EDM33

GB

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EG-KONFORMITÄTS-ERKLÄRUNG	**EC-DECLARATION OF CONFORMITY**	**DECLARATION DE CONFORMITE DE LA CE**

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Wir erklären in alleiniger Verantwortung, dass das unter „Technische Daten“ beschriebene Produkt mit folgenden Normen oder normativen Dokumenten übereinstimmt: **EN 12 348** **EN 55 014-1** **EN 55 014-2** **EN 61 000-3-2** **EN 61 000-3-3**	We declare under our sole responsibility that the product described under “Technical Data” is in conformity with the following standards or standardization documents: **EN 12 348** **EN 55 014-1** **EN 55 014-2** **EN 61 000-3-2** **EN 61 000-3-3**	Nous déclarons sous notre propre responsabilité que le produit décrit sous «Caractéristiques techniques» est en conformité avec les normes ou documents normatifs suivants: **EN 12 348** **EN 55 014-1** **EN 55 014-2** **EN 61 000-3-2** **EN 61 000-3-3**
gemäß der Bestimmungen **2011/65/EU** **2014/30/EU** **2006/42/EG** **2014/35/EU**	according to the provisions of the **2011/65/EU** **2014/30/EU** **2006/42/EG** **2014/35/EU**	conformément aux termes des réglementations en vigueur **2011/65/EU** **2014/30/EU** **2006/42/EG** **2014/35/EU**

CE

Hellenthal, den 09.05.2024

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Geschäftsführer / General Manager /
Président-directeur général

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1. Important Safety Instructions

Important instructions and warning notices are allegorized on the machine by means of symbols:

Before you start working, read the operating instructions of the machine.

Work concentrated and carefully. Keep your work-place clean and avoid dangerous situations.

In order to protect the user, take precautions.

During work you should wear ear protectors, goggles, dust mask, protective gloves and sturdy work clothes!

Wear safety goggles

Wear safety helmet

Use ear protection

Wear protective gloves

Wear protective boots

Warning notices

Warning of general danger

Warning of dangerous voltage

Warning of hot surface

Danger of being ripped or cut

2. Technical Data

Wet Diamond Core Drill EDM33	
Rated voltage:	115 V / 230V
Power input:	3.3 kW
Rated current:	30 A
Frequency:	50 - 60 Hz
Drilling diameter:	100-400 mm
Spindle connection:	1 ¼" UNC
Protection class:	IP54
Degree of protection:	I
Net weight:	13.2 kg
RPM I/II/III:	180/430/750
Dimension (LxWxH):	680x190x150

3. Content of delivery

- Diamond core drill with ball valve and GARDENA connector
- Operating instructions
- Cardboard box

4. Optional accessory

Artikel	Bestell Nr.
Drill rig SD300 SDF SD300 DF	0295 250 9010 0295 250 9020
Fastening set concrete / stone	0295 110 0992
Copper rings for easy removal of the drill bit	0295 000 0277
Pressurized water tank 10l	0295 010 0021
Wet vacuum cleaner GS70K	0295 150 0302
Diamond drill bits Ø45-400 mm	
Drill bit extensions	

5. Application for indented purpose

The diamond core drill EDM33 is indented for professional use and may be used by instructed personnel only.
With the appropriate wet drill bits, the machine may be used for wet drillings only, e.g. in concrete, stone and masonry.
It may be used with a suitable diamond drill rig only.

6. Safety instructions

Safe work with the machine is only possible if you read this operating instruction and follow the instructions contained strictly.
Additionally, the general safety instructions of the leaflet supplied with the tool must be observed. Prior to the first use, the user should absolve a practical training.

If the mains cable gets damaged or cut during use, do not touch it, but instantly pull the plug out of the socket. Never use the tool with a damaged mains cable.

When drilling in ceilings or walls make sure you will not cut through electrical mains, gas or water pipes. Use metal detection systems if needed.
Prior to the start of your work, consult a statics specialist to determine the exact drilling position.
If drilling through ceilings, secure the place below, because the core may fall downward.

Pay attention that the tool is not exposed to direct rain.

