

Test Verification of Conformity

Verification Number: 220400379SHA-V1

On the basis of the referenced test report(s), sample(s) tested of the below product have been found to comply with the standards harmonized with the directives listed on this verification at the time the tests were carried out. Other standards and Directives may be relevant to the product. This verification is part of the full test report(s) and should be read in conjunction with it <them>.

Once compliance with all product relevant  mark directives are verified, including any relevant e.g. risk assessment and production control, the manufacturer may indicate compliance by signing a Declaration of Conformity themselves and applying the mark to products identical to the tested sample(s).

Applicant Name & Address:	Positec Technology (China) Co., Ltd. 18, Dongwang Road, Suzhou Industrial Park, Jiangsu 215123, P. R. China
Manufacturing site Name & Address:	Jinhua China Phoenix Tools Co., Ltd. No.18 Huanglong 3rd road, Huanglong Industrial Park, Wuyi, Zhejiang, China
Product Description:	Rotary Hammer
Ratings & Principle Characteristics:	230-240V~, 50/60Hz, n ₀ : 0-1050/min, Class II WX337, WX337.*: 750W WX339, WX339.*: 800W
Models/Type References:	WX337, WX337.*, WX339, WX339.* (*=1-20 or A-Z)
Brand Name(s):	WORX
Standard(s)/Directive(s):	EN IEC 55014-1:2021 EN IEC 55014-2:2021 EN IEC 61000-3-2:2019+A1:2021 EN 61000-3-3:2013+A1:2019 the EMC directive(2014/30/EU)
Verification Issuing Office Name & Address:	Intertek Testing Services Shanghai Building No.86, 1198 Qinzhou Road (North), Shanghai 200233, China
Test Report Number(s):	170601591SHA-001+A1+A2



Signature

Name: Jonny Jing

Position: Operation Director

Date: May 7, 2022

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Positec Technology (China) Co., Ltd.

TEST REPORT

SCOPE OF WORK:

EMC directive (2014/30/EU) – EMC report

Model:

WX337, WX337.*, WX339, WX339.* (*=1-20 or A-Z)

REPORT NUMBER

170601591SHA-001/Amendment2

ISSUE DATE

May 7, 2022

DOCUMENT CONTROL NUMBER

TTRFamend_V1
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Report no. 170601591SHA-001/Amendment2

Applicant : Positec Technology (China) Co., Ltd.
18, Dongwang Road, Suzhou Industrial Park, Jiangsu 215123,
P.R.China

Manufacturer : Jinhua China Phoenix Tools Co., Ltd.
No.18 Huanglong 3rd road, Huanglong Industrial Park, Wuyi,
Zhejiang, China

Manufacturing site : Jinhua China Phoenix Tools Co., Ltd.
No.18 Huanglong 3rd road, Huanglong Industrial Park, Wuyi,
Zhejiang, China

Summary

The equipment complies with the requirements according to the following standard(s) or Specification:

***EN IEC 55014-1:2021:** Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus Part 1: Emission

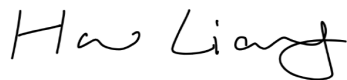
***EN IEC 55014-2:2021:** Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus Part 2: Immunity – Product family standard

***EN IEC 61000-3-2:2019+A1:2021:** Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current $\leq 16\text{A}$ per phase)

***EN 61000-3-3:2013+A1:2019:** Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current $\leq 16\text{A}$ per phase and not subject to conditional connection

PREPARED BY:

REVIEWED BY:



Hao Liang
Project Engineer



Andy Chen
Reviewer

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Product Description	: Rotary Hammer
Type/Model(s)	: WX337, WX337.*, WX339, WX339.* (*=1-20 or A-Z)
Rating(s)	: 230-240V~, 50/60Hz, n ₀ : 0-1050/min, Class II WX337, WX337.*: 750W WX339, WX339.*: 800W
Brand name	: WORX
Base testing laboratory	: Intertek Testing Services Shanghai
Amendment 2: The original test report ref. No. 170601591SHA-001 dated August 30, 2017, 170601591SHA-001+A1 dated September 7, 2019 issued by Intertek Testing Services Shanghai, were modified on May 7, 2022 to include the following additions and/or changes: (1) “*” means the standard has been updated by the new standards listed in this report, and there is no difference on this kind of products between the new standard and the old one. No additional testing is required accordingly. For further information see No. 170601591SHA-001, 170601591SHA-001+A1. This amendment test report should be read in conjunction with the based test report.	

Revision History

Report No.	Version	Description	Issued Date
170601591SHA-001/Amendment2	Rev. 01	Initial issue of report	May 7, 2022

Measurement result summary

TEST ITEM	TEST RESULT	NOTE
Mains terminal continuous disturbance voltage	Pass	
Mains terminal discontinuous disturbance voltage/click	NA	
Continuous disturbance power	Pass	
Radiated Emission ⁽¹⁾	Pass	
Harmonics	Pass	
Voltage fluctuation-Flicker	Pass	
Electrostatic Discharge (ESD)	NA	
RF electromagnetic field susceptibility	NA	
Electric Fast Transient /Burst (EFT/B)	NA	
Surge	NA	
Injected Current	NA	
Voltage dips and interruption	NA	

Notes:

1. The item(s) in "bold & italic" means the additional tests has been performed, and test result will be listed in the ANNEX of this amendment report.
2. NA=Not Applicable.
3. Determination of the test conclusion is based on IEC Guide 115 in consideration of measurement uncertainty.
4. Additions, Deviations and Exclusions from Standards: None.

⁽¹⁾ As for in the disturbance power test all emission readings from the EUT are lower than the applicable limits (Table 7) reduced by the margin (Table 8) and the maximum clock frequency is less than 30MHz, the EUT is deemed to comply with the Radiated Emission requirement without test.

END of the report

Test Verification of Conformity

Verification Number: 220803003SHA-V1

On the basis of the referenced test report(s), sample(s) tested of the below product have been found to comply with the standards harmonized with the directives listed on this verification at the time the tests were carried out. Other standards and Directives may be relevant to the product. This verification is part of the full test report(s) and should be read in conjunction with it <them>. This verification replaces previous verification dated: Aug. 18, 2017: 170601590SHA-V1.

Once compliance with all product relevant  mark directives are verified, including any relevant e.g. risk assessment and production control, the manufacturer may indicate compliance by signing a Declaration of Conformity themselves and applying the mark to products identical to the tested sample(s).

Applicant Name & Address:	Positec Technology (China) Co., Ltd. 18, Dongwang Road, Suzhou Industrial Park, Jiangsu 215123, P.R.China
Manufacturing Site Name & Address:	Jinhua China Phoenix Tools Co., Ltd. No.18 Huanglong 3rd road, Huanglong Industrial Park, Wuyi, Zhejiang, China
Product Description:	Rotary hammer
Ratings & Principle Characteristics:	230-240V~, 50/60Hz, no: 0-1050/min, Class II WX337, WX337.*: 750W; WX339, WX339.*: 800W.
Models/Type References:	WX337, WX337.*, WX339, WX339.* (*=1-20 or A-Z)
Brand Name:	WORX
Relevant Standards/Directives:	EN 62841-1:2015+AC:15 EN IEC 62841-2-6:2020+A11:2020 the Machinery Directive 2006/42/EC
Verification Issuing Office Name & Address:	Intertek Testing Services Shanghai Building No.86, 1198 Qinzhou Road (North), Shanghai 200233, China
Date of Tests:	Sep. 02, 2022 - Sep. 14, 2022
Test Report Number(s):	220803003SHA-001



Signature

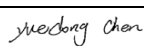
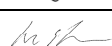
Name: Michael Shen

Position: Operation Manager

Date: Sep. 16, 2022

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TEST REPORT IEC 62841-2-6 Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery - Safety - Part 2-6: Particular requirements for hand-held hammers	
Report Number..... :	220803003SHA-001
Date of issue..... :	Sep. 14, 2022
Total number of pages	114 Pages
Name of Testing Laboratory preparing the Report	Intertek Testing Services Shanghai Limited. Building No.86, 1198 Qinzhou Road (North), Shanghai 200233, China
Applicant's name	Positec Technology (China) Co., Ltd.
Address..... :	18, Dongwang Road, Suzhou Industrial Park, Jiangsu 215123, P.R.China
Test specification:	
Standard	IEC 62841-2-6:2020 for use in conjunction with IEC 62841-1:2014
Test procedure	CE-MD
Non-standard test method	N/A
Test template used	IECEE OD-2020-F1:2021, Ed.1.4
Test Report Form No.	IEC62841_2_6A
Test Report Form(s) Originator	DEKRA Certification B.V.
Master TRF	2021-09-20
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This report is not valid as a CB Test Report unless signed by an approved IECEE Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.	
General disclaimer:	
The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing NCB. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.	

Test item description..... :	Rotary Hammer	
Trade Mark..... :	WORX	
Manufacturer	Same as applicant	
Model/Type reference	WX337, WX337.* , WX339, WX339.* (*=1-20 or A-Z)	
Ratings	230-240V~, 50/60Hz, n ₀ : 0-1050/min, Class II WX337, WX337.*: 750W WX339, WX339.*: 800W	
Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):		
☒	Testing Laboratory:	Intertek Testing Services Shanghai Limited.
Testing location/ address..... :		Building No.86, 1198 Qinzhou Road (North), Shanghai 200233, China
Tested by (name, function, signature)..... :		Yuedong Chen 
Approved by (name, function, signature).... :		Michael Shen 
☐	Testing procedure: CTF Stage 1:	
Testing location/ address..... :		
Tested by (name, function, signature)..... :		
Approved by (name, function, signature).... :		
☐	Testing procedure: CTF Stage 2:	
Testing location/ address..... :		
Tested by (name + signature)		
Witnessed by (name, function, signature) . :		
Approved by (name, function, signature).... :		
☐	Testing procedure: CTF Stage 3:	
☐	Testing procedure: CTF Stage 4:	
Testing location/ address..... :		
Tested by (name, function, signature)..... :		
Witnessed by (name, function, signature) . :		
Approved by (name, function, signature).... :		
Supervised by (name, function, signature) :		

List of Attachments (including a total number of pages in each attachment):

Attachment to test report IEC 62841-1 European group differences and National differences: Page 97 to page 104.

Attachment to test report IEC 62841-2-6 European group differences and National differences: Page 105 to page 107.

Photo document: Page 108 to page 114.

Summary of testing:

The submitted sample were tested and found to comply with the requirements of standard:

IEC 62841-2-6:2020 for use in conjunction with IEC 62841-1:2014.

EN IEC 62841-2-6:2020+A11:2020 to be used in conjunction with EN 62841-1:2015+AC:15.

Determination of the test conclusion is based on IEC Guide 115 in consideration of measurement uncertainty.

Tests performed (name of test and test clause):

Full test on WX339.

Testing location:

Intertek Testing Services Shanghai Limited.

Building No.86, 1198 Qinzhou Road (North), Shanghai 200233, China

Summary of compliance with National Differences (List of countries addressed):

EUROPEAN GROUP

☒ The product fulfils the requirements of EN IEC 62841-2-6:2020+A11:2020 to be used in conjunction with EN 62841-1:2015+AC:15.

Copy of marking plate:

For WX339, WX339.*:



For WX337, WX337.*:



Test item particulars.....:	
Category of equipment	Hand-held
Protection Class of tool	Class II
Method of supply cord attachment	Type X
Duty conditions.....	Normal
Type of operation.....	Normal
Degree of protection.....	IP20
Accessories and detachable parts included	Auxiliary handle, depth gauge
Other options included	N/A
Classification of installation and use.....:	
Supply Connection	Type X
.....	N/A
Possible test case verdicts:	
- test case does not apply to the test object..... : N/A	
- test object does meet the requirement..... : P (Pass)	
- test object does not meet the requirement..... : F (Fail)	
Testing.....:	
Date of receipt of test item	Sep. 02, 2022
Date (s) of performance of tests	Sep. 02, 2022 - Sep. 14, 2022
General remarks:	
"(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report. Throughout this report a ☒ comma / ☐ point is used as the decimal separator. Disclaimer: This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.	
Manufacturer's Declaration per sub-clause 4.2.5 of IEC 60335-1:	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided :	☐ Yes ☒ Not applicable
When differences exist, they shall be identified in the General product information section.	

Name and address of factory (ies) : Jinhua China Phoenix Tools Co., Ltd. No.18 Huanglong 3rd road, Huanglong Industrial Park, Wuyi, Zhejiang, China
General product information and other remarks: The product covered by this report is a hand-held electric motor-operated rotary hammer. WX339 is similar to WX337 except for the rated power input. WX339.* is similar to WX339 except for the different package and/or accessories. WX337.* is similar to WX337 except for the different package and/or accessories.
Description of Safety Critical Functions (SCF), if any: N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
5	GENERAL CONDITIONS FOR THE TESTS		P
5.1	General test conditions in this clause apply unless otherwise specified in this standard		P
5.2	Tests made on separate samples		P
	At manufacturer's discretion, fewer samples used		P
	Cumulative stress from successive tests on electronic circuits avoided		P
	Several tests conducted on a single sample, results not affected by previous tests.		P
5.3	Evident from construction of the tool that a particular test(s) not applicable, test(s) not made		N/A
5.4	Tests carried out with the tool and/or any movable part of it		P
	Tool placed in the most unfavourable position that may occur in normal use.		P
5.5	Tools provided with controls or switching devices and setting can be altered by the user, controls or devices adjusted to their most unfavourable settings		P
	Electronic speed control devices set at their highest speed		P
	Adjusting means accessible without the aid of a tool, this subclause applies whether the setting can be altered by hand or with the aid of a tool		P
	Adjusting means not accessible without the aid of a tool and setting is not intended to be altered by the user, this subclause does not apply		N/A
	Adequate sealing prevents alteration of setting by user		N/A
5.6	Tests conducted in a draught-free location, and unless otherwise specified, in $(20 \pm 5) ^\circ\text{C}$		P
	Tests conducted at $(23 \pm 2) ^\circ\text{C}$ due to temperature limited temperature sensitive device		P
5.7.1	Tools for a.c. only, tested with a.c. at rated frequency, if marked	a.c. only	P
	Tools marked for a.c./d.c., tested with the most unfavourable supply		N/A
	Tools for a.c. not marked with rated frequency, or marked 50-60 Hz or 50/60 Hz, tested with either 50 Hz or 60 Hz, whichever is the most unfavourable	50/60 Hz	P
	Tools with series motors only, either frequency may be used		P

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
5.7.2	Tool rated for more than one rated voltage or a voltage range, tested at the highest voltage (V)	230-240V~	P
5.7.3	Tools where there is no marked rated current , tests that require a value for rated current conducted at current measured rated input at the lowest rated voltage or the lower value of the rated voltage range		P
5.8	Alternative heating elements or attachments which are made available for the tool by manufacturer, tool is tested with those heating elements or attachments which give the most unfavourable results	No such device	N/A
5.9	Tools are tested with the specified flexible supply cord connected to the tool.		P
5.10	Parts of class I tool having accessible parts not connected to an earthing terminal or earthing contact, and not separated from live parts by an intermediate metal part connected to an earthing terminal/contact, were checked on class II construction requirements.		N/A
5.11	Class I tool or class II tool having parts operating at safety extra-low voltage, such parts on requirements specified for class III tools		N/A
5.12	When testing electronic circuits, supply is free from perturbations from external sources that can influence the results of the tests		P
5.13	Heating element, if any, cannot be operated unless the motor is running, element is tested with the motor running		N/A
	Heating element, if any, can be operated without the motor running, element is tested with or without the motor running, whichever is the more unfavourable		N/A
	Heating elements incorporated in the tool connected to a separate supply unless otherwise specified		N/A
5.14 M	For attachments performing a function within the scope of IEC 62841-2-6, tests made in accordance with IEC 62841-2-6		P
5.15	Method of torque loading chosen so as to avoid additional stresses, such as by side thrust.		P
	Additional loads necessary for the correct operation of the tool considered		N/A
	Brake used for loading, load applied gradually		P
	Modification of output means for purpose of loading permitted to allow connection to brake		P
5.16	Tools intended for SELV tested using a supply transformer intended to be used with the tool.		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
5.17	For requirements based on the mass of the tool, the mass is determined without supply cord and without tool bits or accessories, but with all equipment and attachments needed for normal use		P
M	Required accessories, equipment and attachments as given in the IEC 62841-2-6		P
	If tool has more accessories, equipment or attachments heaviest configuration shall be used to determine mass.		P
A	Mass of the tool includes auxiliary handle and all parts of any non-detachable dust extraction device		P
A	A detachable dust extraction device is not included in the mass of the tool		N/A
5.18	For linear and angular dimensions, ISO 2768-1, class "c" applicable, unless tolerances are specified		P
5.19	All electrical measurements made with a maximum measurement error of 5 %.		P
	Instruments for measuring voltage have input resistance $\geq 1 \text{ M}\Omega$ and parallel capacitance $\leq 150 \text{ pF}$.		P
5.20	Thermal equilibrium considered achieved when the total deviation of three successive temperature readings, taken at 3 min intervals, is $\leq 4 \text{ K}$		P
	Induction motor, measurement time of 1 hour is considered sufficient.		N/A

6	RADIATION, TOXICITY AND SIMILAR HAZARDS		P
6.1	No harmful radiation, no toxic or similar hazard		P
6.2	For tool with laser to indicate a cutting line or the like, laser class 2M or lower according to IEC 60825-1:2007.	No laser	N/A
	Tool marked with symbol(s) as in of IEC 60825-1: 2007 for the relevant laser class.		N/A
6.3	Tool fitted with non-coherent light sources, users of tools are cautioned as to the risk of potential photo-biological harm, if such harm exist		N/A
6.3.1	Visible light indicators (pilot lamps) and Infrared sources used for signalling and communication considered to have no risk of photo-biological harm, no marking required.		N/A
6.3.2	Tools emitting visible light from electroluminescent, incandescent or LED sources, considered to be for short term, non-general light services use where exposure is both incidental and intermittent		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Marked with either: – “CAUTION Do not stare at operating lamp”, or – symbol 60417-6041(2010-08)		N/A
	If no reasonable risk of harm, markings may be omitted		N/A
	No reasonable risk of harm considered, as either a) light emission at a distance of 200 mm along any direction of the tool < 500 Lux; or b) luminance light emission < 10 000 cd/m ² in the range of visible light; or c) light source (if not focused by external optics) is in Risk Group 1 or lower evaluated by the methods of IEC 62471; or d) tool itself evaluated by the methods of IEC 62471 and found to be in Risk Group 1 or lower.		N/A
6.3.3	For light derived by sources other than those mentioned in 6.3.2, product evaluated by the methods of IEC 62471, markings guided by 5.4 of IEC/TR 62471-2:2009.		N/A

7	CLASSIFICATION		P
7.1	Tool is Class I, II, or III with respect to protection against electric shock	Class II	P
7.2	Degree of protection against harmful ingress of water per IEC 60529	IP20	N/A
M	No degree of protection other than IPX0 specified in IEC 62841-2-6		–

8	MARKINGS AND INSTRUCTIONS		P
8.1	Tool marked with rated voltage(s) or rated voltage range(s) (V)	See copy of marking plate	P
	Tool for star-delta connection clearly marked with the two rated voltages (e.g. 230 Δ / 400 Y V)		N/A
	Tool complying with this standard for a voltage range, may be marked with any single voltage or smaller voltage range within that range (V)		P
	Symbol for nature of supply or rated frequency or frequency range. The symbol for nature of supply placed next to rated voltage (Hz)	See copy of marking plate	P
	Rated input or current marked (W or A)	See copy of marking plate	P

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Tool has alternative components to be selected by a control device, rated input or rated current is that corresponding to the highest rated input or rated current		N/A
	Class II symbol for class II tools	See copy of marking plate	P
	IP number other than IPX0		N/A
8.1.1	Tools with range of rated values (e.g. voltage, frequency) can be operated without adjustment over the range, marked with the lower and upper limits of the range separated by a hyphen, e.g. 115-230 V.:	See copy of marking plate	P
	Different rated values to be adjusted by the user / installer, tool marked with the these values separated by an oblique stroke, e.g. 115/230 V		N/A
8.1.2	Upper and lower limits of rated power input marked,		N/A
	unless difference between upper and lower limits of rated voltage range do not exceed 20 % of the mean value, in which case the rated input is related to mean value of voltage range.		P
8.2	Tool marked with - "WARNING – To reduce the risk of injury, user must read instruction manual", or - sign M002 of ISO 7010, or - appropriate symbol, see relevant part of IEC 62841-2, IEC 62841-3 or IEC 62841-4	sign M002 of ISO 7010	P
	"WARNING" in capital letters not less than 2,4 mm high, not separated from either the cautionary statement or the symbol ISO 7000-0434A or ISO 7000-0434B		N/A
	Statement verbatim except that "operator's manual" or "user guide" may replace "instruction manual".		N/A
	Additional symbols in accordance with ISO 7010 or designed in accordance with ISO 3864-2/3864-3. .:		P
	Cautionary statements having the same signal word such as "WARNING" may be combined into one paragraph under one signal word		N/A
M	Order of statements: markings required by Part 1, markings required by IEC 62841-2-6 and then any optional markings		P
8.3	Business name and address of manufacturer, at least country or state, city and postal code.....:	See copy of marking plate	P
	Business name and address of authorized representative, at least country or state, city and postal code		N/A
	Designation of the tool (may be coded)	See copy of marking plate	P

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Designation coded, code explained in the instructions		P
	Designation of series or type	See copy of marking plate	P
	Year of manufacture and a date code identifying at least the month of manufacture	See copy of marking plate	P
	Tools parts shipped separately for assembly by the end user, each part marked for identification on the part or the package		N/A
	"> 25 kg" if the mass of the tool is over 25 kg		N/A
	No misunderstanding through additional markings		P
8.4	Markings of 8.1 to 8.3 not on detachable part of the tool		P
	Markings of 8.2 and 8.3 clearly discernible from outside the tool		P
	Markings other than symbols, fold-over label on power cords used (Y or Z attachments only)		N/A
	Other markings may be visible after removing cover		N/A
	Indications for switches and controls placed on or in vicinity of components		P
	Not placed on parts which can be repositioned		P
	Not positioned such that the marking is misleading		P
8.5	Tool can be adjusted to suit different rated voltages, change in voltage clearly discernible		N/A
	Correct Wiring diagram fixed to tool, may be on inside of a cover but not on a label loosely attached to the tool		N/A
8.6	Use of correct units		P
	Use of correct symbols		P
	Additional symbols explained in the instructions, no misunderstanding		P
	Other units and their symbols belong to the international standardized system.		P
	Other units and their symbols same as international standardised system		P
8.7	Connection diagram affixed to tool with more than two supply conductors, unless terminals clearly identified		N/A
	The earthing conductor not a supply conductor		N/A
	Wiring diagram indicates how the windings are to be connected for tools for star-delta connection		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
8.8	Terminals, except for type Z attachments, marked on non-removable part with specified symbols:		N/A
	- Terminal exclusively for neutral connection marked with "N"		N/A
	- Earthing terminal marked with symbol IEC 60417-5019 (2006-08)		N/A
	The markings not placed on screws, removable washers or other parts which might be removed		N/A
8.9	Switches which may result in a hazard marked or placed to indicate which part of tool they control :	Indicate clearly	P
8.10	"Off" position of multi stable power switch indicated by figure O (symbol of IEC 60417-5008 [2002-10])	No such power switch	N/A
	A momentary power switch which can be locked in the "on" position is not considered as a multi -stable switch.		N/A
	Push-buttons for "off" function only, figure O used, button coloured red or black :		N/A
	Figure O not used for any other indication		N/A
	Transportable tools, power switch actuator or cover not coloured yellow and red as specified for emergency stop according to ISO 13850.	Hand-held	N/A
	Flap/cover covers only the start button, colour of the flap/cover not black, red or yellow :		N/A
	Flap/cover covers only the stop button, colour of the flap/cover red or yellow :		N/A
8.11	Control devices adjusted during operation and the like provided with markings as specified, unless...		N/A
	... fully "on" position opposite to "off" position		N/A
	Figures used for different positions with O for "off" position, and figures reflecting greater output for other positions..... :		N/A
	Indication for different positions placed on the device itself, or adjacent to the operating means		N/A
8.12	Markings easily legible		P
	Markings withstood durability test: - 15 s with water soaked cloth - 15 s with petroleum spirit soaked cloth		P
	Signs are in contrast to their background, clearly legible from a distance of not less than 500 mm		P
	Effect of normal use taken into account		P
	Adhesive backing durable, meets requirements of UL 969 or...	UL 969	P

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	... withstands specified tests	See tables 8.12 A - D	N/A
8.13	Thermal link or fuse-link, reference number or other means for identifying the link marked	No such device	N/A
8.14	Instruction manual and safety instructions: - are provided together with the tool		P
	- are noticed by the user when the tool is removed from the packaging		P
	- include an explanation of the symbols		P
	- are written in the official language(s) of the country in which the tool is sold	In English	P
	- are legible and contrast with the background.		P
	- include business name and address of the manufacturer and, where applicable, his authorised representative	See manual	P
M	- include the designation of the tool and series or type as required by 8.3, including description of machine such as "rotary hammer", "percussion hammer" etc.	See manual	P
8.14.1	Safety instructions in English are verbatim and in any other official language are equivalent		P
	The general power tool safety warnings may be separate from the instruction manual.		P
	Term "tool" or "power tool" not used for garden machinery; use term such as "machine"	Hand-held	N/A
	Format of all Safety Warnings differentiate the context of all clauses by font or similar means and as illustrated in 8.14.1.1		P
8.14.1 A	Additional safety instructions as specified in 8.14.1.101 are given		P
	Additional safety instructions printed together with or separately from the "General Power Tool Safety Warnings"	See manual	P
8.14.1.1	General Power Tool Safety Warnings		P
	1) Work Area Safety		P
	2) Electrical Safety		P
	3) Personal Safety		P
	4) Power Tool Use and Care		P
	5) Service		P
8.14.1.101. 1 A	Hammer safety warnings complete		P
	1) Safety instructions for all operations		P

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	2) Safety instructions when using long drill bits with rotary hammers		P
8.14.1.2 M	Order of the Safety Instructions in accordance with A): Part 1 warnings are followed by the relevant part of IEC 62841-2-6 warnings, or ...		P
M	... order of the Safety Instructions in accordance with B): IEC 62841-1 warnings and IEC 62841-2-6 warnings divided into the sections defined by the numbered subtitles and the associated warnings below the numbered subtitle		N/A
M	Format of instruction manual section titles for IEC 62841-2-6 warnings		N/A
M	C): Any additional warnings deemed necessary by the manufacturer, not inserted within any of the IEC 62841-2-6 warnings		P
8.14.1.3	Instruction manual and safety instructions in one common document, or		P
	Warning as specified included in manual		N/A
8.14.2	Additional instructions and information		P
	a) Instructions for putting into use		P
	b) Operating instructions		P
	c) Maintenance and servicing instructions		P
	d) Warnings and instructions for tools with a liquid system	No such device	N/A
101) A	For tools with a maximum output torque > 100 Nm as per clause 19.102: instructions on how to brace the tool		N/A
102) A	Instructions for assembling any attachments supplied with the tool		P
103) A	For tools provided with a dust extraction device: instruction on how to collect the dust		N/A
104) A	For tools with detachable dust collection device: information on which dust collection device may be used		N/A
8.14.3	Information about the mass or weight of the tool, if any, is the mass specified in 5.17.		P
9	PROTECTION AGAINST ACCESS TO LIVE PARTS		P
9.1	Tools so constructed and enclosed that there is adequate protection against accidental contact with live parts, even after removal of detachable parts and soft materials		P
9.2	Accessible part not considered live if it is:		N/A
	- supplied with SELV		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	- or separated from live parts by protective impedance, d.c. current not exceeding 2 mA		N/A
	- or separated from live parts by protective impedance, a.c. peak value not exceeding 0.7 mA		N/A
	- for peak value 42.4 V up to and including 450 V capacitance not exceeding 0.1 μ F		N/A
	- for peak value 450 V up to and including 15 kV discharge not exceeding 45 μ F		N/A
9.3	Lamps located behind a detachable cover are not removed		N/A
	Protection against contact with live parts of the lamp cap ensured during insertion or removal of lamps located behind a detachable cover		N/A
	Test probe B of IEC 61032:1997 applied with a force of ≤ 5 N		P
	Opening does not allow entry of test probe B of IEC 61032:1997, rigid test probe applied with a force of 20 N		P
	Test with probe B of IEC 61032:1997 repeated		P
	Test probe does not touch live parts or live parts protected only by lacquer, enamel, ordinary paper, cotton, oxide film, beads or sealing compound		P
9.4	Test probe 13 of IEC 61032:1997 applied with a force ≤ 5 N through openings in class II tools and class II constructions		P
	Exception: openings giving access to lamp caps and live parts in socket-outlets		N/A
	Test probe is also applied through openings in earthed metal enclosures having a non-conductive coating such as enamel or lacquer.		N/A
	Not be possible to touch live parts with the test probe		P
9.5	Class II tools and class II constructions, adequate protection against accidental contact with basic insulation and metal parts separated from live parts by basic insulation only		P
	Parts not separated from live parts by double or reinforced insulation are not accessible		P
	Probe B of IEC 61032:1997 cannot contact basic insulation through openings in Class II tools or Class II constructions		P
10	STARTING		P
10.1	Motors start under normal voltage conditions		P

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Starting ten times at 0.85 times rated voltage without load (V)	0,85x230V=195,5V, 10 times	P
	Starting ten times at 1.1 times rated voltage without load (V)	1,1x240V=254,4V, 10 times	P
	Tool operated and overload protection devices incorporated in the tool did not activate.	No protection device	N/A
	Centrifugal and other automatic starting switches operate reliably and without contact chattering		N/A
10.2	Input current drawn at (2,0 ±0,2) s after starting does not exceed 30 A...	<30A	P
	... or 4 times the rated current of the tool		N/A
11	INPUT AND CURRENT		P
	Marked power input or current is at least 110% of measured no-load input or current	See Table 11	P
	Tool marked with more than one rated voltage, test made at each rated voltage		N/A
	Tools marked with one or more rated voltage ranges, test made at both the upper and lower limits of the ranges		P
	Marking of the rated input is related to the mean value of the relevant voltage range, test is made at a voltage equal to the mean value of that range.....		P

12	HEATING		P
12.1	No excessive temperatures attained at rated input or rated current		P
	Temperature rise determined according to Clauses 12.2 to 12.5		P
	Test of Clause C.3 at 1,06 times the rated voltage under heated conditions	See Table C.3A	P
12.2	Tool is operated at each rated voltage; load conditions as specified in 12.2.1; torque applied is measured and maintained; voltage is then adjusted to 0,94 times and 1,06 times the rated voltage		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Tool with a rated voltage range is operated at - the lower limit of the rated voltage range; conditions as specified in 12.2.1; torque applied is measured and maintained; voltage is then adjusted to 0,94 times the lower limit of the rated voltage range - the upper limit of the rated voltage range; conditions as specified in 12.2.1; torque applied is measured and maintained; voltage is then adjusted to 1,06 times the upper limit of the rated voltage range		P
	Temperatures are measured at the most unfavourable of the voltage settings used		P
	Temperatures measured by means of thermocouples are taken while the tool is operating		P
12.2.1	The tool is operated intermittently for 30 cycles or ...		P
R	... until thermal equilibrium is reached, whichever is achieved first		N/A
R	Cycles of 30 s continuous operation of and 90 s rest period		P
R	Tool loaded to attain rated input or rated current		P
12.3.1	Heating elements, if any, are operated under the conditions specified in Clause 11 of IEC 60335-1:2010; tool was operated at 1,06 times the rated voltage		N/A
12.3.2	Tool provided with automatic cord reel, one third of the total length of the cord was unreeled		N/A
12.3.2	Temperature rise was determined near to the hub of the reel and between the two outermost layers of the cord on the reel		N/A
	Cord storage devices, other than automatic cord reels, intended to accommodate the supply cord partially while the tool is in operation, 50 cm of the cord is unwound		N/A
	The temperature rise of the stored part of the cord is determined at the most unfavourable place.		N/A
12.4	Temperature rises, other than those of windings, determined using thermocouples chosen and positioned to have the minimum effect on the temperature of the part tested		P
	Temperature rise of electrical insulation, other than windings, measured on surface of insulation		P
	When possible, temperature rises of windings determined by resistance method		P

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	For handles, knobs, grips and the like, all parts considered which are gripped in normal use, and, if of insulating material, to those parts in contact with hot metal		P
12.5	Temperature rises did not exceed values in Tables 1a and 1b, except as allowed by 12.6		P
	Protective devices did not operate	No such devices	N/A
	Sealing compounds did not flow	No sealing compounds	N/A
A	Temperature-rise limit for the external enclosure applicable to the enclosure of the impact mechanism		P
12.6	When winding temperatures exceeded values in Table 1, three additional samples successfully subjected to following tests:		N/A
	a) Heat treatment for 240 h at the specified cabinet temperature (°C):		N/A
	b) No interturn short circuit after oven treatment		N/A
	c) Humidity treatment in accordance with 14.1		N/A
	d) Tests of Annex D	See Table D.2	N/A

13	RESISTANCE TO HEAT AND FIRE		P
13.1	Relevant parts sufficiently resistant to distortion due to heat		P
	Parts of thermoplastic material: - provided as enclosure to comply with Clause 9, - supporting current carrying parts, - providing supplementary or reinforced insulation, sufficiently resistant to distortion due to heat		P
	Relevant parts subjected to ball-pressure test acc. to IEC 60695-10-2	See Table 13.1	P
13.2	Part of non-metallic material, except as listed in this clause, resistant to ignition and spread of fire		P
	Parts of non-metallic material other than - material classified at least HB40 per IEC 60695-11-10:2013, provided test sample not thicker than relevant part, - material with a glow wire ignition temperature of at least 575 °C per IEC 60695-2-13:2010, provided that the test sample was no thicker than the relevant part, comply with glow-wire test of IEC 60695-2-11:2000 at 550 °C	See Table 13.2	P
	Soft, foamy, and similar materials which cannot be subjected to glow wire test complies with ISO 9772:2012 for category HBF material with test sample not thicker than relevant part		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
14	MOISTURE RESISTANCE		P
14.1	Tools are proof against likely humid conditions		P
	Tool subjected to humidity treatment test for 48 h		P
	Relative humidity (93 ± 2) %..... :	93%	P
	Temperature (20...30 °C) maintained at $\pm 1K$:	25°C	P
	Samples pre-conditioned to between t and t + 4 °C:		P
	No excessive leakage after humidity treatment..... :	See Table C.2A	P
	No flashover or breakdown occurred during test of Annex D after humidity treatment..... :	See Table D.2	P
	No flashover or breakdown occurred during additional test of D.2 between accessible metal parts and supply cord wrapped with metal foil :	See Table D.2	P
14.2	Degree of protection for tool enclosure according to tool classification (IP Code) :	IP20	N/A
14.2.1	Tool not connected to the supply and turned continuously through most unfavourable positions		N/A
	Removable parts are removed and subjected to the relevant treatment with the main part..... :		N/A
14.2.2	Tool rated IPX1 through IPX7 subjected to applicable tests of IEC 60529:2013		N/A
	For IPX7 test, tool immersed in water containing 1,0 % NaCl		N/A
	Tool withstood electric strength test of Annex D after moisture treatment	See Table D.2	N/A
	No trace of water on insulation causing reduction of creepage and clearance below values in 28.1		N/A
14.3	No increased risk of electrical shock from liquid systems or spillage of liquid	No liquid system	N/A
	Residual current device is disabled		N/A
	Removable parts, except those fulfilling the test of 21.22., are removed		N/A
	Tool prepared as described in 8.14.2		N/A
	Liquid container filled, then 15% or 0,25 l added..... :		N/A
	Detachable liquid container mounted and dismantled 10 times		N/A
	No excessive leakage..... :	See Table C.3B	N/A
	No flashover or breakdown occurred during test of D.2 between live parts and accessible parts after drying for 24 h at ambient temperature..... :	See Table D.2A	N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
14.4	No increased risk of electrical shock from liquid systems under pressure during operation		N/A
	Residual current device is disabled		N/A
	Liquid system is subject to a hydrostatic pressure equal to twice the pressure stated in 8.14.2 d) 1) is applied for 1 h with 1,0 % NaCl solution		N/A
	Tool did not exceed maximum allowable leakage current during pressure application	See Table C.2B	N/A
	No flashover or breakdown occurred during test of D.2 between live parts and accessible parts after drying for 24 h at ambient temperature..... :	See Table D.2	N/A
14.5	Residual current devices complied with IEC 61540:1999 and met requirements a) to c)		N/A
	a) RCD disconnected only both mains conductors when leakage exceeded 10 mA with a maximum response of 300 ms		N/A
	Test conducted according to 9.9.2 of IEC 61540:1999, and earthing conductor stayed connected		N/A
	b) RCD operated correctly for all 50 cycles		N/A
	c) RCD cannot be removed during use or routine normal maintenance (i.e., residual current device fixed to tool or power supply cord connected to tool)		N/A
	RCD fitted in supply cord provided with Type Y or Z attachment for connection to supply cord and interconnection cord		N/A

15	RESISTANCE TO RUSTING		P
15.1	Ferrous parts adequately protected against rusting		P
	Parts used to conduct electricity subjected to test.. :	Motor, plug, shaft, ect.	—
M	Any mechanical parts mechanical parts subjected to test..... :	Screw, gear box, ect.	—
	All grease removed from the parts to be tested by immersing them in a degreasing agent for 10 min		P
	Parts were immersed for 10 min in a 10 % solution of ammonium chloride in water at (20 ± 5) °C		P
	Without drying, all drops shaken off, and parts placed for 10 min in a box containing air saturated with moisture at (20 ± 5) °C		P
	After parts dried for 10 min in a heating cabinet at (100 ± 5) °C, no evidence of rust on surfaces		P
	Small helical springs and the like and parts exposed to abrasion covered by a layer of grease		P

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
16	OVERLOAD PROTECTION OF TRANSFORMERS AND ASSOCIATED CIRCUITS		N/A
16.1	No excessive temperatures occurred during short circuit in transformer or circuits associated with it for a tool supplied from a transformer..... :	No such device	N/A
	Insulation on conductors of SELV circuits was within 15 K of Table 1		N/A
	Temperature of transformer windings did not exceed values in Table 3		N/A
	Transformer complies with IEC 61558-1		N/A
	Power limited by (short-circuit protective device) ... :		—

17	ENDURANCE		P
17.1	Construction prevents electrical or mechanical failures that might impair compliance with this standard.		P
	Insulation not damaged		P
	Connections did not work loose		P
	Overload protection devices did not activate	No such devices	N/A
	No flashover or breakdown occurred during test of Annex D, test voltages reduced to 75 per cent, after tests of 17.2 and 17.3	See Table D.2	P
17.2	Rotary hammers with “drill only mode” are operated with no load for 12 h at 1,1 times (highest) rated voltage and for 12 h at 0,9 times (lowest) rated voltage	240V×1,1=264V 230V×0,9=207V	P
	R Speed is adjusted to the highest value of the highest range	At highest speed	P
	R 100s “on” and 20s “off”		P
	R Three different positions		P
	R 4h for each position		P
	R All hammers are mounted vertically in a test apparatus (Figure 101), and are operated for four periods of 6 h each at rated voltage		P
	R For rotary hammers with drill only mode, the impact mechanism is engaged		P
	R The hammers are operated intermittently 30s “on” and 90s “off”		P
	R Servicing of carbon brushes and lubricant		N/A
	R Replacement of impact mechanism is allowed		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
R	Forced cooling is allowed if temperature rise of any part of the tool exceeds the temperature rise determined during the test of 12.1		N/A
R	No operation of overload protection devices	No such devices	N/A
17.3	Tools with Centrifugal switches operated for 10,000 cycles		N/A
	Number of operations under normal load		N/A
	Rate of operations (s "on", s "off")		N/A
	Test voltage 0.9 x rated Voltage (V).....		N/A

18	ABNORMAL OPERATION		P
18.1	Risk of fire and mechanical damage impairing - safety and - the protection against electric shock as a result of abnormal operation is obviated as far as is practicable.		P
18.1.1	Tool did not emit flames or molten metal		P
	Compliance with Clause 9 maintained		P
	No flashover or breakdown occurred during test of Annex D between live parts and accessible parts after tests of clause 18	See Table D.2	P
	Tool still operable and continues to comply with 19.1 but without repeating the tests of Clause 20	Unable to operate	N/A
18.2	Fuses, thermal cut-outs, overcurrent protection devices used to provide the necessary protection		N/A
	Electronic circuits relied upon for protection evaluated for this safety critical function as in clause 18.8.		N/A
18.3	Tool with series motor operated without accessories at no load for 1 min at 1,3 times rated voltage, or upper limit of voltage range (V)	1,3x240V=312V, 1min	—
	No parts were ejected from the tool		P
	Speed limiting device operated	No such device	—
18.4	Tools with multiphase motor tested, started from cold, with one phase disconnected, and under the torque produced while operated at rated voltage or the mean value of the rated voltage range with rated input or rated current - for 30 s tests for tool kept switched on by hand or continuously loaded by hand - for 5 min test for other tools.....	Series motor	N/A
	30 s tests for tool kept switched on by hand or continuously loaded by hand		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	5 min test for other tools		N/A
	After the test, or at the instant of operation of fuses, thermal cut-outs, motor protection devices and the like, the temperature of the windings complied with the limits in Table 3		N/A
	Max winding temperature recorded (°C)		—
18.5	Class I tool with class II construction and class II tool subjected to running overload conditions	Class II	P
	Tools with series motor, test of 18.5.1		P
	Class I tool with class II armature test of 18.5.2 instead of 18.5.1		N/A
	Tool with electronically commutated stator windings, test 18.5.4		N/A
	Tool with other motor, test of 18.5.3		N/A
	Lawn and garden machinery, test as specified in relevant part of IEC 62841-4	Hand-held	N/A
18.5.1	All fuses, thermal cut-outs, overload protectors and the like that are accessible or can be reset by the user without the aid of a tool and any self-resetting protective devices were shorted		N/A
	Functions of electronic circuits that prevent the tool from operating at 160 % rated current disabled		N/A
	Functions of electronic circuits that prevent the tool from operating at 160 % rated evaluated as safety critical functions as in 18.8.		N/A
	Test circuit minimum 12 kVA	15KVA	P
	Leakage current between live parts and accessible parts measured as in Clause C.3 did not exceed 2 mA throughout the test and until stabilization afterwards.....	See Table C.3C	P
	Tool operated for 15 min, or until the tool open-circuited, or flame appeared	Flame appeared	P
	160% rated test current (A)	5,92	—
	Tool operated at rated voltage (V)	230V	—
	Overload condition existed for (_min, _sec)	9min18sec	—
	Condition continued until the tool open-circuited, or flame appeared or 15 minutes expired	Flame appeared	P
	Elements that opened in case an open circuit occurred		N/A
	When flames appeared, extinguished by CO ₂ extinguisher		P

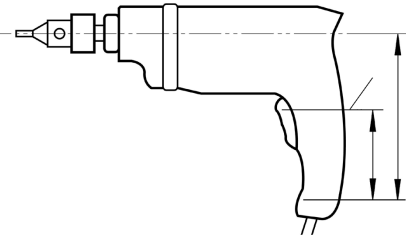
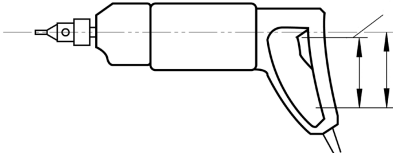
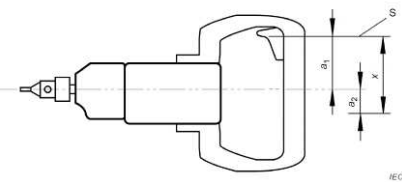
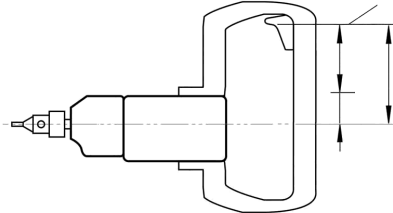
IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Tool did not operate after 15 min, cooled to ambient temperature and subjected to test of D.2 at 1500 V between live parts and accessible parts	See Table D.2	P
	Tool still operated after 15 min, cooled to ambient temperature and subjected to test of D.2 at 2500 V between live parts and accessible parts	See Table D.2	N/A
	Tool permanently open-circuited due to over temperature condition (except opening of a motor winding), test repeated.		N/A
	Non-self-resetting thermal limit function of an electronic circuit bypassed or evaluated as a safety critical function in 18.8.		N/A
	Tool permanently open-circuited for reasons other than above, the cause is determined and bypassed in a new sample, test repeated		N/A
18.5.2	Test circuit minimum 12 kVA applied to armature .. :		N/A
	Leakage current between commutator segments and the armature shaft measured did not exceed 2 mA throughout the test and until stabilization afterwards..... :		N/A
	1,06 times rated voltage (V) applied between opposite commutator segments		—
	160% rated test current (A)		—
	Current applied for 15 min, or until the armature open-circuited, or flame appeared		N/A
	When flames appeared, extinguished by CO ₂ extinguisher		N/A
	Armature cooled to ambient temperature and subjected to test of D.2 at 1500 V between commutator segments and the armature shaft	See Table D.2	N/A
18.5.3	Test circuit minimum 12 kVA..... :		N/A
	Tool stalled, capacitors in circuit of auxiliary windings are open-circuited		N/A
	Test repeated with capacitors short-circuited one at a time unless they are of class P2 of IEC 60252-1		N/A
	Operated at rated voltage (V)..... :		—
	Test duration (min, s)		—
	Temperature of the windings did not exceed the relevant value specified in Table 3		N/A
	Conditions of 18.1.1 fulfilled		N/A
18.5.4	Motors with electronically commutated stator windings, all possible static faults of the outputs of the motor drive circuitry considered		N/A

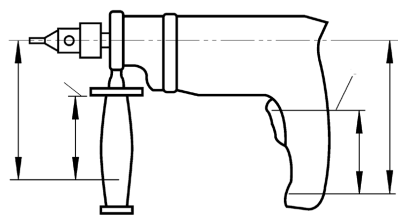
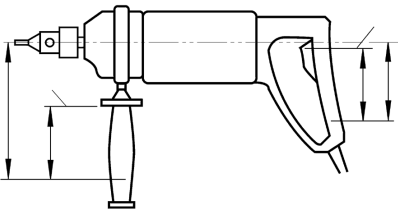
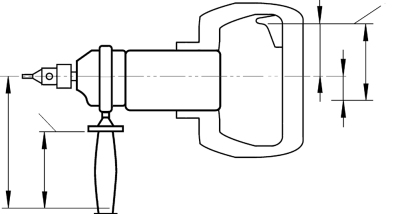
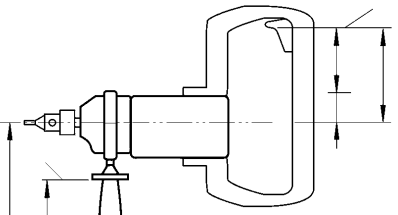
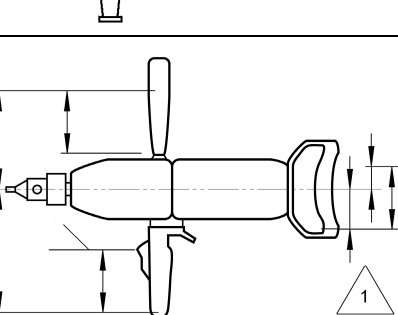
IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Protective function prevent these faults evaluated as an SCF according to 18.8 with minimum PL = a :		N/A
	All fuses, thermal cut-outs, overload protectors and the like that are accessible or can be reset by the user without the aid of a tool and any self-resetting protective devices were shorted		N/A
	Leakage current between live parts and accessible parts measured as in Clause C.3 did not exceed 2 mA throughout the test and until stabilization afterwards..... :	See Table C.3D	N/A
	Voltage applied for 15 min, or until the armature open-circuited, or flame appeared :		N/A
	Source voltage of the motor drive circuitry..... :		N/A
	When flames appeared, extinguished by CO ₂ extinguisher		N/A
	Any motor windings open-circuited after 15 min, motor cooled to ambient temperature and subjected to test of D.2 at 1500 V between live parts and accessible parts	See Table D.2	N/A
	No motor windings open-circuited after 15 min, motor cooled to ambient temperature and subjected to test of D.2 at 2500 V between live parts and accessible parts	See Table D.2	N/A
18.6	No hazards from electric shock, fire or accessible moving parts occurred under fault conditions of 18.6.1		P
	Tool operated at rated voltage (V) :	240V~	—
	No charring or burning of the gauze or tissue paper occurred		P
	Protection against electric shock as in Clause 9 maintained		P
	Protection against accessibility to moving parts as in 19.1 maintained		P
	Evaluation not performed for low power circuits as in Annex H if no SCF can be lost..... :		N/A
	Circuit encapsulated with an insulating material with a minimum thickness of 0,5 mm and no SCF can be lost, circuit evaluated by open-circuiting and short-circuiting within the encapsulated circuit..... :		N/A
	Fuses, thermal cut-outs, thermal links, temperature limiters, electronic devices or any components or conductors operated, and		N/A
	– test repeated twice, using two more samples; or		N/A
	– tool withstands test of 18.6.1 with the fuse, thermal cut-out or thermal link bridged; or		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	–miniature fuse link complying with IEC 60127 operates and tool withstands test of 18.6.2		N/A
	Tool withstood the particular test as a conductor of a PCB open-circuited, and		N/A
	– creepage or clearances between live parts and accessible metal parts not reduced below values in 28 due to loosened conductors, and		N/A
	– tool withstood repeated tests with the open-circuited conductor bridged, or		N/A
	– test repeated twice, using two more samples		N/A
18.6.1	Fault conditions a) to f) conducted as applicable	See Table 18.6.1	P
18.6.2	Tests repeated with fuse-link replaced by an ammeter when during fault conditions of 18.6.1, safety of the tool depended on operation of a miniature fuse-link complying with IEC 60127-3,		N/A
	– Circuit not considered to be adequately protected when current measured was ≤ 2.1 times the rated current of fuse-link, and test conducted with fuse-link short-circuited (A)..... :		N/A
	– Circuit considered adequately protected when current measured was ≥ 2.75 times the rated current of fuse-link (A) :		N/A
	– Fuse-link short-circuited when current measured was 2.1-2.75 times the rated current of fuse-link, and test conducted as follows (A)..... :		N/A
18.7	Switches and devices for motor reversal withstood stresses occurring when rotation reversed 25 times under running conditions at rated voltage at no-load (V)..... :	240V~, 25 times	P
18.8	Electronic circuits providing safety critical functions (SCF)		—
18.8.1	Electronic circuits providing SCF are reliable and not susceptible to loss of SCF due to electro-magnetic environmental stresses		N/A
	No SCF lost after tests of 18.8.2 to 18.8.6 for circuits with no internal clock frequency or oscillator frequency > 15 MHz		N/A
	No SCF lost after tests of 18.8.2 to 18.8.7 for other electronic circuits		N/A
	Test voltage was rated voltage or the mean value of the rated voltage range..... :		N/A
	Difference between upper and lower limit of rated voltage range > 20 % of its mean value, test at both upper and lower limits of the rated voltage range... :		N/A
	After evaluation using 18.6.1, no loss of any SCF or tool in a safe state under any present fault condition.		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Concept of 18.6.1 not appropriate, reliability evaluated using ISO 13849-1.		N/A
	Required performance levels	See Table 18.8.1A	N/A
	If only MTTF _d is applied to achieve the required PL: MTTF _d is 5/20/50 years for PL = a/b/c		N/A
	Software used in circuits of programmable devices whose failure would create loss of safety critical function, complied with software class B requirements as in H.11.12.3 of IEC 60730-1:2010	See Table 18.8.1B	N/A
	In the case where software class B is realized by single channel with periodic self-test, an acceptable period is regarded as either after each activation of the power switch or a maximum of 5 min.		N/A
	Class B realized by single channel, periodic self-test either after each activation of the power switch or at least every maximum 5 min		N/A
	H.11.12.3.4.1 applicable for SCF with a PL ≥ c		N/A
18.8.2	Electrostatic discharges as in IEC 61000-4-2:2008 applied to tool, test level 4 used for air discharge and test level 3 for contact discharge, ten / ten discharges having a positive / negative polarity applied		N/A
18.8.3	Fast transient bursts as in IEC 61000-4-4:2012 applied to tool, test level 3 used. Repetition frequency 5 kHz for 2 min / 2 min with a positive / negative polarity		N/A
18.8.4	Voltage surges as in IEC 61000-4-5:2005 applied to power supply terminals, five positive impulses and five negative impulses applied at the selected points		N/A
	Test level 3 applied for line-to-line coupling mode, a generator with 2 Ω source impedance being		N/A
	Test level 4 applied for line-to-earth coupling mode, a generator with 12 Ω source impedance being		N/A
	Tools has surge arresters incorporating spark gaps, test was repeated at 95 % of the flashover voltage		N/A
18.8.5	Injected currents as in IEC 61000-4-6:2008 applied to tool, test level 3 applicable, all frequencies between 0,15 MHz to 230 MHz covered		N/A
18.8.6	Class 3 voltage dips and interruptions in accordance with IEC 61000-4-11:2004 applied to tool		N/A
	Values of Tables 1 and 2 of IEC 61000-4-11:2004 were applied at zero crossing of the supply voltage		N/A
18.8.7	Radiated fields in accordance with IEC 61000-4-3:2010 applied to tool, test level 3 applicable		N/A
	Frequency ranges 80 MHz to 1 000 MHz tested		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
19	MECHANICAL HAZARDS		P
19.1	Adequate protection against injury provided against moving and other dangerous parts		P
	Protective enclosures, covers, and the like have adequate mechanical strength and cannot be removed without the aid of a tool		P
	Adjustable guard used as protection of the working element has easily accessible means of accurate adjustment	No such guard	N/A
	No dangers from adjusting the guards		N/A
	No contact with dangerous moving parts using probe B of IEC 61032:1997, test force $\leq 5N$		P
	Any soft materials removed prior to the test		P
A	Test with probe B of IEC 61032:1997 not applicable to chuck and any accessory that may be inserted		P
19.2	No hazardous ragged or sharp edges, other than necessary for the functioning of the tool		P
19.3	No contact with dangerous moving parts through dust collection openings, using probe B of IEC 61032:1997, test force $\leq 5N$	No such device	N/A
19.4	Hand-held tool has at least one handle or grasping surface for safe handling during use		P
	Transportable tools provided with at least one handle, grasping surface or the like for safe transportation		N/A
	Lawn and garden machinery has adequate grasping surfaces for safe handling during use		N/A
19.5	Tool allows visual check of the contact of cutting tool with workpiece		P
19.6	R This subclause of Part 1 is not applicable		–
19.7	Transportable tool or lawn and garden machinery intended to be used on a surface such as the floor or a table has adequate stability		N/A
	10° tilting test, tool or machinery did not tip over		N/A
	Tested with doors open and closed		N/A
	Filled with most unfavourable quantity of water or the recommended liquid		N/A
19.8	Transportable tool provided with wheels identified in the relevant part of IEC 62841-3 has adequate stability during transportation		N/A
	10° tilting test, tool did not tip over		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
19.9	Fixed guards to be removed to convert the tool or to change the accessory, fastenings remains attached to the guard or to the machinery		N/A
	Fastening not completely removed and considered as still attached		N/A
19.101 A	Chuck keys so designed that they drop out of position when released		N/A
A	Metal clips are not fixed to the flexible cable or cord		N/A
A	The key fell out when inserted into the chuck, without tightening, and 2 s after the tool was turned such that the key was facing down		N/A
19.102	Handles		P
19.102.1 A	General		P
A	The design of the handle(s) is such that the operator can control the static stalling torque during the operation of the tool. (Fig 104-107)		P
A	Single handle tool		N/A
			N/A
			N/A
			N/A
			N/A
	Double handle tool		P

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
			N/A
		$M_{R, \max} = (400 \times 0.16)$ $Nm = 64Nm$ $M_{\text{meas.}} = 37.3Nm$	P
			N/A
			N/A
			N/A
19.102.2 A	Test equipment		—
A	a) The torque transducer and the rotational angle sensor continuously monitors the torque and the rotation produced by the output spindle of the tool during the test of 19.102.3.		P
A	b) The output of the torque transducer is connected to an oscilloscope or other data acquisition equipment capable of displaying the torque vs. time graph of the tool's output during the test of 19.102.3.		P

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
A	c) The torque transducer is rated to measure a torque of at least 150 % of the static stalling torque of the tool or slip torque of an overload clutch (MR) with a measurement accuracy of ± 1 %.		P
A	d) The rotational angle is measured with an accuracy of $\pm 2^\circ$.		P
A	e) The data acquisition equipment used for measuring the torque signal during the test has a sampling rate of at least 15 kHz, but the bandwidth is limited by a first order low pass filter with a cut-off frequency of $(1 \pm 0,1)$ kHz.		P
A	f) The joint that is connected to the tool during the test is capable of stalling the tool over a rotational angle of 30° to 60° . The joint that fulfils this requirement is a torsional element or other such device that remains in equilibrium during the test.		P
A	g) A regulated power supply that is connected to the tool during the test is capable of providing the rated voltage and rated frequency provided on the tool's nameplate (e.g. 120 V AC, 60 Hz). It is also suitably sized such that the voltage drop during the test is not deviate from the rated voltage or the upper limit of the rated voltage range by more than 7 %.		P
A	Test procedure		—
A	The measurement is conducted by using seven trial measurements of the same sample, each trial conducted as follows: 1) Energize the tool to the full "on" position as quickly as possible and allow the joint to be tightened until it comes to a complete stop.		P
A	2) Record the measured output torque.		P
A	a) For tools without a mechanical overload clutch, the output torque is determined by either i) or ii):		N/A
A	i) For signals that are stable for a minimum of 2 ms after the initial peak, the output torque value is determined by measuring over the stable region for an interval T not exceeding 100 ms. (Fig 108)		N/A
A	ii) For signals that are not stable for a minimum of 2 ms after the initial peak, the output torque value shall be the r.m.s. value of the signal over the rotation from off until peak torque is achieved. (Fig 109)		N/A
A	The tool employs an electric circuit(s), the output torque is either:		N/A
A	- all functions affecting the output torque are considered SCFs and are evaluated according to 18.8, the applicable value of i) or ii) above with all functions affecting the output torque enabled; or		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
A	- all functions affecting the output torque are not evaluated as SCFs according to 18.8, the greatest applicable value of i) or ii) above with:		N/A
A	• all functions affecting the output torque enabled;		N/A
A	• each function affecting the output torque disabled, tested for one trial. If the output torque is greater than the value with all functions enabled, the test resulting in the greatest output torque value is conducted for an additional two trials, where each trial may use a new sample.		N/A
A	b) For tools with a mechanical overload clutch: The output torque is determined by the peak value of the first peak that occurs after starting the trial. Later peaks, even if they appear to have greater values, are not taken into account. (Fig 110)		P
A	3) Before the next trial, disconnect the spindle from the test fixture and operate the tool under no-load for a minimum of 3 s. Allow the tool to cool for a minimum of 2 min before the next trial.		P
A	MR is computed as the average of five of the measurements from each of the seven trials, with the highest and lowest measurement eliminated. The standard deviation of the five measurements shall also be computed and shall be less than 5 %.		P
A	If it is not, then the fixture shall be adjusted to achieve the required repeatability. In cases where an electronic circuit that affects the torque is disabled, MR is computed as an average of the three trials in 19.102.3, item 2) a), last bullet.		N/A

20	MECHANICAL STRENGTH		P
20.1	Adequate mechanical strength to withstand rough handling		P
	No flashover or breakdown occurred during test of Annex D between live parts and accessible parts after tests of clause 20.2-20.4	See Table D.2	P
	No live parts became accessible		P
	No creepage distances or clearances below the values of 28.1		P
	Mechanical safety of the tool as required by this standard not impaired		P
	Inner cover withstood test after removal of the decorative cover		N/A
20.2	Three blows applied to every weak point of enclosure by spring-operated impact test apparatus in Clause 5 of IEC 60068-2-75:1997		P

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Brush cap impact energy (Nm)..... :	No such device	—
	Other part impact energy (Nm)..... :	1,0Nm	—
	Blows applied each point of the enclosure likely to be weak	Air inlet, air outlet, switch trigger	P
	Blows applied to guards, covers, handles, levers, knobs and the like as necessary	Handle, reverse knob	P
20.3	Test of 20.3.1, 20.3.2 or the relevant part of IEC 62841-4 applied, as applicable		P
20.3.1	Hand-held tool withstood impact of 3 varied drops on a concrete surface from 1 m		P
	Separable accessories were not mounted		P
	Any attachments provided as specified in instructions, test repeated with each attachment or combination of attachments mounted to a separate tool sample		P
A	Tip test with hammers up to 10kg	<10Kg	N/A
	Tip the tool in three different directions on to the concrete surface		N/A
	Use the longest accessory recommended by the manufacturer except when the overall height of the tool including the accessory is greater than 1,5 m		N/A
	The tool was tested with an accessory such that the overall height of the tool including the accessory is $(1,5 \pm 0,1)$ m		N/A
20.3.2	Transportable tool withstood impact with $\varnothing (50 \pm 2)$ mm, $(0,55 \pm 0,03)$ kg steel sphere, travelling vertically by $(1,3 \pm 0,1)$ m.		N/A
	Drop test applied to part of the tool that can be impacted from above		N/A
	Pendulum test applied to part of the tool that cannot be impacted from above		N/A
	Guard became disassembled but could be reassembled to function properly.		N/A
	Guard became deformed but could be restored to its original shape		N/A
	Other damage, except to guard, accepted, as tool was incapable of normal operation		N/A
20.4	Adequate mechanical strength of brush holder and their caps		N/A
	Brush cap removed and replace 10 times applying specified tightening torque		N/A
	Tightening torque (Nm)..... :		—

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	No damage to brush holders impairing its further use, thread not damaged, cap shows no cracks		N/A
20.5	Handles and grasping surfaces have adequate mechanical strength to provide insulation between grasping area and output shaft		P
	A separate sample subjected to a single impact from 1m onto a concrete surface on each handle and each recommended grasping surface		P
A	Tip test with hammers up to 10kg	<10Kg	N/A
	Tip the tool in three different directions on to the concrete surface		N/A
	Use the longest accessory recommended by the manufacturer except when the overall height of the tool including the accessory is greater than 1,5 m		N/A
	The tool was tested with an accessory such that the overall height of the tool including the accessory is $(1,5 \pm 0,1)$ m		N/A
	No flashover or breakdown occurred during test of D.2 at 1250 V a.c. between handles and grasping surfaces in contact with foil and the output shaft of the tool	See Table D.2	P

21	CONSTRUCTION		P
21.1	Hazardous accidental changing of settings to suit different voltages or speeds unlikely to occur		N/A
21.2	Accidental changing of settings of control devices unlikely to occur		N/A
21.3	Removal of parts ensuring required degree of protection against moisture not possible without aid of a tool		N/A
21.4	Fixing of handles, knobs and the like, used to indicate position of switches or similar components in a hazardous wrong position, was not possible		P
21.5	Replacement of a flexible cable or cord requiring displacement of a switch was possible without subjecting internal wiring to undue stress		P
	After repositioning of the switch and before reassembling the tool, verification of correct positioning of internal wiring was possible		P
21.6	Wood, cotton, silk, paper and similar fibrous or hygroscopic material not used as insulation, unless impregnated or chemically rendered non-fibrous		P
21.7	Ordinary driving belts not relied upon to provide required insulation	No belts	N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Special belt design employed to allow use as electrical insulation		N/A
21.8	Insulating barriers of Class II tools, and parts of Class II tools serving as supplementary or reinforced insulation are:		P
	- fixed such that they cannot be removed without being seriously damaged; or		P
	- so designed that they cannot be replaced in an incorrect position, and when omitted, the tool will be inoperable or manifestly incomplete		N/A
21.9	Inner conductors of a flexible cable or cord are used as wiring within class II construction and insulated from accessible metal parts by:		P
	- the sheath of the supply cord itself, this sheath not being exposed to undue thermal stress, clamping against accessible metal or other mechanical stress that could cause damage to it; or		P
	- a sleeve, tubing or barrier complying with the requirements of supplementary insulation.		N/A
21.10	Air-intake of motor enclosures not excessively large		P
	6 mm steel ball test applied to air-intake openings other than those adjacent to fan		P
21.11	No hazards from parts of Class I tool such as wire, screw, nut, washer or spring becoming loose or falling out of position, and accessible metal not made live		N/A
	Clearance and creepage distances of Class II tool or class II construction not reduced to less than 50% of values shown specified in 28.1		P
	Class II tool or Class II construction, other than those of the all-insulated type, provided with an insulating barrier between accessible metal and motor parts and other live parts		P
	Class I tool with adequately fixed parts, barriers, and sufficiently large creepage and clearances		N/A
	All wires secured in place independent of terminal connection or solder		P
21.12	Supplementary and reinforced insulation not impaired by deposition of dirt, or dust resulting from wear of parts within the tool to the extent that creepage and clearances would be reduced		P
	Ceramic material not tightly sintered and similar materials, and beads alone, not used as supplementary or reinforced insulation		P

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Parts of Elastomer, natural or synthetic rubber used as supplementary insulation are resistant to aging		N/A
	Rubber parts so arranged and dimensioned that creepage distances not reduced below values in 28.1, even when cracks occurred		N/A
	Insulated material for embedded heating conductors serves only as basic insulation		N/A
	Ageing test for Elastomer and rubber parts for 70 h at 100±2°C		N/A
	No flashover or breakdown occurred during test of D.2, test voltages reduced to 75 per cent	See Table D.2	N/A
	Rubber parts tested		—
	Immersion test for ceramic material on tight sintering in specified fuchsine solution under no less than 15 MPa		N/A
	Test pressure applied (MPa)		N/A
	Test duration (h).....		N/A
	After the test, freshly broken surfaces did not show any trace of dye visible with normal vision		N/A
	Ceramic parts tested.....		—
21.13	Internal wiring, windings, commutators, slip rings and the like, and insulation in general, not exposed to oil, grease, and similar substances		P
	Adequate insulation properties of oil, grease, and similar substances used for lubrication of gears and the like with no effect on insulation		N/A
21.14	No access to brushes without aid of a tool		P
	When tightening screw-type brush-caps, two surfaces clamped together		N/A
	Locking device retaining brushes in position do not depend upon brush spring tension		P
	Screw-type brush-caps accessible from the outside of the tool made of or covered with insulating material of adequate strength, and not projecting beyond surrounding surface of the tool		N/A
21.15	Tool employing a liquid system protects the user against increased risk of shock due to presence of liquid under normal use and faults of liquid system		N/A
	Tools employing liquid system constructed as Class III tools, or		N/A
	- class I or II and provided with a residual current device, and complying with 14.3-14.5, or		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	- class I or class II and designed for use in combination with an isolating transformer and complying with 14.3 and 14.4		N/A
21.16	Tool with compartment accessible without the aid of a tool and likely to be cleaned in normal use, the electrical connections are not subject to pulling during cleaning		P
21.17	Tool is fitted with a power switch to control the motor		P
	Switch actuator easily visible and accessible		P
21.17.1	For tools incorporating a switch with a lock-off device, and switch trigger is operated by squeezing action closing the fingers towards the palm of the hand, lock-off system designed to ensure sufficient durability against abuse and environmental conditions to prevent start by the switch trigger alone	Without lock off function	N/A
21.17.1.1	Relevant tool housing is kept for 1 h in a heating cabinet at 80 °C		N/A
21.17.1.2	Additional test of 21.17.1.2 for lock-off devices that are self-restoring to the lock-off position		N/A
	Number of cycles as per 23.1.10.2		N/A
21.17.1.3	Push force of Table 7 applied to most unfavourable point of the switch actuating member.....		N/A
	The switch did not actuate		N/A
	The switch and its lock-off system operated as designed after the applied force was terminated		N/A
21.18	Requirements of 21.18.1, 21.18.2 or the relevant part of IEC 62841-4 observed, as applicable		P
21.18.1	Hand-held tool fitted with momentary power switch, unless without a relevant part of IEC 62841-2 and without a substantial risk from continued operation		P
	Switch can be switched on and off by the user without releasing any of the required handle(s) or grasping surface(s)		P
A	Power switch other than momentary power switch are permitted		N/A
21.18.1.1	A momentary switch locking in "on" position unlocks automatically upon a single actuation motion without releasing the grasp on the tool		P
	More than one switch, the lock-on switch(es), if any, is (are) within the grasping zone necessary to control the tool		N/A
	Any one of these switches automatically unlocks or makes ineffective all remaining lock-on devices with a single actuation motion without releasing the grasp on the tool		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Switch cannot be locked in "on" position when a risk with continued operation is defined by the relevant part of IEC 62841-2		N/A
21.18.1.1 A	Tools with a maximum output torque greater than 100 Nm are not provided with a lock-on device.	<100 Nm	N/A
	For tools with a maximum output torque of 100 Nm or less, a power switch lock-on device, if any, is located outside the grasping area, or so designed that it is not likely to be unintentionally locked on by the user's hand during intended left- or right-handed operation.	With lock on function	P
	This grasping area is the contact area between either hand and the tool while the index finger of that hand is resting on the power switch actuator of the tool.		P
	With the power switch in the "on" position, the lock-on device is actuated by a straight edge 25 mm long when the straight edge is pushed down on the lock-on device.		P
	The straight edge is oriented in any direction and is applied to bridge the surface of the lock-on device and any surface adjacent to the lock-on device.		P
21.18.1.2	Power switch triggers and lock-off devices so located, designed or guarded that inadvertent operation is unlikely to occur		N/A
	Tool did not start when 100 mm sphere is applied to the power switch, or		N/A
	Two separate and dissimilar actions necessary before the motor is switched		N/A
21.18.2	Transportable tool fitted with power switch easily actuated "on" or "off" without any reasonably foreseeable hazard		N/A
21.18.2.1	Power switch in transportable tools is of momentary type, or		N/A
	Voltage recovery following an interruption of the supply gives rise to a hazard		N/A
	Relevant part of IEC 62841-3..... :		—
21.18.2.2	"On"/"off" control capable of being turned off by the operator with a single straight-line motion		N/A
	Flap cover covers the stop button so that pushing the flap actuates the stop		N/A
21.18.2.3	Power switch so located, designed or guarded that unintentional movement to the "on" position is unlikely		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Tool did not start when 100 mm sphere is applied to the power switch, or		N/A
	Two separate and dissimilar actions necessary before the motor is switched		N/A
21.18.2.4	Push-pull switch is turned off by an inward push		N/A
21.19	Protection against electric shock not affected when screws removed during user maintenance are incorrectly replaced during reassembly		P
	Creepage and clearances between live parts and accessible metal parts not reduced below values in 28.1 when screws are installed at improper screw locations		P
21.20	Tool marked with the first numeral of IP system complies with IEC 60529:2013..... :	IP20	N/A
21.21	No risk of electrical shock from charged capacitors when touching pins of the plug		P
	Max. voltage measured between pins of the plug is ≤ 34 V after 1 s after each disconnection (V) :	Measured max. 2,9V	P
	Capacitors rated $\leq 0.1 \mu\text{F}$		P
	Capacitors complying with the requirements for protective impedance specified in 9.2 and 21.34		N/A
21.22	Non-detachable protective parts either removable with the aid of a tool or reliably fixed		P
	Snap-in devices have an obvious locked position and have fixing properties that do not deteriorate		N/A
	Parts disassembled and assembled 10 times prior to test		P
	Parts affected by temperature tested immediately after conditions of Clause 12		P
	Test applied to all parts likely to be detached, whether or not fixed by screws, rivets, or similar parts		P
	Weak areas of the covers or parts subjected during 10 s to - 50 N push force		P
	- 50 N pull force if the shape of the part prevents easy slippage of fingertips		P
	- 30 N pull force if projection of the gripped part is less than 10 mm in the direction of removal		P
	Test fingernail of Fig. 1 inserted in apertures and joints with a force of 10 N and then slid sideways with a force of 10 N		P

