Original operating instruction and spare parts list
Diamond core drill machine

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EG-KONFORMITÄTSERKLÄRUNG		**EC-DECLARATION OF CONFORMITY**		**DECLARATION DE CONFORMITE DE LA CE**
Die Firma		Manufacturer		La Société

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erklärt in alleiniger Verantwortung dass folgende Maschine:		Declare hereby certifies on its sole responsibility that the following product:		déclare sous sa seule responsabilité que le produit suivant:

HDM 22

Diamant-Kernbohrmaschine
Diamond core drill machine
Carotteuse diamant

Seriennummer / Serial number / Numéro de série : _____

auf das sich diese Erklärung bezieht, mit folgenden Richtlinien übereinstimmt: **2006/42/EG** Sicherheits- und Gesundheitsanforderung **2004/108/EG** Elektro-Magnetische Verträglichkeit **2006/95/EG** Niederspannungsrichtlinie **2011/65/EU** RoHS		which is explicitly referred to by this declaration meet the following directives: **2006/42/EG** Safety and health requirement **2004/108/EG** Electromagnetic compatibility **2006/95/EC** Low voltage directive **2011/65/EU** RoHS		Qui fait l'objet de la présente déclaration correspond aux directives suivantes: **2006/42/EG** Prescriptions sanitaire et sécurité **2004/108/EG** Compatibilité électromagnétique **2006/95/CE** Directive basse pression **2011/65/EU** RoHS
mit folgenden Normen übereinstimmt: **EN 50144-1** **EN 50144-2-1** **EN 55014-1** **EN 6100-3-2** **EN 61000-3-3** **EN 55014-2** **EN 61029-1** Die oben genannte Firma hält Dokumentation als Nachweis der Erfüllung der Sicherheitsziele und die wesentlichen Schutzanforderungen zur Einsicht bereit.		meet the following standards: **EN 50144-1** **EN 50144-2-1** **EN 55014-1** **EN 6100-3-2** **EN 61000-3-3** **EN 55014-2** **EN 61029-1** Documented evidence conforming to the requirements of the directives is kept available for inspection at the above manufacturer's address.		aux normes suivantes: **EN 50144-1** **EN 50144-2-1** **EN 55014-1** **EN 6100-3-2** **EN 61000-3-3** **EN 55014-2** **EN 61029-1** Pour faire foi de la conformité et du respect des règles de sécurité, la documentation peut être consultée au siège de la Société susmentionnée.

CE

Hellenthal, den 09.05.2024

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Geschäftsführer / General Manager /
Président-directeur général

Contents

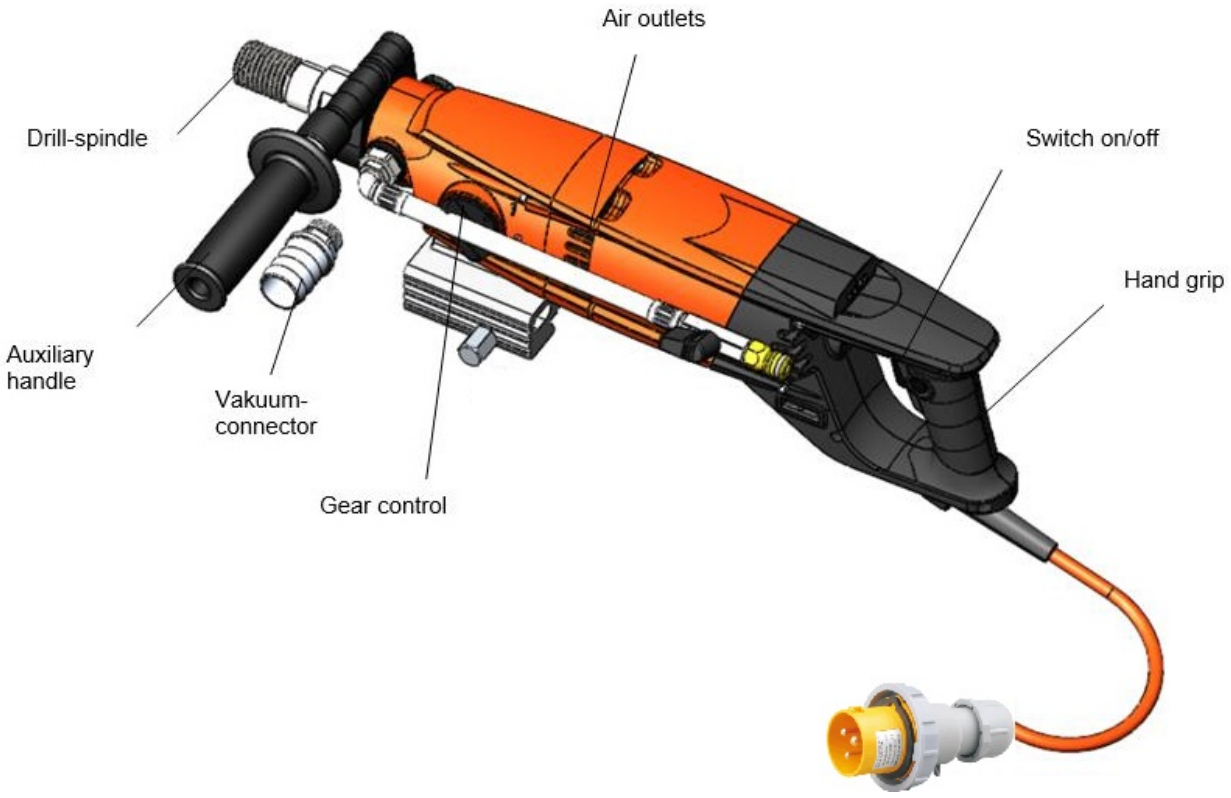
It is compulsory to observe the safety instructions included in this manual!

