

# Tile cutting machine TS 200 / TS 250



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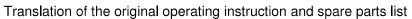
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Translation of the original operating instruction and spare parts list



#### **Preface**

This operating manual is designed to familiarize the user with the masonry bench saw, hereinafter referred to as the machine, and to use its intended applications.

The operating manual contains important information on how to operate the machine safely, properly and most efficiently. Observing these instructions helps to avoid danger, to reduce repair costs and downtimes and to increase the reliability and the life of the machine.

This operating manual is to be supplemented by the respective national rules and regulations for accident prevention and environmental protection.

The operating manual must always be available wherever the machine is in use.

It is to be read and applied by any person in charge of work with or on the machine, such as:

- Operation including setting up, troubleshooting in the course of work, elimination of manufacturing waste, care and disposal of fuels and consumables.
- Servicing (maintenance, inspection, repair) and/or
- Transport

In addition to the operating manual and to the mandatory rules and regulations for accident prevention of the country and place of use of the machine, the recognized technical rules for safe and proper working conditions and procedures are also to be observed.

In this manual all the information required for the intended use of the unit is included. If though you have any specific questions, please refer to your representative, to one of our sales representatives or directly to us:

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# Warning signs and symbols



Wear safety glasses!



Wear hard hat!



Wear ear muffs!



Wear safety boots!



Wear safety clothes!



Wear dust protection!



Wear protective gloves!



Read owner's manual before first initiation!



Important advice!





Danger exists to cut oneself!



General danger!



Never touch!



#### **Technical data and accessory** 1.

#### 1.1 Technical data of the machine

Туре	TS 200	TS 250	
Max. cutting depth	40 mm - 1,6 in.	,6 in. 65 mm - 2,6 in.	
Max. cutting length	720 mm - 28,3 in.	1000 mm - 3,9 in.	
Blade shaft size	25,4 - 1 in.		
Max. blade-Ø	200 mm – 7,9 in.	250 <b>-</b> 9,8 in.	
Engine	Electric Engine 1,3 kW, 230 V, 50 Hz IP54, P1		
Speed	2800 rpm		
Water supply tank	20 I		
Dimensions (L x B x H)	1000 x 520 x 1250 mm - 3,9 x 20,5 x 49,2 in.	1280 x 520 x 1250 mm - 50,4 x 20,5 x 49,2 in.	
Weight	56 kg – 123,2 lbs.	74 – 162,8 lbs.	
Sound power level after ISO EN 3744	92 dB(A)		
Sound pressure level after ISO EN 11201	80 dB(A)		
Vibration	2,3 m/s²		

#### Provided accessory 1.2

- Operating instruction
- Spare parts list

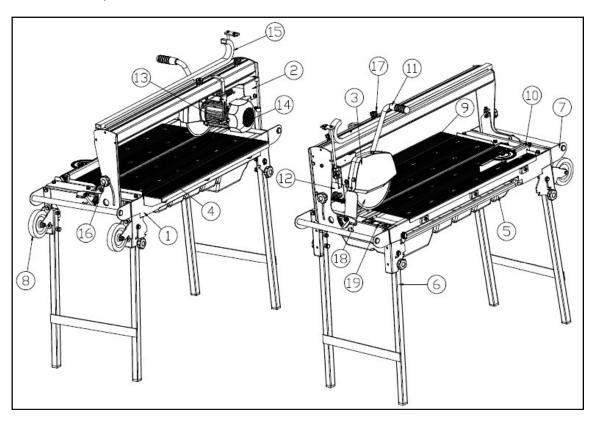
For the item number of accessories, please refer to the current catalogue of  $\ddot{GOLZ}^{\otimes}$  If accessories are used which do not correspond to  $\ddot{GOLZ}^{\otimes}$  specifications, no liability is assumed for any damage resulting hereof.

For details regarding the selection of the right **GÖLZ**<sup>®</sup> diamond blades, please refer to the current GÖLZ® catalogue for diamond tools.



# 2. Description

# 2.1 Main parts



- 1) Frame
- 2) Cutter head
- 3) Blade guard
- 4) Extension table
- 5) Water tank
- 6) Main pillar
- 7) Transport handle

- 8) Transport wheel
- 9) Cutting table
- 10) Back square
- 11) Cutter head handle
- 12) Switch
- 13) Adjusting handle
- 14) Engine

- 15) Cable protector
- 16) Adjusting angle grip knob
- 17) Transport lock
- 18) Blade
- 19) Machine plate



## 3. Basic safety instructions

In this manual the following terms and symbols are used for particular important information:



Note / Important: Contains important information which stands out from the other text!



