



SawMaster™

DIAMOND
TOOLS AND MACHINES

SawMaster
BENCH SAW
SDT•250 E

ENGLISH

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Thank you for choosing a SawMaster product.

The more familiar you are with it, the easier you will find the use of a SawMaster product.

Therefore we kindly ask you:

to read the information gathered in this operating manual before you begin working with your newly purchased product. You will find important notes concerning the operation so that you can make the most out of the technical advantages offered by your SawMaster product. Moreover, you will find useful tips for maintenance and for maintaining the safety of operation, accident protection and value of your machine as much as possible.

SawMaster™



CEDIMA®
Diamantwerkzeug- und
Maschinenhandelsgesellschaft mbH
Celle/Germany
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Uniform Statement of Conformity

This is to certify, that on the basis of the Directive 98/37/EC of the European Parliament and Community of 22.06.1998

the **Bench Saw SDT•250 E** starting from year of manufacture 2000

of CEDIMA® GmbH Lärchenweg 3 D-29227 Celle

complies with the following standards EN 292-1
EN 292-2
EN 418

ENGLISH

Einheitliche Konformitätsausage

Hiermit wird bestätigt, daß auf der Grundlage der Richtlinie 98/37/EG des Europäischen Parlaments und des Rates vom 22.06.1998

die **Tischsäge SDT•250 E** ab Baujahr 2000

der CEDIMA® GmbH Lärchenweg 3 D-29227 Celle

mit folgenden Normen EN 292-1
EN 292-2
EN 418

übereinstimmt.

DEUTSCH

Annonce Uniforme de Conformité

Le présent document a pour but de certifier que sur la base de la Directive 98/37/CE de la Parliament et de la Communauté en date du 22.06.1998

la **Scie à Table SDT•250 E** dès modèle 2000

de CEDIMA® GmbH Lärchenweg 3 D-29227 Celle

est conforme aux normes EN 292-1
EN 292-2
EN 418

auxquelles.

FRANÇAIS




(Executive manager)



Preface

Thank you for choosing a SawMaster produkt.

The operating manual provides important information on how to use the machine safely, properly and economically. Following the instructions is necessary for your safety, for reducing repair costs and downtimes and to maintain reliability and extend the useful life of the machine.

Read through this manual carefully before you start working with your new machine.

The manual must be kept close to the machine at all times and must be read and applied in practice by anyone who will be working with or on or handling the machine. The operating manual are to be supplemented by any instructions contained in the regulations of your country concerning accident prevention and environmental protection. Besides the operating manual and local regulations on accident prevention that apply in the user's country and place of use, the user must observe general technical regulations such as the regulations of trade associations on safety and proper working.

This operating manual provides full information as required for the proper use of the machine, but should you feel the need to approach us with any queries, please do not hesitate to contact one of our field representatives, or SawMaster directly at:

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1.1 Accessories (Supplied equipment) :

1x removable handle (roller table)

2x splash guard mats

1x open-end spanner SW 36

1x open-end spanner SW 24

1x operating manual



1x spare parts list

You will find information on the suitable type of SawMaster™ diamond edge saw blade in the price list as well as in the product datasheet.

In the case of special applications please ask SawMaster™ for advice.



1.0 Technical specification:

Type:	SDT•250 E		
Wattage of the driver motor	10 HP (7,5 kW)		
Speed (RPM)	2000		
Electrical ratings	220 Volt / 60 Hz, 3-phase 28 Ampere		
Speed (RPM) of the blade shaft	1700		
Max. diameter of saw blade	22" (550 mm)		
Depth of cut	8.0" (200 mm)		
Length of cut	22.8" (580 mm)		
Saw blade receptacle	Ø 1" (25,4 mm)		
<u>Dimensions</u>	length:	67"	(1700 mm)
	width:	36"	(900 mm)
	height:	56"	(1430 mm)
Weight	440 lb (200 kg) (without cooling water)		
The water cooling is effected through the saw blade cover			
water pump	without / 115 Volt, with connection lead		
Required water quantity	13 US gals (50 liters)		
Electrical connection:	3 m lead wire 5 x 2,5		

Fusing of the electrical distribution network (power mains):

Over-current cutout **3 x 25 Ampere**

Electrical switch with emergency cutout

SDT•250 E

The SDT•250 E is a sturdy bench saw for cutting large porous or lime sand bricks or similar abrasive material. The hinged cutting lever allows for easy cutting at large cutting depths.



SawMaster Bench Saws excel in easy operability and highest precision. They can be easily transported; therefore they can always be installed where material is to be cut. The drive unit and the speed of the blade shaft have been designed such that the conditions for using SawMaster circular diamond saw blades are ideal.



Description of the bench saw

The basic support of the SawMaster Bench Saw SDT•250 E is a welded frame.

The cutting head is mounted on a movable cutting lever, to allow for precise cutting at a certain depth of cut or angle.

The cutting head is fixed on both sides of the frame. The support arm can be removed in order to cut bulky pieces.

The workpiece is either moved to and fro under the diamond blade on the roller table or cut in a full cut with the cutting head locked in position.

The SawMaster Bench Saw SDT•250 E is equipped with a cooling/rinsing system for wet cutting allows for dust-free work and an efficient chip removal; this results in a longer service life of the diamond saw blade.

Due to the large wheels, the machine can be easily transported to the location

where it is to be used. The front „wheels“ are designed as pivoted castors which can be blocked.

The chips accumulate in the large water container.

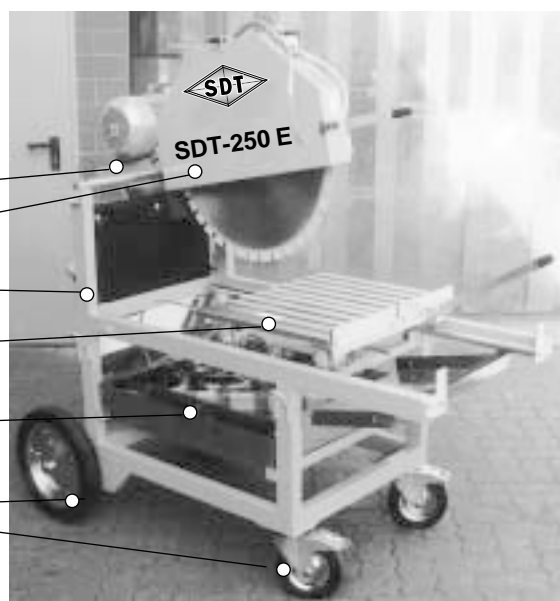
The cutting lever is mounted on the guide frame such that it can be moved vertically. A clamping arm allows for continuous cutting head adjustments.

The diamond saw blade is driven by a powerful three-phase current motor and by V-belts.

The bench saw cutting arm is equipped with extra large mats which serve as splash guards against dirt and water.

The machine consists of the following components :

- Motor frame
- Blade holder with guard
- Frame made of square tubes
- Easy-to-operate roller table with stop and handle
- Water container with connecting lead for immersion pump
- Large wheels, front wheels adjustable



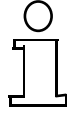
General safety instructions for using the bench saw



3.0 General/basic safety information

3.1 Warnings and symbols

The following signs and headings are used in this manual for comments of special importance:



NOTE/INFO

is used for comments on the economic use. The text which is marked with the INFO symbol provides important information, and it is separated from other text.

ATTENTION!

ATTENTION

is used for particular comments or statements concerning the accident prevention (i. e. when something is compulsory or prohibited). The text which is marked with the ATTENTION symbol provides instructions which must be precisely observed to avoid damages of the machine or material and injuries of the user or a third party.



