

TT 180 BM

OPERATING INSTRUCTIONS

Translation of the original instructions



NORTON
SAINT-GOBAIN®

clipper®



The undersigned manufacturer:

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

Declares that this product:

Tile saw: **TT 180 BM 230V**

TT 180 BM 230V UK

TT 180 BM 110V UK

Code: **70184625699**

70184626958

70184628690

is in conformity with the following Directives:

- **"MACHINES" 2006/42/CE**
- **"LOW VOLTAGE" 2014/35/UE**
- **"ÉLECTROMAGNÉTIQUE COMPATIBILITÉ" 2014/30/UE**
- **"NOISE" 2000/14/CE**

and European standard :

- **EN 12418 – Masonry and stone cutting-off machines – Safety**
- **EN ISO 13857 – Safety of machines – Safety Distance**
- **EN 60204-1 – Safety of machines – Electrical equipment**
- **EN 61000-3-2 –electromagnetic compatibility**
- **EN 61000-3-3 – electromagnetic compatibility**
- **EN 55014 – electromagnetic compatibility**

Valid for machines as of serial number: **70100000**

Storage site for the technical documents :

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

This declaration of conformity loses its validity when the product is converted or modified without agreement.

Bascharage, Luxembourg, 07.12.2017.

François Chianese, executive officer.

**UK
CA**



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: **TT 180 BM 230V**

TT 180 BM 230V UK

TT 180 BM 110V UK

Code : **70184625699**

70184626958

70184628690

is in conformity with the following standard:

- ***Supply of Machinery (Safety) Regulations 2008***
- ***Electrical Equipment (Safety) Regulations 2016***
- ***Electromagnetic Compatibility Regulations 2016***
- ***Noise Emission in the Environment by Equipment for use Outdoors Regulations 2001***

and European standard:

- ***EN 12418 – Masonry and stone cutting-off machines – Safety***
- ***EN ISO 13857 – Safety of machines – Safety Distance***
- ***EN 60204-1 – Safety of machines – Electrical equipment***
- ***EN 61000-3-2 –electromagnetic compatibility***
- ***EN 61000-3-3 – electromagnetic compatibility***
- ***EN 55014 – electromagnetic compatibility***

Valid for machines with a serial number greater than: **70100000**

Authorised Representative:

SAINT-GOBAIN ABRASIVES

Unicorn House • Unit 1, Amison Close

Redhill Business Park • Stafford • England • ST16 1WB

This declaration of conformity loses its validity when the product is converted or modified without agreement.

Bascharage, Luxembourg, 01.10.2021

François Chianese, executive officer.

TT 180

OPERATING INSTRUCTIONS

1	BASIC SAFETY INSTRUCTIONS	7
1.1	<i>Symbols</i>	7
1.2	<i>Machine plate</i>	8
1.3	<i>Safety instructions for particular operating phases</i>	8
2	MACHINE DESCRIPTION	9
2.1	<i>Short description</i>	9
2.2	<i>Purpose of use</i>	9
2.3	<i>Layout</i>	9
2.4	<i>Technical Data</i>	10
2.5	<i>Statement regarding the vibration emission</i>	11
2.6	<i>Statement regarding noise emission</i>	12
3	ASSEMBLY AND COMMISSIONING	13
3.1	<i>Tool assembly</i>	13
3.2	<i>Guide-a-cut assembly</i>	13
3.3	<i>Electrical connections</i>	13
3.4	<i>Starting the machine</i>	14
3.5	<i>Water cooling system</i>	14
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>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>Customer service</i>	18