Attention: Contains instructions which must be strictly observed to prevent damage from the unit and the operator!

Important text passages are highlighted in italics or bold or can be found in a grey highlighted text field.

#### 3.1 Intended use

The machine has been built in accordance with state-of-the-art standards and the recognized safety rules. Nevertheless, its use may constitute a risk to life and limb of the user or of third parties, or cause damage to the machine and to other material property.

The machine must only be used in technical perfect condition in accordance with its designated use and the instructions set out in the operating manual, and only by safety-conscious persons who are fully aware of the risks involved in operating the machine. Any functional disorders, especially those affecting the safety of the machine, should therefore be rectified immediately!

The machine is designed exclusively for cutting in concrete, reinforced concrete, natural stone, cast stone and brickwork. Using the machine for purposes other than mentioned above (such as cutting in wood and so on) is considered contrary to its designated use. The **GÖLZ<sup>®</sup> GmbH** cannot be held liable for any damage resulting from such use. The risk of such misuse lies entirely with the user.

Only use gear drives and motors, which are provided by GÖLZ® GmbH. Also attend those operating manuals.

Operating the machine within the limits of its designated use also involves observing the instructions set out in the operating manual and complying with the inspection and maintenance directives



Attention: Read and observe all the operating instructions which belong to this unit!

# 3.2 Operating range

The operating range of the unit can be extended due its wide range of accessories allowing easy retrofitting which can be carried out by the operating personnel themselves.

Do not modify, add components to or retrofit the unit in a way which could affect its safety and do not use non-official accessories! This is not allowed without prior approval of **GÖLZ**<sup>®</sup> **GmbH!** 



Note: Read and observe the operating instructions to the accessories!



## 3.3 Organisational measures

This operating manual must always be at hand at the place of use of the machine and must be accessible to the person operating the machine!

In addition to this operating manual, all other generally applicable legal and other mandatory regulations relevant to accident prevention and environmental protection must be observed! Such obligations may also comprise the handling of hazardous materials, provisioning and/ or wearing of personal protective equipment, or road traffic regulations.

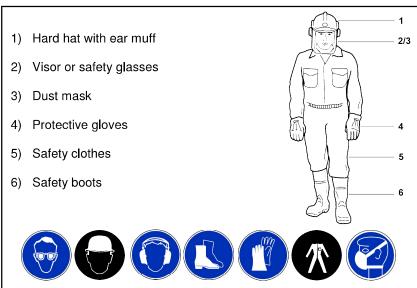
This operating manual must be supplemented by instructions covering the duties involved in supervising and notifying special organizational features, such as job organization, work flows or the person entrusted with the work. Person entrusted with work on the machine must have read the operating manual prior to taking up work. This applies especially to persons working only occasionally on the machine, e.g. during set-up or maintenance activities.

Check - at least from time to time - whether the personnel is carrying out the work in compliance with the operating manual and paying attention to risks and safety-relevant factors.

For reasons of safety, long hair must be tied back or otherwise secured, garments must be close-fitting and no jewellery - including rings - may be worn.

Severe injury may result from being caught by moving parts of the machine. Personal protective equipment must be used wherever required by the circumstances or by law (e.g. safety glasses, ear protectors, safety boots, suitable safety clothing). Observe the regulations for prevention of accidents! Observe all safety precautions and warnings attached to the machine and always keep them in good and perfectly legible condition.

#### The personal protection equipment should consist of the following parts:



In case event of safety-relevant modifications or changes in the behaviour of the machine, stop the machine immediately and report the malfunction to the competent authority/ person. Do not remove or make inoperative any safety devices the machine is equipped with.

Never make any modifications, additions or conversions which might affect safety without **GÖLZ® GmbH** prior approval! This also applies to the installation and adjustment of safety devices as well as to welding and cutting work on supporting structures.

Damaged or worn parts of the product must be replaced immediately. Use genuine spare parts only. All spare parts and tools must comply with the technical requirements specified by the manufacturer/distributor. Adhere to the legally prescribed preventive maintenance and inspection intervals or those specified in this operating manual!