WARNING / CAUTION

is used for crucial statements concerning the accident prevention (i. e. when something is compulsory or prohibited) in order to avoid injuries of the user or a third party as well as considerable damages of the machine or material. The text which is marked with the WARNING or CAUTION symbol warns the reader that the user or a third party is likely to be injured

if the instruction given is not observed or if he does not proceed as described.

Important statements are printed in italics.

Statements concerning safety are printed bold and in italics.

3.2.1 Principle of proper use

3.2.1.1 This machine has been designed according to the latest technologies in mechanical and electrical engineering and according to recognised safety rules. Even though, the misuse of this machine may imply danger to life and limb of the user or a third party as well as disturbances or damages of the machine or system and other assets.

3.2.1.2 This machine must be used only when it is technically in a perfect order, and safety rules as well as the operating instructions must be observed. Be aware that using the machine may be dangerous. Do not use the machine for another purpose than intended. Any disturbances or faults - in particular those which may affect the safety - must be eliminated immediately!

3.2.1.3 This machine is equipped with a diamond saw blade. It is exclusively designed for cutting bricks and other abrasive materials as used in civil engineering (building construction, underground workings). The machine is not intended for any other use; in particular the use of the machine with cutting tools other than diamond saw blades is prohibited.

The manufacturer/distributor of the



General safety instructions for using the bench saw

machine cannot be held liable for any damages or injuries which result from improper use of the machine; in such a case the user takes own risk.

The intended use of the machine also implies that the user proceeds in accordance with the operating manual and follows the instructions for inspection and maintenance.

3.2.2 Organisational measures

3.2.2.1 Keep the operating manual near the location where the machine is used so that the operating manual is always at hand!

3.2.2.2 In addition to the operating manual, observe the general rules for the prevention of accidents and all other binding rules or laws for the prevention of accidents and protection of the environment and ask other staff to do so.

3.2.2.3 State any further duties which may include supervisory tasks or reporting tasks for the sake of the particular organisational situation - e.g. relating to the organisation of work, processes, staff - and extend this operating manual by such rules.

3.2.2.4 The person asked to use the machine or to work on it must have read the operating manual, in particular the chapter Safety Information, prior to working. This is of special importance for those persons who use the machine part-timely only, e. g. staff dedicated to preparing the machine or to maintenance.

3.2.2.5 The person using the machine or working on it should be supervised

at least every now and then to ensure that the operating instructions and accident prevention rules are observed.

3.2.2.6 The person using the machine must not have long hair; wear loosely fitted clothing or jewelry (including rings); otherwise the person runs the risk of being caught by moving parts and pulled into the machine which will cause severe injuries.

3.2.2.7 As far as required by rules and regulations, the machine user must wear safety glasses and ear protectors, safety shoes and suitable safety clothing, according to the accident prevention rules.

3.2.2.8 For the sake of safety, all warning signs and symbols on the machine must be kept in good condition (check that no such sign or symbol is missing or illegible).

3.2.2.9 For the sake of safety, all warning signs and symbols on the machine must always be observed!

3.2.2.10 If there is a fault or a change in the behaviour or performance of the machine which may affect the safety, the machine must be stopped immediately and the responsible person/supervisor be informed.

3.2.2.11 Do not modify or redesign the machine without the prior consent of the manufacturer/distributor, as any alterations may affect the safety. This also applies to the installation or adjustment of safety devices and to welding or drilling on bearing parts.

3.2.2.12 Spare parts must comply

General safety instructions for using the bench saw



with the specifications issued by the machine manufacturer. We recommend that genuine spare parts be used.

3.2.2.13 Observe the service intervals indicated in the operating manual or otherwise specified.

3.2.2.14 Suitable tools and other suitable workshop equipment are required for maintenance.

3.2.2.15 Ensure that everybody knows the exact location of fire extinguishers and how to use them.

3.2.2.16 With regard to internal combustion engines, electric components etc. always observe the fire prevention rules and check the possibilities for fire alarms and fire extinction.

3.2.3 Selecting qualified staff; general duties

3.2.3.1 Only reliable persons must be allowed to use the machine or work on it. Observe the legal minimum age.

3.2.3.2 The person to use the machine or work on it must be trained and the responsibilities (operation, preparation, maintenance of the machine) must be clearly determined.

3.2.3.3 Ensure that no unauthorized person uses the machine or works on it.

3.2.3.4 The responsibility of the machine user must also be determined with regard to traffic legislation and the machine user must be enabled to refuse any instructions by a third party if such instructions affect the safety.

3.2.3.5 Persons who are taught how to use the machine, or who are generally shown how to use it as part of their training, may use the machine only when they are being supervised by another, experienced person.

3.2.3.6 Only a qualified electrician may work on the electric components of the machine or system and must supervise any auxiliary staff. The accident prevention rules for electrical engineering must be observed.

3.2.4 Safety information on certain operation phases

I. Normal operation

3.2.4.1 Never use the machine improperly or work in an unsafe manner.

3.2.4.2 Before you start working, make yourself familiar with the work site and the surroundings. Take notice of the circumstances, e. g. any obstacles which may impede working or the traffic, the soil condition (good bearing or not) and the required measures for the sake of safety, e. g. the shielding of roadworks from the public traffic.

3.2.4.3 Take measures to ensure that the machine is used only when it is in a safe condition and trouble-free. Use the machine only when all protective devices e. g. guards, noise absorbers, emergency-off devices are in the intended locations and operative.

3.2.4.4 A visual check of the machine must be effected at least once during a shift to ensure that visible damages or



General safety instructions for using the bench saw

faults can be recognised. Any changes (including changes in the performance or behaviour of the machine) must be reported to the supervisor. If necessary, stop the machine at once and secure it.

3.2.4.5 In the case of a disturbance stop the machine immediately and secure it. Have the fault cleared as soon as possible.

3.2.4.6 For starting and stopping the machine follow the operating instructions and observe indicator lamps.

3.2.4.7 Before switching the machine on make sure that the running machine will be no danger to anyone.

II. Special work related to the use and maintenance of the machine as well as fault clearing; disposal

3.2.4.8 For adjusting or inspecting the machine and for maintenance observe the intervals set out in the operating manual and follow the operating instructions. When replacing a part or assembly, proceed in accordance with the operating manual. The aforementioned work must be effected by skilled persons only.

3.2.4.9 Before special work or maintenance is carried out, inform the machine operator/user and determine a supervisor.

3.2.4.10 For any work which concerns the machine operation, adaptation to production requirements, conversion or adjustment of the machine or its safety devices as well as inspection, maintenance and repair; follow the

instructions set out in the operating manual for starting and stopping the machine as well as for maintenance.

3.2.4.11 If necessary, secure a large area around the location where maintenance of the machine is to be effected.

3.2.4.12 When the machine has been switched off for maintenance or repair, it must be secured against somebody switching the machine on again by accident:

- remove the key and disconnect the power supply
- place a warning sign next to the power switch

3.2.4.13 When lifting devices are used for replacing parts and larger assemblies, the parts or assemblies must be fixed and secured in such a way that there is no hazard. Use only lifting devices which are suitable and technically in a perfect state and which have a sufficient carrying force. Never work or stand under a suspended load i. e. lifted object!

3.2.4.14 Only experienced persons must be charged with the hoisting of heavy objects or instructing of drivers or industrial trucks. The instructor must be within view of the operator or driver or they must use an intercom.