Special designs and versions may differ from the standard models in terms of their technical de-tails. If any points are unclear, we urgently recommend that you contact **GÖLZ® GmbH,** indicating the machine type and machine number.

1. Symbol- and Pictograph description

This sign tells you rules, if you not pay attention for this your health and the function of the machine is in danger. You have no warranty if the machine breaks down because you not looking about this.

1.1 Function description



2. General instructions

2.1 Application

The machine can be used for the purposes outlined by the data on the model plate. If you are using special machines, the details in the quotation and order confirmation also apply.

If you use suitable core bits, you will be able to drill holes in the most diverse material types:

- Concrete (even if it contains thick reinforcement steel)
- Sandstone and limestone
- All building materials for solid walls
- Asphalt floors

The machine is suitable for wet and dry drilling!

For personnel safety the machine must connect to an isolated transformer.

2.2 Safety

Before using the machine for the first time, check that the conformity of the data on the model plate with the mains voltage and frequency. Voltage deviations of ± 5 % and/or voltage deviations of ± 2 % are permissible. Repairs must only be completed by quality persons who have suitable training and qualifications.

The following points are to be given special attention:

- the technical data and details of the permitted use of the machine (commissioning, ambient and operating conditions) which are set out in the catalogue, the operating manual, the model plate da-ta and other product information,
- the relevant accident prevention regulations
- the correct use of tools
- the use of personal safety equipment

3. Transport and storage

3.1 Transport

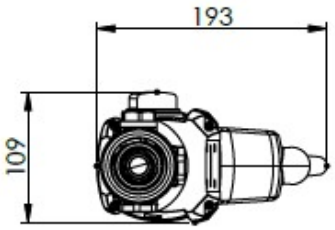
The machine are to be checked for signs for transport damage on receipt. Any damage must be documented in writing.

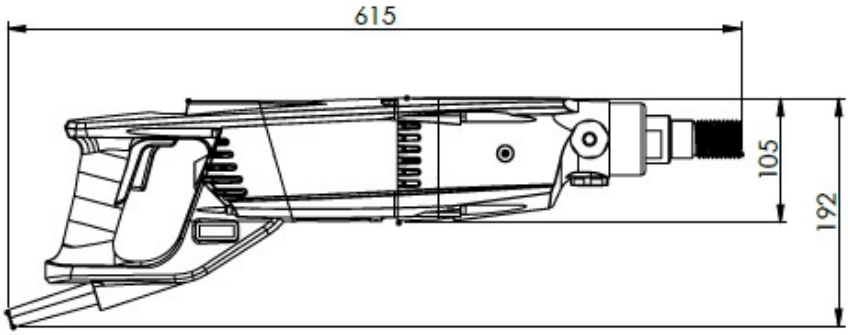
3.2 Storage

If possible, the storage site should be dry, clean and have a constant temperature. To ensure that the film of lubricant in the bearings and sealing system is not lost, the motor shaft should be turned through several revolutions by hand after a lengthy period of storage, for example at monthly intervals. The roller bearings in the motors should be replaced (or regreased) if the period between delivery and commissioning is over four years. If the machines are stored in adverse conditions, this period may differ considerably.