- Do not use the tool in an environment with danger of explosion.
- Do not use the tool standing on a ladder.
- Do not drill in asbestos-containing materials.
- Never carry the tool at its cable and always check the tool, cable and plug before use. Have damages only repaired by specialists. Insert the plug into the socket only when the tool switch is off.
- Modifications of the tool are prohibited.
- The machine should only work under supervision of sbd. Plug and switch the machine off if it is not under supervision, e.g. in case of putting up and stripping down the machine, in case of voltage drop or when fixing or mounting an accessory.
- Switch the machine off if it stops for whatever reason. You avoid that it starts suddenly and not under supervision.
- Do not use the machine if a part of the housing is damaged or in case of damages on the switch, the cable or plug.
- During work, always lead the mains cable, extension cable and extraction hose to the back away from the machine.
- Power tools have to be inspected visually by a specialist in regular intervals.
- **When using the drill, cooling water is never allowed to get into the motor and all electrical parts.**
- Overhead-drillings only with suitable safety measures (water collection).
- After an interruption of your work, only switch the machine on again after having checked that the drill bit can be turned freely.
- The tool may be used with the drill rig only.

- Do not touch rotating parts.
- Persons under 16 years of age are not allowed to use the tool.
- During use, the user and other persons standing nearby have to wear suitable ear protectors, goggles, helmets, protective gloves and boots.

- **Always work concentrated and carefully. Do not use the tool when you are lacking in concentration.**

7. Fixing to drill rig

Fasten the gearing foot of the EDM33 by means of four M 8 Allen screws to the drill rig.
The drill stand should have a good stiffness and precise guide ways. The spindle of the machine needs to go parallel to the axle of the drill stand.
Use only fall-safe drill rigs.
It is advisable to use a water-collecting ring.

8. Electrical connection

First, check the correspondence of voltage and frequency and compare it with the data mentioned on the identification plate. Voltage differences from + 6 % to – 10 % are allowed.

Use only 3-wire extension cable with protecting conductor and a sufficient cross-section (min. 2.5 mm^2). A cross-section which is too small could lead to excessive power loss and to overheating of machine and cable.

The machine is equipped with a start-up speed limiter to prevent fast expulsion fuses from unindented responding.

9. Water connection

If the drill bit is not cooled enough with water, the diamond segments could heat up and consequently get damaged and weakened. For this reason, always make sure that the cooling system is not blocked.

In order to supply the machine with water, please proceed as follows:

- Connect the tool to the water supply system or a water pressure vessel using the GARDENA connector.
- Always make sure that the machine only runs with enough clear water as the seals get damaged when the machine is running dry.
- Attention! The maximum water pressure should not exceed 3 bar!
- Make sure that the segments are well cooled. If the drilling water is clear, the segments are well cooled.
- Overhead-drilling only with water collection ring.
- In case of frost warning, drain the water system.

10. Changing gears

The EDM33 is equipped with a mechanical 2-speed oil-bath gearbox.
Select the speed according to the drilling diameter (ref. to the tool's identification plate).
Use the speed selection to change to the next higher or lower speed until it locks. Change the speed only when the tool is not running; slightly turn the working spindle to ease the speed change.

	***Warning: Never apply force and change the gear only when the machine is running down. Never use tools, such as hammers or pliers to change the gear.***

11. Drill Bits

Diamond drill bits with an 1 ¼" UNC female thread can be screwed directly onto the working spindle.
For drill bits with R ½" male thread, adapters are available as accessories.
Always use drill bits which match the material which has to be drilled.
You can prevent the machine from damage if you only use drill bits which are balanced and not deformed. Pay attention that diamond segments have enough relief cut towards the drill bit body.

12. Drill Bit Changing

	***Attention: The machine is heavy and when you use or sharpen it, it might heat up enormously. You could burn your hands or get cut or ripped by the segments. Before the beginning of all works on the tool you have to disconnect the plug from the mains. Always use protective gloves when changing the drill bit.***

The drill spindle has a right-hand thread.
To hold on spindle always use an jaw wrench SW 32.
Never remove the drill bit with impacts because this way the machine will be damaged. With some waterproof grease, which is put on the drill bit thread, and a copper ring between spindle and drill bit you can remove the drill bit easier.

13. Using the Drilling Unit

In order to operate safely, please observe the following instructions:

Safety at work:

- Make sure that your work place is free of anything that might disturb your work.
- Pay attention that your work-place is well-lit.
- Make sure that you observe the conditions for the connection with the power supply.
- When laying the cables, make sure that it cannot be damaged by the tool.
- Make sure that you always can overlook the work place in a sufficient way and that you always can reach all necessary control elements and safety devices.
- In order to avoid accidents, keep other persons away from your work place.