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Axial pull unlikely, test fingernail of Fig. 1 inserted in apertures and joints with a force of 10 N to enable a force of 30 N for 10 s by means of a loop		P
	A torque of 2 Nm applied at the same time as pull or push force on parts 50 mm or smaller and likely to be subjected to twisting		P
	A torque of 4 Nm applied at the same time as pull or push force on parts larger than 50 mm and likely to be subjected to twisting		P
	Projection was less than 10 mm and required a torque of (Nm), test torque reduced		N/A
	Parts not detached, and remained in locked position		P
21.23	Handles, knobs, grips, levers etc., withstood axial force of 30 N for 1 minute		P
21.24	Storage hooks and similar devices for flexible cords are smooth and well rounded		N/A
21.25	Current-carrying parts and other parts resistant to corrosion under normal use		P
	After tests of Clause 15, no sign of corrosion on relevant parts		P
	Stainless steel and similar corrosion-resistant alloys and plated steel considered satisfactory		P
21.26	Insulation between parts operating at SELV and other live parts complies with the requirements for double insulation or reinforced insulation		N/A
21.27	Insulation between parts separated by protective impedance comply with requirements for double or reinforced insulation		N/A
21.28	Shafts of operating knobs, handles, levers etc. not live unless their removal does not make the shaft accessible to test probe B of IEC 61032:1997		P
21.29	Handles, levers, and knobs of non-class III tool held or actuated in normal use do not become live during an insulation fault		P
	Metallic handles, levers, and knobs with shaft or fixings likely to become live due to basic insulation fault, either adequately covered by insulating material or their accessible parts separated from their shafts or fixings by insulation		P
	Exception for handles, levers, and knobs of transportable tools and lawn and garden machinery of class I		N/A
	Covering or insulating material complies with Electric Strength test in D.2 at 1250 V	See Table D.2	P

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
21.30	Tool likely to cut into concealed wiring or own cord, handles and grasping surfaces - made of insulating material, or		P
	- metal covered by insulating material, or		N/A
	- their accessible parts are separated by insulating barrier(s) from accessible metal parts that may become live by the output shaft		P
R	Insulated, stick type, auxiliary handle is provided with a flange ≥ 12 mm high above grasping surface between grasping area and accessible parts that may become live by the output shaft		P
	This insulated area shall extend by at least 25 mm around all of the cross-section of the handle near the tool surface		P
	Insulated, stick type, auxiliary handle is provided with a flange ≥ 12 mm high above grasping surface between grasping area and accessible parts that may become live by the output shaft		P
	21.30 not applicable as per relevant part of IEC 62841-2, IEC 62841-3 or IEC 62841-4		N/A
21.31	Capacitors in class II tools not connected to accessible metal parts, and their metallic casings are separated from accessible metal parts by supplementary insulation		P
	Capacitors tied to accessible metal parts comply with Clauses 9.2 and 21.34		N/A
21.32	Capacitors not connected between contacts of the thermal cut-outs		P
21.33	Lamp holders used only for connection of lamps		N/A
21.34	Protective impedance consists of at least two separate components with impedance unlikely to change significantly during lifetime of tool		N/A
	When a component short or open-circuited, values in Clause 9.2 were not exceeded		N/A
	Resistors comply with 14.1 of IEC 60065:2011 and capacitors comply with 14.2 of IEC 60065:2011		N/A
	Single Y1 capacitor acc. to IEC 60384-14 used instead of two separate components		N/A
21.35	Tools is identified in the relevant part of IEC 62841-2 or IEC 62841-3 to produce a considerable amount of dust and has either integral dust collection/suction device or dust outlet(s)	Not applicable	N/A
	Dust discharge directed away from the operator		N/A
	Dust outlet with external suction device(s) does not impede the normal use of the tool		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
22	INTERNAL WIRING		P
22.1	Wireways smooth and free from sharp edges, cooling fins, etc		P
	Holes in metal through which insulated wires pass provided with bushings or, except as required by relevant part of IEC 62841-2, IEC 62841-3 or IEC 62841-4, have smooth edges with radius $\geq 1,5$ mm		N/A
	Wiring prevented from coming into contact with moving parts		P
22.2	Internal wiring adequately rigid, fixed or insulated such that creepage and clearances cannot be reduced below values in 28.1		P
	Sleeving used as supplementary insulation on internal wiring, retained in position by positive means (removable only by breaking or cutting, or clamped at both ends)		P
22.3	Use of green or green/yellow conductors for earthing terminals only	Class II	N/A
22.4	Aluminium wires not used for internal wiring		P
22.5	Stranded conductors with lead-tin soldering are only used with spring terminals with constant contact pressure, except when clamping means pose no risk of bad contact		N/A
22.6	No undue stress to electrical connections and internal conductors from tool parts movable to each other in normal use, during adjustment or user maintenance		P
	Flexible metallic tubes do not damage insulation of the conductors contained within them		N/A
	Open-coil springs not used to protect the wiring		N/A
	Adequate additional insulating lining when coiled spring is used		N/A
	Flexing test at a rate of ≤ 6 /min, through the largest angle allowed by the construction		N/A
	Number of flexings 10 000 for conductors/connections flexed during normal use; 2 000 for those flexed during adjustments; 100, for those flexed during user maintenance		—
	Tool withstands test of Annex D between live parts and accessible parts	See Table D.2	N/A
	Live parts not accessible after test		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
23	COMPONENTS		P
23.1	Components comply with relevant IEC standards	See Table 23.1	P
	Batteries are regarded as part of the tool and comply with Annexes K and/or L		N/A
	Components used in accordance with their markings		P
	Applied exceptions..... :		N/A
	Components not previously tested and found to comply with the relevant IEC standard for the number of cycles specified, tested to 23.1.1 ... 23.1.11 :		P
23.1.1	Capacitors in auxiliary windings of motors marked with their rated voltage and rated capacitance :		N/A
23.1.2	Fixed capacitors for radio interference suppression comply with IEC 60384-14		P
23.1.3	Small lamp holders similar to E10 lamp holders meet requirements for E10 lamp holders in IEC 60238		N/A
23.1.4	Isolating and safety isolating transformers comply with IEC 61558-1 and IEC 61558-2-4 or IEC 61558-2-6, as applicable		N/A
	Switch mode power supply units and transformers for such units comply with IEC 61558-2-16		N/A
23.1.5	Appliance couplers comply with IEC 60320, or		N/A
	Instructions provided to inform user to connect the tool with non-IEC appliance couplers		N/A
23.1.6	Automatic temperature controls with electromechanical contacts that cycle in normal use have suitable endurance		N/A
	Tests to IEC 60730-1:2010, Cl. 17, conducted under conditions occurring in the tool		N/A
	Type of controls used and number of cycles per Cl. 17 of IEC 60730-1:2010 (cycles)..... :		N/A
	Automatic controls comply with IEC 60730-1:2010, and are used in accordance with their marking		N/A
	Tests of Clause 17 of IEC 60730-1:2010 were not conducted on automatic controls because tool complies with this standard when protective device short-circuited		N/A
	Thermostats and temperature limiters tested in accordance with a specific exception in Note b) of Table 1 of Clause 12		N/A
23.1.7	Unless otherwise specified, tests on components per other standards conducted separately according to the relevant standard		P

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Component, marked and used per its markings		P
	Components not mentioned in Table 1 of Clause 12 tested as part of the tool		P
23.1.8	Components not separately tested and found to comply with the component standards as references in 23.1 or components not marked or not used in accordance with their marking, tested in accordance with the referenced relevant standard under the conditions occurring in the tool		P
	No IEC standard referenced in 23.1, no additional tests		P
23.1.9	Tool operated at 1,1 times rated voltage at no-load, capacitor voltage did not exceed 1.1 times its rated voltage (V)		N/A
23.1.10	Switches constructed to prevent failure that might impair compliance with this standard		P
	Switches, separately tested and found to comply with IEC 61058-1:2008, comply with 23.1.10.1	Approved switch	P
	Switches, not separately tested and found to comply with IEC 61058-1:2008, or not complying with 23.1.10.1, tested as in 23.1.10.2 to 23.1.10.3		N/A
23.1.10.1	Power switches rated for a voltage and current not less than respective ratings of the tool		P
	Power switches rated for a.c. in a.c. tools and d.c. in d.c. tools		P
	Electronic power switches are at least classified for Continuous Duty as in IEC 61058-1:2008		N/A
	Switches for motor-operated tools and lawn and garden machinery classified for resistive and motor load as in 7.1.2.2 of IEC 61058-1:2008, if this load occurs in normal use		P
	Switches for magnetically driven tools and lawn and garden machinery classified for inductive load as in 7.1.2.8 of IEC 61058-1:2008, if this load occurs in normal use		N/A
	Switches alternatively regarded as switches for a declared specific load as in 7.1.2.5 of IEC 61058-1:2008 and classified based on the load conditions of the tool in normal use		N/A
	Ratings and load classifications for switches other than power switches are based on the conditions encountered in the tool		N/A
	Power switches for hand-held tools classified for min. 50K operating cycles	Approved switch, 5E4	P

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Power switches for transportable tools and lawn and garden machinery classified for min. 10K operating cycles..... :		N/A
	Power switches with series electronics also endure 1000 operating cycles, electronics bypassed :		N/A
	Switches other than power switches, if likely to be switched under electrical load, endure 1 000 operating cycles, unless the requirements of this standard are met with the switch short-circuited		N/A
	Exception for switches other than power switches that cannot be operated under electrical load		N/A
	Exception for motor reversing switches		N/A
	Exception for switches other than power switches, classified for 20 mA load as in 7.1.2.6 of IEC 61058-1:2008		N/A
23.1.10.2	Adequate endurance properties of switches		N/A
	Test of 17.2.4.4 of IEC 61058-1:2008 conducted at load specified in 23.1.10.2.1 or 23.1.10.2.2..... :		N/A
	Power switches for hand-held tools tested for 50K cycles.		N/A
	Power switches for transportable tools and lawn and garden machinery tested for 10K cycles		N/A
	Power switch contains mechanical contacts in series with electronic circuitry with one or more SSD and circuitry provides a protective function by reducing the current during switch operation, then test repeated on 3 samples for ≥ 1000 cycles with the electronics bypassed; or		N/A
	Protective function considered SCF and complies with the greater PL levels for power switches in 18.8		N/A
	Switches other than power switches, if likely to be switched while energized, tested for 1000 cycles under load conditions of normal use		N/A
	After tests all switches were able to be turned on and off and complied with the insulating compliance (TE3) of 17.2.5.3 of IEC 61058-1:2008 for basic insulation		N/A
23.1.10.2.1	Power switches for motor-operated tools and lawn and garden machinery classified to 7.1.2.2 of IEC 61058-1:2008 and tested with external load as specified		N/A
	Power switches for magnetically driven tools and lawn and garden machinery classified to 7.1.2.8 of IEC 61058-1:2008 and tested with external load as specified		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Switches other than power switches, but which would encounter the same load conditions as power switches in normal use, tested as specified		N/A
23.1.10.2.2	For switches tested using the motor or magnetic load encountered in the tool, tested at rated voltage for the required number of cycles; tool is switched on at no-load and switched off at rated current or rated input		N/A
23.1.10.3	Power switches of motor-operated tools and lawn and garden machinery have adequate breaking capacity		N/A
	Locked-rotor test (TC9) of 17.2.4.9 of IEC 61058-1: 2008 at 6 times I-M or with locked motor, each period $\leq 0,5$ s "on" and ≥ 10 s "off"		N/A
	Power switch showed no electrical or mechanical failure after test		N/A
23.1.11	Electronic power switches comply with 18.6 and 18.8		N/A
23.2	Tool not fitted with switches or automatic controls in flexible cords, except for protective devices such as RCDs		N/A
	Tool not fitted with devices causing the protection device in the fixed wiring to operate		N/A
	Tool not fitted with thermal cut-outs which can be reset by a soldering operation		N/A
23.3	Protection devices or circuits that switch off the tool are non-self-resetting where a risk associated with inadvertent starting is specified		N/A
A	unless the tool is not equipped with a momentary power switch with a provision for being locked in the "on" position		N/A
23.4	Plugs and socket-outlets for ELV circuits and those used as terminal devices for heating elements not interchangeable with mains plugs and socket-outlets in IEC 60884, IEC/TR 60083 or IEC 60906-1 or with connectors and appliance inlets complying with IEC 60320-1		N/A
23.5	Motors connected to the supply mains with insulation inadequate for the rated voltage comply with Annex B		N/A
24	SUPPLY CONNECTION AND EXTERNAL FLEXIBLE CORDS		P
24.1	Tool provided with a supply cord $\geq 1,8$ m and with a plug; cord length (m)		P
	Tool provided with a supply cord at least 1,8 m long and without a plug; cord length (m)		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Information for connection given in the instructions		N/A
	Tool provided with appliance inlet having at least same degree of protection against moisture as required for the tool		N/A
	Tool provided with a supply cord $\geq 0,2$ m and $\leq 0,5$ m and with a plug or other connector having at least same degree of protection against moisture as required for the tool; cord length (m)..... :		N/A
	Plugs, connectors and inlets suitable for the ratings of the tool		P
24.2	Supply cord assembled to the tool by attachment type (specify X, Y, or Z)	Type X	P
	Supply cord with type Z attachment is allowed as per relevant part of IEC 62841-2, IEC 62841-3 or IEC 62841-4		N/A
	Supply cords with type X attachment are specially prepared cords only available from the manufacturer or its service agent..... :		P
	Special cord includes part of the tool		N/A
24.3	Plugs fitted with only one flexible cord		P
24.4	Supply cords not lighter than heavy polychloroprene sheathed flexible cable (code designation 60245 IEC 66) or equivalent	H07RN-F, 2X1,0mm ²	P
	PVC cords not used if external metal parts exceed 75 K temperature rise during test of Clause 12		N/A
24.5	Nominal cross-section area of supply cord per Table 8 (mm ²)	1,0mm ²	P
24.6	Supply cord of class I tool has green or green/yellow core connected to internal earthing terminal of the tool, and to earthing contact of plug		N/A
24.7	Lead-tin solder not used to consolidate leads under contact pressure, except when clamping means used prevents risk of a bad contact		N/A
	Clamping screws alone not used for securing soldered leads		N/A
24.8	Moulding supply cord to any part has no effect on the insulation of the cord		N/A
24.9	Supply cord protected against damage at its entry by flexible cord guard, or cord inlet, or bushing	Cord guard	P
24.10	Cord inlets and bushings shaped to prevent damage to supply cord		N/A
	Cord inlet and bushings reliably fixed and not removable without the aid of a tool		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
24.11	In tools other than transportable tools, supply cord being flexed during operation is protected against excessive flexing at its entry		P
	Flexing test performed in apparatus shown in Fig. 2		P
	Weight attached to cable or cord (kg)	3,2Kg	—
	Oscillating member moved back and forth through an angle of 90° (45° on either side of the vertical) with rate of 60 flexings per minute		P
	After 10,000 flexings, sample turned through 90° about the centre of the cord entry		P
	Cord guard did not slip out from its location after completion of ten 1 sec lifts over 500 mm		P
	After the test, no conductor disconnected from terminal		P
	Number of strands versus number of broken strands of each conductor ≤ 10%.....	0% broken	P
24.12	In tools other than transportable tools, supply cord being flexed during operation is protected against excessive bending at its entry	Diameter of cord: 7,9mm Distance beyond opening: 69mm>5D	P
	Cord guard fixed reliably and projects outside tool for a distance beyond inlet opening of at least 5 times the overall diameter of cord		P
	Mass attached to the free end of cord (g)	10D ² =711g	—
	Curvature of cable or cord is nowhere less than 1,5 times the external diameter of cord		P
24.13	Tool provided with cord anchorage to relieve conductors of cord from strain, twisting, and protect them from abrasion.		P
	Pushing cord into the tool not possible		P
	Pull force was applied 25 times at the force shown in Table 9 (N)	60	—
	After pull test, cord, unless on an automatic cord reel, subjected to torque in Table 9 for 1 min (Nm) :	0,25	P
	The cord was not damaged during the tests		P
	No appreciable strain at the terminals		P
	Cord longitudinal displacement (mm)	No obvious displacement	P
	No appreciable strain at the connection		P
24.14	Cord anchorage either accessible only with the aid of a tool, or the cord can only be fitted using a tool		P
24.15	Cord anchorages properly designed and located		P

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Cord cannot touch clamping screws of the cord anchorage that not separated from accessible metal parts by supplementary insulation		P
	Cord not clamped by metal screw bearing directly on the cord		P
	Glands are not used as cord anchorages	No used	P
	Class I tool, cord anchorage of insulating material or with insulating lining fulfilling basic insulation, if an insulation fault on the cord could make accessible metal parts live		N/A
	Class I tool, sheath of the cord considered adequate		N/A
	Class II tool, cord anchorage of insulating material or insulated by supplementary insulation (sheath of the cord alone not sufficient)		P
24.16	Cord anchorages for type X attachment properly designed and located		P
	Cord anchorage allows easy replacement of cord		P
	Clear method of relief from strain and prevention of twisting		P
	Screws operated during cord replacement are not used to fix any other part		P
	Screws operated during cord replacement are used to fix other parts and, if omitted or incorrectly mounted, make the tool inoperative or clearly incomplete		P
	Parts fastened to the cord anchorage by the same screw could not be removed without the aid of a tool		P
	Conductors inserted into terminals, terminal screws tightened sufficiently to prevent conductors from easily changing their position, torque set at (Nm) ... :		P
24.17	Knots and tying strings for type X attachment are not used		P
24.18	For type X attachment, space for supply cord provided inside or as a part of tool		P
	- permits verification of correct connection and positioning of conductors		P
	- permits covers to be fitted without risk of damage to supply conductors or their insulation		P
	- ensures that uninsulated end of conductor, when detached from a terminal, cannot come into contact with accessible metal parts, or terminations are unlikely to slip free of the conductor		P

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Clause	Requirement + Test	Result - Remark	Verdict
	For pillar terminals (with conductors that are not separately clamped ≤ 30 mm from terminal), and for other terminals with screw clamping, a force of 2 N applied to the wire in any direction and adjacent to the terminal, screw or stud		N/A
	The uninsulated end of the conductor did not come into contact with accessible metal parts		P
24.19	Appliance inlet prevents access to live parts during insertion or removal of the connector	No such device	N/A
	Easy insertion of connector		N/A
	After insertion of connector, tool not supported by the connector in any position of normal use on a flat horizontal surface		N/A
	Test probe B of IEC 61032:1997 applied to tool inlet other than appliance inlet per IEC 60320		N/A
	Appliance inlet complies with IEC 60320		N/A
24.20	Interconnection cords meet the requirements for the supply cord, exceptions as follows	No such device	N/A
	Cross-sectional area is based on maximum current through conductor during test of Clause 12		N/A
	Insulation adequate for conductor's working voltage		N/A
	Test of 24.11 restricted to range of motion during normal use.		N/A
24.21	Interconnection cords not detachable without tool if compliance with this standard is impaired when they are disconnected		N/A
25	TERMINALS FOR EXTERNAL CONDUCTORS		P
25.1	Tool provided with terminals or equally effective devices for connection to external conductors		P
	Terminals only accessible with the aid of a tool		P
	Screws and nuts allowed to also clamp internal conductors when they are unlikely to be displaced when fitting supply conductors		P
	Screws and nuts do not fix other components		P
	For tool with type X attachment, soldered connections allowed for connection of external conductors, when soldering alone is not used to maintain conductor in position		P
	When provided, barriers prevent creepages and clearances between live parts and other metal parts from being reduced to $< 50\%$ of values in 28.1, the conductor can be fixed by soldering alone		P

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Clause	Requirement + Test	Result - Remark	Verdict
	For type Y and Z attachments, soldered, welded, crimped and similar connections allowed for the connection of external conductors		N/A
	Class II tools, conductor so positioned or fixed that soldering, crimping, or welding alone not relied upon to maintain the conductor in the position		P
	Barriers prevent creepages and clearances between live parts and other metal parts from being reduced to < 50% of values in 28.1 for the Class of tool using Type Y or Z attachments		N/A
	Conductors connected by soldering are held in place near termination independent of solder		N/A
	Conductor is "hooked in" before soldering and the hole through which it passes is not too large		N/A
	Terminals of a component built into the tool used to secure external conductors		P
	Conductors connected by other means, leads additionally fixed near terminations		P
	Stranded conductors secured at insulation and conductor		P
25.2	Terminals for supply cords suitable for their purpose		P
	Supply cord terminals withstood pull force of 5 N		P
25.3	For type X attachment, when clamping means tightened or loosened, terminal did work loose, no stress on internal wiring, and creepage and clearances not reduced below values in 28.1		P
	Test per Clause 9.6, using 2/3 torque of that in Table 4, of IEC 60999-1:1999 (Nm):	1,2x2/3=0,8Nm	P
	Terminals secured by two screws to prevent loosening, or by one screw in a recess, or by other suitable means		P
	Correct position of supply terminals maintained by switches and similar devices with recesses and verified after connection of supply cord and repositioning of device		P
	Sealing compound without other means of locking not used		N/A
	Self-hardening resins used only on terminals that are not subject to torsion in normal use		N/A
25.4	Type X attachment using terminals to clamp the conductor between metal surfaces do so without damage to conductor after torque test per Cl. 25.3		P

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
25.5	End of conductor inserted in the hole of pillar type terminals is visible, or can pass beyond threaded hole for a distance of half nominal diameter of screw, or 2,5 mm, the greater of the two (mm)	2,7mm	P
25.6	For type X attachment, terminals clearly recognizable and accessible after opening the tool		P
	All terminals located behind one cover, or one part of the enclosure		P
25.7	For tool with type X attachment, terminal devices located or shielded to prevent a strand of wire from escaping		P
	No risk of accidental connection between live parts and accessible metal parts		P
	For class II tool, no risk of accidental connection between live parts and metal parts with supplementary insulation only		P
	8 mm long free wire of the stranded supply conductor did not touch any accessible metal part		P
	8 mm long free wire of the stranded supply conductor did not touch any metal parts with supplementary insulation only		P
	8 mm long free wire of stranded conductor connected to an earthing terminal did not touch any live part		N/A
26	PROVISION FOR EARTHING		P
26.1	Accessible metal parts of class I tool permanently connected to an earthing terminal or termination within the tool		N/A
	Accessible metal parts of class I tool permanently connected to the earthing contact of the tool inlet		N/A
	Printed circuit boards are not used to provide continuity of protective earthing circuit		N/A
	No electrical connection between earthing terminals or contacts and neutral terminal		N/A
	No provision for earthing in Class II and III tools		P
	Rotating motor components with metal-to-metal bearing surfaces considered electrically bonded		N/A
	Metal parts behind a decorative cover that do not withstand test of Clause 20 considered accessible metal parts		N/A
26.2	Clamping means of earthing terminals adequately locked against accidental loosening		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Earthing connections not possible to loosen without the aid of a tool		N/A
	Terminals with screw clamping comply with the relevant requirements of Clause 25, and screwless terminals comply with IEC 60998-2-2		N/A
	For specially prepared cords, terminals comply with IEC 61210 and table 10		N/A
	Screwless terminals tested per IEC 60998-2-2		N/A
26.3	Earth connection of detachable parts was made before the current-carrying connections established when placing the part in position, and the current carrying connections separated before earth connection was broken when removing the part		N/A
	If cord slips out of cord anchorage, current-carrying conductors become taut before earthing conductor		N/A
26.4	No risk of corrosion between metal parts of earthing terminals and copper of earthing conductor		N/A
	Parts transmitting current in case of an insulation fault, other than parts of metal frame or enclosure, are coated or uncoated metal with adequate resistance to corrosion		N/A
	Thickness of electroplated coating (µm) :		N/A
	Parts of coated or uncoated metal providing or transmitting contact pressure only, adequately protected against rusting		N/A
	Protection provided against risk of corrosion resulting from contact between copper and aluminium (or aluminium alloy)		N/A
	Parts subjected to a treatment such as chromate conversion coating are used only to provide or transmit contact pressure		N/A
	Thickness of coating of steel measured in accordance with ISO 2178 or ISO 1463 (µm)..... :		N/A
	Resistance to rusting test :	See also 15.1	N/A
26.5	Resistance of earthing circuit (max. 0.1 Ω)..... :		N/A
	Test current (A) :		—
	Voltage drop between the earthing terminal and accessible metal part (V) :		—
27	SCREWS AND CONNECTIONS		P
27.1	Fixings and electrical connections (earthing connections included) withstand mechanical stresses occurring in normal use		P

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Screws not made of soft metal such as zinc or aluminium		P
	Diameter of screws of insulating material not used for electrical or earthing connection, diameter (mm). :	No screws made of insulating material	N/A
	Screws transmitting electrical contact pressure screw into metal		P
	Screws of insulating material not used if their replacement by a metal screw could impair supplementary or reinforced insulation		N/A
	Screws removed when replacing the supply cord with type X attachment, or during maintenance, are not of insulating material where their replacement by a metal screw could impair basic insulation		P
	Screws and nuts tightened and loosened 10 times for screw engaged with a thread of insulating material		P
	Nuts and other screws tightened and loosened five times		P
	Screws engaging with a thread of insulating material completely removed and reinserted each time		P
	When testing terminal screws and nuts, a flexible conductor of the largest cross-sectional area per Clause 24.5 placed, and each time repositioned, in the terminal (mm ²) :	1,0mm ²	P
	Test using a suitable test screwdriver, spanner or key, torque as in Table 11 and the relevant column		P
	Column I for metal screw without head, flush with surface (Nm) :		N/A
	Column II for other metal screws and nuts (Nm) :	See Table 27.1	P
	Column II for screws of insulating material, having a hexagonal head with a width across flats exceeding overall thread diameter (Nm)..... :		N/A
	Column II for screws of insulating material, having a cylindrical head and a key socket with a width across corners exceeding overall thread diameter (Nm) ... :		N/A
	Column II for screws of insulating material, with a head having a slot or cross-slots longer than 1,5 times the overall thread diameter (Nm)..... :		N/A
	Column III applied to other screws of insulating material (Nm) :		N/A
	No damage impairing further use of fixing or electrical connections		P

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
27.2	Contact pressure not transmitted through insulating material other than ceramic, unless compensated for shrinkage or distortion		P
27.3	Space-threaded screws not used for connection of current-carrying parts, unless direct clamping and suitable locking provided		P
	No thread-cutting screws used for connection of current-carrying parts		P
	Use of two space-threaded or thread-cutting screws in earthing circuits		N/A
27.4	Screws making both mechanical and electrical connections are locked against loosening		P
	Rivets for current-carrying connections subjected to torsion in normal use locked against loosening		N/A
27.5	Screwless connectors not intended for disconnection in normal use prevent disconnection in normal use		N/A
	Connectors withstood 5 N pull through the wire		N/A
	Neither the connector nor the wire became disconnected		N/A
	Directions of the application and exit of the wire not in line, force applied in both directions, one at a time		N/A
	Connectors fulfilled relevant IEC standards and were considered to fulfil requirements of 27.5.		N/A
27.5.1	Conductors secured by more than one means, unless their detachment does not impair safety		N/A
	Only one means of securing, test with detached conductors		N/A
	Clearances not reduced below 50 % of values in 28.1		N/A
28	CREEPAGE DISTANCES, CLEARANCES AND DISTANCES THROUGH INSULATION		P
28.1	Creepage and clearances not less than the values in Table 12, except for cross-over points of motor windings	See Table 28.1	P
	When a resonance voltage occurs, creepage and clearance are not less than specified for the voltage imposed by the resonance; these values increased by 4 mm in case of reinforced insulation		N/A
	Creepage and clearances for a tool with an appliance inlet measured with an appropriate connector inserted		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Creepage and clearances on a tool with other attachment measured on the tool as delivered		P
	Measurements on tool with belt made with the belt in place and belt tension adjusted to the most unfavourable position within its adjustment range		N/A
	Measurements repeated with the belt removed		N/A
	Movable parts placed in the most unfavourable position		P
	Nuts and screws with non-circular heads tightened in the most unfavourable position		P
	Clearances between terminals and accessible metal parts also measured with screws and nuts unscrewed as far as possible and they were not less than 50% of Table 12	See Table 28.1	P
	Distances through slots or openings in external parts of insulating material measured to metal foil in contact with accessible surface with the foil pushed into corners using test probe B of IEC 61032:1997 :	See Table 28.1	P
	2 N force applied to internal wiring, bare conductors and uninsulated capillary tubes of thermostats and similar devices during measurement		P
	30 N force applied to enclosure		P
	Measurements made according to Annex A	See Table 28.1	P
	Creepage and clearances on a tool having parts with double insulation and no metal between basic insulation and supplementary insulation		P
	PWB with peak voltage stresses ≤ 150 V per mm between parts of different potential provided with a min. distance of 0.2 mm, when protected against deposition of dirt	See Table 28.1	N/A
	-PWB with 100 V per mm provided with a min. distance of 0.5 mm, when not protected against deposition of dirt	See Table 28.1	N/A
	Values of the table applied when limits mentioned above resulted in higher values than in the table	See Table 28.1	N/A
	Distances reduced further since the tool complied with the requirements of Clause 18 distances short-circuited one at a time..... :	See Table 28.1	N/A
	Creepage and clearances within optocouplers not measured when individual insulation adequately sealed, with air excluded between material layers		N/A
	For live parts of different polarity separated by basic insulation only, creepage and clearances reduced as tool complied with Clause 18 when creepage and clearances short-circuited..... :	See Table 28.1	N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
28.2	Distance through insulation between metal parts was ≥ 1.0 mm for working voltages ≤ 130 V when separated by supplementary insulation	See Table 28.2	N/A
	Distance through insulation between metal parts was ≥ 1.5 mm for working voltages ≤ 130 V when separated by reinforced insulation	See Table 28.2	N/A
	Distance through insulation between metal parts was ≥ 1.0 mm for working voltages $> 130\text{V} \leq 280\text{V}$ when separated by supplementary insulation, and ≥ 2.0 mm when separated by reinforced insulation	See Table 28.2	P
	Distance through reinforced insulation between windings and accessible metal parts was ≥ 1.0 mm for working voltages $\leq 280\text{V}$	See Table 28.2	P
	Requirement waived as insulation applied was in thin sheet form, other than mica or similar, and for supplementary insulation consisting of at least two layers, one layer having withstood electrical strength test for supplementary insulation		N/A
	Requirement waived as insulation applied was in thin sheet form, other than mica or similar, and for reinforced insulation consisting of at least three layers, two layers having withstood electrical strength test for reinforced insulation		N/A
	Requirement waived as max. temperature rise determined during test of Cl. 12 did not exceed values in 12.5 for inaccessible supplementary or reinforced insulation		N/A
	Requirement waived as inaccessible reinforced or supplementary insulation, after conditioning for 168h at 50 K above max. temperature rise determined per Cl. 12, withstood test of Annex D at the oven temperature and room temperature ($^{\circ}\text{C}$)	See Table D.2	N/A
	For optocouplers, 168 h of conditioning at 50 K above the max. temperature rise measured on optocouplers during tests of Clauses 12 and 18, while operating under most difficult conditions		N/A

ANNEX B	MOTORS NOT ISOLATED FROM THE SUPPLY MAINS AND HAVING BASIC INSULATION NOT DESIGNED FOR THE RATED VOLTAGE OF THE TOOL		N/A
B.1.1	Motors with working voltage ≤ 42 V		N/A
B.9.2	Metal parts of motor considered bare live parts		N/A
B.12.4	Temperature rise of body of motor determined instead of the temperature rise of the windings		N/A
B.12.5	Temperature rise of the body of the motor in contact with insulating materials did not exceed values in Table 1 for the relevant insulating material	See Table 12.1	N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
B.18. 201	Tool operated at rated voltage with the terminals of motor and its capacitors short circuited		N/A
	Tool operated at rated voltage with the supply to the motor open circuited		N/A
	Tool operated at rated voltage with shunt resistor open circuited during operation of motor		N/A
B.21.101	For class I tools with a motor supplied by a rectifier circuit, dc circuit insulated from accessible parts of the tool by double or reinforced insulation		N/A

ANNEX C	LEAKAGE CURRENT		P
C.2	Leakage current measurement of non-operating tool	See Tables C.2A and C.2B	P
C.3	Leakage current measurement of operating tool	See Tables C.3A to C.3D	P

ANNEX D	ELECTRIC STRENGTH		P
D.1	Any protective impedance were disconnected		N/A
	The tools were not connected to the supply		P
	Electric strength is checked by the tests of D.2		P
	For tools with heating elements, test voltages of IEC 60335-1:2010 apply to the heating elements only		N/A
	Insulation between live parts of motor in accordance with Annex B and its other metal parts not subjected to this test		N/A
	Tool in accordance with Annex L, tool is directly connected to the mains or to a non-isolated source		N/A
	Electronic devices bypassed to enable the test to be conducted		N/A
D.2	Test duration 1 min		P
	Voltage of substantially sinusoidal waveform, frequency 50 Hz or 60 Hz		P
	Electric strength test, voltages applied.....:	See Table D.2	P
	To distinguish between capacitor reactance current and unacceptable performance, d.c. potential 1,414 times the that for a.c. was used.....:		P
	No flashover or breakdown occurred during the test	See Table D.2	P

ANNEX H	LOW-POWER CIRCUITS		N/A
	Any points closest to the supply at which the maximum power delivered to the variable resistor does not exceed 15 W at the end of 5 s identified as called a low power points		N/A

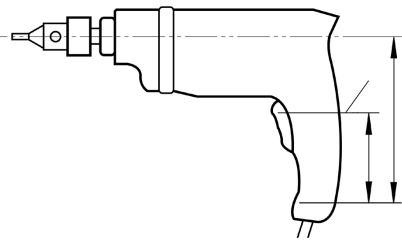
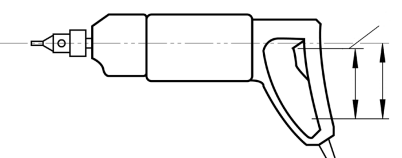
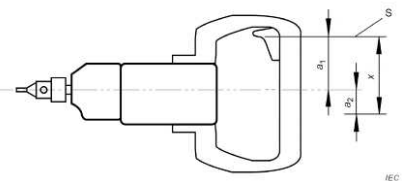
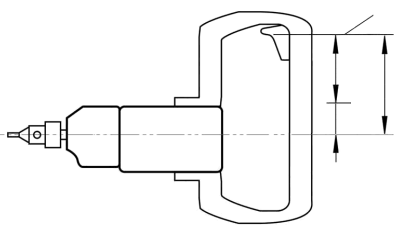
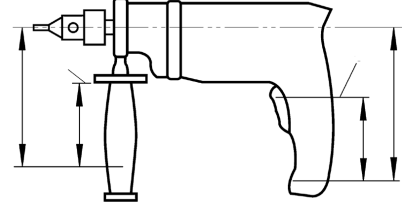
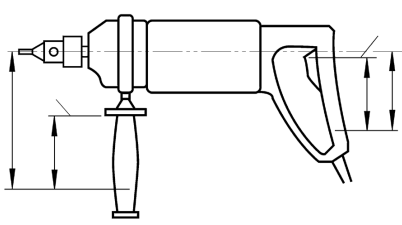
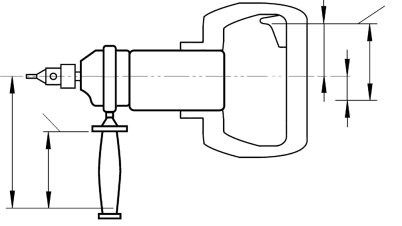
IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

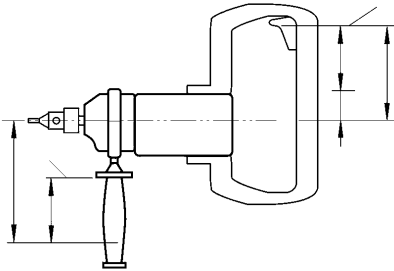
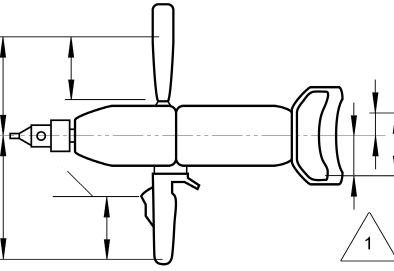
ANNEX K	BATTERY TOOLS AND BATTERY PACKS		N/A
K.1	Rated voltage for tools and battery packs ≤ 75 V d.c.		N/A
K.5.7	Tests to be done at rated voltage were done with a fully charged battery		N/A
K.5.201	Peak voltage of any superimposed ripple exceeding 10 % of the average value was included		N/A
K.5.202	Measurements of lithium-ion cell voltages were made using a filter as specified		N/A
K.5.203	Test area protected against fire and explosion, and well ventilated		N/A
K.5.204	Discharging and charging as specified		N/A
K.5.205	Thermocouples for lithium-ion cell temperature measurement located as specified		N/A
K.5.206	Currents measured during battery charging are average currents		N/A
K.5.207	Fully charged batteries used, after resting for ≥ 2 h but ≤ 6 h at an ambient temperature of (20 ± 5) °C		N/A
K.5.208	Battery consisting of a single cell not subject to special preparations of a cell in a series configuration		N/A
K.5.209	For series arrangement of parallel clusters of cells, the cluster is treated as single cell for specified tests		N/A
K.5.210	End-of-discharge voltages for common cell chemistries observed..... :		N/A
K.8.3	Battery tools and detachable or separable battery packs marked with additional information		N/A
	- Business name and address of the manufacturer and, where applicable, its authorised representative :		—
	- Designation of series or type..... :		—
	Battery tools also marked with additional information		N/A
	- Year of manufacture and a date code identifying at least the month of manufacture..... :		—
	- Designation of the tool..... :		—
	- identification for parts shipped separately for assembly by the end user		—
	Detachable or separable battery packs marked with additional information		N/A
	- capacity in Ah or mAh..... :		—
	- type of battery :		—

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	No misunderstanding by additional markings		N/A
K.8.4	Markings specified in K.8.1, 8.2 and K.8.3 not on a detachable part of the tool		N/A
	Markings specified in 8.2 clearly discernible from the outside of the tool		N/A
	Markings specified in K.8.3 visible with any separable battery pack or detachable battery pack removed		N/A
	Other markings on the tool visible after removal of a cover		N/A
K.8.14.1.1	5) Battery tool use and care		N/A
	6) Service		N/A
K.8.14.1.10 1 A	Replacement of item 1) d)		N/A
K.8.14.2	e) Instructions for battery tools		N/A
K.9.1	Construction and enclosure provide adequate protection against electric shock		N/A
K.9.3	No two conductive, simultaneously accessible parts where the voltage between them is hazardous		N/A
	Conductive, simultaneously accessible parts provided with protective impedance		N/A
	Short circuit current between two simultaneously accessible parts (mA)		N/A
	Capacitance between two simultaneously accessible parts (µF).....		N/A
K.9.5	Electric strength test of D.2 with 750 V applied to insulating material protecting from electric shock	See Table D.2	N/A
K.12.1	Tool operated at no-load until maximum temperature reached or battery discharged.....		N/A
	No operation of protective devices during heating test		N/A
	Temperature rises met values in Table 2		N/A
A	The temperature-rise limit has been specified for the external enclosure does not apply to the enclosure of the impact mechanism.		N/A
K.12.201	Charging of lithium-ion battery under normal conditions did not exceed specified operating region for charging of the cell		N/A
	Charging procedure as specified		N/A
	Voltage, temperature and charging current monitored for all individual cells		N/A
	Test repeated with imbalanced battery		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
K.13.1	Thermoplastic materials of relevant enclosure parts sufficiently resistant to heat		N/A
	Ball-pressure test of IEC 60695-10-2:2003	See Table 13.1	N/A
K.13.2	Glow-wire test applicable only to external enclosure enclosing the current-carrying parts		N/A
	Non-metallic parts in of detachable or separable battery pack supporting connections that carry $\geq 0,2$ A during charging and those within a distance of 3 mm, subjected to the glow-wire test at 850 °C	See Table 13.2	N/A
K.13.2.210 1	Polymeric battery enclosure material around current-carrying parts at least classified V according to IEC 60695-11-10:2013, unless ...		N/A
	... battery pack was tested to K.18.1 a).		N/A
K.18.1	Risk of fire or electric shock as a result of abnormal operation obviated as far as is practical		N/A
	No charring or burning of gauze or tissue paper resulted when battery tool and battery pack were subjected to any abnormal operations, tests a) to f)	See Table K.18.1	N/A
	No explosion during or after the test		N/A
	Adequate protection against electric shock		N/A
	Component(s) or conductors(s) that interrupt or limit the discharge current that operated operate during the above tests a) to f)	See Table K.18.1	N/A
	Test repeated two more times for devices relied upon to pass the test; devices opened the circuit in the same manner		N/A
	Test repeated with the open-circuited device bridged for devices not relied upon to pass the test		N/A
	Protective electronic circuits whose function is relied on to pass a test regarded as providing a SCF and comply with 18.8 with a PL = a	See Table 18.8	N/A
K.18.8	Li-ion charging systems are covered by K.18.201		N/A
K.18.201	Risk of fire and explosion as a result of abnormal operation during charging of a lithium-ion battery is obviated as far as is practical		N/A
	No charring or burning of gauze or tissue paper, no explosion resulted when battery tool and battery pack were subjected to any abnormal conditions a) to d)	See Table K.18.201	N/A
	The cells did not exceed the upper limit charging voltage by more than 150 mV unless...		N/A
	...charging system permanently was disabled from recharging the battery		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	No evident damage to the cell vent to impair compliance with Subclause K.21.202.		N/A
K.18.202	No risk of fire or explosion when main discharge connections of a series configured, integral Li-ion battery, detachable or separable Li-ion battery pack were shorted under extreme imbalance		N/A
	All cells fully charged, one cell fully discharged		N/A
	Main discharge connections of the battery were shorted, resistance $\leq 10 \text{ m}\Omega$		N/A
	No explosion during or after the test		N/A
	No charring or burning of the gauze or tissue paper		N/A
	Component(s) or conductors(s) that interrupt or limit the discharge current that operated operate during the above tests :		N/A
	Test repeated two more times for devices relied upon to pass the test; devices opened the circuit in the same manner		N/A
	Test repeated with the open-circuited device bridged		N/A
	Protective electronic circuits whose function is relied on to pass a test regarded as providing a SCF and comply with 18.8 with a PL = a	See Table 18.8	N/A
K.18.203	No risk of fire or explosion during abusive overcharging of batteries comprised of cells other than the Li-ion type		N/A
	Battery was charged during 1,25 h at a rate of 10 times the C5 rate for the battery		N/A
	No explosion during or after the test		N/A
	No charring or burning of the gauze or tissue paper		N/A
K.19.6	Marking with rated no-load speed required, measured no-load speed of the spindle did not exceed 110 % of the rated no-load speed		N/A
	No-load speed measured after - operated for 5 min at no-load - replacing the battery with a fully charged battery - operating for 1 min at no-load		N/A
K.19.102 A	Handles		-
K.19.102.1	General		-
A	The design of the handle(s) is such that the operator can control the static stalling torque during the operation of the tool. (Fig 102-105)		N/A
A	Single handle tool		-

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
A		MR,max = 400 N x a Mmeas. = Nm	N/A
A		MR,max = 400 N x a Mmeas. = Nm	N/A
A		MR,max = 400 N x a Mmeas. = Nm	N/A
A		MR,max = 400 N x a Mmeas. = Nm	N/A
A	Multi handle tool		-
A		MR,max = 400 N x a Mmeas. = Nm	N/A
A		MR,max = 400 N x a Mmeas. = Nm	N/A
A		MR,max = 400 N x a Mmeas. = Nm	N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
A		MR,max = 400 N x a Mmeas. = Nm	N/A
A		MR,max = 400 N x a Mmeas. = Nm	N/A
K.19.102.2 A	Test equipment		-
A	a) The torque transducer and the rotational angle sensor has been continuously monitoring the torque and the rotation produced by the output spindle of the tool during the test of 19.102.4.		N/A
A	b) The output of the torque transducer is connected to an oscilloscope or other data acquisition equipment capable of displaying the torque vs. time graph of the tool's output during the test of 19.102.4.		N/A
A	c) The torque transducer is rated to measure a torque of at least 150 % of the static stalling torque of the tool or slip torque of an overload clutch (MR) with a measurement accuracy of ± 1 %.		N/A
A	d) The rotational angle is measured with an accuracy of $\pm 2^\circ$.		N/A
A	e) The data acquisition equipment used for measuring the torque signal during the test has a sampling rate of at least 15 kHz, but the bandwidth is limited by a first order low pass filter with a cut-off frequency of $(1 \pm 0,1)$ kHz.		N/A
A	f) The joint that is connected to the tool during the test is capable of stalling the tool over a rotational angle of 30° to 60° . The joint that fulfils this requirement is a torsional element or other such device that remains in equilibrium during the test.		N/A
K.19.102.4 A	Test procedure		-

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
A	The measurement is conducted by using seven trial measurements of the same sample, each trial conducted as follows:		-
A	1) Energize the tool to the full "on" position as quickly as possible and allow the joint to be tightened until it comes to a complete stop.		N/A
A	2) Record the measured output torque.		N/A
A	a) For tools without a mechanical overload clutch, the output torque is determined by either i) or ii):		N/A
A	i) For signals that are stable for a minimum of 2 ms after the initial peak, the output torque value is determined by measuring over the stable region for an interval T not exceeding 100 ms. (Fig 109)		N/A
A	ii) For signals that are not stable for a minimum of 2 ms after the initial peak, the output torque value shall be the r.m.s. value of the signal over the rotation from off until peak torque is achieved. (Fig 110)		N/A
A	The tool employs an electric circuit(s), the output torque is either:		-
A	- all functions affecting the output torque are considered SCFs and are evaluated according to 18.8, the applicable value of i) or ii) above with all functions affecting the output torque enabled; or		N/A
A	- all functions affecting the output torque are not evaluated as SCFs according to 18.8, the greatest applicable value of i) or ii) above with:		N/A
A	• all functions affecting the output torque enabled;		N/A
A	• each function affecting the output torque disabled, tested for one trial. If the output torque is greater than the value with all functions enabled, the test resulting in the greatest output torque value is conducted for an additional two trials, where each trial may use a new sample.		N/A
A	b) For tools with a mechanical overload clutch: The output torque is determined by the peak value of the first peak that occurs after starting the trial. Later peaks, even if they appear to have greater values, are not taken into account. (Fig 111)		N/A
A	3) Before the next trial, disconnect the spindle from the test fixture and operate the tool under no-load for a minimum of 3 s. Allow the tool to cool for a minimum of 2 min before the next trial.		N/A
A	MR is computed as the average of five of the measurements from each of the seven trials, with the highest and lowest measurement eliminated. The standard deviation of the five measurements shall also be computed and shall be less than 5 %.		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
A	If it is not, then the fixture shall be adjusted to achieve the required repeatability. In cases where an electronic circuit that affects the torque is disabled, MR is computed as an average of the three trials in 19.102.3, item 2) a), last bullet.		N/A
K.19.201	Not possible to install a detachable or separable battery pack in reverse polarity		N/A
K.19.202	Li-ion battery enclosure designed to safely release gases generated as a result of venting		N/A
	Total area of the openings in the enclosure allowing gases to pass without obstruction is $\geq 20 \text{ mm}^2$; or...		N/A
	... pressure drop within enclosure was tested , no rupture occurred		N/A
K.20.1	Battery tools and battery packs have adequate mechanical strength and withstand tests of 20.2 and K.20.3.1 or K.20.3.2 and		N/A
	- did not catch fire or explode		N/A
	- met requirements of clauses K.9, K.19 and either K.18.1 (f) or K.28.1 after tests of 20.2 and 28.1		N/A
	Li-ion battery tools and battery packs, after the test of K.20.3.1 or K.20.3.2, - did not have an open circuit voltage below 90 % of the voltage measured immediately prior to the test		N/A
	- demonstrated normal discharging and recharging after the test		N/A
	- showed no damage to the cell vent impairing compliance with K.21.202		N/A
K.20.3.1	Adequate mechanical strength after drop tests on a concrete surface from a height of 1 m		N/A
	Test repeated with the battery pack removed from the tool		N/A
	Test repeated on the battery pack by itself		N/A
	The test was repeated with each attachment or combination of attachments		N/A
K.20.3.2	Impact test with 50 mm, 0,55 kg smooth steel sphere for battery-operated transportable tools..... :		N/A
	travel of the sphere was 1,3 m..... :		N/A
	Damage (except to a guard) accepted, tool became incapable of normal operation		N/A
	Test repeated separately on detachable or separable battery packs with a mass $\geq 3 \text{ kg}$		N/A
	Additional drop test on detachable or separable battery packs with a mass $< 3 \text{ kg}$		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
K.21.17.1.2	The number of cycles is 6 000		N/A
K.21.201	Tool will not accept general purpose batteries as an energy source for their primary function		N/A
K.21.202	Venting of lithium-ion cells, if relied on for safety, not adversely obstructed		N/A
K.21.203	Unsuitable connector types not used for user accessible interfaces between elements of a Li-ion battery system		N/A
K.23.1.10	Power switches have adequate breaking capacity and present no electrical or mechanical failure		N/A
	50 cycles of making and breaking the locked output mechanism current		N/A
K.23.1.201	Power switches withstood, without excessive wear or other harmful effect, the mechanical, electrical, and thermal stresses occurring in normal use		N/A
	6000 cycles of operation making and breaking the no-load of the tool at a fully charged battery		N/A
K.23.201	Battery cells comply with IEC 62133		N/A
K.21.18.Z1 01 A	Rotary hammer with an internal battery has been equipped with an isolation device to prevent the risk of injury from mechanical hazards during servicing or user maintenance, or with a disabling device that prevents unintentional starting of the tool		N/A
	An insulating device must be equipped with:		-
	- a provided disconnection of all poles of the battery from the serviceable region of the tool		N/A
	- an unambiguous indication of the state of the disconnection device which corresponds to each position of its manual control (actuator)		N/A
	- protection against accidental reconnection.		N/A
	A disabling device was achieved by one of the following:		-
	A self-restoring or non-self-restoring lock-off device where two separate and dissimilar actions are necessary before the motor is switched on (e.g. a power switch which has to be pushed in before it can be moved laterally to close the contacts to start the motor). It shall not be possible to achieve these two actions with a single grasping motion or a straight line motion		N/A
	A removable disabling device provided with the tool where it shall not be possible for the tool to be operated when either applied or removed		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
K.23.202	Rechargeable battery cells not of lithium-metal type		N/A
K.24.201	External flexible cable or cord of battery tools with separable battery packs have anchorages such that the conductors are relieved from strain, including twisting, where they are connected within the tool, and protected from abrasion		N/A
K.28.1	Creepage distances and clearances not less than the values in millimetres shown in Table K.1 :	See Table 28.1	N/A
	Smaller clearance and creepage distances for parts of different polarity accepted, shorting of the two parts did not result in the tool starting		N/A
	For parts with a hazardous voltage between them, the sum total of the measured distances between each of these parts and their nearest accessible surface is not less than 1,5 mm clearance and 2,0 mm creepage (Fig. K.1) :		N/A
	Creepage distances and clearances measured as indicated in Annex A		N/A
	Distances through slots or openings in external parts of insulating material measured to metal foil in contact with the accessible surface		N/A
	Foil pushed into corners and the like by means of test probe B of IEC 61032:1997, except not pressed into openings		N/A
	The sum total of distances measured between parts operating at hazardous voltage and accessible surfaces determined by measuring the distance from each part to the accessible surface		N/A
	Distances added together to determine the sum total (see Figure K.1)		N/A
	One of the distances was 1,0 mm or greater (see Annex A, cases 1 to 10)		N/A
	Force applied by means of test probe B of IEC 61032:1997 at the following values:		N/A
	– 2 N for bare conductors		N/A
	– 30 N for enclosures		N/A
	Means provided for securing the tool to a support considered to be accessible		N/A

ANNEX L	BATTERY TOOLS AND BATTERY PACKS PROVIDED WITH MAINS CONNECTION OR NON-ISOLATED SOURCES		N/A
L.1	Rated voltage for battery pack ≤ 250 V a.c. (single phase) or d.c. mains source and ≤ 75 V d.c. battery source		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Rated voltage for battery pack ≤ 75 V d.c.		N/A
L.5.7	Tests to be done at rated voltage were done with a fully charged battery		N/A
L.5.201	Peak voltage of any superimposed ripple exceeding 10 % of the average value was included		N/A
L.5.202	Measurements of lithium-ion cell voltages were made using a filter as specified		N/A
L.5.203	Test area protected against fire and explosion, and well ventilated		N/A
L.5.204	Discharging and charging as specified		N/A
L.5.205	Thermocouples for lithium-ion cell temperature measurement located as specified		N/A
L.5.206	Currents measured during battery charging are average currents		N/A
L.5.207	Fully charged batteries used, after resting for ≥ 2 h but ≤ 6 h at an ambient temperature of (20 ± 5) °C		N/A
L.5.208	Battery consisting of a single cell not subject to special preparations of a cell in a series configuration		N/A
L.5.209	For series arrangement of parallel clusters of cells, the cluster is treated as single cell for specified tests		N/A
L.5.210	End-of-discharge voltages for common cell chemistries observed..... :		N/A
L.8.1	Non-isolated sources that can supply a tool, or tool that can be supplied directly from the mains, marked with as required by the standard:		N/A
	Rated voltage(s) or voltage range(s), (V)..... :		—
	Symbol for nature of supply or frequency (Hz) :		—
	Rated input, (W) or rated current (A)..... :		—
	Symbol for class II..... :		—
L.8.3	Tools and detachable or separable battery packs marked with additional information		N/A
	- Business name and address of the manufacturer and, where applicable, its authorised representative :		—
	- Designation of series or type..... :		—
	Tools also marked with additional information		N/A
	- Year of manufacture and a date code identifying at least the month of manufacture..... :		—
	- Designation of the tool..... :		—

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	- identification for parts shipped separately for assembly by the end user		—
	Detachable or separable battery packs marked with additional information		N/A
	- capacity in Ah or mAh..... :		—
	- type of battery :		—
	No misunderstanding by additional markings		N/A
L.8.4	Markings of L.8.1, 8.2 and L.8.3 not on a detachable part of the tool		N/A
	Markings of 8.2 clearly discernible from outside the tool		N/A
	Markings of L.8.3 visible with any separable or detachable battery pack removed		N/A
	Other markings may be visible after removing cover		N/A
	Indications for switches and controls placed on or in vicinity of components		N/A
	Not placed on parts which can be repositioned		N/A
	Not positioned such that making the marking is misleading		N/A
L.8.14.1.1	5) Battery tool use and care		N/A
	6) Service		N/A
L.8.14.2	e) Instructions for battery tools		N/A
L.9	Construction and enclosure provide adequate protection against electric shock		N/A
	Tools connected to the mains or supplied by a non-isolated source.		N/A
	Tool also evaluated with the battery pack removed when removal without the use of a tool was possible		N/A
L.9.201	There are no two conductive simultaneously accessible parts where the voltage between them is hazardous, except when provided with protective impedance		N/A
	Short circuit current between two simultaneously accessible parts (mA) :		N/A
	Capacitance between two simultaneously accessible parts (µF)..... :		N/A
L.10	Applied only when tool is directly connected to mains, or to a non-isolated source		N/A
L.11	Applied only when tool is directly connected to mains, or to a non-isolated source		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Test on tool capable of charging the battery while performing its function conducted while charging a discharged battery pack		N/A
L.12	Applied only when tool directly connected to mains, or to a non-isolated source		N/A
	Test on tool capable of charging the battery while performing its function conducted while charging a previously discharged battery pack with the charger connected		N/A
	Tool operated at no-load until maximum temperature reached or battery discharged..... :		N/A
	Test repeated, allowing the battery pack to charge while the tool was not operating		N/A
L.12.201	Charging of lithium-ion battery under normal conditions did not exceed specified operating region for charging of the cell		N/A
	Charging procedure as specified		N/A
	Voltage, temperature and charging current monitored for all individual cells		N/A
	Test repeated with imbalanced battery		N/A
L.13.1	Applied only when tool directly connected to mains, or to a non-isolated source	See Table 13.1	N/A
	Tool capable of charging the battery while performing its function also evaluated with charger connected to the mains		N/A
	Tool also evaluated with battery power alone when more unfavourable temperatures may result		N/A
L.13.2	Non-metallic parts in of detachable or separable battery pack supporting connections that carry $\geq 0,2$ A during charging and those within a distance of 3 mm, subjected to the glow-wire test at 850 °C	See Table 13.2	N/A
L.14	Applied only when tool directly connected to mains, or to a non-isolated source		N/A
L.16	Applied only when tool directly connected to mains, or to a non-isolated source		N/A
L.17	Applied only when tool directly connected to mains, or to a non-isolated source		N/A
	Tools not capable of continuous operation operated under battery power for the duration of the test, except evaluated for electric strength with their charger connected		N/A
L.18	Applied only when tool directly connected to mains, or to a non-isolated source, except L.18.8 and L.18.201 to L.18.204,		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
L.18.8	Applied only to charging systems other than Li-ion		N/A
L.18.201	Risk of fire or electric shock as a result of abnormal operation obviated as far as is practical		N/A
	No charring or burning of gauze or tissue paper resulted when battery tool and battery pack were subjected to any abnormal operations, tests a) to f)	See Table L.18.201	N/A
	No explosion during or after the test		N/A
	Adequate protection against electric shock		N/A
	Component(s) or conductors(s) that interrupt or limit the discharge current that operated operate during the above tests a) to f)	See Table L.18.201	N/A
	Test repeated two more times for devices relied upon to pass the test; devices opened the circuit in the same manner		N/A
	Test repeated with the open-circuited device bridged		N/A
	Protective electronic circuits whose function is relied on to pass a test regarded as providing a SCF and comply with 18.8 with a PL = a	See Table 18.8	N/A
L.18.202	Risk of fire and explosion as a result of abnormal operation during charging of a lithium-ion battery is obviated as far as is practical		N/A
	No charring or burning of gauze or tissue paper, no explosion resulted when battery tool and battery pack were subjected to any abnormal conditions a) to d)	See Table L.18.202	N/A
	The cells did not exceed the upper limit charging voltage by more than 150 mV unless...		N/A
	...charging system permanently was disabled from recharging the battery		N/A
	No evident damage to the cell vent to impair compliance with Subclause K.21.202.		N/A
L.18.203	No risk of fire or explosion when main discharge connections of a series configured, integral Li-ion battery, detachable or separable Li-ion battery pack were shorted under extreme imbalance		N/A
	All cells fully charged, one cell fully discharged		N/A
	Main discharge connections of the battery were shorted, resistance $\leq 10 \text{ m}\Omega$		N/A
	No explosion during or after the test		N/A
	No charring or burning of the gauze or tissue paper		N/A
	Component(s) or conductors(s) that interrupt or limit the discharge current that operated operate during the above tests.....		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Test repeated two more times for devices relied upon to pass the test; devices opened the circuit in the same manner		N/A
	Test repeated with the open-circuited device bridged		N/A
	Protective electronic circuits whose function is relied on to pass a test regarded as providing a SCF and comply with 18.8 with a PL = a	See Table 18.8	N/A
L.18.204	No risk of fire or explosion during abusive overcharging of batteries comprised of cells other than the Li-ion type		N/A
	Battery was charged during 1,25 h at a rate of 10 times the C5 rate for the battery		N/A
	No explosion during or after the test		N/A
	No charring or burning of the gauze or tissue paper		N/A
L.19.102.1	The handles are considered controllable when compliance with Subclause K.19.102.		N/A
L.19.201	Not possible to connect a battery pack in reverse polarity		N/A
L.19.202	Li-ion battery enclosure designed to safely release gases generated as a result of venting		N/A
	Total area of the openings in the enclosure allowing gases to pass without obstruction is $\geq 20 \text{ mm}^2$; or...		N/A
	... pressure drop within enclosure was tested , no rupture occurred		N/A
L.20	Applied only when tool directly connected to mains, or to a non-isolated source, except L.20.201 and L.20.202		N/A
L.20.201	Battery tools with its battery pack attached have adequate mechanical strength and withstand tests of L.9, L.19, L.28.1 and either L.18.201 f) or L.28.201, and		N/A
	- did not catch fire or explode		N/A
	- demonstrated normal discharging and recharging after the test		N/A
	- showed no damage to the cell vent impairing compliance with L.21.202		N/A
L.20.202	For hand-held battery tools, L.20.202.1 applies; for transportable battery tools, L.20.202.2 applies		N/A
L.20.202.1	Adequate mechanical strength after drop tests on a concrete surface from a height of 1 m		N/A
	Test repeated with the battery pack removed from the tool		N/A
	Test repeated on the battery pack by itself		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	The test was repeated with each attachment or combination of attachments		N/A
L.20.202.2	Impact test with 50 mm, 0,55 kg smooth steel sphere for battery-operated transportable tools		N/A
	travel of the sphere was 1,3 m		N/A
	Damage (except to a guard) accepted, tool became incapable of normal operation		N/A
	Test repeated separately on detachable or separable battery packs with a mass ≥ 3 kg		N/A
	Additional drop test on detachable or separable battery packs with a mass < 3 kg		N/A
L.21	Applied only when tool directly connected to mains, or to a non-isolated source, except L.21.201 and L.21.202		N/A
L.21.18.Z1 01 A	Rotary hammer with an internal battery has been equipped with an isolation device to prevent the risk of injury from mechanical hazards during servicing or user maintenance, or with a disabling device that prevents unintentional starting of the tool		N/A
	An insulating device must be equipped with:		-
	- a provided disconnection of all poles of the battery from the serviceable region of the tool		N/A
	- an unambiguous indication of the state of the disconnection device which corresponds to each position of its manual control (actuator)		N/A
	- protection against accidental reconnection.		N/A
	A disabling device was achieved by one of the following:		-
	A self-restoring or non-self-restoring lock-off device where two separate and dissimilar actions are necessary before the motor is switched on (e.g. a power switch which has to be pushed in before it can be moved laterally to close the contacts to start the motor). It shall not be possible to achieve these two actions with a single grasping motion or a straight line motion		N/A
	A removable disabling device provided with the tool where it shall not be possible for the tool to be operated when either applied or removed		N/A
L.21.201	Tool will not accept general purpose batteries as an energy source for their primary function		N/A
L.21.202	Venting of lithium-ion cells, if relied on for safety, not adversely obstructed		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
L.21.203	Unsuitable connector types not used for user accessible interfaces between elements of a Li-ion battery system		N/A
L.22	Applied only when tool directly connected to mains, or to a non-isolated source		N/A
L.23	Components		N/A
L.23.1.10	Applied only to power switches of tools capable of performing their intended operation when connected to the mains or to a non-isolated source		N/A
L.23.1.10.2 01	Switches controlling the primary operating means of the tool, except as indicated in L.23.1.10, have adequate breaking capacity and presented no electrical or mechanical failure		N/A
L.23.1.10.2 02	Power switches withstood, without excessive wear or other harmful effect, the mechanical, electrical, and thermal stresses occurring in normal use		N/A
	6000 cycles of operation making and breaking the no-load of the tool at a fully charged battery		N/A
L.23.201	Battery cells comply with IEC 62133		N/A
L.23.202	Rechargeable battery cells not of lithium-metal type		N/A
L.24.1	Also applied to the flexible cord between a non-isolated power source and the tool		N/A
L.24.3	Also applied to the flexible cord between a non-isolated power source and the tool		N/A
L.24.4	This subclause applied, except flexible cord provided between a non-isolated power source and the tool not provided with a plug that can be connected directly to the mains		N/A
L.24.5	Not applied to flexible cord provided between a non-isolated power source and the tool		N/A
L.24.20	Requirements of this Subclause applied, except the flexible cord between a non-isolated power source and the tool not provided with an appliance inlet that can allow direct connection to mains		N/A
L.24.201	External flexible cable and cord have anchorages such that the conductors are relieved from strain, including twisting, where they are connected within the tool, and protected from abrasion		N/A
L.25	Not applied to interconnecting cords		N/A
L.26	Applied to the tool directly connected to the mains or to a non-isolated source		N/A
L.28.1	Applied when tool is directly connected to the mains or to a non-isolated source		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Battery packs connected to the tool during the evaluation		N/A
	Tool also evaluated with the battery pack removed when the removal could be accomplished without the use of a tool		N/A
	Creepage distances and clearances of IEC 60335-1: 2010 applied as applicable		N/A
L.28.201	Creepage distances and clearances not less than the values in millimetres shown in Table L.1		N/A
	Smaller clearance and creepage distances for parts of different polarity accepted, shorting of the two parts did not result in the tool starting		N/A
	For parts having a hazardous voltage between them, the sum of the measured distances between each of these parts and their nearest accessible surface is not less than 1.5 mm clearance and 2.0 mm creepage (Fig. L.1)		N/A
	Creepage distances and clearances measured as indicated in Annex A		N/A
	Distances through slots or openings in external parts of insulating material measured to metal foil in contact with the accessible surface		N/A
	Foil pushed into corners and the like by means of test probe B of IEC 61032:1997, except not pressed into openings		N/A
	The sum total of distances measured between parts operating at hazardous voltage and accessible surfaces determined by measuring the distance from each part to the accessible surface		N/A
	Distances added together to determine the sum total (see Figure L.1)		N/A
	One of the distances was 1,0 mm or greater (see Annex A, cases 1 to 10)		N/A
	Force applied by means of test probe B of IEC 61032:1997 at the following values:		N/A
	– 2 N for bare conductors		N/A
	– 30 N for enclosures		N/A
	Means provided for securing the tool to a support considered to be accessible		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

8.12 A	TABLE: Label Heating Test			N/A
Test Conditions		Conditioned in oven for 24 h at (120 ± 2) °C Y/N Conditioned in oven for 200 h at: °C Y/N Amount of samples: 3		
Test Specimen	Material type	Good adhesion and no curling of edges	Label resists defacement and removal when scraped	
Supplementary information:				

8.12 B	TABLE: Label immersion tests – Water			N/A
Test Conditions		Pre Treating for 24 h at relative humidity of 45 % and temperature: °C Time of labels in water: 48 h Amount of samples: 3		
Test Specimen	Material type	Good adhesion and no curling of edges	Label resists defacement and removal when scraped	
Supplementary information:				

8.12 C	TABLE: Label immersion tests - Oil (IRM 903)			N/A
Test Conditions		Pre Treating for 24 h at relative humidity of 45 % and temperature: °C Time of labels in oil: 48 h Amount of samples: 3		
Test Specimen	Material type	Good adhesion and no curling of edges	Label resists defacement and removal when scraped	
Supplementary information:				

8.12 D	TABLE: Label Standard atmosphere tests			N/A
Test Conditions		Time of labels in controlled atmosphere at relative humidity of 45%: 72h Controlled atmosphere temperature: °C Amount of samples: 3		
Test Specimen	Material type	Good adhesion and no curling of edges	Label resists defacement and removal when scraped	
Supplementary information:				

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

9.1	TABLE: Protection against access to live parts				N/A
Measurement between relevant parts and poles of supply source	Rated voltage U (V)	Measured voltage (V)	Measured current (A)	Measured capacitance (μF)	
Supplementary information:					

11	TABLE: Input data under no-load conditions					P
Input deviation of/at:	Rated P (W) or I (A)	Measured P (W) or I (A)	Ratio (%)	Required ratio (%)	Remark	
230V	800W	431W	186%	110	No load	
235V	800W	445W	180%	110	No load	
240V	800W	463W	173%	110	No load	
Supplementary information: Tested at 50Hz.						

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

12.1A	TABLE: Temperature rise measurements under the conditions of 12.2 to 12.5		P
Test voltage (V) :	216,2		—
Ambient temperature, t ₁ (°C) :	23,2		—
Ambient temperature, t ₂ (°C) :	21,0		
Operating time (min, s)..... :	30 Cycles (30s “on” 90s “off)		—
Speed (min ⁻¹) :	764		—
Input Wattage (W) :	749		—
Input current (A) :	3,682		—
Torque (Nm) :	4,05		—
Thermocouple Locations		Temperature rise measured (K)	Temperature rise limit (K)
Stator core		33,1	For reference
Brush holder		12,8	For reference
Power supply lead		1,0	50
Capacitor		0,6	60
Switch		1,4	30
Internal wiring		1,8	50
Enclosure		15,5	60
Grip area (i.e. Handle, gear housing)		0,8	50
Supplementary information: Tested at 60Hz.			

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

12.1B	TABLE: Heating test, resistance method					P
	Test voltage (V)	216,2				—
	Ambient, t ₁ (°C).....	23,2				—
	Ambient, t ₂ (°C).....	21,0				—
Temperature rise of winding		R ₁ (Ω)	R ₂ (Ω)	ΔT measured (K)	ΔT Limit (K)	Insulation class
Stator		1,991	2,438	60,1	90	120
Rotor (1-6 segment)		2,047	2,572	68,3	90	120
Supplementary information: Tested at 60Hz.						

12.1A	TABLE: Temperature rise measurements under the conditions of 12.2 to 12.5			P
Test voltage (V)	254,4			—
Ambient temperature, t ₁ (°C) :	23,2			—
Ambient temperature, t ₂ (°C) :	20,5			
Operating time (min, s).....	30 Cycles (30s “on” 90s “off)			—
Speed (min ⁻¹)	948			—
Input Wattage (W)	890			—
Input current (A)	3,717			—
Torque (Nm)	3,51			—
Thermocouple Locations		Temperature rise measured (K)	Temperature rise limit (K)	
Stator core		31,4	For reference	
Brush holder		11,6	For reference	
Power supply lead		0,9	50	
Capacitor		0,6	60	
Switch		1,4	30	
Internal wiring		1,7	50	
Enclosure		15,3	60	
Grip area (i.e. Handle, gear housing)		1,0	50	
Supplementary information: Tested at 60Hz.				