3.2.4.15 For overhead working use safety stages and scaffoldings only, or other safety devices. Never use the machine or parts of it for climbing or standing on! When maintenance or other work must be effected in greater height, use protective means to prevent you from falling down. Keep all handles, steps, banisters, pedestals,

General safety instructions for using the bench saw



stages, scaffoldings and ladders clean!

3.2.4.16 Before maintenance, clean the machine and remove any grease, dirt or rests left by protective substances from the connectors and screwed joints. Never use aggressive cleaners (detergents)! Use a fluff-free cloth.

3.2.4.17 Before cleaning the machine with water or another cleaning solution, cover all openings which must be protected against ingress of water/vapour/cleaning solution for the sake of safety or trouble-free operation, or close them with adhesive tape. In particular electric motors and switch cabinets must be protected! See the ingress protection (IP) degree on the ratings plates!

3.2.4.18 Remove all covers or adhesive tape when you finished cleaning.

3.2.4.19 After cleaning, check all cables, connectors, compressed air hoses or pipes and hydraulic elements for leakage, loose connections, rub marks and damages! Have any fault found cleared immediately/clear any fault found immediately!

3.2.4.20 Remember to fasten all screws and bolts which you had to loosen for maintenance or repair!

3.2.4.21 If the preparation, maintenance or repair of the machine requires the disassembly of safety devices, the safety devices must be fitted back and thoroughly inspected immediately when the preparation, maintenance or repair has been completed!

3.2.4.22 Always keep a safe and sufficient distance to the edges of excavations, ditches and slopes!

3.2.4.23 Refrain from any way of working which may affect the stability of the machine under load.

3.2.4.24 Before leaving the machine, secure it against rolling away by accident and against operation by unauthorized persons.

3.2.4.25 Ensure that all process materials and auxiliary materials and replaced parts are disposed of in a safe and environmentally benign way.

3.2.5 Information on special risks related to electricity

3.2.5.1 Use only original rated fuses! Switch the machine off immediately when there is a disturbance of the electric power supply!

3.2.5.2 When using the machine, keep a safe distance to electric cables. When working in the vicinity of electric cables (e.g. overhead lines), make sure that the machine or equipment never comes near those electric cables. **DANGER FOR YOUR LIFE!** Inform yourself of the safe distances which must be kept to electric lines or devices!

3.2.5.3 Only a qualified electrician may work on electric systems, components or process materials and must supervise the staff; and the electrical engineering rules and accident prevention regulations must be observed!

3.2.5.4 If required or stated, the machines or system components must be



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disconnected from the power supply before inspection, maintenance or repair. First check that the disconnected parts are no longer live, then earth and short-out them and make sure that any live parts which are near them are insulated.

3.2.5.5 The electric parts of the machine must be regularly inspected and thoroughly checked. Any faults - e. g. loose connections or charred cables - must be cleared immediately.

3.2.5.6 When work has to be carried out on live parts, a second person must be present to cut the power supply or turn the main power switch off in case of an emergency. The work area must be secured with a red and white warning chain and a warning sign. Use voltage-insulated tools only!

3.2.5.7 When work has to be carried out on high-voltage components, switch off the power supply, disconnect the concerned parts from the power supply, connect the supply cable to earth and short-circuit the components - e. g. capacitors - with an earthing rod.

3.2.6 Gas, dust, vapour, smoke

3.2.6.1 Welding, grinding, sanding or using a flame on the machine is prohibited unless it has been explicitly permitted; since there may be a risk of fire or explosion.

3.2.6.2 Ensure that the ventilation is sufficient and remove all dust and flammable material from the machine and surroundings before welding, grinding, sanding or using a flame on the machine (risk of fire or explosion)!

3.2.6.3 When working in small or narrow rooms, observe the national regulations which may exist!

3.2.6.4 Combustion engines must be used in sufficiently ventilated rooms only! Before starting the engine in a closed room make sure that the ventilation of the room is sufficient!

3.2.6.5 Check all pipes and lines, hoses and screwed joints regularly for leakage and visible damages! Clear any fault immediately/have any fault cleared immediately!

3.2.7 Noise

3.2.7.1 Noise-absorbing elements of the machine must be in their proper places during operation of the machine.

3.2.7.2 Wear ear protectors as required (e. g. according to the valid accident prevention laws/health and safety at work laws).

3.2.8 Lighting

3.2.8.1 The machine is designed only for use in daylight. The operator must make sure that adequate lighting is provided in unlit working areas.

3.2.9 Oils, greases and other chemical substances

3.2.9.1 When working with oils, greases or other chemical substances, observe the safety precautions which apply to the substance!

3.2.9.2 Be careful when working with hot substances (process or auxiliary

General safety instructions for using the bench saw



materials). Risk of scalding!

3.2.10 Transporting the machine

3.2.10.1 For loading or transporting the machine, use only lifting and transporting devices and equipment with a sufficient bearing force!

3.2.10.2 Determine an experienced instructor for the lifting/hoisting process!

3.2.10.3 Lift the machine by attaching the lifting devices only to the appropriate points according to the operating manual.

3.2.10.4 Use a suitable transport vehicle with sufficient carrying force only!

3.2.10.5 Secure the load well. Use suitable points for fixing it!

3.2.10.6 Before loading the machine or components of it, secure the machine/ components with the recommended or supplied protection material or devices against accidental changes in position. Place a suitable warning sign on the machine or components! Before installing or using the machine again, remove such protection material or devices!

3.2.10.7 Parts which had to be disassembled for transporting the machine must be mounted and fixed carefully prior to use of the machine.

3.2.10.8 Even when the machine must be dislocated to a minor extent only, disconnect it from the power supply and all other external energy lines! Before using the machine again,

reestablish the connection to the power supply and all other lines properly.

3.2.10.9 When using the machine again, proceed according to the operating manual only!

4.0 Installation and operation

4.0.1 Checking the scope of delivery

First please check that no part of your SawMaster bench saw SDT•250 E is missing or damaged. The scope of delivery is described in the chapter „Technical specification and accessories“.

The bench saw can be assembled without the need of special efforts or special installations; however, when installing and connecting the machine, the general safety precautions and - where applicable - the local electricity regulations must be observed.

4.0.2 Installing the machine

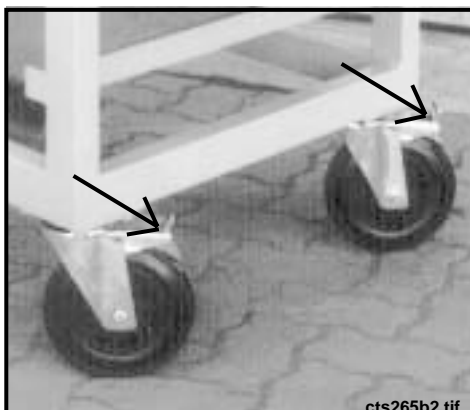
After having unpacked the machine and checked it thoroughly, proceed as follows to install the machine:

The machine must stand firm and even on the ground.

Choose a location where the machine does not disturb nor cause danger to a third party and where nobody impedes the machine.

ATTENTION!

Block the castors with the stop brakes!



Move the hinged cutting arm together with the cutting unit all the way to the top and lock with the clamping lever.

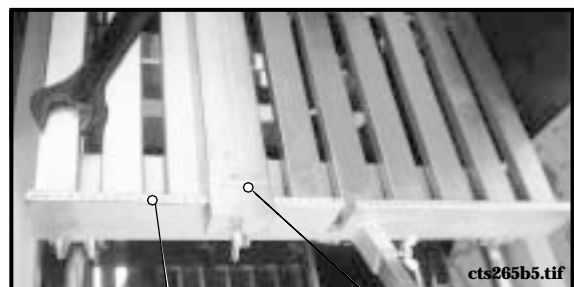
Place the roller table onto the guide.



