

Core drilling system (Drill stand/Drill motor)

KDS-XXL-R & DK 32 (S)



KERN-DEUDIAM

Diamantwerkzeuge und Maschinen GmbH

Tel. +49 5257 507-0 Industriestraße 24

Fax +49 5257 507-40 33161 Hövelhof

kern-deudiam.de | info@kern-deudiam.de

0. Introduction

You bought a drilling system of KERN-DEUDIAM firm.

We thank you for purchase and we wish you successful and long-term work. We are always open for your questions and offers.

Attention:

At the installation of system it is necessary to observe the rules EG-RL 2006/42/EG.

1. Content

0. Introduction	1
1. Content	1
2. General instructions	1
3. System description	2
4. Technical data	5
5. Instructions of safety	7
6. First steps of operation	8
7. Management of system	8
8. Maintenance	9
9. Warranty	11
10. EU Declaration of Conformity	12

2. General instructions

2.1 Important terms

Danger: possible situation which can lead to heavy traumas or even death of the service personnel or the third parties.

Caution: possible situation which can lead to light traumas or to property damage.

2.2 Explanation of symbols

Forbidding symbols



General ban



The entrance is prohibited for strangers



It is forbidden to touch

Warning symbols



General danger



High voltage



Hot surface

Symbols of safety measures



Use protective glasses



Use protection of hearing



Use a protective helmet



Use safety shoes



Use protective gloves

2.3 Your drill stand

On the plate of your drill stand are written the serial number and type of machine.

Please write in these data in the following frames.

Type:

Serial number

Please, report these data at your inquiries.

3. System description

3.1.1 Use of drill stand

The drill stand is designed for "dry" and "wet" drilling in mineral materials by means of diamond crowns.

The drill stand is suitable for work with electric, hydraulic and pneumatic drilling motors with power up to 3.5 kW.

The drill stand has to be reliably fixed on a material surface by means of the expansion bolt (anchor), the vacuum pump or a fast-sliding support.

Strictly observe the regulation of the service and the maintenance, described in this manual.

Observe also instructions on safety, installation and operation of the used additional equipment and the diamond tools.

In order to avoid traumas use only the original equipment and the diamond tool of KERN-DEUDIAM.

3.1.2 Use of motor

The motor is used according to data on the plate on the motor case. When using the special machines are to observe additional requirements specified in order confirmation.

Drilling motors belong to the class of protection of "I" that ensures safety through use of FI-/PRCD switches.

When using the corresponding crowns possibly drilling of openings in various materials:

- Concrete (including with strong reinforcing)
- Sandstone and limestone
- Various construction materials for massive walls
- Asphalt coverings.

The drill motors belong to category II that means that they have to be used with drill stands (DIN 57100 or VDE 0100).

The drill stand should have:

- Protection of reverse motion
- Adjustability for water drainage.

The motor has to be connected:

- via the personal protective switch (FI or PRCD) directly or
- through the coded (1h) plug with a protective box (IP44) or with the FI switch to a network of 230 V.

3.2 Consequences due to false use



When using a drill stand incorrectly, there is an increased health hazard for the service personnel and for the third parties.

Use of the drilling motor with power more than 3.5 kW belongs to it.

It can lead to breakage of a motor plate or other parts.

Manipulations or changes of a drill stand are forbidden.

For an adjustment of a drill stand don't use a percussion instrument (hammer). That can lead to the damage of drill stand.

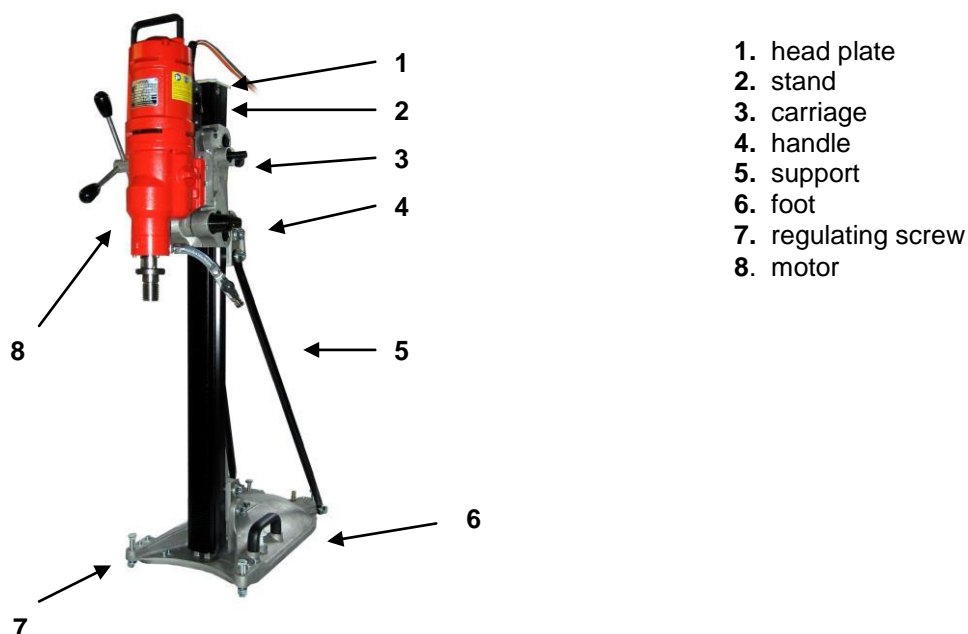
3.3 Delivery set:

Drill stand KDS-XXL-R

Drill motor DK 32

Manual.

4. Technical data



- 1. head plate
- 2. stand
- 3. carriage
- 4. handle
- 5. support
- 6. foot
- 7. regulating screw
- 8. motor

Type: KDS-XXL-R
 Max. drill diameter: 400 mm
 Max. drill bit length: 570 mm
 Max. power of motor: 3.5 kW
 Drilling with angle: up to 45°
 Weight: 19 kg.

4.1 Noise and Vibration (EN 50144)

Noise level: 86 / 99 dB.
 Vibration: 2.5 m/s².

Attention: above-mentioned data were established in laboratory. Depending on working conditions the specified data can strongly differ.