1 BASIC SAFETY INSTRUCTIONS

The TT180 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



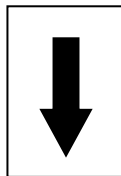
Ear protection must be worn



Hand protection must be worn



Eye protection shall be worn



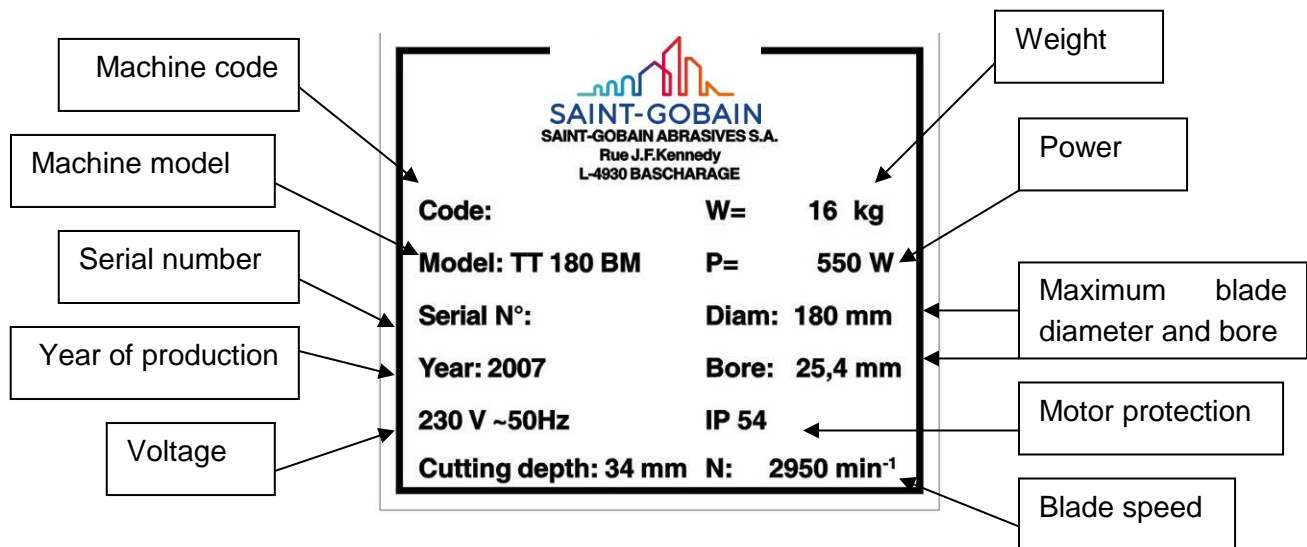
Rotation direction of the blade



Danger: risk of cut

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 CLIPPER 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.
- In case of emergency, you can stop the machine by pushing on the front cover of the switch.
- In the event of the machine breaking down or stopping for no apparent reason, switch off the main electricity supply. 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 TT180 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 steel to ensure perfect rigidity. It supports the motor, the cutting table and the switch.

Cutting table (2)

Zink coated steel top for an excellent corrosion resistance.

Electrical Motor and switch (3)

Motor with 550W. The ON-OFF switch also serves as emergency stop.

Guide-a-cut (4)

The guide-a-cut can be adjusted to the desired cutting width. It is locked using two screws. A guide to make mitre cut is also supplied with the machine.

Bevel cut (5)

You can make bevel cuts with the machine by loosening the two screws on the side and pivoting the table.

Blade protection (6)

To avoid water projection, and protect the operator from the blade, a guard encloses the blade.

2.4 Technical Data

Electric motor	550W
Voltage	230V
Protection rating	IP 44
Max. blade diameter	180 mm
Bore	25,4 mm
Rotation speed of the blade	2950 min ⁻¹
Flange diameter	50 mm
Cutting depth mm	34 mm
Sound pressure level	72 dB (A) (ISO EN 11201)
Sound energy level	80 dB (A) (ISO EN 3744)
Table dimension (LxW)	395 x 385 mm
Machine dimensions (LxWxH)	440 x 390 x 230 mm
Weights	
Machine cpl.	11 kg
Ready for use (with water)	14 kg

2.5 Statement regarding the vibration emission

Declared value of vibration emission following **EN 12096**.

Machine Model / code	Measured value of vibration emission at m/s ²	Uncertainty K m/s ²	Tool used Model / code
TT 180 BM 230V 70184625699	<2.5	0.5	Clipper CLASSIC CERAM
TT 180 BM 230V UK 70184626958	<2.5	0.5	Clipper CLASSIC CERAM
TT 180 BM 110V UK 70184628690	<2.5	0.5	Clipper CLASSIC CERAM

- The vibration value is lower and does not exceed 2.5 m / s.
- Values determined using the procedure described in the standard **EN 12418**.
- The measurements are made with new machines. Actual values may vary with site conditions, in terms of:
 - Materials worked
 - Wear Machine
 - Lack of maintenance
 - Inappropriate tool for application
 - Tool in poor condition
 - Unskilled operator
 - Etc...
- The exposure time to vibration is based on the performance of work (related to the adequacy Machine / Tool / worked material / operator)

When evaluating risks due to hand-arm vibration, you need to take into account effective usage at rated power of machine during a full day of work; quite often you will realise that effective utilisation time represents around 50% of overall duration of work. You have to consider, of course, breaks, water feeding, preparation of work, time to move the machine, disk mounting...

2.6 Statement regarding noise emission

Declared value of noise emission following **EN ISO 11201** and **NF EN ISO 3744**.