Guides

Castor rollers

4.1 Roller table with bevel stop



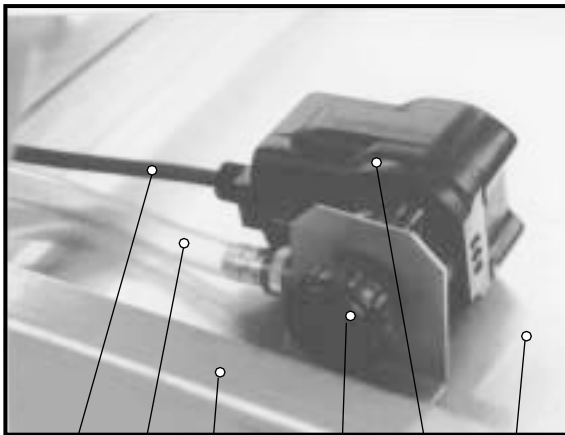
Front stop with scale

Bevel stop (option)

For bevel cuts, place the optional bevel stop onto the scale and fasten with the star handle.

4.1.1 Water pump (optional)

The optional electric water pump must be mounted inside the water container. It pumps the cooling water through hoses to the blade.



Cable (connection lead)
Water hose
Machine frame
Pump filter
(optional) Waterpump
Water container

The pump filter (to optional Waterpump) eliminates larger particles from the water and it holds the pump itself.

The (optional) pump has a sealed housing. Electrical parts cannot be repaired.

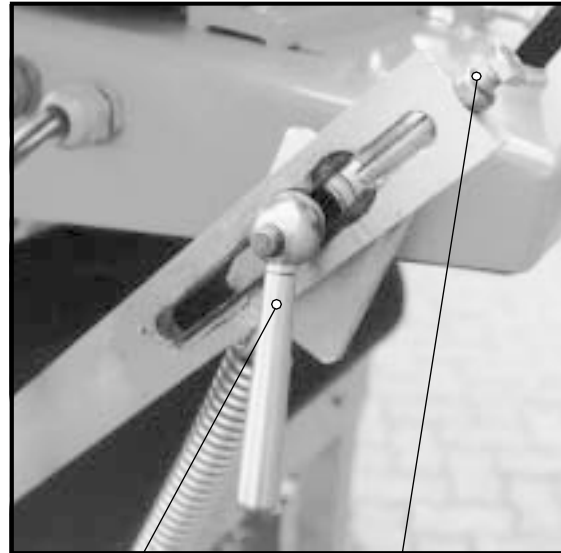
4.1.2 The optional water pump during wet cutting

Close the drain hole with the stopp and fill a sufficient quantity of water into the water container [approx. 50 l].

ATTENTION!

The pump must not run dry, as this could lead to irreparable damage.

4.2 Adjustment of the stop screw for full depth of cut (intermittent cutting)



Clamping lever
Stop screw

To prevent the table surface from getting damaged by cuts (this would also damage the diamond segments of the blade), the saw blade must be lowered until it is approx. 3 mm below the top surface of the roller table. Hold the saw blade in this position and fasten the stop screw.

ATTENTION!

Check that the stop screw is adjusted correctly! This will avoid damaging the roller table and diamond saw blade!

4.2.1 Adjustment for constant depth of cut (cutting head fixed)

The saw can be adjusted to any desired position between the low stop and the high stop. Loosen the clamping lever; move the hinged lever up or down until the saw blade is in the desired position and fasten the clamping lever again such that the hinged lever is blocked.

4.3 Mounting the diamond saw blade

Choose the suitable type of saw blade, depending on the material to be cut.

For details or precise information on the suitable type of saw blade contact SawMaster.

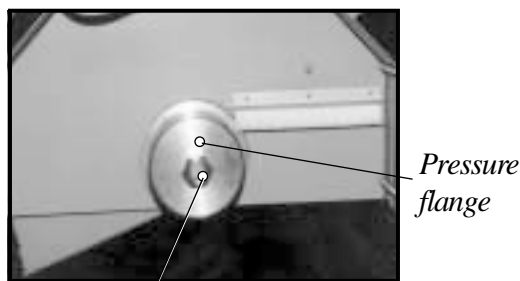
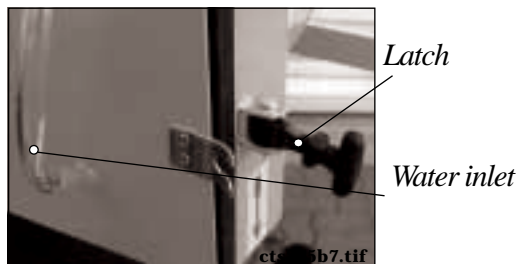
Observe the diameter of the saw blade receptacle and the blade shaft! See the chapter “ Technical specification and accessories“.

Should the diameter of the receptacle of your saw blade be bigger, use a suitable adaptor ring

Move the hinged cutting arm with the cutting head upwards until it stops, then fasten with the clamping arm.

Loosen the water hose at the blade guard.

Now loosen the latches at the blade guard and put the cover aside.

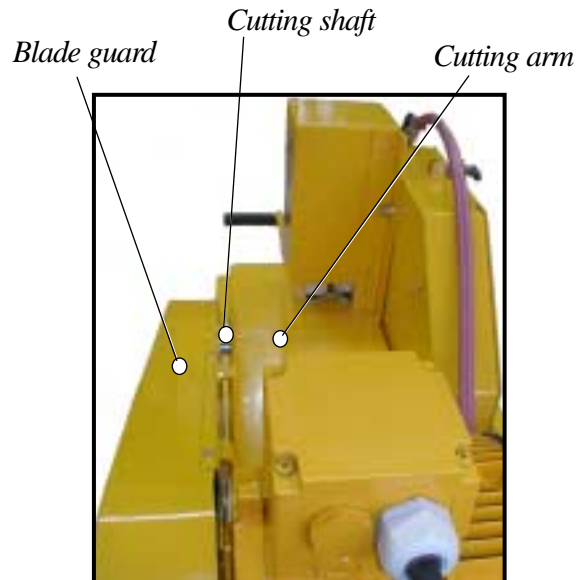


Left-hand-threaded nut

Loosen the left-hand-threaded nut with the provided SW 36 open end spanner.

To do this, clamp the cutting shaft with the other SW 24 open ended spanner in the notch located between the belt guard and the cutting arm.

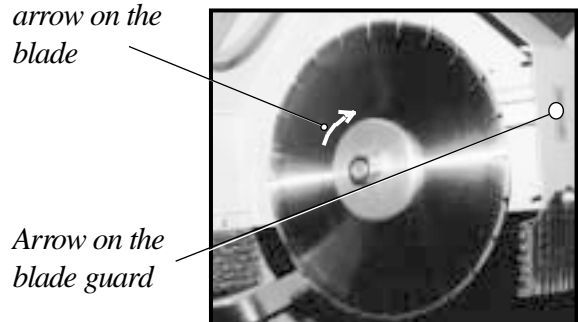
Remove the pressure flange.



An arrow on the saw blade cover indicates the sense of rotation of the blade shaft.

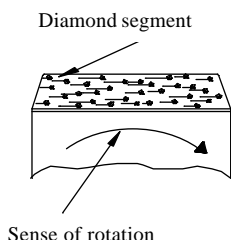
- Observe the sense of rotation of the saw blade and mount it correctly.
- Install the diamond saw blade so that there is no lateral or excentrical movement.
- Do not submit the diamond segments of the saw blade to hard shocks, otherwise they may get damaged.