Required space for operation and maintenance

If possible, make sure that you have enough free space for operation and maintenance around the machine (about 2 metres). This way, you can work safely and in case of operating trouble you can intervene immediately.

14. Preparation

- When you drill into blocs, make sure that the blocs are well anchored and fixed.
- Before drilling in supporting parts, make sure that you do not disregard the statics. Observe the instructions of the experts who are responsible for the design.
- Make sure that you do not damage any gas mains, water mains or electric cables while drilling.
- Pay attention that you do not touch any metallic parts of the machine when you drill walls and grounds where electric cables could lie under water.
- Pay attention that the drilling core does not hurt anybody or damaging anything when it drops out.
- If the drilling core might cause any damage when it drops out, use an device that can hold back the drilling core.
- Make sure that the drill bit is well fixed.
- Only use tools which are suitable for the particular material.

15. Fastening of the Drill Rig

The diamond core drill EDM33 may only be used mounted on a drill rig.
Since the drill rig is not included in the delivery, we point out some important kinds of assembly.
For this purpose, please refer to the drill rig's operating instructions.

Vacuum fastening:
Re. vacuum fastening, make sure that you have a sufficient vacuum (minimum -0.8 bar). Make sure that the gaskets are not worn.

Attention! Do not use the vacuum fastening on the wall or overhead!
Do not forget that the levelling screw may be turned out only up to a certain extend in order not to destroy the vacuum.

Dowel fastening:
The most common way of fastening is **dowel fixing**.
If possible, use metal dowels only. The dowel diameter must not be smaller than 12 mm.

- In order to fasten the drilling unit correctly, you need the fastening set.
- Drill a hole with a diameter of 16 mm, 50 mm deep. Make sure that the hole is free of dust.
- Insert a dowel and open it with an expanding mandrel.
- Screw the thread rod into the dowel.
- Put the drilling unit with the deep hole in the base onto the thread rod.
- Place the washer and screw the butterfly nut very tightly.
- Adjust the drilling unit in the platform by using the four screws.

16. Drilling

Vertical drilling

- Open the water supply.
- Switch the motor on without touching the surface with the drill bit.
- Turn the handle to bring down the drill bit until it contacts the surface.
- In order to reach an exact centring of the drill bit, keep the feed low for the first centimeter of cutting depth.
- Then you can drill faster. A too small drilling speed reduces the power. On the other hand, when the drilling speed is too high, the diamond segments quickly become blunt.

Angular drilling

- Remove the screw in the foot base which arrests the column at 90°.
- Loosen the two screws on the base of the column and turn the column to the requested angle.
- Retighten the screws again.
- At the beginning, it is better to drill very slowy because the bit only meshes with a fraction of its cutting area with the material. If you drill too fast or with a pressure which is too high, the bit can be off centre.

You have hit reinforced iron when you recognise while drilling that the feed rate gets very low, when you need to use more force, or when the water leaking from the bore hole clearly shows some metal chips.
Reduce the pressure on the drill bit to cut through the reinforced iron without any problems. You increase the pressure again when you have cut through the reinforced iron.

Drill bit extension

If you have to drill deeper than the usable length of your drill bit is:

- First, only drill to the point the usable length of the bit reaches.
- Remove the bit and pull the centre core out of the hole without moving the core drilling unit.
- Push the drill bit back into the bore hole.

Screw an adequate extension between drill bit and motor. If the collet of the drill bit is 1 ¼", please do not forget the copper rings which make the removal of the drill bit easier.

17. Overload Protection

In order to protect the operator, motor and drill bit, the EDM33 is equipped with a mechanical and electronic overload protection.

Mechanical: If the drill bit is suddenly blocked in the hole, a clutch will slip disengaging the drill spindle from the motor.

Electronic: In case of overload due to large a feed force, the electronic facility in the tool switch will deenergize the tool. After discharge and reengagement one can drill again.

In the case that the machine switch off automatically due to overload protection, you need to reset the machine by pressing the switch, and then the machine can be re-started.

18. Safety Clutch

The safety clutch should absorb shock and excessive stress. It is an aid and not an absolute protection. Therefore you have to handle and drill carefully. To keep it in good condition, the clutch should slip for a very short time (max. 2 seconds) in each case only. After excessive wearing the clutch has to be renewed by an authorized service shop.