Hydraulic hose pipes must be changed within the specified or appropriate intervals, even if no safety-relevant defects are visible.

Translation of the original operating instruction and spare parts list



All maintenance and repair activities must be performed by qualified personnel using suitable tools and other suitable workshop equipment. Observe the fire alarm and fire fighting measures. The personnel must be made familiar with the location and handling of fire extinguishers!

#### 3.4 Selection and qualification of person

Only permitted personnel is allowed to work on and with the machine! The legal minimum age is to be observed!

Only assign trained and instructed personnel! Clearly define the responsibilities of the personnel with regard to operating, setting-up, maintaining and repairing the machine! The **GÖLZ<sup>®</sup> GmbH** can assist you in training your personnel.

Make sure that only instructed and competent personnel works on the machine. Define the responsibility of the machine operator, also in terms of traffic regulations and enable him to refuse instructions of third parties which breach safety regulations.

Personnel that is to be trained or to be instructed or that is serving a general training is only to be permitted to operate the machine under the supervision of an experienced person.

To operate the machine you must be rested, in good physical condition and mental health. If you have any condition that might be aggravated by strenuous work, check with your doctor before operating with the machine. Do not operate the machine if you are under the influence of any substance (drugs, alcohol) which might impair vision, dexterity or judgment.

Works on electrical, pneumatic, combustion and hydraulic fittings and equipment are only to be carried out by qualified personnel or instructed people being directed and supervised by qualified personnel in compliance with the respective rules!

#### 3.5 Safety instructions governing specific operational phases

#### **Before work**

Avoid any operational mode that might be prejudicial to safety!

Before beginning work, familiarize yourself with the surroundings and circumstances of the site, such as obstacles in the working and travelling area, the soil bearing capacity and any barriers separating the construction site from public roads.

Take the necessary precautions to ensure that the machine is used only when in a safe and reliable state. Operate the machine only if all protective and safety-oriented devices, such as removable safety devices, emergency shut-off equipment, sound-proofing elements and exhausters, are in place and fully functional.

Regard all safety specifications!

Check the machine at least once per working shift for obvious damage and defects. Report any changes (incl. changes in the machine's working behaviour) to the competent organization/ person immediately. If necessary, stop the machine immediately and lock it. Have any defects rectified immediately. At any time, ensure the operator has sufficient view to his working area, in order to have intervention to the working process.

Wet cutting is to be accomplished while working. This prevents the appearance of particulate matter and increases the life-time of the diamond tool. During start-up and shut-down procedures always watch the indicators in accordance with the operating instructions!

Before starting or setting the machine in motion, make sure that nobody is at risk. Keep children and unauthorized persons away from the work area.

Noise protection equipment on the unit must be in protective position during operation. Wear the required individual ear protection!

Always keep at a distance from the edges of building pits and slopes. Avoid any operation that might be a risk to machine stability! Keep the work area clean. Cluttered areas and benches invite injuries! Do not operate when you are tired! Watch what you are doing! Risk of stumbling! Cables and hoses must complete rolling up. After assembly do not leave any tools, a wrench for example, on the unit.

Check to see that the tools are removed from the machine before operating! Damaged blades have to be changed immediately. Use only recommended blades from the GÖLZ® GmbH.

Translation of the original operating instruction and spare parts list



Control the working area for water-, gas- and electrical lines!



Important: Wet cutting is to be accomplished while working! This prevents the appearance of particulate matter and increases the life-time of the diamond tool!

#### **During work**

Make sure, that the machine is well fastened before and while cutting! Never touch rotating parts like blade shaft or blade!

#### After work

Before leaving the machine always secure it against unauthorized use!

#### 3.6 Special work related to the maintenance and repair of the machine

Observe the adjustment, maintenance and inspection activities and intervals set out in the operating instructions, including information on the replacement of parts and equipment! These activities may be executed by skilled personnel only.

Brief operating personnel before beginning special operations or maintenance work, and appoint a person to supervise the activities.

In any work concerning the operation, conversion or adjustment of the machine and it's safety-oriented devices or any work related to maintenance, inspection and repair, always observe the start-up and shut-down procedures described in the operating instructions and the information on maintenance work. Ensure that the maintenance area is adequately secured.