Sense of rotation arrow on the blade



The circular saw blade is also marked with an arrow. Should this arrow not be visible, you can determine the correct sense of rotation of the blade as follows:

Each diamond has a „tail“ at its rear side; i. e. the diamond must point in the direction of rotation.



WARNING!




Check the diamond saw blade for damages or excentrical run!

Before mounting the blade, check it for damages or excentrical run.

In the case of any damages or missing diamond segments or excentrical run, the saw blade must be used!

Place the saw blade on the shaft, mount the pressure flange and tighten the lefthand-threaded M24 nut.

Turn the diamond saw blade by hand, check visually that the blade does not show any lateral movement (wobble).

If you cannot see whether the blade runs properly when turned by hand, place the saw blade cover over the blade and switch the machine on for an instant, then switch it off again. In doing so, observe the sections 4.4 to 4.6 , kurz anlaufen und schalten gleich darauf wieder ab.

Diamond saw blades are designed such that they sharpen themselves by cutting. However, they may become blunt when they are often use for cutting material with strong reinforcing iron or material which is hard and little abrasive. The

saw blades can be sharpened again by cutting abrasive materials such as calcareous sandstone/sand-lime brick or asphalt.

4.4 Electrical (general)

The machine must be connected to a properly installed power outlet with earth (ground) contact which complies with the safety standards valid in your country!

This will provide for the required earthing (grounding) of the machine for the sake of safety.

ATTENTION!

The electric power outlet must be equipped with a (FI or DI) power breaker for additional safety!

Observe the electrical safety regulations valid in your country (e.g. the applicable VDE or BSA regulations).

The drive motor of your bench saw is designed for 380/400 V and 50/60 Hz. The voltage and frequency must be identical to those of your electricity network.

On a building site, the connection must be effected to a power outlet according to VDE 0100, §55a, e.g. a distribution box for use on building sites

WARNING!



Check that the bench saw is switched off before connecting it to the power mains!

4.4.1 Use of a cable drum and/or a power cord

When using a cable drum or power cord for the machine, observe the following rules:

- the electrical ratings must comply with those of the machine.

- the power outlet must be fused correctly (16 A slow).
- always extend the cable fully before using the cable drum; otherwise losses in performance of the machine due to power losses are likely to occur.
- the length of the cable must not exceed 50 meters, otherwise losses in performance of the machine due to power losses are likely to occur.

For more information on the electrical connection see the chapter “Technical specification and accessories”.

4.5 Safety instructions for using the SDT•250 E bench saw

Before you start working with your new bench saw, understand and observe the following rules:

- wear ear protectors according to the accident prevention rules/health and safety at work laws
- wear eye protectors (safety glasses)
- check the fusing of the electric system

ATTENTION!

Keep all safety signs and warning symbols on the machine in good condition and clean, so that they are well visible and legible even after a longer time.

4.6 Switching on/off of the bench saw, Emergency Stop switch

The SawMaster bench saw is equipped with a power on/off switch. Set this switch to position „1“ before switching on.

WARNING!



Check the sense of rotation of the blade shaft!

4.6.1 How to use the star-delta switch

The saw blade motor and the water pump can be switched on and off by means of the star-delta switch.



“off”-position

“startup”-position
(motor free of any load)

“cutting”-position

“star-delta”-
switch

“supply on/off”-switch

EMERGENCY STOP switch



4.6.2 Motor protection by thermo-elements

The drive motor is equipped with thermal sensors located between the windings.

In the case of an overload, these sensors release the stop of the motor.

Allow some time for the motor to cool down, then the saw can be switched on again.

A repeated stop of the motor by the sensors can have several reasons:

- excessive cutting pressure
 - exert less pressure when cutting!
- wrong saw blade specification
 - use a saw blade which is suitable for the material to be cut!
- electrical fault
 - have the electric system of the bench saw inspected by a qualified electrician!

4.7 Preparations for cutting, user's position

The user is standing in front of the bench saw so he can see the emergency-stop-switch and the star-delta-switch. From this position the user takes the cutting arm lever and/or the roller table lever.

4.7.1 Intermittent cutting (cutting head not fixed)

Intermittent cutting should be employed when cutting with larger cutting depths.

The workpiece is moved to and fro on the roller table. The cutting head is not fixed and is pressed down with the right hand onto the workpiece.

This way of cutting relieves the motor and is easy on the diamond blades, thus offering a better cutting performance.

Always exert a uniform pressure adapted to the motor speed.

4.7.2 Cutting at a constant cutting depth (cutting head fixed)

Cutting operations with fixed cutting head require the workpiece to be pushed at the handle on the roller table against the blade. The workpiece is cut in a single cutting operation.

4.8 Replacement of the diamond saw blade

The saw blade should be replaced:

- when changing to another material to be cut.

The diamond blade must compulsorily be replaced:

- when the diamond segments of the blade are entirely worn.
- when it has become irregular or excentrical during use.
- when diamond segments have been damaged or broken off.

Move the hinged cutting arm with the cutting unit all the way to the top and lock it in position with the clamping arm.

- Remove the water hose from the blade guard.
- Now loosen the star grips at the blade guard and put the cover aside.

With the provided open ended SW36 spanner loosen the M24 left hand threaded nut.

To do this, hold the cutting shaft with the SW24 open ended spanner in the notch between the belt guard and the cutting arm.

- Remove the pressure flange.
- Remove the worn diamond blade and replace with a new one.
- Mount the blade guard and connect the water hose.

4.9 After every use of the bench saw

WARNING!



Pull the power plug to disconnect the machine from the electric power supply before cleaning the machine!

- remove the dirty water from the water container.
- remove residual dirt from the bottom of the container
- rinse the pump with fresh water to prevent the pump wheel from getting blocked by dirt.

See the chapter „Maintenance and cleaning“ for information on cleaning the pump and the machine.

4.9.1 Cleaning the pump filter (after each use of the saw)

WARNING!



Disconnect the power supply before cleaning the pump or the filter

For cleaning simply unscrew the filter.



The immersion pump can now be removed and cleaned.



5.0 Maintenance and care

For the maintenance and care of the engine, follow the manufacturer's operating manual supplied with the machine!

Adhere closely to the maintenance and inspection intervals and have the work carried out by a specialist workshop if possible. This will help to extend the life of the machine.

When carrying out maintenance and care work, follow the „Basic safety instructions“ in chapter 3 of this operating manual,  as well as the operating manual of the engine manufacturer. 

Machinery must always be cleaned prior to maintenance/repair!



WARNING!

The ignition switch of the machine must always be in the „OFF“ position and the spark plug cap disconnected during maintenance/repair. (Observe the operating manual of the engine manufacturer).

5.1 Cleaning

Cleaning agents



Please do not use any aggressive cleaning agents (solvents or similar).

High-pressure cleaners and aggressive cleaning fluids, as well as cleaning with fluids which exceed a temperature of 30 °C must not be used.

Use lint-free cleaning cloths!

5.2 Procedure for cleaning

Dry cleaning

Always remove dust and dirt with a

slightly damp cloth. Remove difficult deposits with a brush.

Wet cleaning

ATTENTION!

Observe the water ingress protection!

For safety and functional reasons, make sure that no water, cleaning agents or steam is allowed to penetrate into the engine, air filter, switches etc..

Therefore, cover or seal all openings, casings, plug-in connectors etc. which are at risk!