Machine Model / code	Sound Pressure level L_{Peq} EN ISO 11201	Uncertainty K (Sound Pressure level L_{Peq} EN ISO 11201)	Sound power level L_{Weq} NF EN ISO 3744	Uncertainty K (Sound power level L_{Weq} NF EN ISO 3744)
TT 180 BM 230V 70184625699	72 dB(A)	2.5 dB(A)	80 dB(A)	4 dB(A)
TT 180 BM 230V UK 70184626958	72 dB(A)	2.5 dB(A)	80 dB(A)	4 dB(A)
TT 180 BM 110V UK 70184628690	72 dB(A)	2.5 dB(A)	80 dB(A)	4 dB(A)

- Values determined using the procedure described in the standard **EN 12418**.
- The measurements are made with new machines. Actual values may vary with site conditions, in terms of:
 - Wear Machine
 - Lack of maintenance
 - Inappropriate tool for application
 - Tool in poor condition
 - Unskilled operator
 - Etc...
- Measured values relate to an operator in normal use, as described in the manual position.

3 ASSEMBLY AND COMMISSIONING

The machine is delivered fully equipped. It is ready for operation after assembly the diamond blade, the blade guard and the guide-a-cut, and after connection to the appropriate power supply.

3.1 *Tool assembly*

Only CLIPPER continuous rim blades with a maximum diameter of 180 mm can be used with the TT180. 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 the two screws on the side of the blade protection remove the front cover.
- Loosen the hexagonal nut which holds the removable outer flange on the blade shaft with the 19mm wrench and the special tool to lock the drive shaft.
- Remove the outer flange.
- Clean the flanges and blade shaft and inspect for wear.
- Mount the blade on arbour 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.
- Reassemble the front cover and retighten the two screws holding the front cover.

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.

3.2 *Guide-a-cut assembly*

To assemble the guide a cut:

- Put the guide a cut on the table.
- Use the handle on the side of the guide-a-cut to pinch it on the table

3.3 *Electrical connections*

The connecting cables should have at least a 2.5mm²-section per phase. 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.

3.4 *Starting the machine*

Press the green button to start the machine. Press on the red button to stop the machine. The red button is also the emergency switch.

3.5 *Water cooling system*

- Fill the water pan with clean water up to 5mm from the upper edge of the water tray.
- Ensure that water is delivered adequately to both sides of the blade, as insufficient water supply may result in premature failure of the diamond blade.
- 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.

4 TRANSPORT AND STORING

4.1 *Securing for transport*

Before transporting the machine, always remove the blade and empty the water pan.

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

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

5 OPERATING THE MACHINE

5.1 *Site of work*

5.1.1 Siting 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 around the machine for usage and maintenance of the TT180.

5.2 *Cutting methods*

To use the machine correctly, you must face it with the two hands on the tile to be cut, pushing the tile against the blade. Always keep your hands away from the moving blade.

To set the guide-a-cut at the desired cutting width, release it, and use the two scales on the table to align the guide. Then tighten it back.

5.3 *General advice for the cutting*

- Only tiles with max. dimensions 400x400x6mm 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 tray contains enough water.
- Set the guide-a-cut to the desired width of cut, 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 TT180, please follow the maintenance plan below:

		Begin of the day	During the changing of tool	End of the day or more often if required	Every week	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						
Engine 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 TT180 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 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

7.3 Customer service

When ordering spare parts, please mention:

- The serial number
- The code of the part.
- 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. : 00352-50401-1

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:

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

SAINT-GOBAIN ABRASIVES, S.R.O.
POČERNICKÁ 272/96, MALEŠICE
108 00 PRAHA 10
CZECH REPUBLIC
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 ABRASIFS
RUE DE L'AMBASSADEUR - B.P.8
78 702 CONFLANS CEDEX
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)2236703-1
+49(0)22368996-0
+49 (0)2236 8911-0
FAX: +49(0)2236703-367
+49(0)22368996-10
+49 (0) 2236 8911-30

FÜR DEN FACHHANDEL
ÖSTERREICH
TEL: +43 (00) 662 430 076

SAINT-GOBAIN ABRASIVES KFT.
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 RUE J.F. KENNEDY
L-4930 BASCHARAGE
GRAND DUCHE DE LUXEMBOURG
TEL: +352 50 401 1
FAX: +331 83 717 792
NO. VERT (FRANCE): 0800 906 903

SAINT-GOBAIN ABRASIFS, S.A.
2 ALLÉE DES FIGUIERS
AIN SEBAÂ - 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
PUNCT DE LUCRU : LOC.VETIS, JUD.
SATU MARE 447355
STR. CAREIULUI 11
PARC INDUSTRIAL 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. DE 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. TIC. AS.
ALTAYÇEŞME MAH. ÇAMLI SOK. NO:21 ESAS
OFISPARK 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 Duche de Luxembourg
Tel: +352 50 4011
Fax: +352 50 16 33
no. vert (France) 0800 906 903

www.nortonabrasives.com/fr-fr