Carry out maintenance and repair work only of the machine is positioned on stable and level ground and has been secured against inadvertent movement and buckling. If the machine is completely shut down for maintenance and repair work, it must be secured against inadvertent starting.

To avoid the risk of accidents, individual parts and large assemblies being moved for replacement purposes should be carefully attached to lifting tackle and secured. Use only suitable and technically perfect lifting gear and suspension systems with adequate lifting capacity. Never work or stand under suspended loads.

The fastening of loads and the instructing of crane operators should be entrusted to experienced persons only. The marshaller giving the instructions must be within sight or sound of the operator.

For carrying out overhead assembly work always use specially designed or otherwise safety-oriented ladders and working platforms. Never use machine parts as a climbing aid. Wear safety harness when carrying out maintenance work at greater heights.

Clean the machine, especially connections and threaded unions, of any traces of oil, fuel or preservatives before carrying out maintenance / repair. Never use aggressive detergents. Use lint-free cleaning rags.

Before cleaning the machine with water, steam jet or detergents, cover or tape up all openings which for safety and functional reasons - must be protected against water, steam or detergent penetration.

Do not clean the machine with a high-pressure cleaner. The hard water jet can put damage to parts of the machine. After cleaning, remove all covers and tapes applied for that purpose.

After cleaning check the machine for loose connections, chafe marks and damage! Have identified defects repaired immediately!

Always tighten any screwed connections that have been loosened during maintenance and repair.

Any safety devices removed for set-up, maintenance or repair purposes must be refitted and checked immediately upon completion of the maintenance and repair work. Ensure that all consumables and replaced parts are disposed of safely and with minimum environmental impact.



## 3.7 Information about special risks with electrical energy

Observe the relevant national regulations or standards. Electrical connections must always be kept free from dirt and moisture.

Use only original fuses with the specified rating! Switch off the machine immediately, if trouble occurs in the electric power supply!

If your machine comes into contact with a live wire:

- warn others against approaching and touching the machine
- have the live wire de-energized

When working with the machine, maintain a safe distance from overhead electric lines. If work is to be carried out close to overhead lines, the working equipment must be kept well away from them. Caution, danger to life!

- Check out the prescribed safety distances.
- Work on the electrical system or equipment may only be carried out by a skilled electrician himself or by specially instructed personnel under the control and supervision of such electrician and in accordance with the applicable engineering rules.
- If provided for in the regulations, the power supply to parts of machines and plants, on which inspection, maintenance and repair work is to be carried out must be cut off.
- Before starting work, check the de-energized parts for the presence of power and ground or short-circuit them in addition to insulating adjacent live parts and elements.

The electrical equipment of machines is to be inspected and checked at regular intervals. Defects such as loose connections or scorched cables must be rectified immediately.

Necessary work on live parts and elements must be carried out only in the presence of a second person who can cut off the power supply in case of danger by actuating the emergency shut-off or main power switch. Secure the working area with a red-and white safety chain and a warning sign. Use insulated tools only.

If mobile electrical equipment, connecting cables and/ or extension/ appliance cords with plug connectors are used, ensure that such equipment, cables and cords are checked for correct function at least once every six months by a qualified electrician or - if suitable testing equipment is available - by a properly instructed person.

Protective installations with fault-current protection units used in non-stationary equipment must be checked for correct operation at least once a month by a properly instructed person.

Fault-current and fault-voltage protection units must be checked for correct operation by actuating the testing facility:

- once on every working day in the case of mobile equipment,
- at least once every six months in the case of stationary equipment.

## 3.8 Gas, dust, steam, smoke

Operate combustion engines only in well-ventilated rooms! Before starting the unit in closed rooms, make sure that the room is sufficiently ventilated and use the exhaust gas hose!

Welding, burning and grinding operations on the machine are only to be carried out if this is explicitly authorized (there is the danger of fire and explosion)!

Before welding, burning and grinding operations clean the machine and its surrounding area from dust and flammable substances and care for sufficient ventilation (danger of explosion)!

When working in confined spaces observe any existing national regulations!

#### 3.9 Noise

During operation sound protection devices on the machine must be in safe position. Wear the prescribed personal ear protection! (UVV 29 § 10, Article 29 of the Accident Prevention regulations). The use of noise emitting machines may be restricted to certain times by national or local regulations.