Remove dirt and residues with a „gentle“ stream of water and a brush.

Take special care at critical places such as switches, engine, air filter.

To avoid the risk of them running dry, do not „flush out“ bearings.

The machine's roller bearings are lubricated for life.

After cleaning, covers or sealing materials are to be removed completely!

Retighten any screw fastenings which may have become loose!

ATTENTION!

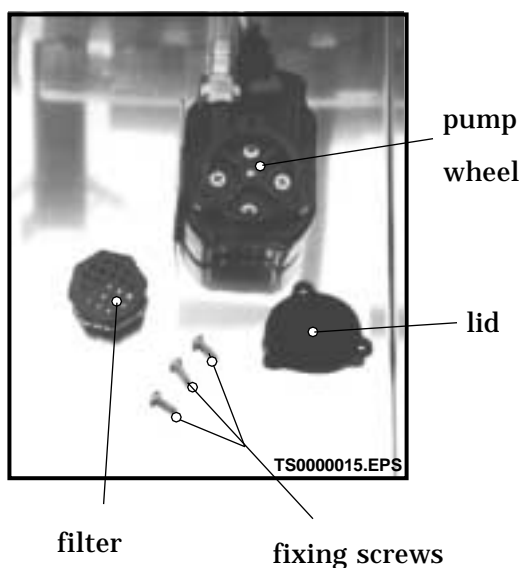
After wet cleaning, try the machine on a power outlet which is equipped with a power breaker (fault current circuit breaker). If the fault current circuit breaker cuts the power supply, the machine must be inspected by an authorized dealer prior to use!

5.3 Cleaning of the optional immersion pump

When the machine has been unused for a longer time, hard packed dirt may build up inside the pump and block the pump wheel.

After switching the machine on with the immersion pump blocked, the electric motor of the pump will get damaged within a few minutes!

The optional pump





- unscrew the pump filter
- remove the immersion pump from the water container
- clean the immersion pump
- loosen the fixing screws of the pump lid
- take the lid off the pump (be careful not to damage the gasket inside with a sharp object!)
- clean the pump lid
- remove all dirt and incrustations from the pump wheel
- check whether the pump wheel can be easily turned
- then assemble the immersion pump correctly and check whether it works properly



Always disconnect the power supply before disassembling the immersion pump!



5.4 Work to be carried out at regular intervals

Maintenance interval	What to do for maintenance and care
After every use of the machine	<ul style="list-style-type: none"> –remove dirty water from the container –remove dirt and mud from the bottom of the container –rinse the (optional) immersion pump with fresh water to prevent the pump wheel from getting stuck because of residual dirt (also see chapter 5.3) 
After wet cleaning, before using the machine again	<ul style="list-style-type: none"> – Connect the machine to an electric power outlet equipped with a "FI" safety power breaker. If the safety power breaker cuts off the electric power supply, do not try to operate the machine but have it checked by an authorized dealer first.
Before not using the machine for a longer time	<ul style="list-style-type: none"> – Clean and lubricate all movable parts
After not using the machine for a longer time	<p>Functional checks</p> <ul style="list-style-type: none"> – check that the feet are safely fixed – check that all screwed joints i. e. screws, bolts and nuts are fixed – check that the hinged lever of the cutting unit can be easily moved up and down when not locked – check that the roller table is in its guides and easily movable by manually pushing it to and fro – with the saw blade removed, switch on the motor for an instant and switch it off again. If the motor does not run, have the machine inspected by a qualified electrician. – check that the immersion pump works properly. Turn on the cooling water tap and switch the machine on. If the pump does not give any water or only a little, switch the machine off at once. Clean the pump, or replace it if necessary.
Every month	<ul style="list-style-type: none"> – grease the cutting shaft bearing at the corresponding points
Ambient temperature below 0 C° (operation in winter) 	<ul style="list-style-type: none"> – to prevent the water in the pump and cooling system from freezing, remove the water after using the machine or when there will be a longer break. Make sure that the cooling system is entirely drained such that there is no water left inside the pump and water hose!



6.0 Fault finding - SawMaster Bench Saw SDT•250 E

Problem	Possible cause	Clearing
Machine does not run when switched on	<ul style="list-style-type: none"> -power cord not properly fixed/plugged in -power cord defective -main power switch defective -loose electrical connection inside the electric system -motor defective 	<ul style="list-style-type: none"> -check that the machine is properly connected to the power supply -have the power cord checked, replace it if necessary. -have the main power switch checked and replaced if necessary, by a qualified electrician -have the whole electric system of the machine checked by a qualified electrician -have the motor checked, and replaced if necessary, by a qualified electrician
Motor stops (power cutout)	<ul style="list-style-type: none"> -too much pressure exerted while cutting -saw blade of a wrong specification -motor protection switch defective -electric system of the saw is defective 	<ul style="list-style-type: none"> -exert less pressure when cutting -use a saw blade which corresponds to the material to be cut -have it checked by a qualified electrician and replaced if necessary -have the electric system of the saw checked by a qualified electrician
Poor machine performance, little power	<ul style="list-style-type: none"> -power cord/extension cable too long or cable drum used with the cable wound up inside -power network is insufficient -switch position is Υ -drive motor does no longer run at rated speed (r.p.m.) -the V-belt slips 	<ul style="list-style-type: none"> -use a power cord/extension cable of the rated length and cross-section, use the cable drum with cable fully extended. -observe the electrical ratings of the machine and connect it only to a power network which complies with these ratings -set the switch to the \triangle position -have the motor checked by a qualified electrician and have it replaced if necessary -tension the V-belt, or replace it if necessary

ENGLISH



What to do, if ...?

6.0 Fault finding - SawMaster Bench Saw SDT•250 E

Problem	Possible cause	Clearing
Electric motor runs but the diamond saw blade stops when cutting	<ul style="list-style-type: none"> -V-belt is loose -belt pulleys are worn -nut on the blade shaft is loose 	<ul style="list-style-type: none"> -tension the V-belt, or replace it if necessary -replace the belt pulleys and the V-belt -check whether the nut on the blade shaft is fixed, tighten it if necessary
Insufficient flow of cooling water or no cooling water at all	<ul style="list-style-type: none"> -the (optional) immersion pump draws air (water level too low) -water conduits are clogged up -filter clogged -pump wheel of the (optional) immersion pump blocked by dirt -the (optional) immersion pump does not run -water hose is bent -water hose is loose or leaks 	<ul style="list-style-type: none"> -fill the container with water -turn the intake side of the pump downwards -clean the water conduits -clean the filter of the pump -disassemble the immersion pump -lift the cover of the intake of the immersion pump and clean it with a brass brush (or clean the filter) -have the electric cord of the water pump checked by a qualified electrician; have it replaced if necessary -check the laying of the water hose -connect the water hose properly or replace it

ENGLISH



6.1 Fault finding - diamond edge saw blades

Problem	Possible cause	Clearing
Irregular run of the saw blade	-poor tension in the blade material	-return the saw blade to the manufacturer
Saw blade shows lateral and excentrical movement (wobble) when running	-saw blade is damaged or bent -receiving flange is dirty -flange of the saw blade is damaged - shaft of the motor is bent -blade shaft is bent	-have the saw blade aligned/flattened -solder the diamond segments of the old blade onto a new saw blade -clean the receiving flange - replace the saw blade flange - replace the electric motor - replace the blade shaft
Diamond segment becomes loose	-overheat of the saw blade, cooling water not sufficient	-have the diamond segment soldered on the blade again, ensure optimum flow of cooling water
Excessive wear	-wrong type of saw blade -cutting shaft runs excentrically -overheat	-use harder saw blades -have bearings replaced -ensure optimum flow of cooling water
Saw blade is blunt	-saw blade type is unsuitable for the material to be cut -saw blade type is unsuitable for the machine performance -saw blade is too hard -diamond segments are blunt	-use the suitable type of saw blade -use the suitable type of saw blade -use the suitable type of saw blade -sharpen the diamond saw blade