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

12.1B	TABLE: Heating test, resistance method					P
	Test voltage (V)	216,2				—
	Ambient, t ₁ (°C).....	23,2				—
	Ambient, t ₂ (°C).....	21,0				—
Temperature rise of winding		R ₁ (Ω)	R ₂ (Ω)	ΔT measured (K)	ΔT Limit (K)	Insulation class
Stator		1,991	2,396	54,6	90	120
Rotor (1-6 segment)		2,047	2,562	67,5	90	120
Supplementary information: Tested at 60Hz.						

13.1	TABLE: Ball Pressure Test of Thermoplastics				P
Allowed impression diameter (mm) :			2,0		—
Object/ Part No.	Material	Manufacturer/ trademark	Test temperature (°C)	Impression diameter (mm)	
Enclosure	PA6-GF30	SKT electric machine Co. Ltd	75	0,4	
Brush holder	PF		125	1,0	
Supplementary information:					

13.2	TABLE: Glow Wire Test					P
Object/ Part No.	Material	Manufacturer/ trademark	Test temperature (°C)	Material ignited, Yes/No	Layer under Test Sample ignited, Yes/No	Verdict
Enclosure	PA6-GF30	SKT electric machine Co. Ltd	550	No	No	P
Brush holder	PF		550	No	No	P
Supplementary information:						

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

16	TABLE: Overload Protection of Transformers and Associated Circuits		N/A
Test voltage :		—	
Ambient temperature (°C) :		—	
Input current (A) / Input Wattage (W) :		—	
Applied short-circuit or overload :		—	
Measurement at:	Temperature rise (K)	Allowed Limit (K)	
Transformer winding (thermocouple)			
Transformer winding (T ₁)R-R			
Supplementary Information:			

18.6.1	TABLE: Fault Condition Tests				P
	Ambient temperature (°C)	21,2			—
	Fuse-link Current (A)	--			—
Component	Fault Condition	Test Voltage (V)	Test Duration*	Comment/Result Test repeated Yes/No**	
Electronic components in speed control device	SC	240	until steady conditions	No	
	OC	240	until steady conditions	No	
Supplementary Information: * Tests were continued until - a protective device operates, or - until steady conditions are established or - an open circuit occurs. ** Test was repeated on a second sample due to an intentionally weak part permanently open-circuited to terminate the test.					

18.8.1A	TABLE: Performance levels of Safety Critical Functions			N/A
Type and purpose of SCF	Min. PL determined based on: ^{1,2}	Min. PL	Actual PL	
Supplementary Information: ¹ IEC 62841-2-6 ² For safety critical functions not listed in Table 4 of IEC 62841-1 and provided by electronic circuits, PL values were determined using the methods of ISO 13849-1. ³ as measured in accordance with 19.102				

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

18.8.1B	TABLE: Software in Safety Critical Functions		—
H.11.12.3 from IEC 60730-1:2010			
H.11.12.3	Measures to avoid errors		—
H.11.12.3.1	For controls with software Class B or C the V-model for the software life cycle was applied		N/A
	Measures used for software class C are inherently acceptable for software class B		N/A
	Other methods applied if they incorporate disciplined and structured processes including design and test phases :		N/A
H.11.12.3.2	Specification		—
H.11.12.3.2.1	Software safety requirements		—
H.11.12.3.2.1.1	The specification of the software safety requirements includes:		—
	- A description of each safety related function to be implemented, including its response time(s): - functions related to the application including their related software classes - functions related to the detection, annunciation and management of software or hardware faults		N/A
	A description of interfaces between software and hardware		N/A
	A description of interfaces between any safety and non-safety related functions		N/A
H.11.12.3.2.2	Software architecture		—
H.11.12.3.2.2.1	The description of software architecture shall include the following aspects:		—
	Techniques and measures to control software faults/errors (refer to H.11.12.2)		N/A
	Interactions between hardware and software		N/A
	Partitioning into modules and their allocation to the specified safety functions		N/A
	Hierarchy and call structure of the modules (control flow)		N/A
	Interrupt handling		N/A
	Data flow and restrictions on data access		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Architecture and storage of data		N/A
	Time based dependencies of sequences and data		N/A
H.11.12.3.2.2	The architecture specification was verified against the specification of the software safety requirements by static analysis. Acceptable methods are:		—
	Control flow analysis		N/A
	Data flow analysis		N/A
	Walk-throughs / design reviews		N/A
H.11.12.3.2.3.1	Based on the architecture design, software is suitably refined into modules. Software module design and coding are implemented in a way that is traceable to the software architecture and requirements		N/A
H.11.12.3.2.3.2	Software code is structured		N/A
H.11.12.3.2.3.3	Coded software is verified against the module specification, and the module specification is verified against the architecture specification by static analysis		N/A
H.11.12.3.2.4	Design and coding standards		—
	Program design and coding standards is consequently used during software design and maintenance		N/A
	Coding standards specify programming practice, proscribe unsafe language features, and specify procedures for source code documentation as well as for data naming conventions		N/A
H.11.12.3.3	Testing		—
H.11.12.3.3.1	Module design (software system design, software module design and coding)		—
H.11.12.3.3.1.1	A test concept with suitable test cases is defined based on the module design specification.		N/A
H.11.12.3.3.1.2	Each software module is tested as specified within the test concept		N/A
H.11.12.3.3.1.3	Test cases, test data and test results are documented		N/A
H.11.12.3.3.1.4	Code verification of a software module by static means includes such techniques as software inspections, walk-throughs, static analysis and formal proof		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Code verification of a software module by dynamic means includes functional testing, white-box testing and statistical testing		N/A
H.11.12.3.3.2	Software integration testing		N/A
H.11.12.3.3.2.1	A test concept with suitable test cases is defined based on the architecture design specification		N/A
H.11.12.3.3.2.2	The software is tested as specified within the test concept		N/A
H.11.12.3.3.2.3	Test cases, test data and test results are documented		N/A
H.11.12.3.3.3	Software validation		—
H.11.12.3.3.3.1	A validation concept with suitable test cases is defined based on the software safety requirements specification		N/A
H.11.12.3.3.3.2	The software is validated with reference to the requirements of the software safety requirements specification as specified within the validation concept.		N/A
	The software is exercised by simulation or stimulation of:		N/A
	• input signals present during normal operation		N/A
	• anticipated occurrences		N/A
	• undesired conditions requiring system action		N/A
H.11.12.3.3.3.4	Test cases, test data and test results are documented		N/A
H.11.12.3.4	Other Items		—
H.11.12.3.4.1	Tools, programming languages are assumed to be suitable if they comply with "increased confidence from use" according to IEC 61508-7, C.4.4	Only applicable for SCF with PL $\geq$ c	N/A
H.11.12.3.4.2	Management of software versions: All versions are uniquely identified for traceability		N/A
H.11.12.3.4.3	Software modification		—
H.11.12.3.4.3.1	Software modifications are based on a modification request which details the following:		—
	• the hazards which may be affected		N/A
	• the proposed change		N/A
	• the reasons for change		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
H.11.12.3.4.3.2	An analysis is carried out to determine the impact of the proposed modification on functional safety.		N/A
H.11.12.3.4.3.3	A detailed specification for the modification is generated including the necessary activities for verification and validation, such as a definition of suitable test cases		N/A
H.11.12.3.4.3.4	The modification are carried out as planned		N/A
H.11.12.3.4.3.5	The assessment of the modification is carried out based on the specified verification and validation activities. This may include:		N/A
	• a reverification of changed software modules		N/A
	• a reverification of affected software modules		N/A
	• a revalidation of the complete system		N/A
H.11.12.3.4.3.6	All details of modification activities are documented		N/A
H.11.12.3.5	For class C control functions: One of the combinations (a–p) of analytical measures given in the columns of table H.9 is used during hardware development	Measures to avoid errors for class C not required	N/A

23.1		TABLE: Critical components information				P
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Switch	ZHEJIANG JIABEN ELECTRONICS CO LTD	FA2-6/1BE(E)	AC 250V, 6(6)A, 5E4	EN 61058-1	TUV R 50102892	
X2-Capacitor	Yongkang City Huyan Soldering Material Factory	TNS-2H	AC 275V, X2, 0,33μF	EN 60384-14	VDE 40006984	
Alt	Zhenjiang Yuanrun Electronics Co., Ltd.	MEX	AC 275V/300V, X2, 0,33μF, 40/100/21	EN 60384-14	TUV HN 69262363	
Heat-Shrinkable Tube	Shenzhen Woer Heat-Shrinkable Material Co., Ltd.	RSFR-H	600V, 125°C	EN 62841-1 EN IEC 62841-2-6	Tested with Appliance UL E203950	
Alt	Changyuan Electronics (Shenzhen) Co., Ltd.	CB-HFT	600V, 125°C	EN 62841-1 EN IEC 62841-2-6	Tested with Appliance UL E180908	
Internal wire	Zhejiang Lanxi Electrician Material Factory	227IEC06(RV)	0,5-0,75mm ² , 300/500V	EN 62841-1 EN IEC 62841-2-6	Tested with appliance	

IEC 62841-1 ATTACHMENT					
Clause	Requirement + Test			Result - Remark	Verdict
Alt	Wenzhou Zhongan Cable & Cord Co., Ltd.	227IEC06(RV)	0,5-0,75mm ² , 300/500V	EN 62841-1 EN IEC 62841-2-6	Tested with appliance
Alt	Ruian Anxin Wire Factory	227IEC06(RV)	0,5-0,75mm ² , 300/500V	EN 62841-1 EN IEC 62841-2-6	Tested with appliance
Alt	Wenzhou Shiouhai Zhenxing Dianxian Chang	227IEC06(RV)	0,5-0,75mm ² , 300/500V	EN 62841-1 EN IEC 62841-2-6	Tested with appliance
Alt	WUJIANG SHENJIANG WIRE & CABLE CO LTD	1015	20AWG, 600V, 105°C	EN 62841-1 EN IEC 62841-2-6	Tested with appliance UL E225667
Alt	ZHEJIANG YONGKANG SHENGDA WIRE CO LTD	1015	20AWG, 600V, 105°C	EN 62841-1 EN IEC 62841-2-6	Tested with appliance UL E313307
Motor	SKT electric machine Co. Ltd	---	230-240V~, Class120, Stator: 1,991 Ω (23, 2°C) Rotor: (diagonal): 2,992 Ω (23, 2°C)	EN 62841-1 EN IEC 62841-2-6	Tested with appliance
Enclosure	SKT electric machine Co. Ltd	PA6-GF30	Min. thickness: 2,3mm	EN 62841-1 EN IEC 62841-2-6	Tested with appliance
Plug	ZHEJIANG YONGKANG SHENGDA WIRE Co. Ltd.	YK-002	AC 250V, 16A	DIN VDE 0620-2-1	VDE 40000552
Alt	Shanghai Chuangqi Cable Co., Ltd.	CQ-01	AC 250V, 16A	DIN VDE 0620-2-1	VDE 40026406
Alt	Ningbo Huashun Electronics Co., Ltd	GH-002	AC 250V, 16A	DIN VDE 0620-2-1	VDE 40018218
Alt	Wuxi Zhonghui Wire & Cable Co., Ltd.	ZH-2	AC 250V, 16A	DIN VDE 0620-2-1	VDE 40022004
Alt	Yuyao Jingyi Electronics Co., Ltd.	JY-02	AC 250V, 16A	DIN VDE 0620-2-1	VDE 40005422
Alt	Wuxi Vigorous Electric Co., Ltd.	V-2	AC 250V, 16A	DIN VDE 0620-2-1	VDE 40041842
Alt	Chau's Electrical Co., Ltd.	CE-510S	AC 250V, 16A	DIN VDE 0620-2-1	VDE 40025239

IEC 62841-1 ATTACHMENT					
Clause	Requirement + Test			Result - Remark	Verdict
Alt	Zhenjiang Huayin Instrument and Electrical Equipment Co., Ltd.	2VTJ2	AC 250V, 16A	DIN VDE 0620-2-1	VDE 125439
Supply Cord	Wuxi zhonghui wire cable Co., Ltd	H07RN-F	2X1,0mm ²	DIN EN 50525-2-21	VDE 40020334
Alt	Shaoxing Nanyang cable Co., Ltd.	H07RN-F	2X1,0mm ²	DIN EN 50525-2-21	VDE 40016379
Alt	Shanghai Chuangqi Cable Co., Ltd.	H07RN-F	2X1,0mm ²	DIN EN 50525-2-21	VDE 40025408
Alt	Ningbo Huashun Electronics Co., Ltd	H07RN-F	2X1,0mm ²	DIN EN 50525-2-21	VDE 40014082
Alt	Wuxi Zhonghui Wire & Cable Co., Ltd.	H07RN-F	2X1,0mm ²	DIN EN 50525-2-21	VDE 40020334
Alt	Yuyao Jingyi Electronics Co.,Ltd.	H07RN-F	2X1,0mm ²	DIN EN 50525-2-21	VDE 40017356
Alt	Wuxi Vigorous Electric Co., Ltd.	H07RN-F	2X1,0mm ²	DIN EN 50525-2-21	VDE 40041564
Alt	Chau's Electrical Co., Ltd.	H07RN-F	2X1,0mm ²	DIN EN 50525-2-21	VDE 40020089
					VDE 40016331
		H05RN-F			VDE 40020089
		H05VV-F			VDE 113934
Alt	ZHENJIANG ZHONGJIA ELECTRIC CO., LTD.	H05RN-F	2X1,0mm ²	DIN EN 50525-2-11	VDE 40030173
For BS					
BS plug	Ningbo Qiaopu Electric Co., Ltd	D09	AC 250V, 13A	BS 1363-1	ASTA 930
Alt	Scolmore International Ltd.	SW 368 or SW 368 II	AC 250V	BS 1363-1	BSI KM 10807
Alt	Yuyao Jingyi Electronics Co., Ltd.	JY13A	AC 250V, 13A	BS 1363-1	BSI KM 72974
Alt	Yongkang Kangda Electric Appliance Co., Ltd.	KD-166 or KD168	AC 250V, 13A	BS 1363-1	BSI KM 71081
Alt	Scolmore International Ltd.	SW 168 or SW 208	AC 250V	BS 1363-1	BSI KM 10807
Alt	Hangzhou Hongshi Electrical Ltd	SW258 or SW238	AC 250V, 13A	BS 1363-1	BSI KM 95288

IEC 62841-1 ATTACHMENT					
Clause	Requirement + Test			Result - Remark	Verdict
Alt	Zhenjiang Huayin Instrument and Electrical Equipment Co. Ltd	2B04	AC 250V, 13A	BS 1363-1	BSI KM 70530
Alt	Chau's Electrical Company Limited	BS-01	AC 250V, 13A	BS 1363-1	BSI KM 41436
Fuse inside BS plug	Dongguan Cooper Electronics Co., Ltd.	TDC180	AC 240V, 13A	BS 1362	ASTA 658
Alt	Hangzhou Hongshi Eelctrical Ltd.	Richstar &SWE	AC 240V, 13A	BS 1362	BSI KM 34254
1) Provided evidence ensures the agreed level of compliance. See OD-CB2039.					

27.1	TABLE: Torque Test for screws and nuts				P
Threaded part identification	Thread diameter (mm)	Column number (I, II, or III)	Applied torque (Nm)	Number of cycles (5 or 10)	
Screws of enclosure	3,9	II	1,2	10	
Screws of anchorage	3,9	II	1,2	10	
Screws of switch terminal	2,9	II	0,5	5	
Supplementary information:					

28.1	TABLE: Clearance And Creepage Distance Measurements					P
clearance cl and creepage distance cr at/of:	Up (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	required cr (mm)	cr (mm)
L - N	240	---	2,5	7,4	3,0	7,4
Rotor winding - Core	240	---	2,0	4,8	2,0	4,8
Stator winding - Core	240	---	2,0	5,0	2,0	5,0
Stator winding - Enclosure	240	---	6,0	10,0	6,0	10,0
Rotor winding - Axis	240	---	6,0	8,0	6,0	8,0
Internal wiring - Enclosure	240	---	4,0	5,5	4,0	5,5
Stator core-Enclosure	240	---	4,0	8,0	4,0	8,0
L/N - Enclosure	240	---	8,0	9,0	8,0	9,0
Commutator – Bearing	240	---	8,0	8,9	8,0	10,0
Supplementary information:						

IEC 62841-1 ATTACHMENT				
Clause	Requirement + Test		Result - Remark	Verdict
28.2	TABLE: Distance Through Insulation Measurements			P
Distance through insulation dti at/of:		U r.m.s. (V)	Test voltage (V)	Required dti (mm)
Live parts – Shaft (Rotor)		---	230-240	2,0
Rotor core – Shaft (Rotor)		---	230-240	1,0
Supplementary information:				

C.2A	TABLE: Leakage Current of the non-operating tool as per clause 14.1					P
Points of application	Test voltage (rated V)	Freq. (Hz)	Selector Switch Position	Allowed leakage current (mA)	Measured leakage (mA)	
L/N – Accessible surface	240	50/60	1&2	0,25	0,004 max.	
Supplementary Information:						

C.2B	TABLE: Leakage Current of the non-operating tool as per clause 14.4					N/A
Points of application	Test voltage (rated V)	Freq. (Hz)	Selector Switch Position	Allowed leakage current (mA)	Measured leakage (mA)	
Supplementary Information:						

C.3A	TABLE: Leakage Current of the operating tool as per clause 12.1					P
Points of application	Test voltage (1.06 X rated V)	Freq. (Hz)	Selector Switch Position (ON /OFF ¹)	Allowed leakage current (mA)	Measured leakage (mA)	
L/N – Accessible surface	254,4	60	1&2	0,25	0,003 max.	
Supplementary Information:						

C.3B	TABLE: Leakage Current of the operating tool as per clause 14.3					N/A
Points of application	Test voltage (rated V)	Freq. (Hz)	Selector Switch Position (ON /OFF ¹)	Allowed leakage current (mA)	Measured leakage (mA)	
Supplementary Information:						

C.3C	TABLE: Leakage Current of the operating tool as per clause 18.5.1					P
Points of application	Test voltage (rated V)	Freq. (Hz)	Selector Switch Position (ON /OFF ¹)	Allowed leakage current (mA)	Measured leakage (mA)	

IEC 62841-1 ATTACHMENT					
Clause	Requirement + Test			Result - Remark	Verdict
L/N – Accessible surface	240	50/60	1&2	2	0,225 max.
Supplementary Information:					

C.3D	TABLE: Leakage Current of the operating tool as per clause 18.5.4					N/A
Points of application	Test voltage (rated V)	Freq. (Hz)	Selector Switch Position (ON /OFF ¹)	Allowed leakage current (mA)	Measured leakage (mA)	
Supplementary Information:						

D.2	TABLE: Dielectric Strength			P
Test voltage applied between:		Test during or after clause	Test potential applied (V)	Breakdown / flashover (Yes/No)
- windings and metal core of the motor field over basic insulation		12.6	1250	N/A
- commutator and metal core of the motor armature over basic insulation		12.6	1250	N/A
- metal core and motor armature spindle of the motor armature over supplementary insulation		12.6	2500	N/A
- commutator and motor armature spindle over reinforced insulation		12.6	3750	N/A
- between live parts and other metal parts over basic insulation		14.1	1250	No
- between inaccessible metal parts and accessible parts over supplementary insulation		14.1	2500	No
- between live parts and accessible parts over reinforced insulation		14.1	3750	No
- accessible metal parts in class I tools and the supply cord wrapped with metal foil		14.1	1250	N/A
- accessible metal parts in class II tools and the supply cord wrapped with metal foil		14.1	1750	No
- between live parts and other metal parts over basic insulation		14.2.2	1250	N/A
- between inaccessible metal parts and accessible parts over supplementary insulation		14.2.2	2500	N/A
- between live parts and accessible parts over reinforced insulation		14.2.2	3750	N/A
- live parts and accessible parts over basic insulation		14.3	1250	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
- live parts and accessible parts over reinforced insulation	14.3	3750	N/A
- live parts and accessible parts over basic insulation	14.4	1250	N/A
- live parts and accessible parts over reinforced insulation	14.4	3750	N/A
- between live parts and other metal parts over basic insulation	17.2 and 17.3	937,5	No
- between inaccessible metal parts and accessible parts over supplementary insulation	17.2 and 17.3	1875	No
- between live parts and accessible parts over reinforced insulation	17.2 and 17.3	2812,5	No
- live parts and accessible parts over basic insulation	18.3 and 18.4	1250	N/A
- live parts and accessible parts over reinforced insulation	18.3 and 18.4	3750	N/A
- live parts and accessible parts not grounded, if the tool does not operate anymore	18.5.1	1500	No
- live parts and accessible parts not grounded, if the tool still operates	18.5.1	2500	N/A
- commutator segments and armature shaft in series motors with class II armature construction	18.5.2	1500	N/A
- live parts and accessible parts not grounded, if any winding is open circuited	18.5.4	1500	N/A
- live parts and accessible parts not grounded, if no windings are open circuited	18.5.4	2500	N/A
- live parts and accessible parts over basic insulation	20.2 to 20.4	1250	No
- live parts and accessible parts over reinforced insulation	20.2 to 20.4	3750	No
- between the handles and grasping surfaces in contact with foil and the output shaft of the tool	20.5	1250	No
- between live parts and other metal parts over basic insulation	21.12	937,5	N/A
- between inaccessible metal parts and accessible parts over supplementary insulation	21.12	1875	N/A
- between live parts and accessible parts over reinforced insulation	21.12	2812,5	N/A
- shafts of operating knobs, handles, levers etc. and their insulating covering wrapped in metal foil	21.29	1250	No
- live parts and accessible parts over basic insulation	22.6	1250	N/A
- live parts and accessible parts over reinforced insulation	22.6	3750	N/A
- basic insulation	28.2.b)	1250	N/A
- supplementary insulation	28.2.b)	2500	N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
- reinforced insulation	28.2.b)	3750	N/A
- over insulation protecting from electric shock	K.9.5	750	N/A
Supplementary information:			

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

K12.1	TABLE: Normal Temperature Test for Battery Tool			N/A
Ambient temperature (°C)				—
Measurement at:		Temperature rise (K)	Allowed Limit (K)	
Enclosure, outside, gripping surface				
Enclosure , outside, near motor				
Enclosure outside, gear housing				
Supplementary Information:				
Status of overload protector at end of test [] No change [] Opened during the Test [] N/A				

K.18.1	TABLE: Battery Tool Abnormal Operation					N/A
		Resistance applied (max. 10 mΩ)	Protective device operated during first test?	Test repeated 2 more times with device in place?	Test repeated 1 more time with device bridged?	Explosion, charring or burning of test materials?
a) Terminals of detachable battery pack with exposed terminals shorted						
b) Motor terminals shorted						
c) Motor rotor locked						
d) Cord between battery tool and separable battery pack shorted						
e) Cord between tool and charger shorted						
f) Any two uninsulated parts of opposite polarity in battery tools shorted						
Supplementary Information:						

K.18.201	TABLE: Lithium-ion charging systems – Abnormal Conditions					N/A
Abnormal conditions		Explosion occurred?	Charring or burning of test materials?	Upper limit charging voltage not exceeded by >150 mV ¹⁾	Charging system permanently disabled? ²⁾	Cell vent damaged?
a) Components in the charging system faulted as in 18.6.1 b) to f)						
b) One cell 50% charged in a fully discharged battery						

IEC 62841-1 ATTACHMENT					
Clause	Requirement + Test			Result - Remark	Verdict
c) Charging of a series configured battery with all cells 50% charged, one cell shorted					
d) Short across a component or between adjacent PCB tracks					
Supplementary Information: One of conditions ¹⁾ or ²⁾ is sufficient to achieve compliance with this subclause.					

L.18.1	TABLE: Battery Tool Abnormal Operation					N/A
Abnormal conditions	Resistance applied (max. 10 mΩ)	Protective device operated during first test?	Test repeated 2 more times with device in place?	Test repeated 1 more time with device bridged?	Explosion, charring or burning of test materials?	
a) Terminals of detachable battery pack with exposed terminals shorted						
b) Motor terminals shorted						
c) Motor rotor locked						
d) Cord between battery tool and separable battery pack shorted						
e) Cord between tool and charger shorted						
f) Any two uninsulated parts of opposite polarity in battery tools shorted						
Supplementary Information:						

L.18.202	TABLE: Lithium-ion charging systems – Abnormal Conditions					N/A
Abnormal conditions	Explosion occurred?	Charring or burning of test materials?	Upper limit charging voltage not exceeded by >150 mV ¹⁾	Charging system permanently disabled? ²⁾	Cell vent damaged?	
a) Components in the charging system faulted as in 18.6.1 b) to f)						
b) One cell 50% charged in a fully discharged battery						
c) Charging of a series configured battery with all cells 50% charged, one cell shorted						
d) Short across a component or between adjacent PCB tracks						
Supplementary Information: One of conditions ¹⁾ or ²⁾ is sufficient to achieve compliance with this subclause.						

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 62841-1 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES Electric Motor-Operated Hand-Held, Transportable Tools and Lawn and Garden Machinery - Safety - Part 1: General requirements			
Differences according to : EN 62841-1:2015 + AC:2015			
Attachment Form No..... : EU_GD_IEC62841_1E			
Attachment Originator : DEKRA Certification B.V.			
Master Attachment..... : 2021-08-27			
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	CENELEC COMMON MODIFICATIONS (EN)		—
8	MARKINGS AND INSTRUCTIONS		—
8.4	Replace the 2nd paragraph with the following:		—
	Markings specified in 8.2 and 8.3 are clearly discernible from the outside of the tool.		P
	Other markings on the tool may be visible after removal of a cover, provided that the location of the markings is readily accessible.		N/A
8.14	The words "Original instructions" appear on the language version(s) verified by the manufacturer or his authorised representative.		P
	Where no "Original instructions" exist in the official language(s) of the country where the tool is to be used, a translation into that/those language(s) is provided by the manufacturer or his authorised representative or by the person bringing the tool into the language area in question.		N/A
	The translations bear the words "Translation of the original instructions", and they are accompanied by a copy of the "Original instructions".		N/A
8.14.2	The noise emission, which is measured in accordance with I.2		P
	Where L _{pA} does not exceed 70 dB(A), this fact is indicated; L _{pA} [dB(A)] : K _{pA} [dB(A)] :		N/A
	A-weighted sound pressure level L _{pA} and its uncertainty K _{pA} , where L _{pA} exceeds 70 dB(A).	L _{pA} :98,8 dB(A) K _{pA} :3 dB(A)	P
	peak C-weighted instantaneous sound pressure value L _{pCpeak} , where this exceeds 63 Pa (130 dB in relation to 20 µPa) L _{pCpeak} (dB) : K _{pCpeak} (dB) :		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	A-weighted sound power level LWA and its uncertainty KWA, where the A-weighted sound pressure level LpA exceeds 80 dB(A); LWA [dB(A)] : KWA [dB(A)] :	LWA: 109,8 dB(A) KWA: 3,0 dB(A)	P
	The vibration total value and its uncertainty which is measured in accordance with I.3.		P
	When the vibration total value does not exceed 2,5 m/s ² , this is stated. Work mode - vibration emission value a (m/s ²).....: Uncertainty K (m/s ²).....:	a _{h,HD} = 14,558 m/s ² a _{h,Cheq} = 12,475 m/s ² K = 1,5 m/s ²	P
	When the vibration total value exceeds 2,5 m/s ² , its value is given in the instructions.		P
	Information that the declared vibration total value has been measured in accordance with a standard test method and may be used for comparing one tool with another		P
	Information that the declared vibration total value may also be used in a preliminary assessment of exposure.		P
	A warning that the vibration emission during actual use of the power tool can differ from the declared total value depending on the ways in which the tool is used		P
	A warning of the need to identify safety measures to protect the operator that are based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time).		P

18	ABNORMAL OPERATION		N/A
18.8.1	In Table 4, replace the table footnote by the following: * Performance levels are to be specified in the relevant part of EN 62841-2, EN 62841-3 or EN 62841-4.		N/A
	Delete the 5th paragraph and the subsequent NOTE 3.		N/A

21	CONSTRUCTION		—
21.18.1	delete the 2nd paragraph.		—

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
21.18.1.Z1	Unless hand-held tools are equipped with a momentary power switch without lock-on device, voltage recovery following an interruption of the supply do not give rise to a hazard.	See part 2	N/A
	The relevant part of EN 62841-2 specifies if this subclause applies and gives specific requirements.		N/A
21.18.2.1	Unless transportable tools are equipped with a momentary power switch without lock-on device, voltage recovery following an interruption of the supply do not give rise to a hazard.		N/A
	The relevant part of EN 62841-3 specifies if this subclause applies and gives specific requirements.		N/A

ANNEX E	METHODS OF APPLYING ISO 13849-1 TO POWER TOOLS	–
	(Void)	–

ANNEX I	MEASUREMENT OF NOISE AND VIBRATION EMISSIONS	–
	Replace the title of Annex I by the following ANNEX I – (NORMATIVE)	–
I.2	Noise test code (grade 2)	–
I.2.Z1	Noise reduction	–
	Add the following before I.2.1:	P
	Noise reduction at tools is an integral part of the design process and is achieved by particularly applying measures at source to control noise, see for example EN ISO 11688-1.	P
	The success of the applied noise reduction measures is assessed on the basis of the actual noise emission values in relation to other machines of the same type with comparable non acoustical technical data.	P
	The major sound sources of tools are: motor, fan, gear.	P
I.2.1	General	–
	The noise emission determined by using a machine which has design and technical specifications replicating the machine concerned.	P
	The overall noise can be divided into the pure machine noise and the noise generated from the processed workpiece.	P
	The load conditions for particular tools are therefore specified in the relevant part of IEC 62841-2, IEC 62841-3 or IEC 62841-4.	See part 2 P

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
I.2.2	Sound power level measured according to ISO 3744		P
I.2.2.2	Hand-held power tools		P
	For all hand-held power tools, the sound power level is determined by using a hemispherical / cylindrical measurement surface according to Figure I.2.		P
I.2.2.3	For all transportable power tools, the sound power level is determined by using a cubic measurement surface according to Figure I.3.		N/A
I.2.2.4	The sound power level of lawn and garden machinery is determined as specified in the relevant part of IEC 62841-4.		N/A
I.2.3	Emission sound pressure level determination		—
I.2.3.1	The A-weighted emission sound pressure level of hand-held tools at the work station LpA according to ISO 11203		P
	If required, LpCpeak is measured at each of the five measurement positions specified in I.2.2		N/A
I.2.3.2	The A-weighted emission sound pressure level of transportable tools at the work station, LpA, is determined according to ISO 11201, grade 2.		P
	If required, the C-weighted peak emission sound pressure level LpCpeak is measured at the same operator's position as the A-weighted sound pressure level LpA.		N/A
I.2.3.3	The emission sound pressure level of lawn and garden machinery is determined as specified in the relevant part of IEC 62841-4.		N/A
I.2.4	Installation and mounting conditions of the power tools during noise tests		—
	The power tool under test is new and equipped with accessories which affect the acoustic properties, as recommended by the manufacturer.		P
	Prior to commencing testing, the power tool (including any required ancillary equipment) is set up in a stable condition in accordance with the manufacturer's instructions for safe use.		P
	A hand-held tool is held by the operator or suspended in such a way as to correspond to normal use, as specified in the relevant part of IEC 62841-2		P
	A transportable tool is so positioned, either placed on the test bench of Figure I.1		N/A
	Lawn and garden machinery is used and positioned as specified in the relevant part of IEC 62841-4.		N/A
I.2.5	Operating conditions		—

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Tools are tested under the two operating conditions "no-load" or "load" as appropriate for the type of tool and specified in the relevant part of IEC 62841-2, IEC 62841-3 or IEC 62841-4.	See part 2	P
I.2.6	Measurement uncertainties		–
	Uncertainties according to standard determined, recorded and reported		P
I.2.7	Information and deviations are recorded.		P
I.2.8	Information to be reported		P
	- reference to this noise test code / basic standard		P
	- description of the power tool;		P
	- description of mounting and operating conditions		P
	Sound power level L_{WA} (dB(A)).....:	L_{WA} : 109,8 dB(A) K_{WA} : 3,0 dB(A)	P
	Sound pressure level L_{pA} (dB(A)).....:	L_{pA} :98,8 dB(A) K_{pA} :3 dB(A)	P
	C-weighted peak emission sound pressure level L_{pCpeak} (dB).....:		N/A
I.2.9	Declaration and verification of noise emission values		P
	Sound power level L_{WA} (dB(A)).....:	L_{WA} : 109,8 dB(A) K_{WA} : 3,0 dB(A)	P
	Sound pressure level L_{pA} (dB(A)).....:	L_{pA} :98,8 dB(A) K_{pA} :3 dB(A)	P
	C-weighted peak emission sound pressure level L_{pCpeak} (dB).....:		N/A
I.3	Vibration		–
I.3.Z1	Vibration reduction		P
	Add the following before I.3.1:		P
	The vibration at the handles is kept as low as possible without unduly affecting the performance and the ergonomics (weight, handling, etc.) of the tool.		P
	In particular vibration is reduced by the application of engineering measures as given in CR 1030-1.		P
	The success of the applied vibration measures is assessed by comparing the vibration levels for the tool with those for other tools of the same type and with a comparable specification and performance.		P
I.3.1	Vibration measurement – General		P
	Details for particular types of tools are given in the relevant part of IEC 62841-2, IEC 62841-3 or IEC 62841-4.	See part 2	P

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	The vibration total value may be determined by using the measurements from a machine which has design and technical specifications replicating the machine concerned.		P
I.3.2	Symbols		P
I.3.3	Characterization of vibration		P
I.3.3.1	Direction of measurement		P
	Directions may be defined in the relevant part of IEC 62841-2, IEC 62841-3 or IEC 62841-4.		P
	If not defined the three orthogonal directions X, Y and Z as shown in Figure I.4. are related		P
I.3.3.2	Location of measurement		P
	The measurement positions for particular types of tools are specified in the relevant part of IEC 62841-2, IEC 62841-3 or IEC 62841-4.		P
I.3.3.3	Magnitude of vibration		P
I.3.3.4	Combination of vibration directions		P
I.3.4	Instrumentation requirements		P
	The vibration measurement equipment is in accordance with ISO 8041.		P
	Instrumentation for measuring other parameters whose characteristics are not covered by ISO 8041, is specified in the relevant part of IEC 62841-2, IEC 62841-3 or IEC 62841-4.		P
I.3.4.2	Transducers		P
I.3.5	Testing and operating conditions of the tool		P
I.3.5.1	Replace the 4th paragraph with the following:		P
	When the test procedure is not provided in a relevant part of EN 62841-2, EN 62841-3 or EN 62841-4, an operating condition is specified that is reproducible and representative of the noisiest operation in typical usage of the machine.		P
	The vibration test may simulate a single phase of a task or a working cycle, consisting of a set of operations where the operator is being exposed to vibration.		P
	However, the operating condition for the noise emission test is, if practicable, also used for the vibration test.		P
I.3.5.2	Attachment, workpiece and task		P
	Details for task and workpiece are given in the relevant part of IEC 62841-2, IEC 62841-3 or IEC 62841-4.	See part 2	P
I.3.5.3	Operating conditions		P

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	The relevant part of IEC 62841-2, IEC 62841-3 or IEC 62841-4 describes the modes of operation and the calculation of the declared emission value.	See part 2	P
I.3.5.4	Operator		P
I.3.6	Measurement procedure and validity		P
I.3.6.1	Reported vibration values		P
	Details are specified in the relevant part of IEC 62841-2, IEC 62841-3 or IEC 62841-4.		P
	Work mode - vibration emission value a (m/s ²).....:	$a_{h,HD} = 14,558 \text{ m/s}^2$ $a_{h,Cheq} = 12,475 \text{ m/s}^2$	P
	Uncertainty K (m/s ²).....:	$K = 1,5 \text{ m/s}^2$	P
I.3.6.2	Declaration of the vibration total value		P
	If required by the relevant part of IEC 62841-2, IEC 62841-3 or IEC 62841-4, the work mode description corresponding to the vibration emission is stated next to each declared value.		P
	Work mode - vibration emission value a (m/s ²).....:	$a_{h,HD} = 14,558 \text{ m/s}^2$ $a_{h,Cheq} = 12,475 \text{ m/s}^2$	P
	Uncertainty K (m/s ²).....:	$K = 1,5 \text{ m/s}^2$	P
I.3.7	Measurement report		P
	The report includes the following information:		P
	a) reference to this standard		P
	b) specification of the machine		P
	c) attachments or accessories;		P
	d) operating and testing conditions		P
	e) measuring institution		P
	f) date of measurement		P
	g) instrumentation		P
	h) position and fastening of transducers, measuring directions and individual vibration values when relevant		P
	i) the arithmetic mean total vibration a_h , for each operator the total vibration value a_{hv} and the three single axes weighted acceleration values a_{hw} . It is good practice to report all the measured values		P
	j) the uncertainty K of the vibration total value a_h .		P
	Any deviations from the vibration test code in this standard is reported together with the technical justification for such deviations.		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
ANNEX K	BATTERY TOOLS AND BATTERY PACKS		N/A
K8.14.2 Z1	For battery tools with integral battery: instruction, how the integral battery can be removed safely from the tool after the tool's end of life, and information about the type of battery such as Li-Ion, NiCd and NiMH.		N/A
ANNEX L	BATTERY TOOLS AND BATTERY PACKS PROVIDED WITH MAINS CONNECTION OR NON-ISOLATED SOURCES		N/A
K8.14.2 Z1	For battery tools with integral battery: instruction, how the integral battery can be removed safely from the tool after the tool's end of life, and information about the type of battery such as Li-Ion, NiCd and NiMH.		N/A

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 62841-2-6 ELECTRIC MOTOR-OPERATED HAND-HELD TOOLS, TRANSPORTABLE TOOLS AND LAWN AND GARDEN MACHINERY - SAFETY - PART 2-6: PARTICULAR REQUIREMENTS FOR HAND-HELD HAMMERS			
Differences according to EN IEC 62841-2-6:2020 + A11:2020 to be used in conjunction with EN 62841-1:2015 + AC:2015			
TRF template used IEC EE OD-2020-F2:2020, Ed. 1.1			
Attachment Form No. EU_GD_IEC62841_2_6A			
Attachment Originator DEKRA Certification B.V:			
Master Attachment Dated 2021-09-20			
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CENELEC COMMON MODIFICATIONS (EN)			

ANNEX I	MEASUREMENT OF NOISE AND VIBRATION EMISSIONS		--
	Replace the title of Annex I by the following ANNEX I – (NORMATIVE)		--
I.2	Noise test code (grade 2)		--
I.2.2.101	Percussion hammer		--
	For percussion hammers, the sound power level is determined by using a hemispherical measurement surface according to Figure I.101		N/A
	Radius of used hemispherical surface (m).....:		N/A
			--
I.2.2.102	Rotary hammers		--
	For Rotary hammers, the sound power level is determined by using a hemispherical / cylindrical measurement surface acc. to Figure I.2 of part 1		P
ZC	ANNEX ZC, NATIONAL DEVIATIONS (EN)		--
I.2.4	Installation and mounting conditions of the power tools during noise tests		--
I.2.4.101	Percussion hammer		--
	Fixed in vertical position to the test equipment described in I.2.5.101		N/A
I.2.4.102	Rotary hammer		P

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Are held by the operator for drilling vertically down in accordance with I.2.5.102		P
I.2.4.102	Rotary hammer		--
I.2.5	Operating conditions		--
	For battery operated tools, the tests are conducted with the lightest battery in accordance with K.8.14.2 e) 2)		N/A
I.2.5.101	Operating conditions for percussion hammers		--
	During the test the hammer embedded in a cube shaped concrete block placed in a concrete pit, sunk into the ground		N/A
	Quality of concrete corresponds to C50/60 of EN 206:2013		N/A
	The exposed part of the support tool between the tool chuck and the screening slab is covered by noise absorbing material		N/A
	All speed settings of the hammer adjusted to the highest value		N/A
	Percussion hammer tested under load, connected to the support tool		N/A
	Feed force applied to the hammer by an appropriate fixture be sufficient to achieve stable operation		N/A
I.2.5.102	Operating conditions for rotary hammers		--
	Speed settings recommended by the manufacturer will be set for the drill bit size defined for hammer drilling in concrete.		P
	Rotary hammers are tested under load as shown in I.104 and in accordance with the conditions shown in I.102.		P
I.3	Vibration		--
I.3.3.2	Location of measurement		--
	Positions for different types of tools as per Figures I.105 and I.106		P
I.3.5.1	General		--
	For battery operated tools, the tests are conducted with the lightest battery in accordance with K.8.14.2 e) 2)		N/A
I.3.5.3	Operating conditions		--
	Rotating hammers with a separate, percussive-only mode of operation, are tested separately in both modes, in accordance with I.3.5.3.101 and I.3.5.3.102		P

IEC 62841-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
I.3.5.3.101	Percussion hammer		--
	Percussion hammers and rotary hammers with a percussion only mode are first tested under load in the loading device shown in Annex AA ...		N/A
	... and in accordance with the conditions shown in I.106, all speed setting devices adjusted to the highest value		N/A
	In addition, the hammers are equipped with a typical bull point chisel and tested five times under "no load" for a minimum of 8 s each, by lifting the hammer up so that its weight is totally supported by the hands of the operator		N/A
I.3.5.3.102	Rotary hammers		--
	Speed settings recommended by the manufacturer will be set for the drill bit size defined for hammer drilling in concrete		P
	Rotary hammers are tested under load as shown in I.104 and in accordance with the conditions shown in I.107		P
I.3.6.1	Reported vibration values		--
	If more than one operating mode was measured, the result a_h for each operating mode applicable shall be reported		P
	$a_{h,HD}$ hammer drilling (m/s^2) (in accordance with I.3.5.3.102)	$a_{h,HD}=14,558 m/s^2$	P
	$a_{h,CH}$ chiselling (m/s^2) (in accordance with I.3.5.3.101)	$a_{h,CH}= 12,910 m/s^2$	P
	$a_{h,NL}$ no load (m/s^2) (in accordance with I.3.5.3.101)	$a_{h,NL}= 9,985 m/s^2$	P
	$a_{h,CHeq}$ equivalent chiselling value (m/s^2)	$a_{h,CHeq}= 12,475 m/s^2$	P
I.3.6.2	Declaration of the vibration total value		--
	The vibration total value of the handle with the highest emission and the uncertainty K is declared:		P
	– for rotary hammers without percussion only mode the value of $a_{h,HD}$, with the work mode description "hammer drilling into concrete"		P
	– for rotary hammers without percussion only mode the value of $a_{h,HD}$, with the work mode description "hammer drilling into concrete" and the value of $a_{h,CHeq}$, with the work mode description "chiselling"		P
	– for percussion hammers the value of $a_{h,CHeq}$, with the work mode description "chiselling"		N/A

Photo document



Photo 1 Overview of tool



Photo 2 Overview of tool

Photo document



Photo 3 Overview of tool



Photo 4 Overview of tool

Photo document



Photo 5 Overview of tool



Photo 6 Overview of tool

Photo document



Photo 7 Overview of switch trigger



Photo 8 Overview of lock on knob

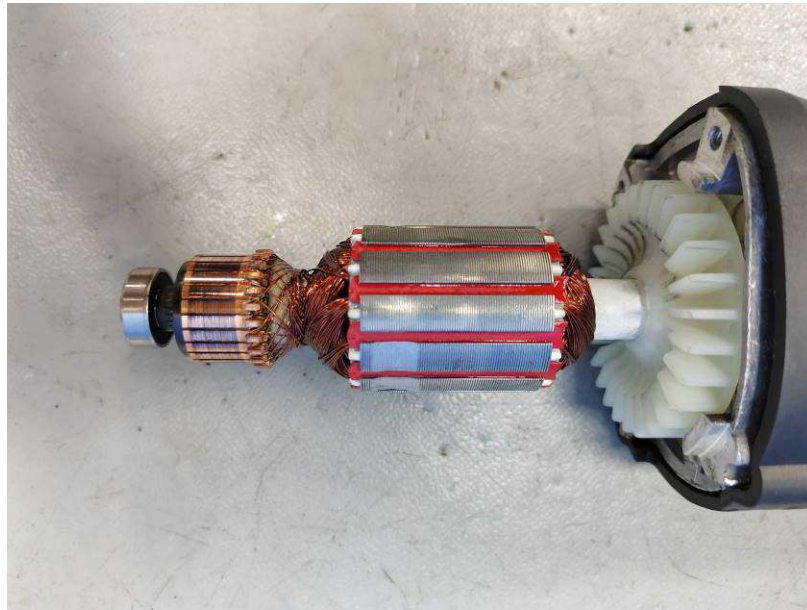


Photo 9 Overview of function knob





Photo document





TEST REPORT

LAB NO. : (6617)177-1981
 DATE : June 28, 2017
 PAGE : 1 OF 11

Applicant:
POSITEC TECHNOLOGY(CHINA) CO.,LTD
 NO.18 DONGWANG ROAD SUZHOU INDUSTRIALPARK

Date of Submission: 2017-06-19
 Test Period: 2017-06-19 to 2017-06-28
 BV EE Ref. No.: /

Sample Description:		Sample(s) received is(are) stated to be: Rotary Hammer	
Manufacturer:	POSITEC TECHNOLOGY(CHINA) CO.,LTD	Buyer:	/
Style No(s):	/	PO No.:	/
Country of Origin:	/	Country of Destination:	Oversea Country
Test Model:	WX337		

Test Item(s): Rotary Hammer

SUMMARY OF TEST RESULTS

TEST REQUESTED	CONCLUSION
Compliance Test - European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) with its Amendments	PASS

REMARK

If there are questions or concerns on this report, please contact the following persons:

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Technical enquiry

BUREAU VERITAS
CONSUMER PRODUCTS SERVICES DIVISION (SHANGHAI)

PREPARED BY : Kina

Lynd Lv
 Analytical Technical Specialist



**BUREAU
VERITAS**

LAB NO. : (6617)177-1981
DATE : June 28, 2017
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Photo of the Submitted Sample



Tested different components for additional model(s)





TEST RESULT

Compliance Test - European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) with its Amendments

Test Method : See Appendix.

See Analytes and their corresponding Maximum Allowable Limit in Appendix

Test ID	-			Result					
	Parameter			Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Chromium VI (Cr VI)	PBBs & PBDEs	Conclusion
	Unit			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
	Bom No.	Description	Location	-	-	-	-	-	-
Tested components of Model No. WX337									
1	1	Black plastic	Front cover	ND	ND	ND	ND	ND	PASS
2	2	Silvery metal with black plating	Clip ring	ND	ND	ND	ND	NA	PASS
3	3	Black plastic	Block sleeve	ND	ND	ND	ND	ND*	PASS
4	4	Silvery metal	Drill chuck	ND	ND	ND	Negative*	NA	PASS
5	5	Silvery metal with black plating	Drill chuck spring	ND	ND	ND	ND	NA	PASS
6	6-1	Black plastic	Gear box WX337	ND	ND	ND	ND	ND	PASS
7	7	Silvery metal with black plating	Screw	ND	ND	ND	ND	NA	PASS
8	8	Silvery metal with black plating	Screw	ND	ND	ND	ND	NA	PASS
9	9	Silvery metal	Locating pin	ND	ND	ND	Negative*	NA	PASS
10	10	Brown plastic	Oil sealing	ND	ND	ND	ND	ND	PASS
11	11-1	Silvery metal with black plating	Bearing	ND	ND	ND	ND	NA	PASS
12	11-2	Silvery metal case		ND	ND	ND	Negative*	NA	PASS
13	11-3	Silvery metal holder		ND	ND	ND	ND	NA	PASS
14	11-4	Silvery metal ball		ND	ND	ND	Negative*	NA	PASS
15	12	Silvery metal	Bearing	ND	ND	ND	Negative*	NA	PASS
16	13	Silvery metal	Clip ring	ND	ND	ND	ND	NA	PASS
17	14	Silvery metal	Torsion spring plate	ND	ND	ND	ND	NA	PASS



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VERITAS**

LAB NO. : (6617)177-1981
DATE : June 28, 2017
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Test ID	-			Result					
	Parameter			Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Chromium VI (Cr VI)	PBBs & PBDEs	Conclusion
	Unit			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
	Bom No.	Description	Location	-	-	-	-	-	-
18	15	Silvery metal with black plating	Torsion spring	ND	ND	ND	Negative*	NA	PASS
19	16	Silvery metal	Big gear	ND	ND	ND	Negative*	NA	PASS
20	17	Silvery metal	Rotary sleeve	ND	ND	ND	Negative*	NA	PASS
21	18	Silvery metal ball	Steel ball 7.14	ND	ND	ND	Negative*	NA	PASS
22	19	Silvery metal ball	Steel ball 3	ND	ND	ND	Negative*	NA	PASS
23	20	Silvery metal	Torsion clutch	ND	ND	ND	Negative*	NA	PASS
24	21	Silvery metal with black plating	Stop block ring	ND	ND	ND	ND	NA	PASS
25	22	Silvery metal	Impact pole	ND	ND	ND	Negative*	NA	PASS
26	23	Black plastic	O ring	ND	ND	ND	Negative*	ND	PASS
27	24	Silvery metal	Guide sleeve	ND	ND	ND	Negative*	NA	PASS
28	25	Silvery metal	Guide sleeve Joe	ND	ND	ND	Negative*	NA	PASS
29	26	Black plastic	O ring	ND	ND	ND	Negative*	ND	PASS
30	27	Black plastic	O ring	ND	ND	ND	Negative*	ND	PASS
31	28	Silvery metal	Impact hammer set	ND	ND	ND	Negative*	NA	PASS
32	29	Silvery metal	Clip ring	ND	ND	ND	ND	NA	PASS
33	30	Silvery metal	Clutch small gasket	ND	ND	ND	ND	NA	PASS
34	31	Silvery metal	Impact hammer	ND	ND	ND	Negative*	NA	PASS
35	32	Silvery metal	Aluminum cylinder	ND	ND	ND	ND	NA	PASS
36	33	Silvery metal	Cylinder head gasket	ND	ND	ND	ND	NA	PASS
37	34	Silvery metal	Cylinder Pin	ND	ND	ND	Negative*	NA	PASS
38	35	Silvery metal	Oil bearing	ND	ND	ND	ND	NA	PASS
39	36	Black plastic	O ring	ND	ND	ND	ND	ND	PASS
40	39	Silvery metal	Bracket	ND	ND	ND	ND	NA	PASS
41	40	Black plastic	O-ring	ND	ND	ND	ND	ND	PASS
42	41	Silvery metal	Bearing	ND	ND	ND	Negative*	NA	PASS
43	42-1	Silvery metal	Rotor	ND	ND	ND	ND	NA	PASS
44	42-2	Silvery metal		ND	ND	ND	ND	NA	PASS
45	42-3	Black plastic filling		ND	ND	ND	ND	ND	PASS
46	42-4	White plastic		ND	ND	ND	ND	ND	PASS
47	42-5	White plastic fan		ND	ND	ND	ND	ND	PASS



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VERITAS**

LAB NO. : (6617)177-1981
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Test ID	-			Result					
	Parameter			Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Chromium VI (Cr VI)	PBBs & PBDEs	Conclusion
	Unit			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
	Bom No.	Description	Location	-	-	-	-	-	-
48	43	Silvery metal	Bearing607	ND	ND	ND	Negative*	NA	PASS
49	44	Silvery metal with black plating	Mini pad	ND	ND	ND	ND	NA	PASS
50	45	Silvery metal	Pinion	ND	ND	ND	Negative*	NA	PASS
51	46	Silvery metal	Intermediate shaft	ND	ND	ND	Negative*	NA	PASS
52	47	Silvery metal	Drill gear clutch	ND	ND	ND	Negative*	NA	PASS
53	48	Silvery metal	Hammer gear clutch	ND	ND	ND	Negative*	NA	PASS
54	49	Silvery metal	Rod bearing	ND	ND	ND	Negative*	NA	PASS
55	50	Silvery metal	Multi-roll bearing	ND	ND	ND	Negative*	NA	PASS
56	51	Silvery metal	Level 1 wheel	ND	ND	ND	Negative*	NA	PASS
57	52	Silvery metal	Bearing 607	ND	ND	ND	Negative*	NA	PASS
58	53	Silvery metal with black plating	Locking plate spring	ND	ND	ND	ND	NA	PASS
59	54	Silvery metal with black plating	Locking plate	ND	ND	ND	ND	NA	PASS
60	55	Silvery metal with black plating	Drill file spring	ND	ND	ND	ND	NA	PASS
61	56	Silvery metal with black plating	Dial the plate spring	ND	ND	ND	ND	NA	PASS
62	57	Silvery metal with black plating	Hammer file dial the piece	ND	ND	ND	ND	NA	PASS
63	58	Silvery metal	Guide pillar	ND	ND	ND	Negative*	NA	PASS
64	59	Black plastic	Anti-wind ring	ND	ND	ND	ND	ND	PASS
65	60-1	Silvery metal	Stator	ND	ND	ND	Negative*	NA	PASS
66	60-2	White plastic		ND	ND	ND	ND	ND	PASS
67	60-3	Yellow paper		ND	ND	ND	ND	ND	PASS
68	60-4	Copper metal wire		ND	ND	ND	ND	NA	PASS
69	61	Black plastic	Housing	ND	ND	ND	ND	ND	PASS
70	62-1	Black plastic	Brush holder assembly	ND	ND	ND	ND	ND	PASS
71	62-2	Golden metal		ND	ND	ND	ND	NA	PASS
72	63-1	Golden metal	Carbon brush	ND	ND	ND	ND	NA	PASS
73	63-2	Copper metal wire		ND	ND	ND	ND	NA	PASS
74	63-3	Silvery metal spring		ND	ND	ND	Negative*	NA	PASS



Test ID	-			Result					
	Parameter			Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Chromium VI (Cr VI)	PBBs & PBDEs	Conclusion
	Unit			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
	Bom No.	Description	Location	-	-	-	-	-	-
75	63-4	Black carbon brush graphite	Carbon brush	ND	ND	ND	ND	NA	PASS
76	64	Black plastic	Left handle	ND	ND	ND	ND	ND	PASS
77	65-1	Black plastic button	Switch	ND	ND	ND	ND	ND*	PASS
78	65-2	Black plastic base		ND	ND	ND	ND	ND*	PASS
79	65-3	Black plastic		ND	ND	ND	ND	ND*	PASS
80	65-4	White plastic		ND	ND	ND	ND	ND	PASS
81	65-5	Green PCB		ND	ND	ND	ND	ND	PASS
82	65-6	Black plastic sleeve		ND	ND	ND	ND	ND	PASS
83	65-7	Black EC		ND	ND	ND	ND	NA	PASS
84	65-8	Black plastic wire jacket		ND	ND	ND	ND	ND	PASS
85	65-9	White plastic wire jacket		ND	ND	ND	ND	ND	PASS
86	65-10	White plastic		ND	ND	ND	ND	ND	PASS
87	65-11	Golden metal block		EX#	ND	ND	ND	NA	EX#
88	65-12	Silvery metal spring		ND	ND	ND	Negative*	NA	PASS
89	65-13	Silvery metal screw		ND	ND	ND	ND	NA	PASS
90	65-14	Silvery metal		ND	ND	ND	ND	NA	PASS
91	65-15	Silvery metal solder		ND	ND	ND	ND	NA	PASS
92	65-16	Silvery metal contact point		ND	EX#	ND	ND	NA	EX#
93	65-17	Silvery metal wire		ND	ND	ND	ND	NA	PASS
94	65-18	Golden metal		ND	ND	ND	ND	NA	PASS
95	65-19	Coppery metal		ND	ND	ND	ND	NA	PASS
96	66-1	Transparent plastic	Long string inductance	ND	ND	ND	ND	ND	PASS
97	66-2	Coppery metal wire		ND	ND	ND	ND	NA	PASS
98	66-3	Black choke		ND	ND	ND	ND	NA	PASS
99	67	Black choke	Short string inductance	ND	ND	ND	ND	ND	PASS
100	69	Black plastic	Cable clamp	ND	ND	ND	ND	ND	PASS



Test ID	-			Result					
	Parameter			Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Chromium VI (Cr VI)	PBBs & PBDEs	Conclusion
	Unit			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
	Bom No.	Description	Location	-	-	-	-	-	-
101	70	Silvery metal with black plating	ScrewST4×22	ND	ND	ND	Negative*	NA	PASS
102	71	Black plastic	Cable flange	ND	ND	ND	ND	ND	PASS
103	72-1	Black plastic wire	Cable	ND	ND	ND	ND	ND	PASS
104	72-2	Black plastic case		ND	ND	ND	ND	ND	PASS
105	72-3	Black plastic pin holder		ND	ND	ND	ND	ND*	PASS
106	72-4	Blue plastic wire jacket		ND	ND	ND	ND	ND	PASS
107	72-5	Brown plastic wire jacket		ND	ND	ND	ND	ND	PASS
108	72-6	Coppery metal wire		ND	ND	ND	ND	NA	PASS
109	72-7	Golden metal pin with silvery plating		EX#	ND	ND	ND	NA	EX#
110	73	Silvery metal with black plating	ScrewST4×22	ND	ND	ND	ND	NA	PASS
111	74-1	Black plastic housing	Right handle	ND	ND	ND	ND	ND	PASS
112	74-2	Orange plastic cover		ND	ND	ND	ND	ND	PASS
113	74-3	Black soft plastic		ND	ND	ND	ND	ND	PASS
114	75	Silvery metal with black plating	ScrewST4×16	ND	ND	ND	Negative*	NA	PASS
115	76	Black plastic	Button	ND	ND	ND	ND	ND	PASS
116	77	Silvery metal with black plating	Button spring	ND	ND	ND	ND	NA	PASS
117	78	Silvery metal with black plating	ScrewST4×25	ND	ND	ND	ND	NA	PASS
118	79	Black plastic	Outer Knob	ND	ND	ND	ND	ND	PASS
119	80	Black plastic	O ring 14.6X2.8	ND	ND	ND	ND	ND	PASS
120	80	White plastic	Inner knob	ND	ND	ND	ND	ND	PASS
121	81	White plastic	Oil baffle set	ND	ND	ND	ND	ND	PASS



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Test ID	-			Result					
	Parameter			Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Chromium VI (Cr VI)	PBBs & PBDEs	Conclusion
	Unit			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
	Bom No.	Description	Location	-	-	-	-	-	-
122	101	Silvery metal with black plating	Auxiliary handle retainer ring	ND	ND	ND	ND	NA	PASS
123	102	Silvery metal with black plating	Straight flute heavy 6*22	ND	ND	ND	Negative*	NA	PASS
124	103	Black plastic	Auxiliary handle clamping button	ND	ND	ND	ND	ND	PASS
125	104	Silvery metal with black plating	Eyelet bolt	ND	ND	ND	ND	NA	PASS
126	105	Silvery metal with black plating	Auxiliary handle spring	ND	ND	ND	ND	NA	PASS
127	106	Black plastic	Auxiliary handle clamp holder	ND	ND	ND	ND	ND	PASS
128	107	Black plastic	Depth gauge	ND	ND	ND	ND	ND	PASS
129	108	Black plastic	Auxiliary handle	ND	ND	ND	ND	ND*	PASS
Tested different components									
130	6-2	Silvery plastic	Gear box WX339	ND	ND	ND	ND	ND	PASS

Note / Key :

ND = Not detected

NR = Not requested

Detection Limit: See Appendix.

“>” = Greater than

mg/kg = milligram(s) per kilogram = ppm = part(s) per million

NA = Not applicable

“<” = Less than

EX= Exempted



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Remark :

- The testing approach is listed in table of Appendix.
- * denotes as reported result(s) was (were) performed by wet chemistry method. Others were screened by XRF. For XRF screening, the result(s) of Cr VI was (were) reported as total chromium and the result(s) of PBBs and PBDEs was (were) reported as total bromine. Also, the XRF result(s) may be different to the actual content based on various factors including, but not limit to, sample size, thickness, area, non-uniformity composition, surface flatness.
- Only selected example(s) is (are) indicated on the photograph(s) in Comment.
- According to European Parliament and Council Directive 2011/65/EU, Article 5 “Adaptation of the Annexes to scientific and technical progress”, exemption(s) should be granted to the materials and components of Test Item(s) in the lists in Annexes III and IV of this directive.
- The components chosen to be screen for additional models have been agreed with the client.
- For item 88,110:
#According to Annex III of European Council Directive 2011/65/EU, exemptions were granted a few materials and Clause 6(c) is reiterated here “Copper alloy containing up to 4 % lead by weight.”. Test Item(s) was (were) claimed as is by client (received as is). Therefore, this (these) Test Item(s) containing the found lead level should be exempted.
- For item 93:
According to Annex III of European Council Directive 2011/65/EU, exemptions were granted a few materials and Clause 8(b) is reiterated here “Cadmium and its compounds in electrical contacts.”. Test Item(s) was (were) claimed as is by client (received as is). Therefore, this (these) Test Item(s) containing the found cadmium level should be exempted.

END



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APPENDIX

List of Analytes and their Corresponding Test Methods, Detection Limit and Maximum Allowable Limit [Compliance Test for European Parliament and Council Directive 2011/65/EU] :						
No.	Name of Analyte(s)	Detection Limit (mg/kg)				Maximum Allowable Limit (mg/kg)
		X-ray fluorescence (XRF) ^[a]			Wet Chemistry	
		Plastic	Metallic / glass / ceramic	Others		
1	Lead (Pb)	100	200	200	10 ^[b]	1 000
2	Cadmium (Cd)	50	50	50	10 ^[b]	100
3	Mercury (Hg)	100	200	200	10 ^[c]	1 000
4	Chromium (Cr)	100	200	200	NA	NA
5	Chromium VI (Cr VI)	NA	NA	NA	3 ^[g, h] / 10 ^[d] / See ^[e, i]	1 000 / Negative ^[i]
6	Bromine (Br)	200	NA	200	NA	NA
7	Polybromobiphenyls (PBBs) - Bromobiphenyl (MonoBB) - Dibromobiphenyl (DiBB) - Tribromobiphenyl (TriBB) - Tetrabromobiphenyl (TetraBB) - Pentabromobiphenyl (PentaBB) - Hexabromobiphenyl (HexaBB) - Heptabromobiphenyl (HeptaBB) - Octabromobiphenyl (OctaBB) - Nonabromobiphenyl (NonaBB) - Decabromobiphenyl (DecaBB)	NA	NA	NA	Sum 50 ^[f]	Sum 1 000
8	Polybromodiphenyl ethers (PBDEs) - Bromodiphenyl ether (MonoBDE) - Dibromodiphenyl ether (DiBDE) - Tribromodiphenyl ether (TriBDE) - Tetrabromodiphenyl ether (TetraBDE) - Pentabromodiphenyl ether (PentaBDE) - Hexabromodiphenyl ether (HexaBDE) - Heptabromodiphenyl ether (HeptaBDE) - Octabromodiphenyl ether (OctaBDE) - Nonabromodiphenyl ether (NonaBDE) - Decabromodiphenyl ether (DecaBDE)	NA	NA	NA	Sum 50 ^[f]	Sum 1 000
NA = Not applicable IEC = International Electrotechnical Commission						
[a]	Test method with reference to International Standard IEC 62321-3-1: 2013.					
[b]	Test method with reference to International Standard IEC 62321-5: 2013.					
[c]	Test method with reference to International Standard IEC 62321-4: 2013.					
[d]	Polymers and Electronics - Test method with reference to European Standard EN 62321: 2009, Annex C.					
[e]	Metal - Test method with reference to International Standard IEC 62321-7-1: 2015.					
[f]	Test method with reference to International Standard IEC 62321-6: 2015.					
[g]	Leather - Test method International Standard ISO 17075: 2007.					
[h]	Other Than Metal, Leather, Polymers and Electronics - Test method with reference to International Standard ISO 17075: 2007.					
[i]	Result(s) of Cr VI for metallic material(s) was (were) expressed in term of positive and negative. Negative means the absence of Cr VI on the tested areas and the result(s) was (were) regarded as in compliance with European Parliament and Council Directive 2011/65/EU, Article 4(1). While, positive means the presence of Cr VI on tested areas and the result(s) was (were) regarded as in conflict with European Parliament and Council Directive 2011/65/EU, Article 4(1).					

Testing Approach | Compliance Test for European Parliament and Council Directive 2011/65/EU | :

The testing approach was with reference to the following document(s).

- 1 International Standards IEC 62321-1: 2013 and IEC 62321-2: 2013
- 2 "RoHS Enforcement Guidance Document Version 1" by EU RoHS Enforcement Authorities Informal Network. (May 2006)
- 3 "RoHS Regulations - Government Guidance Notes" by United Kingdom Department for Business Innovation & Skills. (February 2011)
- 4 "Final Report to RoHS substances (Hg, Pb, Cr(VI), Cd, PBB and PBDE) in electrical and electronic equipment in Belgium" by Belgium Federal Public Service Health, Food Chain Safety and Environment. (November 2005)



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Annex

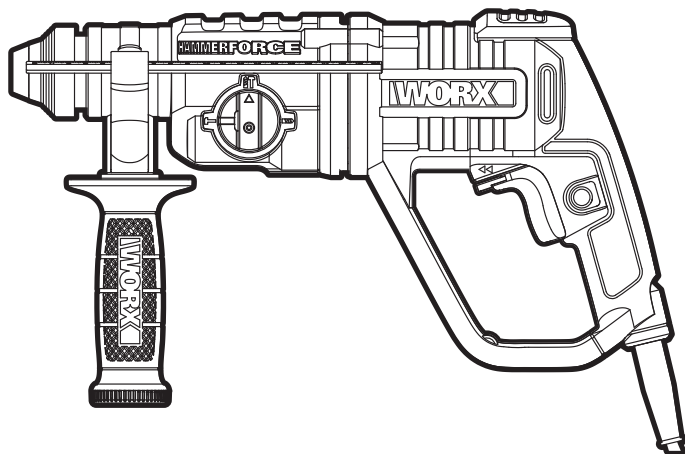
The client declared that below model(s) consist(s) of above tested different components and part components of the tested model(s) WX337.

No.	Description
1	WX337.*(=1-20or A-Z)
2	WX339
3	WX339.*(=1-20or A-Z)

Remark:

Since the client was not able to provide the sample of additional Style, above additional Style(s) hasn't been tested, but only based on the guarantee letter provided by the client. Bureau Veritas-CPS takes no responsibility for any mistakes and the problems of product consistency caused by inaccurate and/or invalid information submitted by the client. The client will take the responsibility of all discrepancy and risk.

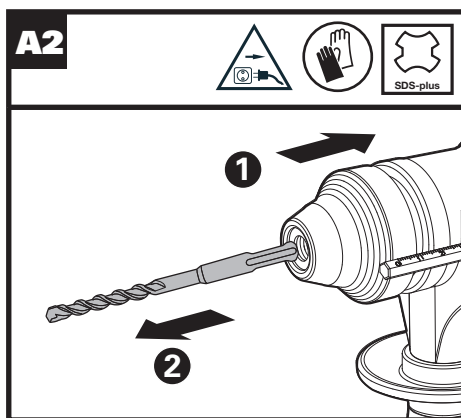
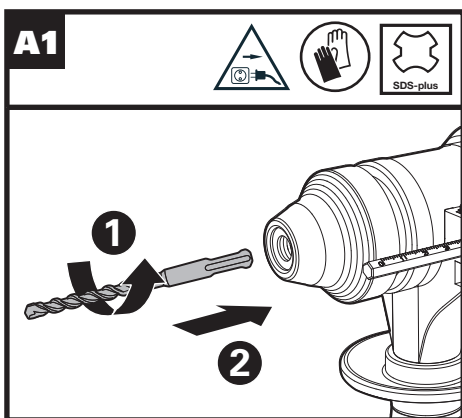
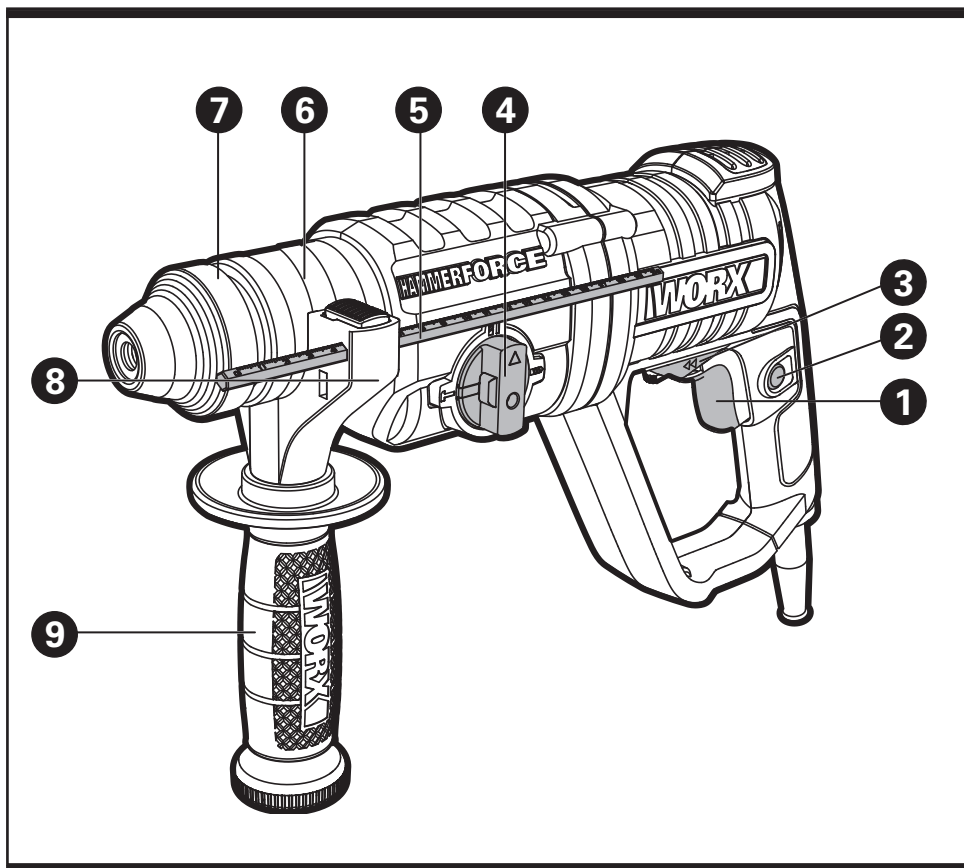
WORX®

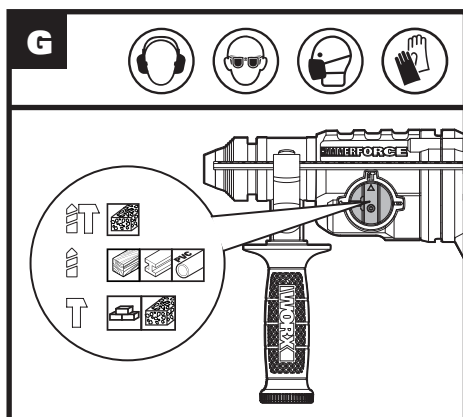
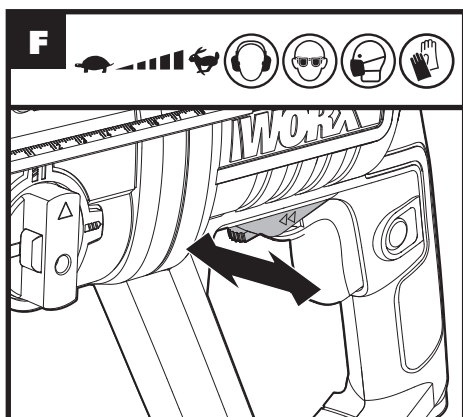
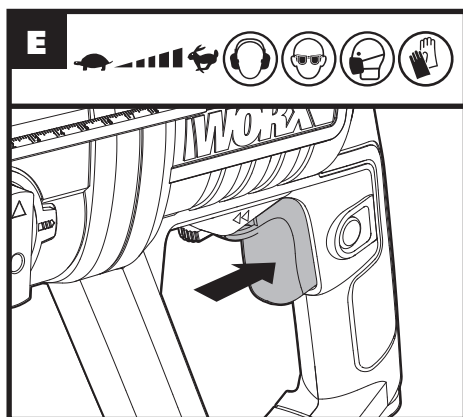
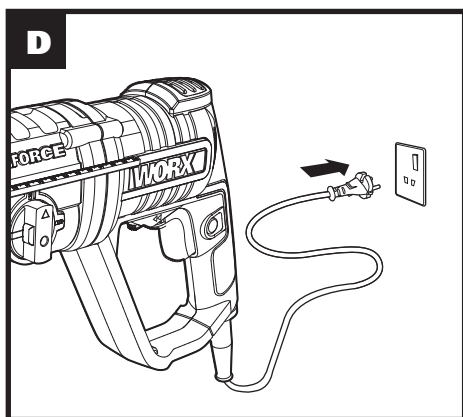
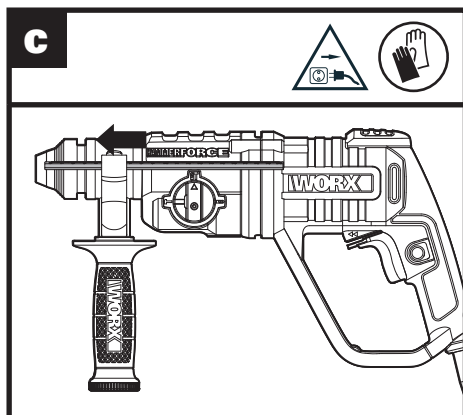
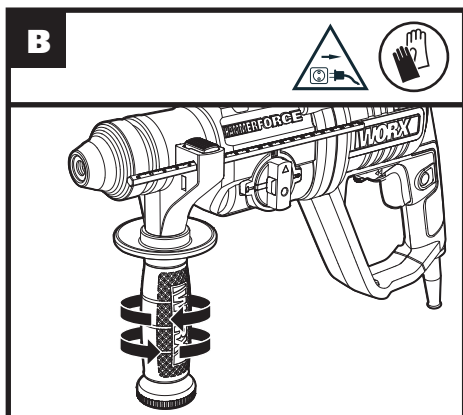


Rotary hammer	EN	P05
Bohrhammer	D	P10
Marteau Perforateur	F	P15
Martello Rotativo	I	P20
Martillo rotatorio	ES	P25
Martelo rotativo	PT	P30
Boorhamer	NL	P35
Rotationshammer	DK	P40
Roterende hammer	NOR	P45
Rotorhammare	SV	P50
Młot obrotowy	PL	P55
Περιστροφικό σφυρί	GR	P61
Pneumatikus fúrókalapács	HU	P67
Ciocan articulat	RO	P73
Rotační kladivo	CZ	P78
Otočné kladivo	SK	P83
Rotacijski vrtalnik	SL	P88
Περφορατορ	RU	P93

WX337 WT335 WT343WX339 WX339.X

Original Instruction	EN
Originalbetriebsanleitung	D
Notice originale	F
Istruzioni originali	I
Manual original	ES
Manual original	PT
Oorspronkelijke gebruiksaanwijzing	NL
Original brugsanvisning	DK
Original driftsinstruks	NOR
Bruksanvisning i original	SV
Instrukcja oryginalna	PL
ΜΕΤΑΦΡΑΣΗ ΤΩΝ ΠΡΩΤΟΤΥΠΩΝ ΟΔΗΓΙΩΝ	GR
Eredeti használati utasítás	HU
Instrucțiuni originale	RO
Původní návod k používání	CZ
Pôvodný návod na použitie	SK
Izvirna navodila	SL
Оригинальная инструкция	RU





GENERAL POWER TOOL SAFETY WARNINGS



WARNING Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

1. WORK AREA SAFETY

- a) **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- b) **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
- c) **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

2. ELECTRICAL SAFETY

- a) **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- b) **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- c) **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- d) **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- e) **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
- f) **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.