4. Main dimensions and technical data

4.1 Dimensions





(illustrated without additional handle)

4.2 Technical data

Rated voltage	115/ 230	V
Current consumption	16	A
Power requirement	2,2	kW
Frequency	50 - 60	Hz
Idling speed	520/1400/2900	min^{-1}
Drilling diameter	25-200	mm
Weight	7,5	kg
Core bit connection	UNC 1 ¼ + R ½	“

5. Commissioning

Check that the mains voltage is identical to the voltage specified on the model plate.

Stand-mounted (without additional handle):
Secure the machine and the water collector to the drilling stand with its reverse block. The drilling stand should be as rigid as possible and have precise, low-play guides. Ensure that the core drill axis is parallel to the axis of the drilling stand.
Insert the core bit and set the speed. The setting instructions are in chapter 8.

Connect the water supply or dust extraction.
Important: Do not exceed the maximum water pressure of 3 bar.
The HDM22 must be connected to isolated transformer.

Stand-mounted (with additional handle):
When drilling a hole ensure that you are on a secure surface. Make particularly sure the core bit is not bent during the drilling process and hold the core drilling machine as rigid as possible. Concentrate hard on the work since if the core bit suddenly blocks, despite the low setting of the safety slip clutch, high forces may be generated. If you let go of the core drilling during the drilling process, you may suffer serious injury.
Only use three-core extension cables with a protective conductor and an adequate cross-section. If the cross-section is too low, you may lose excessive power and result in the motor and cable overheating. An extension cable must have an overload cut-out switch.

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

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.

Recommended cable cross-sections:

Rated current = 16 A							
Cable length	m	7,5	15	25	30	45	60
Cable cross section	mm^2	2,5	2,5	2,5	2,5	2,5	4

Ensure that you have sufficient cooling water for drilling or sufficient suction power of the vacuum cleaner. Only use pure tap water, do not use dirty or waste water. Adjust the feed speed to the core bit diameter and the drive rating of the core drill so that the rated current is not exceeded.

5.1 Changing gear

Never change gear using force and only do so when the machine is slowing down or at a standstill.

To change into the next higher or lower gear, move the gear-change lever through an angle of approx. 40°. If necessary (if the gear is difficult to engage), turn the drive spindle briefly by hand until the gear engages easily.
Do not use any tools (pliers, hammer, etc.) to change gear since otherwise gear damage is a natural consequence.

5.2 Safety coupling

The values set out in the table are theoretical values and may be used to provide a rough guide for gear changing. Since a whole range of other parameters also plays a major role in adjusting the speed, we can-not offer any guarantee if the tool is damaged when using the values in the table. Drilling work for which the speeds are outside the range of the core drill (values printed in italics), should only be completed with ex-treme care and by trained personnel.

5.3 Core bits

All core bits with a connection thread of 1 ¼ ” UNC or oder R ½ “ can be used.
Adapters can be supplied to allow core bits with other connection systems to be used.
Only use core bits that are suitable for the type of stone.

You will keep the core drill in good condition if you only use core bits that are concentric and not deformed ones.
Ensure that the diamond segments have an adequate undercut against the core bit body.

To use wrong tools or accessories is danger for your life.

5.4 To change a core bit

The drill spindle has a right-handed thread.
Always use a 32 mm open-ended spanner to hold against the drill spindle.
Never release the core bit with (hammer) blows since this will damage the core drill.
The core bit can be removed more easily if you apply a little waterproof grease to the drill spindle thread.

6. Safety instructions

Only use the machine under supervision. Disconnect the mains plug and check that the switch has been turned off,

- if you intend to leave the machine unsupervised,
- for attachment and disconnection work,
- if the voltage drops (below 100 V),
- for adjustments or for fitting an accessory,

Switch off the machine if it stops for any reason. This will prevent its starting suddenly when it is not under supervision.

Do not use the tool if

- part of the casing is missing or defective,
- If water drips out of the overflow hole, stop work and have the machine inspected by an authorised service contractor.
- Only drill above your head with suitable safety equipment (water collector), transformer protection class II.
- Connect dust extraction if required.
- After a fault do not switch on the machine again until the core bit can be turned easily.
- Check the area you wish to drill with a line detector to prevent drilling through electric cables, water or gas lines, etc.
- the switch, lead or plug connector has suffered damage (conduct a visual inspection every day).
- Cooling water must not be allowed to ingress into the motor or the electrical components when op-erating the core drill in any position.