Technical data

Type	DK 32	DK 32 S	
Nominal Power	3200	3200	W
Output Power	2300	2300	W
Nominal Speed (Full Load)	230/480/720	300/590/930	1/min
Weight	11.9	11.9	kg
Tool fixture	1 1/4" UNC	1 1/4" UNC	
Drilling Ø in concrete	55 - 350	35 - 250	mm

5. Instructions of safety



5.1 Basic terms

Before mounting the motor on a support and beginning the work, please attentively read the safety instructions and keep them for further reference.

5.2 Organization of workplace

The drill work has to be approved by the supervisor of the building site. Carrying out this work can affect building statics considerably.

The workplace has to be constantly well-lit. Take care of good ventilation of the workplace. Keep the workplace clean and tidy. The disorder on a workplace can lead to accidents. In a work zone there shouldn't be any foreign objects, which could lead to injuries of the service personnel or the third parties. In a work zone there shouldn't be any foreign persons, especially children. Make sure that neither the third parties nor any surrounding objects won't suffer in case any parts of the drill system come off.

Take measures that the core which is forming as a result of drilling, doesn't fall uncontrollably and injures the third parties or objects. The openings formed as a result of drilling have to be accurately designated to prevent people falling. Don't touch the drilling (diamond) tool.

Use means of personal safety:



At formation of dust (at "dry" drilling) use a protective respiratory mask.

Don't wear wide clothes and jewellery, because they can get into moving parts of the drilling system. In case you have long hair, use a special hair-net. Make sure that your working footwear doesn't slide.

Lay electro cables and water hoses to avoid the danger of people falling.

Hold all connections (hoses, cables) as far away from rotating parts as possible.

ATTENTION: Make sure that in places of drilling no hidden electro - water - and gas-connections are present, for example by means of the special metal detector. Don't work with a drill stand on a step-ladder.

5.3 General measures of safety



Use the original additional KERN-DEUDIAM equipment which is described in this manual. The use of equipment from other manufacturers can be dangerous

for you.

A hand crank has to be free from oil and fat.

Avoid any overloads of your system. Work in the set modes - it is economically and safe.

Store the parts of the system which are not used in a safe place. This room shouldn't be accessible to the third parties, especially children.

Keep your tool clean and in good working order. That will positively affect its efficiency. Before each use of the system, check that it isn't damaged and that all functions of the system are in order. In case any damaged parts are detected, safely replace them by a new one.

ATTENTION: Don't use the damaged tool!

Have the repair of the tool made only by KERN-DEUDIAM enterprise or by its authorized partners. In case of a non-professional repair of the equipment, your life can be in danger. Avoid slime hit your skin. Materials hazardous to health (for example, asbestos) are forbidden to drill.

5.3.1 Mechanical part



Follow the instructions for maintenance. Observe the rules of lubrication and replacement of the tool.

Make sure that the motor is safely and correctly fixed on a drill stand.



Keep a distance to the rotating drilling crown.

During operation with a drill bit or during its changeover etc., make sure, that the plug has been pulled out from the socket.

5.3.2 Electrical part



When using electrical instruments there is a danger of electrical shock. Avoid contact with the grounded objects, such as pipes, radiators, furnaces, refrigerators, etc.

Make sure that the voltage of the socket corresponds to the data given on the table on the plate of the drilling motor.

Check the electrical connections after each use of the system for damages and address a professional electrician in case of damages. Electrical instruments shall be checked by the professional electrician every year.

If the cable or its extender has been damaged during operation, don't touch it. In this case directly pull the plug from the socket.

The damaged electrical switches shall be replaced by the professional electrician. The operation of motors with the damaged switches is forbidden! The power cable of the motor shouldn't be used for carrying the motor.

Protect a cable from high temperatures and sharp edges.

Use only the allowed and especially designated extenders of cables.

Pay attention that your extender corresponds to the power of the drilling motor.

Before putting the system into operation, check the compliance of the voltage with the socket and the frequency with the data specified on the table. Tolerances: $\pm 5\%$ for voltage and $\pm 2\%$ for frequency. Qualified personnel only is authorized to carry out repair work.

It is especially important to observe

- the technical operation instructions
- the rules of prevention of injury
- the appropriate use of the tool
- the use of personal safety gear.

5.3.3 Thermal part



Used diamond crowns can heat up very strongly. Therefore use protective gloves in case a diamond crown needs to be changed.

5.4 Requirements to the operator



The drill stand is designed for the use by a professional operator. This operator shall get special permission from the owner of a drill stand to carry out the operation. Operators of the machine have to be informed about possible dangers.

Repair shall be carried out only by specialists of the KERN-DEUDIAM enterprise or its official representatives.

Operation while drilling requires big concentration. If you are overstrained or you are under the influence of medication or narcotic substances, operation on drilling is strictly forbidden. In this case there is a big danger not only for the operator, but also for the third parties.

5.5 Means of safety

The operator and the people being in his direct vicinity are obliged to wear protective glasses, hearing protection, a helmet, safety shoes and safety gloves.

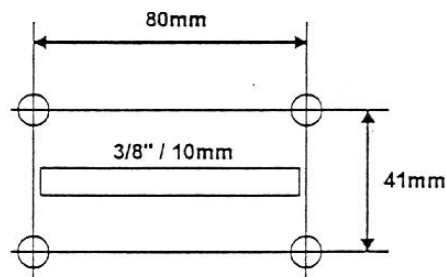


6. First steps of operation

6.1 Motor mounting

The motor has to be fixed on a drill stand by means of a motor plate. It allows to fix the majority of motors by means of four screws. The motor plate allows fast fastening of the motor on a drill stand. For this purpose the motor plate is set on a carriage.

The drill stand is designed only for electric, hydraulic and pneumatic motors with a power up to 3.5 kW.



The scheme of openings for motor installation

Make sure that the voltage from the socket corresponds to the voltage specified on the table of your machine.

Fix the motor and the water collector on a drill stand, using the lock on the carriage against return motion. The carriage shall move on a drill stand freely, but without play.

Set the crown and select the appropriate rotating speed.

Connect the water supply.

Attention: maximum pressure: 3 bars.

During the drilling work pay attention to have enough water for cooling. Use only clear water from a water supply system, by no means – dirty water or sewage.

Speed switching

Attention:



Never use force during switching speed. Switching is authorized only in case of a full stop of the machine.