3. PERSONAL SAFETY

- a) **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- b) **Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will

reduce personal injuries.

- c) **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- d) **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- e) **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- f) **Dress properly. Do not wear loose clothing or jewellery. Keep your hair and clothing away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
- g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.
- h) **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.

4. POWER TOOL USE AND CARE

- a) **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
- b) **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c) **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
- d) **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
- e) **Maintain power tools and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
- f) **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- g) **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a

hazardous situation.

- h) **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

5. SERVICE

- a) **Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.

HAMMER SAFETY WARNINGS

1) Safety instructions for all operations

- a. **Wear ear protectors.** Exposure to noise can cause hearing loss.
- b. **Use auxiliary handle(s), if supplied with the tool.** Loss of control can cause personal injury.
- c. **Hold power tool by insulated gripping surfaces, when performing an operation where the cutting accessory may contact hidden wiring or its own cord.** Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.

2) Safety instructions when using long drill bits with rotary hammers

- a) **Always start drilling at low speed and with the bit tip in contact with the workpiece.** At higher speeds, the bit is likely to bend if allowed to rotate freely without contacting the workpiece, resulting in personal injury.
- b) **Apply pressure only in direct line with the bit and do not apply excessive pressure.** Bits can bend, causing breakage or loss of control, resulting in personal injury.

ADDITIONAL SAFETY RULES FOR HAMMER

1. Always wear a dust mask.

SYMBOLS

	To reduce the risk of injury, user must read instruction manual
	Double insulation
	Warning

	Wear ear protection
	Wear eye protection
	Wear dust mask
	Wear protective gloves
	Before any work on the machine itself, pull the mains plug from the socket outlet.
	Plastic
	Concrete
	Masonry
	Wood
	Metal
	High speed
	Low speed

	Tool holder
	Hammer Drilling
	Chiseling
	Drilling
	Waste electrical products must not be disposed of with household waste. Please recycle where facilities exist. Check with your local authorities or retailer for recycling advice.

COMPONENT LIST

1. **ON/OFF SWITCH**
2. **SWITCH LOCK-ON BUTTON**
3. **FORWARD AND REVERSE ROTATION CONTROL**
4. **FUNCTION MODE SELECTION SWITCH**
5. **DEPTH GAUGE**
6. **DUST PROTECTION CAP**
7. **SDS-PLUS "QUIK-CHANGE" CHUCK**
8. **ADJUSTABLE DEPTH STOP**
9. **AUXILIARY HANDLE**

Not all the accessories illustrated or described are included in standard delivery.

TECHNICAL DATA

Type **WX337 WT335 WT343 WX339 WX339.X**
(330~359--designation of machinery, representative of Hammer)

	WX337 WT335	WT343 WX339 WX339.X*
Voltage	230-240V~50/60Hz	
Power input	750W	800W
No load speed	0-1050/min	
Impact rate	0-5300bpm	
Impact energy	2.0J	2.5J
Protection class	 /II	
Drilling capacity max		
Masonry	24mm	26mm
Steel	13mm	
Wood	30mm	
Machine weight	3.3 kg	

* X=1-999, A-Z, M1-M9 there are only used for different customers, there are no safe relevant changes between these models

We recommend that you purchase your accessories from the same store that sold you the tool. Refer to the accessory packaging for further details. Store personnel can assist you and offer advice.

NOISE INFORMATION

A weighted sound pressure $L_{pA} = 98,8 \text{ dB(A)}$

A weighted sound power $L_{wA} = 109,8 \text{ dB(A)}$

K_{wA} & $K_{pA} = 3.0 \text{ dB(A)}$

Wear ear protection.

VIBRATION INFORMATION

Vibration total values (triax vector sum) determined according to EN 62841

Hammer drilling into concrete	Vibration emission value $a_{h,HD} = 14,558 \text{ m/s}^2$
	Uncertainty $K=1.5\text{m/s}^2$
Chiseling	Vibration emission value $a_{h,Cheq} = 12,475 \text{ m/s}^2$
	Uncertainty $K=1.5\text{m/s}^2$

The declared vibration total value and the declared noise emission value have been measured in accordance with a standard test method and may be used for comparing one tool with another. The declared vibration total value and the declared noise emission value may also be used in a preliminary assessment of exposure.

WARNING: The vibration and noise emissions during actual use of the power tool can differ from the declared value depending on the ways in which the tool is used especially what kind of workpiece is processed dependant on the following examples and other variations on how the tool is used:

How the tool is used and the materials being cut or drilled.

The tool being in good condition and well maintained.

The use of the correct accessory for the tool and ensuring it is sharp and in good condition.

The tightness of the grip on the handles and if any anti vibration and noise accessories are used.

And the tool is being used as intended by its design and these instructions.

This tool may cause hand-arm vibration syndrome if its use is not adequately managed.

WARNING: To be accurate, an estimation of exposure level in the actual conditions of use should also take account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle but not actually doing the job. This may significantly reduce the exposure level over the total working period.

Helping to minimise your vibration and noise exposure risk.

Always use sharp chisels, drills and blades.

Maintain this tool in accordance with these instructions and keep well lubricated (where appropriate).

If the tool is to be used regularly then invest in anti vibration and noise accessories.

Plan your work schedule to spread any high vibration tool use across a number of days.

OPERATING INSTRUCTIONS



NOTE: Before using the tool, read the instruction book carefully.

INTENDED USE

The machine is intended for hammer drilling in concrete, brick and stone as well as for light chiseling work. It is also suitable for drilling without impact in wood, metal, ceramic and plastic.



WARNING: Before any work on the machine itself, pull the mains plug.

OPERATION

Action	Figure
INSERTING AND REMOVING DRILL BIT IN SDS	See Fig. A1& A2
Adjusting the Auxiliary Handle	See Fig. B
Using the Depth Gauge	See Fig. C
Plugging in the power	See Fig. D
On/Off Switch With Variable Speed Control	See Fig. E
FORWARD / REVERSE ROTATION CONTROL	
WARNING: Never change the direction of rotation while the tool is rotating, wait until it has stopped.	See Fig. F
Selecting The Operating Mode For simultaneous drilling and impacting of concrete or masonry, choose the Hammer drilling position. For screw driving, drilling into steel, wood and plastics choose the Rotary drilling position. For impacting only - for light chipping, chiseling and demolition applications choose the Hammer position.	See Fig. G
WARNING: The operating mode selector switch may be actuated only at a standstill.	
WARNING: Prolonged use will cause the aluminum housing to become hot, do not touch.	

WORKING HINTS FOR YOUR DRILL(HAMMER)

If your power tool becomes over heated, set the speed to maximum and run no load for 2-3 minutes to cool the motor. SDS-plus tungsten carbide drill bits should always

be used for concrete and masonry. When drilling in metal, only use HSS drill bits in good condition. Always use a magnetic bit holder when using short screwdriver bits. Where possible use a pilot hole before drilling a large diameter hole.

Postfach 32 02 16, 50796 Cologne, Germany



2023/02/02

Allen Ding

Deputy Chief Engineer, Testing & Certification

Positec Technology (China) Co., Ltd

18, Dongwang Road, Suzhou Industrial

Park, Jiangsu 215123, P. R. China

MAINTENANCE

Remove the plug from the socket before carrying out any adjustment, servicing or maintenance.

Your power tool requires no additional lubrication or maintenance. There are no user serviceable parts in your power tool. Never use water or chemical cleaners to clean your power tool. Wipe clean with a dry cloth. Always store your power tool in a dry place. Keep the motor ventilation slots clean. Keep all working controls free of dust.

If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

ENVIRONMENTAL PROTECTION



Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your local authorities or retailer for recycling advice.

DECLARATION OF CONFORMITY

We,
Positec Germany GmbH
Postfach 32 02 16, 50796 Cologne, Germany

Declare that the product,

Description **Electric hammer**

Type **WX337 WT335 WT343 WX339 WX339.X**

(330~359--designation of machinery, representative of Hammer)

Function **Hammering various materials**

Complies with the following Directives,

2006/42/EC

2011/65/EU&(EU)2015/863

2014/30/EU

Standards conform to

EN 62841-1, EN IEC 62841-2-6, EN IEC 55014-1, EN

IEC 55014-2, EN IEC 61000-3-2, EN 61000-3-3, EN IEC 63000

The person authorized to compile the technical file,

Name **Marcel Filz**

Address **Positec Germany GmbH**

ALLGEMEINE SICHERHEITSHINWEISE FÜR ELEKTROWERKZEUGE



WARNUNG! Machen Sie sich mit allen Sicherheitswarnungen, Anweisungen, Abbildungen und Spezifikationen vertraut, die mit diesem Elektrowerkzeug geliefert werden. Die Nichtbeachtung der unten aufgeführten Anweisungen kann in elektrischen Schlägen, Feuer und/oder schweren Verletzungen resultieren.

Bewahren Sie alle Sicherheitshinweise und Anweisungen für die Zukunft auf.

Der in den Sicherheitshinweisen verwendete Begriff „Elektrowerkzeug“ bezieht sich auf akkubetriebene Elektrowerkzeuge (ohne Netzkabel).

1. ARBEITSPLATZSICHERHEIT

- a) **Halten Sie Ihren Arbeitsbereich sauber und gut beleuchtet.** Unordnung oder unbeleuchtete Arbeitsbereiche können zu Unfällen führen.
- b) **Arbeiten Sie mit dem Elektrowerkzeug nicht in explosionsgefährdeter Umgebung, in der sich brennbare Flüssigkeiten, Gase oder Stäube befinden.** Elektrowerkzeuge erzeugen Funken, die den Staub oder die Dämpfe entzünden können.
- c) **Halten Sie Kinder und andere Personen während der Benutzung des Elektrowerkzeugs fern.** Bei Ablenkung können Sie die Kontrolle über das Gerät verlieren.

2. ELEKTRISCHE SICHERHEIT

- a) **Der Anschlussstecker des Elektrowerkzeuges muss in die Steckdose passen. Der Stecker darf in keiner Weise verändert werden. Verwenden Sie keine Adapterstecker gemeinsam mit schutzgeerdeten Elektrowerkzeugen.** Unveränderte Stecker und passende Steckdosen verringern das Risiko eines elektrischen Schlages.
- b) **Vermeiden Sie Körperkontakt mit geerdeten Oberflächen wie von Rohren, Heizungen, Herden und Kühlschränken.** Es besteht ein erhöhtes Risiko durch elektrischen Schlag, wenn Ihr Körper geerdet ist.
- c) **Halten Sie Elektrowerkzeuge von Regen oder Nässe fern.** Das Eindringen von Wasser in ein Elektrowerkzeug erhöht das Risiko eines elektrischen Schlages.
- d) **Zweckentfremden Sie das Kabel nicht, um das Elektrowerkzeug zu tragen, aufzuhängen oder um den Stecker aus der Steckdose zu ziehen. Halten Sie das Kabel fern von Hitze, Öl, scharfen Kanten oder sich bewegenden Geräteteilen.** Beschädigte oder verwickelte Kabel erhöhen das Risiko eines elektrischen Schlages.
- e) **Wenn Sie mit einem Elektrowerkzeug im Freien arbeiten, verwenden Sie nur Verlängerungskabel, die auch für den Außenbereich geeignet sind.** Die Anwendung eines für den Außenbereich geeigneten

Verlängerungskabels verringert das Risiko eines elektrischen Schlages.

- f) **Wenn der Betrieb des Elektrowerkzeuges in feuchter Umgebung nicht vermeidbar ist, verwenden Sie einen Fehlerstromschutzschalter.** Der Einsatz eines Fehlerstromschutzschalters vermindert das Risiko eines elektrischen Schlages.

3. SICHERHEIT VON PERSONEN

- a) **Seien Sie aufmerksam, achten Sie darauf, was Sie tun, und gehen Sie mit Vernunft an die Arbeit mit einem Elektrowerkzeug. Benutzen Sie kein Elektrowerkzeug, wenn Sie müde sind oder unter dem Einfluss von Drogen, Alkohol oder Medikamenten stehen.** Ein Moment der Unachtsamkeit beim Gebrauch des Elektrowerkzeuges kann zu ernsthaften Verletzungen führen.
- b) **Tragen Sie persönliche Schutzausrüstung und immer eine Schutzbrille.** Das Tragen persönlicher Schutzausrüstung, wie Staubmaske, rutschfeste Sicherheitsschuhe, Schutzhelm oder Gehörschutz, je nach Art und Einsatz des Elektrowerkzeuges, verringert das Risiko von Verletzungen.
- c) **Vermeiden Sie eine unbeabsichtigte Inbetriebnahme. Vergewissern Sie sich, dass das Elektrowerkzeug ausgeschaltet ist, bevor Sie es an den Akku anschließen, es aufnehmen oder tragen.** Wenn Sie beim Tragen des Elektrowerkzeuges den Finger am Schalter haben oder das Gerät eingeschaltet an die Stromversorgung anschließen, kann dies zu Unfällen führen.
- d) **Entfernen Sie Einstellwerkzeuge oder Schraubenschlüssel, bevor Sie das Elektrowerkzeug einschalten.** Ein Werkzeug oder Schlüssel, der sich in einem drehenden Geräteteil befindet, kann zu Verletzungen führen.
- e) **Vermeiden Sie eine abnormale Körperhaltung. Sorgen Sie für einen sicheren Stand und halten Sie jederzeit das Gleichgewicht.** Dadurch können Sie das Elektrowerkzeug in unerwarteten Situationen besser kontrollieren.
- f) **Tragen Sie geeignete Kleidung. Tragen Sie keine weite Kleidung oder Schmuck. Halten Sie Haare und Kleidung fern von sich bewegenden Teilen.** Lockere Kleidung, Schmuck oder lange Haare können von sich bewegenden Teilen erfasst werden.
- g) **Wenn Staubabsaug- und -auffangeinrichtungen montiert werden können, vergewissern Sie sich, dass diese angeschlossen sind und richtig verwendet werden.** Verwendung einer Staubabsaugung kann Gefährdungen durch Staub verringern.
- h) **Vermeiden Sie, durch die häufige Nutzung des Werkzeugs in einen Trott zu verfallen und Prinzipien für die Werkzeugsicherheit zu ignorieren.** Eine unachtsame Aktion kann im Bruchteil einer Sekunde zu schweren Verletzungen führen.

4. VERWENDUNG UND BEHANDLUNG DES ELEKTROWERKZEUGES

- a) **Überlasten Sie das Gerät nicht. Verwenden Sie für Ihre Arbeit das dafür bestimmte Elektrowerkzeug.** Mit dem passenden Elektrowerkzeug arbeiten Sie besser und sicherer im angegebenen Leistungsbereich.
- b) **Benutzen Sie kein Elektrowerkzeug, dessen Schalter defekt ist.** Ein Elektrowerkzeug, das sich nicht mehr ein- oder ausschalten lässt, ist gefährlich und muss repariert werden.
- c) **Entfernen Sie den Akku, bevor Sie Geräteeinstellungen vornehmen, Zubehörteile wechseln oder das Gerät weglegen.** Diese Vorsichtsmaßnahme verhindert den unbeabsichtigten Start des Elektrowerkzeuges.
- d) **Bewahren Sie unbenutzte Elektrowerkzeuge außerhalb der Reichweite von Kindern auf. Lassen Sie Personen das Gerät nicht benutzen, die mit diesem nicht vertraut sind oder diese Anweisungen nicht gelesen haben.** Elektrowerkzeuge sind gefährlich, wenn Sie von unerfahrenen Personen benutzt werden.
- e) **Warten Sie die Elektrowerkzeuge und Zubehör. Kontrollieren Sie, ob bewegliche Teile einwandfrei funktionieren und nicht klemmen, ob Teile gebrochen oder so beschädigt sind, dass die Funktion des Elektrowerkzeuges beeinträchtigt ist. Lassen Sie beschädigte Teile vor dem Einsatz des Gerätes reparieren.** Viele Unfälle haben ihre Ursache in schlecht gewarteten Elektrowerkzeugen.
- f) **Halten Sie Schneidwerkzeuge scharf und sauber. Sorgfältig gepflegte Schneidwerkzeuge mit scharfen Schneidkanten verklemmen sich weniger und sind leichter zu führen.**
- g) **Verwenden Sie Elektrowerkzeug, Zubehör, Einsatzwerkzeuge usw. entsprechend diesen Anweisungen. Berücksichtigen Sie dabei die Arbeitsbedingungen und die auszuführende Tätigkeit.** Der Gebrauch von Elektrowerkzeugen für andere als die vorgesehenen Anwendungen kann zu gefährlichen Situationen führen.
- h) **Halten Sie die Griffe trocken, sauber und frei von Öl und Fett.** Rutschige Griffe und Oberflächen unterbinden die sichere Bedienbarkeit und Kontrolle über das Werkzeug in unerwarteten Situationen.

5. SERVICE

- a) **Lassen Sie Ihr Elektrowerkzeug nur von qualifiziertem Fachpersonal und nur mit Original-Ersatzteilen reparieren.** Damit wird sichergestellt, dass die Sicherheit des Gerätes erhalten bleibt.

SICHERHEITSHINWEISE FÜR HÄMMER

- 1) **Sicherheitsanweisungen für alle Arbeiten**
 - a. **Tragen Sie Gehörschutz, Wenn Sie die Schlagbohrmaschine benutzen.** Lärmaussetzung kann Hörverlust verursachen.
 - b. **Benutzen Sie den zusätzlichen Handgriff, der mit dem Werkzeug geliefert wird.** Kontrollverlust kann

Personenschäden zufolge haben.

- c. **Halten Sie das Werkzeug nur an den isolierten griffigen Oberflächen, wenn Sie einen Einsatz durchführen, bei dem Schneidwerkzeuge eventuell versteckte Kabel berühren könnten.** Berührung mit einem unter Strom stehenden Kabel kann auch die Metallteile des Gerätes unter Strom setzen und dem Bedienenden einen Stromschlag versetzen.
- 2) **Sicherheitsanweisungen für den Einsatz von Langbohrern mit Bohrhämmern**
 - a) **Starten Sie das Bohren immer mit niedriger Drehzahl und wenn die Bohrspitze in Kontakt mit dem Werkstück ist.** Bei höheren Drehzahlen kann sich die Spitze verbiegen, wenn sie sich frei drehen kann, ohne das Werkstück zu berühren, was zu Verletzungen führen kann.
 - b) **Drücken Sie nur in direkter Linie zum Bohrer und üben Sie keinen übermäßigen Druck aus.** Bohrspitzen können sich verbiegen, was zu Brüchen oder Verlust der Kontrolle und damit zu Verletzungen führen kann.

ZUSÄTZLICHE SICHERHEITSHINWEISE FÜR BOHRHÄMMER

1. **Tragen Sie eine Staubschutzmaske.**

SYMBOLS

	Zur Reduzierung der Verletzungsgefahr bitte die Bedienungsanleitung durchlesen
	Schutzisolation
	WARNUNG!
	Tragen Sie einen Gehörschutz
	Tragen Sie eine Schutzbrille
	Tragen Sie eine Schutzbrille

	Schutzhandschuhe tragen
	Ziehen Sie vor allen Arbeiten am Elektrowerkzeug den Netzstecker aus der Steckdose.
	Plastik
	Beton
	Mauerwerk
	Holz
	Metall
	Hohe Geschwindigkeit
	Niedrige Geschwindigkeit
	Werkzeughalter
	Hammerbohren
	Meißeln
	BOHREN

	Elektroprodukte dürfen nicht mit dem normalen Haushaltsmüll entsorgt werden, sondern sollten nach Möglichkeit zu einer Recyclingstelle gebracht werden. Ihre zuständigen Behörden oder Ihr Fachhändler geben Ihnen hierzu gerne Auskunft.
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KOMPONENTEN

1. EIN/AUS-SCHALTER
2. EINSCHALTSPERRE
3. VORWÄRTS-RÜCKWÄRTSLAUF-REGELUNG
4. BETRIEBSARTENWAHLSCHALTER
5. TIEFENANSCHLAG
6. STAUBSCHUTZKAPPE
7. SDS-PLUS „QUIK-CHANGE“-BOHRFUTTER
8. TIEFENANSCHLAG
9. ZUSATZGRIFF

Abgebildetes oder beschriebenes Zubehör gehört teilweise nicht zum Lieferumfang.

TECHNISCHE DATEN

Typ **WX337 WT335 WT343 WX339 WX339.X**
(330~359-- Bezeichnung der Maschine, Repräsentant Bohrhammer)

	WX337 WT335	WT343 WX339 WX339.X*
Spannung	230-240V~50/60Hz	
Nennaufnahmeleistung	750W	800W
Leerlaufdrehzahl	0-1050/min	
Nennschlagzahl	0-5300bpm	
Schlagkraft	2.0J	2.5J
Schutzisoliert	 /II	
Max. Bohrleistung		
Mauerwerk	24mm	26mm

Stahl	13mm
Holz	30mm
Gewicht	3.3 kg

*X=1-999, A-Z, M1-M9 werden nur für verschiedene Kunden verwendet, es gibt keine sicherheitsrelevanten Veränderungen zwischen diesen Modellen.

Wir empfehlen Ihnen, sämtliche Zubehörteile beim selben Fachhändler zu beziehen, bei dem Sie auch Ihr Elektrowerkzeug gekauft haben. Weitere Informationen finden Sie auf der Verpackung der Zubehörteile. Auch Ihr Fachhändler berät Sie gerne.

INFORMATIONEN ÜBER LÄRM

Gewichteter Schalldruck $L_{pA} = 98,8 \text{ dB(A)}$

Gewichtete Schalleistung $L_{WA} = 109,8 \text{ dB(A)}$

$K_{WA} \text{ \& } K_{pA} = 3.0 \text{ dB(A)}$

Tragen Sie einen Gehörschutz.

INFORMATIONEN ÜBER VIBRATIONEN

Vibrationen Gesamt Messwertermittlung gemäß EN 62841:

Schlagbohren in Beton	Vibrationsemissionswert $a_{h,HD} = 14,558 \text{ m/s}^2$
	Unsicherheit $K = 1.5 \text{ m/s}^2$
Meißeln	Vibrationsemissionswert $a_{h,Cheq} = 12,475 \text{ m/s}^2$
	Unsicherheit $K = 1.5 \text{ m/s}^2$

Der angegebene Vibrationsgesamtwert und der angegebene Vibrationsemissionswert wurden gemäß Standardprüfverfahren gemessen und können zum Vergleich eines Werkzeug mit einem anderen verwendet werden.

Der angegebene Vibrationsgesamtwert und der Vibrationsemissionswert können auch für eine vorläufige Beurteilung der Beeinträchtigung durch Vibrationen verwendet werden.



WARNUNG: Die Vibrations- und Lärmemissionen

bei der eigentlichen Nutzung des Elektrowerkzeugs können vom angegebenen Wert abweichen, je nachdem, wie das Werkzeug verwendet wird und insbesondere abhängig davon, welcher Werkstücktyp verarbeitet wird, und abhängig von folgenden Beispielen und verschiedenen Einsatzmöglichkeiten des Werkzeugs: Wie das Werkzeug verwendet wird und Materialien geschnitten oder angebohrt werden.

Das Werkzeug ist in gutem Zustand und gut gepflegt. Verwendung des richtigen Zubehörs für das Werkzeug und Gewährleistung seiner Schärfe und seines guten Zustands.

Die Festigkeit des Griffs auf den Handgriffen und, falls Antivibrations- und Lärmschutzzubehör verwendet wird. Und ob das verwendete Werkzeug dem Design und diesen Anweisungen entsprechend verwendet wird.

Wird dieses Werkzeug nicht angemessen gehandhabt, kann es ein Hand-Arm-Vibrationssyndrom erzeugen.



WARNUNG: Um auf die Nummer sicher zu gehen, sollte eine Abschätzung des Belastungsgrades während tatsächlicher Verwendung berücksichtigt werden, inklusive der Zeiten, wenn das Werkzeug ausgeschaltet ist, und wenn es sich im Leerlauf befindet. Auf diese Weise kann der Belastungsgrad während der gesamten Arbeitszeit wesentlich gemindert werden. Dadurch wird das Risiko der Vibrations- und Lärmbelastung minimiert.

Verwenden Sie IMMER scharfe Meissel, Bohrer und Sägeblätter.

Pflegen Sie dieses Werkzeug diesen Anweisungen entsprechend nach und achten Sie auf eine gute Einfettung (wo erforderlich).

Falls das Werkzeug regelmäßig verwendet werden soll, investieren Sie in Antivibrations- und Lärmschutzzubehör. Machen Sie einen Arbeitsplan, um die Verwendung von hochvibrierenden Werkzeugen auf mehrere Tage zu verteilen.

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HINWEISE ZUM BETRIEB



HINWEIS: Lesen Sie das Handbuch vor Inbetriebnahme des Werkzeuges sorgfältig durch.

BESTIMMUNGSGEMÄSSER GEBRAUCH

Das Elektrowerkzeug ist bestimmt zum Hammerbohren in Beton, Ziegel und Gestein. Es ist ebenso geeignet zum Bohren ohne Schlag in Holz, Metall, Keramik und Kunststoff.



WARNUNG: Ziehen Sie vor allen Arbeiten am Elektrowerkzeug den Netzstecker aus der Steckdose.

BEDIENUNG

Aktion	Abbildung
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Bohrer in SDS einsetzen und herausnehmen	Siehe Bild A1 & A2
ZUSATZGRIFF EINSTELLEN	Siehe Bild B
TIEFENANSCHLAG VERWENDEN	Siehe Bild C
Anschließen der Stromversorgung	Siehe Bild D
EIN/AUS-SCHALTER MIT DREHZAHLEGEUNG	Siehe Bild E
VORWÄRTS-RÜCKWÄRTSLAUF-REGELUNG	Siehe Bild F
 WARNUNG: Wechseln Sie die Drehrichtung niemals, während der Bohrer läuft. Warten Sie, bis der Bohrer ausgefahren ist.	
BETRIEBSMODUS WÄHLEN - Zum Schlagbohren in Beton oder Mauerwerk wählen Sie die Bohrhammer-Position  . Für Schraubungen, Bohren in Stahl, Holz und Kunststoff wählen Sie die Bohr-Position  . Nur Hammerbetrieb: Zum Zerspanen, Meißeln und zum Zertrümmern wählen Sie die Hammer-Position  .	Siehe Bild G
 WARNUNG: Der Betriebsarten-Wahlschalter darf nur im Stillstand betätigt werden.	
 WARNUNG: Das Aluminiumgehäuse wird bei längerem Betrieb sehr heiß. Nicht berühren!	

ARBEITSHINWEISE FÜR IHREN BOHRHAMMER

Wenn der Bohrhammer zu heiß wird, lassen Sie ihn 2-3 Minuten im Leerlauf laufen, um den Motor abzukühlen. SDS-plus-Wolframkarbid-Bohrer sollten grundsätzlich für Beton und Mauerwerk eingesetzt werden. Wenn Sie in Metall bohren, verwenden Sie nur HSS-Bohrer in gutem Zustand. Immer einen magnetischen Bithalter verwenden, wenn Sie kurze Schraubendreherbits verwenden. Wenn möglich, immer ein Loch vorbohren, wenn Sie große Durchmesser bohren möchten.

WARTUNG

Ziehen Sie grundsätzlich den Netzstecker, bevor Sie Einstell-, Reparatur- oder Wartungstätigkeiten

ausführen.

Ihr Werkzeug benötigt keine zusätzliche Schmierung oder Wartung. Es enthält keine Teile, die Sie warten müssen. Reinigen Sie Ihr Werkzeug niemals mit Wasser oder chemischen Reinigungsmitteln. Wischen Sie es mit einem trockenen Tuch sauber. Lagern Sie Ihr Werkzeug immer an einem trockenen Platz. Halten Sie die Lüftungsschlitze sauber.

Falls das Netzkabel beschädigt sein sollte, muss es vom Hersteller, einem seiner Service-Beauftragten oder einer ähnlich qualifizierten Person instandgesetzt werden, damit es nicht zu Gefährdungen kommt.

UMWELTSCHUTZ



Elektroprodukte dürfen nicht mit dem normalen Hausabfall entsorgt werden, sondern sollten nach Möglichkeit zu einer Recyclingstelle gebracht werden. Ihre zuständigen Behörden oder Ihr Fachhändler geben Ihnen hierzu gerne Auskunft.

KONFORMITÄTSEKLRÄRUNG

Wir,
Positec Germany GmbH
Postfach 32 02 16, 50796 Cologne, Germany

Erklären hiermit, dass unser Produkt
Beschreibung **WORX Bohrhammer**
Typ **WX337 WT335 WT343 WX339 WX339.X**
(330~359-- Bezeichnung der Maschine, Repräsentant Bohrhammer)
Funktion **Hämmern verschiedener Materialien**

Den Bestimmungen der folgenden Richtlinien entspricht:
2006/42/EC
2011/65/EU&(EU)2015/863
2014/30/EU

Werte nach
EN 62841-1, EN IEC 62841-2-6, EN IEC 55014-1, EN IEC 55014-2, EN IEC 61000-3-2, EN 61000-3-3, EN IEC 63000

Zur Kompilierung der technischen Datei ermächtigte Person,

Name Marcel Filz
Anschrift Positec Germany GmbH
Postfach 32 02 16, 50796 Cologne, Germany



2023/02/02
Allen Ding
Stellvertretender Cheffingenieur,
Prüfung und Zertifizierung
Positec Technology (China) Co., Ltd
18, Dongwang Road, Suzhou Industrial

AVERTISSEMENTS DE SÉCURITÉ GÉNÉRAUX POUR L'OUTIL



AVERTISSEMENT Lire l'ensemble des mises en garde, instructions, illustrations et spécifications fourni avec cet outil électrique.

Ne pas suivre toutes les instructions énumérées ci-dessous peut conduire à une électrocution, un incendie et / ou des blessures graves.

Conserver tous les avertissements et toutes les instructions pour pouvoir s'y reporter ultérieurement. Le terme «outil» dans les avertissements fait référence à votre outil électrique alimenté par le secteur (avec cordon d'alimentation) ou votre outil fonctionnant sur batterie (sans cordon d'alimentation).

1. SÉCURITÉ DE LA ZONE DE TRAVAIL

- a) **Conserver la zone de travail propre et bien éclairée.** Les zones en désordre ou sombres sont propices aux accidents.
- b) **Ne pas faire fonctionner les outils électriques en atmosphère explosive, par exemple en présence de liquides inflammables, de gaz ou de poussières.** Les outils électriques produisent des étincelles qui peuvent enflammer les poussières ou les fumées.
- c) **Maintenir les enfants et les personnes présentes à l'écart pendant l'utilisation de l'outil.** Les distractions peuvent vous faire perdre le contrôle de l'outil.

2. SÉCURITÉ ÉLECTRIQUE

- a) **Il faut que les fiches de l'outil électrique soient adaptées au socle. Ne jamais modifier la fiche de quelque façon que ce soit. Ne pas utiliser d'adaptateurs avec des outils à branchement de terre.** Des fiches non modifiées et des socles adaptés réduiront le risque de choc électrique.
- b) **Éviter tout contact du corps avec des surfaces reliées à la terre telles que les tuyaux, les radiateurs, les cuisinières et les réfrigérateurs.** Il existe un risque accru de choc électrique si votre corps est relié à la terre.
- c) **Ne pas exposer les outils à la pluie ou à des conditions humides.** La pénétration d'eau à l'intérieur d'un outil augmentera le risque de choc électrique.
- d) **Ne pas maltraiter le cordon. Ne jamais utiliser le cordon pour porter, tirer ou débrancher l'outil. Maintenir le cordon à l'écart de la chaleur, du lubrifiant, des arêtes ou des parties en mouvement.** Des cordons endommagés ou emmêlés augmentent le risque de choc électrique.
- e) **Lorsqu'on utilise un outil à l'extérieur, utiliser un prolongateur adapté à l'utilisation extérieure.** L'utilisation d'un cordon adapté à l'utilisation extérieure réduit le risque de choc électrique.
- f) **Si l'usage d'un outil dans un emplacement humide est inévitable, utiliser une alimentation protégée par un dispositif à courant différentiel résiduel (DDR).** L'usage d'un DDR réduit le risque de choc électrique.

3. SÉCURITÉ DES PERSONNES

- a) **Restez vigilant, regardez ce que vous êtes en train de faire et faites preuve de bon sens dans votre utilisation de l'outil. Ne pas utiliser un outil lorsque vous êtes fatigué ou sous l'emprise de drogues, d'alcool ou de médicaments.** Un moment d'inattention en cours d'utilisation d'un outil peut entraîner des blessures graves des personnes.
- b) **Utiliser un équipement de sécurité. Toujours porter une protection pour les yeux.** Les équipements de sécurité tels que les masques contre les poussières, les chaussures de sécurité antidérapantes, les casques ou les protections acoustiques utilisés pour les conditions appropriées réduiront les blessures de personnes.
- c) **Éviter tout démarrage intempestif. S'assurer que l'interrupteur est en position arrêt avant de brancher l'outil au secteur et/ou au bloc de batteries, de le ramasser ou de le porter.** Porter les outils en ayant le doigt sur l'interrupteur ou brancher des outils dont l'interrupteur est en position marche est source d'accidents.
- d) **Retirer toute clé de réglage avant de mettre l'outil en marche.** Une clé laissée fixée sur une partie tournante de l'outil peut donner lieu à des blessures de personnes.
- e) **Ne pas se précipiter. Garder une position et un équilibre adaptés à tout moment.** Cela permet un meilleur contrôle de l'outil dans des situations inattendues.
- f) **S'habiller de manière adaptée. Ne pas porter de vêtements amples ou de bijoux. Garder les cheveux et les vêtements à distance des parties en mouvement.** Des vêtements amples, des bijoux ou les cheveux longs peuvent être pris dans des parties en mouvement.
- g) **Si des dispositifs sont fournis pour le raccordement d'équipements pour l'extraction et la récupération des poussières, s'assurer qu'ils sont connectés et correctement utilisés.** Utiliser des collecteurs de poussière peut réduire les risques dus aux poussières.
- h) **Ne pas laisser les habitudes acquises au cours d'une utilisation fréquente des outils nous rendre complaisants et ignorer les principes de sécurité de l'outil.** Une action imprudente peut entraîner des blessures graves en une fraction de seconde.

4. UTILISATION ET ENTRETIEN DE L'OUTIL

- a) **Ne pas forcer l'outil. Utiliser l'outil adapté à votre application.** L'outil adapté réalisera mieux le travail et de manière plus sûre au régime pour lequel il a été construit.
- b) **Ne pas utiliser l'outil si l'interrupteur ne permet pas de passer de l'état de marche à arrêt et vice versa.** Tout outil qui ne peut pas être commandé par l'interrupteur est dangereux et il faut le réparer.
- c) **Débrancher la fiche de la source d'alimentation en courant et/ou le bloc de batteries de l'outil avant tout réglage, changement d'accessoires ou avant de ranger l'outil.** De telles mesures de sécurité

préventives réduisent le risque de démarrage accidentel de l'outil.

- d) **Conserver les outils à l'arrêt hors de la portée des enfants et ne pas permettre à des personnes ne connaissant pas l'outil ou les présentes instructions de le faire fonctionner.** Les outils sont dangereux entre les mains d'utilisateurs novices.
- e) **Entretien des outils et accessoires électriques.** Vérifier qu'il n'y a pas de mauvais alignement ou de blocage des parties mobiles, des pièces cassées ou toute autre condition pouvant affecter le fonctionnement de l'outil. En cas de dommages, faire réparer l'outil avant de l'utiliser. De nombreux accidents sont dus à des outils mal entretenus.
- f) **Garder affûtés et propres les outils permettant de couper.** Des outils destinés à couper correctement entretenus avec des pièces coupantes tranchantes sont moins susceptibles de bloquer et sont plus faciles à contrôler.
- g) **Utiliser l'outil, les accessoires et les lames etc., conformément à ces instructions, en tenant compte des conditions de travail et du travail à réaliser.** L'utilisation de l'outil pour des opérations différentes de celles prévues pourrait donner lieu à des situations dangereuses.
- h) **Maintenir les poignées et les surfaces de préhension sèches, propres et exemptes d'huile et de graisse.** Des poignées et surfaces de préhension glissantes ne permettent pas une manipulation et un contrôle de l'outil en toute sécurité en cas d'imprévus.

5. MAINTENANCE ET ENTRETIEN

- a) **Faire entretenir l'outil par un réparateur qualifié utilisant uniquement des pièces de rechange identiques.** Cela assurera le maintien de la sécurité de l'outil.

AVERTISSEMENTS DE SÉCURITÉ POUR LES MARTEAUX

1) Consignes de sécurité pour toutes les opérations

- a. **Porter une protection pour les oreilles.** L'exposition au bruit peut causer une perte d'audition.
- b. **Veillez utiliser les poignées auxiliaires fournies avec l'outil.** La perte de contrôle peut engendrer des blessures.
- c. **Tenir l'outil par ses surfaces antidérapantes et isolées si l'outil de coupe risque d'entrer en contact avec des câbles cachés.** L'entrée en contact avec un câble sous tension rendra les parties en métal de l'outil également sous tension et l'utilisateur pourrait recevoir une décharge électrique.

2) Consignes de sécurité pour l'utilisation de forets longs avec les perceuses à percussion rotatives

- a) **Commencez toujours à percer à basse vitesse avec la pointe du foret en contact avec la pièce sur laquelle vous opérez.** À plus haute vitesse, le foret est susceptible de se tordre en cas de rotation libre sans contact avec la pièce, ce qui peut créer un risque de blessure.
- b) **N'appliquez une pression que dans l'axe du foret et n'exercez pas de pression excessive.** Les forets peuvent se tordre entraînant leur rupture ou une perte de contrôle, ce qui peut créer un risque de blessure.

CONSIGNES DE SECURITE SUPPLEMENTAIRES POUR VOTRE MARTEAU

- 1. Porter un masque contre la poussière.

SYMBOLES

	Pour réduire le risque de blessure, l'utilisateur doit lire le mode d'emploi.
	Double isolation
	Avertissement
	Porter une protection pour les oreilles
	Porter une protection pour les yeux
	Porter un masque contre la poussière
	Porter des gants de protection.
	Avant tout travail sur la machine elle-même, retirez la fiche d'alimentation de la prise électrique.

	Plastique
	Béton
	Maçonnerie
	Bois
	Métal
	Haute vitesse
	Basse vitesse
	Porte-outil
	Perceuse percussion
	Burinage
	Perceuse
	Les déchets d'équipements électriques et électroniques ne doivent pas être déposés avec les ordures ménagères. Ils doivent être collectés pour être recyclés dans des centres spécialisés. Consultez les autorités locales ou votre revendeur pour obtenir des renseignements sur l'organisation de la collecte.

LISTE DES COMPOSANTS

1. **INTERRUPTEUR VARIATEUR MARCHE/ARRET**
2. **BOUTON DE VERROUILLAGE**
3. **INVERSEUR DE SENS DE ROTATION**
4. **SELECTEUR DE MODE DE FONCTIONNEMENT**
5. **JAUGE DE PROFONDEUR**
6. **CAPUCHON DE PROTECTION CONTRE LA POUSSIERE**
7. **MANDRIN "QUIK-CHANGE" SDS-PLUS**
8. **JAUGE DE PROFONDEUR AJUSTABLE**
9. **POIGNEE LATÉRALE**

Les accessoires reproduits ou décrits ne sont pas tous compris avec le modèle standard livré.

CARACTÉRISTIQUES TECHNIQUES

Type **WX337 WT335 WT343 WX339 WX339.X**
(330~359 -- désignations des pièces, illustration de la Marteau Perforateur)

	WX337 WT335	WT343 WX339 WX339.X*
Tension Nominale-Fréquence	230-240V~50/60Hz	
Puissance	750W	800W
Vitesse à vide	0-1050/min	
Cadence de frappe nominale	0-5300bpm	
Energie d'impact	2.0J	2.5J
Doubleisolation	 /II	
Capacité max de perçage		
Béton	24mm	26mm
Acier	13mm	
Bois	30mm	

Masse de la machine	3.3 kg
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*X = 1-999, A-Z, M1-M9, la seule différence entre ces modèles est que les clients visés sont différents. Il n'y a pas de changement concernant la sécurité.

Nous recommandons d'acheter tous les accessoires dans le magasin d'acquisition de la machine. Pour plus d'informations, se référer à l'emballage des accessoires. Le personnel du magasin est également là pour vous conseiller.

INFORMATIONS RELATIVES AU BRUIT

Niveau de pression acoustique	$L_{pA} = 98,8 \text{ dB(A)}$
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Niveau de puissance acoustique	$L_{WA} = 109,8 \text{ dB(A)}$
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K_{WA} & $K_{pA} = 3.0 \text{ dB(A)}$

Porter une protection pour les oreilles

INFORMATIONS RELATIVES AUX VIBRATIONS

Valeurs totales de vibration (somme du vecteur triaxial) déterminées selon la norme EN 62841:

Perçage à percussion dans du béton	Valeur d'émission de vibrations $a_{h,HD} = 14,558 \text{ m/s}^2$
	Incertitude $K = 1.5 \text{ m/s}^2$
Burinage	Valeur d'émission de vibrations $a_{h,Cheq} = 12,475 \text{ m/s}^2$
	Incertitude $K = 1.5 \text{ m/s}^2$

La valeur totale de vibration déclarée et la valeur d'émission de bruit déclarée ont été mesurées conformément à la méthode d'essai standard et peuvent être utilisées pour comparer un outil à un autre. La valeur totale de vibration déclarée et la valeur d'émission de bruit déclarée peuvent également être utilisées lors d'une évaluation préliminaire de l'exposition.

AVERTISSEMENT: les vibrations et les émissions de bruit au cours de l'utilisation réelle de l'outil électrique peuvent varier de la valeur déclarée en fonction du mode d'utilisation de l'outil, en particulier du type de pièce traité selon les exemples suivants et

d'autres variations concernant le mode d'utilisation de l'outil:

Comment l'outil est utilisé et quels matériaux sont coupés ou percés.

L'outil est en bon état et bien entretenu.

L'utilisation du bon accessoire pour l'outil et l'assurance qu'il est affûté et en bon état.

La force avec laquelle vous serrez les poignées et l'utilisation éventuelle d'un quelconque accessoire anti-bruit et anti-vibration.

Et l'outil est utilisé comme prévu dans sa conception et dans les présentes instructions.

Cet outil peut causer un syndrome de vibration du bras et de la main s'il n'est pas correctement géré.



AVERTISSEMENT: Pour être précise, une évaluation du niveau d'exposition en conditions réelles d'utilisation doit également tenir compte de toutes les parties du cycle d'utilisation telles que les moments où l'outil est éteint, et ceux où il fonctionne au ralenti mais ne réalise pas réellement de tâche. Ceci peut réduire de façon significative le niveau d'exposition et la période de fonctionnement totale. Facteurs contribuant à minimiser votre risque d'exposition aux vibrations et au bruit. Utilisez TOUJOURS des ciseaux, des forets et des lames affûtés.

Entretenez cet outil en accord avec les présentes instructions et maintenez-le lubrifié (si approprié). Si l'outil doit être fréquemment utilisé, investissez dans des accessoires anti-bruit et anti-vibration. Planifiez votre travail pour étaler toute utilisation d'outil à fortes vibrations sur plusieurs jours.

FONCTIONNEMENT



REMARQUE: Avant d'utiliser cet outil, lire attentivement les instructions.

UTILISATION CONFORME

Cet outil électroportatif est destiné au perçage en frappe dans le béton, la brique et dans la Pierre naturelle. Il est également tout à fait approprié au perçage sans frappe du bois, du métal, de la céramique ou de matières plastiques.



AVERTISSEMENT! Avant toute intervention sur l'appareil, toujours retirer la fiche du câble d'alimentation de la prise de courant.

FONCTIONNEMENT

Action	Illustration
Sélection du mode de fonctionnement	Voir Fig. A1& A2
Ajustement de la poignée auxiliaire	Voir Fig. B
Utiliser la jauge de profondeur	Voir Fig. C

Branchement de l'alimentation	Voir Fig. D
INTERRUPTEUR VARIATEUR MARCHÉ/ARRÊT	Voir Fig. E
INVERSEUR DE SENS DE ROTATION	Voir Fig. F
 AVERTISSEMENT : Ne jamais changer le sens de rotation lorsque l'outil tourne ; attendre qu'il soit arrêté.	
Sélection du mode de fonctionnement -Pour percer et percuter dans du béton ou de la maçonnerie, choisissez la position de perçage Marteau.  -Pour visser, percer dans de l'acier, du bois et des plastiques choisir la position de perçage Rotation.  -Pour buriner ou piquer uniquement – pour ébrécher, ciseler et démolir légèrement choisir la position Marteau.   AVERTISSEMENT: Le sélecteur de mode de fonctionnement ne doit être activé que lorsque le marteau est arrêté.  AVERTISSEMENT: L'utilisation prolongée rendra le boîtier en aluminium chaud ; ne pas le toucher.	Voir Fig. G

CONSEIL D'UTILISATION DU MARTEAU

Si l'outil motorisé devient trop chaud, régler-le sur la vitesse maximale et faite-le tourner à vide pendant 2-3 minutes pour refroidir le moteur.
 Les mèches en carbure de tungstène SDS-plus doivent toujours être utilisées pour le béton et la maçonnerie. Pour percer dans le métal, utiliser uniquement des mèches HSS en bon état.
 Utiliser toujours un porte-embout magnétique lors de l'utilisation de mèches courtes.
 Lorsque c'est possible, faites un avant-trou avant de percer un trou de gros diamètre.

ENTRETIEN

Retirer la fiche de la prise avant de procéder à un réglage, une réparation ou un entretien.
 L'outil motorisé ne requiert pas de graissage ou d'entretien particulier. Il n'y a pas de pièces réparables par l'utilisateur dans cet outil. Ne jamais utiliser d'eau ou de nettoyeurs chimiques pour nettoyer l'outil. Nettoyer avec un chiffon sec. Toujours conserver l'outil motorisé

dans un endroit sec. Maintenir les fentes de ventilation du moteur propres. Empêcher que les commandes de marche soient couvertes de sciure.
 Si l'alimentation est endommagée, elle doit être remplacée par le fabricant, son agent de maintenance ou une personne qualifiée de façon similaire, afin d'éviter tout danger.

PROTECTION DE L'ENVIRONNEMENT

 Les déchets d'équipements électriques et électroniques ne doivent pas être déposés avec les ordures ménagères. Ils sont collectés pour être recyclés dans des centres spécialisés. Consultez les autorités locales ou votre revendeur pour obtenir des renseignements sur l'organisation de la collecte.

DÉCLARATION DE CONFORMITÉ

Nous,
 Positec Germany GmbH
 Postfach 32 02 16, 50796 Cologne, Germany

Déclarons ce produit,
 Description **Marteau Perforateur WORX**
 Modèle **WX337 WT335 WT343 WX339 WX339.X**
(330~359-- désignations des pièces, illustration de la Marteau Perforateur)
 Fonction **Martelage de différents matériaux**

Est conforme aux directives suivantes,
2006/42/EC
2011/65/EU&(EU)2015/863
2014/30/EU
 Et conforme aux normes :
EN 62841-1, EN IEC 62841-2-6, EN IEC 55014-1, EN IEC 55014-2, EN IEC 61000-3-2, EN 61000-3-3, EN IEC 63000

La personne autorisée à compiler le dossier technique,
Nom Marcel Filz
Adresse Positec Germany GmbH
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2023/02/02
 Allen Ding
 Ingénieur en chef adjoint, Essais & Certification
 Positec Technology (China) Co., Ltd
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AVVISI GENERALI PER LA SICUREZZA DEGLI UTENSILI A MOTORE



AVVERTENZA: Leggere tutte le avvertenze di sicurezza, le istruzioni, le illustrazioni e le specifiche fornite con questo elettroutensile.

La mancata osservanza delle istruzioni elencate di seguito potrebbe provocare una scossa elettrica, un incendio e/o lesioni gravi.

Conservare tutti gli avvisi e le istruzioni per poterle consultare quando necessario.

Il termine qui di seguito utilizzato «utensile elettrico» si riferisce ad utensili elettrici alimentati dalla rete (con linea di allacciamento), nonché ad utensili elettrici alimentati a pile (senza linea di allacciamento).

1. POSTO DI LAVORO

- a) **Mantenere pulito ed ordinato il posto di lavoro.** Il disordine e le zone di lavoro non illuminate possono essere fonte di incidenti.
- b) **Evitare d'impiegare l'utensile in ambienti soggetti al rischio di esplosioni nei quali si trovino liquidi, gas o polveri infiammabili.** Gli utensili elettrici producono scintille che possono far infiammare la polvere o i gas.
- c) **Mantenere lontani i bambini ed altre persone durante l'impiego dell'utensile elettrico.** Eventuali distrazioni potranno comportare la perdita del controllo sull'utensile.

2. SICUREZZA ELETTRICA

- a) **La spina per la presa di corrente dovrà essere adatta alla presa. Evitare assolutamente di apportare modifiche alla spina. Non impiegare spine adattatrici assieme ad utensili con collegamento a terra.** Le spine non modificate e le prese adatte allo scopo riducono il rischio di scosse elettriche.
- b) **Evitare il contatto fisico con superfici collegate a terra, come tubi, riscaldamenti, cucineelettriche e frigoriferi.** Sussiste un maggior rischio di scosse elettriche nel momento in cui il corpo è messo a massa.
- c) **Custodire l'utensile al riparo dalla pioggia o dall'umidità.** L'eventuale infiltrazione di acqua in un utensile elettrico va ad aumentare il rischio d'insorgenza di scosse elettriche.
- d) **Non usare il cavo per scopi diversi da quelli previsti al fine di trasportare o appendere l'apparecchio, oppure di togliere la spina dalla presa di corrente. Mantenere l'utensile al riparo da fonti di calore, dall'olio, dagli spigoli da parti di strumenti in movimento.** I cavi danneggiati o aggrovigliati aumentano il rischio d'insorgenza di scosse elettriche.
- e) **Qualora si voglia usare l'utensile all'aperto, impiegare solo ed esclusivamente cavi di prolunga omologati per l'impiego all'esterno.** L'uso di un cavo di prolunga omologato per l'impiego

all'esterno riduce il rischio d'insorgenza di scosse elettriche.

- f) **Se si deve utilizzare l'utensile a motore in un luogo umido, utilizzare una fonte di alimentazione con protezione a corrente residua.** L'uso di un dispositivo a corrente residua riduce il rischio di folgorazioni elettriche.

3. SICUREZZA DELLE PERSONE

- a) **È importante concentrarsi su ciò che si sta facendo e a maneggiare con giudizio l'utensile elettrico durante le operazioni di lavoro. Non utilizzare l'utensile in caso di stanchezza o sotto l'effetto di droghe, bevande alcoliche e medicinali.** Un attimo di distrazione durante l'uso dell'utensile potrà causare lesioni gravi.
- b) **Indossare sempre equipaggiamento protettivo individuale, nonché guanti protettivi.** Se si avrà cura d'indossare equipaggiamento protettivo individuale come la maschera antipolvere, la calzatura antidrisciolevole di sicurezza, il casco protettivo o la protezione dell'udito, a seconda dell'impiego previsto per l'utensile elettrico, si potrà ridurre il rischio di ferite.
- c) **Evitare avviamenti involontari. Controllare che l'interruttore sia nella posizione off prima di effettuare il collegamento a una sorgente di alimentazione/batteria, e prima di sollevare o trasportare l'utensile.** Il fatto di tenere il dito sopra all'interruttore o di collegare l'utensile accesso all'alimentazione di corrente potrà essere causa di incidenti.
- d) **Togliere gli attrezzi di regolazione o la chiave inglese prima di accendere l'utensile.** Un utensile o una chiave inglese che si trovino in una parte di strumento in rotazione potranno causare lesioni.
- e) **È importante non sopravvalutarsi. Avere curadi mettersi in posizione sicura e di mantenere l'equilibrio.** In tale maniera sarà possibile controllare meglio l'apparecchio in situazioni inaspettate.
- f) **Indossare indumenti adeguati. Evitare di indossare vestiti lenti o gioielli. Tenere i capelli e gli indumenti lontani dalle parti mobili.** Vestiti lenti, gioielli o capelli lunghi potrebbero impigliarsi in parti in movimento.
- g) **Se sussiste la possibilità di montare dispositivi di aspirazione o di captazione della polvere, assicurarsi che gli stessi siano stati installati correttamente e vengano utilizzati senza errori.** L'impiego dei suddetti dispositivi diminuisce il pericolo rappresentato dalla polvere.
- h) **Non lasciare che la familiarità acquisita con l'utilizzo frequente dell'elettroutensile si trasformi in autocompiacimento e trascuratezza dei principi di sicurezza.** Un'azione imprudente può causare lesioni gravi entro una frazione di secondo.

4. Maneggio ed impiego accurato di utensili elettrici

- a) **Non sovraccaricare l'utensile. Impiegare l'utensile elettrico adatto per sbrigare il lavoro.** Utilizzando l'utensile elettrico adatto si potrà lavorare meglio e con maggior sicurezza nell'ambito della gamma di potenza indicata.

- b) **Non utilizzare utensili elettrici con interruttori difettosi.** Un utensile elettrico che non si può più accendere o spegnere è pericoloso e dovrà essere riparato.
- c) **Scollegare la spina dalla sorgente di alimentazione e/o la batteria dall'utensile prima di effettuare regolazione, cambiare accessori, o riporre gli utensili a motore.** Tale precauzione eviterà che l'apparecchio possa essere messo in funzione inavvertitamente.
- d) **Custodire gli utensili elettrici non utilizzati al di fuori della portata dei bambini. Non fare usare l'apparecchio a persone che non sono abituate ad usarlo o che non abbiano letto le presenti istruzioni.** Gli utensili elettrici sono pericolosi se utilizzati da persone inesperte.
- e) **Eseguire la manutenzione di elettro utensile e accessori. Verificare che le parti mobili dello strumento funzionino perfettamente e non s'inceppino, che non ci siano pezzi rotti o danneggiati al punto tale da limitare la funzione dell'apparecchio stesso. Far riparare le parti danneggiate prima d'impiegare l'apparecchio.** Numerosi incidenti vengono causati da utensili elettrici la cui manutenzione è stata effettuata poco accuratamente.
- f) **Mantenere affilati e puliti gli utensili da taglio.** Gli utensili da taglio curati con particolare attenzione e con taglienti affilati s'inceppano meno frequentemente e sono più facili da condurre.
- g) **Utilizzare utensili elettrici, accessori, attrezzi, ecc. in conformità con le presenti istruzioni e secondo quanto previsto per questo tipo specifico di apparecchio. Osservare le condizioni di lavoro ed il lavoro da eseguirsi durante l'impiego.** L'impiego di utensili elettrici per usi diversi da quelli consentiti potrà dar luogo a situazioni di pericolo.
- h) **Mantenere le impugnature e le superfici di presa asciutte, pulite e prive di olio e grasso.** Le impugnature e le superfici di presa scivolose non permettono l'uso e il controllo sicuri dell'elettro utensile in situazioni impreviste.

5. ASSISTENZA

- a) **Fare riparare l'apparecchio solo ed esclusivamente da personale specializzato e solo impiegando pezzi di ricambio originali.** In tale maniera potrà essere salvaguardata la sicurezza dell'apparecchio.

INDICAZIONI DI SICUREZZA PER MARTELLI

1) Istruzioni di sicurezza per tutte le operazioni

- a. **Indossare protezione per le orecchie.** L'esposizione al rumore può provocare la perdita dell'udito.
- b. **Usare le impugnature ausiliarie fornite in dotazione all'attrezzo.** La perdita di controllo può provocare lesioni personali.
- c. **Afferrare lo strumento per le apposite maniglie quando si eseguono operazioni durante le quali**

l'attrezzo potrebbe entrare in contatto con cavi nascosti. Il contatto con cavi elettrici in tensione espone l'operatore al rischio di scosse elettriche.

2) Istruzioni di sicurezza per l'utilizzo di punte lunghe con martelli rotanti

- a) **Iniziare sempre la foratura a bassa velocità e con la punta a contatto con il pezzo.** A velocità più elevate, la punta rischia di piegarsi se viene lasciata ruotare liberamente senza entrare in contatto con il pezzo, con conseguenti lesioni personali.
- b) **Applicare la pressione solo in linea diretta con la punta e non applicare una pressione eccessiva.** Le punte possono piegarsi, causando rotture o perdita di controllo, con conseguenti lesioni personali.

ALTRE INFORMAZIONI SULLA SICUREZZA PER IL MARTELLI

1. Indossare una mascherina antipolvere.

SIMBOLI

	Per ridurre il rischio di lesioni, l'utente deve leggere il manuale di istruzioni
	Doppio isolamento
	Attenzione
	Indossare protezione per le orecchie
	Indossare protezione per gli occhi
	Indossare una mascherina antipolvere
	Indossare guanti protettivi

ELEMENTI DELL'APPARECCHIO

1. INTERRUTTORE D'ACCENSIONE/SPEGNIMENTO
2. PULSANTE DI BLOCCO
3. CONTROLLO ROTAZIONE AVANTI ED INDIETRO
4. MANOPOLA DI SELEZIONE FUNZIONI
5. ASTA DI PROFONDITÀ
6. PROTEZIONE ANTIPOLVERE
7. MANDRINO "ATTACCO RAPIDO" DI TIPO SDS-PLUS
8. ASTA DI PROFONDITÀ
9. IMPUGNATURA AUSILIARIA

Accessori illustrati o descritti non fanno necessariamente parte del volume di consegna.

DATI TECNICI

Codice **WX337 WT335 WT343 WX339 WX339.X**
(330~359-- designazione del macchinario rappresentativo del Martello Rotante)

	WX337 WT335	WT343 WX339 WX339.X*
Tensione nominale	230-240V~50/60Hz	
Potenza nominale	750W	800W
Velocità nominale a vuoto	0-1050/min	
Velocità impatto	0-5300bpm	
Energia di impatto	2.0J	2.5J
Doppio isolamento	 /II	
Capacità massima di foratura		
Muratura	24mm	26mm
Acciaio	13mm	
Legno	30mm	

22		Bassa velocità
		Alta velocità
		Portautensili
		Trapano a Percussione
		Scalpellatura
		Trapanatura
		I prodotti elettrici non possono essere gettati tra i rifiuti domestici. L'apparecchio da rottamare deve essere portato al centro di riciclaggio per un corretto trattamento. Controllare con le autorità locali o con il rivenditore per localizzare il centro di riciclaggio più vicino.

Peso	3.3 kg
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*X = 1-999, A-Z, M1-M9 solo per clienti diversi, non ci sono cambiamenti rilevanti sicuri tra questi modelli.

Ti consigliamo di acquistare gli accessori nello stesso negozio dove compri l'utensile. Fare riferimento alla confezione degli accessori per ulteriori dettagli. Il personale del negozio può aiutarti e offrire consulenza.

INFORMAZIONI SUL RUMORE

Pressione acustica ponderata A $L_{pA} = 98,8 \text{ dB(A)}$

Potenza acustica ponderata A $L_{wA} = 109,8 \text{ dB(A)}$

K_{wA} & $K_{pA} = 3.0 \text{ dB(A)}$

Indossare protezione per le orecchie

INFORMAZIONI SULLA VIBRAZIONE

I valori totali di vibrazione (somma vettoriale triassiale) sono determinati secondo lo standard EN 62841:

Perforazione a percussione su cemento	Valore emissione vibrazioni $a_{h,HD} = 14,558 \text{ m/s}^2$
	Incertezza $K = 1.5 \text{ m/s}^2$
Scalpellatura	Valore emissione vibrazioni $a_{h,Cheq} = 12,475 \text{ m/s}^2$
	Incertezza $K = 1.5 \text{ m/s}^2$

Il valore totale di emissione di vibrazioni dichiarato e il valore di emissioni sonore dichiarati sono stati misurati in base a un metodo di collaudo standard e possono essere utilizzati per il confronto di un utensile con un altro.

Il valore totale di emissione di vibrazioni dichiarato e il valore di emissioni sonore dichiarato possono anche essere utilizzati in una valutazione preliminare dell'esposizione.

AVVERTENZA: le emissioni di vibrazioni e sonore durante l'uso effettivo dell'elettrotroutensile possono differire dal valore dichiarato in base alle modalità con cui esso viene utilizzato. In particolare quale tipo di pezzo viene lavorato dipende dai seguenti fattori e da

altre variazioni sulle modalità di utilizzo dell'elettrotroutensile:

Come viene usato l'elettrotroutensile e quali sono i materiali tagliati o forati.

Le condizioni e la buona manutenzione dell'elettrotroutensile.

L'uso dell'accessorio corretto per il taglio e la sua affilatura, nonché le sue buone condizioni.

La tenuta della presa sulle impugnature e se vengono utilizzati eventuali accessori antivibrazioni e antirumore.

L'adeguatezza dell'utilizzo dell'elettrotroutensile rispetto a quanto previsto.

Questo elettrotroutensile potrebbe causare l'insorgenza della sindrome della vibrazione dell'avambraccio se il suo utilizzo non viene gestito correttamente.



AVVERTENZA: per essere precisi, una stima del livello di esposizione nelle attuali condizioni di utilizzo dovrebbe anche tenere conto di tutte le parti del ciclo operativo, come le volte in cui lo strumento viene spento e il tempo in cui viene lasciato girare a vuoto senza realmente fare il suo lavoro. Questo potrebbe ridurre significativamente il livello di esposizione sul periodo di lavoro totale.

Aiuto a minimizzare il rischio di esposizione alle vibrazioni e al rumore.

Usare sempre scalpelli, trapani e lame affilati.

Conservare questo elettrotroutensile sempre in conformità a queste istruzioni e mantenerlo ben lubrificato (dove appropriato).

Se l'utensile deve essere utilizzato regolarmente, investire in accessori antivibrazioni e antirumore.

Planificare il lavoro in modo da suddividere i lavori che implicano le maggiori vibrazioni nell'arco di più giorni.

FUNZIONAMENTO



NOTA: Leggere scrupolosamente il manuale delle istruzioni prima di usare l'attrezzo.

USO CONFORME ALLE NORME

L'elettrotroutensile è ideale per forature battenti in calcestruzzo, mattoni e roccia. Lo stesso è inoltre adatto per forature non battenti nel legno, nel metallo, nella ceramica ed in materiali sintetici.



ATTENZIONE! Prima di qualunque intervento alla macchina, estrarre la spina dalla presa di rete.

FUNZIONAMENTO

Azione	Figura
INSERIRE E TOGLIERE LE PUNTE NEL MANDRINO CON ATTACCO SDS	Vedere Figura. A1& A2

Impugnatura ausiliaria	Vedere Figura.B
Uso dell'indicatore di profondità	Vedere Figura.C
Collegare il cavo di alimentazione alla presa di corrente	Vedere Figura. D
INTERRUTTORE ACCENSIONE / SPEGNIMENTO CON CONTROLLO VELOCITÀ VARIABILE	Vedere Figura.E
CONTROLLO ROTAZIONE AVANTI ED INDIETRO	Vedere Figura. F
 ATTENZIONE: Non cambiare mai la direzione di rotazione quando l'attrezzo è in movimento; attendere affinché si sia fermato. Non usare mai la funzione di percussione quando l'attrezzo è impostato sulla rotazione inversa.	
Selezione della modalità di funzionamento - Per foratura e percussione contemporanei per cemento o opere in muratura, selezionare la posizione Foratura con percussione.  Per avvitatura, foratura di metallo, legno e plastica, selezionare la posizione Foratura.  Per percussione soltanto – per togliere trucioli, scalpellatura e opera di demolizione selezionare la posizione Martello.   ATTENZIONE: la manopola di selezione (4) deve essere attivata esclusivamente a macchina ferma.  AVVERTENZA: In caso di uso prolungato, la parte metallica potrebbe riscaldarsi, non toccare.	Vedere Figura. G

CONSIGLI SUL FUNZIONAMENTO DEL TRAPANO MARTELLO

Se l'attrezzo diventa troppo caldo, impostare la velocità al massimo e farlo funzionare a vuoto per 2-3 minuti per raffreddare il motore. Le punte per forare al carburo di tungsteno di tipo SDS-plus devono essere utilizzate solo per cemento e opere in muratura. Quando si fora il metallo, usare solamente punte HSS in buone condizioni. Usare sempre un portainseri magnetico quando si usano punte corte. Dove possibile, usare fori pilota prima di trapanare buchi di diametro maggiore.

MANUTENZIONE

Rimuovere la spina dalla presa di corrente prima di eseguire qualsiasi regolazione, riparazione o manutenzione. L'attrezzo non richiede di lubrificazione o manutenzione aggiuntiva. All'interno dell'attrezzo non ci sono parti riparabili da parte dell'utente. Non usare mai acqua o detergenti chimici per pulire l'attrezzo. Pulire con un panno asciutto. Riporre sempre gli attrezzi elettrici in luoghi asciutti. Tenere pulite le aperture di ventilazione del motore. Tenere puliti dalla polvere tutti i controlli operativi. Se il cavo d'alimentazione è danneggiato, deve essere sostituito dal produttore, il suo distributore o persona egualmente qualificata per evitare pericoli.

PROTEZIONE AMBIENTALE

 I prodotti elettrici obsoleti non devono essere smaltiti insieme ai rifiuti urbani. Riciclare i prodotti laddove sono presenti gli appositi centri. Mettersi in contatto con le autorità locali, o con il rivenditore, per informazioni sul riciclaggio.

DICHIARAZIONE DI CONFORMITÀ

NOI,
Positec Germany GmbH
Postfach 32 02 16, 50796 Cologne, Germany

Dichiara che l'apparecchio,
Descrizione **WORX Martello Rotante**
Codice **WX337 WT335 WT343 WX339 WX339.X**
(330~359-- designazione del macchinario rappresentativo del Martello Rotante)
Funzione **Perforazione di vari materiali.**

È conforme alle seguenti direttive.,
2006/42/EC
2011/65/EU&(EU)2015/863
2014/30/EU

Conforme a,
EN 62841-1, EN IEC 62841-2-6, EN IEC 55014-1, EN IEC 55014-2, EN IEC 61000-3-2, EN 61000-3-3, EN IEC 63000

Il responsabile autorizzato alla compilazione della documentazione tecnica,

Nome **Marcel Filz**
Indirizzo **Positec Germany GmbH**
Postfach 32 02 16, 50796 Cologne, Germany



2023/02/02
Allen Ding
Vice capo ingegnere, testing e certificazione
Positec Technology (China) Co., Ltd
18, Dongwang Road, Suzhou Industrial
Park, Jiangsu 215123, P. R. China



ADVERTENCIA DE SEGURIDAD GENERALES SOBRE HERRAMIENTAS ELÉCTRICAS



ADVERTENCIA: Lea todas las advertencias de seguridad, instrucciones, ilustraciones y especificaciones que acompañan a esta herramienta eléctrica. Si no se respetan todas las instrucciones que se indican abajo, podría producirse una descarga eléctrica, un incendio o alguien podría resultar herido de gravedad.

