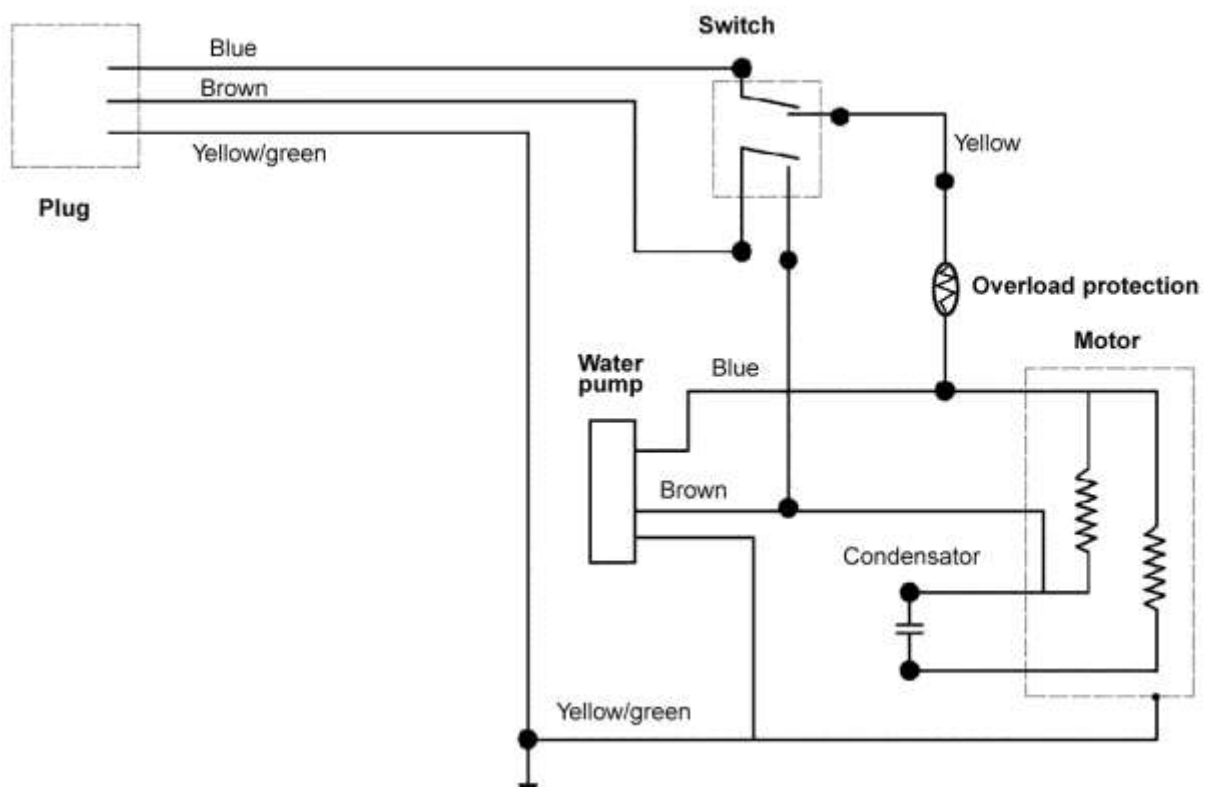
7.1 Fault-finding procedures

Should any fault occur during the use of the machine, turn it off, and isolate it from the electrical supply. Any works dealing with the electrical system or supply of the machine can only be carried out by a qualified electrician.

7.2 Trouble-shooting guide

Trouble	Possible source	Resolution
Motor is not running	No electricity	Check the electrical supply (fuse for example)
	Connection cable section too small	Change connection cable
	Defective connection cable	Change connection cable
	Defective switch	CAUTION : can only be solved by qualified electrician
	Defective motor	Change motor or contact motor manufacturer
No water on the blade	Not enough water in the pan	Refill the water pan
	Water supply system is blocked up	Clean water supply system
	Water pump is not working	Change the pump

7.3 Circuit diagram



7.4 Customer service

When ordering spare parts, please mention:

- The serial number (7 digits).
- The code of the part or position number on exploded view.
- The exact denomination.
- The number of parts required.
- The delivery address.
- Please indicate clearly the means of transportation required such as "express" or "by air". Without specific instructions, we will forward the parts through the means which seem appropriate to us --- but which is not always the quickest way.

Clear instructions will avoid problems and faulty deliveries.

If not sure, please send us the defective part.

In the case of a warranty claim, the part must always be returned for evaluation.

Spare parts for the motor can be ordered with the manufacturer of the motor or with their dealer, which is often quicker and cheaper.

This machine has been manufactured by Saint-Gobain Abrasives S.A.

190, Bd J.F. Kennedy

L- 4930 BASCHARAGE

Grand-duché de Luxembourg.

Tel. : 00352- 50 401-1

Fax : 00352- 50 16 33

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

e-mail: sales.nlx@saint-gobain.com

Guarantee can be claimed and technical support obtained from your local distributor where machines, spare parts and consumables can be ordered as well:

Benelux and France:

From Saint-Gobain Abrasives S.A.
Free telephone numbers:
Belgium : 0 800 18951
France: 0 800 90 69 03
Holland: 0 8000 22 02 70
e-mail: sales.nlx@saint-gobain.com

Spain

Saint-Gobain Abrasivos S.A.
C/. Verneda del Congost s/n
Pol.Ind. El Pedregar
E-08160 MONTMELÓ (Barcelona)
Tel: 0034 935 68 68 70
Fax: 0034 935 68 67 14
e-mail: Comercial.sga-apa@saint-gobain.com

United Kingdom

Saint-Gobain Abrasives Ltd.
Doxey Road
Stafford
ST16 1EA
Tel : 0845 602 6222
Free fax : 0800 622 385
e-mail : nortondiamonduk@saint-gobain.com

Hungary

Saint-Gobain Abrasives KFT.
Banyaleg Utca 60B
H-1225 BUDAPEST
Tel: ++36 1 371 2250
Fax: ++36 1 371 2255
e-mail: nortonbp@axelero.hu

Czech Republic

Norton Diamantove Nastroje Sro
Vinohradaska 184
CS-13000 PRAHA 3
Tel: 0042 0267 13 20 21
Fax : 0042 0267 13 20 21
e-mail : norton.diamonds@komerce.cz

Germany

Saint-Gobain Diamond Products GmbH
Birkenweg 45-49,
D-50389 WESSELING
Tel : (02236) 8911 0
Fax : (02236) 8911 30
e-mail: sales.ngg@saint-gobain.com

Austria

Saint-Gobain Abrasives GmbH
Telsenberggasse, 37
A-5020 SALZBURG
Tel : 0043 662 43 00 76 77
Fax : 0043 662 43 01 75
e-mail: office@sga.net

Italy

Saint-Gobain Abrasivi S.p.A.
Via per Cesano Boscone, 4
I-20094 CORSICO-MILANO
Tel: 0039 02 44 851
Fax : 0039 024 51 01 238
e-mail : Norton.edilizia@saint-gobain.com

Poland

Saint-Gobain Diamond Products Sp.zO.O.
AL. Krakowska 110/114
PL-00-971 WARSZAWA
Tel: 0048 22 868 29 36
Tel/Fax: 0048 22 868 29 27
e-mail: norton-diamond@wp.pl

www.construction.norton.eu

Saint-Gobain Abrasives

190, Bd. J. F. Kennedy
L-4930 BASCHARAGE
LUXEMBOURG

Tel: ++352 50401-1

Fax: ++352 501633

e-mail: sales.nlx@saint-gobain.com