19. Fracture of Segments

If a diamond segment, parts of the reinforcement or something similar breaks out, and consequently the drill bit seizes, stop working on this bore and drill a hole with the same centre and a diameter being 15 – 20 mm bigger.
Do not try to finish your work using another drill bit of the same diameter!

20. After Drilling

When you have finished drilling:

- Pull the drill bit out of the hole.

- Stop the motor by using the motor switch.
- Close the water supply.

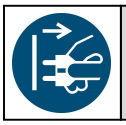
Removal of the core when it sticks in the drill bit:

- Separate the drill bit from the motor.
- Put the drill bit in a vertical position.
- Knock carefully on the pipe by using a wooden hammer shank till the drilling core slips out. Never throw the drill bit against a wall by force or set about it with tools, such as hammer or jaw wrench. Otherwise, the pipe could go out of shape and neither the core can be removed nor the drill bit reused.

Removal of the core from blind holes:

Break off the core with a cotter or lever, or in pieces. Lift the core out with appropriate tongs or drill a hole in the core, screw an eyebolt in and pull the core out.

21. Care and Maintenance



Before the beginning of maintenance or repair works you have to disconnect the plug from the mains.

Repairs may be executed only by appropriately qualified and experienced personnel. After every repair the machine has to be inspected by an electric specialist. Due to its design, the machine needs a minimum of care and maintenance. Regularly the following works have to be carried out or rather the component parts have to be inspected.

- Clean the drilling unit after having finished drilling. Later on, you have to grease the spindle thread. The ventilation slots always have to be clean and open. Pay attention that no water gets inside the core drill during the cleaning process.
- After the first 150 hours of operation you have to replace the gearbox oil. Gearbox oil changes bring about an essential increase of the tool's lifetime.
- After approximately 250 hours of operation the carbon brushes have to be checked by a specialist and if necessary removed (only use original carbon brushes).
- Have switch, cable and plug checked by an electric specialist quarterly.

22. Environmental protection

Raw material recycling instead of waste disposal

To avoid damages on transportation, the power tool has to be delivered in a sturdy packing. Packaging as well as unit and accessories are made of recyclable materials and can be disposed accordingly.
The tool's plastic components are marked according to their material, which makes it possible to remove environmental friendly and differentiated because of available collection facilities.

Only for EU countries

Do not dispose of electric tools together with household waste material!

In observance of the European Directive 2012/19/EU on waste electrical and electronic equipment and its implementation in accordance with national law, electric tools that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.

23. Noise emission / Vibration

The indication of noise emission is measured according to DIN 45 635, part 21. The level of acoustic pressure on the work place could exceed 85 dB (A); in this case protection measures must be taken.

Wear ear protectors!

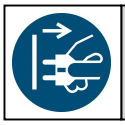
The typical hand-arm vibration is below 2.5 m/s².
Measured values determined according to EN 60 745.

The declared vibration emission level represents the main applications of the tool. However if the tool is used for different applications, with different accessories or poorly maintained, the vibration emission may differ. This may significantly increase the exposure level over the total working period.
An estimation of the level of exposure to vibration should also take into account the times when the tool is switched off or when it is running but not actually doing the job. This may significantly reduce the exposure level over the total working period.
Identify additional safety measures to protect the operator from the effects of vibration such as: maintain the tool and the accessories, keep the hands warm, organisation of work patterns.

24. Auto-stop brushes

In order to protect the motor, this power tool is equipped with auto-stop brushes. When the carbon brushes are worn out, the machine switches itself off.
In this case both brushes must be replaced at the same time with original brushes by an electrical specialist.

25. In Case of Malfunction



In case of breakdown, switch the motor off and disconnect it from the power. Repairs of the electrical parts may only be performed by an authorised service specialist.

26. Trouble Shooting

Error	Possible Cause	Error Recovery
Machine does not work	mains current supply interrupted	plug in another electric appliance and check the functioning
	line cord or plug damaged	have it checked by an electric specialist and replaced if necessary
	switch damaged	have it checked by an electric specialist and replaced if necessary
Motor runs, drill bit does not rotate	gearbox damaged	have the tool repaired by an authorised service workshop

Error	Possible Cause	Error Recovery
Drilling speed too slow	water pressure / water flow rate too high	regulate the water quantity
	drill bit damaged	check if drill bit is damaged and replace it if necessary
	gearbox damaged	have the tool repaired by an authorised service workshop
	drill bit is blunt	sharpen the drill bit with a sharpening block while using the flush
motor cuts off	the tool stops the tool overheats, overload	lead the tool in a straight manner
	protection of the motor has reacted	discharge the tool and restart it by pressing the switch
	carbon brushes are worn out - auto-stop brush switch off	both brushes must be replaced with original brushes by an electrical specialist
water drops out of the gearbox housing	shaft sealing rings damaged	have the tool repaired by an authorised service workshop

27. Warranty

According to the general supply conditions for business dealings, suppliers have to provide to companies a warranty period of 12 months for redhibitory defects (to be documented by invoice or delivery note).