ENGLISH



6.1 Fault finding - diamond edge saw blades (continued)

Problem	Possible cause	Clearing
Appearance of cut is not optimal	<ul style="list-style-type: none"> -poor tension in the blade material -too much load put on the saw blade -diamond segments are blunt 	<ul style="list-style-type: none"> -return the saw blade to the manufacturer -use a suitable saw blade -reduce the feed -sharpen the saw blade
The centre hole in the saw blade has become wider due to wear	<ul style="list-style-type: none"> -the saw blade has slipped on the motor shaft when running 	<ul style="list-style-type: none"> -the centre hole in the saw blade must be turned out so that a suitable adaptor ring can be fitted -check the receiving flange and have it replaced if necessary
Saw blade shows blooming colours	<ul style="list-style-type: none"> -overheat of the saw blade due to a lack of cooling water -lateral friction when cutting 	<ul style="list-style-type: none"> -ensure an optimum flow of cooling water -the material feed is too high, proceed more slowly
Grinding marks on the saw blade	<ul style="list-style-type: none"> -the feed is not effected parallel to the saw blade -poor tension in the blade material -too much load on the saw blade 	<ul style="list-style-type: none"> -ensure that the direction of feed is absolutely parallel to the saw blade -adjust the roller table/have it adjusted - have the saw blade tensioned -the material feed is too high, proceed more slowly
Cracks in or near the diamond segment (steel core) Excentrical wear of the diamond segments	<ul style="list-style-type: none"> -saw blade too hard -fixed flange is worn out -play of the motor shaft bearing 	<ul style="list-style-type: none"> -use a suitable, softer saw blade -have the fixed flange replaced -replace the bearing of the motor shaft or have it replaced

In most cases, the problems and their possible causes result from the natural wear and from **improper use** of the table saw or diamond saw blades.

Therefore we recommend you to read this instruction manual carefully!

7.0 General information on repairs and adjustments



WARNING!

The bench saw must be disconnected from the power supply before any repair work or adjustment.

7.1 How to check the tension of the V-belt

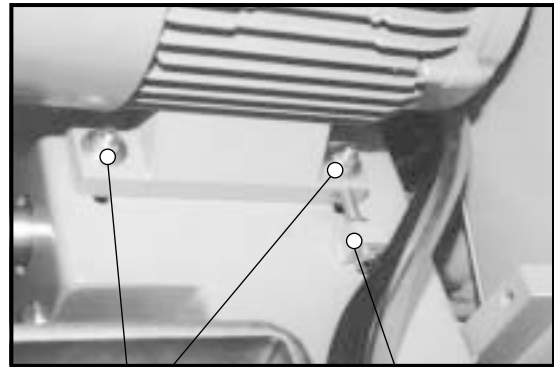
The protective cover of the V-belt must be removed in order to check the belt tension. Before you begin to remove the cover, bring it in a horizontal position.

To do so, loosen the clamping/arresting lever of the cutting head so that the cutting head is released, then bring it in a horizontal position.

Fix the lever of the cutting head in this position and secure the saw against



accidentally moving it.



hexagon nuts at the base of the motor

stop screw with locknut

Loosen the two hex head screws SW13 of the V-belt cover (guard), then tilt the V-belt cover (guard) aside.

For examining the tension, please proceed as follows:

Push the V-belts down with your thumb; each belt may give by approx. 10-20 mm.

If the belts give more than that, they need tensioning.

Put the protective V-belt cover (guard) and the metal cover back in place.

7.2 How to adjust the tension of the V-belts

Remove the protective cover (guard) of the V-belts.

Loosen the 4 hexagon nuts at the base of the motor.


Loosen the locknut of the rear stop screw (SW 13).

Hold the hexagon bolt with a SW 13 spanner.

Proceed in the same manner with the



clamping screw at the front.

Loosen the stop screw and tighten the clamping screw correspondingly. Check the belt tension as described in chapter 7.1 of this manual .

When adjusting the belt tension, make sure that the two belt pulleys are linear to prevent belt skew, because this would cause excessive wear of the V-belts.

Check the linearity by holding the edge of a ruler to the pulleys. The ruler must be in full contact with both pulleys i. e. not show any play

After adjusting the belt tension as required the tensioning screw must be secured with a lock nut to prevent them from becoming loose by accident.

The flange of the drive motor must be fixed again by tightening the screws.

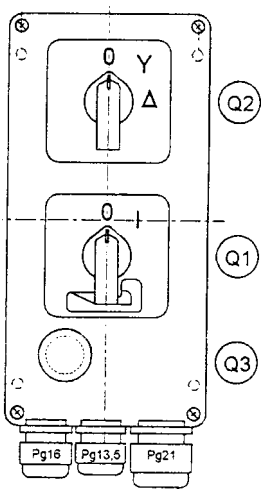
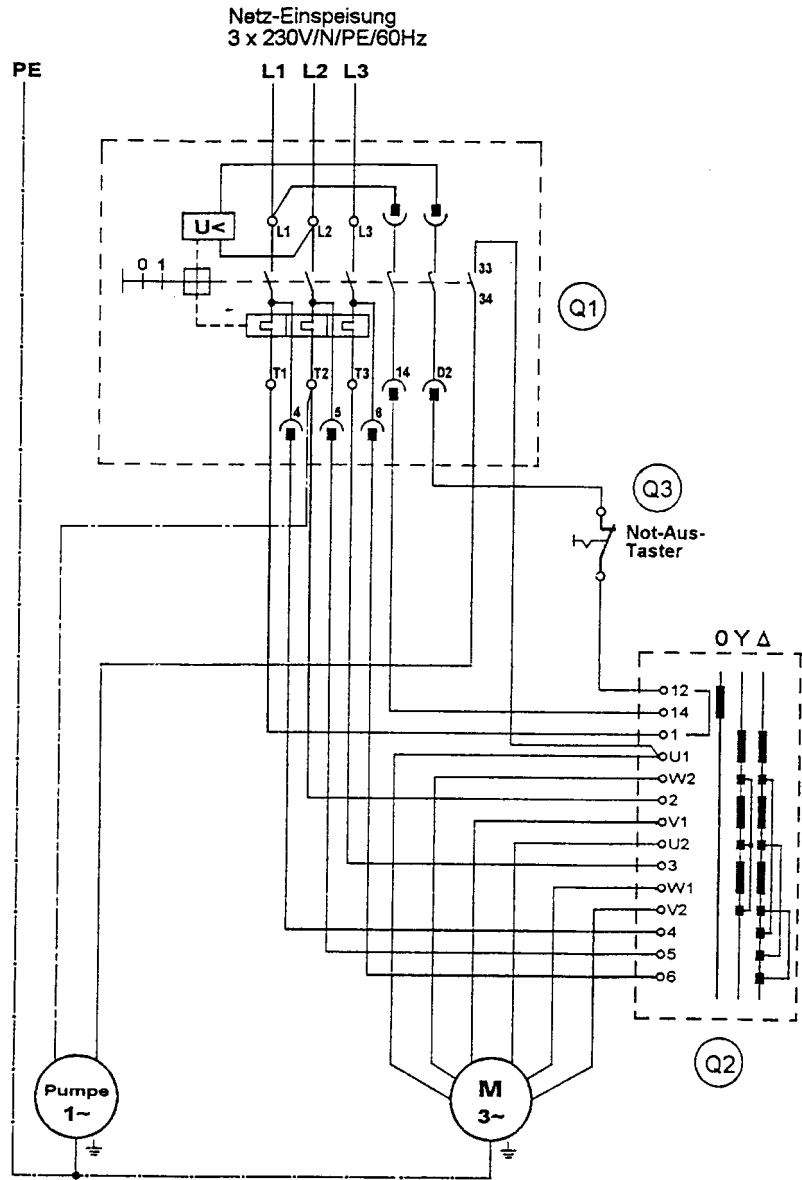
7.3 How to replace the V-belts

To replace the V-belts remove the protective cover (guard) of the V-belts. Loosen the 4 hexagon nuts at the base of the motor.