Conserve todas las advertencias e instrucciones para futuras consultas.

El término "herramienta eléctrica" en todas las instrucciones siguientes corresponde a la herramienta eléctrica con o sin cable.

1. ZONA DE TRABAJO

- Mantener su lugar de trabajo limpio y bien iluminado.** Bancos de trabajo desordenados y lugares oscuros invitan a los accidentes.
- No utilizar herramientas eléctricas en atmósferas explosivas, como por ejemplo en presencia de líquidos inflamables, gases o polvo.** Las herramientas eléctricas crean chispas que pueden encender el polvo o los vapores.
- Mantener alejados a los niños y visitantes mientras opera una herramienta eléctrica.** Las distracciones pueden hacerle perder el control.

2. SEGURIDAD ELÉCTRICA

- Los enchufes de la herramienta eléctrica deben encajar perfectamente en el tomacorriente. Nunca modificar el enchufe de ninguna manera. No utilizar adaptadores con herramientas eléctricas conectadas a tierra.** Los enchufes no modificados y los que encajan perfectamente en el tomacorriente reducirán el riesgo de descarga eléctrica.
- Evitar el contacto del cuerpo con superficies conectadas a tierra tales como caños, radiadores, cocinas y heladeras.** Existe un riesgo creciente de descarga eléctrica si su cuerpo queda conectado a tierra.
- No exponer las herramientas eléctricas a la lluvia y no guardar en lugares húmedos.** El agua que penetra en ellas aumentará el riesgo de una descarga eléctrica.
- No abusar del cable. Nunca utilizar el cable para transportar, tirar o desenchufar la herramienta eléctrica. Mantener el cable alejado del calor, del aceite, de bordes agudos o piezas móviles.** Los cables dañados o enredados aumentan el riesgo de descarga eléctrica.
- Cuando utilice su herramienta eléctrica al aire libre, emplear un prolongador apto para uso en exteriores.** El empleo de cables para uso al aire libre reduce el riesgo de descarga eléctrica.

- Si es necesario utilizar la herramienta motorizada en un lugar muy húmedo, utilice una fuente de alimentación con dispositivo de corriente residual (RCD).** El uso de un RCD reduce el riesgo de descarga eléctrica.

3. SEGURIDAD PERSONAL

- Mantenerse alerta, poner atención en lo que está haciendo y utilice el sentido común mientras opera una herramienta eléctrica. No emplear la herramienta cuando se encuentre cansado o bajo la influencia de drogas, alcohol o medicación.** Un momento de falta de atención durante el manejo de herramientas eléctricas puede dar lugar a daños corporales serios.
- Utilizar equipo de seguridad. Usar siempre protección ocular.** Equipo de seguridad como máscaras contra el polvo, zapatos antideslizantes de seguridad, sombrero o protección auditiva para condiciones apropiadas reducirá daños corporales.
- Evite el arranque accidental. Asegúrese de que el interruptor se encuentra desactivado antes de enchufar la máquina o colocar la batería, al tomar la herramienta o transportarla.** Transportar herramientas con el dedo en el interruptor o enchufar la herramienta cuando el interruptor está encendido invitan a los accidentes.
- Retire llaves de ajuste o llaves inglesas antes de poner la herramienta en funcionamiento.** Una llave que queda unida a una pieza móvil de la herramienta puede originar daños corporales.
- No extralimitarse. Mantenerse firme y con buen equilibrio en todo momento.** Esto permite un mejor control de la herramienta en situaciones inesperadas.
- Vestirse apropiadamente. No usar ropa suelta ni alhajas.** Mantenga el pelo, la ropa y los guantes alejados de las piezas en movimiento. La ropa suelta, las alhajas o el cabello largo pueden ser atrapados por las piezas móviles.
- Si se proporcionan dispositivos para la extracción y recolección de polvo, asegurarse de que estos estén conectados y utilizados correctamente.** El uso de estos dispositivos puede reducir peligros relacionados con el polvo.
- No permita que el hecho de estar familiarizado con el uso de herramientas le haga volverse descuidado o ignorar las normas de seguridad.** La falta de atención puede provocar heridas graves en una fracción de segundo.

4. MANTENIMIENTO DE LA HERRAMIENTA MOTORIZADA

- No forzar la herramienta eléctrica. Utilizar la herramienta eléctrica correcta para su aplicación.** La herramienta eléctrica correcta hará el trabajo mejor y más seguro a la velocidad para la cual fue diseñada.
- No utilizar la herramienta eléctrica si el interruptor no la enciende o apaga.** Cualquier herramienta eléctrica que no pueda ser controlada con el

interruptor es peligrosa y debe ser reparada.

- c) **Desconecte el enchufe de la toma eléctrica y/o la batería de la herramienta antes de realizar cualquier ajuste, cambiar un accesorio o guardar la herramienta.** Tales medidas de seguridad preventivas reducen el riesgo de arranque accidental de la herramienta.
- d) **Mantener las herramientas eléctricas que no usa fuera del alcance de los niños y no permita que personas no familiarizadas con la herramienta o con estas instrucciones maneje la herramienta eléctrica.** Las herramientas eléctricas son peligrosas en manos de usuarios inexpertos.
- e) **Realice un mantenimiento adecuado de las herramientas eléctricas y sus accesorios.** Comprobar si hay desalineamiento o atascamiento de piezas móviles, rotura de piezas en general y cualquier otra condición que pueda afectar la operación normal de la herramienta. Si se verifican daños, recurra a un service calificado antes de volver a usar la herramienta. Las herramientas mal mantenidas causan muchos accidentes.
- f) **Mantener las piezas de corte limpias y afiladas.** Puesto que son menos probables de atascarse y más fáciles de controlar.
- g) **Utilizar la herramienta eléctrica, accesorios y brocas etc., de acuerdo con estas instrucciones y de la manera prevista para el tipo particular de herramienta eléctrica, teniendo en cuenta las condiciones de trabajo y el trabajo a ser realizado.** El uso de la herramienta eléctrica para otras operaciones distintas de lo previsto podría dar lugar a una situación peligrosa.
- h) **Las empuñaduras y las superficies de agarre secas, limpias y sin aceite ni grasa.** Una empuñadura o una superficie de agarre resbaladiza dificultan la correcta manipulación y el control de la herramienta en situaciones imprevistas.

5. REPARACIÓN

- a) **Permitir que el mantenimiento de su herramienta eléctrica sea efectuado por una persona calificada usando solamente piezas de recambio idénticas.** Esto es primordial para mantener la seguridad de la herramienta eléctrica.

INSTRUCCIONES DE SEGURIDAD PARA MARTILLOS

1) Instrucciones de seguridad para todas las operaciones

- 1. **Utilice protección auditiva.** Estar expuesto a altos niveles de ruido puede causar pérdida de audición.
- 2. **Utilice las empuñaduras auxiliares suministradas con la herramienta.** La pérdida de control puede causar lesiones personales.
- 3. **Sostenga la herramienta por las empuñaduras aislantes cuando realice una operación donde la**

herramienta de corte puede entrar en contacto con cableado oculto. El contacto con un cable con corriente también hará que las partes expuestas del metal de la herramienta puedan transmitirle una descarga eléctrica.

- 2) **Instrucciones de seguridad cuando se usan brocas largas con martillos rotatorios**
 - a) **Empiece siempre a taladrar a baja velocidad y con la punta de la broca en contacto con la pieza de trabajo.** A velocidades más altas, la broca puede doblarse si se le permite rotar libremente sin tener contacto con la pieza de trabajo, lo que puede provocar lesiones personales.
 - b) **Aplique presión únicamente en línea directa con la broca y no aplique una presión excesiva.** Las brocas se pueden doblar, lo que provocaría su rotura o la pérdida de control, causando lesiones personales.

INSTRUCCIONES ADICIONALES DE SEGURIDAD PARA SU MARTILLOS

- 1. **Utilice una máscara antipolvo.**

SÍMBOLOS

	Para reducir el riesgo de lesión, lea el manual de instrucciones
	Doble aislamiento
	Advertencia
	Utilice protección auditiva
	Utilizar protección ocular
	Utilizar una máscara antipolvo

	Utilizar guantes de protección
	Antes de cualquier manipulación en el aparato extraer el enchufe de la red.
	Plástico
	Cemento
	Mampostería
	Madera
	Metal
	Alta velocidad
	Bajo velocidad
	Portaherramientas
	Taladrado con percusión
	Cincelado
	Taladrar

	Los residuos de aparatos eléctricos y electrónicos no deben depositarse en la basura doméstica. Se deben reciclar en las instalaciones especializadas. Consulte a las autoridades locales o el establecimiento para saber cómo reciclar estos productos.
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LISTA DE COMPONENTES

1. INTERRUPTOR DE ENCENDIDO / APAGADO
2. BOTÓN DE BLOQUEO DE INTERRUPTOR
3. PALANCA DE CONTROL DEL SENTIDO DE GIRO
4. SELECTOR DE MODO O FUNCIÓN
5. TOPE DE PROFUNDIDAD
6. RETÉN DE PROTECCIÓN ANTIPOLVO
7. BLOQUE DE CAMBIO RÁPIDO SDS-PLUS
8. TOPE DE PROFUNDIDAD AJUSTABLE
9. EMPUÑADURA AUXILIAR

Los accesorios ilustrados o descritos pueden no corresponder al material suministrado de serie con el aparato.

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DATOS TÉCNICOS

Modelo **WX337 WT335 WT343 WX339 WX339.X**
(330~359-- denominaciones de maquinaria, representantes de Martillo rotatorio)

	WX337 WT335	WT343 WX339 WX339.X*
Tensión nominal -Frecuencia	230-240V~50/60Hz	
Potencia de entrada	750W	800W
Velocidad sin carga	0-1050/min	
Impactos por minuto	0-5300bpm	
Energía de impacto	2.0J	2.5J
Doble aislamiento	 //II	

Capacidad máxima del martillo		
Hormigón	24mm	26mm
Acero	13mm	
Madera	30mm	
Peso de la máquina	3.3 kg	

*X = 1-999, A-Z, M1-M9 solo se utilizan para diferentes clientes, no hay cambios relevantes seguros entre estos modelos

Recomendamos que adquiera todos sus accesorios en el mismo establecimiento donde compró la herramienta. Consulte los estuches de los accesorios para más detalles. El personal del establecimiento también puede ayudar y aconsejar.

INFORMACIÓN DE RUIDO

Nivel de presión acústica ponderada $L_{pA} = 98,8 \text{ dB(A)}$

Nivel de potencia acústica ponderada $L_{WA} = 109,8 \text{ dB(A)}$

$K_{WA} \text{ \& } K_{pA} = 3.0 \text{ dB(A)}$

Utilice protección auditiva.

INFORMACIÓN DE VIBRACIÓN

Valores totales de vibración (suma vectorial triangular) determinados según la norma EN 62841:

Perforación percutora en cemento	Valor de emisión de vibración a_{hHD} =14,558 m/s^2
	Incertidumbre $K=1.5 \text{ m/s}^2$
Cincelado	Vibration emission value $a_{hCheq} = 12,475 \text{ m/s}^2$
	Incertidumbre $K=1.5 \text{ m/s}^2$

El valor total de vibraciones declarado y el valor de emisiones acústicas declarado se han medido de conformidad con un método de prueba estándar y pueden utilizarse para realizar comparaciones entre herramientas. El valor total de vibraciones declarado y el valor de emisiones acústicas declarado también pueden utilizarse en una evaluación preliminar de la exposición.



ADVERTENCIA: Las vibraciones y las emisiones acústicas que se producen durante el uso de la herramienta eléctrica pueden variar respecto a los valores declarados en función de cómo se utilice la herramienta, especialmente dependiendo del tipo de pieza de trabajo que se procese y de otras formas de usar la herramienta:

Cómo se utiliza la herramienta y se cortan o perforan los materiales.

Si la herramienta se encuentra en buenas condiciones de mantenimiento.

Si se utiliza el accesorio correcto para la herramienta y se garantiza que está afilado y en buenas condiciones.

La firmeza de sujeción de las empuñaduras, y el uso de accesorios para reducir las vibraciones y el ruido.

Y si la herramienta se utiliza según su diseño y estas instrucciones.

Esta herramienta podría causar síndrome de vibración del brazo y la mano si no se utiliza correctamente.



ADVERTENCIA: Para conseguir una mayor precisión, debe tenerse en cuenta una estimación del nivel de exposición en condiciones reales de todas las partes del ciclo de uso, como los tiempos durante los que la herramienta está apagado o cuando está en funcionamiento pero no está realizando ningún trabajo. Ello podría reducir notablemente el nivel de exposición sobre el periodo de carga total.

Minimización del riesgo de exposición a las vibraciones y el ruido.

Utilice SIEMPRE cinceles, brocas y cuchillas afiladas. Mantenga esta herramienta de acuerdo con estas instrucciones y bien lubricada (si es necesario).

Si la herramienta se va a utilizar de forma habitual, se recomienda adquirir accesorios para reducir las vibraciones y el ruido.

Planifique su programa de trabajo para distribuir el uso de la herramienta a lo largo de varios días.

INSTRUCCIONES DE FUNCIONAMIENTO



ATENCIÓN: Antes de utilizar la herramienta, lea detenidamente el manual de instrucciones.

UTILIZACIÓN REGLAMENTARIA

La herramienta eléctrica ha sido diseñada para taladrar con percusión en hormigón, ladrillo y piedra. También es apropiada para taladrar sin percudir en madera, metal, cerámica y plástico.



ADVERTENCIA! Antes de cualquier manipulación en el aparato extraer el enchufe de la red.

FUNCIONAMIENTO

Acción	Figura
INSERTAR Y EXTRAER BROCAS SISTEMA SDS	Ver Fig. A1& A2

Ajustar la empuñadura auxiliar	Ver Fig. B
Usar el selector de profundidad	Ver Fig. C
Conectar la alimentación eléctrica	Ver Fig. D
INTERRUPTOR DE VELOCIDAD VARIABLE	Ver Fig. E
PALANCA DE CONTROL DEL SENTIDO DE GIRO  ADVERTENCIA: Nunca cambie la dirección de rotación cuando la herramienta esté en funcionamiento; espere hasta que la misma se haya detenido.	Ver Fig. F
Seleccionar el modo de funcionamiento - Para realizar operaciones de taladrado con percusión sobre hormigón o mampostería, seleccione la posición de taladro con percusión.  Para atornillar, taladrar acero, madera o plástico, seleccione la posición de taladro sin percusión.  Para utilizar sólo la función de percusión martillo en operaciones de picado y cincelado ligeras, seleccione la posición de Percusión.   ADVERTENCIA: El selector del modo de operación únicamente debe accionarse con el aparato detenido.  ADVERTENCIA: El uso prolongado de la herramienta puede hacer que la carcasa de aluminio se caliente. No la toque.	Ver Fig. G

CONSEJOS DE TRABAJO PARA SU MARTILLO PERFORADOR

Si su herramienta eléctrica se recalienta demasiado, lleve la velocidad al máximo y accione sin carga durante 2 o 3 minutos para enfriar el motor.

Las brocas de carburo de tungsteno SDS-plus deben utilizarse exclusivamente para hormigón y mampostería. Para perforar metal, use exclusivamente brocas HSS en buenas condiciones.

Siempre emplee un soporte magnético cuando utilice puntas de atornillado de escasa longitud.

Siempre que le sea posible, realice los taladros de gran diámetro haciendo taladros previos de menor diámetro de forma escalonada.

MANTENGA LAS HERRAMIENTAS CON CUIDADO

Retire el enchufe de la toma de corriente antes de

efectuar cualquier ajuste, reparación o mantenimiento.

Su herramienta eléctrica no requiere de lubricación ni mantenimiento adicional. No posee piezas en su interior que deban ser reparadas por el usuario. Nunca emplee agua o productos químicos para limpiar su herramienta. Use simplemente un paño seco. Guarde siempre su herramienta en un lugar seco. Mantenga limpias las ranuras de ventilación del motor. Mantenga todos los controles de funcionamiento libres de polvo. Si el cable de alimentación está dañado deberá ser reemplazado por el fabricante, su agente de servicio o por alguna persona cualificada para evitar riesgos.

PROTECCION AMBIENTAL



Los residuos de equipamientos eléctricos y electrónicos no deben depositarse con las basuras domésticas. Se recogen para reciclarse en centros especializados. Consulte a las autoridades locales o a su distribuidor para obtener información sobre la organización de la recogida.

DECLARACIÓN DE CONFORMIDAD

Los que reciben,
Positec Germany GmbH
Postfach 32 02 16, 50796 Cologne, Germany

Declaran que el producto,
Descripción **WORX Martillo rotatorio**
Modelo **WX337 WT335 WT343 WX339 WX339.X**
(330~359- denominaciones de maquinaria,
representantes de Martillo rotatorio)
Función **Martillando varios materiales**

Cumple con las siguientes Directivas :

2006/42/EC
2011/65/EU&(EU)2015/863
2014/30/EU

Normativas conformes a
EN 62841-1, EN IEC 62841-2-6, EN IEC 55014-1, EN IEC 55014-2, EN IEC 61000-3-2, EN 61000-3-3, EN IEC 63000

La persona autorizada para componer el archivo técnico,

Firma **Marcel Filz**
Dirección **Positec Germany GmbH**
Postfach 32 02 16, 50796 Cologne, Germany




2023/02/02
Allen Ding
Ingeniero Jefe Adjunto. Pruebas y Certificación.
Positec Technology (China) Co., Ltd
18, Dongwang Road, Suzhou Industrial
Park, Jiangsu 215123, P. R. China

AVISOS GERAIS DE SEGURANÇA DE FERRAMENTAS ELÉCTRICAS



AVISO Leia todos os avisos de segurança, instruções, ilustrações e especificações fornecidos com esta ferramenta eléctrica. Caso não siga todas as instruções listadas de seguida poderá resultar e choque eléctrico, incêndio e/ou lesões graves.

Guarde estas instruções para referência futura.

Os termos “ferramenta eléctrica” utilizados em todos os avisos constantes destas instruções referem-se à sua ferramenta eléctrica accionada por corrente eléctrica (com cabo de alimentação) ou ferramenta eléctrica accionada por bateria (sem cabo de alimentação).

1) LOCAL DE TRABALHO

- Mantenha o local de trabalho limpo e bem arrumado.** Áreas com pouca iluminação e desordenadas podem provocar acidentes.
- Não utilize o aparelho em locais onde existam líquidos, gases ou poeiras inflamáveis e onde exista o risco de explosão.** As ferramentas eléctricas produzem faíscas que podem inflamar poeiras ou gases.
- Mantenha as pessoas e particularmente as crianças afastadas da ferramenta eléctrica durante o seu funcionamento.** Qualquer distração pode fazê-lo perder o controlo do berbequim.

2) SEGURANÇA ELÉCTRICA

- A ficha do berbequim deve encaixar bem na tomada de alimentação. Nunca modifique fichas, seja de que maneira for. Não utilize nenhuma ficha de adaptação com ferramentas eléctricas que tenham ligação à terra.** Fichas não modificadas e tomadas de corrente adequadas reduzem o risco de choque eléctrico.
- Evite o contacto do corpo com superfícies ligadas à terra como tubos, aquecedores, fogões e frigoríficos.** Existe um aumento do risco de choque eléctrico se o seu corpo estiver em contacto com a terra ou a massa.
- Não exponha este equipamento à chuva ou humidade.** A infiltração de água num aparelho eléctrico aumenta o risco de choque eléctrico.
- Não maltrate o cabo de alimentação. Nunca utilize o cabo para transportar, puxar ou desligar o aparelho da tomada de corrente. Mantenha o cabo afastado de fontes de calor, óleos, arestas afiadas ou peças em movimento.** Cabos danificados ou enredados aumentam o risco de choque eléctrico.
- Quando trabalhar com uma ferramenta eléctrica ao ar livre, use um cabo de extensão adequado para utilização no exterior.** A utilização de um cabo adequado para uso exterior reduz o risco de choque

eléctrico.

- Se não puder evitar a utilização de uma ferramenta eléctrica num local húmido, utilize uma fonte de alimentação protegida contra corrente residual.** A utilização de um dispositivo com protecção contra corrente residual reduz o risco de choque eléctrico.
- ### 3) SEGURANÇA DE PESSOAS
- Esteja atento, observe o que está a fazer e seja prudente sempre que trabalhar com uma ferramenta eléctrica. Não utilize nunca uma ferramenta eléctrica quando estiver cansado ou sob a influência de drogas, álcool ou medicamentos.** Um momento de desatenção quando se utiliza uma ferramenta eléctrica pode causar lesões graves.
 - Utilize equipamentos de segurança. Use sempre óculos de protecção.** Equipamentos de segurança, tais como máscaras protectoras, sapatos de sola antiderrapante, capacetes ou protecções auriculares devidamente utilizados reduzem o risco de lesões.
 - Evite o arranque accidental da ferramenta.** Certifique-se de que o comutador de alimentação está desligado antes de ligar a ferramenta à fonte de alimentação e/ou à bateria, antes de pegar nela ou antes de a transportar. Se mantiver o dedo no interruptor ou accionar o aparelho enquanto este estiver ligado podem ocorrer acidentes.
 - Remova quaisquer chaves de ajuste ou de porcas antes de ligar a ferramenta eléctrica.** Chaves de porcas ou de ajuste fixadas a peças móveis do berbequim podem causar lesões.
 - Não exceda as suas próprias capacidades.** Mantenha sempre o corpo em posição firme e de equilíbrio, o que lhe permite controlar melhor a ferramenta eléctrica em situações imprevistas.
 - Use roupa apropriada. Não use vestuário solto ou artigos de joalheria. Mantenha o cabelo e as roupas e luvas afastados das peças móveis.** Roupas soltas, artigos de joalheria ou cabelos compridos podem ser agarrados por peças em movimento.
 - Se forem fornecidos dispositivos para a montagem de unidades de extracção ou recolha de resíduos, Assegure-se de que são montados e utilizados adequadamente.** A utilização destes dispositivos pode reduzir os perigos relacionados com a presença de resíduos.
 - Não permita que a familiaridade obtida do uso frequente de ferramentas o tornem complacente o ou faça ignorar os princípios de segurança da ferramenta.** Uma ação descuidada pode causar lesões graves numa fração de segundo.
- ### 4) UTILIZAÇÃO E MANUTENÇÃO DA FERRAMENTA ELÉCTRICA
- Não force a ferramenta. Utilize a ferramenta eléctrica apropriada para cada aplicação.** A utilização da ferramenta eléctrica apropriada executada o trabalho de forma melhor e mais segura, à velocidade para a qual foi concebida.
 - Não utilize esta ferramenta se o interruptor estiver deficiente, não ligando ou desligando.** Qualquer

ferramenta eléctrica que não possa ser controlada pelo interruptor é perigosa e deve ser reparada.

- c) **Desligue a ficha da fonte de alimentação e/ou remova a bateria da ferramenta antes de proceder a quaisquer ajustes, antes de mudar de acessórios ou antes de guardar a ferramenta.** Estas medidas de segurança preventivas reduzem o risco de activação accidental da ferramenta.
- d) **Quando não estiver a usar a ferramenta eléctrica, guarde-a fora do alcance das crianças e não deixe que esta seja utilizada por pessoas que não a conheçam, nem tenham lido as instruções.** As ferramentas eléctricas são perigosas nas mãos de utilizadores inexperientes.
- e) **Realize a manutenção de ferramentas eléctricas e acessórios. Verifique quaisquer desalinhamentos, encaixes de peças móveis, quebras e outras condições que possam afectar o funcionamento. Se esta ferramenta estiver avariada, mande-a reparar antes a utilizar.** Muitos acidentes são causados pela manutenção deficiente de ferramentas eléctricas.
- f) **Mantenha as ferramentas de corte limpas e afiadas.** As ferramentas de corte com manutenção adequada e arestas de corte afiadas têm menos probabilidades bloquear e são mais fáceis de controlar.
- g) **Utilize a ferramenta eléctrica, acessórios, brocas, etc. em conformidade com estas instruções e da forma prevista para este tipo específico de ferramenta, tendo em conta as condições presentes e o trabalho a executar.** A utilização de ferramentas eléctricas para aplicações diferentes daquelas a que se destinam pode levar a situações de perigo.
- h) **Mantenha as pegas e as superfícies de aderência secas, limpas e sem óleo e massa lubrificante.** As pegas e superfícies de aderência escorregadias não permitem o manuseamento e controlo seguros da ferramenta em situações inesperadas.

5) ASSISTÊNCIA TÉCNICA

- a) **A sua ferramenta eléctrica só deve ser reparada por um técnico de assistência qualificado e devem ser apenas utilizadas peças de substituição genuínas, mantendo assim a segurança da ferramenta.**

AVISOS DE SEGURANÇA DO MARTELO

- 1) **Instruções de segurança para todas as operações**
- a. **Use protetores auriculares.** A exposição ao barulho pode causar perda de audição.
- b. **Use as pegas auxiliares fornecidas com a ferramenta.** A perda de controlo pode causar danos pessoais.
- c. **Segure a ferramenta agarrando as superfícies isoladas ao executar uma operação onde a ferramenta cortante pode entrar em contacto com fios eléctricos escondidos ou com o seu próprio cabo eléctrico.** O contacto com um fio com corrente fará com que as peças de metal expostas da

ferramenta fiquem com corrente e dêem choque ao operador.

- 2) **Instruções de segurança ao utilizar brocas longas com martelos rotativos**
- a) **Comece sempre a perfuração a uma velocidade baixa e com a ponta da broca em contacto com a peça de trabalho.** A velocidades mais elevadas, a broca provavelmente dobrará se permitir rodar livremente sem entrar em contacto com a peça de trabalho, resultando em ferimentos pessoais.
- b) **Aplique pressão apenas numa linha reta em relação à broca, sem aplicar pressão excessiva.** As brocas podem dobrar, causando quebra ou perda de controlo, resultando em ferimentos pessoais.

NORMAS DE SEGURANÇA ADICIONAIS PARA O SEU MARTELO

1. Usar máscara contra o pó.

SÍMBOLOS

	Para reduzir o risco de ferimentos o utilizador deve ler o manual de instruções
	Duplo isolamento
	Atenção
	Usar protecção para os ouvidos
	Usar protecção ocular
	Usar máscara contra o pó
	Usar luvas de protecção

LISTA DE COMPONENTES

1. INTERRUPTOR ON/OFF

2. BOTÃO DE BLOQUEIO DO INTERRUPTOR

3. CONTROLO DE MOVIMENTO PARA DIANTE E INVERSO

4. INTERRUPTOR DE SELEÇÃO DO MODO DE FUNÇÃO

5. LIMITADOR DA ESPESSURA

6. CAPA DE PROTEÇÃO CONTRA POEIRA

7. MANDRIL "QUIK-CHANGE" SDS-PLUS

8. PARAGEM AJUSTÁVEL EM PROFUNDIDADE

9. MANIVELA AUXILIAR

Acessórios ilustrados ou descritos não estão totalmente abrangidos no fornecimento.

DADOS TÉCNICOS

Tipo **WX337 WT335 WT343 WX339 WX339.X**
(330~359-- designação de máquinas, representantes do Martelo Rotativo)

	WX337 WT335	WT343 WX339 WX339.X*
Tensão nominal	230-240V~50/60Hz	
Potência nominal	750W	800W
Velocidade nominal em vazio	0-1050/min	
Taxa de Impacto avaliada	0-5300bpm	
Energia de impacto	2.0J	2.5J
Classe de protecção	□/II	
Capacidade máx. De perfuração		
Alvenaria	24mm	26mm
Aço	13mm	

	Antes de realizar qualquer trabalho na própria máquina, retire a ficha de alimentação da tomada.
	Plástico
	Cimento
	Alvenaria
	Madeira
	Metal
	Alta velocidade
	Baixa velocidade
	Suporte de ferramentas
	Perfuração com martelo
	Cinzelamento
	Perfuração
	Os equipamentos eléctricos não devem ser depositados com o lixo doméstico. Se existirem instalações adequadas deve reciclá-los. Consulte a sua autoridade local para tratamento de lixo ou fornecedor para obter aconselhamento sobre reciclagem.

Madeira	30mm
Peso de máquina	3.3 kg

*X = 1-999, A-Z, M1-M9, são utilizados apenas para clientes diferentes, não há alterações relevantes seguras entre esses modelos.

Recomendamos que você compre seus acessórios na mesma loja que vendeu a ferramenta. Consulte a embalagem dos acessórios para mais detalhes. O pessoal da loja pode ajudá-lo e oferecer opinião

DADOS SOBRE RUÍDOS E VIBRAÇÕES

Pressão de som avaliada	$L_{pA} = 98,8 \text{ dB(A)}$
Potência de som avaliada	$L_{WA} = 109,8 \text{ dB(A)}$
K_{WA} & $K_{pA} = 3.0 \text{ dB(A)}$	

Usar protecção para os ouvidos

INFORMAÇÃO DE VIBRAÇÃO

Os valores totais de vibração são determinados de acordo com a normativa EN 62841:

Perfuração com martelo em betão	Valor da emissão da vibração $a_{h,HD} = 14,558 \text{ m/s}^2$
	Instabilidade $K = 1.5 \text{ m/s}^2$
Cinzelamento	Valor da emissão da vibração $a_{h,Cheq} = 12,475 \text{ m/s}^2$
	Instabilidade $K = 1.5 \text{ m/s}^2$

O valor total de vibração declarado e o valor de emissão de ruído declarado foram medidos de acordo com um método de teste normalizado e poderão ser utilizados para comparar ferramentas entre si. O valor total de vibração declarado e o valor de emissão de ruído declarado também poderão ser utilizados numa avaliação preliminar da exposição.

AVISO: a vibração e as emissões de ruído durante o uso efetivo da ferramenta elétrica podem diferir do valor declarado, em função das formas como a ferramenta é utilizada, especialmente no que se refere ao tipo de peça de trabalho que é processada em função dos seguintes exemplos e de outras variações sobre como a ferramenta é utilizada:

O modo como a ferramenta é utilizada, os materiais a cortar ou perfurar.

A ferramenta estar em boas condições e bem conservada.

A utilização do acessório correcto para a ferramenta e a garantia de que está afiado e em boas condições.

A tensão de aderência nas pegas e se são utilizados acessórios anti-vibração e ruído.

Se a ferramenta é utilizada para o objectivo para a qual foi concebida e segundo as instruções.

Esta ferramenta pode causar síndrome de vibração mão-brço, se não for adequadamente utilizada.

AVISO: Para ser preciso, uma estimativa do nível de exposição nas condições actuais de utilização deve ter em conta todas as partes do ciclo de operação, como os tempos em que a ferramenta está desligada e quando está em funcionamento, mas inactiva, ou seja, não realizando o seu trabalho. Isto poderá reduzir significativamente o nível de exposição durante o período total de trabalho.

Ajudar a minimizar a sua vibração e risco de exposição ao ruído.

Utilize SEMPRE formões, brocas e lâminas afiadas.

Mantenha esta ferramenta de acordo com as instruções e bem lubrificada (quando aplicável).

Se a ferramenta tiver de ser utilizada regularmente, invista em acessórios anti-vibração e anti-ruído.

Planeie o seu horário de trabalho de forma a distribuir a utilização de ferramentas de alta vibração ao longo de vários dias.

FUNCIONAMENTO

NOTA: Antes de utilizar a ferramenta, leia atentamente o livro de instruções.

UTILIZAÇÃO CONFORME AS DISPOSIÇÕES

A máquina destina-se à perfuração com martelo em betão, tijolo e pedra, bem como a trabalhos de cinzelamento leves. Também é adequada para perfuração sem impacto na madeira, metal, cerâmica e plástico.

AVISO! Antes de realizar qualquer trabalho na máquina em si, retire a ficha de alimentação da tomada.

OPERAÇÃO

Ação	Figura
INSERIR E REMOVER A BROCA DE PERFURAÇÃO EM SDS	Ver Fig. A1 & A2
Ajustar a pega auxiliar	Ver Fig. B
Usar o medidor de profundidade	Ver Fig. C

Ligar à corrente elétrica	Ver Fig. D
Interruptor On/Off com controlo de velocidade variável	Ver Fig.E
CONTROLO DE ROTAÇÃO DE AVANÇO / RECÚO  AVISO: nunca mude o sentido de rotação enquanto a ferramenta estiver a rodar, aguarde até ter parado.	Ver Fig. G
Selecionar o modo de funcionamento -Para perfuração e impacto simultâneo de betão ou alvenaria, escolha a posição de perfuração do martelo  -Para aparafusamento, perfuração em aço, madeira e plástico, escolha a posição de perfuração Rotativa.  -Para impacto apenas – para aplicações de raspagem leve, cinzelamento e demolição, escolha a posição de Martelo.   AVISO: o selector do modo de funcionamento poderá ser acionado apenas numa situação de imobilização.  AVISO: a utilização prolongada fará com que a caixa em alumínio se torne quente, não tocar.	Ver Fig. G

SUGESTÕES DE TRABALHO PARA A SUA BROCA (MARTELO)

Se a sua ferramenta elétrica ficar excessivamente quente, defina a velocidade para o valor máximo e execute-a sem carga durante 2-3 minutos para arrefecer o motor. As brocas de perfuração de carboneto de tungsténio SDS-plus devem ser sempre utilizadas para betão e alvenaria. Quando perfurar em metal, utilize apenas brocas de perfuração HSS em bom estado. Utilize sempre um suporte de brocas magnético quando utilizar brocas de aparafusamento curtas. Sempre que possível, utilize um orifício piloto antes de perfurar um orifício de diâmetro grande.

MANUTENÇÃO

Retire o cabo de alimentação da tomada antes de efectuar quaisquer ajustamentos, reparações ou manutenção. A sua ferramenta não requer qualquer lubrificação ou manutenção adicional. Na sua ferramenta eléctrica, não existem componentes

susceptíveis de serem substituídos pelo utilizador. Nunca utilize água ou produtos químicos para limpar a sua ferramenta. Limpe-a com um pano macio e seco. Guarde sempre a sua ferramenta num local seco. Mantenha as ranhuras de ventilação do motor devidamente limpas. Se o cabo de alimentação estiver danificado, este deve ser substituído pelo fabricante, seu agente autorizado ou pessoal técnico qualificado para evitar qualquer situação de perigo.

PROTECÇÃO AMBIENTAL

 Os equipamentos eléctricos não devem ser depositados com o lixo doméstico. Se existirem instalações adequadas deve reciclá-los. Consulte a sua autoridade local para tratamento de lixos ou fornecedor para obter aconselhamento sobre reciclagem.

DECLARAÇÃO DE CONFORMIDADE

Nós,
Positec Germany GmbH
Postfach 32 02 16, 50796 Cologne, Germany

Declaramos que o produto,
Descrição **Martelo Rotativo WORX**
Tipo **WX337 WT335 WT343 WX339 WX339.X**
(330~359--designação de máquinas, representantes do Martelo Rotativo)
Função **Martelamento de vários materiais**

Cumpramos as seguintes Directivas:
2006/42/EC
2011/65/EU&(EU)2015/863
2014/30/EU

Normas em conformidade com:
EN 62841-1, EN IEC 62841-2-6, EN IEC 55014-1, EN IEC 55014-2, EN IEC 61000-3-2, EN 61000-3-3, EN IEC 63000

Pessoa autorizada a compilar o ficheiro técnico,
Nome Marcel Filz
Endereço Positec Germany GmbH
Postfach 32 02 16, 50796 Cologne, Germany




2023/02/02
Allen Ding
Engenheiro-chefe adjunto,
Teste e Certificação
Positec Technology (China) Co., Ltd
18, Dongwang Road, Suzhou Industrial
Park, Jiangsu 215123, P. R. China

VEILIGHEIDSinSTRUCTIES

PRODUCTVEILIGHEID

ALGEMENE

VEILIGHEIDSWAARSCHUWINGEN VOOR VERMOGENSMACHINE



WAARSCHUWING Lees alle veiligheidswaarschuwingen, instructies, illustraties en specificaties die bij dit elektrisch gereedschap werden meegeleverd. Het niet opvolgen van alle onderstaande voorschriften kan tot een elektrische schok, brand en/of ernstig persoonlijk letsel leiden.

Bewaar alle waarschuwingen en instructies voor latere naslag.

De term "(elektrisch) gereedschap" in de waarschuwingen hieronder, verwijst naar uw op netspanning werkende gereedschap (met stroomdraad) of uw accugereedschap (draadloos).

1) WERKGEBIED

- a) **Houd uw werkgebied schoon en zorg ervoor dat deze goed verlicht is.** In rommelige en slecht verlichte werkgebieden gebeuren sneller ongelukken.
- b) **Gebruik elektrisch gereedschap niet in explosieve atmosferen, zoals in de nabijheid van ontvlambare vloeistoffen, gassen of stof.** Elektrisch gereedschap veroorzaakt vonken die de stof of de gassen kunnen doen ontvlammen.
- c) **Houd kinderen en omstanders uit de buurt terwijl u met elektrisch gereedschap werkt.** Afleidingen kunnen ervoor zorgen dat u de controle over het gereedschap verliest.

2) ELEKTRISCHE VEILIGHEID

- a) **De stekker van het elektrisch gereedschap moet passen in het stopcontact. Pas de stekker op geen enkele manier aan om te zorgen dat hij wel past.** Gebruik geen adapterstekkers terwijl u geaard elektrisch gereedschap gebruikt. Onaangepaste stekkers die in het stopcontact passen, verminderen de kans op een elektrische schok.
- b) **Vermijd lichamelijk contact met geaarde of gegronde oppervlakken, zoals buizen, radiatoren, fornuizen en koelkasten.** Als uw lichaam geaard of geground is, is er een grotere kans op een elektrische schok.
- c) **Stel uw elektrische gereedschap niet bloot aan regen of natte omstandigheden.** Water dat elektrisch gereedschap kan binnendringen, vergroot de kans op een elektrische schok.
- d) **Gebruik de stroomdraad niet op een andere manier dan waarvoor deze gemaakt is. Trek niet aan de stroomdraad, ook niet om de stekker uit het stopcontact te krijgen en draag het gereedschap**

niet door het aan de stroomdraad vast te houden.

Houd de stroomdraad uit de buurt van hitte, olie, scherpe hoeken en bewegende onderdelen. Beschadigde of verwarde stroomdraden vergroten de kans op een elektrische schok.

- e) **Wanneer u het elektrische gereedschap buitenshuis gebruikt, dient u te zorgen voor een verlengsnoer dat geschikt is voor gebruik buitenshuis.** Het gebruik van een verlengsnoer dat geschikt is voor gebruik buitenshuis, vermindert de kans op een elektrische schok.
 - f) **Moet een krachtmachine in een vochtige locatie worden gebruikt, gebruik dan een aardlekschakelaar (ALS).** Een ALS vermindert het gevaar op elektrische schokken.
- #### **3) PERSOONLIJKE VEILIGHEID**
- a) **Blijf alert, kijk waar u mee bezig bent en gebruik uw gezonde verstand wanneer u met elektrisch gereedschap werkt. Gebruik geen elektrisch gereedschap wanneer u moe bent of onder de invloed van drugs, alcohol of medicijnen.** Een moment van onoplettendheid bij het gebruik van elektrisch gereedschap kan leiden tot ernstig persoonlijk letsel.
 - b) **Gebruik een veiligheidsuitrusting. Draag altijd oogbescherming.** Een veiligheidsuitrusting, zoals een stofmasker, schoenen met antislipzolen, een veiligheidshelm, of oorbescherming die onder de juiste omstandigheden gebruikt wordt, vermindert de kans op persoonlijk letsel.
 - c) **Pas op dat het apparaat niet onbedoeld wordt gestart. Zorg ervoor dat de schakelaar uit staat voordat u de voeding en/of batterij aansluit, en als u de machine oppakt en draagt.** Gereedschap dragen terwijl u uw vinger op de schakelaar houdt, of de stekker in het stopcontact steken terwijl het gereedschap ingeschakeld staat, is vragen om ongelukken.
 - d) **Verwijder inbussleutels of moersleutels voordat u het gereedschap inschakelt.** Een sleutel die nog in of op een draaiend onderdeel van het elektrische gereedschap zit, kan leiden tot ernstig persoonlijk letsel.
 - e) **Werk niet boven uw macht. Zorg er altijd voor dat u stevig staat en goed in balans bent. Hierdoor heeft u betere controle over het gereedschap in onverwachte situaties.**
 - f) **Draag geschikte kleding. Draag geen loszittende kleding of sieraden. Houd uw haar en kleding uit de buurt van bewegende onderdelen.** Loszittende kleding, sieraden of lang haar kan vast kunnen te zitten in bewegende onderdelen.
 - g) **Wanneer er apparaten worden bijgeleverd voor stofafzuiging en -opvang, zorg er dan voor dat deze aangesloten zijn en op de juiste manier gebruikt worden.** Het gebruik van deze apparaten vermindert de gevaren die door stof kunnen ontstaan.
 - h) **Als u gereedschap veelvuldig gebruikt, dan kan dit leiden tot het negeren van de veiligheidsprincipes, probeer dit te vermijden.** Een achteloze actie kan

binnen een fractie van een seconde leiden tot ernstig letsel.

4) GEBRUIK EN ONDERHOUD VAN ELEKTRISCH GEREEDSCHAP

- a) **Forceer het gereedschap niet. Gebruik gereedschap dat voor de toepassing geschikt is.** Het gebruik van geschikt gereedschap levert beter werk af en werkt veiliger als het gebruikt wordt op de snelheid waar het voor ontworpen is.
 - b) **Gebruik het gereedschap niet wanneer de aan/uitschakelaar niet functioneert.** Gereedschap dat niet kan worden bediend met behulp van de schakelaar is gevaarlijk en dient te worden gerepareerd.
 - c) **Haal de stekker uit het stopcontact en/of verwijder de accu, indien deze kan worden verwijderd, uit het gereedschap voordat u instellingen veranderd, toebehoren vervangt of de machine opbergt.** Deze preventieve veiligheidsmaatregelen verminderen de kans op het ongewild inschakelen van het gereedschap.
 - d) **Berg gereedschap dat niet gebruikt wordt buiten het bereik van kinderen op en laat personen die niet bekend zijn met het gereedschap of met deze veiligheidsinstructies het gereedschap niet bedienen.** Elektrisch gereedschap kan in de handen van ongetrainde gebruikers gevaarlijk zijn.
 - e) **Onderhouden van het gereedschap en accessoires. Controleer of bewegende onderdelen nog goed uitgelijnd staan, of ze niet ergens vastzitten en controleer op elke andere omstandigheid die ervoor kan zorgen dat het gereedschap niet goed functioneert. Wanneer het gereedschap beschadigd is, dient u het te repareren voordat u het in gebruik neemt.** Veel ongelukken worden veroorzaakt door slecht onderhouden elektrisch gereedschap.
 - f) **Houd snijdend gereedschap schoon en scherp.** Goed onderhouden snijdend gereedschap met scherpe zaagbladen/messen zal minder snel vastlopen en is makkelijker te bedienen.
 - g) **Gebruik het gereedschap, de accessoires, de bitjes, enz. in overeenstemming met deze instructies en op de manier zoals bedoeld voor het specifieke type elektrisch gereedschap, rekening houdend met de werkomstandigheden en het uit te voeren werk.** Het gereedschap gebruiken voor andere doeleinden dan waar deze voor ontworpen is, kan gevaarlijke situaties opleveren.
 - h) **Houd de handgrepen en grijppervlakten droog, schoon en vrij van olie en smeermiddel.** Glibberige handgrepen en grijppervlakten laten geen veilige hantering toe, en zorgen ervoor dat u geen controle hebt over het gereedschap in onverwachte omstandigheden.
- 5) **SERVICE**
- a) **Laat uw elektrisch gereedschap repareren door een bevoegde reparateur die alleen originele reserveonderdelen gebruikt.** Zo bent u er zeker van dat uw gereedschap veilig blijft.

VEILIGHEIDSVOORSCHRIFTEN VOOR HAMERS

1) Veiligheidsinstructies voor alle verrichtingen

1. **Draag oorbescherming.** Blootstelling aan lawaai kan gehoorverlies veroorzaken.
2. **Gebruik de hulphandvatten die met het gereedschap zijn meegeleverd.** Controleverlies kan persoonlijke kwetsuur veroorzaken.
3. **Houd het gereedschap vast bij de geïsoleerde handvatten als u een actie onderneemt waarbij het priemende gereedschap in contact kan komen met verborgen kabels.** Contact met een kabel waar spanning op staat zet tevens spanning op metalen onderdelen van het apparaat en geeft de gebruiker een schok.

2) Veiligheidsinstructies voor het gebruik van lange boren bij boorhamers

- a) **Begin altijd bij lage snelheid te boren en waarbij de boorpunt in aanraking is met het werkstuk.** Bij hogere snelheden bestaat de kans dat de boor verbuigt als het vrij kan draaien zonder het werkstuk te raken, met mogelijk persoonlijk letsel tot gevolg.
- b) **Oefen alleen druk uit in directe lijn met de boor en oefen geen overmatige druk uit.** Boren kunnen verbuigen, waardoor ze breken of niet meer onder controle zijn, met persoonlijk letsel tot gevolg.

EXTRA VEILIGHEIDSMATREGELEN VOOR UW BOORHAMER

1. Draag een stofmasker

SYMBOLEN

	Lees de gebruikershandleiding om het risico op letsels te beperken
	Dubbele isolatie
	Waarschuwing
	Draag oorbescherming

	Draag oogbescherming
	Draag een stofmasker
	Draag beschermende handschoenen
	Voordat u werkzaamheden uitvoert aan de machine zelf, moet u de stekker uit het stopcontact trekken.
	Plastic
	Beton
	Metselwerk
	Hout
	Metaal
	Hoge snelheid
	Lage snelheid
	Beitelen
	HAMERBOOR

	Beitelen
	Boren
	Afgedankte elektrische producten mogen niet bij het normale huisafval terechtkomen. Breng deze producten waar mogelijk naar een recyclecentrum bij u in de buurt. Vraag de verkoper of de gemeente informatie en advies over het recyclen van elektrische apparatuur.

ONDERDELENLIJST

1. AAN/UITSCHAKELAAR
2. SCHAKELAAR VOOR CONTINU GEBRUIK
3. VOOR- EN ACHTERWAARTSE DRAAI INSTELLING
4. FUNCTIEMODUS
5. DIEPTESTOP
6. STOFBESCHERMKAP
7. SDS-PLUS "BOORKOP"
8. DIEPTESTOP
9. HANDGREEP VOOR

Niet alle afgebeelde of beschreven toebehoren worden standaard meegeleverd.

TECHNISCHE GEGEVENS

Type **WX337 WT335 WT343 WX339 WX339.X**
(330~359-- aanduiding van machinerie, kenmerkend voor Boorhamer)

	WX337 WT335	WT343 WX339WX339.X*
Spanning	230-240V~50/60Hz	
Opgenomen vermogen	750W	800W
Toerental onbelast	0-1050/min	
Aantal slagen onbelast	0-5300bpm	

Slagkracht	2.0J	2.5J
Dubbele isolatie	 /II	
Max. boor-diameter in		
Steen	24mm	26mm
Staal	13mm	
Hout	30mm	
Gewicht machine	3.3 kg	

*X = 1-999, A-Z, M1-M9 zijn alleen voor verschillende klanten, er zijn geen veiligheidsgerelateerde wijzigingen tussen deze modellen.

Wij adviseren u alle accessoires te kopen in de winkel waar u het gereedschap heeft gekocht. Kijk op de verpakking van het accessoire voor meer informatie. Ook het winkelpersoneel kan u helpen en adviseren.

GELUIDSPRODUCTIE

A-gewogen geluidsdruk	$L_{pA} = 98,8 \text{ dB(A)}$
A-gewogen geluidsvermogen	$L_{WA} = 109,8 \text{ dB(A)}$
K_{WA} & $K_{pA} = 3.0 \text{ dB(A)}$	

Draag oorbescherming

TRILLINGSGEGEVENS

Totale trillingswaarden (som triax vector) bepaald volgens EN 62841:

Hamerboren in beton	Trillingswaarde $a_{h,HD} = 14,558 \text{ m/s}^2$
	Fout $K = 1.5 \text{ m/s}^2$
Beitelen	Trillingswaarde $a_{h,Cheq} = 12,475 \text{ m/s}^2$
	Fout $K = 1.5 \text{ m/s}^2$

De totale waarde van trillingen en geluidsemisatie werden gemeten volgens een standaard testmethode en kunnen worden gebruikt om gereedschappen te vergelijken. De totale waarde van trillingen en geluidsemisatie kunnen ook voor een voorlopige beoordeling van de blootstelling worden gebruikt.

 **WAARSCHUWING:** Trillingen en geluidsemisatie die tijdens het gebruik van het gereedschap

optreden, kunnen verschillen van de opgegeven waarde, dit is afhankelijk van de manier waarop het gereedschap wordt gebruikt, met name van het werkstuk dat wordt bewerkt, afhankelijk van de volgende voorbeelden en andere variaties in de manier waarop het gereedschap wordt gebruikt:

Hoe de machine gebruikt wordt en hoe het materiaal gesneden of geboord wordt.

De conditie en de onderhoudstoestand van de machine. Gebruik van de juiste toebehoren. Zorg ervoor dat ze scherp zijn en in goede conditie.

Hoe stevig de handgreep wordt vastgehouden en of er anti-trilling en -geluidsaccessoires worden gebruikt.

De machine moet gebruik worden zoals door de ontwerper bedoeld is en in overeenstemming met deze instructies.

Deze machine kan een trillingsyndroom in hand en arm veroorzaken als hij niet op de juiste wijze gehanteerd wordt.

 **WAARSCHUWING:** Voor de nauwkeurigheid moet bij een schatting van het blootstellingsniveau in de feitelijke gebruiksomstandigheden rekening worden gehouden met alle delen van de bewerking, zoals het moment dat de machine wordt uitgeschakeld en de tijden waarop de machine loopt zonder daadwerkelijk gebruikt te worden. Dit kan het blootstellingsniveau over de totale werkperiode aanzienlijk verminderen. Het risico op blootstelling aan trillingen en geluid verminderen.

Gebruik ALTIJD scherpe beitels, boren en zaagbladen. Onderhoud de machine volgens deze instructies en houd hem goed gesmeerd (voor zover van toepassing). Als het gereedschap regelmatig wordt gebruikt, investeer dan in anti-trilling en -geluidsaccessoires. Plan de werkzaamheden zodat de taken met veel trillingen over een aantal dagen verspreid worden.

BEDIENINGSINSTRUCTIES

 **OPMERKING:** lees het instructieboekje aandachtig voor gebruik van het gereedschap.

BEOOGD GEBRUIK

De machine is bestemd voor het hamerboren in baksteen, beton en steen en voor lichte hakwerkzaamheden.

 **WAARSCHUWING!** Voordat u werkzaamheden uitvoert aan de machine zelf, moet u de stekker uit het stopcontact trekken.

BEDIENING

Actie	Afbeelding
EEN BOORKOP PLAATSEN IN EN VERWIJDEREN UIT DE SDS	Zie A1 & A2
Het hulphandvat verstellen	Zie B
De dieptemeter gebruiken	Zie C

De voeding aansluiten	Zie D
AAN/UITSCHAKELAAR MET SNELHEIDSREGELING	Zie E
VOOR- EN ACHTERWAARTSE DRAAI INSTELLING  Waarschuwing: Verander de draairichting nooit wanneer het gereedschap draait, wacht tot deze gestopt is.	Zie F
De bedieningsmodus selecteren Kies de Hamerboor positie voor simultaan boren en kloppen van beton of metselwerk.  Kies de draaiboorpositie voor het indraaien van schroeven, boren in staal, hout en plastic.  Voor alleen Beitelen - Kies de hamerpositie voor licht kapwerk, beitelen en afbraak (Beitel draait niet)   WAARSCHUWING: De functieschakelaar mag alleen bij stilstand worden bediend.  WAARSCHUWING: door langdurig gebruik zal de aluminium behuizing warm worden. Raak deze niet aan.	Zie G

TIPS VOOR HET WERKEN MET UW BOOR

Wanneer het gereedschap te heet wordt, laat het dan twee minuten onbelast draaien om de motor af te laten koelen. U moet altijd SDS-plus boren gebruiken voor beton en metselwerk.
Gebruik alleen HSS boren in goede staat wanneer u in metaal boort.
Gebruik altijd een magnetische boorhouder wanneer u een korte schroevendraaier gebruikt.
Gebruik waar mogelijk een proefgat voor u een groot gat boort.

ONDERHOUD

Trek de voedingskabel uit de aansluiting voordat u eventuele aanpassingen, reparaties of onderhoud uitvoert.

Dit elektrische gereedschap hoeft niet extra gesmeerd of onderhouden te worden. Dit gereedschap bevat geen onderdelen waaraan de gebruiker onderhoud kan of moet uitvoeren. Gebruik nooit water of chemische

reinigingsmiddelen voor het schoonmaken van uw elektrische gereedschap. Veeg het schoon met een droge doek. Bewaar uw elektrische gereedschap altijd op een droge plek. Houd de ventilatiegaten van de motor schoon. Houd alle bedieningselementen vrij van stof. Is de voedingskabel beschadigd, dan moet hij, om risico te voorkomen, worden vervangen door de fabrikant, zijn vertegenwoordiger of een ander bevoegd persoon.

BESCHERMING VAN HET MILIEU

 Afgedankte elektrische producten kunt u niet met het normale huisafval weggooien. Breng deze producten, indien mogelijk, naar een recyclecentrum bij u in de buurt. Vraag de verkoper of de gemeente naar informatie en advies over het recyclen van elektrische producten.

CONFORMITEITVERKLARING

Wij
Positec Germany GmbH
Postfach 32 02 16, 50796 Cologne, Germany

Verklaren dat het product,
Beschrijving: **WORX Boorhamer**
Type **WX337 WT335 WT343 WX339 WX339.X**
(330~359--aanduiding van machinerie, kenmerkend voor Boorhamer)
Functie **Verschillende materialen hameren**

Overeenkomst met de volgende richtlijnen,
2006/42/EC
2011/65/EU&(EU)2015/863
2014/30/EU

Standaards in overeenstemming met,
EN 62841-1, EN IEC 62841-2-6, EN IEC 55014-1, EN IEC 55014-2, EN IEC 61000-3-2, EN 61000-3-3, EN IEC 63000

De persoon die bevoegd is om het technische bestand te compileren ,

Naam Marcel Filz
Adres Positec Germany GmbH
Postfach 32 02 16, 50796 Cologne, Germany



2023/02/02
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SIKKERHEDSINSTRUKTIONER PRODUKTSIKKERHED GENERELLE SIKKERHEDSINSTRUKSER FOR EL-VÆRKTØJ



ADVARSEL: Læs alle sikkerhedsadvarsler, instruktioner, illustrationer og specifikationer, som følger med el-værktøjet. I tilfælde af manglende overholdelse af anvisningerne nedenfor er der risiko for elektrisk stød, brand og/eller alvorlige personskader.

Gem alle advarsler og instruktioner til senere brug.

Begrebet "el-værktøj" i advarslerne refererer til el-værktøj, der kører på lysnettet, (med netkabel) samt akku-værktøj (uden netkabel).

1) SIKKERHED PÅ ARBEJDSPLADSEN

- a) **Sørg for, at arbejdsområdet er rent og ryddeligt.** Uorden eller uoplyste arbejdsområder øger faren for uheld.
- b) **Brug ikke el-værktøjet i eksplosionstruede omgivelser, hvor der er brændbare væsker, gasser eller støv.** El-værktøj kan slå gnister, der kan antænde støv eller dampe.
- c) **Sørg for, at andre personer og ikke mindst børn holdes væk fra arbejdsområdet, når el-værktøjet er i brug.** Hvis man distraheres, kan man miste kontrollen over el-værktøjet.

2) ELEKTRISK SIKKERHED

- a) **El-værktøjets stik skal passe til kontakten.** Stikket må under ingen omstændigheder ændres. Brug ikke adapterstik sammen med jordforbundet el-værktøj. Uændrede stik, der passer til kontakterne, nedsætter risikoen for elektrisk stød.
- b) **Undgå kropskontakt med jordforbundne overflader som f.eks. rør, radiatorer, komfurer og køleskabe.** Hvis din krop er jordforbundet, øges risikoen for elektrisk stød.
- c) **El-værktøjet må ikke udsættes for regn eller fugt.** Indtrængning af vand i et el-værktøj øger risikoen for elektrisk stød.
- d) **Brug ikke ledningen til formål, den ikke er beregnet til.** Du må aldrig bære el-værktøjet i ledningen, hænge el-værktøjet op i ledningen eller rykke i ledningen for at trække stikket ud af kontakten. Beskyt ledningen mod varme, olie, skarpe kanter eller maskindele, der er i bevægelse. Beskadigede eller indviklede ledninger øger risikoen for elektrisk stød.
- e) **Hvis el-værktøjet benyttes i det fri, må der kun benyttes en forlængerledning, der er egnet til udendørs brug.** Brug af forlængerledning til

udendørs brug nedsætter risikoen for elektrisk stød.

- f) **Hvis det ikke kan undgås at bruge el-værktøjet i fugtige omgivelser, skal der bruges et HFI-relæ.** Brug af et HFI-relæ reducerer risikoen for at få elektrisk stød.

3) PERSONLIG SIKKERHED

- a) **Det er vigtigt at være opmærksom, se, hvad man laver, og bruge el-værktøjet fornuftigt.** Brug ikke noget el-værktøj, hvis du er træt, har nydt alkohol eller er påvirket af medikamenter eller euforiserende stoffer. Få sekunders uopmærksomhed ved brug af el-værktøjet kan føre til alvorlige personskader.
- b) **Brug beskyttelsesudstyr og hav altid beskyttelsesbriller på.** Brug af sikkerhedsudstyr som f.eks. støvmaske, skridsikkert fodtøj, beskyttelseshjelm eller høreværn afhængig af maskintype og anvendelse nedsætter risikoen for personskader.
- c) **Undgå utilsigtet igangsætning. Kontrollér, at el-værktøjet er slukket, før du tilslutter det til strømtilførslen og/eller akkuen, løfter eller bærer det.** Undgå at bære el-værktøjet med fingeren på afbryderen og sørg for, at el-værktøjet ikke er tændt, når det sluttes til nettet, da dette øger risikoen for personskader.
- d) **Gør det til en vane altid at fjerne indstillingsværktøj eller skruenøgle, før el-værktøjet tændes.** Hvis et stykke værktøj eller en nøgle sidder i en roterende maskindele, er der risiko for personskader.
- e) **Undgå en unormal legemssposition. Sørg for at stå sikkert, mens der arbejdes, og kom ikke ud af balance.** Dermed har du bedre muligheder for at kontrollere el-værktøjet, hvis der skulle opstå uventede situationer.
- f) **Brug egnet arbejdstøj. Undgå løse beklædningsgenstande eller smykker. Hold hår og tøj væk fra dele, der bevæger sig.** Dele, der er i bevægelse, kan gribe fat i løstsiddende tøj, smykker eller langt hår.
- g) **Hvis støvudsugnings- og opsamlingsudstyr kan monteres, er det vigtigt, at dette tilsluttes og benyttes korrekt.** Brug af en støvopsugning kan reducere støvmængden og dermed den fare, der er forbundet støv.
- h) **Selvom du kender værktøjet godt og er vant til at bruge det, skal du alligevel være opmærksom og overholde sikkerhedsanvisningerne.** Et øjebliks uopmærksomhed kan medføre alvorlige personskader.
- 4) **OMHYGGELIG OMGANG MED OG BRUG AF EL-VÆRKTØJ**
- a) **Undgå overbelastning af el-værktøjet. Brug altid et el-værktøj, der er beregnet til det stykke arbejde, der skal udføres.** Med det passende el-

værktøj arbejder man bedst og mest sikkert inden for det angivne effektområde.

- b) **Brug ikke et el-værktøj, hvis afbryder er defekt.**
Et el-værktøj, der ikke kan startes og stoppes, er farlig og skal repareres.
 - c) **Træk stikket ud af stikkontakten og/eller fjern akkuen, hvis den er aftagelig, før maskinen indstilles, før skift af tilbehørsdele eller før el-værktøjet lægges til opbevaring.** Disse sikkerhedsforanstaltninger forhindrer utilsigtet start af el-værktøjet.
 - d) **Opbevar ubenyttet el-værktøj uden for børns rækkevidde. Lad aldrig personer, der ikke er fortrolige med el-værktøjet eller ikke har gennemlæst disse instrukser, benytte el-værktøjet.** El-værktøj er farligt, hvis det benyttes af ukyndige personer.
 - e) **Vedligehold el-værktøj og tilbehørsdele. Kontroller, om bevægelige maskindele fungerer korrekt og ikke sidder fast, og om delene er brækket eller beskadiget, således at el-værktøjets funktion påvirkes. Få beskadigede dele repareret, inden el-værktøjet tages i brug.** Mange uheld skyldes dårligt vedligeholdte el-værktøjer.
 - f) **Sørg for, at skæreværktøjer er skarpe og rene.** Omhyggeligt vedligeholdte skæreværktøjer med skarpe skærekanten sætter sig ikke så hurtigt fast og er nemmere at føre.
 - g) **Brug el-værktøj, tilbehør, indsatsværktøj osv. iht. disse instrukser. Tag hensyn til arbejdsforholdene og det arbejde, der skal udføres.** Anvendelse af el-værktøjet til formål, som ligger uden for det fastsatte anvendelsesområde, kan føre til farlige situationer.
 - h) **Hold håndtag og gribeblade tørre, rene og fri for olie og smørefedt.** Hvis håndtag og gribeblade er glatte, kan værktøjet ikke håndteres og styres sikkert, hvis der sker noget uventet.
- 5) **Service**
- a) **Sørg for, at el-værktøj kun repareres af kvalificerede fagfolk og at der kun benyttes originale reservedele.** Dermed sikres størst mulig maskinsikkerhed.

YDERLIGERE IKKERHEDS-FORANSTALTNINGER FOR DIN BOREHAMMER

1) SIKKERHEDSINSTRUKTIONER TIL AL BRUG

- a. **Bær høreværn.** Støj kan medføre tab af hørelse.
- b. **Brug de støttehåndtag, der medfulgte værktøjet.** Hvis du mister kontrollen, kan det medføre personskade.
- c. **Hold elværktøjet i de isolerede håndgreb, når**

du udfører opgaver, hvor værktøjet kan komme i kontakt med skjulte elledninger eller sin egen ledning. Hvis værktøjet rammer en strømførende ledning, bliver dets elektriske dele også strømførende, hvilket kan give brugeren elektrisk stød.

- 2) **Sikkerhedsinstruktioner ved brug af lange bor med borehammere**
- a) **Start altid boringen på lav hastighed og med boret spids i kontakt med emnet.** Ved højere hastigheder vil boret sandsynligvis bøje, hvis det får lov til at rotere frit uden at komme i kontakt med emnet, hvilket kan resultere i personskade.
- b) **Tryk kun boret vinkelret på emnet, og undlad at trykke for hårdt.** Boret kan bøje, hvilket kan ødelægge emnet, eller du kan miste kontrollen over værktøjet, hvilket kan føre til personskader.

YDERLIGERE SIKKERHEDSREGLER FOR HAMMER

- 1. Bær en støvmaske

SYMBOLER

	For at undgå risikoen for personskader skal brugeren læse brugervejledningen	41
	Isolationsklasse	
	Advarsel	
	Bær høreværn	
	Bær øjenværn	
	Bær støvmaske	

	Bær beskyttelseshandsker
	Træk stikket ud, før der arbejdes på maskinen
	Plastik
	Beton
	Murværk
	Træ
	Stål
	Høj hastighed
	Lav hastighed
	Værktøjsholder
	Slagboring
	Mejsling

	Boring uden berøring
	Affald af elektriske produkter må ikke bortskaffes sammen med husholdningsaffald. Indlever så vidt muligt produktet til genbrug. Kontakt de lokale myndigheder eller forhandleren, hvis du er i tvivl.

AGGREGATELEMENTER

1. TÆND/SLUK-KNAP
2. LÅSEKNAP
3. OMSKIFTER TIL OMLØBSRETNING
4. OMSKIFTER TIL FUNKTIONSMODUS
5. INDSTILLELIGT DYBDEANSLAG
6. STØVBESKYTTELSKAPPE
7. SDS-PLUS "UDSKIFTNINGSBOREPATRON"
8. INDSTILLELIGT DYBDEANSLAG
9. EKSTRA STØTTGREG

Illustreret eller beskrevet tilbehør er kun delvis indeholdt i leverancen.

TEKNISKE DATA

Type **WX337 WT335 WT343 WX339**
WX339.X(330~359-- udpegning af maskiner, repræsentant for Rotationshammer)

	WX337 WT335	WT343 WX339 WX339.X*
Spænding	230-240V~50/60Hz	
Indgang	750W	800W
Hastighed uden belastning	0-1050 /min	
Slagfrekvens	0-5300bpm	
Slagenergi	2.0J	2.5J
Dobbeltisolering	 /II	
Maks. boredybde		
Murværk	24mm	26mm

i stål	13mm
i træ	30mm
Maskinvægt	3.3 kg

* X = 1-999, A-Z, M1-M9 er kun til forskellige kunder, der er ingen sikkerhedsrelaterede ændringer mellem disse modeller

Det anbefales, at alt udstyr købes i samme butik som maskinen. Se på emballagen til tilbehøret for at få yderligere oplysninger. Få hjælp og råd i butikken.

STØJINFORMATION

A-vægtet lydtryksniveau	$L_{pA} = 98,8 \text{ dB(A)}$
A-vægtet lydeffektniveau	$L_{WA} = 109,8 \text{ dB(A)}$
K_{WA} & $K_{pA} = 3.0 \text{ dB(A)}$	
Bær høreværn.	

VIBRATIONSINFORMATION

Den totale værdi for vibration målt ifølge EN 62841:

Slagboring i beton	Værdi for vibration $a_{h,HD} = 14,558 \text{ m/s}^2$
	Usikkerhed $K = 1.5 \text{ m/s}^2$
Mejsling	Værdi for vibration $a_{h,Cheq} = 12,475 \text{ m/s}^2$
	Usikkerhed $K = 1.5 \text{ m/s}^2$

Den angivne vibrationstotalværdi og den deklarerede støjemissionsværdi er målt i overensstemmelse med en standard testmetode og kan bruges til at sammenligne et værktøj med et andet.

Den angivne vibrationstotalværdi og den angivne støjemissionsværdi kan også anvendes i en foreløbig vurdering af eksponeringen.

ADVARSEL: Vibrationer og støjemissioner under selve brugen af elværktøjet kan afvige fra den deklarerede værdi afhængigt af, hvordan værktøjet bruges, især hvad slags emne behandles afhængigt af følgende eksempler og andre variationer af, hvordan værktøjet bliver brugt:
Hvordan værktøjet bruges og materialerne skæres eller bores.

Værktøjets stand og vedligeholdelse.

Anvendelse af korrekt tilbehør og kontrol med, at det er skarpt og i en i det hele taget god tilstand.

Hvor kraftigt, der holdes fast i håndtaget og, om der benyttes antivibrationsudstyr.

Om værktøjet anvendes i henhold til dets konstruktion og nærværende anvisninger.

Værktøjet kan medføre et hånd/arm-vibrationssyndrom, hvis det ikke bruges på rigtig måde.



ADVARSEL: En vurdering af udsættelsesgraden under det aktuelle brug skal omfatte alle dele af arbejdsstyrken, herunder antallet af gange værktøjet slås til og fra, og tomgangsdriften uden for selve arbejdsopgaven. Dette kan afgørende reducere udsættelsesniveauet i den samlede arbejdsperiode. Hjælper med at minimere risikoen for vibrationer og støjeksposering.

Brug ALTID skarpe mejsler, bor og blade.

Vedligehold værktøjet i overensstemmelse med disse instruktioner og hold det korrekt smurt (hvor det er nødvendigt).

Hvis værktøjet skal bruges regelmæssigt, skal du investere i anti-vibrations- og støj tilbehør.

Planlæg dit arbejde, så du kan fordele arbejde med kraftige vibrationer over flere dage.

BETJENINGSVEJLEDNING



BEMÆRK: Læs instruktioner omhyggeligt, inden værktøjet tages i brug.

BEREGNET ANVENDELSESOMRÅDE

Værktøjet er beregnet til hammerboring i beton, teglsten og sten samt til let mejselarbejde. Det er ligeledes egnet til boring uden slag i træ, metal, keramik og kunststof.



ADVARSEL: Træk stikket ud, før der arbejdes på maskinen

BETJENING

Løsning	Figur
ANBRINGELSE OG FJERNELSE AF BOR OG ADAPTERE I SDS SPÆNDPATRONEN	Se. A1&A2
JUSTER DET EKSTRA HÅNDTAG	Se. B
BRUG AF DYBDESTYRET	Se. C
Tilslutning af strøm	Se. D
TIL/FRA KONTAKT MED VARIABEL HASTIGHED	Se. E
OMSKIFTER TIL OMLØBSRETNING	
ADVARSEL: Skift aldrig omløbsretning, mens værktøjet roterer. Vent til maskinen er stoppet.	Se. F

VÆLGER TIL FUNKTIONSMODUS

For simultan boring og hammerfunktion i beton eller mursten, vælg Hammer boring position. 

For skruetrækker, boring i stål, træ eller plastik vælg Roterende boreposition. 

Kun for hammerfunktion - for let adskillelse, mejsling og nedbrydning vælges Hammer position. 

Se. G

 **ADVARSEL: Driftsart-kontakten må kun bevæges, når værktøjet er slukket.**

 **Advarsel: Længere tids brug vil forårsage at aluminiumhuset bliver varmt. Berør det ikke.**

CODE RÅD

Hvis skrue-/boremaskinen bliver for varm, indstil hastigheden til maksimum, og lad maskinen køre uden belastning i 2-3 minutter for at afkøle motoren. SDS-plus tungsten karbid bor skal altid anvendes til boring i beton og mursten.

Til boring i metal må der kun anvendes HSS-bor, der er i god stand. Bor om muligt et styrehul før boring af et hul med stor diameter.

VEDLIGEHOLDELSE

Træk stikket ud af stikkontakten, inden der udføres nogen form justering, service eller vedligeholdelse.

Der er ingen dele, der kan brugerserviceres i dit el-værktøj. Brug aldrig vand eller kemiske rengøringsmidler til rengøring. Må kun rengøres med en tør klud. Opbevares på et tørt sted. Hold motorens ventilationsåbninger rene. Knapperne o.l. skal være rene og frie for støv. Det er helt normalt, at der kan forekomme gnister i ventilationsåbningerne, og det vil ikke beskadige din multisaav.

Hvis elledningen beskadiges, skal den udskiftes af producenten, dennes servicerepræsentant eller anden kvalificeret fagmand for at undgå, at der opstår farlige situationer.