Damage due to natural wear, overstressing or improper handling are excluded from this warranty.

Damages due to material defects or production faults shall be eliminated free of charge by either repair or replacement.
Complaints will be accepted only if the tool was returned in non-dismantled condition to the manufacturer.

28. Ersatzteilliste / Spare parts list / Reservedelsliste

28.1 Verwendung der Ersatzteilliste / Using the spare parts list / Utilisation de la liste des pièces de rechange

	Die Ersatzteilliste ist keine Montage- oder Demontageanleitung. Diese Ersatzteilliste dient ausschließlich zum einfachen und schnellen finden von Ersatzteilen, die bei den Vertriebsstellen, siehe Kapitel 28.1.3 “Vertriebs-stellen“, bestellt werden können.
	The spare parts list is not a mounting or dismounting instruction. The only purpose of the spare parts list is to easily and quickly find spare parts which can be ordered with distribution agencies, see chapter 28.1.3 "Distribution agencies".
	La liste des pièces de rechange n'est pas une notice de montage ou de démontage. Cette liste des pièces de rechange sert exclusivement à trouver rapidement et facilement des pièces de rechange qui peuvent être commandées aux points de vente, voir chapitre 28.1.3 "Points de Vente".

28.1.1 Sicherheitsvorschrift / Safety regulation / Consigne de sécurité

Gefahr: Montieren oder demontieren von Baugruppen können Risiken hervorrufen, auf die in dieser Ersatzteilliste nicht hingewiesen wird!

Das Verwenden dieser Ersatzteilliste für Montage- oder Demontagezwecke ist nicht erlaubt. Für Montage und Demontagearbeiten sind ausschließlich die entsprechenden Beschreibungen in der Betriebsanleitung zu befolgen.

Gefahr: Nichtbeachten dieser Vorschrift, kann zu Verletzungen führen, die im schlimmsten Fall auch den Tod zu Folge haben könnten!

Danger: Mounting or dismounting assembly groups can give rise to risks which are not mentioned in the spare parts list!

Using this spare parts list for mounting or dismounting purposes is not permitted. For assembly and disassembly work exclusively the corresponding descriptions in this operating manual are to be followed.

Danger: Non-observance of this instruction can result in injury which, in the worst case, can result in death!

Danger: monter ou démonter des modules de construction peuvent être à l'origine de risques qui ne sont pas mentionnés dans cette liste des pièces de rechange!

Pour le montage ou le démontage, l'utilisation de cette liste de pièces de rechange n'est pas autorisée. Pour les travaux de montage et de démontage, suivre exclusivement les descriptions correspondantes indiquées dans le mode d'emploi.

Danger: Le non-respect de cette instruction peut entraîner des blessures qui, dans le pire des cas, peuvent entraîner la mort!

28.1.2 Vertriebsstellen / Distribution agencies / Points de Vente

Deutschland - Germany - Allemagne GÖLZ® GmbH Dommersbach 51 DE-53940 Hellenthal Tlf: +49 (0)2482-12 200 Fax: +49 (0)2482-12 222 E-Mail: info@goelz.de / Internet: www.goelz.de	
Österreich - Austria - Autriche GÖLZ® Ges.m.b.H Samstraße 52 A-5020 Salzburg Tlf: +43 (0) 662 - 43 81 75 Fax: +43 (0) 662 - 43 07 34 E-Mail: info@goelz.at / Internet: www.goelz.at	**Frankreich - France - France** GÖLZ® S.A.S. 1, rue de la Mairie F-67370 Berstett Tlf: +33 (0)3.88.59.43.00 Fax: +33 (0)3.88.59.47.77 E-Mail: info@golz.fr / Internet: www.golz.fr
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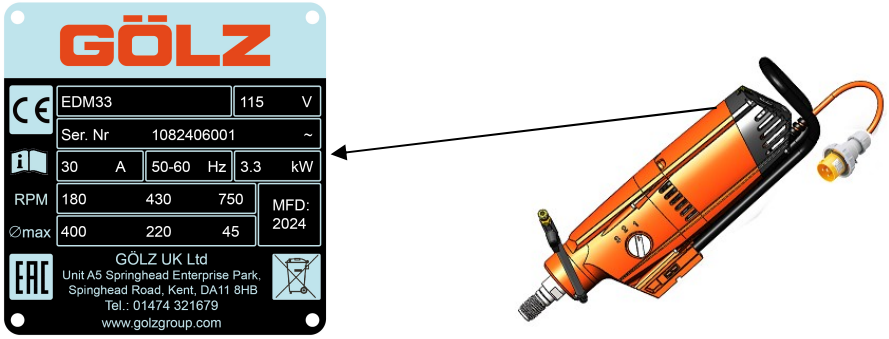
28.1.3 Bestellangaben / Ordering information / Indications de commande