Do not expose the tool to rain and use not in humidity or wet environment. Use a good lightning. Do not use the tool near flammable fluids or gase air mixes.

7. Servicing and care

Disconnect the mains plug before commencing any servicing or repair work. You must have the machine checked by an electrician after every repair (statutory regulation pursuant to VBG4 since 1.1.1990).

7.1 Daily care

Ensure that no water is emitted from the overflow hole. This will cause gear damage and may adversely affect the electrical safety of the machine. If water is emitted, see assistance from an authorised service outlet.
Visual inspection for damage to the switch, connection lead or plug connector
After completing the drilling work clean the core drill. Grease the core bit mounting thread.

The ventilation slits must always be clean and open. Ensure that during the cleaning process, no water gets into the core drill.
To maintain the seal, oil the drilling spindle as follows

- Disconnect the core drill from the water supply. Open the water connector shut-off cock, add several drops of oil, close the shut-off cock, add several drops of oil to the overflow hole and turn the machine briefly by hand.

7.2 After approx. 150 hours of use

After the first 150 hours of use, the gearbox oil must be changed.

7.3 After approx. 250 hours of use

Have the carbon brushes checked and, if necessary, replaced by a qualified electrician: Remove screws. Pull cap off motor housing. Lift off carbon brush holder spring and remove carbon brushes. Clean carbon brush holder and collector with brush. Mount new carbon brush in reverse order. Fit the cap and fix it with the screws. Mount cap on motor housing with light taps (plastic hammer). Tighten screws. Release stresses by two light taps on the bearing cap.
Avoid adjusting the carbon retaining springs.
Only use original spare parts.

7.4 Quarterly

Have the cable, switch and plug connectors inspected by a specialist (regulation pursuant to VBG4) and document this inspection. Changing the gearbox oil will produce a considerably increase in the service life of the gear.

8. Speed adjustment dependent on the cutting speed

The values set out in the table are theoretical values and may be used to provide a rough guide for gear changing. Since a whole range of other parameters also plays a major role in adjusting the speed, we can-not offer any guarantee if the tool is damaged when using the values in the table. Drilling work for which the speeds are outside the range of the machine (values printed in italics), should only be completed with ex-treme care and by trained personnel.

	3	4	5	6	7	[m/s]
15	3820	*5093*	*6366*	*7639*	*8913*	3rd gear
20	2900	3820	*4775*	*5730*	*6685*	3rd gear
25	2500	3056	3820	*4584*	*5348*	3rd gear
30	1910	2500	3183	3820	*4456*	3rd gear
35	1637	2183	2728	3274	3820	3rd gear
40	1432	1910	2500	2865	3342	3rd gear
45	1273	1698	2122	2500	2971	3rd gear
50	1200	1528	1910	2292	2674	3rd gear
55	1042	1400	1736	2083	2500	3rd gear
60	955	1273	1592	1910	2228	2 or 3
65	881	1200	1400	1763	2057	2 or 3
70	819	1091	1364	1637	1910	2 or 3
75	764	1019	1273	1528	1783	2 or 3
80	716	955	1200	1400	1671	2 or 3
85	674	899	1123	1348	1573	2 or 3
90	637	849	1061	1273	1485	2 or 3
95	603	804	1005	1200	1400	2 or 3
100	573	764	955	1146	1337	2 or 3
110	521	694	868	1042	1200	2nd gear
120	500	637	796	955	1114	1 or 2
130	*441*	588	735	881	1028	1 or 2
140	*409*	546	682	819	955	1 or 2
150	*382*	500	637	764	891	1 or 2
160	*358*	*477*	597	716	836	1 or 2
170	*337*	*449*	562	674	786	1 or 2
180	*318*	*424*	531	637	743	1st gear
190	*302*	*402*	500	603	704	1st gear
200	*286*	*382*	*477*	573	668	1st gear
210	*273*	*364*	*455*	546	637	1st gear
220	*260*	*347*	*434*	521	608	1st gear
230	*249*	*332*	*415*	500	581	1st gear
240	*239*	*318*	*398*	*477*	557	1st gear
250	*229*	*306*	*382*	*458*	535	1st gear
260	*220*	*294*	*367*	*441*	500	1st gear
Bit capaci-fity Ø		**concrete**	**concrete**	**rock**		
[mm]		**reinforced**				