MILJØBESKYTTELSE



Affald af elektriske produkter må ikke bortskaffes sammen med husholdningsaffald. Indlever så vidt muligt produktet til genbrug. Kontakt de lokale myndigheder eller forhandleren, hvis du er i tvivl.

KONFORMITETSERKLÆRING

Vi,
Positec Germany GmbH
Postfach 32 02 16, 50796 Cologne, Germany

Erklærer herved, at produktet
Beskrivelse **WORX Rotationshammer**
Type **WX337 WT335 WT343 WX339 WX339.X**
(330~359 - udpegning af maskiner, repræsentant for Rotationshammer)
Funktion **Hamring af forskellige materialer**

Er i overensstemmelse med følgende direktiver:
2006/42/EC
2011/65/EU&(EU)2015/863
2014/30/EU

Standarder i overensstemmelse med
EN 62841-1, EN IEC 62841-2-6, EN IEC 55014-1, EN IEC 55014-2, EN IEC 61000-3-2, EN 61000-3-3, EN IEC 63000

Personen, autoriseret til at udarbejde den tekniske fil,

Navn Marcel Filz
Adresse Positec Germany GmbH
Postfach 32 02 16, 50796 Cologne, Germany



2023/02/02
Allen Ding
Vicechef, Ingeniør, Test & Certificering
Positec Technology (China) Co., Ltd
18, Dongwang Road, Suzhou Industrial
Park, Jiangsu 215123, P. R. China

SIKKERHETSINSTRUKSJONER PRODUKTSIKKERHET GENERELLE ADVARSLER FOR ELEKTROVERKTØY

 **ADVARSEL** Les alle sikkerhetsanvisningene, instruksjonene, illustrasjonene og spesifikasjonene som følger med dette elektroverktøyet. Manglende overholdelse av anvisningene nedenfor kan medføre elektrisk støt, brann og/eller alvorlige personskader.

Ta godt vare på alle advarslene og informasjonene. Det nedenstående anvendte uttrykket "elektroverktøy" gjelder for strømdrevne (med ledning) og batteridrevne elektroverktøy (uten ledning).

1) SIKKERHET PÅ ARBEIDSPLASSEN

- a) **Hold arbeidsområdet rent og ryddig.** Rotete arbeidsområder eller arbeidsområder uten lys kan føre til ulykker.
- b) **Ikke arbeid med elektroverktøyet i eksplosjonsutsatte omgivelser – der det befinner seg brennbare væsker, gass eller støv.** Elektroverktøy lager gnister som kan antenne støv eller damper.
- c) **Hold barn og andre personer unna når elektroverktøyet brukes.** Hvis du blir forstyrret under arbeidet, kan du miste kontrollen over elektroverktøyet.

2) ELEKTRISK SIKKERHET

- a) **Støpselet til elektroverktøyet må passe inn i stikkkontakten. Støpselet må ikke forandres på noen som helst måte. Ikke bruk adapterstøpsler sammen med jordede maskiner.** Bruk av støpsler som ikke er forandret på og passende stikkontakter reduserer risikoen for elektriske støt.
- b) **Unngå kroppskontakt med jordede overflater slik som rør, ovner, komfyrer og kjøleskap.** Det er større fare ved elektriske støt hvis kroppen din er jordet.
- c) **Hold elektroverktøyet unna regn eller fuktighet.** Dersom det kommer vann i et elektroverktøy, øker risikoen for elektriske støt.
- d) **Ikke bruk ledningen til andre formål, f.eks. til å bære elektroverktøyet, henge den opp eller trekke den ut av stikkkontakten. Hold ledningen unna varme, olje, skarpe kanter eller maskindeler som beveger seg.** Med skadede eller opphopede ledninger øker risikoen for elektriske støt.
- e) **Når du arbeider utendørs med et elektroverktøy, må du kun bruke en skjøteledning som er godkjent til utendørs**

bruk. Når du bruker en skjøteledning som er egnet for utendørs bruk, reduseres risikoen for elektriske støt.

- f) **Hvis det ikke kan unngås å bruke elektroverktøyet i fuktige omgivelser, må du bruke en jordfeilbryter.** Bruk av en jordfeilbryter reduserer risikoen for elektriske støt.

3) PERSONSIKKERHET

- a) **Vær oppmerksom, pass på hva du gjør, gå fornuftig frem når du arbeider med et elektroverktøy. Ikke bruk elektroverktøyet når du er trett eller er påvirket av narkotika, alkohol eller medikamenter.** Et øyeblikks uoppmerksomhet ved bruk av elektroverktøyet kan føre til alvorlige skader.
- b) **Bruk personlig verneutstyr og husk alltid å bruke vernebriller.** Bruk av personlig sikkerhetsutstyr som støvmaske, skilfaste arbeidssko, hjelm eller hørselvern – avhengig av type og bruk av elektroverktøyet – reduserer risikoen for skader.
- c) **Unngå å starte verktøyet ved en feiltagelse. Forviss deg om at elektroverktøyet er slått av før du kobler det til strømmen og/eller batteriet, løfter det opp eller bærer det.** Hvis du holder fingeren på bryteren når du bærer elektroverktøyet eller kobler elektroverktøyet til strømmen i innkoblet tilstand, kan dette føre til uhell.
- d) **Fjern innstillingsverktøy eller skrunøkler før du slår på elektroverktøyet.** Et verktøy eller en nøkkel som befinner seg i en roterende maskindel, kan føre til skader.
- e) **Ikke overvurder deg selv. Sørg for å stå stødig og i balanse.** Dermed kan du kontrollere elektroverktøyet bedre i uventede situasjoner.
- f) **Bruk alltid egnede klær. Ikke bruk vide klær eller smykker.** Hold hår og klær unna deler som beveger seg. Løstsittende tøy, smykker eller langt hår kan komme inn i deler som beveger seg.
- g) **Hvis det kan monteres støvavsug- og oppsamlingsinnretninger, må du forviss deg om at disse er tilkoblet og brukes på korrekt måte.** Bruk av et støvavsug reduserer faren på grunn av støv.
- h) **Selv når du er blitt vant til verktøyet, må du ikke bli sløv og ignorere sikkerhetsreglene for verktøyet.** En uforsiktig handling kan forårsake alvorlig personskade i løpet av et brøkdels sekund.
- 4) **AKTSOM HÅNDTERING OG BRUK AV ELEKTROVERKTØY**
 - a) **Ikke overbelast elektroverktøyet. Bruk et elektroverktøy som er beregnet til den type arbeid du vil utføre.** Med et passende elektroverktøy arbeider du bedre og sikrere i det

angitte effektområdet.

- b) **Ikke bruk elektroverktøy med defekt på-/avbryter.** Et elektroverktøy som ikke lenger kan slås av eller på, er farlig og må repareres.
- c) **Trekk støpselet ut av stikkkontakten og/eller fjern batteriet (hvis demonterbart) før du utfører innstillinger på elektroverktøyet, skifter tilbehørsdeler eller legger elektroverktøyet bort.** Disse tiltakene forhindrer en utilsiktet startung av elektroverktøyet.
- d) **Elektroverktøy som ikke er i bruk må oppbevares utilgjengelig for barn. Ikke la elektroverktøyet brukes av personer som ikke er fortrolig med dette eller ikke har lest disse anvisningene.** Elektroverktøy er farlige når de brukes av uerfarne personer.
- e) **Vær nøye med vedlikeholdet av elektroverktøyet og tilbehøret. Kontroller om bevegelige maskindeler fungerer feilfritt og ikke klemmes fast, og om deler er brukt eller skadet, slik at dette innvirker på elektroverktøyet funksjon. La skadede deler repareres før elektroverktøyet brukes.** Dårlig vedlikeholdte elektroverktøy er årsaken til mange uhell.
- f) **Hold skjæreverktøyene skarpe og rene.** Godt stelte skjæreverktøy med skarpe skjær setter seg ikke så ofte fast og er lettere å føre.
- g) **Bruk elektroverktøy, tilbehør, verktøy osv. i henhold til disse anvisningene. Ta hensyn til arbeidsforholdene og arbeidet som skal utføres.** Bruk av elektroverktøy til andre formål enn det som er angitt kan føre til farlige situasjoner.
- h) **Hold håndtak og gripeflater tørre, rene og uten olje eller fett.** Glatte håndtak og gripeflater hindrer sikker håndtering og styring av verktøyet i uventede situasjoner.
- 5) **Service**
- a) **Maskinen din skal alltid kun repareres av kvalifisert fagpersonale og kun med originale reservedeler.** Slik opprettholdes elektroverktøyet sikkerhet.

YTTERLIGERE SIKKERHETSPUNKTER FOR DIN Roterende HAMMER

1) Sikkerhetsinstruksjoner for alle operasjoner

- a. **Bruk hørselsvern.** Utsettelse for støy kan forårsake hørselstap.
- b. **Bruk hjelpehåndtakene som følger med verktøyet.** Tap av kontroll kan forårsake personlig skade.
- c. **Hold verktøyet med en isolerende gripeoverflate når du utfører en operasjon der skjæreverktøyet kan komme i kontakt med skulte ledninger eller sin**

egen ledning. Kontakt med en "levende" ledninger vil utsette metaldeler til verktøyet og operatøren for støy.

2) Sikkerhetsinstruksjoner ved bruk av lange bor med borehammer

- a) **Begynn alltid å bore med lav hastighet og med borekronen i kontakt med arbeidsstykket.** Ved høyere hastigheter vil kronen sannsynligvis bøye seg hvis den får rotere fritt uten å komme i kontakt med arbeidsstykket, noe som vil resultere i personskaade.
- b) **Påfør trykk bare i direkte linje med borekronen og ikke påfør for stort trykk.** Borekroner kan bøye seg, forårsake brudd eller tap av kontroll, noe som resulterer i personskaade.

YTTERLIGERE SIKKERHETSREGLER FOR HAMMER

1. Bruk støvmaske

SYMBOLER

	For å redusere risikoen for personskaade, må brukeren lese instruksjonsveiledningen
	Beskyttelsesklasse
	Advarsel
	Bruk hørselsvern
	Bruk vernebriller
	Bruk støvmaske
	Bruk vernehansker

	Før alle arbeider på maskinen utføres må støpselet trekkes ut.
	Kunststoff
	Betong
	Murstein
	Tre
	Metall
	Høy hastighet
	Lav hastighet
	Verktøyholder
	Slagboring
	Huggjern
	Boring

	Avfall etter elektriske produkter må ikke legges sammen med husholdningsavfall. Vennligst resirkuler avfallet der dette finnes. Undersøk hos de lokale myndighetene eller en detaljist for resirkuleringsråd.
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APPARATELEMENTER

1. PÅ/AV BRYTER
2. INNKOBLINGSBRYTER
3. FOROVER OG REVERSROTASJONS KONTROLL
4. FUNCTION MODUS VELGERBRYTER
5. JUSTERBAR DYBDESTOPPER
6. STØVBESKYTTELSESHETTE
7. SDS-PLUS "QUIK-CHANGE" FESTE
8. JUSTERBAR DYBDESTOPPERS
9. HJELPE HÅNDTAK

Illustrert eller beskrevet tilbehør inngår delvis ikke i leveransen.

TEKNISKE DATA

Type **WX337 WT335 WT343 WX339 WX339.X**
(330~359-- betegner maskin, angir Roterende hammer)

	WX337 WT335	WT343 WX339 WX339.X*
Merkespenning	230-240V~50/60Hz	
Inngang	750W	800W
Hastighet uten belastning	0-1050 /min	
Støt verdi	0-5300bpm	
Slagenergi	2.0J	2.5J
Dobbelisolering	 /II	
Maksimum borekapasitet		
Mur	24mm	26mm
Stål	13mm	
Treverk	30mm	
Maskinvekt	3.3 kg	

* X = 1-999, A-Z, M1-M9 er kun for forskjellige kunder, det er ingen sikkerhetsrelaterte endringer mellom disse modellene

Vi anbefaler at du kjøper alt ekstrautstyr fra butikken der du kjøpte dette verktøyet. Henviser til tilbehørspakningen for videre detaljer. Butikkpersonalet kan også gi hjelp og råd.

STØYINFORMASJON

Belastning lydtrykk	$L_{pA}=98,8\text{ dB(A)}$
Belastning lydeffekt	$L_{wA}=109,8\text{ dB(A)}$
K_{WA} & K_{pA}	$=3.0\text{ dB(A)}$
Bruk hørselsvern.	

VIBRASJONSINFORMASJON

Totale vibrasjonsverdier satt i henhold til EN 62841

48	Hammerboring inn i betong	Vibrasjonutsendingsverdi $a_{h,HD}=14,558\text{ m/s}^2$
		Usikkerhet $K=1.5\text{ m/s}^2$
	Huggjern	Vibrasjonutsendingsverdi $a_{h,Cheq}=12,475\text{ m/s}^2$
		Usikkerhet $K=1.5\text{ m/s}^2$

Den oppgitte totale vibrasjonsverdien og den oppgitte støytutslippsverdien er målt i henhold til en standard testmetode og kan brukes for sammenligning av et verktøy med et annet.
Den oppgitte totale vibrasjonsverdien og den oppgitte støytutslippsverdien kan også brukes i en innledende eksponeringsvurdering.

⚠ ADVARSEL: Vibrasjons- og støynivå under faktisk bruk av verktøyet kan avvike fra oppgitt verdi, avhengig av hvordan verktøyet brukes og hvilken type materiale det brukes på, se følgende eksempler og andre variasjoner for bruk av verktøyet:
Hvordan verktøyet brukes og hvilke materialer som kappes eller bores.
Verktøyet er i god stand og godt vedlikeholdt.
Bruk av riktig tilbehør for verktøyet, og sørg for at det er skarpt og i god stand.
Hvor stramt grepet på håndtakene er, og om det brukes antivibrasjonstilbehør.
Og at verktøyet blir brukt til det formålet det er tilsiktet i henhold til designet og disse instruksjonene.

Dette verktøyet kan forårsake hånd-arm vibrasjonssyndrom, hvis det ikke brukes riktig.

⚠ ADVARSEL: For å være nøyaktig, bør også et overslag over eksponeringsnivå under faktiske bruksforhold også tas med i betraktning i alle deler av driftssyklusen, slik som når verktøyet er skrudd av og når det går på tomgang, men ikke faktisk gjør jobben. Dette kan redusere eksponeringsnivået betraktelig over hele arbeidsperioden.
Minimere eksponeringsrisiko for vibrasjon og støy.
Bruk ALLTID skarpe meisler, drillere og blad.
Vedlikehold verktøyet i henhold til disse instruksjonene og sørg for at det er godt smurt (der det er hensiktsmessig).
Invester i tilbehør for demping av vibrasjon og støy hvis verktøyet skal brukes regelmessig.
Planlegg arbeidstidplanen din slik at du sprer bruk av høyvibrasjonsverktøy utover flere dager.

FREMANGSMÅTE FOR LADNING

👤 MERK: Les nøye gjennom instruksjonsboka før du bruker verktøyet.

FORMÅLSMESSIG BRUK

Maskinen er beregnet til hammerboring i betong, murstein og stein samt til lette meiselarbeider. Den er også egnet til boring uten slag i tre, metall, keramikk og kunststoff.

⚠ ADVARSEL! For alle arbeider på maskinen utføres må støpselet trekkes ut.

BRUK

Løsning	Figur
SETTE INN OG FJERNE DRILLBITER I SDS	Se. A1& A2
JUSTERE HJELPEHÅNDTAKET	Se. B
BRUKE DYBDEMÅLEREN	Se. C
Plugge inn strøm	Se. D
HASTIGHETSREGULERENDE AV- OG PÅBRYTER	Se. E
FOROVER OG REVERSROTASJONS KONTROLL	Se. F
⚠ ADVARSEL: Forandre aldri retningen på rotasjonen når verktøyet går rundt, vent til det har stoppet.	

VALG AV FUNKSJONSMODUS

- For samtidig boring og støt i betong eller murverk, bruk hammerens borrarposisjon.



- For skrubborring, boring i stål, tre og plast, velg roterende boring.



- For kun støt - for lett utthugging, meisling og demolering, velg hammer posisjonen.



Se. G



ADVARSEL: Driftstype-valgbryteren må kun utløses i stillstand.



ADVARSEL: Forlenget bruk kan forårsake at aluminiumshuset blir varmt, ikke kom i kontakt med det.

ARBEIDSTIPS FOR DRILLEN DIN

Hvis ditt elektriske verktøy blir for varmt, setter du farten til maksimum og kjører den uten belastning i 2-3 minutter for å avkjøle den. SDS-plus tungsten karbid drillbiter bør alltid brukes for betong og murverk. Når du borer i metall, bruk bare HSS borer i god stand. Der det er mulig bruker du et ledehull før du borer et større diameterhull.

VEDLIKEHOLD

Ta ut støpselet fra stikkkontakten før du foretar justeringer, service eller vedlikehold.

Det er ingen brukernyttige deler i det elektriske verktøyet. Bruk aldri vann eller kjemiske rensedmidler for å rense verktøyet. Tørk av med en tørr klut. Du må alltid lagre verktøyet på en tørr plass. Hold alltid motorens ventilasjonskanaler rene. Hold alle betjeningskontrollene fri for støv. Hvis du ser gnister i ventilasjonskanalene, er dette normalt og vil ikke skade verktøyet. Hvis den medfølgende ledningen er beskadiget må den erstattes av produsenten, serviceagenten eller andre kvalifiserte personer for å unngå risiko.

MILJØVERNILTAK



Avfall etter elektriske produkter må ikke legges sammen med husholdningsavfall. Vennligst resikuler avfallet der dette finnes. Undersøk hos de lokale myndighetene eller en detaljist for resikuleringsråd.

SAMSVARSERKLÆRING

Vi,
Positec Germany GmbH
Postfach 32 02 16, 50796 Cologne, Germany

Erklærer at produktet
Beskrivelse **WORX Roterende hammer**
Type **WX337 WT335 WT343 WX339 WX339.X**
(330~359- betegner maskin, angir Roterende hammer)
Funksjon **Hamre forskjellige materialer**

Samsvarer med følgende direktiver,
2006/42/EC
2011/65/EU&(EU)2015/863
2014/30/EU

Standardene samsvarer med
EN 62841-1, EN IEC 62841-2-6, EN IEC 55014-1, EN IEC 55014-2, EN IEC 61000-3-2, EN 61000-3-3, EN IEC 63000

Personen som er autorisert til å utarbeide den tekniske filen,

Navn Marcel Filz
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2023/02/02
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Visesjefsingeniør, Testing og Sertifisering
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SÄKERHETS INSTRUKTIONER PRODUKTSÄKERHET GENERELLA SÄKERHETSVARNINGAR FÖR ELVERKTYG



Varning: Läs alla säkerhetsföreskrifter, instruktioner, illustrationer och specifikationer som följer med detta elverktyg. Underlåtelse att följa instruktionerna nedan kan leda till elstöt, brand och/eller allvarlig skada.

Spara alla varningar och instruktioner för framtida bruk.

Termen "strömförande verktyg" i alla varningsmeddelande nedan avser ditt (sladdverktyg) strömförande verktyg eller batteridrivna (sladdlösa) strömförande verktyg.

1) ARBETSOMRÅDET

- a) **Håll arbetsområdet rent och väl upplyst.** Skräpiga och mörka områden är skaderisker.
- b) **Använd inte strömförande verktyg i explosiva miljöer, som nära brandfarliga vätskor, gaser eller damm.** Strömförande verktyg skapar gnistor som kan antända damm eller ångor.
- c) **Håll barn och åskådare borta när du använder ett strömförande verktyg.** Distractioner kan göra att du förlorar kontrollen.

2) ELSÄKERHET

- a) **Stickkontaktarna till verktyget måste matcha eluttaget. Modifiera inte stickkontakten på något sätt. Använd inte adapterkontakter i samband med jordade strömförande verktyg.** Omodifierade stickkontakter och matchande eluttag minskar risken för elstöt.
- b) **Undvik kroppskontakt med jordade ytor som rör, element, spisar och kylskåp.** Det finns en större risk för elstöt om din kropp är jordad.
- c) **Exponera inte strömförande verktyg för regn eller fuktiga förhållanden.** Kommer det in vatten i ett strömförande verktyg ökar det risken för elstöt.
- d) **Missbruka inte sladden. Använd aldrig sladden för att strömförande verktyget. Håll sladden borta från hetta, olja, skarpa kanter eller rörliga delar.** Skadade eller tilltrasslade sladdar ökar risken för elstöt.
- e) **När du använder ett strömförande verktyg utomhus använd du en förlängningssladd som lämpar sig för utomhus bruk.** Använder du en sladd för utomhus bruk reducerar du risken för elstöt.
- f) **Om det inte går att undvika att driva ett elverktyg i en fuktig lokal, använd då en restströmsskyddad (RCD) strömtillförselanordning.** Användning av en RCD minskar risken för elektriska stötar.

3) PERSONLIG SÄKERHET

- a) **Var uppmärksam, håll ögonen på vad du gör och använd sunt förnuft när du använder ett strömförande verktyg. Använd inte ett strömförande verktyg när du är trött eller påverkad av droger, alkohol eller läkemedel.** En kort stund av uppmärksamhet med strömförande verktyg kan resultera i allvarliga personskador.
 - b) **Använd säker utrustning. Använd alltid skyddsglasögon.** Säkerhetsutrustning som munskydd, halkfria skor, skyddshjälm eller hörselskydd som används när det behövs kommer att reducera personskador.
 - c) **Förhindra ofrivillig start. Se till att kontakten är i off-läge innan du ansluter till strömkälla och/eller batterienhet, tar upp eller bär med dig verktyget.** Bär du strömförande verktyg med fingret på kontakten eller sätter i stickkontakten i elluttaget när kontakten är i PÅ-läge utgör det en skaderisk.
 - d) **Ta bort alla skiftnycklar eller skruvnycklar innan du sätter på det strömförande verktyget.** En skift- eller skruvnyckel som lämnas kvar på en roterande del på ett strömförande verktyg kan orsaka personskador.
 - e) **Sträck dig inte för långt. Bibehåll alltid fotfästet och balansen.** Detta gör att du kan kontrollera verktyget bättre i oväntade situationer.
 - f) **Klä dig rätt. Använd inte löst sittande kläder eller smycken.** Håll ditt hår och dina kläder borta från rörliga delar. Lösa kläder, smycket eller långt hår kan snäras in i rörliga delar.
 - g) **Om det på enheterna finns anslutning för dammsug och dammuppsamling ser du till att de är anslutna och används korrekt.** Använder du dessa anordningar reducerar det dammrelaterade faror.
 - h) **Låt inte förtrogenhet, tack vare frekvent användning av verktyget, lura dig att känna dig för trygg med det och därmed ignorera säkerhetsföreskrifterna.** En vårdslös handling kan orsaka allvarlig skada inom loppet av en sekund.
- ### 4) ANVÄNDNING OCH UNDERHÅLL AV STRÖMFÖRANDE VERKTYG
- a) **Forcera inte det strömförande verktyget. Använd korrekt verktyg för arbetet.** Det korrekta verktyget kommer att göra jobbet bättre och säkrare med den hastighet den tillverks för.
 - b) **Använd inte verktyget om kontakten inte sätter på eller stänger av det.** Alla strömförande verktyg som inte kan kontrolleras med kontakten är farliga och måste repareras.
 - c) **Koppla bort kontakten från strömkällan och/eller ta bort batterierna, om de är löstagbara, från elverktyget, innan du utför några justeringar, ändrar i tillbehören eller magasinerar elverktygen.** Sådana förebyggande säkerhetsåtgärder reducerar risken för att du startar verktyget oavsiktligt.
 - d) **Förvara verktyget som inte används utom räckhåll för barn och låt inte någon person använda verktyget som inte känner till verktyget eller dessa anvisningar.** Strömförande verktyg är farliga i händerna på utbildade användare.
 - e) **Håll koll på elverktyget och tillbehören. Kontrollera**

inriktningen eller fästet för rörliga delar, defekta delar och alla andra saker som kan påverka användningen av elverktyget. Om den skadats måste elverktyget repareras före användning. Många olyckor orsakas av felaktigt underhållna elverktyg.

- f) **Håll sågverktyget skarpa och rena.** Korrekt underhållna skärverktyg med skarpa egg kommer inte att köra fast lika ofta och är enklare att kontrollera.
- g) **Använd elverktyget, tillbehören och verktygsbitsen etc. i enlighet med dessa anvisningar och på det sätt som avsetts för varje typ av elverktyg. Ha också i åtanke arbetsförhållandena och arbetet som skall utföras.** Använder du elverktyg för åtgärder som skiljer sig det avsedda arbetet kan det resultera i riskfyllda situationer.
- h) **Håll handtag och greppytor torra, rena och fria från olja och fett.** Håll handtag och greppytor ger inte säker hantering och kontroll över verktyget i oväntade situationer.

5) UNDERHÅLL

- a) **Låt ditt elverktyg underhållas av en kvalificerad reparatör som bara använder äkta reservdelar.** Det kommer att garantera att elverktygets säkerhet bibehålls.

VERKTYGETS SÄKERHETSVARNINGAR

1) Säkerhetsinstruktioner för alla arbeten

- a. **Använd hörselskydd.** Buller kan orsaka hörselskador.
- b. **Använd hjälphandtag som följer med verktyget.** Om du förlorar kontrollen över verktyget kan det medföra personsador.
- c. **Håll verktyget med isolerade greppytor när du utför ett arbete där sågverktyget kan komma i kontakt med dolda sladdar eller sin egen sladd.** Kommer man i kontakt med en strömförande sladd kommer det att leda in ström i verktygets metalldelar och ge användaren en elchock.

2) Säkerhetsinstruktioner när långa borrkronor används med borrhammare

- a) **Börja alltid borra med låg hastighet och med borrkronans spets i kontakt med arbetsstycket.** Vid högre hastigheter är det troligt att borrkronan böjs om den får rotera fritt utan kontakt med arbetsstycket vilket kan resultera i personsador.
- b) **Använd endast tryck i rakt linje med bitsen och inget överdrivet tryck.** Borrkronor kan böjas och gå sönder eller så kan kontrollen förloras och orsaka personsador.

YTTERLIGARE SÄKERHETSPUNKTER TILL DIN BORRHAMMARE

1. använd skyddsmask mot damm.

SYMBOLER

	För att minska risken för skador måste användaren läsa bruksanvisningen i
	Dubbel isolering
	Varning
	Använd hörselskydd
	Använd skyddsglasögon
	Använd skyddsmask
	Använd skyddshandskar
	Innan något arbete på maskinen utförs måste kontakten dras ut ur eluttaget.
	Plast
	Betong
	Murverk

	Trä
	Metall
	Hög hastighet
	Låg hastighet
	Verktygshållare
	Hammarbörning
	Mejslande
	Börning
	Uttjänade elektriska produkter får inte kasseras som hushållsavfall. Återanvänd där det finns anläggningar för det. Kontakta dina lokala myndigheter eller återförsäljare för återvinningsråd

LADDARENS KOMPONENTER

1. PÅ/AV-KNAPP
2. LÅSKNAPP
3. ROTERINGSKONTROLL FRAMÅT OCH BAKÅT
4. FUNKTIONSLÄGE VALBRYTARE
5. DJUPMÄTARE
6. SKYDDSKAPSYL FRÅN DAMM

7. SDS-PLUS "SNABB-BYTE" CHUCK

8. JUSTERBART DJUPSTOPP

9. HJÄLPHANDTAG

Avbildat eller beskrivet tillbehör ingår delvis inte i leveransomfånget.

TEKNISK INFORMATION

Typ **WX337 WT335 WT343 WX339 WX339.X**
(330~359-- angivelser för maskineri, representativt för Slagbormmaskin)

	WX337 WT335	WT343 WX339 WX339.X*
Spänning	230-240V~50/60Hz	
Effekt	750W	800W
Hastighet utan belastning	0-1050/min	
Nominellt Anslagsvärde	0-5300bpm	
Slagenergi	2.0J	2.5J
Skyddsklass	□ / II	
Börningens kapacitet max		
Murverk	24mm	26mm
Stål	13mm	
Trä	30mm	
Maskinens vikt	3.3 kg	

* X = 1-999, A-Z, M1-M9 är endast för olika kunder, det finns inga säkerhetsrelaterade förändringar mellan dessa modeller.

Vi rekommenderar att du köper tillbehör från butiken där verktygen säljs. Se tillbehörspaketet för mer information. Butikspersonal kan hjälpa dig och ge dig råd.

LJUD- OCH VIBRATIONS DATA

Uppmätt ljudtryck	$L_{pA}=98,8\text{ dB(A)}$
Uppmätt ljudstyrka	$L_{WA}=109,8\text{ dB(A)}$
$K_{WA}\text{ \& }K_{pA}=3.0\text{ dB(A)}$	

Använd hörselskydd

VIBRATIONSinFORMATION

Vibrationernas totalvärden (triax vektorsumma) är fastställda enligt EN 62841:

Slagborrning i betong	Vibrationsutsändningsvärde $a_{h,HD}$ $=14,558\text{ m/s}^2$
	Osäkerhet $K=1.5\text{ m/s}^2$
Mejsling	Vibrationsutsändningsvärde $a_{h,Cheq}$ $=12,475\text{ m/s}^2$
	Osäkerhet $K=1.5\text{ m/s}^2$

Det angivna totala vibrationsvärdet och det angivna bullervärdet har uppmätts i enlighet med en standardtestmetod och kan användas för att jämföra ett verktyg med ett annat.
Det angivna totala vibrationsvärdet och det angivna bullervärdet kan också användas i en preliminär exponeringsbedömning.

⚠ VARNING: Vibrationer och buller vid användning av elverktyget kan skilja sig från det angivna värdet beroende på vilket sätt verktyget används på, särskilt vilken typ av arbetsstycke som bearbetas beroende på följande exempel och andra varianter på hur verktyget används:
Hur verktyget används och materialet som skärs eller borrar.
Verktyget är i bra skick och bra underhållet.
Användning av korrekt tillbehör för verktyget och säkerställ att de är skarpa och i bra skick.
Åtdragningsgraden av greppet på handtagen och om några antivibrations- och bullertillbehör används.
Och att verktyget används såsom avsett enligt dess konstruktion och dessa instruktioner.

Detta verktyg kan orsaka hand-arm vibrationssyndrom om det används på felaktigt sätt.

⚠ VARNING: För att vara korrekt bör en beräkning av exponeringsnivån under verkliga förhållanden vid användning också tas med för alla delar av hanteringscykeln såsom tiden när verktyget är avstängt och när det körs på tomgång utan att utföra något arbete. Detta kan betydligt minska exponeringsnivån över

den totala arbetsperioden.
Hjälp för att minimera din exponering för vibrationer och buller.
Använd ALLTID skarpa mejslar, borrar och blad.
Underhåll verktyget i enlighet med dessa instruktioner och håll det välsmört (där så behövs).
Om verktyget ska användas regelbundet investera då i antivibrations- och bullertillbehör.
Planera ditt arbetsschema för att sprida ut användning av kraftigt vibrerande verktyg över flera dagar.

LADDNINGSPROCEDUR

⚠ OBS: Innan du använder verktyget, läs noga igenom bruksanvisningen.

ÄNDAMÅLSENLIG ANVÄNDNING

Verktyget är avsett för slagborrning i betong, tegel och sten och även för lätt mejslingsarbete. Det är även lämpligt för borrning utan slag i trä, metall, keramik och plast.

⚠ VARNING! Före något arbete utförs på själva maskinen, dra ur huvudledningen.

FUNKTION

Åtgärd	Figur
INFÖRING OCH AVLÄGSNING AV BORRAR I SDS	Se. A1& A2
Justering av Hjälpbandtaget	Se. B
Användning av djupjusteraren	Se. C
Anslutning av ström	Se. D
På/Av-Knapp Med Variabel Hastighetskontroll	Se. E
FRAMÅTVÄND / BAKÅTVÄND ROTATIONS KONTROLL	Se. F

⚠ VARNING: Byt aldrig rotationshåll medan verktyget roterar, vänta tills det stannat.

Val Av Funktionsläge

-För samtidig borrar och slag i betong eller sten, välj Slagborrsläge 

-För skruvande, borrar i stål, trä och plast, välj Borrsläge. 

-För endast slag – för lätt hackande, mejsling och demoleringsapplikationer välj Hammarläget. 

Se. G

 **WARNING: Knappen för funktionsläge kan justeras endast som stillastående.**

 **WARNING: Förlängd användning orsakar att aluminiumytan blir het, rör inte.**

ARBETSTIPS FÖR DIN BORR(SLAGBORR)

Om ditt handverktyg överhettas, använd det med maximal hastighet utan motstånd i 2-3 minuter för att kyla motorn. SDS-plus tungsten karbidborrar bör alltid användas till betong och sten. Vid borrar i metall, använd endast HSS borrar i gott skick. Använd alltid en magnetisk borrhållare vid användning av korta bormaskinsborrar. Använd alltid, när det är möjligt, ett starthål före borrar i ett hål med en stor diameter.

UNDERHÅLL

Ta bort pluggen från hållaren innan du gör några anpassningar, servis eller underhåll.

Ditt verktyg kräver inte extra smörjning eller underhåll. Det finns inga delar som kan repareras av användaren i verktyget. Använd aldrig vatten eller kemiska medel för att rengöra verktyget. Torka rent med en torr trasa. Förvara alltid verktyget på en torr plats. Håll motorns ventileringsöppningar rena. Håll alla arbetskontroller fria från damm.

Om strömkabeln är skadad och att undvika fara, måste den ersättas av tillverkaren, servis agenten eller liknande kvalificerad person.

MILJÖSKYDD

 Uttjänade elektriska produkter får inte kasseras som hushållsavfall. Återanvänd där det finns anläggningar för det. Kontakta dina lokala myndigheter eller återförsäljare för återvinningsrld.

DEKLARATION OM ÖVERENSSTÄMMELSE

Vi,
Positec Germany GmbH
Postfach 32 02 16, 50796 Cologne, Germany

Förklarar att denna produkt,
Beskrivning **WORX Slagborr**
Typ **WX337 WT335 WT343 WX339 WX339.X**
(330~359-- angivelser för maskineri, representativt för Slagbormaskin)
Funktion **Slagborrning i olika material**

Uppfyller följande direktiv,
2006/42/EC
2011/65/EU&(EU)2015/863
2014/30/EU

Standarder överensstämmer med:
EN 62841-1, EN IEC 62841-2-6, EN IEC 55014-1, EN IEC 55014-2, EN IEC 61000-3-2, EN 61000-3-3, EN IEC 63000

Personen som godkänts att sammanställa den tekniska filen.

Namn Marcel Filz
Adress Positec Germany GmbH
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2023/02/02
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INSTRUKCJE BEZPIECZEŃSTWA BEZPIECZEŃSTWO PRODUKTU OGÓLNE OSTRZEŻENIA DOTYCZĄCE BEZPIECZEŃSTWA PODCZAS PRACY Z ELEKTRONARZĘDZIAMI



OSTRZEŻENIE Przeczytaj wszystkie ostrzeżenia, instrukcje, ilustracje i specyfikacje dostarczone z elektronarzędziem. Niestosowanie się do podanych wskazówek może spowodować porażenie prądem, pożar i / lub ciężkie obrażenia ciała.

Należy dobrze przechowywać te przepisy.

Użyte w dalszej części pojęcie „elektronarzędzie” odnosi się do elektronarzędzi napędzanych prądem (z kablem zasilającym) i do elektronarzędzi napędzanych akumulatorami (bez kabla zasilającego).

1) Miejsce pracy

- a) **Miejsce pracy należy utrzymywać w czystości i dobrze oświetlone.** Nieporządek i nie oświetlane zakreśły pracy mogą doprowadzić do wypadków.
- b) **Nie należy pracować tym narzędziem w otoczeniu zagrożonym wybuchem, w którym znajdują się np. łatwopalne ciecze, gazy lub pyły.** Elektronarzędzia wywołują iskry, które mogą podpalić ten pył lub pary.
- c) **Elektronarzędzie trzymać podczas pracy z daleka od dzieci i innych osób.** Przy odwróceniu uwagi można stracić kontrolę nad narzędziem.

2) Bezpieczeństwo elektryczne

- a) **Wtyczka urządzenia musi pasować do gniazda. Nie wolno zmieniać wtyczki w jakikolwiek sposób. Nie należy używać wtyczek adapterowych razem z uziemionymi narzędziami.** Niezmienione wtyczki i pasujące gniazda zmniejszają ryzyko porażenia prądem.
- b) **Należy unikać kontaktu z uziemionymi powierzchniami jak rury, grzejniki, piece i lodówki.** Istnieje zwiększone ryzyko porażenia prądem, gdy Państwa ciało jest uziemione.
- c) **Urządzenie należy trzymać zabezpieczone przed deszczem i wilgocią.** Wniknięcie wody do elektronarzędzia podwyższa ryzyko porażenia prądem.
- d) **Nigdy nie należy używać kabla do innych czynności. Nigdy nie używać kabla do noszenia**

urządzenia za kabel, zawieszenia lub do wyciągania wtyczki z gniazda. Kabel należy trzymać z daleka od wysokich temperatur, oleju; ostrych krawędzi lub ruchomych części urządzenia. Uszkodzone lub poplątane kable zwiększają ryzyko porażenia prądem.

- e) **W przypadku, że elektronarzędziem pracuje się na świeżym powietrzu należy używać kabla przedłużającego, który dopuszczony jest do używania na zewnątrz.** Użycie dopuszczonego do używania na zewnątrz kabla przedłużającego zmniejsza ryzyko porażenia prądem.
 - f) **Jeśli nie można uniknąć posługiwania się elektronarzędziem w miejscu o dużej wilgotności należy użyć zabezpieczonego zasilacza domowego (RCD).** Stosowanie RCD zmniejsza ryzyko porażenia prądem elektrycznym.
- ### 3) Bezpieczeństwo osób
- a) **Należy być uważnym, zważać na to co się robi i pracę elektronarzędziem rozpoczynać z rozsądkiem. Nie należy używać urządzenia gdy jest się zmęczonym lub pod wpływem narkotyków, alkoholu lub leków.** Moment nieuwagi przy użyciu urządzenia może doprowadzić do poważnych obrażeń ciała.
 - b) **Należy nosić osobiste wyposażenie ochronne i zawsze okulary ochronne.** Noszenie osobistego wyposażenia ochronnego jak maska przeciwpyłowa, nie ślizgające się buty robocze, hełm ochronny lub ochrona słuchu, w zależności od rodzaju i użycia elektronarzędzia zmniejsza ryzyko obrażeń ciała.
 - c) **Należy zapobiec przypadkowemu uruchomieniu. Przed podłączeniem do sieci zasilającej i/lub zestawu baterii, podniesieniem urządzenia i przenoszeniem urządzenia należy sprawdzić, czy przełącznik znajduje się w pozycji wyłączenia.** W przypadku, że przy noszeniu urządzenia trzyma się palec na włączniku/ wyłączniku lub włączone urządzenie podłączone zostanie do prądu, to może to doprowadzić do wypadków.
 - d) **Zanim urządzenie zostanie włączone należy usunąć narzędzia nastawcze lub klucze.** Narzędzie lub klucz, które znajdują się w ruchomych częściach urządzenia mogą doprowadzić do obrażeń ciała.
 - e) **Nie należy przeceniać swoich możliwości. Należy dbać o bezpieczną pozycję pracy i zawsze utrzymywać równowagę.** Przez to możliwa jest lepsza kontrola urządzenia w nieprzewidzianych sytuacjach.
 - f) **Należy nosić odpowiednie ubranie. Nie należy nosić luźnego ubrania lub biżuterii.** Wstrzegaj się kontaktu włosów, części odzieży lub rękawic ochronnych z ruchomymi częściami urządzenia.

- g) W przypadku, że możliwe jest zamontowanie urządzeń odsysających lub podchwytyjących należy upewnić się, czy są one właściwie podłączone i prawidłowo użyte. Użycie tych urządzeń zmniejsza zagrożenie spowodowane pyłami.
- h) Często używanie urządzenia i rutyna może osłabić twoją uwagę i być przyczyną niedotrzymywania zasad bezpieczeństwa. Nieuważne działanie może spowodować poważne szkody w ułamku sekundy.
- 4) **Staranne obcowanie oraz użycie elektronarzędzi**
- a) Nie należy przeciążać urządzenia. Do pracy używać należy elektronarzędzia, które jest do tego przewidziane. Odpowiednim narzędziem pracuje się lepiej i bezpieczniej w podanym zakresie sprawności.
- b) Nie należy używać elektronarzędzia, którego włącznik/wyłącznik jest uszkodzony. Elektronarzędzie, którego nie można włączyć lub wyłączyć jest niebezpieczne i musi zostać naprawione.
- c) Przed przystąpieniem do wykonywania jakichkolwiek regulacji, ustawień wymiany osprzętu lub składowania urządzenia należy odłączyć wtyczkę od źródła zasilania i/lub wyjąć akumulator. Ten środek ostrożności zapobiega niezamierzonemu włączeniu się urządzenia.
- d) Nie używane elektronarzędzia należy przechowywać poza zasięgiem dzieci. Nie należy dać narzędzia do użytku osobom, które jego nie znają lub nie przeczytały tych przepisów. Używane przez niedoświadczonych osoby elektronarzędzia są niebezpieczne.
- e) **Dotrzymuj regularnego wykonywania konserwacji urządzenia i osprzętu. Należy kontrolować, czy ruchome części urządzenia funkcjonują bez zarzutu i nie są zablokowane, czy części nie są pęknięte lub uszkodzone, co mogłoby mieć wpływ na prawidłowe funkcjonowanie urządzenia.** Uszkodzone części należy przed użyciem urządzenia oddać do naprawy. Wiele wypadków spowodowanych jest przez niewłaściwą konserwację elektronarzędzi.
- f) **Narzędzia tnące należy utrzymywać ostre i czyste.** Starannie pielęgnowane narzędzia tnące z ostrymi krawędziami tnącymi zablokowują się rzadziej i łatwiej się je prowadzi.
- g) **Elektronarzędzia, osprzęt, narzędzia itd. należy używać odpowiednio do tych przepisów i tak, jak jest to przewidziane dla tego specjalnego typu urządzenia. Uwzględnić należy przy tym warunki pracy i czynność do wykonania.** Użycie elektronarzędzi do innych niż przewidziane prace może doprowadzić do niebezpiecznych sytuacji.
- h) **Uchwyty oraz powierzchnie elementów obsługi urządzenia utrzymywać suche, czyste, bez oleju**

i smaru. Śliskie uchwyty oraz inne powierzchnie stanowią przeszkodę w bezpiecznej obsłudze i kontroli nad narzędziem w nieoczekiwanych sytuacjach.

- 5) **Serwis**
- a) **Naprawę urządzenia należy zlecić jedynie kwalifikowanemu fachowcowi i przy użyciu oryginalnych części zamiennych.** To gwarantuje, że bezpieczeństwo urządzenia zostanie zachowane.

WSKAZÓWKI DOTYCZĄCE BEZPIECZEŃSTWA PRACY Z MŁOTAMI

- 1) **Instrukcje bezpieczeństwa dla wszystkich operacji**
- a. **Używać ochrony słuchu z wiertarkami udarowymi.**
Hałas może spowodować utratę słuchu.
- b. **Używać dodatkowych uchwytów dostarczonych wraz z narzędziem.** Utrata kontroli może spowodować obrażenia ciała.
- c. **Jeśli narzędzie tnące może mieć kontakt z ukrytym okablowaniem, podczas działania narzędzie należy trzymać za izolowane powierzchnie.** Kontakt z 'aktywnym' okablowaniem może także spowodować obrażenia metalowych elementów i porażenie operatora prądem elektrycznym.
- 2) **Wskazówki bezpieczeństwa przy stosowaniu długich wiertel z młotami obrotowymi**
- a) **Zawsze rozpoczynaj wiercenie przy niskiej prędkości obrotowej i z końcówką wiertła dotykającą obrabianego przedmiotu.** Przy wyższych prędkościach obrotowych istnieje prawdopodobieństwo wygięcia wiertła, jeśli będzie się ono obracać swobodnie bez kontaktu z obrabianym przedmiotem, co może prowadzić do obrażeń ciała.
- b) **Stosuj nacisk tylko w bezpośredniej linii z wiertłem i nie stosuj nadmiernego nacisku.** Wiertła mogą się zginać, powodując złamanie lub utratę kontroli, co może prowadzić do obrażeń ciała.

DODATKOWE INFORMACJE ODNOŚNIE BEZPIECZEŃSTWA UŻYTKOWANIA MŁOTAMI

1. **Używać maski przeciwpyłowej.**

SYMBOLE

	Aby zmniejszyć niebezpieczeństwo odniesienia obrażeń, użytkownik powinien przeczytać podręcznik z instrukcjami.
	Podwójna izolacja
	Ostrzeżenie
	Używać ochrony słuchu
	Używać ochrony wzroku
	Używać maski przeciwpyłowej
	Należy zakładać okulary ochronne
	Przed rozpoczęciem wykonywania jakichkolwiek czynności serwisowych należy odłączyć wtyczkę od gniazdka elektrycznego
	Tworzywo sztuczne
	Betonie
	Mur
	Drewno

	Metal
	Wysoka prędkość obrotowa
	Niska prędkość obrotowa
	Uchwyt narzędziowy
	Wiercenie udarowe
	Dłutowanie
	Wiercenie
	Odpady wyrobów elektrycznych nie powinny być wyrzucane razem z odpadami gospodarstwa domowego. Należy korzystać z recyklingu, jeśli istnieje odpowiednia infrastruktura. Porady dotyczące recyklingu można uzyskać u władz lokalnych lub sprzedawcy detalicznego.

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LISTA KOMPONENTÓW

1. PRZEŁĄCZNIK ZMIANY PRĘDKOŚCI
2. PRZYCIŚK BLOKADY WŁĄCZNIKA
3. STEROWANIE KIERUNKIEM OBROTÓW
4. PRZEŁĄCZNIK WYBORU TRYBU FUNKCJI
5. OGRANICZNIK GŁĘBOKOŚCI
6. NASADKA PRZECIWPYŁOWA.
7. ZACISK TYPU SDS-PLUS "SZYBKOZMIENNY"
8. REGULOWANY OGRANICZNIK GŁĘBOKOŚCI

9. UCHWYT DODATKOWY

Nie wszystkie pokazane na ilustracji akcesoria są dostarczane standardowo.

DANE TECHNICZNE

Typ **WX337 WT335 WT343 WX339 WX339.X**
(330~359-- oznaczenie strojov, zástupca vrtacie kladivo)

	WX337 WT335	WT343 WX339 WX339.X*
Napięcie znamionowe	230-240V~50/60Hz	
Moc znamionowa	750W	800W
Prędkość znamionowa bez obciążenia	0-1050/min	
Liczba uderzeń	0-5300bpm	
Energia uderzania	2.0J	2.5J
Podwójna izolacja	 /II	
Maks. zdolność wiercenia		
Beton	24mm	26mm
Stal	13mm	
Drewno	30mm	
Masa urządzenia	3.3 kg	

* X = 1-999, A-Z, M1-M9 są tylko dla różnych klientów, nie ma żadnych zmian związanych z bezpieczeństwem między tymi modelami.

Zalecamy zakup akcesoriów w sklepie, w którym sprzedawane są narzędzia. Aby uzyskać więcej informacji, zobacz pakiet akcesoriów. Personel sklepu może ci pomóc i doradzić.

INFORMACJE O HAŁASIE

Ważone ciśnienie akustyczne $L_{pA} = 98,8 \text{ dB(A)}$

Ważona moc akustyczna $L_{WA} = 109,8 \text{ dB(A)}$

K_{WA} & $K_{pA} = 3.0 \text{ dB(A)}$

Używać ochrony słuchu

INFORMACJE WIBRACJE

Łączna wartość drgań (suma wektora triax) określona według normy EN 62841:

Wiercenie z funkcją młota w betonie	Wartość emisji wibracji $a_{h,HD} = 14,558 \text{ m/s}^2$
	Niepewność $K=1.5 \text{ m/s}^2$
Dłutowanie	Wartość emisji wibracji $a_{h,Cheq} = 12,475 \text{ m/s}^2$
	Niepewność $K=1.5 \text{ m/s}^2$

Deklarowana wartość całkowita drgań oraz deklarowanych wartości emisji hałasu zostały zmierzone zgodnie ze standardową metodą wykonywania badań i mogą być stosowane do porównywania właściwości różnych urządzeń.

Deklarowana wartość całkowita drgań i zadeklarowana wartość emisji hałasu może być zastosowana również do wstępnej oceny zagrożenia.



OSTRZEŻENIE: Wibracje oraz emisja hałasu podczas rzeczywistego użytkowania elektronarzędzia może się różnić od podanej wartości, w zależności od sposobu używania urządzenia, przede wszystkim od typu obrabianego materiału i możliwości korzystania z urządzenia:

Jak używane jest narzędzie oraz, czy materiał jest cięty czy wiercony.

Czy narzędzie jest w dobrym stanie i czy jest prawidłowo konserwowane.

Czy używane są prawidłowe akcesoria narzędzia i czy narzędzie jest właściwie naostrzone oraz w dobrym stanie.

Czy zastosowano elementy poprawiające przyleganie uchwytów oraz elementy do wyeliminowania wszelkich drgań i hałasu urządzenia.

Oraz, czy narzędzie jest używane zgodnie z przeznaczeniem i według instrukcji.

Nieprawidłowe prowadzenie tego narzędzia może spowodować syndrom wibracji rąk.



OSTRZEŻENIE: W szczególności, oszacowanie poziomu ekspozycji w rzeczywistych warunkach

używania powinno brać także pod uwagę wszystkie elementy cyklu działania, takie jak czasy wyłączenia narzędzia i czas bezczynności, ale nie rzeczywiste wykonywaną pracę. Może to znacznie zmniejszyć poziom ekspozycji w całym okresie pracy. Pomaga zminimalizować ryzyko występowania drgań i podwyższonego poziomu hałasu. Należy ZAWSZE używać ostrych dłut, wiertel i ostrzy. Narzędzie należy konserwować z godnie z instrukcjami i prawidłowo smarować (w odpowiednich miejscach). Jeżeli urządzenie będzie stosowane regularnie zaleca się wyposażyć urządzenie w wyposażenie eliminujące wibracje i hałas. Należy zaplanować harmonogram pracy w celu rozłożenia używania narzędzi wytwarzających wysoki poziom drgań na kilka dni.

INSTRUKCJA OBSŁUGI

 **UWAGA:** Przed użyciem narzędzia należy uważnie przeczytać instrukcję.

Użycie zgodne z przeznaczeniem
Urządzenie jest przeznaczone do wiercenia udarowego w betonie, cegle i kamieniu, jak również do lekkich prac kucia.

 **OSTRZEŻENIE:** Przed rozpoczęciem wykonywania jakichkolwiek czynności serwisowych należy odłączyć wtyczkę od gniazdka elektrycznego.

OBSŁUGA

Działanie	Ilustracja
ZAKŁADANIE I WYJMOWANIE WIERTŁA W SYSTEMIE SDS	Patrz Rys. A1& A2
UCHWYT DODATKOWY	Patrz Rys. B
KORZYSTANIE Z MIERNIKA GŁĘBOKOŚCI	Patrz Rys. C
Podłączanie zasilania	Patrz Rys. D
WŁĄCZNIK/WYŁĄCZNIK Z REGULATOREM PRĘDKOŚCI	Patrz Rys. E
STEROWANIE KIERUNKIEM OBROTÓW	Patrz Rys. F
 Ostrzeżenie! Nigdy nie należy zmieniać kierunku obrotów, gdy narzędzie wciąż się obraca. Należy poczekać aż się zatrzyma.	

Wybór trybu działania Do wiercenia z jednoczesnym zastosowaniem udaru w betonie lub murze, wybrać pozycję wiercenie udarowe. 	Patrz Rys. G
Do wkręcania śrub, wiercenia w stali, drewnie i plastiku wybrać pozycję wiercenie. 	
Do stosowania samego udaru – w przypadku lekkiego ciosania, dłutowania oraz prac rozbiórkowych, wybrać pozycję udar. 	
 OSTRZEŻENIE: Przełącznik wyboru trybu funkcji może być używany wyłącznie, gdy maszyna nie pracuje.	
 OSTRZEŻENIE: Dłuższe używanie powoduje rozgrzanie się aluminiowej obudowy, nie dotykać.	

PORADY DOTYCZĄCE WIERTARKI(UDAROWEJ)

Jeśli narzędzie zbyt szybko się nagrzeje, ustawić prędkość na maksimum i pozwolić na 2-3 minutową pracę urządzenia bez obciążenia, aby schłodzić silnik. W przypadku betonu i muru należy zawsze używać wiertel SDS-plus z węglika wolframu. Do wiercenia w metalu należy używać tylko wiertel w dobrym stanie ze stali szybko tnącej. Podczas używania krótkich wkrętek należy zawsze używać uchwytu magnetycznego. Tam gdzie to możliwe, należy stosować otwór pilotujący przed wierceniem otworu o większej średnicy.

KONSERWACJA

Przed dokonywaniem jakichkolwiek regulacji, obsługi technicznej lub konserwacji należy wyjąć wtyczkę z gniazdka.
Narzędzie to nie wymaga żadnego dodatkowego smarowania czy konserwacji.
W narzędziu nie ma żadnych części, które wymagałyby serwisowania przez użytkownika. Nigdy nie należy używać wody czy środków czyszczących do czyszczenia narzędzia z napędem elektrycznym. Czyścić suchą szmatką. Zawsze należy przechowywać narzędzie w suchym miejscu. Utrzymywać w czystości otwory wentylacyjne silnika. Utrzymywać wszystkie urządzenia sterujące w czystości.
Jeśli uszkodzony zostanie przewód zasilający, aby uniknąć niebezpieczeństwa powinien zostać wymieniony przez producenta, przedstawiciela serwisu lub inną wykwalifikowaną osobę.

OCRONA ŚRODOWISKA



Odpady wyrobów elektrycznych nie powinny być wyrzucane razem z odpadami gospodarstwa domowego. Należy je poddawać recyklingowi w odpowiednich zakładach. Porady dotyczące recyklingu można uzyskać u władz lokalnych lub sprzedawcy detalicznego.

DEKLARACJA ZGODNOŚCI

My,
Positec Germany GmbH
Postfach 32 02 16, 50796 Cologne, Germany

Deklarujemy, że produkt,
Opis **Młot obrotowy WORX**
Typ **WX337 WT335 WT343 WX339 WX339.X**
(330~359-- oznaczenie strojów, zastępca wiertnicy)
Funkcja: **zatlkanie różnych materiałów**

Jest zgodny z następującymi dyrektywami,
2006/42/EC
2011/65/EU&(EU)2015/863
2014/30/EU

Normy są zgodne z
EN 62841-1, EN IEC 62841-2-6, EN IEC 55014-1, EN IEC 55014-2, EN IEC 61000-3-2, EN 61000-3-3, EN IEC 63000

Osoba upoważniona do kompilacji pliku technicznego,
Nazwa Marcel Filz
Adres Positec Germany GmbH
Postfach 32 02 16, 50796 Cologne, Germany



2023/02/02
Allen Ding
Zastępca głównego inżyniera,
testowanie i certyfikacja
Positec Technology (China) Co., Ltd
18, Dongwang Road, Suzhou Industrial
Park, Jiangsu 215123, P. R. China

ΟΔΗΓΙΕΣ ΑΣΦΑΛΕΙΑΣ ΑΣΦΑΛΕΙΑ ΠΡΟΪΟΝΤΟΣ ΓΕΝΙΚΕΣ ΥΠΟΔΕΙΞΕΙΣ ΑΣΦΑΛΕΙΑΣ ΓΙΑ ΗΛΕΚΤΡΙΚΑ ΕΡΓΑΛΕΙΑ

! ΠΡΟΕΙΔΟΠΟΙΗΣΗ Διαβάστε όλες τις υποδείξεις ασφαλείας, οδηγίες, εικονογραφήσεις και όλα τα τεχνικά στοιχεία, που συνοδεύουν αυτό το ηλεκτρικό εργαλείο. Αμέλειες κατά την τήρηση των ακόλουθων υποδείξεων μπορεί να προκαλέσουν ηλεκτροπληξία, πυρκαγιά και/ή σοβαρούς τραυματισμούς.

Φυλάξτε όλες τις προειδοποιητικές υποδείξεις και οδηγίες για κάθε μελλοντική χρήση. Ο όρος «ηλεκτρικό εργαλείο» που χρησιμοποιείται στις προειδοποιητικές υποδείξεις αναφέρεται σε ηλεκτρικά εργαλεία που τροφοδοτούνται από το ηλεκτρικό δίκτυο (με ηλεκτρικό καλώδιο) καθώς και σε ηλεκτρικά εργαλεία που τροφοδοτούνται από μπαταρία (χωρίς ηλεκτρικό καλώδιο).

1) Ασφάλεια στο χώρο εργασίας

- a) Διατηρείτε τον χώρο εργασίας καθαρό και καλά φωτισμένο. Ρύπανση ή σκοτεινές περιοχές προκαλούν ατυχήματα.
- b) Μην εργάζεστε με το ηλεκτρικό εργαλείο σε περιβάλλον, όπου υπάρχει κίνδυνος έκρηξης, όπως με την παρουσία εύφλεκτων υγρών, αερίων ή σκόνης. Τα ηλεκτρικά εργαλεία δημιουργούν σπινθηρισμό ο οποίος μπορεί να αναφλέξει τη σκόνη ή τις αναθυμιάσεις.
- c) Όταν χρησιμοποιείτε το ηλεκτρικό εργαλείο, κρατάτε μακριά τα παιδιά και άλλα τυχόν παρευρισκόμενα άτομα. Σε περίπτωση απόσπασης της προσοχής σας μπορεί να χάσετε τον έλεγχο του εργαλείου.

2) Ηλεκτρική ασφάλεια

- a) Το φως του ηλεκτρικού εργαλείου πρέπει να ταιριάζει στην πρίζα. Μην τροποποιήσετε το φως με κανέναν τρόπο. Μην χρησιμοποιείτε φως προσαρμογής σε συνδυασμό με γειωμένα ηλεκτρικά εργαλεία. Αμεταποίητα φως και κατάλληλες πρίζες μειώνουν τον κίνδυνο ηλεκτροπληξίας.
- b) Αποφεύγετε την επαφή του σώματός σας με γειωμένες επιφάνειες, όπως σωλίνες, θερμαντικά σώματα (καλοριφέρ), κουζίνες ή ψυγεία. Όταν το σώμα σας είναι γειωμένο αυξάνεται ο κίνδυνος ηλεκτροπληξίας.
- c) Μην εκθέτετε τα ηλεκτρικά εργαλεία στη βροχή ή στην υγρασία. Η διείσδυση νερού σ' ένα ηλεκτρικό εργαλείο αυξάνει τον κίνδυνο ηλεκτροπληξίας.
- d) Μην τραβάτε το καλώδιο. Μην χρησιμοποιείτε το καλώδιο για τη μεταφορά ή το τράβηγμα για την αποσύνδεση του ηλεκτρικού εργαλείου. Κρατάτε το καλώδιο μακριά από θερμότητα, λάδι, κοφτερές ακμές ή κινούμενα εξαρτήματα. Τυχόν χαλασμένα ή περιπλεγμένα ηλεκτρικά καλώδια

αυξάνουν τον κίνδυνο ηλεκτροπληξίας.

- e) Όταν εργάζεστε μ' ένα ηλεκτρικό εργαλείο στην ύπαιθρο, χρησιμοποιείτε καλώδιο επέκτασης (μπαλαντζά) που είναι κατάλληλο και για εξωτερική χρήση. Η χρήση καλωδίων επιμήκυνσης κατάλληλων για υπαίθριους χώρους ελαττώνει τον κίνδυνο ηλεκτροπληξίας.
- f) Όταν τη χρήση του ηλεκτρικού εργαλείου σε υγρό περιβάλλον είναι αναπόφευκτη, τότε χρησιμοποιήστε έναν προστατευτικό διακόπτη διαρροής (διακόπτης FI/ RCD). Η χρήση ενός προστατευτικού διακόπτη διαρροής ελαττώνει τον κίνδυνο ηλεκτροπληξίας.

3) Ασφάλεια προσώπων

- a) Να είστε σε επαγρύπνηση, δίνετε προσοχή στην εργασία που κάνετε και χρησιμοποιείτε το ηλεκτρικό εργαλείο με περίσκεψη. Μην χρησιμοποιείτε το ηλεκτρικό εργαλείο όταν είστε κουρασμένοι ή υπό την επήρεια ναρκωτικών, οινοπνεύματος ή φαρμάκων. Μια στιγμήα απροσεξία κατά το χειρισμό του ηλεκτρικού εργαλείου μπορεί να οδηγήσει σε σοβαρούς τραυματισμούς.
- b) Χρησιμοποιείτε τον προσωπικό εξοπλισμό προστασίας. Φοράτε πάντα προστατευτικά γυαλιά. Ο κατάλληλος προστατευτικός εξοπλισμός, όπως μάσκα προστασίας από σκόνη, αντιολισθητικά υποδήματα ασφαλείας, προστατευτικό κράνος ή υασιπίδες, ανάλογα με τις εκάστοτε συνθήκες, ελαττώνει τον κίνδυνο τραυματισμών.
- c) Αποφεύγετε την αθέλητη εκκίνηση. Βεβαιωθείτε, ότι ο διακόπτης είναι στη θέση Off, πριν συνδέσετε το ηλεκτρικό εργαλείο με την πηγή τροφοδοσίας και/ή την μπαταρία καθώς και πριν το παραλάβετε ή το μεταφέρετε. Όταν μεταφέρετε τα ηλεκτρικά εργαλεία έχοντας το δάχτυλό σας στο διακόπτη ή όταν συνδέσετε τα ηλεκτρικά εργαλεία με την πηγή ρεύματος όταν αυτά είναι ακόμη στη θέση ON, τότε δημιουργείται κίνδυνος τραυματισμών.
- d) Απομακρύνετε από το ηλεκτρικό εργαλείο τυχόν εξαρτήματα ρύθμισης ή κλειδιά πριν βέσετε το ηλεκτρικό εργαλείο σε λειτουργία. Ένα εργαλείο ή κλειδί συναρμολογημένο σ' ένα περιστρεφόμενο τμήμα ενός ηλεκτρικού εργαλείου μπορεί να οδηγήσει σε τραυματισμούς.
- e) Προσέχετε πως στέκεστε. Φροντίστε για την ασφαλή στάση του σώματός σας και διατηρείτε πάντοτε την ισορροπία σας. Έτσι μπορείτε να ελέγξετε καλύτερα το ηλεκτρικό εργαλείο σε περιπτώσεις απροσδόκωτων περιστάσεων.
- f) Φοράτε σωστή ενδυμασία. Μην φοράτε φαρδιά ρούχα ή κοσμήματα. Κρατάτε τα μαλλιά και τα ρούχα σας μακριά από τα κινούμενα εξαρτήματα. Χαλαρή ενδυμασία, κοσμήματα ή μακριά μαλλιά μπορεί να εμπλακούν στα κινούμενα εξαρτήματα.
- g) Όταν υπάρχει η δυνατότητα σύνδεσης βιτάξων αναρρόφησης ή συλλογής σκόνης, βεβαιωθείτε ότι αυτές είναι συνδεδεμένες και ότι χρησιμοποιούνται σωστά. Η χρήση μιας αναρρόφησης σκόνης μπορεί να ελαττώσει τον

κίνδυνο που προκαλείται από τη σκόνη.

- h) **Μην εφυσυμάζετε σε μια λάθος ασφάλεια και μην αφήψάτε τους κανόνες ασφαλείας για τα ηλεκτρικά εργαλεία, ακόμα και όταν μετά από συχνή χρήση είστε εξοικειωμένοι με το εργαλείο.** Ένας απρόσεκτος χειρισμός μπορεί μέσα σε κλάσματα του δευτερολέπτου να οδηγήσει σε σοβαρούς τραυματισμούς.

4) **Χρήση και φροντίδα των ηλεκτρικών εργαλείων**

- a) **Μην υπερφορτώνετε το ηλεκτρικό εργαλείο. Χρησιμοποιήστε το σωστό ηλεκτρικό εργαλείο για την εφαρμογή σας.** Με το κατάλληλο ηλεκτρικό εργαλείο εργάζεστε καλύτερα και ασφαλέστερα στην αναφερόμενη περιοχή ισχύος.
- b) **Μη χρησιμοποιήσετε ποτέ ένα ηλεκτρικό εργαλείο που έχει χαλασμένο διακόπτη On/Off.** Ένα ηλεκτρικό εργαλείο που δεν μπορείτε πλέον να το θέσετε σε λειτουργία και/ή εκτός λειτουργίας είναι επικίνδυνο και πρέπει να επισκευαστεί.
- c) **Αποσυνδέστε το φις από την πρίζα και/ή απομακρύνετε μια αποσπώμενη μπαταρία από το ηλεκτρικό εργαλείο, προτού εκτελέσετε ρυθμίσεις, αλλάξετε εξαρτήματα ή προτού φυλάξετε το ηλεκτρικό εργαλείο.** Αυτά τα προληπτικά μέτρα ασφαλείας μειώνουν τον κίνδυνο από τυχόν αθέλητη εκκίνηση του ηλεκτρικού εργαλείου.
- d) **Φυλάγεται το ηλεκτρικό εργαλείο που δε χρησιμοποιούνται μακριά από παιδιά και μην επιτρέψετε τη χρήση του ηλεκτρικού εργαλείου σε άτομα που δεν είναι εξοικειωμένα με το ηλεκτρικό εργαλείο ή τις οδηγίες για τη λειτουργία του ηλεκτρικού εργαλείου.** Τα ηλεκτρικά εργαλεία είναι επικίνδυνα όταν χρησιμοποιούνται από άπειρα πρόσωπα.
- e) **Συντηρείτε τα ηλεκτρικά εργαλεία και τα εξάρτημα. Ελέγχετε, αν τα κινούμενα εξαρτήματα είναι σωστά ευθυγραμμισμένα και προσαρμοσμένα ή μήπως έχουν σπάσει τυχόν εξαρτήματα ή οποιαδήποτε άλλη κατάσπαση, η οποία επηρεάζει τη λειτουργία του ηλεκτρικού εργαλείου. Σε περίπτωση βλάβης, επισκευάστε το ηλεκτρικό εργαλείο πριν τη χρήση.** Η κακή συντήρηση των ηλεκτρικών εργαλείων αποτελεί αιτία πολλών ατυχημάτων.
- f) **Διατηρείτε τα εργαλεία κοπής κοφτερά και καθαρά.** Προσεκτικά συντηρημένα κοπτικά εργαλεία σφηνώνουν δυσκολότερα και οδηγούνται ευκολότερα.
- g) **Χρησιμοποιείτε τα ηλεκτρικά εργαλεία τα εξαρτήματα κτλ. σύμφωνα με αυτές τις οδηγίες, λαμβάνοντας υπόψη τις συνθήκες εργασίας και τις εργασίες που πρέπει να εκτελεστούν.** Η χρησιμοποίηση των ηλεκτρικών εργαλείων για εργασίες που δεν προβλέπονται γι' αυτά μπορεί να δημιουργήσει επικίνδυνες καταστάσεις.
- h) **Διατηρείτε τις λαβές και τις επιφάνειες λαβής στεγνές, καθαρές και ελεύθερες από λάδι και γράσο.** Οι ολισθηρές λαβές και επιφάνειες λαβής δεν επιτρέπουν κανέναν ασφαλή χειρισμό και έλεγχο του ηλεκτρικού εργαλείου σε τυχόν

απρόβλεπτες καταστάσεις.

5) **Σέρβις**

- a) **Δώστε το ηλεκτρικό εργαλείο σας για συντήρηση από εξειδικευμένο προσωπικό, χρησιμοποιώντας μόνο γνήσια ανταλλακτικά.** Έτσι εξασφαλίζετε τη διατήρηση της ασφάλειας του ηλεκτρικού εργαλείου.

ΕΠΙΠΛΕΟΝ ΣΗΜΕΙΑ ΑΣΦΑΛΕΙΑΣ ΓΙΑ ΤΟ ΠΕΡΙΣΤΡΟΦΙΚΟ ΔΡΑΠΑΝΟ ΣΑΣ

- 1) **Οδηγίες ασφαλείας για όλες τις λειτουργίες**
- a. **Φοράτε Προστατευτικά για τα Αυτιά.** Η έκθεση σε φασαρία μπορεί να προκαλέσει απώλεια της ακοής.
- b. **Χρησιμοποιείτε τις βοηθητικές λαβές που παρέχονται με το εργαλείο.** Χάσιμο του ελέγχου μπορεί να προκαλέσει προσωπικό τραυματισμό.
- c. **Κρατάτε το εργαλείο από μονωμένες επιφάνειες όταν πραγματοποιείτε μια εργασία κοπής όπου το εργαλείο μπορεί να έρθει σε επαφή με κρυμμένα καλώδια.** Επαφή με ηλεκτρικό καλώδιο θα περάσει ρεύμα στα μεταλλικά μέρη του εργαλείου και θα τινάξει τον χρήστη.
- 2) **Οδηγίες ασφαλείας κατά τη χρήση μακρών τρυπανιών με περιστροφικά σφυροτρύπανα**
- a) **Ξεκινάτε πάντα τη διάτρηση σε χαμηλή ταχύτητα και με το άκρο τρυπανιού σε επαφή με το υπό κατεργασία υλικό.** Σε υψηλότερες ταχύτητες, το άκρο είναι πιθανό να καμφθεί εάν αφεθεί να περιστραφεί ελεύθερα χωρίς να έρθει σε επαφή με το υπό κατεργασία υλικό, με αποτέλεσμα την πρόκληση σωματικών βλαβών.
- β) **Ασκήστε πίεση μόνο σε ευθεία γραμμή με το άκρο και μην ασκείτε υπερβολική πίεση.** Τα άκρα μπορεί να καμφθούν, προκαλώντας θραύση ή απώλεια ελέγχου, με αποτέλεσμα προσωπικό τραυματισμό.

ΠΡΟΣΘΕΤΟΙ ΚΑΝΟΝΕΣ ΑΣΦΑΛΕΙΑΣ ΓΙΑ ΤΟ ΣΦΥΡΙ

1. **Φοράτε Μάσκα για την Σκόνη.**

ΣΥΜΒΟΛΑ



Για περιορισμό των κινδύνων τραυματισμού, ο χρήστης πρέπει να διαβάσει το εγχειρίδιο οδηγιών



Διπλή Μόνωση

	Προσοχή
	Φοράτε Προστατευτικά για τα Αυτιά
	Φοράτε Προστατευτικά για τα Μάτια
	Φοράτε Μάσκα για την Σκόνη
	Φοράτε προστατευτικά γάντια
	Να βγάξετε πάντοτε το φως από την πρίζα πριν διεξάγετε κάποια εργασία στο ηλεκτρικό εργαλείο.
	Πλαστικό
	Μπετόν
	Μάρμαρο
	Ξύλο
	Μέταλλο
	Υψηλή ταχύτητα
	Χαμηλή ταχύτητα

	Λαβή εργαλείου
	Κρουστική διάτρηση
	Εδαφοσχίστης
	Διάτρηση
	Απόβλητα σχετικά με ηλεκτρισμό δεν πρέπει να πετώνονται μαζί με τα απόβλητα του νοικοκυριού. Παρακαλούμε να τα ανακυκλώνετε εκεί όπου υπάρχουν οι απαραίτητες εγκαταστάσεις. Ελέγξτε στον τοπικό σας δήμο ή στους πωλητές για συμβουλές ανακύκλωσης.