	Hinweis: Um Falschlieferungen zu vermeiden sollten vor der Versendung die Angaben in der Bestellung auf Richtigkeit und Vollständigkeit überprüft werden! Lieferadresse vollständig angeben!
	Note: In order to avoid wrong deliveries the information the ordering information should be checked for accuracy and completeness before sending it! Completely indicate the delivery address!
	Notice: Afin d'éviter des livraisons incorrectes, vérifier, avant l'envoi de la livraison, si les indications de commande sont correctes et complètes! Indiquer l'adresse complète de la livraison!



So bekommen Sie schnell und richtig Ihr Ersatzteil	**Always indicate**	**Pour obtenir rapidement les pièces de rechange indiquer**
• Maschinentyp gemäß Typenschild • Baujahr gemäß Typenschild • Artikelnummer gemäß Ersatzteilliste • Maschinennummer gemäß Typenschild	• machine type according to nameplate • year of manufacture according to nameplate • order number according to spare part list • serial number according to nameplate	• type de la machine conforme de plaque d'identification • Année de construction selon plaque d'identification • Numéro de l'article selon la liste des pièces de rechange • numéro de la machine conforme de plaque d'identification
Für Bestellungen, Fragen und Informationen wenden Sie sich bitte an die zuständigen Stellen.	For orders, questions and information, please contact the competent departments.	Pour les commandes, questions et informations, veuillez-vous adresser aux points de ventes correspondants.

28.2 Verschleißteile / Wearing parts / Pièces d'usure

Verschleißteile für die in der Bedienungsanleitung erwähnten Maschinen wie Kernbohrgeräte, Fugenschneider, Wandsägen und Tischkreissägen.

Verschleißteile sind Teile, die bei bestimmungsgemäßem Gebrauch der Maschinen einer betriebsbedingten Abnutzung unterliegen. Die Verschleißzeit ist nicht einheitlich definierbar, sie differiert nach der Einsatzintensität. Die Verschleißteile sind gerätespezifisch entsprechend der Betriebsanleitung des Herstellers zu warten, einzustellen und ggf. auszutauschen. Ein betriebsbedingter Verschleiß bedingt keine Mängelansprüche.

Verschleißteile sind in der Ersatzteilliste grau unterlegt!

- Vorschub- und Antriebselemente wie Zahnstangen, Zahnräder, Ritzel, Spindeln, Spindelmuttern, Spindellager, Seile, Ketten, Kettenräder, Riemen
- Dichtungen, Kabel, Schläuche, Manschetten, Stecker, Kupplungen und Schalter für Pneumatik, Hydraulik, Wasser, Elektrik, Kraftstoff
- Führungselemente wie Führungsleisten, Führungsbuchsen, Führungsschienen, Rollen, Lager, Gleitschutzauflagen
- Spannelemente von Schnelltrennsystemen
- Spülkopfdichtungen
- Gleit- und Wälzlager, die nicht im Ölbad laufen
- Wellendichtringe und Dichtelemente
- Reib- und Überlastkupplungen, Bremsvorrichtungen
- Kohlebürsten, Kollektoren
- Leichtlöseringe
- Regelpotentiometer und manuelle Schaltelemente
- Sicherungen und Leuchten
- Hilfs- und Betriebsstoffe
- Befestigungselemente wie Dübel, Anker und Schrauben
- Bowdenzüge
- Lamellen
- Membranen
- Zündkerzen, Glühkerzen
- Teile des Reversierstarters wie Anwerfseil, Anwerfklinke, Anwerfrolle, Anwerffeder
- Abdichtbürsten, Dichtgummi, Spritzschutzlappen
- Filter aller Art
- Antriebs-, Umlenkrollen und Bandagen
- Seilschlagschutzelemente
- Lauf- und Antriebsräder
- Wasserpumpen
- Schnittguttransportrollen
- Bohr-, Trenn- und Schneidwerkzeuge
- Energiespeicher

Wearing parts for construction devices mentioned in the operating manual such as drilling and sawing machines.