To relieve the tension of the V-belt, loosen the front tensioning screws and push the drive motor back towards the blade shaft until you can take the belts off the pulleys without any effort.

Do not use any sharp or pointed objects to fit a new V-belt because this may cause severe damages or destroy the V-belt.

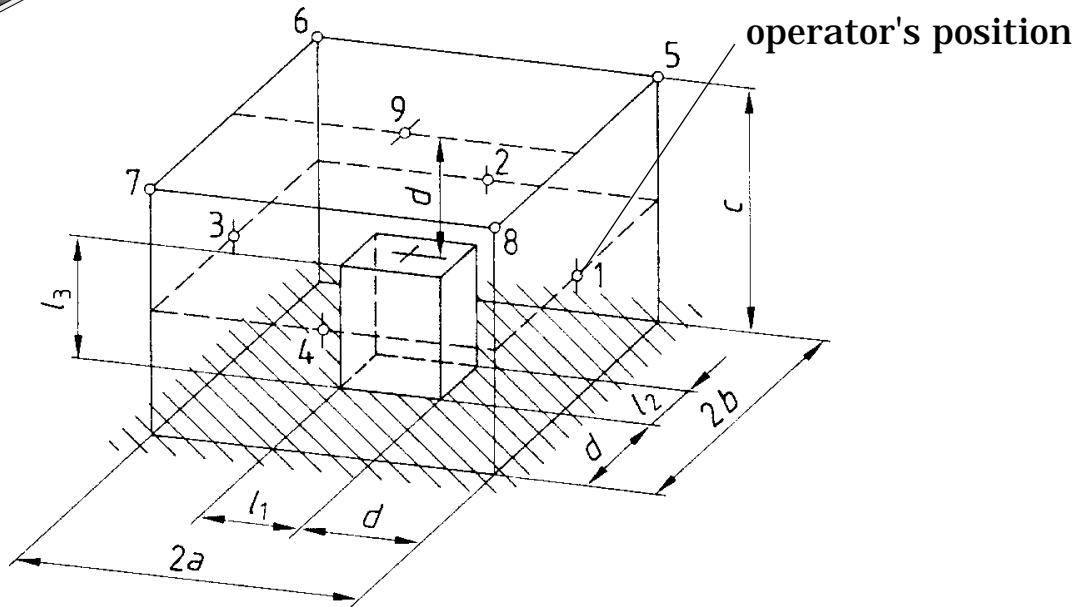
Adjust the belt tension as described in section 7.2 .



Supply ON/OFF-switch (Q1)

Star-delta switch (Q2)

EMERGENCY STOP switch (Q3)



Position of the measuring points (9 measuring points) and dimensions of the reference cube.

$$l_1 \leq 2 \text{ m}; l_2 \leq 2 \text{ m}; l_3 \leq 2,5 \text{ m}$$

ENGLISH

Point	L [dB] with blade
1	87
2	89
3	80
4	90
5	89
6	87
7	88
8	92
9	88

Measurements were made with the saw blade installed, engine no load at rared speed, with saw blade (\varnothing 650 mm).

During cutting operation higher Sound levels may occur.

Sound pressure level at the operator's position: 87 dB (A).

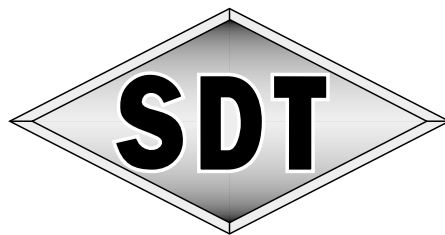
Sound response level: 104,9 dB (A)

Specification of measurement points as per DIN 45635, EN 31201



Terms of Warranty

- 1.** The supplier must be notified in writing of any evident defects in the goods or parts thereof found faulty immediately after receipt of the goods. If this delay has expired or if the concerned machine has been operated or worked with, the goods shall be considered to be accepted by the purchaser. Hidden defects are to be notified immediately on discovery, at the latest however within 6 months following receipt of the equipment.
- 2.** The supplier guarantees the full function of the goods supplied for 6 month from the day of delivery to the purchaser. Irrespective of this, the order shall be considered to have been carried out by the supplier as soon as the goods are despatched from the supplier's works/warehouse.
- 3.** Unless the purchaser's complaint is not justified, the supplier will either reestablish the useable state of the goods or replace them, as deemed appropriate by the supplier. Replaced parts or machines become the property of the supplier.
- 4.** The purchaser is to raise any claim in writing and to state the machine number and the number and date of the invoice or despatch note, respectively.
- 5.** As a rule, any repair shall be effected in the supplier's works. The purchaser shall bear the costs arising from a repair desired by the purchaser to be effected on site by a mechanic and any auxiliary staff. The warranty does not cover any repair effected in the workshop of a third party without the prior consent of the supplier. The warranty ceases if any rectifications, modifications or repair work are carried out on the machine by the purchaser or a third party.
- 6.** Provided that the supplier explicitly agrees that the replacement of assemblies or parts found faulty may be carried out by the purchaser or a third party, any claim for compensation raised by the purchaser, if justified, can be recognised by the supplier only after the concerned assemblies or parts have been returned.
- 7.** Claims for cancellation of the sale, reduction in purchase price or compensation are inadmissible; this applies in particular for claims for compensation due to direct or indirect material damage and monetary loss and consequential damage or loss.
- 8.** The purchaser shall have no right to raise claims, if the execution or operation of the goods deviates from the specification to a minor extent or if the usability of the goods is impaired to a minor extent. The warranty does not cover any damages resulting from:
 - a) faulty installation,
 - b) improper use or overloading,
 - c) permanent overloading causing damage to the windings of the armature or coil,
 - d) external impact, e.g. damages or deterioration caused in transit, or by environmental influences or other natural phenomena,
 - e) the use of auxiliary equipment or accessories not intended for use with the machine.
- 9.** Any diamond tool that gives cause for concern must be immediately removed from the machine. To protect the purchaser's rights and allow for a correct assessment of fault, the height of diamond segments must be minimum 20% of the original height. By non-observance of this rule, the claim of the purchaser cannot be entertained.
- 10.** Warranty for repair work done or spare parts furnished will not extend the guarantee period but will cease with the expiration of the guarantee period covering the goods originally supplied.
- 11.** Furthermore, our general terms and conditions of sale apply in full.
- 12.** The place of performance and venue for both parties is Riverside, CA.



**Diamond saw blades • Diamond drill bits • Joint cutters • Drilling machines
Wall saws • Wire saws • Chain saws • Masonry saws • Concrete crushers**

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