If speed switches hard, it is recommended to turn motor shaft a little by hand until the speed switch can be switched. Use of additional tools (hammer) for switching of speeds is strictly forbidden!

Sliding sleeve (coupling)

If the protective sleeve works, it means that the motor is overloaded twice! The sleeve doesn't guarantee absolute protection, it is necessary therefore to drill with extra care. To spare a sleeve to make it last longer, sliding should not exceed 2 seconds. Only the professional mechanic can set up a sleeve.

Diamond drill bits

You can use any drill bits with a UNC 1 ¼ ". connection. When using other connections an adapter should be used.

For a longer life of the motor it is recommended to use crowns without deformations.



Attention:

Use of inappropriate tools is life-threatening!

Change of a diamond drill bit

The shaft of the motor has a right hand thread. Against turning of a shaft use SW32 key. Don't use hammer shocks to remove the drill bit from a shaft as it can damage the motor.

6.2 Fastening of drill stand

6.2.1 Expansion bolt (anchor)

For our range of drill stands: KDS-150, KDS-200, KF-250, KDS-XXL, BS-620, XXXL-600 we recommend our checked anchor. For this purpose contact us or our official representative. In addition to the reliable anchor you should understand the correct drilling and mounting technique. The errors made in case of mounting the system, lead to a reduction of the abilities of the system. In extreme cases it can happen that your anchor cannot cope with its task!

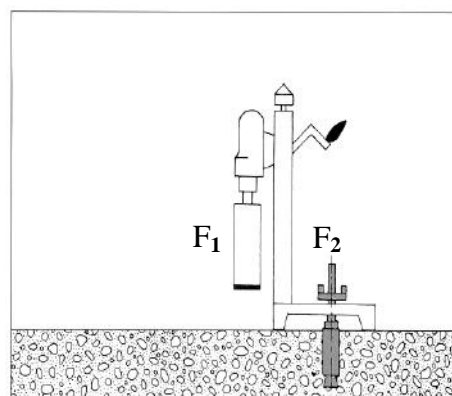
Attention:

- The opening for an anchor shall be drilled at a 90° angle to a steel foot of drill stand.
- Good cleaning of an opening is very important for the bearing capacity of the anchor.
- The opening should not be done through reinforcement.
- Length of an opening shall correspond to anchor's length.
- Pay attention to sufficient material thickness in which the anchor is fastened.
- Use the anchor with an inside diameter of a thread at least 12 mm
- Check the if the drill stand is securely fastening by hand.

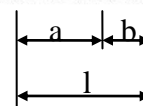
Observe the rules of operation provided on a building site.

Fastening of drill stand by means of the anchor

Calculation of load for the anchor



Example:



Pressure upon a drill bit : up to 250 N/cm²
(approx. 25 Kp/cm²)

The active surface of drilling by segments

Ø 107 mm	: 7,5 cm ²
Ø 162 mm	: 11,5 cm ²

The maximum pressure (F1)

Ø 107 mm	: 1.850 N (approx. 190 Kp)
Ø 162 mm	: 2.800 N (approx. 290 Kp)

Opposing force $F > F_2$

Calculation F_2 : $F_2 \times b = F_1 \times l$

$$\Rightarrow F_2 = F_1 \times (1 + a/b)$$

Conclusion: $F > F_2$ и $F_2 > F_1$

6.2.2 Fastening by means of the vacuum pump

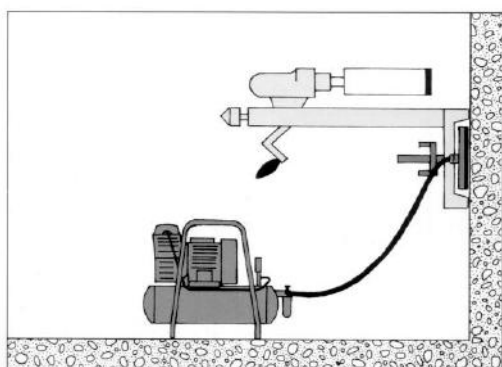
For our range of drill stands: KDS-150 and KDS-200

we recommend our checked vacuum pumps. For this purpose contact us or our official representative.

In addition to the reliable pump you shall understand drilling and mounting technique. In case the system is not correctly mounted, this may lead to a reduction of the abilities of the system.

In extreme cases it can lead to a lift-off of a steel foot of a drill stand from a surface of a material in which it is fixed!

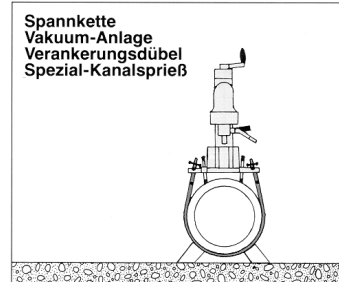
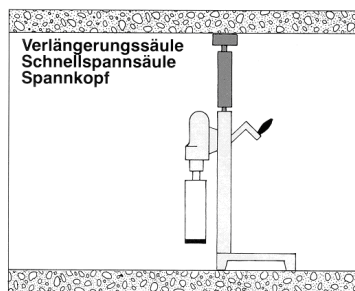
Fastening by means of vacuum:



- Pay attention that when the vacuum pump is being switched off, the drill stand can fall from the surface on which it is fixed. In this case there is an increased danger of injury!
- Drilling "over the head" with use of the vacuum pump is forbidden.
- Begin drilling only if the low pressure reaches 0.7 bars.
- Check reliability of fastening of system with the help of a hand.