Wearing parts are the parts subject to operation-related (natural) wear during proper use of the device. The wearing time cannot be uniformly defined, and differs according to the intensity of use. The wearing parts must be adjusted, maintained and, if necessary, replaced for the specific device in accordance with the manufacturer's operating manual. Operation-related wear is not a reason for defect claims.

Wearing parts of this machine are grey marked in the spare parts list.

- Feed and drive elements such as toothed racks, gearwheels, pinions, spindles, spindle nuts, spindle bearings, cables, chains, sprockets, belts
- Seals, cables, hoses, packings, connectors, couplings and switches for pneumatic, hydraulic, water, electrical and fuel systems
- Guide elements such as guide strips, guide bushes, guide rails, rollers, bearings, sliding
- protection supports
- Clamping elements for quick-separating systems
- Flushing head seals
- Slide and roller bearings that do not run in an oil bath
- Shaft oil seals and sealing elements
- Friction and safety clutches, braking devices
- Carbon brushes, commutators / armatures
- Easy-release rings
- Control potentiometers and manual switching elements
- Securing elements such as plugs, anchors, screws and bolts
- Fuses and lamps
- Auxiliary and operating materials
- Bowden cables
- Discs
- Diaphragms
- Spark plugs, glow plugs
- Parts of the reversing starter such as the starting rope, starting pawl, starting roller and
- starting spring
- Sealing brushes, rubber seals, splash protection cloths
- Filters of all kinds
- Drive rollers, deflection rollers and bandages
- Cable anti-twist elements
- Running and drive wheels
- Water pumps
- Cut-material transport rollers
- Drilling, parting and cutting tools
- Energy storage

Pièces d'usure définies dans la notice d'utilisation pour les machines telles que carotteuses, scies à sol, scies murales et scies de tables.

Les pièces d'usure sont celles définies par une usure normale due à l'utilisation courante de la machine dans les conditions normales d'utilisation. La durée d'usure n'est pas définissable en terme de temps, elle dépend de l'intensité d'utilisation. Les pièces d'usure sont à régler ou changer selon les indications définies dans la notice d'utilisation par le fabricant de la machine. Une usure normale due à l'utilisation de la machine ne peut faire prétendre à une demande de garantie

Des pièces d'usure pour cet appareil sont soutenues gris dans le catalogue pièces

- Éléments d'entraînement, d'avance tels que crémaillères, pignons, vis sans fin écrous pour vis sans fin, roulements de vis, câbles, chaînes, pignons de chaîne, courroies
- Joints, câbles électriques, flexibles, manchettes, prises de courant, accouplements et éléments de commande pneumatiques, hydrauliques, pour eau et carburant
- Éléments de guidage tels que glissières, douilles de guidage, rails de guidage, galets de guidage, roulements, protections de guidage
- Éléments de serrage pour systèmes d'accouplements rapides
- Joints de touret d'injection
- Roulements à aiguilles et linéaires non en bain d'huile
- Joints spi et éléments d'étanchéité
- Embrayage de surcharge systèmes de freinage
- Charbons et collecteurs
- Bagues à desserrage rapide
- Potentiomètres et éléments de commandes manuelles
- Fusibles et ampoules
- Accessoires de fonctionnement
- Éléments de fixation tels que chevilles, vis et vis d'ancrage
- Sandows
- Lamelles
- Membranes
- Bougies d'allumage et de préchauffage
- Pièces du système de démarrage, telles que poignée de démarrage, poulie, ressort
- Brosse joint, joints caoutchouc, bavettes anti-éclaboussement
- Filtres de tous types
- Poulies d'entraînement ou de renvoi et leur bandage
- Éléments anti-flottement de câbles
- Roues d'entraînement et de guidage
- Pompes à eau
- Rouleau de convoyeurs
- Outils de carottage et de sciage
- Réservoir d'énergie