9. Warranty

In keeping with our terms of sale, we offer a warranty for twelve months from the date of sale. This refers to the free repair of material and workmanship defects, which were verifiably caused before the sale.
An original purchase document must always be submitted in case of a warranty claim. It has to contain the full address of the dealer, the date of purchase and the type designation of the product. The operating instructions of the particular product and the safety instructions must have been followed.
Damages resulting from operational faults cannot be acknowledged as warranty cases.
The products of the manufacturer have been developed and produced for specific applications. No warranty claim is accepted in case of non-compliance with the due employment according to the operating instructions, in case of the employment for other purposes than originally intended or the employment of inadequate accessories.
The periodical maintenance and cleaning of the products according to the directions of the operating instructions is absolutely necessary. The intervention of third persons (opening the machine) renders any warranty claim void.
Maintenance and cleaning operations cannot be claimed on the basis of warranty.
Make sure only original spare parts and original accessories are used. They are available at the authorized specialized product dealer. If non-original parts are used, consequential damages and increased hazard cannot be ruled out. The producer is not liable for such damages. Disassembled or partially disassembled hand saws and those repaired with non-original parts are excluded from the warranty.
Certain components, such as carbon brushes, ball bearings, switches, power-supply lines, gaskets, etc., are exposed to usage dependent or to normal wear. These wearing parts are not object of this warranty. Wearing parts are marked on the spare parts lists.

10. General safety instructions

- Read and follow these instructions before you use the tool. Keep these safety instructions in a safe place.
- Keep your workplace tidy. Untidiness in the workplace can cause accidents.
- Protect yourself from electric shocks. Refer to the applicable regulations. Avoid physical contact with earthed parts, such as pipes, heaters, furnaces and refrigerators.
- Keep children away. Do not allow other people to touch the tool or cable, keep them away from where you are working.
- Keep your tools in a safe place. Unused tools should be kept in a dry, locked room out of the reach of children.
- Do not overload your tool. It will work better and more safely in the specified capacity range.
- Use the correct tool. Do not use tools that are too weak or mounted tools for heavy work. Do not use tools for purposes and work for which they have not been designed.
- Wear suitable clothing. Do not wear excessively baggy clothing or jewellery, which may be caught by moving parts. For working outdoors, we recommend the use of rubber gloves and sturdy shoes. Wear a hairnet if you have long hair. Use goggles. Use a breathing mask for work that generates dust.
- Do not use the cable for any purpose other that that for which it is designed. Do not carry the tool by the cable and do not use it to pull the plug out of the socket. Protect the cable from heat, oil and sharp edges. Check the connection lead and plug every time before you use the tool for signs of damage. If they are damaged, have them replaced by a specialist. Always keep the connection lead away from the working area of the machine.
- Secure the workpiece. Use clamps or a vice to hold the workpiece. This will make it more secure that if you hold it in your hand and will allow you to use both hands to control the machine. Do not overstretch yourself. Avoid abnormal body positions. Ensure that you have a stable area on which to stand and keep your balance at all times.
- Look after your materials with care. Keep your tools sharp and clean so that they produce good safe results. Check the plug and cable at regular intervals and have them replaced by a specialist if they suffer any damage. Check the extension cable at regular intervals and replace damaged cables. Keep the handles free of oil and grease.
- Disconnect the mains plug from the supply when the tool is not in use and when changing the tool.
- Do not leave a tool spanner on the tool. Before switching on the tool check that the wrench and setting tools have been removed.