6.2.3 Other options of fastening

- Fast-extensible support

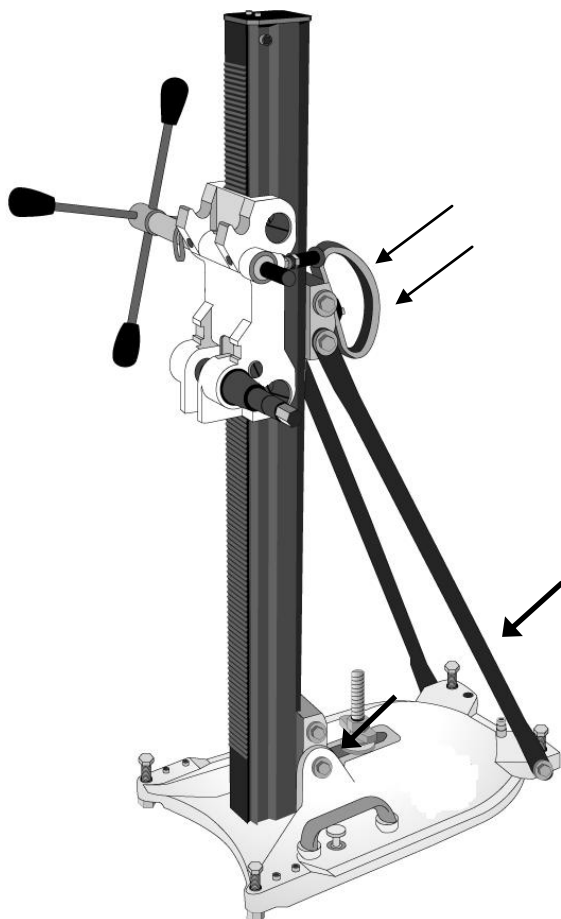


- Special belt

7. Management of system

7.1 Drilling with angle

For drilling with angle loosen the bolts (on the picture). **After having set up the angle tighten bolts securely.**



7.2 Drilling while using the water-collecting ring

In some cases (for example for safety) the use of a water-collecting ring with the appropriate fixing is recommended. This additional equipment can be acquired separately.

8. Maintenance

In addition to this instruction use operating instructions for motors, vacuum pumps, etc.

8.1 Installation of a carriage

- If a carriage moves on a stand with big effort or if it has a big play, it is necessary to make

an adjustment of the carriage by means of special screws.

- Carriage shall move parallelly in relation to a stand.

For this purpose it is necessary:

- Loosen the screws (pos. 414).
- Regulate screws (pos. 416) so, that a hand crank can be easily turned and a carriage moved parallelly along a stand.
- Fix screws (pos. 414).

In case of wear of sliders (pos. 415) they need to be replaced.

8.2 Maintenance

- Clean the drill stand (but do not lubricate)
- Check adjustment of the carriage

8.3 Technical care



Attention:

Before execution of maintenance draw out the plug from the power net.

8.3.1 A daily check

Check the motor for possible damages of the switch, the cable and the plug.

After operation you shall clean the motor. Lubricate with the motor shaft. Holes for air-input shall be always open. Pay attention that during cleaning no water will get to the motor.

8.3.2 After 150 working hours

After 150 working hours motor oil needs to be replaced.

8.3.3 After 250 working hours

Carbon brushes shall be checked by the electrician and if necessary be replaced. Use only original spare parts.

8.3.4 Once in three months

The cable, the switch and the plug shall be checked by the electrician (VBG4) and be documented.

9. Warranty

The available technical information of this manual can be changed without warning the user.

KERN-DEUDIAM doesn't have any responsibility concerning this manual.

In addition to this the KERN-DEUDIAM firm doesn't have responsibility for errors in the operation manual and in the specification of spare parts or for the damage connected to delivery, execution of services or application of materials.

The right to warranty service disappears in case the machine has been changed, non-original parts have been used or the machine has been incorrectly operated.

KERN-DEUDIAM doesn't have any responsibility for machines used by a third party or when the machine has not been regularly maintained.

Address:

KERN DEUDIAM Diamantwerkzeuge und Maschinen GmbH

Industriestrasse 24

D-33161 Hövelhof

Germany

Tel.: +49 5257- 507-0

Fax: +49 5257-507-40

info@kern-deudiam.de

www.kern-deudiam.de

Drehzahltable für Diamantbohrkronen

Umfangsgeschwindigkeit in m/s.						
Ø mm	1	2	3	4	5	6
10	1910	3820	5730	7639	9548	11459
15	1273	2546	3820	5093	6366	7639
20	955	1910	2865	3820	4775	5730
25	764	1528	2292	3056	3820	4584
30	637	1273	1910	2546	3183	3820
35	546	1091	1637	2183	2728	3274
40	477	955	1432	1910	2387	2865
50	382	764	1146	1528	1910	2292
60	318	637	955	1273	1592	1910
70	273	546	819	1091	1364	1637
80	239	477	716	955	1194	1432
90	212	424	637	849	1061	1273
100	191	382	573	764	955	1146
110	174	347	521	694	868	1042
120	159	318	477	637	796	955
130	147	294	441	588	735	881
140	136	273	409	546	682	819
150	127	255	382	509	637	764
160	119	239	358	477	597	716
170	112	225	337	449	562	674
180	106	212	318	424	531	637
190	101	201	302	402	503	603
200	95	191	286	382	477	573
225	85	170	255	340	424	509
250	76	153	229	306	382	458
275	69	139	208	278	347	417
300	64	127	191	255	318	382
325	59	118	176	235	294	353
350	55	109	164	218	273	327
400	48	95	143	191	239	286
450	42	85	127	170	212	255
500	38	76	115	153	191	229
550	35	69	104	139	174	208
600	32	64	95	127	159	191
650	29	59	88	118	147	176
700	27	55	82	109	136	164
750	25	51	76	102	127	153
800	24	48	72	95	119	143
850	22	45	67	90	112	135
900	21	42	64	85	106	127
950	20	40	60	80	101	121
1000	19	38	57	76	95	115
1100	17	35	52	69	87	104
1200	16	32	48	64	80	95
Drehzahl in Umdrehungen/Minute Der optimale Bohrbereich liegt bei einer Umfangsgeschwindigkeit von 3 bis 4 Meter/Sekunde.						

10. EU Declaration of Conformity in accordance with EU machine directive 2006/42/EG

We herewith declare that the following machine complies with the pertinent basic safety and health requirements of the EU machine directive as regards concept, design and the commercially available version. This declaration becomes null and void when any changes are made to the machine without our consultation and approval.