ΛΙΣΤΑ ΣΥΣΤΑΤΙΚΩΝ

1. ΔΙΑΚΟΠΤΗΣ ON/OFF
2. ΚΟΥΜΠΙ ΚΛΕΙΔΩΜΑΤΟΣ ΔΙΑΚΟΠΗΣ ΛΕΙΤΟΥΡΓΙΑΣ
3. ΔΕΞΙΟΣΤΡΟΦΗ ΚΑΙ ΑΡΙΣΤΕΡΟΣΤΡΟΦΗ ΠΕΡΙΣΤΡΟΦΗ
4. FUNCTION MODE SELECTION SWITCH<0>-ΔΙΑΚΟΠΤΗΣ ΕΠΙΛΟΓΗΣ ΚΑΤΑΣΤΑΣΗΣ ΛΕΙΤΟΥΡΓΙΑΣ
5. ΔΕΙΚΤΗΣ ΒΑΘΟΥΣ
6. ΤΑΠΑ ΠΡΟΣΤΑΣΙΑΣ ΑΠΟ ΣΚΟΝΗ
7. ΚΛΕΙΔΙ SDS-PLUS "ΓΡΗΓΟΡΗΣ ΑΛΛΑΓΗΣ"
8. ΜΕΤΑΒΛΗΤΟ ΣΤΟΠ ΒΑΘΟΥΣ
9. ΒΟΗΘΗΤΙΚΗ ΛΑΒΗ

Δεν περιλαμβάνονται στο βασικό εξοπλισμό όλα τα εξαρτήματα που απεικονίζονται ή περιγράφονται.

ΤΕΧΝΙΚΕΣ ΠΛΗΡΟΦΟΡΙΕΣ

ΤΥΠΟΣ WX337 WT335 WT343 WX339
WX339.X (330~359--χαρακτηρισμός μηχανήματος, αντιπροσωπ. Περιστροφικό σφυρί)

	WX337 WT335	WT343 WX339 WX339.X*
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Βολτ	230-240V~50/60Hz	
Τάση λειτουργίας	750W	800W
Ταχύτητα χωρίς φορτίο	0-1050 /min	
Συχνότητα κρούσης	0-5300 bpm	
Ενέργεια σύγκρουσης	2.0J	2.5J
Διπλή Μόνωση	 /II	
Δυνατότητα διάτρησης	Μάρμαρο	24mm
	Ατσάλι	13mm
	Ξύλο	30mm
Βάρος μηχανής	3.3 kg	

*Χ=1-999, A-Z, M1-M9 χρήση μόνο για διαφορετικούς πελάτες, δεν υπάρχουν ασφαλείς σχετικές διαφορές μεταξύ αυτών των μοντέλων

Συνιστούμε να αγοράζετε τα εξαρτήματά σας από το ίδιο κατάστημα από το οποίο αγοράσατε το εργαλείο. Διαβάστε τις πληροφορίες πάνω στη συσκευασία του εξαρτήματος για περισσότερες λεπτομέρειες. Το προσωπικό του καταστήματος μπορεί να σας βοηθήσει και να σας συμβουλευθεί.

ΠΛΗΡΟΦΟΡΙΕΣ ΘΟΡΥΒΟΥ

Μετρημένη ηχητική πίεση L_{pA} : 98,8dB(A)

Μετρημένη ηχητική δύναμη L_{WA} : 109,8dB(A)

K_{pA} & K_{WA} 3.0dB(A)

Φοράτε Προστατευτικά για τα Αυτιά

ΠΛΗΡΟΦΟΡΙΕΣ ΔΟΝΗΣΕΩΝ

Συνολικές τιμές κραδασμών σύμφωνα κατά EN62841:

	Τιμή εκπομπής κραδασμών	Αβεβαιότητα K
Διάτρηση σφυριού σε σκυρόδεμα	$a_{h,HD} = 14,558 \text{ m/s}^2$	$K = 1,5 \text{ m/s}^2$
Εδαφοσχίστης	$a_{h,Chaq} = 12,475 \text{ m/s}^2$	$K = 1,5 \text{ m/s}^2$

Η δηλωμένη συνολική τιμή κραδασμών και η δηλωμένη τιμή εκπομπών θορύβου έχουν μετρηθεί σύμφωνα με μια καθιερωμένη μέθοδο ελέγχου και μπορούν να χρησιμοποιηθούν για τη σύγκριση των

προϊόντων.

Η δηλωμένη συνολική τιμή κραδασμών και η δηλωμένη τιμή εκπομπών θορύβου μπορούν επίσης να χρησιμοποιηθούν για την προκαταρκτική αξιολόγηση έκθεσης.

ΠΡΟΣΟΧΗ: Οι κραδασμοί και οι εκπομπές θορύβου κατά τη χρήση του ηλεκτρικού εργαλείου ενδέχεται να διαφέρουν από την δηλωμένη τιμή αναλόγως του τρόπου με τον οποίο χρησιμοποιείται το εργαλείο, κυρίως αναλόγως του υλικού προς επεξεργασία, και των ακόλουθων παραδειγμάτων και άλλων πιθανών τρόπων με τους οποίους χρησιμοποιείται το εργαλείο:

Τον τρόπο χρήσης του εργαλείου και τα υλικά προς κοπή ή διάτρηση.

Την καλή κατάσταση και ορθή συντήρηση του εργαλείου.

Τη χρήση των κατάλληλων εξαρτημάτων του προϊόντος και τη διασφάλιση ότι αυτά είναι αιχμηρά και σε καλή κατάσταση.

Την καλή εφαρμογή των χεριών στις χειρολαβές και την περίπτωση χρήσης αντικραδασμικών και αντιθορυβικών εξαρτημάτων.

Την ορθή χρήση του εργαλείου όπως αυτή προβλέπεται από την κατασκευή του και τις οδηγίες που το συνοδεύουν.

Η χρήση του εργαλείου ενδέχεται να προκαλέσει σύνδρομο οφειλόμενο στους κραδασμούς εάν δεν χρησιμοποιηθεί ορθά.

ΠΡΟΣΟΧΗ: Για να υπάρχει ακρίβεια, κατά την εκτίμηση του επιπέδου έκθεσης σε πραγματικές συνθήκες χρήσης θα πρέπει να ληφθεί επίσης υπόψη ο κύκλος λειτουργίας όλων των μερών όπως οι φορές κατά τις οποίες απενεργοποιήθηκε το εργαλείο και καθώς και οι φορές που λειτουργεί στο ρελαντί. Αυτό ενδέχεται να μειώσει σημαντικά το επίπεδο έκθεσης όσον αφορά στη συνολική περίοδο λειτουργίας. Βοηθά στη μείωση κινδύνου έκθεσης στους κραδασμούς και στο θόρυβο. Πάντοτε να χρησιμοποιείτε αιχμηρές σμίλες, τρυπάνια και λεπίδες.

Συντηρήστε το εργαλείο σύμφωνα με τις παρούσες οδηγίες και φροντίστε πάντοτε για τη σωστή λίπανσή του (όπου απαιτείται).

Σε περίπτωση που σκοπεύετε να χρησιμοποιείτε συχνά το εργαλείο, συνιστάται η απόκτηση αντικραδασμικών και αντιθορυβικών εξαρτημάτων. Διαμορφώστε το πρόγραμμα εργασίας σας έτσι ώστε οι εργασίες με αυξημένους κραδασμούς να κατανέμονται ομοιόμορφα μεταξύ των ημερών εργασίας σας.

ool use across a number of days.

ΔΙΑΔΙΚΑΣΙΑ ΦΟΡΤΙΣΗΣ

Σημείωση: Πριν χρησιμοποιήσετε το εργαλείο διαβάστε το βιβλίο οδηγιών προσεκτικά.

Χρήση σύμφωνα με τον προορισμό

Το μηχάνημα προορίζεται για τρύπημα με κρούση σε τούβλα, σε μπλετν και σε πετρώματα καθώς και για ελαφρές εκσμιλεύσεις. Είναι επίσης κατάλληλο για τρύπημα σε ξύλο, σε μέταλλα και σε κεραμικά και πλαστικά υλικά

ΠΡΟΕΙΔΟΠΟΙΗΣΗ! Πριν διεξάγετε οποιαδήποτε εργασία συντήρησης βγάξτε το φως από την πρίζα.

ΛΕΙΤΟΥΡΓΙΑ

ΕΝΕΡΓΕΙΑ	ΕΙΚΟΝΑ
Τοποθέτηση και αφαίρεση εξαρτημάτων διατήρησης στο σφινκτριά sds	ΣΙΚ.Α1& Α2
Ρύθμιση της βοηθητικής λαβής	ΣΙΚ. Β
Χρησιμοποιώντας το βυθομετρο	ΣΙΚ. C
Σύνδεση φως στην πρίζα	ΣΙΚ. D
Διακοπτής on/off εναλλασσόμενης ταχύτητας	ΣΙΚ. E
Μεταβλητή περιστροφή Προσοχή: Μην αλλάζετε κατεύθυνση περιστροφής όταν το τσοκ περιστρέφεται, περιμένετε να σταματήσει πρώτα!	ΣΙΚ. F
Επιλογή τρόπου λειτουργίας - Για ταυτόχρονα τρύπημα και κρούση τσιμέντου ή τοίχου, επιλέξτε τη θέση δραπάνου τρυπήματος. - Για βίδωμα, τρύπημα σε ασφάλι, ξύλο και πλαστικά, επιλέξτε τη θέση περιστροφικού τρυπήματος. - Για κρούση μόνο – για ελαφρύ καλέμισμα, ξύσιμο και ξήλωμα επιλέξτε τη θέση δραπάνου. ΠΡΟΕΙΔΟΠΟΙΗΣΗ: Ο διακόπτης επιλογής κατάστασης λειτουργίας μπορεί να χρησιμοποιηθεί μόνο όταν το εργαλείο δε χρησιμοποιείται. ΠΡΟΕΙΔΟΠΟΙΗΣΗ: Η παρατεταμένη χρήση θα ζεστάνει το περίβλημα αλουμινίου, μην το ακουμπάτε.	ΣΙΚ. G

Για βίδωμα, τρύπημα σε ασφάλι, ξύλο και πλαστικά, επιλέξτε τη θέση περιστροφικού τρυπήματος.

ΣΥΜΒΟΥΛΕΣ ΕΡΓΑΣΙΑΣ
ΓΙΑ ΤΟ ΕΡΓΑΛΕΙΟ
ΣΑΣ(Περιστροφικό σφυρί)

Αν το εργαλείο σας ζεσταθεί πολύ βάλτε την ταχύτητα στο μέγιστο και λειτουργήστε το εργαλείο για 2-3 λεπτά χωρίς φορτίο για να κρυώσει ο κινητήρας. Θα πρέπει να χρησιμοποιούνται πάντα μύτες τρυπήματος SDS-plus από καρβίδιο βολφράμιου για το τσιμέντο και τους τοίχους. Όταν τρυπάτε μέταλλο, χρησιμοποιείτε μόνο HSS τρυπάνια σε καλή κατάσταση. Πάντα να χρησιμοποιείτε μαγνητική υποδοχή μύτες όταν χρησιμοποιείτε κοντές μύτες καταβιδιού. Όπου είναι δυνατό χρησιμοποιείτε μια τρύπα οδηγό πριν κάνετε μια μεγάλης διαμέτρου τρύπα.

ΕΡΓΑΣΙΕΣ ΣΥΝΤΗΡΗΣΗΣ

Αφαιρέστε το φως από την πρίζα πριν να πραγματοποιήσετε ρυθμίσεις, επισκευές ή συντήρηση.

Το εργαλείο σας δεν απαιτεί πρόσθετη λίπανση ή συντήρηση. Το μηχανικό σας εργαλείο δεν περιλαμβάνει εξαρτήματα που να επιδέχονται εργασίες συντήρησης από τον χρήστη. Ποτέ μη χρησιμοποιήσετε νερό ή χημικά καθαριστικά για να καθαρίσετε το μηχανικό σας εργαλείο. Για να το καθαρίσετε, σκουπίστε το με στεγνό πανί. Πρέπει πάντοτε να φυλάσσετε το μηχανικό σας εργαλείο σε χώρο χωρίς υγρασία. Οι σχισμές εξερισμού του μοτέρ πρέπει να διατηρούνται καθαρές. Πρέπει να ξεσκονίζετε τακτικά όλα τα κουμπιά λειτουργιών. Αν έχει καταστραφεί το καλώδιο τροφοδοσίας, θα πρέπει να αντικατασταθεί από τον κατασκευαστή, το προσωπικό του σέρβις ή εξουσιοδοτημένους τεχνικούς για να αποφευχθούν οι κίνδυνοι.

ΠΡΟΣΤΑΣΙΑ ΤΟΥ
ΠΕΡΙΒΑΛΛΟΝΤΟΣ

Απόβλητα σχετικά με ηλεκτρισμό δεν πρέπει να πετάγονται μαζί με τα απόβλητα του νοικοκυριού. Παρακαλούμε να τα ανακυκλώνετε εκεί όπου υπάρχουν οι απαραίτητες εγκαταστάσεις. Ελέγξτε στον τοπικό σας δήμο ή στους πωλητές για συμβουλές ανακύκλωσης.

ΔΗΛΩΣΗ ΣΥΜΜΟΡΦΩΣΗΣ

Εμείς,
Positex Germany GmbH
Postfach 32 02 16, 50796 Cologne, Germany

δηλώνουμε ότι το προϊόν
Περιγραφή **Περιστροφικό σφυρί**
Τύπος **WX337 WT335 WT343 WX339 WX339.X**
(330~359---χαρακτηρισμός μηχανήματος,

αντιπροσωπ. Περιστροφικό σφυρί)
Λειτουργία **Χτυπώντας με σφυρί διάφορα υλικά**

συμμορφώνεται προς τις Οδηγίες που ακολουθούν:

**2006/42/EC,
2011/65/EU&(EU)2015/863,
2014/30/EU**

Πρότυπα συμμόρφωσης

**EN 62841-1, EN IEC 62841-2-6, EN IEC 55014-1, EN
IEC 55014-2, EN IEC 61000-3-2, EN 61000-3-3, EN IEC
63000**

Το πρόσωπο που έχει εξουσιοδότηση να συντάξει το
τεχνικό αρχείο,

Όνομα Marcel Filz

Διεύθυνση Positec Germany GmbH

Postfach 32 02 16, 50796 Cologne, Germany



2023/02/02

Allen Ding

Βοηθός Αρχιμηχανικός, Δοκιμές & Πιστοποιήσεις

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BIZTONSÁGI UTASÍTÁSOK

TERMÉKBIZTONSÁG

ELEKTROMOS

KÉZISZERSZÁMOK

BIZTONSÁGOS

HASZNÁLATÁVAL

KAPCSOLATOS ÁLTALÁNOS

FIGYELMEZTETÉSEK



FIGYELEM: Olvassa el az összes, ehhez az elektromos kéziszerszámmalhoz mellélt biztonsági figyelmeztetést, utasítást és részletes ismertetést, illetve tekintse meg az ábrákat. Az alább felsorolt utasítások bármelyikének figyelmen kívül hagyása áramütést, tüzet és/vagy súlyos testi sérüléseket eredményezhet.

Őrizzen meg az összes figyelmeztetést és utasítást, a jövőben szüksége lehet ezekre.

A figyelmeztetéseken használatos "elektromos kéziszerszám" kifejezés az ön hálózatról üzemeltetett (vezetékes) elektromos kéziszerszámmára vagy akkumulátoros (vezeték nélküli) elektromos kéziszerszámmára vonatkozik.

1) A munkaterület biztonsága

- a) **A munkaterületet tartsa tisztán és jól megvilágítva.** A zsúfolt vagy sötét munkaterület balesethez vezethet.
- b) **Ne üzemeltessen elektromos kéziszerszámot robbanékony légkörben, például gyúlékony folyadékok, gázok vagy por jelenléte mellett.** Az elektromos kéziszerszámok használata során szikrák keletkeznek, amelyek hatására a por vagy gáz kigyulladhat.
- c) **Elektromos kéziszerszámok működtetése közben tartsa távol a gyermekeket és bámészkodókat.** A figyelem elterelése kontrollvesztést eredményezhet.

2) Elektromos biztonság

- a) **Az elektromos kéziszerszámok csatlakozó dugaszának találnia kell a csatlakozó aljzathoz. Soha, semmilyen módon ne módosítsa a csatlakozó dugaszt.** Földelt elektromos kéziszerszámokkal ne használjon adaptert. Ha eredeti, módosítatlan csatlakozó dugaszt és megfelelő csatlakozó aljzatot használ, azzal csökkenti az áramütés kockázatát.
- b) **Ne érintse meg a földelt felületeket, például csöveket, radiátorokat, tűzhelyeket vagy hűtőszekrényeket.** Ha a test földelt, nagyobb az áramütés kockázata.

- c) **Ne tegye ki esőnek vagy nedves körülményeknek az elektromos kéziszerszámokat.** Ha egy elektromos kéziszerszámba víz kerül, megnő az áramütés kockázata.
- d) **Vigyázzon a szerszám kábelére.** Soha ne hordozza, húzogassa vagy húzza ki az áramból az elektromos kéziszerszámot a kábelnél fogva. A kábelt tartsa távol a hőtől, olajtól, éles peremektől vagy mozgó részekről. A sérült vagy összegubancolódott kábel növeli az áramütés kockázatát.
- e) **Ha az elektromos kéziszerszámot szabadterben üzemelteti, használjon külső használatra alkalmas hosszabbítót.** A külső használatra alkalmas kábel használatával csökken az áramütés kockázata.
- f) **Ha elkerülhetetlen, hogy az elektromos kéziszerszámot nedves helyen működtesse, használjon maradékáram-működtetésű megszakító (RCD) védelemmel rendelkező áramforrást.** A maradékáram-működtetésű megszakító használata csökkenti az áramütés kockázatát.
- 3) **Személyi biztonság**
 - a) **Az elektromos kéziszerszám működtetése közben maradjon éber, figyeljen arra, amit csinál, és használja a józan eszt. Ne működtesse az elektromos kéziszerszámot fáradtan, illetve gyógyszerek, alkohol vagy drogok hatása alatt áll.** Egy pillanatnyi figyelmetlenség az elektromos kéziszerszámok működtetése közben súlyos sérülésekhez vezethet.
 - b) **Használjon személyi védőfelszereléseket. Mindig használjon szemvédelmet.** A személyi védőfelszerelés, például pormaszk, csúszásmentes biztonsági lábbeli, védősisak vagy szükség esetén hallásvédelem használatával csökkenthető a személyi sérülések kockázata.
 - c) **Kerülje el, hogy a szerszám véletlenül működésbe lépjen. Mielőtt az elektromos kéziszerszámot áramhoz csatlakoztatná, behelyezné az akkumulátort, felemelné vagy költöztetné a szerszámot, ellenőrizze hogy a kapcsoló a "ki" helyzetbe legyen állítva.** Ha a szerszám hordozásakor újját a kapcsolón tartja, vagy áram alá helyezi a bekapcsolt készüléket, az balesetekhez vezethet.
 - d) **Mielőtt az elektromos kéziszerszámot bekapcsolná, távolítson el róla minden állítókulcsot.** Ha az elektromos kéziszerszám forgórészein állítókulcs marad, az személyi sérüléshez vezethet.
 - e) **Ne próbáljon túl messzire nyúlni. Mindig vigyázzon, hogy stabilan álljon, és őrizze meg**

egyensúlyát. Ez segít, hogy váratlan helyzetekben uralja az elektromos kéziszerszámot.

- f) **Viseljen megfelelő öltözkéket. Ne viseljen bő ruházatot vagy hosszú ékszert.** Tartsa távol a haját és ruházatát a mozgó alkatrészekről. A bő ruházatot, hosszú ékszert vagy hosszú hajat bekapathatják a mozgó elemek.
- g) **Ha a szerszámhoz porszívó vagy -gyűjtő is csatlakoztatható, gondoskodjon ezek megfelelő csatlakoztatásáról és használatáról.** A porgyűjtő használatával csökkenthetőek a porral kapcsolatos kockázatok.
- h) **Ne hagyja, hogy a szerszám gyakori használata túl elbizakodottá tegye, és hogy ezáltal figyelmen kívül hagyja a szerszám biztonsági követelményeit.** A másodperc töredéke is elég ahhoz, hogy egy figyelmetlen mozdulat súlyos sérüléshez vezessen.
- 4) **Az elektromos kéziszerszám használata és karbantartása**
 - a) **Ne erőltesse az elektromos kéziszerszámot. Mindig megfelelő elektromos kéziszerszámot használjon.** Ha a megfelelő elektromos kéziszerszámot használja, azzal a rendeltetési területén jobban és biztonságosabban elvégezhető a munka.
 - b) **Ne használja az elektromos kéziszerszámot, ha azt nem lehet kikapcsolni.** Ha egy elektromos kéziszerszám nem szabályozható a kapcsolóval, az veszélyes, és javításra szorul.
 - c) **Húzza ki a csatlakozó dugaszt az áramellátást biztosító aljzathoz, és/vagy távolítsa el a kivehető akkucsomagot a szerszámból, ha beállításokat vagy tartozékcserét hajt végre, vagy ha a szerszámot elraktározza.** Ezekkel a megelőző biztonsági intézkedésekkel csökken annak a kockázata, hogy a kéziszerszám véletlenül bekapcsoljon.
 - d) **Az elektromos kéziszerszámokat használaton kívül tartsa a gyermekektől távol, és ne hagyja, hogy a szerszámot vagy ezeket az utasításokat nem ismerő személyek működtessék azt.** A tapasztalatlan felhasználók kezében az elektromos kéziszerszámok veszélyessé válnak.
 - e) **Az elektromos kéziszerszámok és tartozékaik karbantartása. Ellenőrizze, hogy a mozgó elemek megfelelően helyezkednek-e el és nem szorultak-e be, az alkatrészek épek, és semmilyen más hiba nincs kihatással az elektromos kéziszerszám működésére. Ha sérülést talál, használat előtt javíttassa meg a szerszámot.** A nem megfelelően karbantartott elektromos kéziszerszámok sok balesetet okoznak.
 - f) **A vágószerszámokat tartsa tisztán, és figyeljen, hogy élesek maradjanak.** A megfelelően karbantartott, éles vágószerszámok ritkábban

akadnak meg, és egyszerűbben irányíthatóak.

- g) **Az elektromos kéziszerszámot, a kiegészítőket és fejeket használja a fenti utasításoknak megfelelően, figyelembe véve a munkakörülményeket és az elvégzendő munkát.** Ha az elektromos kéziszerszámot nem rendeltetésszerűen használja, az veszélyhelyzetet teremthet.
- h) **Őrizze szárazon, tisztán, olaj- és zsírmentesen a szerszám fogantyúit és megragadási részeit.** A csúszos fogantyúk és megragadási részek főleg váratlan helyzetekben akadályozzák a szerszám biztonságos megfogását, kezelését és irányítását.
- 5) **Szerviz**
 - a) **Az elektromos kéziszerszámot csak képzett szerelő javíthatja megfelelő cserealkatrészekkel.** Ez biztosítja az elektromos kéziszerszám biztonságos működését.

BIZTONSÁGI ELŐÍRÁSOK A KALAPÁCSOK SZÁMÁRA

- 1) **Biztonsági utasítások minden művelethez**
 - 1. **Viseljen fülvédőt.** A zaj halláskárosodást okozhat.
 - 2. **Ha az eszközhöz kiegészítő markolato(ka)t mellékeltek, használja az(oka)t.** A kontrollvesztés személyi sérülést eredményezhet.
 - 3. **Tartsa az elektromos szerszámot a szigetelt markolófelületeinél ha olyan munkát végez, ahol a befogott tartozék rejtett kábeleket vagy a készülék saját kábelét.** Ha a vágótartozék feszültség alatt álló vezetéket érint, az elektromos kéziszerszám külső fémalkatrészei feszültség alá kerülhetnek, aminek hatására a szerszám működtetője áramütést szenvedhet.
- 2) **Biztonsági utasítások a hosszú fúrószárak forgókalapáccsal történő használatakor**
 - a) **A fúrást mindig alacsony fordulatszámon kezdje el, és tartsa a fúrófejet a munkadarabbal érintkező helyzetben.** Nagyobb sebességnél a fúrófej valószínűleg elhajlik, ha szabadon foroghat és nem érintkezik a munkadarabbal, ami személyi sérülést okozhat.
 - b) **Kizárólag a fúrófejet közvetlenül érintve gyakoroljon nyomást, és ne fejtse ki túlzott nyomást.** A fúrófejek elhajolhatnak, ami törést vagy irányításvesztést okozhat, ezáltal pedig személyi sérülés következhet be.

TOVÁBBI BIZTONSÁGI SZABÁLYOK A FÚRÓKALAPÁCS

1. Minden esetben viseljen pormaszkot

SZIMBÓLUMOK

	A sérülésveszély csökkentése érdekében a felhasználónak el kell olvasnia az utasításokat
	Dupla szigetelés
	Figyelmeztetés
	Viseljen szemvédőt
	Viseljen fülvédőt
	Viseljen pormaszkot
	Viseljen védőszemüveget
	Mielőtt bármilyen munkát végezne magán a szerszámon, húzza ki az áramból.
	Műanyag
	Betonban
	Falazat

	Fa
	Fém
	Magas fordulát
	Alacsony fordulát
	Szerszámbefogó egység
	ÜTVEFÚRÁS
	Vésés
	Fúrás
	A leselejtezett elektromos készülékek nem dobhatók ki a háztartási hulladékkal. Ha van a közelben elektromos hulladék gyűjtő udvar, vigye oda a készüléket. Az újrahasznosítási lehetőségekről tájékozódjon a helyi hatóságoknál vagy a kereskedőnél.

AZ ALKATRÉSZEK LISTÁJA

1. ON / OFF KAPCSOLÓ
2. KAPCSOLÓRÖGZÍTŐ GOMB
3. ELŐRE ÉS HÁTRA FORGÁS VEZÉRLÉS
4. FUNKCIÓVÁLASZTÓ KAPCSOLÓ
5. MÉLYSÉGMÉRŐ
6. PORVÉDŐ KUPAK
7. SDS-PLUS GYORSVÁLTÓ TOKMÁNY
8. MÉLYSÉGÁLLÍTÓ

9. KIEGÉSZÍTŐ KAR

Nem minden készülék tartalmazza valamennyi, a fentiekben felsorolt alkatrészt.

MŰSZAKI ADATOK

Típus **WX337 WT335 WT343 WX339 WX339.X (330~359-- kijelölésének gép képviselő fúrókalapács)**

	WX337 WT335	WT343 WX339 WX339.X*
Feszültség	230-240V~50/60Hz	
Bemenő teljesítmény	750W 800W	
Terhelés nélküli sebesség	0-1050/min	
Ütésszám	0-5300bpm	
Ütési energia	2.0J	2.5J
Védelmi osztály	 /II	
Fúrási teljesítmény max		
kőművesmunka	24mm	26mm
Acél	13mm	
Erdő	30mm	
A készülék súlya	3.3 kg	

*X = 1-999, A-Z, M1-M9 csak különféle vásárlókra vonatkozik, ezek között a modellek között nincs biztonsági változás.

Javasoljuk, hogy a tartozékokat ugyanabból a boltból vásárolja meg, ahol a szerszámot is vásárolta. További részleteket a tartozék csomagolásán talál. Kérjen segítséget és tanácsot a bolti eladóktól.

ZAJ ÉS REZGÉS ADATOK

A-súlyozású hangnyomásszint	$L_{pA} = 98,8 \text{ dB(A)}$
A-súlyozású hangerő	$L_{WA} = 109,8 \text{ dB(A)}$
K_{WA} & $K_{pA} = 3.0 \text{ dB(A)}$	

Viseljen szemvédőt

REZGÉSERTÉKEK

Az EN62841 szabvány szerint meghatározott összes rezgés (háromtengelyű vektoriálisösszeg) a következő:

Hammer fúrás betonba	Rezgés kibocsátási érték $a_{h,HD} = 14,558 \text{ m/s}^2$
	Bizonytalanság $K = 1.5 \text{ m/s}^2$
Vésés	Rezgés kibocsátási érték $a_{h,Cheq} = 12,475 \text{ m/s}^2$
	Bizonytalanság $K = 1.5 \text{ m/s}^2$

A vibráció és a zaj bejelentett összértékét szabványos mérési módszerrel állapították meg, és ezeket az értékeket két szerszám összehasonlításához is fel lehet használni.

A vibráció és a zaj bejelentett összértékeit a rezgéseknek és zajátalomnak való kitettség előzetes felbecsléséhez is fel lehet használni.

 **FIGYELEM:** A kéziszerszám aktuális használatakor mérhető vibráció és zajkibocsátási értékek eltérhetnek a bejelentett értékektől, mert nagyban függnek a szerszám használati módjától és a megmunkált alkatrész típusától. Íme néhány példa és eltérő érték a szerszám használatától függően: Hogyan használják a szerszámot, milyen anyagokat vágunk vagy fúrunk.

Az eszköz jó állapotban van-e, megfelelően karbantartják-e.

Megfelelő tartozékokat használnak-e az eszközhöz, vigyáznak-e, hogy éles legyen, és jó állapotban maradjon.

A fogantyú megragadásának erősségétől és az esetleg használt vibrációs- és zajcsökkentő tartozék típusától. A szerszámot rendeltetésszerűen, kialakításának és a jelen utasításoknak megfelelően használják-e.

Ha a szerszámot nem kezelik megfelelően, kéz-kar vibrációs szindrómát okozhat.

 **FIGYELEM:** A pontosság érdekében az expozíciós szint becslő értékéhez a valós használati körülmények között figyelembe kell venni a működési ciklus valamennyi elemét, így azt az időt is, amikor a szerszám ki van kapcsolva, és amikor üresjáratban működik. Ez a teljes munkaidőszak viszonylatában jelentősen csökkentheti az expozíciós szintet. A vibrációnak és zajnak való kitettség kockázatának csökkentése.

MINDIG éles vésőt, pengét, és hegyes fúrófejet használjon.

Az eszközt jelen utasításoknak megfelelően tartsa karban, és vigyázzon a megfelelő kenésre (ahol erre

szükség van).

Ha a szerszám rendszeres használatát tervezik, akkor megéri a vibráció- és zajcsökkentő tartozékok beszerzése.

Úgy tervezze meg a munkáját, hogy a magas rezgésszámú eszközök használatát igénylő feladatokat több napra ossza el.

HASZNÁLATI UTASÍTÁSOK



MEGJEGYZÉS: Mielőtt a szerszámot használná, olvassa el figyelmesen az utasításokat.

DOMENIU DE UTILIZARE:

Scula electrică este destinată găuririi cu percuție în beton, cărămidă și piatră cat și pentru lucrări ușoare de dăltuire. Este deosebit de adecvată pentru găurirea fărâ percuție în lemn, metal, ceramică și material plastic.



FIGYELEM: Mielőtt bármilyen munkát végezne magán a szerszámon, húzza ki az áramból.

MŰKÖDÉS

Művelet	Ábra
A FÚRÓSZÁR BEHELYEZÉSE ÉS ELTÁVOLÍTÁSA SDS-BEN	LÁSD A1&A2. ÁBRA
A SEGÉD FOGANTYÚ BEÁLLÍTÁSA	LÁSD B. ÁBRA
A MÉLYSÉGMÉRŐ HASZNÁLATA	LÁSD C. ÁBRA
Az áram csatlakoztatása	LÁSD D. ÁBRA
ON / OFF kapcsoló, változtatható sebességgel CONTROL	LÁSD E. ÁBRA
FORGÁSIRÁNY SZABÁLYOZÓ	LÁSD F. ÁBRA



FIGYELEM: Soha ne változtassa meg az irányt, miközben a tokmány forog, mindig várjon, amíg leáll!

Üzem mód kiválasztása

- Beton és falazat ütfúrásához válassza az ütfúrás pozíciót.

Csavarozáshoz, valamint acél, fa és műanyag fúrásához válassza a forgófúrás pozíciót.

Csak ütéshez - töréshez, véséshez és bontáshoz válassza a kalapács pozíciót.



FIGYELEM: A működési mód választó kapcsoló csak leállított készüléken állítható.



FIGYELEM: Hosszantartó használat esetén az alumínium ház felforrósodik, ne érintse meg.

LÁSD G. ÁBRA

MUNKA TANÁCSOK A DRILL (HAMMER)

Ha a szerszám lesz vége fűtött, állítsa a sebességet a maximális és fuss üresjáratban 2-3 percig hűlni a motort. SDS-plus keményfém fúrók mindig használható beton és falazat. Ha a fúrás fém, csak a HSS fúró jó állapotban. Mindig használjon mágneses bittartó, ha a rövid csavarhúzó bit. Ahol lehetséges használjon egy kísérleti lyukat, mielőtt fúrás nagy átmérőjű lyuk.

KARBANTARTÁS

Húzza ki a dugót a konnektorból Mielőtt bármilyen beállítás, vagy karbantartási.

Az elektromos szerszáma nem igényel további kenést és karbantartást. Nincsenek a felhasználó által javítható alkatrész a szerszámmal. Soha ne használjon vizet vagy vegyi tisztítószeret a szerszámmal. Törölje le egy száraz ruhával. Mindig tárolja a szerszámmal száraz helyen. Tartsa a motor szellőzőnyílásait. Tartsa a munka ellenőrzése a portól.

Ha a tápkábel sérült, ki kell cserélni a gyártó, a hivatalos márkaszerviz vagy hasonlóan képzett személyeket, hogy a kockázatok elkerülése

KÖRNYEZETVÉDELEM



A leselejtezett elektromos készülékek nem dobhatók ki a háztartási hulladékkal. Ha van a közelben elektromos hulladék gyűjtő udvar, vigye oda a készüléket. Az újrahasznosítási lehetőségekről tájékozódjon a helyi hatóságoknál vagy a kereskedőnél.

MEGFELELŐSÉGI NYILATKOZAT

A gyártó:

Positec Germany GmbH

Postfach 32 02 16, 50796 Cologne, Germany

Kijelenti, hogy a termék,

Leírás **fúrókalapács**

Típus **WX337 WT335 WT343 WX339 WX339.X**

(330~359-- kijelölésének gép képviselő fúrókalapács)

Funkció **kalapálás különböző anyagok**

Megfelel a következő irányelveknek:

2006/42/EC

2011/65/EU&(EU)2015/863

2014/30/EU

Az alábbi normáknak:

EN 62841-1, EN IEC 62841-2-6, EN IEC 55014-1, EN

IEC 55014-2, EN IEC 61000-3-2, EN 61000-3-3, EN IEC

63000

A műszaki dokumentáció összeállítására jogosult
személy:

Név Marcel Filz

Cím Positec Germany GmbH

Postfach 32 02 16, 50796 Cologne, Germany

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2023/02/02

Allen Ding

Helyettes főmérnök, Tesztelés és minősítés

Positec Technology (China) Co., Ltd

18, Dongwang Road, Suzhou Industrial

Park, Jiangsu 215123, P. R. China

INSTRUCȚIUNI DE SIGURANȚA SECURITATEA PRODUSULUI AVERTISMENTE GENERALE DE SIGURANȚĂ PENTRU UNELTE ELECTRICE



ATENȚIONARE: Citiți toate atenționările de siguranță și parcurgeți toate instrucțiunile, ilustrațiile și specificațiile atașate acestei scule electrice. Nerespectarea tuturor instrucțiunilor enumerate mai jos poate duce la electrocutare, incendiu și/sau leziune corporală gravă.

Păstrați toate avertismentele și instrucțiunile pentru consultări ulterioare.

Termenul „unealtă electrică” din avertismente se referă la o unealtă electrică alimentată de la rețeaua de energie electrică (prin cablu) sau la o unealtă electrică alimentată de la un acumulator (fără cablu).

1) Siguranța zonei de lucru

a) Mențineți zona de lucru curată și bine iluminată.

Zonele de lucru în dezordine și întunecoase favorizează accidentele.

b) Nu utilizați uneltele electrice în atmosfere explozive, de exemplu în prezența unor lichide, gaze sau pulberi inflamabile. Uneltele electrice provoacă scântei ce pot aprinde pulberea sau vaporii.

c) Asigurați-vă că nu sunteți în apropiere persoane și copii în timpul funcționării unei unelte electrice. Distragerea atenției poate duce la pierderea controlului uneltei.

2) Siguranța electrică

a) Fișele uneltei electrice trebuie să se potrivească perfect în priza de alimentare. Nu modificați niciodată ștecherul. Nu folosiți niciun adaptor pentru uneltele electrice cu împământare.

Utilizarea ștecherelor nemodificate în prize corespunzătoare va reduce riscul electrocutării.

b) Evitați contactul fizic cu suprafețe cu legătură la pământ, cum ar fi țevi, radiatoare, mașini de gătit sau frigider. Riscul electrocutării este mai mare în cazul în care corpul dumneavoastră vine în contact cu suprafața împământată.

c) Nu expuneți uneltele electrice la ploaie sau la umiditate. Dacă intră apă în unealta electrică, riscul electrocutării este mai mare.

d) Nu deteriorați cablul de alimentare. Nu folosiți niciodată cablul pentru transportarea, tragerea sau scoaterea din priză a uneltei electrice.

Păstrați cablul de alimentare la distanță de căldură, ulei, margini ascuțite sau părți mobile. Cablurile deteriorate sau încurcate măresc riscul electrocutării.

- e) Când utilizați unealta electrică în exterior, utilizați un prelungitor potrivit pentru utilizarea în exterior.** Utilizarea unui cablu potrivit pentru uzul în exterior reduce riscul electrocutării.
- f) Dacă utilizarea uneltei electrice într-un loc umed nu poate fi evitată, folosiți o unealtă electrică protejată cu dispozitiv de curent rezidual (RCD).** Folosirea unui dispozitiv RCD reduce riscul electrocutării.

3) Siguranța personală

a) Fiți concentrat, urmăriți ceea ce faceți și dați dovadă de simț practic când folosiți o unealtă electrică. Nu folosiți o unealtă electrică dacă sunteți obosit sau sub influența drogurilor, a alcoolului sau a medicamentelor. O clipă de neatenție în timpul funcționării uneltei electrice poate duce la accidente personale grave.

b) Folosiți echipament personal de protecție. Purtați întotdeauna ochelari de protecție. Echipamentele de protecție precum masca de protecție contra prafului, încălțăminte cu talpă antiderapantă, casca sau protecția pentru urechi vor reduce riscul accidentărilor, utilizate în mod corespunzător.

c) Preveniți punerea accidentală în funcțiune. Asigurați-vă că întrerupătorul se află în poziția de oprire înainte de a face conectarea la sursa de alimentare și/sau la acumulator, înainte de a ridica sau a transporta unealta. Transportarea uneltelor electrice ținând degetul pe întrerupător sau alimentarea acestora cu întrerupătorul pornit poate duce la accidente.

d) Scoateți orice cheie de reglare sau cheie de piulițe înainte de a porni unealta electrică. O cheie de piulițe sau o altă cheie rămasă prinsă de o componentă rotativă a uneltei poate duce la rănirea personală.

e) Păstrați un echilibru corect. Mențineți-vă permanent echilibrul și sprijiniți-vă ferm pe picioare. Acest lucru permite un control mai bun al uneltei electrice în situații neprevăzute.

f) Îmbrăcați-vă corespunzător. Nu purtați îmbrăcăminte prea largă sau bijuterii. Țineți la distanță părul și hainele dvs. de piesele în mișcare ale uneltei electrice. Hainele prea largi, bijuteriile și părul lung se pot prinde în piesele mobile.

g) Dacă sunt furnizate accesorii pentru conectarea unor dispozitive de aspirare și colectare a prafului, asigurați-vă că acestea sunt montate și folosite corect. Folosirea colectorului de praf poate reduce riscul accidentărilor din cauza prafului.

h) Nu lăsați ca odată cu familiarizarea dvs. cu

utilizarea unelei să deveniți indolenți și să uitați respectarea principiilor de siguranță ale unelei electrice. Orice acțiune nesăbuită poate duce la leziuni corporale grave într-o fracțiune de secundă.

4) Utilizarea și întreținerea uneltelor electrice

- a) **Nu forțați unealta electrică. Folosiți unealta electrică potrivită pentru aplicație.** Cu o unealtă electrică potrivită veți lucra mai bine și mai în siguranță, la viteza pentru care a fost concepută.
- b) **Nu utilizați unealta electrică dacă nu o puteți porni sau opri de la întrerupător.** Orice unealtă electrică ce nu poate fi acționată de la întrerupător este periculoasă și trebuie reparată.
- c) **Deconectați ștecherul de la sursa de alimentare electrică și/sau scoateți acumulatorul detașabil din unealta electrică înainte de orice reglaj, schimbare de accesorii sau de stocare a unelei.** Astfel de măsuri de siguranță reduc riscul pornirii accidentale a unelei electrice.
- d) **Nu lăsați uneltele electrice la îndemâna copiilor și nu permiteți persoanelor ce nu știu să le manevreze și nu cunosc instrucțiunile să acționeze aceste unelte.** Uneltele electrice sunt periculoase în mâinile utilizatorilor neinstruiți.
- e) **Întreținerea unelei electrice și ale accesoriilor aferente. Verificați posibila aliniere incorectă sau posibila blocare a componentelor mobile, deteriorarea componentelor sau orice alte situații care pot afecta funcționarea unelei electrice. Dacă unealta electrică este deteriorată, reparați-o înainte de utilizare.** Multe accidente sunt provocate din cauza întreținerii incorecte a uneltelor.
- f) **Uneltele de tăiere trebuie menținute ascuțite și curate.** Riscul blocării uneltelor de tăiere cu margini ascuțite întreținute corect este mai mic și acestea sunt mai ușor de controlat.
- g) **Utilizați unealta electrică, accesoriile, piesele etc. conform acestor instrucțiuni, luând în considerare condițiile de lucru și operația de efectuat.** Folosirea unelei electrice pentru operații diferite de cele pentru care a fost concepută poate duce la accidentare.
- h) **Păstrați uscate, curate și fără urme de ulei sau grăsime mânerul și suprafețele de apucare ale unelei.** Mânerul și suprafețele de apucare alunecoase împiedică manipularea și controlul sigur al unelei tocmai în cele mai neașteptate situații.
- 6) **Service**
 - a) **Service-ul unelei electrice trebuie efectuat de persoane calificate, folosind doar piese de schimb originale.** Acest lucru va asigura folosirea în continuare a unelei electrice în siguranță.

INSTRUCȚIUNI DE SIGURANȚĂ PENTRU CIOCAN

1) Instrucțiuni de siguranță pentru toate operațiunile

1. **Purtați aparat de protecție auditivă.** Expunerea la zgomot poate duce la pierderea auzului.
2. **Folosiți mânerul(e) auxiliar(e), dacă este/sunt furnizat(e) cu unealta.** Pierderea controlului poate duce la răni.
3. **Țineți unealta electrică de suprafețele de prindere izolate atunci când efectuați o operațiune în care accesoriul de tăiere poate intra în contact cu fire ascunse.** Accesoriul de tăiere care intră în contact cu un fir aflat sub tensiune poate pune sub tensiune componentele metalice neizolate ale mașinii electrice și poate produce un șoc electric asupra operatorului.

2) Instrucțiuni de siguranță privind utilizarea burghiilor lungi cu ciocanele rotopercutoare

- a) **Întotdeauna începeți perforarea la viteză mică, cu vârful burghiului în contact cu suprafața de lucru.** La viteze mai mari, burghiul se poate îndoi dacă este lăsat să se rotească liber, fără a fi în contact cu suprafața de lucru, conducând în final la vătămare corporală.
- b) **Aplicați presiunea doar pe direcția burghiului, fără a exercita o presiune excesivă.** Burghiile se pot îndoi, cauzând defectarea sau pierderea controlului care conduc la vătămare corporală.

REGULI SUPLIMENTARE PRIVIND SIGURANȚA PENTRU CIOCAN ROTOPERCUTOR

1. **Purtați mască de praf.**

SIMBOLURI

	Pentru a reduce riscul de accidentări, utilizatorul trebuie să citească manualul de instrucțiuni
	Izolație dublă
	Avertisment
	Purtați echipament de protecție pentru urechi

	Purtați echipament de protecție pentru ochi
	Purtați mască de protecție contra prafului
	Purtați mănuși de protecție
	Înainte de orice lucrări pe mașina propriu-zisă, scoateți cablul de alimentare din priză.
	Plastic
	Beton
	Zidărie
	Lemn
	Metal
	Turație mare
	Turație mică
	Sistem de prindere accesorii
	Găurire cu percuție

	Dălțuire
	Găurire
	Produsele electrice nu trebuie depuse la deșeuri împreună cu gunoiul menajer. Vă rugăm să depuneți produsele electrice la unitățile de reciclare existente. Consultați-vă cu autoritățile locale sau cu distribuitorul pentru sfaturi privind reciclarea.

LISTA DE COMPONENTE

1. ÎNTRERUPĂTOR PORNIT/OPRIT

2. BUTON BLOCARE ÎNTRERUPĂTOR

3. CONTROL ROTAPIE SENS DIRECT ȘI INVERS

4. SELECTAREA MODULUI DE FUNCȚIONARE

5. LIMITATOR ADÂNCIME

6. CAPAC PROTECȚIE PRAF

7. MANDRINĂ « RAPIDĂ » SDS-PLUS

8. LIMITATOR CURSĂ ÎN ADÂNCIME REGLABIL

8. MÂNER AUXILIAR

Nu toate accesoriile ilustrate sau descrise sunt incluse în livrarea standard.

DATE TEHNICE

Tip **WX337 WT335 WT343 WX339 WX339.X**
(330~359-- denumirea echipamentului, reprezentând CIOCAN ROTOPERCUTOR)

	WX337 WT335	WT343 WX339 WX339.X*
Tensiune nominală	230-240V~50/60Hz	
Putere nominală	750W	800W
Turație nominală fără sarcină	0-1050/min	
Număr lovituri	0-5300bpm	
Energie lovituri	2.0J	2.5J

Clasă de protecție	 /II	
Capacitate max. tăiere		
Zidărie	24mm	26mm
Oțel	13mm	
lemn	30mm	
Greutate ma°ină	3.3 kg	

*X = 1-999, A-Z, M1-M9 sunt destinate doar clienților diferiți, nu există modificări legate de siguranță între aceste modele.

Recomandăm cumpărarea accesoriilor din același magazin care v-a vândut scula. Consultați ambalajul accesoriilor pentru detalii suplimentare. Personalul vânzător vă poate ajuta și oferi sfaturi.

INFORMAȚII PRIVIND ZGOMOTUL

Presiune sonică ponderată	$L_{pA} = 98,8 \text{ dB(A)}$
Putere acustică ponderată	$L_{WA} = 109,8 \text{ dB(A)}$
$K_{WA} \text{ \& } K_{pA} = 3.0 \text{ dB(A)}$	

Purtați echipament de protecție pentru urechi

INFORMAȚII PRIVIND VIBRAȚIILE

Valori totale vibrații (sumă vectorială triaxială) determinată conform EN 62841:

Găurire cu percuție în beton	Valoare emisie de vibrații $a_{h,HD}$ $= 14,558 \text{ m/s}^2$
	Marjă de eroare $K = 1.5 \text{ m/s}^2$
Dăltuire	Valoare emisie de vibrații $a_{h,Cheq}$ $= 12,475 \text{ m/s}^2$
	Marjă de eroare $K = 1.5 \text{ m/s}^2$

Valoarea totală declarată pentru vibrații și pentru zgomot a fost măsurată în concordanță cu metoda de testare standard și poate fi utilizată și la compararea a două unelte.

Valoarea totală declarată pentru vibrații și pentru zgomot

poate fi utilizată și la evaluarea preliminară a expunerii la acestea.

ATENȚIONARE: Nivelul emisiilor de vibrații și de zgomot în timpul utilizării reale a unelei poate să difere de valorile declarate, aceste valori fiind în funcție de modalitățile de utilizare ale sculei, dar mai ales de felul piesei prelucrate cu unealta. Iată în continuare niște exemple de utilizare care conduc la apariția diferențelor de valori:

Modul în care scula este folosită și tipul de materiale tăiate sau sfredelite.

Scula este în stare bună de funcționare și bine întreținută.

Folosirea accesoriului corect pentru sculă și păstrarea acesteia în condiții bune.

Forța de apucare a mânerelor și dacă s-a utilizat vreun accesoriu de reducere a vibrațiilor și a zgomotului.

Scula este folosită conform indicațiilor din fabrică și conform acestor instrucțiuni.

Această sculă poate cauza sindromul vibrație mână-brăț dacă nu este folosită în mod corespunzător.

ATENȚIONARE: Pentru a fi corectă, estimarea nivelului de expunere în condiții concrete de folosire trebuie să ia în considerare toate părțile ciclului de operare cum ar fi de câte ori scula este oprită și cât timp este pornită dar nu lucrează. Acest lucru poate reduce semnificativ nivelul de expunere de-a lungul perioadei de lucru totale.

Minimalizarea riscului de expunere la vibrații și la zgomot.

Folosiți ÎNTOTDEAUNA dalte, burghiuri și lame ascuțite.

Păstrați acest aparat în conformitate cu aceste instrucțiuni și păstrați-l bine gresat (dacă e cazul).

Dacă unealta va fi utilizată în mod regulat, atunci nu ezitați să investiți în procurarea de accesorii antivibrație și antizgomot.

Planificați-vă programul de lucru pentru a folosi sculele cu număr mare de vibrații de-a lungul a mai multe zile

INSTRUCȚIUNI DE UTILIZARE



NOTĂ: Înainte de a utiliza unealta, citiți cu atenție manualul de instrucțiuni.

DESTINAȚIA DE UTILIZARE

Scula electrică este destinată găuririi cu percuție în beton, cărămidă și piatră cat și pentru lucrări ușoare de dăltuire.



AVERTISMENT: Înaintea oricărui lucrări pe mașina propriu-zisă, scoateți cablul de alimentare din priză.

OPERAȚIUNE

Acțiune	Grafică
INTRODUCEREA °I SCOATEREA BURGHIELOR ÎN SDS	Consultați Fig. A1& A2

Reglarea Mănerul Auxiliar	Consultați Fig.B
Utilizarea Indicatorului De Adâncime	Consultați Fig.C
Cuplarea alimentării	Consultați Fig.D
ÎNTRERUPĂTORUL PORNIT/OPRIT CU CONTROL DE TURAPIE VARIABILĂ	Consultați Fig.E
CONTROLUL DE ROTAPIE SENS DIRECT ȚI INVERS  AVERTISMENT: Nu modificați niciodată sensul rotației când scula este în rotație, așteptați până când se oprește.	Consultați Fig. F
Selectarea modului de operare Pentru găurirea Ți percutarea simultană a zidăriei Ți betonului, alegeți poziția Găurire cu percuție.  Pentru înȚurubare, găurire opel, lemn Ți plastic, alegeți poziția Găurire rotativă.  Numai pentru percuție – pentru aplicații de aȚchiere, dăltuire Ți demolare uȚoare, alegeți poziția Ciocan.   AVERTISMENT: Comutatorul selector mod de funcționare poate fi activat numai când scula este oprită.  AVERTISMENT: Utilizarea prelungită va cauza încălzirea carcasei de aluminiu, nu atingeți.	Consultați Fig. G

SFATURI DE LUCRU PENTRU MAȚINA DE GĂURIT CU PERCUȚIE

Dacă scula electrică devine prea fierbinte, setați turapiă la maxim Ți rulați fără sarcină timp de 2-3 minute pentru răcirea motorului. Burghiile din aliaj de tungsten SDS-plus trebuie folosite întotdeauna pentru beton Ți zidărie. Când găuriți metal, utilizați numai burghie HSS în stare bună. Utilizați întotdeauna un suport de burghiu magnetic când utilizați capete de ȚurubelniȚă scurte. Când este posibil, utilizați o gaură de ghidare înainte de executarea unei găuri de diametru mare.

ȚNȚREȚINEREA

Scoateți fișa din priză înainte de efectuarea oricărei reglări, lucrări de servizare sau ȚnȚreȚinere.

Scula electrică nu necesită gresare sau ȚnȚreȚinere

suplimentară.

Nu există piese care pot fi depanate de utilizator în scula electrică. Nu utilizați niciodată apă sau agenȚi de curățare chimici pentru curățarea sculei electrice.

Ștergeți cu o cârpă uscată. Depozitați întotdeauna scula electrică într-un loc uscat. MenȚineți fantele de ventilație a motorului curate. MenȚineți toate controalele de lucru ferite de praf. Ocazional, puteți vedea scântei prin fantele de ventilație. Acest lucru este normal și nu deteriorează scula electrică.

Țn cazul în care cordonul de alimentare este deteriorat, trebuie înlocuit de producător, agentul său de service sau de persoane calificate, pentru evitarea pericolului.

PROTECȚIA MEDIULUI

 DeȚeurile de produse electrice nu trebuie eliminate Țmpreună cu deȚeurile menajere. Vă rugăm Țreciclați acolo unde există instalații. Consultați autorităȚile locale sau vânzătorul în privinȚa reciclării.

DECLARAȚIE DE CONFORMITATE

Subsemnații,
Positec Germany GmbH
Postfach 32 02 16, 50796 Cologne, Germany

Declarăm că produsul
Descriere **WORX CIOCAN ROTOPERCUTOR**
Tip **WX337 WT335 WT343 WX339 WX339.X**
(330-359-- denumirea echipamentului, reprezentând CIOCAN ROTOPERCUTOR)
Funcție **cioănire a diverselor materiale**

Respectă următoarea directivă:

2006/42/EC
2011/65/EU&(EU)2015/863
2014/30/EU

Se conformează standardelor:

EN 62841-1, EN IEC 62841-2-6, EN IEC 55014-1, EN IEC 55014-2, EN IEC 61000-3-2, EN 61000-3-3, EN IEC 63000

Persoana responsabilă pentru elaborarea fișei tehnice,

Denumire Marcel Filz

Adresă Positec Germany GmbH

Postfach 32 02 16, 50796 Cologne, Germany




2023/02/02

Allen Ding

Adjunct Inginer șef, Testare si certificare

Positec Technology (China) Co., Ltd

18, Dongwang Road, Suzhou Industrial

Park, Jiangsu 215123, P. R. China

BEZPEČNOSTNÉ INŠTRUKCIE BEZPEČNOST VÝROBKU OBECNÁ BEZPEČNOSTNÍ UPOZORNĚNÍ PRO ELEKTRICKÉ NÁSTROJE

 **VAROVÁNÍ** Přečtěte si všechna bezpečnostní varování, pokyny, seznamte se s ilustracemi a technickými údaji dodanými s tímto elektrickým nářadím. Nedodržení jakýchkoliv níže uvedených pokynů může mít za následek úraz elektrickým proudem, vznik požáru nebo vážného úrazu.

Uložte instrukce a veškerou dokumentaci pro budoucí použití.

Výraz "elektrické ruční nářadí" znamená v upozornění buď nářadí na elektrický pohon (napájené elektrickou sítí) nebo na akumulátorové nářadí (napájené z akumulátoru).

1) Bezpečnost na pracovišti

a) Udržujte pracoviště v čistotě a dobře osvětlené.

Pracoviště plné nepotřebných předmětů nebo slabě osvětlené zvyšuje možnost úrazu.

b) **DNepoužívejte elektrické ruční nářadí v prostředí náchylném na exploze jako například v přítomnosti hořlavých tekutin, plynů nebo prachu.** Elektrické ruční nářadí při práci vytváří jiskry, které mohou vznítit prach nebo výparu.

c) **Při práci s elektrickým ručním nářadím udržujte děti a přihlížející osoby v dostatečné vzdálenosti.** Ztráta pozornosti může vést ke ztrátě kontroly nad nářadím.

2) Bezpečnost při práci s elektrinou

a) **Vidlice elektrického ručního nářadí musí být shodného typu jako zásuvky el. sítě. Neměňte vidlici nedovoleným nebo neodborným způsobem, předejdete tak možným zraněním nebo úrazu el. proudem.** Nepoužívejte spolu s uzemněným ručním nářadím žádné adaptéry, které neumožňují ochranu zemněním.

b) **Vyhýbejte se kontaktu s uzemněnými povrchy jako například trubkami, radiátory, sporáky a lednicím.** Je-li vaše tělo spojené s uzemněným předmětem nebo stojí na uzemněné ploše, vzniká zvýšené riziko úrazu elektrickým proudem.

c) **Nevystavujte ruční nářadí dešti nebo vlhkým podmínkám.** Když se voda dostane pod povrch elektrického ručního nářadí, vzniká zvýšené riziko úrazu elektrickým proudem.

d) **Nemanipulujte s napájecím kabelem necitlivě. Nikdy si nepřitahujte elektrické ruční nářadí k sobě pomocí kabelu, netahejte je za**

sebou pomocí kabelu a nevytrhávejte kabel ze zástrčky, abyste ruční nářadí vypnuli.

Nevystavujte kabel vysokým teplotám, oleji, ostrým hranám nebo kontaktu s pohyblivými díly. Poškozené nebo zamotané kabely mohou vést k zvýšenému riziku úrazu elektrickým proudem.

e) **Při práci s ručním nářadím v exteriéru použijte prodlužovací kabel vhodný pro použití v exteriéru.** Použijte kabel vhodný pro venkovní prostředí, snižujete tím riziko vzniku úrazu elektrickým proudem.

f) **Pokud je práce s ručním nářadím ve vlhkých podmínkách nevyhnutelná, použijte napájení chráněné jističem typu proudový chránič (RCD).** Použití RCD jističe redukuje riziko vzniku úrazu elektrickým proudem.

3) Osobní bezpečnost

a) **Buďte soustředění, sledujte co děláte a při práci s ručním nářadím se řiďte zdravým rozumem. Nepoužívejte ruční nářadí, jste-li unaveni nebo pod vlivem omamných látek, alkoholu nebo léků.** Moment nepozornosti při práci s ručním nářadím může vést k vážnému osobnímu zranění.

b) **Použijte osobní ochranné pomůcky. Vždy noste ochranu očí.** Ochranné pomůcky jako například proti prachová maska, boty s protiskluzovou podrážkou nebo chrániče sluchu použijte v příslušných podmínkách pomáhajících redukovat nebezpečí vážného osobního zranění.

c) **Předcházejte neúmyslnému zapnutí. Ujistěte se, že vypínač je ve vypnuté poloze předtím, než zapojíte nářadí do elektrické sítě a nebo k akumulátoru, rovněž při zvedání nebo nošení nářadí.** Nošení nářadí s prstem na vypínači nebo nářadí pod napětím zvyšuje možnost úrazu.

d) **Odstraňte jakékoliv nastavovací nebo maticové klíče a šrouby předtím, než zapnete ruční nářadí.** Nastavovací nebo jiný klíč ponechaný na rotující části ručního nářadí může způsobit osobní úraz.

e) **Nepřeceňujte se. Udržujte si stabilitu a pevnou zem pod nohama za každých podmínek.** Umožňuje vám to lepší kontrolu nad ručním nářadím v neočekávaných situacích.

f) **Pro práci se vhodně oblečte. Nenoste volné oblečení nebo šperky. Své vlasy a volné oblečení držte z dosahu pohyblivých částí.** Volné oblečení, šperky nebo dlouhé vlasy se mohou do pohyblivých částí zachytit.

g) **Pokud jsou zařízení nastavená na spojení se zařízeními na zachytávání a extrakci prachu, ujistěte se, že jsou tato zařízení správně připojena a použijte.** Použitím sběrače prachu redukuje rizika vyvolaná prachem.

h) **Nedopustěte, abyste díky zkušenostem nabytým častým používáním elektrického nářadí přestali dodržovat základy bezpečného použití.**

Neopatrný úkon může způsobit vážný úraz během zlomku sekundy.

4) Použití a údržba ručního nářadí

- a) **Na ruční nářadí netlačte. Použijte správné ruční nářadí pro danou činnost.** Správné ruční nářadí udělá práci lépe a takovou rychlostí, pro kterou bylo navrženo.
 - b) **Nepoužívejte ruční nářadí, pokud správně nefunguje vypínač on/off.** Jakékoliv ruční nářadí, které se nedá ovládat vypínačem, je nebezpečné a musí být opraveno.
 - c) **Před jakýmkoliv seřízením, výměnou násad nebo uskladněním elektrického nářadí vyjměte síťovou zástrčku ze zásuvky nebo, pokud je to možné, z něj vyjměte akumulátor.** Taková preventivní bezpečnostní opatření redukuje riziko náhodného zapnutí ručního nářadí.
 - d) **Nepoužívejte-li ruční nářadí, skladujte je mimo dosah dětí a nedovolte osobám, které nemají zkušenosti s prací s ručním nářadím nebo neznají tyto pokyny, s nářadím pracovat.** Ruční nářadí je nebezpečné v rukách neškolené a nezkušené osoby.
 - e) **Provádějte pravidelnou údržbu elektrického nářadí a příslušenství. Zkontrolujte chybné připojení nebo spojení pohyblivých částí, zlomené části nebo jiné okolnosti, které by mohly ovlivnit funkčnost ručního nářadí. Je-li nářadí poškozeno, nechte je před novým použitím opravit.** Mnoho úrazů vzniká proto, že je elektrické ruční nářadí špatně udržováno.
 - f) **Udržujte řezné nástroje ostré a čisté.** Správně udržované řezné nástroje s ostrými řezacími hranami jsou méně náchylné na zakousnutí a lépe se ovládají.
 - g) **Používejte elektrické nářadí v souladu s těmito pokyny, berte v úvahu pracovní podmínky a druh vykonávané práce.** Je-li elektrické nářadí použito na jiné účely, než je určeno, může docházet k nebezpečným situacím.
 - h) **Rukojeti a povrchy držadel udržujte suché, čisté, bez maziv a tuků.** Kluzké rukojeti a držadla neumožňují bezpečnou manipulaci a obsluhu nářadí v neočekávaných situacích.
- 5) **Servis**
- a) **Servisní práce na nářadí nechte provést kvalifikovanými pracovníky za použití originálních náhradních dílů.** Výsledkem bude trvalá bezpečnost při práci s elektrickým nářadím.

BEZPEČNOSTNÍ VÝSTRAHY PRO PŘÍKLEP

- 1) **Bezpečnostní pokyny pro všechny úkony**
 - a. **Připojte napájecí kabel do sítě pouze v případě,**

kdž je kladivo připraveno k práci. Pokud kladivo nepoužíváte, odpojte ho od el.sítě.

- b. **Používejte přídavné rukojeti dodávané s elektrickým nářadím.** Ztráta kontroly může vést ke zraněním.
 - c. **Pokud provádíte práce, při kterých může používaný nástroj zasáhnout skrytá elektrická vedení nebo vlastní síťový kabel, pak držte elektrické nářadí za izolované plochy rukojeti.** Kontakt s vedením pod napětím může přivést napětí i na kovové díly elektrického nářadí a způsobit úraz elektrickým proudem.
- 2) **Bezpečnostní pokyny pro použití dlouhých vrtáků bouracích kladiv**
- a) **Vždy začněte vrtat v nízkých otáčkách a špičku vrtáku v udržujte v kontaktu se zpracovávaným materiálem.** Ve vyšších otáčkách je větší pravděpodobnost, že se vrták ohne, pokud se bude moci volně otáčet, aniž by se dotýkal zpracovávaného materiálu, což vyústí ve zranění osob.
 - b) **Tlak vyvíjejte pouze v přímém směru s vrtákem a nevyvíjejte nadměrný tlak.** Vrtáky se mohou ohnout, což způsobí zlomení vrtáku nebo ztrátu kontroly, a to vyústí ve zranění osob..

DODATEČNÉ BEZPEČNOSTNÍ ZÁSADY PRO VAŠE PŘÍKLEP

1. **Používejte protiprachovou masku (respirátor)**

SYMBOLY

	Aby se omezilo nebezpečí zranění, uživatel si musí přečíst návod k obsluze.
	Dvojité izolace
	Varování
	Používejte ochranné pomůcky zraku
	Používejte ochranné pomůcky sluchu

	Noste respirátor
	Používejte ochranné rukavice
	Před prováděním jakéhokoli servisu na samotném nástroji odpojte zástrčku napájecího kabelu z elektrické zásuvky.
	Plast
	Betonu
	Zdivo
	Dřevo
	Kov
	Vysoké otáčky
	Nízké otáčky
	Nástrojový držák SDS-plus
	Příklepové vrtání
	Sekání

	Vrtání
	Elektrické výrobky se nesmí likvidovat spolu s domácím odpadem. Recyklujte ve sběrných místech na tento účel zařízených. O možnosti recyklace se informujte u místních úřadů nebo u prodejce.

SEZNAM SOUČÁSTÍ

1. ON / OFF VYPÍNAČ

2. ARETAČNÍ TLAČÍTKO SPÍNAČE

3. PŘEPÍNAČ SMĚRU OTÁČENÍ

4. PŘEPÍNAČ REŽIMŮ PŘEVODOVKY

5. DORAZ

6. PRACHOTĚSNÝ KRYT SKLÍČIDLA

7. RYCHLOUPÍNAČ SKLÍČIDLO SDS-PLUS

8. NASTAVITELNÝ HLOUBKOVÝ DORA

9. POMOCNÁ RUKOJEŤ

Ne všechny doplňky vyobrazené nebo popisované jsou v standardní dodávce zahrnuty.

TECHNICKÉ ÚDAJE

Typ **WX337 WT335 WT343 WX339 WX339.X** (330~359-
- označení stroje, zástupce Rotační kladivo)

	WX337 WT335	WT343 WX339 WX339.X*
Jmenovité napájecí napětí	230-240V~50/60Hz	
Jmenovitý příkon	750W	800W
Jmenovité otáčky na práz- dno	0-1050/min	
Počet úderů	0-5300bpm	
Energie úderu	2.0J	2.5J

Třída ochrany	 /II	
Max. průměr vrtání		
Zdivo	24mm	26mm
Ocel	13mm	
Dřevo	30mm	
Hmotnost přístroje	3.3 kg	

X = 1-999, A-Z, M1-M9 jsou pouze pro různé zákazníky, mezi těmito modely neexistují žádné změny související s bezpečností.

Doporučujeme příslušenství koupit ve stejném obchodě jako samotné nářadí. Podrobnější informace jsou přibaleny k jednotlivému příslušenství. Odborní prodejci vám pomohou a poradí.

INFORMACE O HLUČNOSTI

Naměřená hladina akustického tlaku $L_{pA} = 98,8 \text{ dB(A)}$

Naměřený akustický výkon $L_{WA} = 109,8 \text{ dB(A)}$

K_{WA} & $K_{pA} = 3.0 \text{ dB(A)}$

Používejte ochranné pomůcky zraku.

VIBRACÍCH

Celkové hodnoty vibrací (trojosé nebo vektorové součtové měření) stanovené v souladu s EN62841:

Vrtání s přiklepem do betonu	Hodnota vibračních emisí $a_{h,HD} = 14,558 \text{ m/s}^2$
	Kolísání $K = 1.5 \text{ m/s}^2$
Bourání	Hodnota vibračních emisí $a_{h,Cheq} = 12,475 \text{ m/s}^2$
	Kolísání $K = 1.5 \text{ m/s}^2$

Deklarovaná celková hodnota vibrací a deklarovaná úroveň vytvářeného hluku byly měřeny v souladu se standardními zkušebními postupy a lze je použít při srovnání jednotlivých nářadí mezi sebou.
Deklarovaná celková hodnota vibrací a deklarovaná

úroveň vytvářeného hluku mohou být také použity k předběžnému stanovení doby práce s nářadím.



VAROVÁNÍ: Vibrace a hluknost při aktuálním použití elektrického nářadí se od deklarovaných hodnot mohou lišit v závislosti na způsobu, jakým je nářadí použito, zejména pak na typu zpracovávaného obrobku podle následujících příkladů a na dalších způsobech, jakými je nářadí používáno:

Jak je nářadí používáno a jaké materiály budou řezány nebo vrtány.

Nářadí musí být v dobrém stavu a musí být prováděna jeho řádná údržba.

S nářadím musí být používáno správné příslušenství, a toto příslušenství musí být ostré a v dobrém stavu.

Pevnost uchopení rukojeti a zda je použito jakékoliv příslušenství snižující úroveň vibrací a hluku.

Toto nářadí může být použito pouze pro určené účely a podle těchto pokynů.

Není-li toto nářadí používáno odpovídajícím způsobem, může způsobit syndrom nemoci způsobené působením vibrací na ruce a paže obsluhy.



VAROVÁNÍ: Chcete-li být přesní, odhad doby působení vibrací v aktuálních podmínkách při použití tohoto nářadí by měl brát v úvahu také všechny části pracovního cyklu, jako jsou doby, kdy je nářadí vypnuto a kdy je v chodu ve volnoběžných otáčkách, ale ve skutečnosti neprovádí žádnou práci. Doba působení vibrací tak může být během celkové pracovní doby značně zkrácena.

Pomáhá minimalizovat riziko působení vibrací a hluku. VŽDY používejte ostré sekáče, vrtáky a nože.

Provádějte údržbu tohoto nářadí podle těchto pokynů a zajistěte jeho řádné mazání (je-li to vhodné).

Pokud bude nářadí používáno pravidelně, pak investujte do příslušenství snižujícího úroveň vibrací a hluku.

Vypracujte si svůj plán práce, abyste působení vysokých vibrací tohoto nářadí rozdělili do několika dnů.

NÁVOD K POUŽITÍ



POZNÁMKA: Před tím než začnete nářadí používat, přečtěte si pečlivě manuál.

ÚČEL POUŽITÍ

Stroj je určen k vrtání s přiklepem do betonu, cihel a kamene, jakož i pro lehké sekací práce. Je také vhodný pro vrtání bez přiklepu do dřeva, kovu, keramiky a plastů.



VAROVÁNÍ: Před prováděním jakéhokoli servisu na samotném nástroji odpojte zástrčku napájecího kabelu z elektrické zásuvky.