- Avoid the machine starting when you do not intend it to. Do not carry a tool that is connected to the mains supply with your finger on the switch. Ensure that the switch is turned off when you connect the tool to the mains supply.
- Electric tools outdoors and in wet areas: Mobile tools which are used outdoors should be connected to the mains supply using a residual-current circuit breaker or the like for added safety. This is particularly important when working with freehand tools. If there is a water supply, you should use an isolation transformer and a voltage supply of 115 V; please specify in your order.
- For outdoors work, only use extension cables, which are approved for this purpose and marked accordingly.
- Be vigilant at all times. Watch your work. Proceed sensibly. Do not use the tool if you are not concentrating fully on what you are doing.
- Important:
  Safety equipment (such as overcurrent protection devices, undervoltage trips, safety couplings etc.) are tools but do not offer guaranteed safety. As a responsible manufacturer we tailor these tools to each other so that they offer the best possible protection. But without the care and caution of the use, these tools may even cause damage it they are not used properly.
- Have the slip couplings, in particular, checked during the quarterly inspection to ensure that it is correctly adjusted and functions properly. This inspection should be conducted by the manufacturer or an authorised service outlet and documented.
- Check the machine every day for signs of damage, conduct a visual inspection.
- Before reusing the tool, carefully check the safety equipment or slightly damaged parts to ensure that they offer perfect and proper function.
- Check that all moving parts function correctly, that they do not jam and that none of the parts are damaged. All parts must be correctly fitted and satisfy all the conditions to ensure the perfect operation of the tool. Damaged safety equipment and parts must be re-paired or replaced properly by a specialist service contractor. Do not use any tools, which cannot be switched on and off using the switch. Pay particular attention to ensuring electrical safety: Cables? Plugs? Switches? Do all the components satisfy safety regulations?
- Repairs may only be completed by trained personnel. Before being used for the first time and after all repair work, the safety of electric tools must be checked by an electrician pursuant to VBG 4, § 5. This inspection must also be conducted and documented at regular intervals – at least once per year.
- Please note that as the operator you are responsible for complying with any additional regulations. For example if electric tools are used in a wet and/or damp environment, the regulations of the ”Stone and Earth” Professional Association must be satisfied.

11. Spare parts list

11.1 Using the spare parts list

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 11.1.3 "Distribution agencies".

11.1.1 Safety regulation

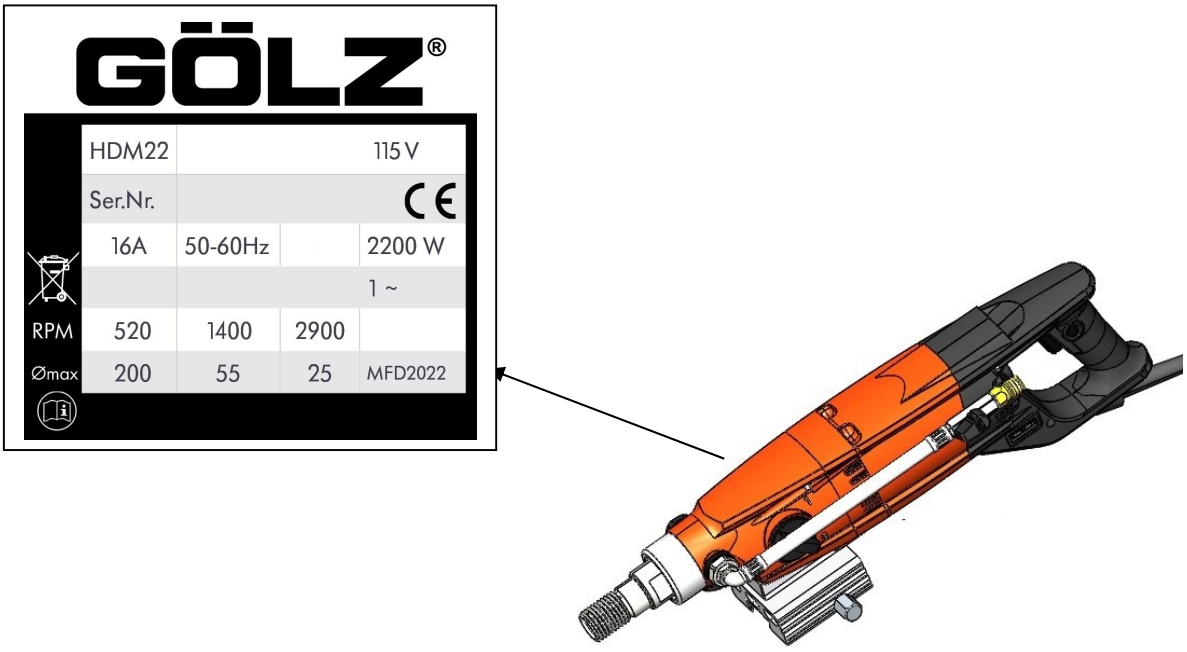
⚠	***Danger: Mounting or dismounting assembly groups can give rise to risks which are not mentioned in the spare parts list!***

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!***

11.1.2 Ordering information

ℹ	***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!***



		
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.

11.1.3 Distribution agencies

Deutschland – Germany - Allemagne GÖLZ® GmbH Dommersbach 51 DE-53940 Hellenthal Tel: +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 Tel: +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 Tel: +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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11.2 Wearing parts

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