Producer:	KERN DEUDIAM Diamantwerkzeuge und Maschinen GmbH Industriestrasse 24, D-33161 Hövelhof, Germany
Designation of the machine:	Core drilling system
Machine type:	KDS-XXL-R & DK 32 (S)
Pertinent EU directives:	EU Machine Directive 2006/42/EG EU Low Voltage Directive 2006/95/EG EU Directive Electromagnetic Compatibility 2004/108/EG
Applied standardised standards, particularly:	EN 55014, EN 50082-2, EN 61000-3-2, EN 61000-3-3, EN12348, DK22 zusätzlich IEC 1029-1 und IEC 1029-2-6

EG-Konformitätserklärung im Sinne der EG-Maschinenrichtlinie 2006/42/EG

Hiermit erklären wir, dass die nachfolgend bezeichnete Maschine aufgrund ihrer Konzipierung und Bauart sowie in der von uns in Verkehr gebrachten Ausführung den einschlägigen grundlegenden Sicherheits- und Gesundheitsanforderungen der EG-Maschinenrichtlinie entspricht. Bei einer nicht mit uns abgestimmten Änderung der Maschine verliert diese Erklärung ihre Gültigkeit.

Hersteller:	KERN DEUDIAM Diamantwerkzeuge und Maschinen GmbH Industriestrasse 24, D-33161 Hövelhof, Germany
Bezeichnung der Maschine:	Bohrsystem
Maschinentyp:	KDS-XXL-R & DK 32 (S)
Einschlägige EG-Richtlinien:	EG-Maschinenrichtlinie 2006/42/EG EG-Niederspannungsrichtlinie 2006/95/EG EG-Richtlinie Elektromagnetische Verträglichkeit 2004/108/EG
Angewandte harmonisierte Normen, insbesondere:	EN 55014, EN 50082-2, EN 61000-3-2, EN 61000-3-3, EN 12348, DK22 in addition IEC 1029-1 and IEC 1029-2-6

Datum / Hersteller-Unterschrift:
Date / Manufacturer signature:

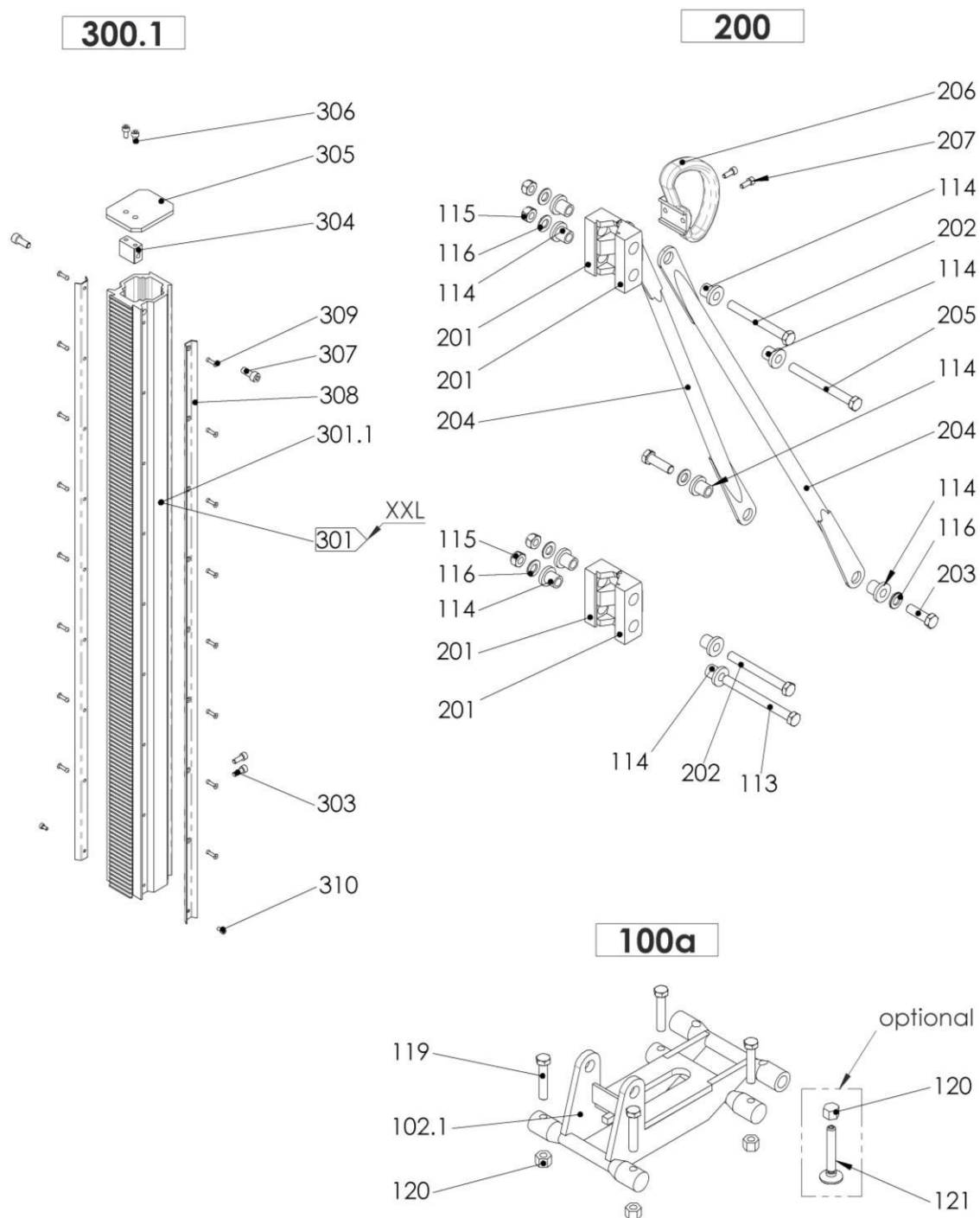
21.04.14



Angaben zum Unterzeichner:
Information about the signatory:

Geschäftsführer
General Manager

List of spare parts

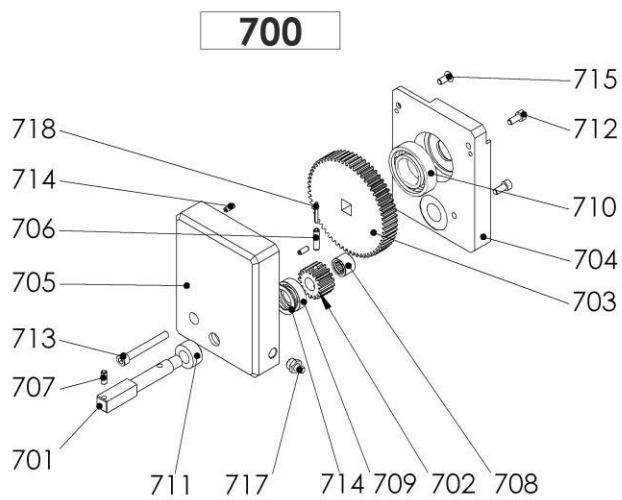
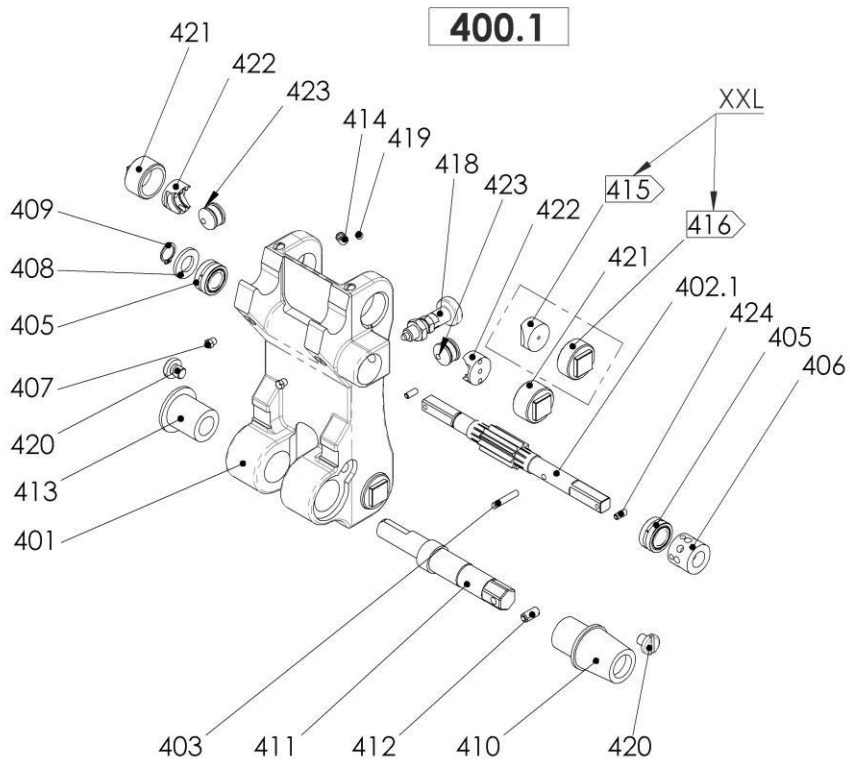
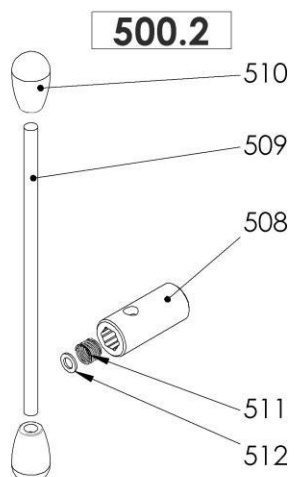
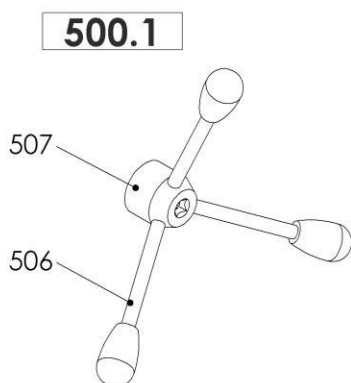
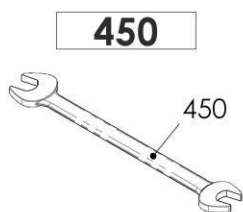
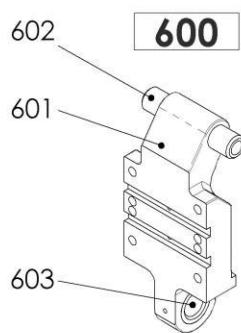


Stand (Säule)

pos.	article	article-nr.	quant.	remark
100a	Stahlgrundplatte	47874	1	
113	6kt-Schraube M12 x 120	47945	1	
114	Spannbuchse	47847	10	
115	Mutter M12	47946	4	
116	U-Scheibe	47947	6	
118	Schild	47969	1	
119	6kt- Schraube	14157	4	
120	Hutmutter	14922	4	
121	Gelenkstück	49454	4	optional

201	Spannklotz	47873	4	
202	6kt-Schraube M12 x 100	47948	2	
203	6kt-Schraube M12 x 40	47949	2	
204	Abstützung	47841	2	
205	6kt-Schraube M12 x 110	47951	1	
206	Tragegriff	47876	1	
207	Inbusschr. mit niedrigem Kopf M6x16	47952	2	

301	Bohrsäule für Gleiter	47844	1	XXL
301.1	Bohrsäule für Rollen	49064	1	
303	Inbusschraube M8 x 12	47954	2	
304	Klotz	47860	1	
305	Kopfplatte	47861	1	
306	Inbusschraube M6 x 10	47955	2	
307	Inbusschraube M8 x 20	47956	2	
308	Führungsschiene	48808	2	
309	Senk- Niet	48939	16	
310	Inbusschraube	13951	2	



Carriage (Vorschub)