POUŽÍVÁNÍ

ÚKON	OBRÁZEK
NASAZENÍ A VYSUNUTÍ SDS-PLUS VRTÁKŮ	viz A1 & A2
NASTAVENÍ POMOCNÉHO DRŽADLA	viz B
POUŽÍVÁNÍ HLOUBKOMĚRU	viz C
Připojení napájení	viz D
VYPÍNAČ SE ZABUDOVANOU REGULACÍ OTÁČEK	viz E
OVLÁDÁNÍ SMĚRU OTÁČENÍ  VAROVÁNÍ: Změnu směru otáčení vřeteno provádějte jen když se vřeteno neotáčí!	viz F
VOLBA PRACOVNÍHO REŽIMU - Pro příklepové vrtání do betonu či zdiva, zvolte funkci příklepu.  Pro šroubování, vrtání do oceli, dřeva nebo plastu. Zvolte funkci vrtání.  Pro nenáročné sekání, osekávání nebo demoliční činnosti. Zvolte funkci příklep.   VAROVÁNÍ: Změnu režimu práce převodovky lze provést pouze je-li nářadí v klidu.  VAROVÁNÍ: Při delším používání se hliníkový plášť vrtáčky zahřeje, nedotýkejte se horkých kovových povrchů holýma rukama.	viz G

DOBŘÉ RADY PRO PRÁCI S VRTAČKOU S PŘÍKLEPEM

Zahřeje-li se vrtáčka s příklepem, nastavte maximální otáčky a nechte motor běžet naprázdno 2-3 minuty. Pokud vrtáte do zdiva, nebo betonu, používejte vrtáky typu SDS-plus s hroty vyrobenými z karbidu wolframu. Pokud vrtáte do kovu, používejte HSS (vysokovýkonná rychlofrézna ocel) nabroušené vrtáky. Když používáte krátké šroubovací bity, vždy s nimi požívejte také magnetický držák bitů. Je-li to možné, před vrtáním větších otvorů vždy místo předvrtajte menším průměrem vrtáku.

ÚDRŽBA

Před provedením jakékoliv úpravy nebo údržby odpojte nářadí od sítě.

Elektrické ruční nářadí nevyžaduje žádnou nestandardní údržbu.

Na elektrickém ručním nářadí nejsou žádné části, které potřebují servisní zásah uživatele. Nikdy nepoužívejte vodu nebo chemické čističe na čišťení ručního elektrického nářadí. Utírejte jej dočista suchým hadrem. Vždy jej skladujte na suchém místě. Udržujte ventilační otvory motoru čisté. Udržujte všechny pracovní ovladače čisté bez prachu. Občas můžete přes ventilační otvory vidět jiskry. Je to běžný jev, který na bezproblémový chod kladiva nemá vliv. Pokud je napájecí kabel poškozený, musí být vyměněn výrobcem, servisním technikem, nebo stejně kvalifikovanou osobou, aby se zabránilo riziku úrazu el. proudem.

OCHRANA ŽIVOTNÍHO PROSTŘEDÍ

 Elektrické výrobky se nesmí likvidovat spolu s domácím odpadem. Recyklujte ve sběrných místech na tento účel zařízených. O možnosti recyklace se informujte u místních úřadů nebo u prodejce.

PROHLÁŠENÍ O SHODĚ

My,
Positec Germany GmbH
Postfach 32 02 16, 50796 Cologne, Germany

Prohlašujeme, že tento výrobek
Popis **Aku Vrtací kladivo WORX**
Typ **WX337 WT335 WT343 WX339 WX339.X (330~359--**
označení stroje, zástupce Rotační kladivo)
Funkce **Příklepové vrtání různých materiálů**

Splňuje následující směrnice:
2006/42/EC
2011/65/EU&(EU)2015/863
2014/30/EU

Splňované normy
EN 62841-1, EN IEC 62841-2-6, EN IEC 55014-1, EN IEC
55014-2, EN IEC 61000-3-2, EN 61000-3-3, EN IEC 63000

Osoba oprávněná uspořádat technický soubor:

Jméno Marcel Filz
Adresa Positec Germany GmbH
Postfach 32 02 16, 50796 Cologne, Germany




2023/02/02
Allen Ding
Zástupce vrchní konstrukční kanceláře,
Testování & Certifikace
Positec Technology (China) Co., Ltd
18, Dongwang Road, Suzhou Industrial
Park, Jiangsu 215123, P. R. China

BEZPEČNOSTNÉ INŠTRUKCIE BEZPEČNOSŤ VÝROBKU VŠEOBECNÉ BEZPEČNOSTNÉ UPOZORNENIA



VAROVANIE Prečítajte si všetky bezpečnostné varovania, pokyny, zoznáme sa s ilustráciami a technickými údajmi dodanými s týmto elektrickým náradím. Nedodržanie akýchkoľvek nižšie uvedených pokynov môže mať za následok úraz elektrickým prúdom, vznik požiaru alebo vážneho úrazu.

Odložte si všetky varovania a inštrukcie pre budúcu potrebu.

Výraz „elektrické ručné náradie“ vás vo varovaniach odkazuje buď na náradie na elektrický pohon (napájané z elektrickej siete) alebo na akumulátorové náradie (napájané z akumulátora).

1) Bezpečnosť na pracovisku

- a) **Udržujte pracovisko čisté a dobre osvetlené.** Pracovisko plné nepotrebných predmetov alebo slabo osvetlené zvyšuje možnosť úrazu.
- b) **Nepoužívajte elektrické ručné náradie v prostredí náchylnom na explóziu, ako napríklad v prítomnosti horľavých tekutín, plynov alebo prachu.** Elektrické ručné náradie vytvára iskry, ktoré môžu vznietiť prach alebo výpar.
- c) **Udržujte deti a prizerajúcich sa v dostatočnej vzdialenosti pri práci s elektrickým ručným náradím.** Strata pozornosti môže viesť k strate kontroly nad náradím.

2) Bezpečnosť pri práci s elektrinou

- a) **Prípojky elektrického ručného náradia musia byť zhodné so zástrčkami.** Nemodifikujte prípojku žiadnym spôsobom. Nepoužívajte spolu s uzemneným ručným náradím žiadne adaptérové prípojky, ktoré neumožňujú ochranu uzemnením. Pôvodné prípojky a k nim prislúchajúce zástrčky znižujú riziko úrazu elektrickým prúdom.
- b) **Vyhýbajte sa kontaktu s uzemnenými povrchmi, ako napríklad rúrkami, radiátormi, sporákmi a chladničkami.** Keď je vaše telo spojené s uzemneným predmetom alebo stojí na uzemnenom území, je zvýšené riziko elektrického šoku.
- c) **Nevystavujte ručné náradie dažďu alebo vlhkým podmienkam.** Keď sa voda dostane pod povrch elektrického ručného náradia, je zvýšené riziko elektrického šoku.

- d) **Nezaobchádzajte s káblom prípojky necitlivo.** Nikdy si neprítahujte elektrické ručné náradie k sebe pomocou kábla, neťahajte ho za sebou pomocou kábla a nevytrhávajte kábel zo zástrčky aby ste ručné náradie vyplí. Nevystavujte kábel vysokým teplotám, oleju, ostrým hranám alebo pohyblivým časťami. Poškodené alebo zamotané káble môžu viesť k zvýšenému riziku elektrického šoku.
- e) **Pri práci s ručným náradím v exteriéri použite predlžovací kábel vhodný na použitie v exteriéri.** Použitie kábla vhodného na použitie v exteriéri redukuje riziko vzniku elektrického šoku.
- f) **Pokiaľ je práca s ručným náradím vo vlhkých podmienkach nevyhnutná, použite napájanie chránené ističom typu prúdový chránič (RCD).** Použitie RCD ističa redukuje riziko vzniku elektrického šoku.
- 3) **Osobná bezpečnosť**
 - a) **Buďte sústredení, sledujte, čo robíte, a pri práci s ručným náradím sa riaďte zdravým rozumom.** Nepoužívajte ručné náradie, keď ste unavení alebo pod vplyvom omamných látok, alkoholu alebo liekov. Moment nepozornosti pri práci s ručným náradím môže viesť k vážnemu osobnému zraneniu.
 - b) **Použite osobné ochranné pomôcky. Vždy noste ochranu očí.** Ochranné pomôcky, ako napríklad protiprachová maska, topánky s protišmykovou podrážkou alebo chrániče sluchu použité v príslušných podmienkach pomáhajú redukovat' vážne osobné zranenia.
 - c) **Predídte neúmyselnému zapnutiu.** Uistite sa, že prepínač je vo vypnutej pozícii, pred tým, než zapojíte náradie do elektriny a/alebo k akumulátoru, pri zdvihnutí alebo nosení náradia. Nosenie náradia s prstom na prepínači alebo aktívneho náradia, ktoré je zapnuté, zvyšuje možnosť úrazu.
 - d) **Odstraňte akékoľvek nastavovacie kľúče alebo kľúče na matice a skrutky pred tým, než zapnete ručné náradie.** Nastavovací alebo iný kľúč ponechaný pripavený na rotujúcej časti ručného náradia môže spôsobiť osobný úraz.
 - e) **Nepreceňujte sa. Udržujte si stabilitu a pevnú zem pod nohami za každých podmienok.** Umožňuje vám to lepšiu kontrolu nad ručným náradím v neočakávaných situáciách.
 - f) **Oblečte sa náležite. Nenoste voľné oblečenie alebo šperky.** Svoje vlasy a voľné oblečenie držte mimo dosahu pohyblivých častí. Voľné oblečenie, šperky alebo dlhé vlasy sa môžu do pohyblivých častí zachytiť.
 - g) **Pokiaľ sú zariadenia nastavené na spojenie so zariadeniami na zachytávanie a extrakciu prachu, uistite sa, že sú náležite využitie a pripojené.** Použitím zberača prachu redukuje

riziká spojené s prachom.

- h) **Nedovoľte, aby ste vďaka skúsenostiam získaným častým používaním elektrického náradia prestali dodržiavať základy bezpečného použitia.** Neopatrný úkon môže spôsobiť vážny úraz v priebehu zlomku sekundy.
- 4) **Použitie a údržba ručného náradia**
- a) **Nepreťažujte ručné náradie. Použite správne ručné náradie na danú činnosť.** Správne ručné náradie spraví prácu lepšie a v medziach, na ktoré bolo navrhnuté.
- b) **Nepoužívajte ručné náradie, pokiaľ sa prepínač neprepína medzi zapnutím a vypnutím.** Akékoľvek ručné náradie, ktoré nie je kontrolovateľné prepínačom, je nebezpečné a musí byť opravené.
- c) **Pred akýmkoľvek nastavením, výmenou násad alebo uskladnením elektrického náradia vytiahnite sieťovú zástrčku zo zásuvky alebo, ak to bude možné, vytiahnite akumulátor.** Takéto preventívne bezpečnostné opatrenia redukujú riziko náhodného zapnutia ručného náradia.
- d) **Keď ručné náradie nepoužívate, skladujte ho mimo dosahu detí a nedovoľte osobám, ktoré nemajú skúsenosti s prácou s ručným náradím alebo neboli oboznámené s týmito inštrukciami, dotýkať sa náradia.** Ručné náradie je nebezpečné v rukách netrénovanej osoby.
- e) **Vykonávajte pravidelnú údržbu elektrického náradia a príslušenstva. Skontrolujte chybné pripojenia alebo spojenia pohyblivých častí, zlomené časti alebo iné okolnosti, ktoré by mohli ovplyvniť funkčnosť ručného náradia. Pri poškodení musí byť pred použitím najprv elektrické ručné náradie opravené.** Mnoho úrazov vzniká preto, že je elektrické ručné náradie zle udržiavané.
- f) **Udržujte rezacie nástroje ostré a čisté.** Náležite udržiavané rezacie nástroje s ostrými rezacími hranami sú menej náchylné na „zaseknutie“ a sú ľahšie ovládateľné.
- g) **Používajte elektrické náradie v súlade s týmito pokynmi, berte pritom do úvahy pracovné podmienky a druh vykonávanej práce.** Ak sa elektrické náradie použije na iné účely, než na čo je určené, môže dochádzať k nebezpečným situáciám.
- h) **Rukoväte a povrchy držiadiel udržiavajte suché, čisté, bez mazív a tukov.** Šmyklivé rukoväte a držiadlá neumožňujú bezpečnú manipuláciu a obsluhu náradia v neočakávaných situáciách.
- 5) **Servis**
- a) **Servisné práce na náradí nechajte vykonať kvalifikovaných pracovníkov s použitím originálnych náhradných dielov.** Výsledkom bude trvalá bezpečnosť pri práci s elektrickým náradím.

BEZPEČNOSTNÉ POKYNY PRE KLADIVÁ

- 1) **Bezpečnostné pokyny týkajúce sa všetkých operácií**
- a) **Používajte chrániče sluchu.** Vystavenie nadmernému hluku môže spôsobiť stratu sluchu.
- b) **Používajte prídavné rukoväti, dodané s náradím.** Ak stratíte nad náradím kontrolu, môže dôjsť k zraneniu osôb.
- c) **Pri vykonávaní takej práce, pri ktorej by mohol nástroj natrafiť na skryté elektrické vedenia alebo zasiahnuť samotnú prírodnú šnúru náradia, držte náradie len za izolované plochy rukovätí.** Kontakt s elektrickým vedením, ktoré je pod napätím, môže dostať pod napätie aj kovové súčiastky náradia a spôsobiť zásah elektrickým prúdom.
- 2) **Bezpečnostné pokyny pri používaní dlhých vrtákov s rotačnými vrtacími kladivami**
- a) **Vrtáť vždy začinite pri nízkych otáčkach a s hrotom vrtáka v kontakte s obrobkom.** Ak bude môcť vrták rotovať voľne bez kontaktu, môže sa pri vyšších otáčkach ohnúť, čo môže viesť k zraneniu osôb.
- b) **Vyvíjajte tlak s vrtákom len v priamom smere a nevyvíjajte príliš veľký tlak.** Vrtáky sa môžu ohnúť, čo môže spôsobiť zlomenie alebo stratu kontroly s následkom zranenia osôb.

DOPLNKOVÉ BEZPEČNOSTNÉ POKYNY PRE VRTACIE KLADIVA

1. Vždy používajte ochrannú masku proti prachu.

SYMBOLY

	S cieľom znížiť nebezpečenstvo vzniku zranenia je potrebné prečítať si túto príručku.
	Dvojité izolácia
	Výstraha
	Použite ochranu uší

	Použite ochranu očí
	Použite respirátor
	Noste ochranné rukavice
	Pred každou prácou na samotnom stroji vytiahnite sieťovú zástrčku z elektrickej zásuvky.
	Plast
	Betónu
	Murivo
	Drevo
	Kovu
	Vysoké otáčky
	Nízke otáčky
	Držiak nástrojov
	Vrtanie s príklepom

	Sekanie
	Vrtanie
	Elektrické výrobky sa nesmú likvidovať spolu s domácim odpadom. Recyklujte v zberných miestach na tento účel zriadených. O možnosti recyklácie sa informujte na miestnych úradoch alebo u predajcu.

ZOZNAM SÚČASTÍ

1. VYPÍNAČ KOMBINOVANÝ S REGULÁTOROM OTÁČOK
2. ARETAČNÉ TLAČÍTKO ZAPNUTIA
3. OVLÁDANIE SMERU OTÁČANIA
4. VOLIČ PREVÁDZKOVÉHO REŽIMU
5. ZASTAVOVAČ HLĚBKY
6. PRACHOTESNÝ GUMOVÝ KRYT
7. RÝCHLOUPÍNACIE SKLÚČIDLO SDS-PLUS
8. NASTAVITELNÝ HLĚBKOVÝ DORAZ
9. PRÍDAVNÁ RUKOVÄŤ

Štandardná dodávka neobsahuje všetko zobrazené, či popísané príslušenstvo.

TECHNICKÉ ÚDAJE

Typ **WX337 WT335 WT343 WX339 WX339.X** (330~359-
- označenie zariadenia, zástupca Vrtacie kladivo)

	WX337 WT335	WT343 WX339 WX339.X*
Menovité napätie	230-240V~50/60Hz	
Menovitý príkon	750W	800W
Otáčky naprázdno	0-1050/min	

Počet príklepov	0-5300bpm	
Energia úderu	2.0J	2.5J
Trieda ochrany	 /II	
Vŕtací výkon		
Murivo	24mm	26mm
Oceľ	13mm	
Drevo	30mm	
Hmotnosť stroja	3.3 kg	

* X = 1-999, A-Z, M1-M9 sú len pre rôznych zákazníkov, medzi týmito modelmi nie sú žiadne zmeny týkajúce sa bezpečnosti.

Odporúčame, aby ste si kupovali príslušenstvo z obchodu, kde sa nástroje predávajú. Ďalšie podrobnosti nájdete v balíku príslušenstva. Personál obchodu vám môže pomôcť a poradiť vám.

INFORMÁCIE O HLUČNOSTI

Nameraný akustický tlak $L_{pA} = 98,8 \text{ dB(A)}$

Nameraný akustický výkon $L_{WA} = 109,8 \text{ dB(A)}$

K_{WA} & $K_{pA} = 3.0 \text{ dB(A)}$

Použite ochranu uší

VIBRÁCIÁCH

Výsledné celkové hodnoty pre vibrácie (suma pre trojosový vektor) stanovené podľa normy EN 62841:

Príklepové vŕtanie do betónu	Hodnota emisie vibrácií $a_{h,HD}$ =14,558 m/s ²
	Neurčitost' K=1.5m/s ²
Sekanie	Hodnota emisie vibrácií $a_{h,Cheq}$ =12,475 m/s ²
	Neurčitost' K=1.5m/s ²

Deklarovaná celková hodnota vibrácií a deklarovaná úroveň vytváraného hluku boli merané v súlade so štandardnými skúšobnými postupmi a môžete ich použiť na vzájomné porovnanie jednotlivých náradí. Deklarovaná celková hodnota vibrácií a deklarovaná úroveň vytváraného hluku môžu byť tiež použité na predbežné stanovenie doby práce s náradím.



VAROVANIE: Vibrácie a hlučnosť pri aktuálnom použití elektrického náradia sa od deklarovaných môžu líšiť v závislosti od spôsobu, akým je náradie používané, a hlavne od typu spracovávaného obrobku podľa nasledujúcich príkladov a ďalších spôsobov, akými je náradie používané:

Ako sa náradie používa a aké materiály sa budú rezať alebo vŕtať.

Náradie musí byť v dobrom stave a musí byť vykonávaná jeho riadna údržba.

S náradím sa musí používať správne príslušenstvo, a toto príslušenstvo musí byť ostré a v dobrom stave.

Pevnosť uchopenia rukoväti a či je použité akékoľvek príslušenstvo znižujúce úroveň vibrácií a hluku.

Toto náradie môže byť použité iba na určené účely a podľa týchto pokynov.

Ak sa toto náradie nepoužíva zodpovedajúcim spôsobom, môže spôsobiť syndróm choroby spôsobenej pôsobením vibrácií na ruky a paže obsluhy.



VAROVANIE: Ak chcete byť presní, odhad času pôsobenia vibrácií v aktuálnych podmienkach pri použití tohto náradia by mal brať do úvahy taktiež všetky časti pracovného cyklu, ako sú časy, kedy je náradie vypnuté a kedy je v chode vo voľnobežných otáčkach, ale v skutočnosti nevykonáva žiadnu prácu. Čas pôsobenia vibrácií tak môže byť v rámci celkového pracovného času značne skrátený.

Pomáha minimalizovať riziko pôsobenia vibrácií a hluku. VŽDY používajte ostré sekáče, vŕtáky a nože.

Vykonávajte údržbu tohto náradia podľa týchto pokynov a zaistite jeho riadne mazanie (ak je to vhodné).

Ak bude náradie používané pravidelne, potom investujte do príslušenstva znižujúceho úroveň vibrácií a hluku.

Vypracujte si svoj plán práce, aby ste pôsobenie vysokých vibrácií tohto náradia rozdelili do niekoľkých dní.

NÁVOD NA POUŽITIE



POZNÁMKA: Pred tým, ako náradie použijete, prečítajte si návod na použitie.

ÚČEL POUŽITIA

Stroj je určený na vŕtanie s príklepom do betónu, tehál a kameňa, ako aj pre ľahké sekacie práce.



VÝSTRAHA: Pred každou prácou na samotnom stroji vyťahnite sieťovú zástrčku z elektrickej zásuvky.

OBSLUHA

Krok	Obrázok
ZAKLADANIE A VYBERANIE VRTÁKOV V SYSTÉME SDS-PLUS	Pozri Obr. A1 & A2
Prispôsobenie pomocnej rúčky	Pozri Obr. B
Prispôsobenie pomocnej rúčky	Pozri Obr. C
Pripojenie napájania	Pozri Obr. D
VYPÍNAČ ON/OFF KOMBINOVANÝ S REGULÁTOROM OTÁČOK	Pozri Obr. E
OVLÁDANIE SMERU OTÁČANIA  VAROVANIE: Smer otáčanie nikdy nemeňte, pokým sa motor otáča, počkajte, kým sa stroj zastaví.	Pozri Obr. F
Výber prevádzkového režimu Poloha priklepového vrtania je vhodná pre vrtanie sprevádzané údermi do muriva alebo betónu.  Pre funkciu skrutkovača, vrtanie do dreva, kovu alebo plastu zvolte režim vrtania.  Režim kladiva – ľahké osekávajúce, sekacie a demolačné práce.   VAROVANIE: Volič prevádzkového režimu sa smie používať iba ak sa motor neotáča.  VAROVANIE: Pri dlhšom používaní sa hliníkový kryt náradia môže silne zahriať, nedotýkajte sa ho	Pozri Obr. G

DOBRE RADY PRE PRÁCU S VRTACÍM KLDIVOM (HAMMER)

Ak sa vaše náradie príliš zahreje, nastavte maximálne otáčky a nechajte motor bežať naprázdno 2-3 minúty. SDS-plus vrtáky s bitmi z karbidu wolfrámu (WC) sú vhodné pre vrtanie do betónu a muriva. Pri vrtaní do kovu, používajte iba HSS vrtáky v dobrom stave. Ak používate krátke bity skrutkovača, vždy používajte ich magnetický držiak. Ak je to možné, pri vrtaní väčších otvorov vždy miesto predvrtajte menším priemerom vrtáka.

ÚDRŽBA

Pred vykonaním akéhokoľvek nastavovania, opráv a údržby odpojte náradie od siete.

Vaše náradie nevyžaduje žiadne dodatočné mazanie ani údržbu.

Vaše náradie nevyžaduje žiadny servisný zásah. Svoje náradie nikdy nečistite vodu alebo chemickými čistiacimi prostriedkami. Vytrite ho suchou handrou. Náradie ukladajte na suchom mieste. Vetracie otvory motora udržiavajte čisté. Ovládacie prvky zbavujte prachu. Cez vetracie štrbiny občas možno vidieť iskrenie komutátora. Je to normálny stav a nepoškodzuje to vaše náradie. Ak dôjde k poškodeniu napájacej šnúry, nechajte ju bezpečne vymeniť u výrobcu, v servise alebo inou príslušne kvalifikovanou osobou.

OCHRANA ŽIVOTNÉHO PROSTREDIA

 Elektrické výrobky neslobodno likvidovať spolu s domácim odpadom. Recyklujte v zberných miestach na tento účel zariadených. O možnosti recyklácie sa informujte o miestnych úradoch alebo u predajcu.

VYHLÁSENIE O ZHODE

My,
Positec Germany GmbH
Postfach 32 02 16, 50796 Cologne, Germany

Vyhlasujeme, že tento výrobok,
Popis **WORX Otočné kladivo cirkulárka**
Typ **WX337 WT335 WT343 WX339 WX339.X (330-359--**
označenie zariadenia, zástupca Vrtacie kladivo)
Funkcia **Priklepové vrtanie do rôznych materiálov**

Zodpovedá nasledujúcim smerniciam:
2006/42/EC
2011/65/EU&(EU)2015/863
2014/30/EU

Spĺňa posudzované normy:
EN 62841-1, EN IEC 62841-2-6, EN IEC 55014-1, EN IEC 55014-2, EN IEC 61000-3-2, EN 61000-3-3, EN IEC 63000

Osoba oprávnená za zostavenie technického súboru:
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Adresa Positec Germany GmbH
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2023/02/02
Allen Ding
Zástupca vrchnej konštrukčnej kancelárie,
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VARNOSTNA NAVODILA VARNOST IZDELKA SPLOŠNA VARNOSTNA OPOZORILA



OPOZORILO Pred uporabo orodja, pozorno preberite vsa varnostna opozorila, navodila, preglejte ilustracije ter preverite tehnične podatke orodja. Neupoštevanje opozoril in navodil lahko privede do električnega udara in/ali resnih poškodb.

Vsa opozorila in napotila shranite, ker jih boste v prihodnje še potrebovali.

Pojem „električno orodje“, ki se pojavlja v nadaljnjem besedilu, se nanaša na električna orodja z električnim pogonom (z električnim kablom) in na akumulatorska električna orodja (brez električnega kabla).

1) Varnost na delovnem mestu

- a) **Delovno področje naj bo vedno čisto in dobro osvetljeno.** Nered in neosvetljena delovna področja lahko povzročijo nezgode.
- b) **Ne uporabljajte električnega orodja v okolju, kjer lahko pride do eksplozij oziroma tam, kjer se nahajajo vnetljive tekočine, plini ali prah.** Električna orodja povzročajo iskrenje, zaradi katerega se lahko prah ali para vnameta.
- c) **Prosimo, da med uporabo električnega orodja ne dovolite otrokom ali drugim osebam, da bi se Vam približali.** Odvračanje Vaše pozornosti drugim lahko povzroči izgubo kontrole nad napravo.

2) Električna varnost

- a) **Priključni vtičnik električnega orodja se mora prilegati vtičnici. Spreminjanje vtičnika na kakršenkoli način ni dovoljeno. Pri ozemljenih električnih orodjih ne uporabljajte vtičnikov z adapterji.** Nespremenjeni vtičniki in ustrezne vtičnice zmanjšujejo tveganje električnega udara.
- b) **Zogibajte se telesnemu stiku z ozemljenimi površinami kot so na primer cevi, grelci, štedilniki in hladilniki.** Tveganje električnega udara je večje, če je Vaše telo ozemljeno.
- c) **Prosimo, da napravo zavarujete pred dežjem ali vlago.** Vdor vode v električno orodje povečuje tveganje električnega udara.
- d) **Ne uporabljajte kabla za nošenje ali obešanje električnega orodja in ne vlecite za kabel, če želite vtičnik izvleči iz vtičnice.** Kabel zavarujte pred vročino, oljem, ostrimi robovi ali premikajočimi se deli naprave. Poškodovani ali zapleteni kabli povečujejo tveganje električnega udara.
- e) **Kadar uporabljate električno orodje zunaj,**

uporabljajte samo kabelske podaljške, ki so primerni za delo na prostem. Uporaba kabelskega podaljška, ki je primeren za delo na prostem, zmanjšuje tveganje električnega udara.

- f) **Če je uporaba električnega orodja v vlažnem okolju neizogibna, uporabljajte stikalo za zaščito pred kvarnim tokom.** Uporaba zaščitnega stikala zmanjšuje tveganje električnega udara.

3) Osebna varnost

- a) **Bodite pozorni, pazite kaj delate ter se dela z električnim orodjem lotite z razumom. Ne uporabljajte električnega orodja, če ste utrujeni oziroma če ste pod vplivom mamil, alkohola ali zdravil.** Trenutek nepazljivosti med uporabo električnega orodja je lahko vzrok za resne telesne poškodbe.
- b) **Uporabljajte osebno zaščitno opremo in vedno nosite zaščitna očala.** Nošenje osebne zaščitne opreme, na primer maske proti prahu, nedrsečih zaščitnih čevljev, varnostne čelade ali zaščitnih slušnikov, kar je odvisno od vrste in načina uporabe električnega orodja, zmanjšuje tveganje telesnih poškodb.
- c) **Zogibajte se nenamernemu zagonu. Pred priključitvijo električnega orodja na električno omrežje in/ali na akumulator in pred dviganjem ali nošenjem se prepričajte, če je električno orodje izklopljeno.** Prenašanje naprave s prstom na stikalo ali priključitev vklopljenega električnega orodja na električno omrežje je lahko vzrok za nezgodo.
- d) **Pred vkapljanjem električnega orodja odstranite nastavitvena orodja ali izvijače.** Orodje ali ključ, ki se nahaja v vrtečem se delu naprave, lahko povzroči telesne poškodbe.
- e) **Izogibajte se nenormalni telesni drži. Poskrbite za trdno stojišče in za stalno ravnotežje.** Tako boste v nepričakovanih situacijah električno orodje lahko bolje nadzorovali.
- f) **Nosite primerna oblačila. Ne nosite ohlapnih oblačil in nakita. Poskrbite, da se med delovanjem električnega orodja vaši lasje, oblačila in rokavice, ne bodo ujeli med premikajoče se dele.** Premikajoči se deli orodja lahko zagrabijo ohlapno oblačilo, dolge lase ali nakit.
- g) **Če ima električno orodje predvideno namestitve enot za odsesavanje prahu ali zbiranje delcev, poskrbite, da bodo te tudi pravilno nameščene in uporabljene.** Če uporabljate enoto za zbiranje delcev, obstaja manjša nevarnost nesreč zaradi prahu.
- h) **Upoštevajte, da boste s pogosto uporabo orodja, z njim postali zelo domači, zaradi česar bi lahko ravnali ravnodušno, ter spregledali varnostna pravila za uporabo orodja.** Nepremišljeno ravnanje lahko že v trenutku nepazljivosti,

povzroči resne poškodbe.

4) Skrbna uporaba in ravnanje z električnimi orodji

- a) **Ne preobremenjujte naprave. Pri delu uporabljajte električna orodja, ki so za to delo namenjena.** Z ustreznim električnim orodjem boste v navedenem zmogljivostnem področju delali bolje in varneje.
- b) **Ne uporabljajte električnega orodja s pokvarjenim stikalom.** Električno orodje, ki se ne da več vklopiti ali izklopiti, je nevarno in ga je potrebno popraviti.
- c) **Pred vsakršnimi prilagoditvami, nastavitvami, menjavanjem priključkov ali shranjevanjem, morate električno orodje izklopiti iz napajanja ali iz njega odstraniti akumulator.** Ta previdnostni ukrep preprečuje nenameren zagon električnega orodja.
- d) **Električna orodja, ki jih ne uporabljate, shranjujte izven dosega otrok.** Osebam, ki naprave ne poznajo ali niso prebrale teh navodil za uporabo, naprave ne dovolite uporabljati. Električna orodja so nevarna, če jih uporabljajo neizkušene osebe.
- e) **Električna orodja in pripomočke vedno vzdržujte.** Nadzirajte brezhibno delovanje premičnih delov orodja, ki se ne smejo zatikati. Če so ti deli zlomljeni ali poškodovani do te mere, da ovirajo delovanje električnega orodja, jih je potrebno pred uporabo orodja popraviti. Slabo vzdrževana električna orodja so vzrok za mnoge nezgode.
- f) **Rezalna orodja vzdržujte tako, da bodo vedno ostra in čista.** Skrbno negovana rezalna orodja z ostrimi robovi se manj zatikajo in so lažje vodljiva.
- g) **Električna orodja, pribor, vsadna orodja in podobno uporabljajte ustrezno tem navodilom.** Pri tem upoštevajte delovne pogoje in dejavnost, ki jo boste opravljali. Uporaba električnih orodij v namene, ki so drugačni od predpisanih, lahko privede do nevarnih situacij.
- h) **Poskrbite, da bodo ročaji in ostale prijemalne površine, vedno suhi, čisti in brez ostankov olj ali masti.** Če pride do nepredvidenih situacij, vam spolzki ročaji in prijemalne površine ne zagotavljajo varnega rokovanja in nadzora nad orodjem.
- 5) **Servisiranje**
 - a) **Vaše električno orodje naj popravlja le kvalificirano strokovno osebje, ki uporablja originalne nadomestne dele.** Tako bo zagotovljena predpisana varna uporaba orodja.

- a. **Nosite zaščito za ušesa.** Izpostavljenost hrupu lahko povzroči okvaro sluha.
- b. **Če je strojčku priložen stranski ročaj, ga namestite.** Izguba nadzora lahko povzroči telesne poškodbe.
- c. **Kadar bi med uporabo električnega strojčka lahko z rezalnim orodjem prišli v stik z električno napeljavo, morate slednjega vedno držati za izolirane ročaje.** Če z rezalnim orodjem pridete v stik z električno napeljavo pod "napetostjo", to povzroči, da postanejo "električni" tudi kovinski deli strojčka, zaradi česar uporabnik lahko doživi električni udar.

2) Varnostna navodila pri uporabi dolgih svedrov z vrtnimi kladivi

- a) **Vedno začnite vrtati pri nizki hitrosti in s konico svedra v stiku z obdelovancem.** Pri višjih hitrostih se lahko sveder upogne, če se prosto vrti brez stika z obdelovancem, kar povzroči telesne poškodbe.
- b) **Pritisnite samo v neposredni liniji s svedrom in ne pritiskajte premočno.** Svedri se lahko upognejo, kar povzroči zlom ali izgubo nadzora ter povzroči telesno poškodbo.

DODATNI VARNOSTNI PREDPISI ZA KLADIVO

1. Vedno nosite masko za prah.

SIMBOLI

	Zaradi zmanjševanja nevarnosti poškodb, se temeljito seznanite z navodili za uporabo
	Dvojna izolacija
	Opozorilo
	Uporabljajte zaščito za ušesa
	Uporabljajte zaščito za oči.

VARNOSTNA NAVODILA ZA UDARNO KLADIVO

- 1) Varnostna navodila za vsa delovanja

	Nosite zaščitno masko za prah
	Nosite zaščitne rokavice
	Pred slehernim posegom na napravi, izvlcite napajalni kabel iz vtičnice.
	Plastika
	Beton
	Zidovi
	Les
	Kovina
	Hitro
	Počasi
	Držalo orodja
	Udarno vrtanje
	Dletenje

	Vrtanje
	Odpadnih električnih naprav ne smete zavreči skupaj z ostalimi gospodinjstskimi odpadki. Dostavite jih na mesto za ločeno zbiranje odpadkov. Glede podrobnosti, se posvetujte z lokalno službo za ravnanje z odpadki.

SESTAVNI DELI

- STIKALO ZA VKLOP/IZKLOP
- GUMB ZA ZAKLEPANJE STIKALA
- IZBIRNI GUMB ZA VRTANJE/UDARNO VRTANJE
- GUMB ZA IZBIRO NAČINA
- NASTAVEK ZA GLOBINO
- PROTIPRAŠNI POKROVČEK
- SDS-PLUS "HITRA" ČELJUST
- PRILAGOJEVALNIK GLOBINE
- POMOŽNI ROČAJ

Pri standardni dobavi niso vključeni vsi prikazani dodatki.

TEHNIČNI PODATKI

Vrsta **WX337 WT335 WT343 WX339 WX339.X**
(330~359-- oznaka strojčka, rotacijsko kladivo)

	WX337 WT335	WT343 WX339 WX339.X*
Napetost	230-240V~50/60Hz	
Moč	750W	800W
Št. vrt. brez obremenitve	0-1050/min	
Udarno razmerje	0-5300bpm	
Udarna energija	2.0J	2.5J

Razred zaščite	 / II	
Maks. Kapaciteta vrtanja		
Opeka	24mm	26mm
Jeklo	13mm	
Les	30mm	
Teža strojčka	3.3 kg	

*X = 1-999, A-Z, M1-M9 so samo za različne kupce, med temi modeli ni nobenih varnostnih sprememb.

Priporočamo vam, da dodatke vedno kupujete v isti trgovini, kot ste kupili strojček. Za podrobnosti si oglejte razlage na embalaži kompleta dodatkov. Pri odločanju o ustreznem dodatku, vam lahko pomaga tudi osebe v trgovini.

PODATKI O HRUPU

Vrednotena raven zvočnega tlaka	$L_{pA} = 98,8 \text{ dB(A)}$
Vrednotena raven zvočne moči	$L_{WA} = 109,8 \text{ dB(A)}$
K_{WA} & $K_{pA} = 3.0 \text{ dB(A)}$	

Uporabljajte zaščito za ušesa

PODATKI O VIBRACIJAH

Skupne vrednosti oscilacij (vektorski seštevek treh smeri), skladno z EN 62841:

Udarno vrtnanje v beton	Vrednost emisije vibracij $a_{h,HD} = 14,558 \text{ m/s}^2$
	Nezanesljivost meritve $K=1.5\text{m/s}^2$
Dletenje	Vrednost emisije vibracij $a_{h,Cheq} = 12,475 \text{ m/s}^2$
	Nezanesljivost meritve $K=1.5\text{m/s}^2$

Deklarirana skupna raven vibracij ter deklarirana vrednost emisij hrupa, sta bili izmerjeni skladno s standardno

testno metodo in služita primerjavi orodij med seboj. Deklarirano skupno raven vibracij ter deklarirano vrednost emisij hrupa, lahko uporabljate tudi kot osnovo za ocenjevanje izpostavljenosti.

! OPOZORILO: Dejanski vrednosti emisij vibracij ter hrupa med uporabo orodja, se lahko razlikujeta od navedenih, kajti nanju vpliva tudi način uporabe orodja ter vrsta obdelovanca, predvsem pa naslednje okoliščine: Način uporabe orodja in materiali, ki jih lahko obdelujete. Ali je orodje v dobrem stanju in ustrezno vzdrževano. Ali uporabljate ustrezni dodatek in njegova brezhibnost. Čvrstost oprijema ročajev in morebitna uporaba dodatkov za zmanjševanje vibracij. Uporaba orodja za predviden namen, skladen s temi navodili.

Če orodja ne uporabljate pravilno, lahko povzroči vibracijski sindrom zapestja in rok.

! OPOZORILO: Če želimo resnično natančno oceniti raven izpostavljenosti v dejanskih okoliščinah, moramo upoštevati tudi vse faze delovnega procesa, tudi število vklopov in izklopov strojčka ter čas, ko deluje v prostem teku in neobremenjeno. To lahko znatno zmanjša raven izpostavljenosti tekom celotnega delovnega procesa.

Pomoč pri zmanjševanju tveganja pri izpostavljenosti vibracijam in hrupu.

VEDNO uporabljajte le ostre pripomočke.

Orodje vzdržujte skladno s temi navodili in poskrbite, da bo dobro namazano (kjer je potrebno).

Če boste orodje uporabljali redno, potem investirajte v dodatke za zmanjševanje vibracij in hrupa.

Delo si organizirajte tako, da boste opravila z visoko ravno vibracij izvajali v več fazah, tekom nekaj dni.

NAVODILA ZA UPORABO

OPOMBA: Preden začnete uporabljati strojček, si pozorno preberite navodila.

NAMEN UPORABE

Strojček je namenjen udarnemu vrtnanju v beton, opeko in kamen, ter za lažja rušitvena dela z dletom. Primeren je tudi za vrtnanje v les, keramiko, kovino ter plastiko.

! OPOZORILO! Pred vsakim delom na strojčku, ga odklopite z napajanja.

DELOVANJE

OPRAVILO	SLIKA
VSTAVLJANJE TER ODSTRANJEVANJE SVEDROV	Glejte sliko A1 & A2

Prilagajanje pomožnega ročaja	Glejte sliko B
Uporaba prilagojevalnika globine	Glejte sliko C
Priklop na napajanje	Glejte sliko D
Nastavljivo stikalo za vklop/izklop	Glejte sliko E
STIKALO ZA VRTENEJ NAPREJ/NAZAJ  OPOZORILO: Nikoli ne spreminjajte smeri vrtenja medtem, ko se čeljust vrti, temveč počakajte, da se zaustavi.	Glejte sliko F
Izbira načina delovanja -Za sočasno vrtenje in udarno vrtenje v beton, opeko ali druge gradbene material, izberite položaj za udarno vrtenje  -Za vijaljenje in vrtnaj ev jeklo, les in plastiko, izberite položaj za običajno vrtenje.  -Le za udarno vrtenje – za lažja rušitvena dela z dletom uporabite udarno vrtenje. 	Glejte sliko G
 OPOZORILO: Način delovanja lahko izbirate s stikalom, ko se glava ne vrti.  OPOZORILO: Daljša uporaba povzroči, da se aluminijasto ohišje segreje, zato se ga ne dotikajte.	

NAPOTKI ZA UPORABO VRTALNIKA(KLADIVO)

Če se orodje pregreje, ga pustite 2 – 3 minute delovati z maksimalno hitrostjo in neobremenjenega, da se motor ustrezno ohladi. SDS-plus vidia svedre lahko uporabljate le za vrtenje v beton in opeko. Pri vrtnanju v kovine, uporabljajte le dobro nabrušene HSS svedre. Pri vijachenju, nastavke vpnite v magnetno držalo. Če če možno, večje luknje vrtajte tako, da najprej uporabite sveder manjšega premera, nato pa luknjo povrtate z večjim.

VZDRŽEVANJE

Pred vsakim prilagajanjem, servisiranjem ali vzdrževanjem izvlecite vtičnik iz vtičnice.

Vašega strojčka ne rabite dodatno mazati. Strojček tudi nima nobenih delov, ki bi jih morali servisirati. Za čiščenje strojčka nikoli ne uporabljajte vode ali kemičnih

sredstev. Obrisite ga le s suho krpo. Strojček vedno shranjujte na suhem mestu. Poskrbite, da bodo prežračevalne odprtine čiste. Vsi elementi krmiljenja morajo biti čisti, brez prahu. Če je napajalni kabel poškodovan, ga lahko zamenja le proizvajalec, njegov serviser ali podobno usposobljene osebe, sicer obstaja nevarnost poškodb.

VAROVANJE OKOLJA

 Odpadnih električnih naprav ne smete zavreči skupaj z ostalimi gospodinjstvi odpadki. Dostavite jih na mesto za ločeno zbiranje odpadkov. Glede podrobnosti, se posvetujte z lokalno službo za ravnanje z odpadki.

IZJAVA O SKLADNOSTI

Mi,
Positec Germany GmbH
Postfach 32 02 16, 50796 Cologne, Germany

Izjavljamo, da je izdelek,
Opis izdelka **WORX rotacijsko kladivo**
Vrsta izdelka **WX337 WT335 WT343 WX339 WX339.X**
(330-359—oznaka naprave, predstavnik rotacijskih kladiv)
Funkcija **Udarno vrtenje v različne materiale**

Skladen z naslednjimi direktivami,
2006/42/EC
2011/65/EU&(EU)2015/863
2014/30/EU

In izpolnjuje naslednje standarde:
EN 62841-1, EN IEC 62841-2-6, EN IEC 55014-1, EN IEC 55014-2, EN IEC 61000-3-2, EN 61000-3-3, EN IEC 63000

Oseba, ki je pooblaščen za skladnost tehnične dokumentacije,

Ime **Marcel Filz**
Naslov **Positec Germany GmbH**
Postfach 32 02 16, 50796 Cologne, Germany




2023/02/02
Allen Ding
Namestnik glavnega inženirja,
Testiranje in certifikacija
Positec Technology (China) Co., Ltd
18, Dongwang Road, Suzhou Industrial
Park, Jiangsu 215123, P. R. China

ИНСТРУКЦИИ ПО БЕЗОПАСНОСТИ БЕЗОПАСНОСТЬ ИЗДЕЛИЯ ОБЩИЕ ПРЕДОСТЕРЕЖЕНИЯ ПО ТЕХНИКЕ БЕЗОПАСНОСТИ ПРИ РАБОТЕ С

ЭЛЕКТРОИНСТРУМЕНТОМ



ПРЕДОСТЕРЕЖЕНИЕ Внимательно ознакомьтесь со всеми предупреждениями по технике безопасности, инструкциями, рисунками и спецификациями, прилагаемыми к этому электроинструменту. Невыполнение всех нижеприведенных инструкций и рекомендаций может привести к поражению электрическим током, пожару и/или серьезным травмам.

СОХРАНИТЕ ВСЕ ИНСТРУКЦИИ И ПРЕДОСТЕРЕЖЕНИЯ ДЛЯ ДАЛЬНЕЙШЕГО ИСПОЛЬЗОВАНИЯ.

Термин “электроинструмент” в предупреждениях относится к вашему электроинструменту с питанием от сети (шнур) или к электроинструменту с батарейным питанием (беспроводной).

1) БЕЗОПАСНОСТЬ РАБОЧЕЙ ЗОНЫ

- a) **Держите рабочую зону чистой и хорошо освещенной.** Загроможденные или затемненные зоны предрасполагают к несчастным случаям.
- b) **Не используйте электроинструменты во взрывоопасных средах, например, в присутствии легковоспламеняющихся жидкостей, газов или пыли.** Электроинструменты создают искры, которые могут воспламенить пыль или пары.
- c) **Держите детей и прохожих в стороне во время работы с электроинструментом.** Отвлекающие факторы могут привести к потере контроля над инструментом.

2) ЭЛЕКТРОБЕЗОПАСНОСТЬ

- a) **Вилки с электроинструментом должны соответствовать розетке. Никогда не изменяйте штепсель каким-либо образом. Запрещается использовать любые переходники с заземленными электроинструментами.** Не модифицированные вилки и соответствующие розетки уменьшают риск поражения электрическим током.
- b) **Избегайте контакта тела с заземленными поверхностями, такими как трубы, радиаторы, плиты и холодильники.** Существует

повышенный риск поражения электрическим током, если ваше тело заземлено.

- c) **Не подвергайте электроинструмент воздействию дождя или влажности.** Вода, попадающая в электроинструмент, повысит риск поражения электрическим током.
- d) **Запрещается применять шнур не по назначению. Никогда не используйте шнур для переноски, вытягивания или отсоединения электроинструмента. Держите шнур вдали от тепла, масла, острых краев или движущихся частей.** Поврежденные или запутанные шнуры повышают риск поражения электрическим током.
- e) **При работе с электроинструментом на открытом воздухе используйте удлинитель, предназначенный для использования на открытом воздухе.** Использование шнура, подходящего для использования на открытом воздухе, снижает риск поражения электрическим током.
- f) **Если работа электроинструмента во влажном месте неизбежна, используйте устройство защитного отключения.** Использование УЗО снижает риск поражения электрическим током.

3) ЛИЧНАЯ БЕЗОПАСНОСТЬ

- a) **Будьте внимательны, следите за тем, что вы делаете, и пользуйтесь здравым смыслом при работе с электроинструментом. Не используйте электроинструмент во время усталости или под воздействием наркотиков, алкоголя или медикаментов.** Невнимательность при работе электроинструмента может привести к серьезной травме.
- b) **Используйте средства индивидуальной защиты. Всегда надевайте защитные очки.** Защитное оборудование, такое как пылезаститная маска, несскользящая защитная обувь, каски или защита слуха, используемые для соответствующих условий, уменьшат риск возникновения травмы.
- c) **Предотвращение непреднамеренного запуска. Перед подключением к источнику питания и/или батарейному блоку убедитесь, что переключатель находится в положении “выключено”.** Перенос электроинструментов с пальцем на выключателе или зарядка включенных электроинструментов приводит к несчастным случаям.
- d) **Перед включением электроинструмента уберите любые посторонние гаечные ключи.** Ключ, прикрепленный к вращающейся части электроинструмента, может стать причиной травмы.
- e) **Не наклоняйтесь. Постоянно сохраняйте равновесие.** Это позволяет лучше контролировать электроинструмент в неожиданных ситуациях.
- f) **Одевайтесь должным образом. Не надевайте свободную одежду или украшения. Держите**

волосы, одежду и перчатки вдали от движущихся частей. Свободная одежда, ювелирные изделия или длинные волосы могут быть зацеплены движущимися частями.

- g) Если устройства оборудованы соединением для удаления пыли и подключения коллекторов, убедитесь, что такое оборудование подключено и используется должным образом. Использование пылеулавливателей может уменьшить опасность, связанную с пылью.
- h) Не позволяйте опыту, полученному при частом использовании инструментов, расслабиться и игнорировать принципы безопасной работы с инструментами. Неосторожное действие может привести к серьезной травме в течение доли секунды.

4) ИСПОЛЬЗОВАНИЕ ЭЛЕКТРОИНСТРУМЕНТА И УХОД ЗА НИМ

- a) Запрещается избыточно загружать электроинструмент. Используйте подходящий электроинструмент для вашей работы. Правильно подобранный электроинструмент сделает работу, для которой он был разработан, лучше и безопаснее.
- b) Не используйте электроинструмент, если выключатель не работает. Любой электроинструмент, который не может управляться с помощью переключателя, опасен и должен быть отремонтирован.
- c) Перед выполнением любых регулировок, заменой принадлежностей или хранением электроинструмента отсоедините штекер от источника питания и / или аккумуляторной батареи от электроинструмента. Такие предупредительные меры безопасности уменьшают риск случайного запуска электроинструмента.
- d) Храните электроинструменты в недоступном для детей месте и не позволяйте лицам, незнакомым с электроинструментом или с этой инструкцией, работать с ним. Инструменты опасны в руках необученных пользователей.
- e) Обслуживайте электроинструменты. Проверьте несоосность движущихся частей, поломку деталей и любые другие состояния, которые могут повлиять на работу электроинструмента. В случае повреждения отремонтируйте электроинструмент перед использованием. Многие несчастные случаи связаны с плохим обслуживанием электроинструментов.
- f) Поддерживайте заточку и чистоту режущих инструментов. Правильно обслуживаемые режущие инструменты с острыми режущими кромками легче контролировать, и снижается вероятность их деформации.
- g) Используйте электроинструмент, принадлежности и т. д. в соответствии с этими инструкциями, с учетом условий выполняемой работы. Использование электроинструмента

для операций, отличающихся от предназначенного использования, может привести к опасной ситуации.

- h) Следите, чтобы руки и захватные поверхности были сухими, чистыми и свободными от смазочного масла и консистентной смазки. Скользкие ладони и захватные поверхности не позволят безопасно обращаться с инструментом и контролировать его в непредвиденных ситуациях.

5) ОБСЛУЖИВАНИЕ

- a) Обслуживайте свой инструмент только с помощью квалифицированного специалиста по ремонту, используя только идентичные запасные части. Это обеспечит поддержание безопасности электроинструмента.

ПРАВИЛА ТЕХНИКИ БЕЗОПАСНОСТИ ПРИ РАБОТЕ С ПЕРФОРАТОРОМ

1) Инструкции по технике безопасности для всех видов работ

- a. Надевайте защитные наушники. Воздействие шума может привести к потере слуха.
- b. Используйте вспомогательную ручку(и), если она поставляется вместе с инструментом. Потеря контроля может привести к травме.
- c. Держите электроинструмент за изолированные поверхности для захвата, когда выполняете операцию, в которой режущая часть может коснуться скрытой проводки или собственного шнура инструмента. Режущая часть, контактирующая с проводом под напряжением, может способствовать тому, что металлические детали электроинструмента окажутся под напряжением, и это может привести к поражению электрическим током.

2) Инструкции по технике безопасности при использовании удлиненных сверл с перфораторами

- a) Обязательно начинайте сверление на малой скорости, когда наконечник сверла соприкасается с заготовкой. На более высокой скорости свободное вращающееся без контакта с заготовкой сверло может погнуться, приводя к получению травм.
- b) Прилагайте усилие строго в направлении сверла и избегайте чрезмерного давления. Сверла могут погнуться, что вызовет их поломку и потерю контроля, приводя к получению травм.

ДОПОЛНИТЕЛЬНЫЕ ПРАВИЛА ТЕХНИКИ БЕЗОПАСНОСТИ ДЛЯ ПЕРФОРАТОРА

1. Всегда надевайте пылезащитную маску.

УСЛОВНЫЕ ОБОЗНАЧЕНИЯ

	Для сокращения риска травмы пользователь должен прочитать руководство по эксплуатации инструмента
	Двойная изоляция
	Предостережение
	Носите защиту органов слуха
	Носите защиту органов зрения
	Носите пылезащитную маску
	Носите защитные перчатки
	Перед выполнением каких-либо работ на самом инструменте вытащите вилку питания из розетки.
	Пластик
	Бетон

	Каменная кладка
	Дерево
	Металл
	Высокая скорость
	Низкая скорость
	Ударное сверление
	Долбление
	Безударное сверление
	Устройство зажима инструмента

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ПЕРЕЧЕНЬ КОМПОНЕНТОВ

1. ПЕРЕКЛЮЧАТЕЛЬ ВКЛ./ВЫКЛ.
2. КНОПКА БЛОКИРОВКИ ПЕРЕКЛЮЧАТЕЛЯ
3. ПЕРЕКЛЮЧАТЕЛЬ ВРАЩЕНИЯ ВПЕРЕД / ОБРАТНОГО ВРАЩЕНИЯ
4. РЕГУЛЯТОР ВЫБОРА РЕЖИМА РАБОТЫ
5. ГЛУБИНОМЕР
6. ПЫЛЕЗАЩИТНЫЙ КОЛПАЧОК

7. БЫСТРОЗАЖИМНОЙ ПАТРОН SDS-PLUS

8. РЕГУЛИРУЕМЫЙ ОГРАНИЧИТЕЛЬ ГЛУБИНЫ

9. ВСПОМОГАТЕЛЬНАЯ РУЧКА

Не все показанные или описанные аксессуары включены в стандартную поставку.

ТЕХНИЧЕСКИЕ ДАННЫЕ

Тип: **WX337 WT335 WT343 WX339 WX339.X**
(330~359- обозначение инструмента, модель перфораторов)

	WX337 WT335	WT343 WX339 WX339.X*
Напряжение	230-240 В ~ 50/60 Гц	
Входная мощность	750 Вт	800 Вт
Скорость без нагрузки	0-1050/мин	
Скорость ударного воздействия	0-5300 уд/мин	
Энергия при ударе	2,0 Дж	2,5 Дж
Класс защиты	 /II	
Макс. глубина сверления		
Каменная кладка	24 мм	26 мм
Сталь	13 мм	
Дерево	30 мм	
Вес инструмента	3,3 кг	

*X=1-999, A-Z, M1-M9 используются только для разных инструментов. Безопасная соответствующая замена между данными моделями невозможна

Мы рекомендуем вам приобрести аксессуары в том же магазине, где вам продали инструмент. Для получения дополнительной информации см. упаковку. Сотрудники магазина смогут помочь вам и дать совет.

ИНФОРМАЦИЯ О ШУМЕ

Измеренное звуковое давление $L_{pA} = 98,8 \text{ дБ(А)}$

Измеренная мощность звука $L_{wA} = 109,8 \text{ дБ(А)}$

K_{pA} и $K_{wA} = 3,0 \text{ дБ(А)}$

Носите защиту органов слуха

ИНФОРМАЦИЯ О ВИБРАЦИИ

Суммарные значения вибрации (трехкомпонентная векторная сумма), определенные согласно EN 62841:

	Измеренная вибрация:	Погрешность
Ударное сверление в бетоне	$a_{h,HD} = 14,558 \text{ м/с}^2$	$K = 1,5 \text{ м/с}^2$
Долбление	$a_{h,Chetq} = 12,475 \text{ м/с}^2$	$K = 1,5 \text{ м/с}^2$

Заявленное общее значение вибрации и заявленное значение шума были измерены в соответствии со стандартным методом испытаний и могут использоваться для сравнения одного инструмента с другим. Заявленное общее значение вибрации и заявленное значение уровня шума также могут использоваться для предварительной оценки воздействия.

⚠ ПРЕДОСТЕРЕЖЕНИЕ! Значение вибрации при фактическом использовании электроинструмента может отличаться от заявленного значения в зависимости от способов использования инструмента: Вариантов его применения и обрабатываемых или шлифуемых материалов. Исправности инструмента и его правильного технического обслуживания. Использования соответствующих аксессуаров и состояния всех режущих поверхностей и остроты их кромок. Плотности захвата на рукоятках и использования каких-либо антивибрационных аксессуаров. Использования инструмента в соответствии с его предназначением и этими инструкциями.

Этот инструмент может вызвать тремор рук, если его использование не будет регулироваться должным образом.

ПРЕДОСТЕРЕЖЕНИЕ! Для обеспечения максимальной точности при оценке уровня воздействия в реальных условиях использования должны также учитываться все аспекты рабочего цикла, такие как периоды времени, когда инструмент выключен, а также работает на холостом ходу и не выполняет фактическую работу. Это может значительно снизить уровень воздействия на оператора за весь рабочий период, позволяя минимизировать опасность воздействия вибрации и шума. Всегда используйте заточенные лезвия, сверла и резцы. Обслуживайте этот инструмент в соответствии с данными инструкциями и хорошо смазывайте (при необходимости). Если инструмент используется регулярно, приобретите антивибрационные аксессуары. Планируйте свой график работы, чтобы разбить использование инструментов с высокой вибрацией на несколько дней.

ИНСТРУКЦИИ ПО ЭКСПЛУАТАЦИИ

ПРИМЕЧАНИЕ: Перед использованием инструмента внимательно прочитайте инструкцию.

ПРЕДУСМОТРЕННОЕ ИСПОЛЬЗОВАНИЕ

Инструмент предназначен для ударного сверления в бетоне, кирпиче и камне, а также для несложных работ по долблению. Он также подходит для безударного сверления в дереве, металле, керамике и пластике.

ПРЕДОСТЕРЕЖЕНИЕ: Перед выполнением любых работ на самом инструменте выньте вилку питания из розетки.

ЭКСПЛУАТАЦИЯ

Действие	Рисунок
ВСТАВКА И ИЗВЛЕЧЕНИЕ СВЕРЛА SDS	См. Рис. A1 и A2
Регулировка вспомогательной ручки	См. Рис. B
Использование глубиномера	См. Рис. C
Подключение питания	См. Рис. D
ПЕРЕКЛЮЧАТЕЛЬ ВКЛ./ВЫКЛ. С РЕГУЛЯТОРОМ ЧАСТОТЫ ВРАЩЕНИЯ	См. Рис. E

ПЕРЕКЛЮЧАТЕЛЬ ВРАЩЕНИЯ ВПЕРЕД / ОБРАТНОГО ВРАЩЕНИЯ

ПРЕДОСТЕРЕЖЕНИЕ: Запрещается менять направление вращения, когда инструмент вращается. Подождите, пока он остановится!

См. Рис. F

Выбор режима работы

Для одновременного сверления и ударного воздействия на бетон или каменную кладку выберите положение для ударного сверления.  Для завинчивания винтов, сверления в металле, дереве или пластике выберите положение для сверления.  Только для ударного воздействия: для выполнения работ по зачистке, долблению или разламыванию выберите положение для ударного воздействия. 

См. Рис. G

ПРЕДОСТЕРЕЖЕНИЕ: Регулятор выбора режима работы может быть приведен в действие только тогда, когда инструмент выключен.

ПРЕДОСТЕРЕЖЕНИЕ: При длительном использовании алюминиевый корпус нагревается, не прикасайтесь к нему.

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СОВЕТЫ ПО РАБОТЕ С ДРЕЛЬЮ (ПЕРФОРАТОРОМ)

Если ваш электроинструмент перегрелся, установите скорость на максимум и дайте ему поработать без нагрузки 2-3 минуты, чтобы охладить двигатель. Для бетона и каменной кладки всегда должны использоваться сверла из карбида вольфрама SDS-plus. При сверлении в металле используйте только сверла HSS в хорошем состоянии. Всегда используйте магнитный держатель для бит при использовании коротких наконечников отверток. По возможности, используйте направляющее отверстие перед сверлением отверстия большого диаметра.

ТЕХНИЧЕСКОЕ ОБСЛУЖИВАНИЕ

Выньте вилку питания из розетки перед выполнением любых наладочных работ, технического обслуживания или ремонта. Электроинструмент не требует дополнительной смазки или обслуживания. В электроинструменте

отсутствуют детали, подлежащие обслуживанию пользователем. Никогда не используйте воду или химические чистящие средства для чистки электроинструмента. Протирайте его сухой тканью. Всегда храните электроинструмент в сухом месте. Содержите в чистоте вентиляционные отверстия двигателя. Очищайте от пыли все рабочие органы управления.

Если шнур питания поврежден, он должен быть заменен производителем, его сервисным агентом или специалистами с аналогичной квалификацией, чтобы избежать опасности.

2023/02/02

Allen Ding

Заместитель главного инженера,

Тестирование и сертификация

Positec Technology (China) Co., Ltd.

18, Dongwang Road, Suzhou Industrial
Park, Jiangsu 215123, P. R. China

ЗАЩИТА ОКРУЖАЮЩЕЙ СРЕДЫ



Отходы электротехнической продукции не следует утилизировать с бытовыми отходами. Они должны быть доставлены в местный центр утилизации для надлежащей переработки.

ДЕКЛАРАЦИЯ СООТВЕТСТВИЯ

Компания,

Positec Germany GmbH

Postfach 32 02 16, 50796 Cologne, Germany

Заявляет, что изделие

Описание Перфоратор WORX

Тип WX337 WT335 WT343 WX339 WX339.X

(330~359--обозначение инструмента, модель перфораторов)

Назначение Пробивание отверстий в различных материалах

Соответствует положениям Директив

2006/42/EC

2011/65/EU&(EU)2015/863

2014/30/EU

и стандартам

EN 62841-1, EN IEC 62841-2-6, EN IEC 55014-1, EN IEC 55014-2, EN IEC 61000-3-2, EN 61000-3-3, EN IEC 63000

Лицо с правом компилирования данного
технического

файла,

Имя Marcel Filz

Адрес Positec Germany GmbH

Postfach 32 02 16, 50796 Cologne, Germany



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Россия 7 (495) 136-83-96



EAC

Импортер: ООО «КВТ Эксперт»

Адрес: Россия, Москва, 119607, проспект Мичуринский, дом 31, корпус 7, помещение 40/2

Телефон: +7 (495) 107-02-72

Электронная почта kvt@kvt-service.ru

Страна производства: КНР

Изготовитель: Позитек Технолоджи (КНР) Ко., Лтд.

Адрес: Номер 18, Донванг Роуд, Сучжоу Индастриал Парк, Цзянсу, КНР

Срок службы изделия: 6 лет

Срок гарантии: 2 года

Дата производства изделия: указана на изделии

Уполномоченное лицо для принятия претензий: ООО «ПОЗИТЕК-ЕВРАЗИЯ»

Адрес: Российская Федерация, 117342, г. Москва, ул. Бутлерова, д. 17, этаж 3 ком 67

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www.worx.com

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AR01320508

WORX



WX339

230-240V~ 50/60Hz 800W

n_0 : 0-1050/min

Positec Germany GmbH Postfach 32 02 16, 50796 Cologne, Germany

Positec (UK & Ireland) Ltd PO Box 6242, Newbury, RG14 9LT, UK

Made in China/Fabriqu  en Chine/Hergestellt in China



UK
CA



料号: A002341803

尺寸: 78x15.5mm

材料: PET覆亚膜

颜色: 黑色+P151C

其他:

物料号: AP04158100 (前)

尺寸: 378x186mm(1号盒-WA0071)

材料: 350g双面铜板纸

表面处理: UV上光

四色印刷

CMYK

专色印刷

Pantone 151C

使用防晒油墨(达到6级)

WORX 彩盒上所用大红色为M100Y100



26mm/2.5J/800W

Rotary hammer	EN	Roterende hammer	NOR
Bohrhammer	D	Rotorhammare	SV
Marteau Perforateur	F	Młot obrotowy	PL
Martello Rotativo	I	Ротативен пробивен чук	BG
Martillo rotatorio	ES	Pneumatikus fúrókalapács	HU
Martelo rotativo	PT	Ciocan articulat	RO
Boorhamer	NL	Rotační kladivo	CZ
Rotationshammer	DK	Otočné kladivo	SK
Poravasara	FIN	مطرقة دورانية	AR



AP04158100

物料号: AP04158200 (后)

尺寸: 390x186mm(1号盒-WA0071)

材料: 350g双面铜板纸

表面处理: UV上光

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EN	Three function: chiselling, hammering, drilling	Forward and reverse rotation	Variable speed for greater control when screwing and drilling	Adjustable side handle and depth stop for enhanced control	SDS plus type chuck for quick easy drill bit change
D	Drei Funktionen: Meisseln, Hämmern, Bohren	Rechts-/Linkslauf	Präzises Schrauben und Bohren durch stufenlose Drehzahlregelung	Präzises Arbeiten durch einstellbaren Handgriff mit Tiefenanschlag	SDS plus Bohrfutter für schnellen und einfachen Bohrerwechsel
F	Trois fonctions : burinage, percussion, perçage	Rotation gauche / droite	Vitesse variable pour un meilleur contrôle lors d'opérations de vissage et de perçage	Poignée latérale ajustable et butée de profondeur pour une plus grande maîtrise	Mandrin de type SDS plus pour un changement rapide d'outil
I	Tre funzioni: rotazione, rotazione + percussione, percussione	Rotazione in avanti e indietro	Velocità variabile per un maggiore controllo in avvitatura e foratura	Maniglia laterale con asta profondità di foratura	Mandrino SDS PLUS per sostituzione rapida punte
NL	3 functies: beitelen, hamerboren, boren	Rechts- en linksdraaiend	Regelbare snelheid voor betere controle bij het boren en schroeven	Instelbare zijhandgreep en dieptestop voor betere controle	SDS plus boorkopvoor het gemakkelijk verwisslen van boren
SV	Tre funktioner: mejsling, smide, borrar	Rotering fram och tillbaka	Varierbar hastighet för bättre kontroll vid skruvning och borrar	Justerbart sidehandtag och djupstopp för ökad kontroll	SDS plus typ fastspänningsanordning för fort lätt borrarng del växel
PL	Trzy funkcje: dłutowanie, młot, wiercenie	Przełącznik zmiany prędkości	Zmienna prędkość obrotowa dla lepszej kontroli podczas przykręcania i wiercenia	Regulowany uchwyt boczny i ogranicznik głębokości do zwiększenia kontroli	Uchwyt typu SDS umożliwiają łatwą zmianę bitu
BG	Три функции: длето, чул, пробиване	Превключвател на посоката на въртене	Променлива скорост за по-добър контрол при завинтаване и пробиване	Регулируема странична ръкохватка и ограничител на дълбочина за подобрено управление	SDS plus патронник за бърза и опростена смяна на пробивното острие
HU	Három funkció: véső, kalapács, fúró	Előre és visszafelé forgatás	Állítható sebesség a csavarbehajtás és fúrás nagyobb fokú szabályozása érdekében	Állítható oldalról fogatható és mélységszabályozás a pontosabb megmunkálás érdekében	SDS típusú tokmány a fűrészf gyors és egyszerű cseréje érdekében
RO	Trei funcții: daluire, ciocănire, găurire	Control rotabil sens direct și invers	Viteză variabilă pentru un control mai precis în timpul însurubării și găuririi	Maner lateral ajustabil și opritor de adâncime pentru un control îmbunătățit	Sistem de prindere SDS plus pentru înlocuire mai rapidă a burghilului
CZ	Tri funkce: dlabání, sbíjení, vrtání	Přepínač směru otáčení	Regulovatelná rychlost pro větší efektivitu při šroubování a vrtání	Nastavitelná boční rukojeť a hloubkový doraz pro zvýšenou kontrolu	Typ upínadla SDS plus pro rychlou a snadnou výměnu bitů
SK	Tri funkcie: sekание, búranie kladivom, vrtanie	Ovládanie smeru otáčania	Premenlivé otáčky s cieľom dosiahnuť väčšie možnosti ovládania počas skrutkovania a vrtania	Nastavitelná bočná rukoväť a hĺbkový zastavovač pre lepšie ovládanie betonu a tehl	Objímka typu SDS Plus pre rýchlu a jednoduchú výmenu nástavcov
AR	ثلاثة وظائف: إزميل ، دق ، وحفر	دوران لامي و عكس	السرعة المتغيرة للتحكم اكثير عند تجهيز المسامر والحفر	مقبض جانبي قابل التثبيت وإيقاف عمق التحكم احسن	ملت SDS ثلاثي التثبيت البسيط للمقابك

- EN See warranty card for more details
 - D Weitere Details siehe Garantiekarte
 - F Voir carte de garantie pour plus de détails
 - I Per maggiori dettagli vedere la scheda di garanzia
 - NL Zie garantiekaart voor meer informatie
 - SV Läs på garantikortet för mer information
 - PL Więcej informacji zawarto w karcie gwarancyjnej
- BG Длг: гаранционна карта за повече подробности
 - HU További részleteket lásd a jóváhíást
 - RO Consultati cardul de garanție pentru mai multe detalii
 - CZ Podrobné informace jsou uvedeny na záručním listu
 - SK Podrobné informácie sú uvedené na záručnom liste
 - AR انظر إلى بطاقة الضمان لتزيد من التفصيل

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AP04158200

物料号: AP02190000 (左)

尺寸: 60x115mm

材料: 128g铜板纸+皇冠油性双面胶

表面处理: 亮膜

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(BITEC TOOLS IBERICA S. A. 250043) 和 (HP SCHOU A/S 250071) 客户需要背面朝上 (纸卡上右下角以黑色点为标志)



EN	Three function: chiselling, hammering, drilling	Forward and reverse rotation	Variable speed for greater control when screwing and drilling	Adjustable side handle and depth stop for enhanced control	SDS plus type chuck for quick easy drill bit change
ES	Tres funciones: cincel, martillo, taladro	Rotación hacia adelante y en reversa	Velocidad variable para mayor control durante el atomillado y taladrado	Mango lateral y tope de profundidad ajustables para mejor control	Soporte SDS plus para cambiar de broca rápidamente
PT	Três funções: cincel, martelo, berbequim	Rotação para diante e reversa	Velocidade variável oferece maior controle ao parafusar e furar	Punho lateral ajustável e batente da profundidade para controle elevado	Bucha SDS Plus para uma rápida e fácil mudança de brocas e ponteiros
DK	3 funktioner: Mejsel, hammer og bor	Højre/venstre lab	Variabel hastighed giver bedre kontrol, når du skruer og borer	Justerbart sidehåndtag og dybdestiller sikrer øget kontrol	SDS plus type borepatron til hurtig og nem udskiftning af bor
FIN	Kolme toiminto: sieselöinti, vasarointi, poraus	Myötä- ja vastapäiväinen pyörimissuike	Säädettävä nopeus takaa paremman hallittavuuden ruuvattaessa ja porattaessa	Säädettävä sivukahva ja syvyyssrajoitin, jotka takaavat parantuneen hallinnan	SDS plus- tyyppinen istukka poranterän nopeaan ja helppoon vaihtamiseen
NOR	Tre funksjoner: meisling, hamring og boring	Rotasjon i begge retninger	Regulerbar hastighet gir bedre kontroll ved boring og skruing	Regulerbart sidehåndtak og dybdestopp gir bedre kontroll	SDS-plus type chuck for rask og enkel skifte av drillbits
SV	Tre funktioner: blining, slagbörning, borrar	Rotering fram och tillbaka	Varierbar hastighet för bättre kontroll vid skruvning och borrar	Justerbart sidehandtag och djupstopp för ökad kontroll	SDS plus typ fastspänningsanordning för fort lätt borrarng del växel

- EN See warranty card for more details
 - ES Para obtener más información, consulte la tarjeta de garantía
 - PT Para obter mais informações, consulte o cartão de garantia
 - DK Se garantibeviset for yderligere oplysninger
 - FIN Käsko lisätietoja takuukortista
 - NOR Se garantikortet for ytterligere informasjon
 - SV Läs på garantikortet för mer information
- BG Длг: гаранционна карта за повече подробности
 - HU További részleteket lásd a jóváhíást
 - RO Consultati cardul de garanție pentru mai multe detalii
 - CZ Podrobné informace jsou uvedeny na záručním listu
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