#### 3.10 Illumination

The machine is designed for use in daylight! The machine operator / owner must ensure sufficient workplace lighting for non-illuminated work sites!

#### 3.11 Oils, greases and other chemical substances

When handling hydraulic fluids, lubricants, greases or preservatives (referred to hereinafter as fuels and lubricants), the safety regulations which apply to the respective machine are to be observed! Avoid long contact of the fuels and lubricants with your skin! Careful cleaning of the skin from adhering fuels and lubricants is necessary.

Be careful when handling hot consumables (risk of burning or scalding) particularly at liquid temperatures above 60 °C, avoid any skin contact with these liquids!

If you get fuels or lubricants in your eyes, rinse them immediately and carefully with potable water. Then consult a doctor.

Remove flown out fuels and lubricants immediately! Therefore use a binder.

Fuels and lubricants must not seep into the soil or into the public sewage system! Fuels and lubricants which can no longer be used are to be collected, properly stored and to be properly disposed of.

The respective regulations and laws for handling fuels and lubricants which are valid in the country of use are to be observed and adhered to. This also applies to the disposal of such fuels and lubricants. To inform yourself turn to the responsible authorities.

## 3.12 Transport

Use only suitable means of transport and lifting gear of sufficient capacity when loading or transporting the machine! Appoint an experienced instructor for the lifting operation!

Always observe the instructions given in the operating manual when lifting the machine (use only the prescribed lifting eyes for attaching the lifting gear)!

Use only suitable transport vehicles with sufficient load capacity! Secure the load carefully. Use suitable fastening points for securing!

Before loading the machine or parts of it, secure the machine against inadvertent movement! Attach a suitable warning sign!

The blade must be removed for transport. Even in case of a minor change of location, the engine must be stopped!

Before using the machine again, make sure that such protection material or devices are properly removed! Parts which had to be removed for transporting of the machine must be refitted and secured carefully before the machine is used again!

Before setting the machine in motion always check that all accessories are safely stowed.

The recommissioning procedure must be strictly in accordance with the operating instruction! Observe the instructions given in the operating instruction when reassembling and operating the machine.

The machine can be transported by two persons using the transport handles or one person using the transport wheels. The machine is not designed to be transported by crane!

Before transporting the machine always do the following instructions:

- Remove the blade
- Empty the water tray,
- Lock the table
- Fold and tight the legs with the locking screws
- Make sure the transport handles and wheels are mounted correctly and well tighten.

Translation of the original operating instruction and spare parts list



#### 3.13 Store

Store the machine in a dry, high or locked place, out of the reach of children or unauthorized persons. Clean and preserve the machine with corrosion preventive if storing over a longer time like winter time!

**Note:** Store dismounted blades so, that the blades not exposed to mechanical damages and harmful environmental conditions (UV radiation, temperature, humidity, etc.).



Attention: Store blades just standing or hanging!

Before storing always do the following instructions:

- Clean the machine
- Empty and clean the water tray
- Clean the water pump
- In case of frost, empty all water cooling system from its water.

Translation of the original operating instruction and spare parts list



#### 5. Operation

















Attention: Location rid of anything that might interfere with the operation! Ensure correct installation of the blade! With the exception of the operator, should be no other persons present in the work area!



Warning: Never touch rotating parts!

#### 5.1 Before starting the machine

Before starting observe the following points:

- Make sure that the blade is correct installed and the blade guard is closed. The blade guard must always be fitted when cutting.
- Defective or worn blades must be replaced immediately.
- Make sure that the blade is not touching the cutting table at any position of the cutting table or cutting head.
- Fill the water tank with clean water and make sure the water pump in completely immersed in the water. The water pump doesn't run without water refill the water tank with clean water if necessary.
- Supply cooling water to the blade by the water pump.
- The material to be cut must not exceed the following: Weight < 10 kg 22 lbs.

Max. Dimensions TS200: 720 x 480 x 40 mm - 28,3 x 18,9 x 1,6 in.

Max. Dimensions TS250: 1140 x 480 x 65 mm - 44,9 x 18,9 x 2,6 in.

The machine only is operated in safe operating condition!

Pay attention to the dispositions of cooling water and flushing water as well as cutting muds. Cutting muds must be absorbed, filtered and disposed of.