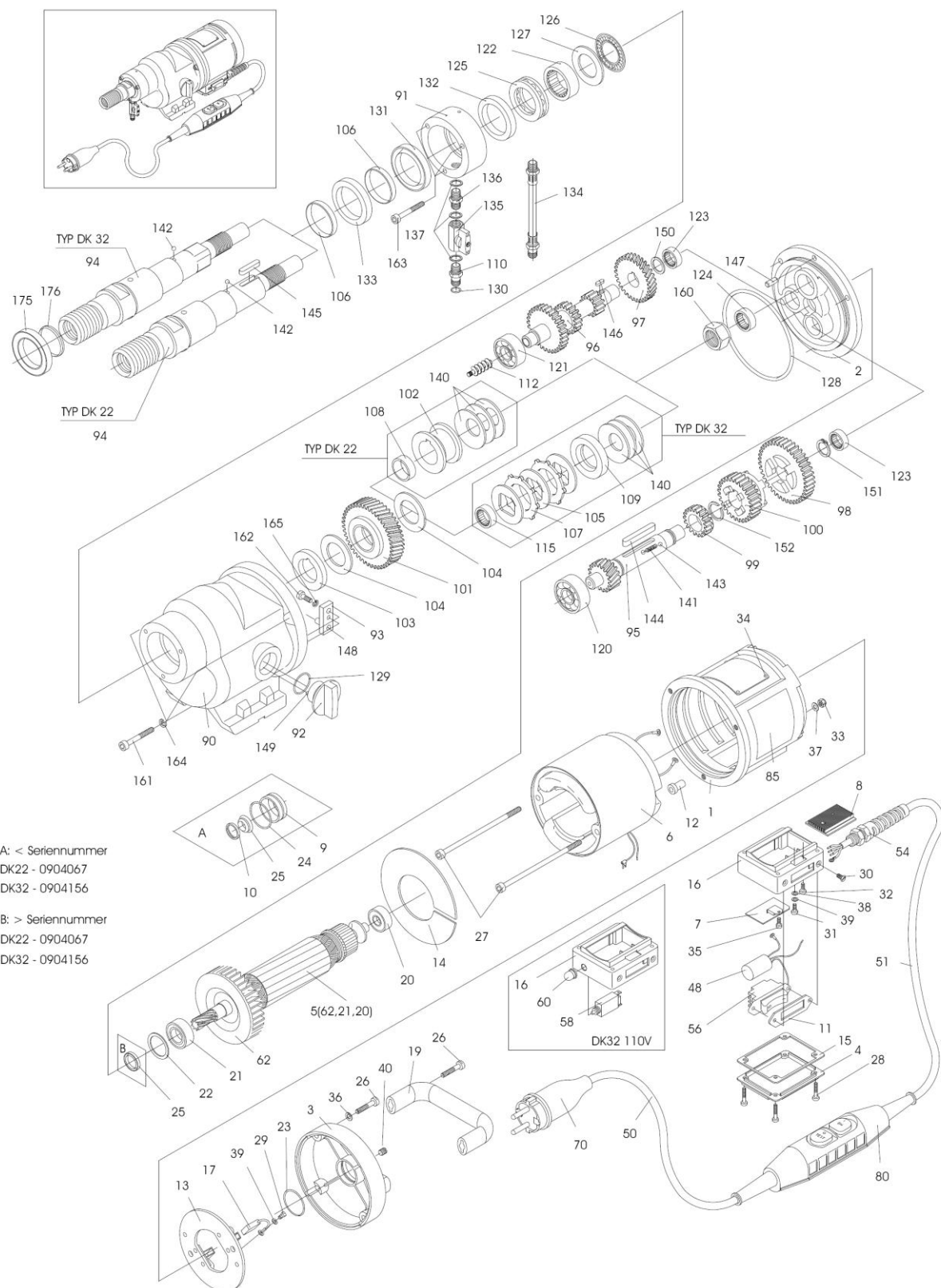
Pos.	Bezeichnung	Artikelnr.	Anz.	Bemerkung
400.1	Vorschubeinheit Rollen kompl.	49065	1	
401	Vorschubschlitten	47877	1	
402.1	Vorschubwelle vierkant	48835	1	
403	Zylinderstift 5 x 28 m6	47879	1	
405	Nadellager RNA 4902	47866	2	
406	Ring	47870	1	
407	Schmiernippel D1 M6	47872	2	
408	Abdeckscheibe	47840	1	
409	Sicherungsring 15mm	47958	1	
410	Buchse 1	47845	1	
411	Excenterwelle	47851	1	
412	Druckstück M8	47849	1	
413	Buchse 2	47846	1	
414	Gewindestift M 8 x 12	47884	4	
415	Gleitstück	47854	4	XXL
416	Justierschraube für Gleiter	47858	4	XXL
418	Rastbolzen	47869	1	
419	PE-Kugel	47868	4	
420	Arretierschraube	47843	2	
421	Justierschraube für Rollen	48811	4	
422	Druckstück	48813	4	
423	Führungsrolle	48815	4	
424	Druckstück M5	14248	2	
450	Ringmaulschlüssel SW 19	47959	1	
500.1	Drehkreuz kompl.	19513	1	
506	Nabe	16394	1	
507	Griffstange	16147	2	
500.2	Drehstange kompl.	49455	1	
508	Schwenknabe	49456	1	
509	Stange	49457	1	
510	Schaltknopf	49458	2	
511	Druckfeder	49459	1	
512	Scheibe	49460		
600	Motorplatte, kompl.	48555	1	
601	Motorplatte	47865	1	
602	Achse	47842	1	
603	Buchse	47848	1	

700	Vorschubgetriebe, kompl.	48485	1	
701	Antriebswelle vierkant	49003	1	
702	Antriebsritzel	48488	1	
703	Zahnrad	48895	1	
704	Deckel	48487	1	
705	Gehäuse	48486	1	
706	Spannstift	11578	1	
707	Druckstück	14248	1	
708	Nadellager	48491	1	
709	Rillenkugellager	49074	1	
710	Rillenkugellager	15142	1	
711	Stellring	42321	1	
712	Zylinderschraube	13952	2	
713	Zylinderschraube	13976	1	
714	Stützscheibe	14281	1	
715	Zylinderstift	11535	2	
716	Senkkopfschraube	14110	1	
717	Spannstift	11564	1	
718	Kegelschmiernippel	14262	1	

Accessories

Vakuum-Pumpe (80l/min)	45451
Vakuumschlauch 3,0m mit Kupplungen	20574
Vakuumsatz Typ LD-Deltadrill XXL	48038
Wassersammelringhalter	48136
Wassersammelring kpl. ø 130 mm	48134
Wassersammelring kpl. ø 250 mm	48135
Dichtkappe ø 130 mm	48103
Dichtkappe ø 250 mm	48104
Rädersatz	48127
Distanzstück (erweitert um 75 mm)	48117
Befestigungssatz XXL	48278

DIAMANT - KERNBOHRMASCHINE TYP DK 22 (L,S), DK 32



ERSATZTEILLISTE

E-DK2-3 101106

DIAMANT-KERNBOHRMASCHINE TYP DK 22 (L/S), DK32

POS	STCK	BENENNUNG	E.-TEILNR DK 32	E.-TEILNR DK 22(32)	POS	STCK	BENENNUNG	E.-TEILNR DK 32	E.-TEILNR DK 22(32)
1	1	Motorgehäuse		DK20101	90	1	Getriebegehäuse	DK30201	DK20201
2	1	Zwischendeckel	DK30102-1	DK20102-1	91	1	Wasseranschlussring		DK20202
3	1	Lagerkappe		DK20103	92	1	Schaltgriff		DK20203
4	1	Klemmkastendeckel		DK20106	93	1	Schalthebel	DK30205	DK20205
5	1	Anker mit Lüfter und Lager DK22		DK20108-1	94	1	Bohrspindel	DK30206	DK20206
	1	Anker mit Lüfter und Lager DK32		DK30108-1	95	1	Ritzelwelle	DK30207	DK20207
6	1	Magnetgehäuse kpl. DK22		DK20109	95	1	Ritzelwelle DK22L		DK20207L
	1	Magnetgehäuse kpl. DK32		DK30109		1	Ritzelwelle S	DK20207	DK20207S
7	1	Leiterplatte	DK30510	DK20510	96	1	Vorlegewelle	DK30208	DK20208
8	1	Kühlprofil		DK30140	97	1	Vorlegerad	DK30209	DK20209
11	1	Schalteerdichtung		DK20121	98	1	Losrad 1	DK30212	DK20212
12	2	Feldbolzenisolerhülse		DK20116	99	1	Losrad 3	DK30213	DK20213
13	1	Bürstenbrücke		DK20117	100	1	Schieberad	DK30214	DK20214
14	1	Luftleitscheibe		DK20118	101	1	Spindelrad	DK30215	DK20215
15	1	Klemmkastendichtung		DK40122		1	Spindelrad DK22L		DK20215L
16	1	Klemmkasten		DK30130		1	Spindelrad S	DK50215S	DK20215S
17	2	Kohlebürsten		DK20125	102	1	Druckhülse DK22		DK20216
19	1	Tragegriff		DK30105	103	1	Stützscheibe		DK20217
20	1	Rillenkugellager		6062012		1	Stützscheibe DK22S		DK40217
21	1	Rillenkugellager		6060021	104	2	Bremsscheibe A	DK30218	DK20218
22	1	Kugellagerausgleichscheibe		2632201	105	3	Druckscheibe DK32	DK30219	
23	1	O-Ring		4532003	106	2	Wellenschutzhülse		DK20210
25	1	Radial Wellendichtring		5012247	107	2	Bremsscheibe B DK32	DK30221	
26	4	Innensechskantschr.		0106035	108	1	Lagerhülse DK22		DK20220
27	2	Innensechskantschr.		0105120	109	1	Druckring DK32	DK30216	
28	4	Zylinderschraube		0204040	110	1	Stecknippel		DK20225
29	2	Zylinderschraube		0204006	112	1	Förderschnecke DK32	DK30230	
30	2	Senkschraube		0414006	115	1	Nadelkranz DK32	6326130	
31	1	Flachkopfschraube		0304006	120	1	Rillenkugellager 6302		6063020
32	1	Blech-Linsenschraube		0539095	121	1	Rillenkugellager 6201		6062010
33	2	Sechskantmutter		1005000	122	1	Nadellager		6330200
34	4	Kerbnagel		2223004	123	2	Nadelhülse		6314120
35	1	Linsenschraube Taptite M4x6		0504006	124	1	Nadelhülse		6320160
36	4	Sicherungsscheibe		1806000	125	1	Axialkugellager		6551106
37	2	Federscheibe		1805137	126	1	Axial-Nadelkranz		6530470
38	1	Federscheibe		1804137	127	1	Axiallagerscheibe		6530471
39	3	U-Scheibe		1804433	128	1	O-Ring		5510203
40	1	Gewindestift		0706005	129	1	O-Ring		5520003
48	1	Funkentstörkondensator		DK20133	130	1	O-Ring		5511025
50	1	Netzkabel (PRCD) 3G1,5x1,5		8715152	131	1	Wellendichtring		5040527
51	1	Netzkabel (PRCD) 3G1,5x2,3		8723152	132	1	Wellendichtring		5038507
	1	Netzkabel (CEE) 3G1,5x3,8		8738152	133	1	Wellendichtring		5040521
54	1	Kabelverschraubung		8804020	134	1	Schlauchstück		DK30235
56	1	Netzschalter		8023005	135	1	Kugelhahn mit Knebelgriff		7014001
62	1	Lüfter		DK20105		1	Knebelgriff m. Schraube		7014005
70	1	Netzstecker (für PRCD)		8016013	136	1	Doppelgewindenippel DK22		7014002
	1	Netzstecker (CEE)		8016001	137	3	Dichtring		7014003
80	1	PRCD Schutzschalter 30 mA		8400030	140	3	Tellerfeder		4045224
85	1	Hinweisschild		DK20620	141	1	Schraubendruckfeder		4305235
					142	1	Kugel		2205000
					143	2	Kugel		2204000
					144	1	Passfeder		3006045
					145	1	Passfeder DK22		3006030
					146	1	Passfeder		3004010
					147	1	Zylinderstift		2506010
					148	1	Zylinderstift		2506015
					149	1	Zylinderstift		2503016
					150	1	Passscheibe		1914201
					151	1	Sicherungsring		3516001
					152	1	Sprengring		3620000
					160	1	Sechskantmutter		1022015
					161	3	Innensechskantschr.		0106050
					162	1	Innensechskantschr.		0105012
					163	3	Innensechskantschr.		0105045
					164	3	Sicherungsscheibe		1806000
					165	1	Sicherungsscheibe		1805000
						1	Getriebeöl		9030001
					175	1	Antifriction-Element DK32		AE35
					176	2	O-Ring		5532015

Bitte geben Sie bei Ersatzteilbestellungen stets an:
 Maschinenummer, Stückzahl, Benennung,
 Ersatzteilnummer, und bei Elektroteilen die Nennspannung
 (wenn von 230 V abweichend).