# 5.2 Starting the machine

To start the machine, open the cover of the switch and press the green button.

After starting the machine check immediately the following points:

- The cooling water must be transported in sufficient quantity from the water pump to the blade. The water should drain on both sides of the blade.
- The water nozzles and water hoses should not clog.

If one of these conditions is not correct, stop immediately the machine!

The motor is equipped with a thermal protection to prevent high temperature rises, if the thermal protection triggers, wait until the motor has cooled down before starting the machine again.

## 5.3 Cutting operation



Important: Observe all the previous chapters in this manual, in particular the safety and warning instructions!

Translation of the original operating instruction and spare parts list





Warning: Never touch rotating parts!



Attention: Transport the unit only when the engine is stopped! This applies also to a short change of location!



Attention: Wear appropriate individual protective equipment!

#### 5.3.1 Cutting method: Fixed depth cutting

In fixed depth cutting, the cutting head is locked in a fixed position. To do fixed depth cutting, please follow this procedure:

• Switch off the machine and make sure the blade is not rotating.



 Loosen the adjusting handle and adjust the cutting head to the desired position.





• Make sure that the blade is not touching the cutting table at any position of the cutting table or cutting head.





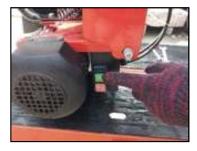
• Tighten strongly the adjusting handle and make sure the cutting head is well fixed and cannot move.



 Put the material on the cutting table. By using the back square control the position of the material.



• Start the machine.



• Put your hand on the cutting handle.



 Push the cutting table slowly and without undue pressure towards the rotating blade. The blade cuts the applied material.





#### 5.3.2 Cutting method: Free depth cutting for multiple steps cutting

In free depth cutting, the cutting head is not locked in a fixed position. This cutting method enables multiple steps cutting which consists of moving the table back and forth with the material to be cut under the rotating blade. For hard material, it is recommended to use this cutting method (e.g. by doing many shallow cuts).

To do free depth cutting, please follow this procedure:

 Switch off the machine and make sure the blade is not rotating.



• Loosen the adjusting handle.

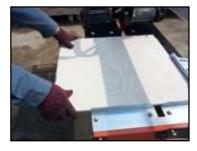


 Make sure that the blade is not touching the cutting table at any position of the cutting table when the cutting head is at the lowest position.





 Put the material on the cutting table. By using the back square control the position of the material.







• Start the machine.



• Put your hand on the cutting handle.



- Push the cutting table slowly and without undue pressure towards the rotating blade. The blade cuts the applied material.
- During the cutting process set the cutting depth manual about the cutter head handle. Push about the table handle the cutting table to the front and back again.



#### 5.3.3 Cutting method: 45° bevel cuts

The machine enables to make fixed or multiple steps 45° bevel cuts. To do 45° bevel cuts, please follow this procedure:

 Switch off the machine and make sure the blade is not rotating.



• Loosen the two grip knobs on each side of the machine.





 Rotate the complete cutting head and rail to the required angle.



• Tighten well the two grip knobs on each side of the machine.



• Loosen the adjusting handle.



• Adjust the depth stop and tighten it well.



 Make sure that the blade is not touching the cutting table at any position of the cutting table when the cutting head is at the lowest position.



• Put the material on the cutting table. By using the back square control the position of the material.





Start the machine.



- Put your hand on the cutting handle.
- Push the cutting table slowly and without undue pressure towards the rotating blade. The blade cuts the applied material.

To put the cutting head back in the normal position, please follow this procedure:

• Switch off the machine and make sure the blade is not rotating.



• Tighten well the two grip knobs on each side of the machine.



• Rotate the cutting head until it stops at 0°.



• Tighten well the two grip knobs on each side of the machine.





 Make sure that the blade is not touching the cutting table at any position of the cutting table when the cutting head is at the lowest position.





## 5.4 Stop cutting operation

To stop the machine, press the red button or directly the emergency switch to stop the machine. The motor and the water pump shut off.

Carry out the maintenance and care work according to the chapter "maintenance and care".

# 5.5 Changing the blade

The blade must be changed if:

- the diamond segments of the blade are completely worn
- the material to be cut changes
- the blade turns irregularly
- the diamond segments are damaged or broken

For fitting a new blade, proceed as described in the chapter "Mounting / changing the blade".