

SPECIFICATIONS

	BPR 220E	BPR 220CE
Model	650 W	680 W
Power input	0-1300 min ⁻¹	0-960 min ⁻¹
No load speed	yes	yes
Variable speed	no	yes
Constant electronics	yes	yes
Reversing	yes	yes
Safety clutch	yes	yes
Chuck capacity	1,5-13 mm	1,5-13 mm
No load impact rate	5920 min ⁻¹	4370 min ⁻¹
Drilling capacity:		
- in concrete	22 mm	22 mm
- in steel	13 mm	13 mm
- in wood	30 mm	30 mm
Weight	2,7 kg	2,7 kg
Drill bit connection	SDS-Plus	SDS-Plus
Operation modes:		
- drilling	yes	yes
- hammer drilling	yes	yes
Safety class (EN 60745)	II	



This power tool is supplied from single-phase alternating current mains only. It is double insulated according to EN 60745, IEC 60745 and can be connected to grounded or not grounded sockets. The power tool is radio suppressed in compliance with EN 55014-1, EN 55014-2, EN 61000-3-2, EN 61000-3-3 for radio interference.

DESIGNATION

The rotary hammer is designed for hammer drilling in concrete, stone, masonry and various brittle materials and for drilling in steel, wood, plastics, etc.

MAIN COMPONENTS

1. Securing screw
 2. SDS-Plus socket
 3. Adapter
 4. Rotary hammer journal
 5. Release button
 6. Operation mode selector switch
 7. Ventilation slots
 8. Depth gauge
 9. Auxiliary handle
 10. Reversing switch
 11. ON/OFF switch
 12. Lock-on button
 13. Electronic regulator of rotation speed (BPR 220E)
- III. Three-jaw chuck

ACCESSORIES TO BE USED WITH THIS POWER TOOL

- Drill bits for metal Ø3 to Ø13 mm
- Drill bits for wood Ø3 to Ø30 mm
- Drill bits for concrete Ø3 to Ø22 mm



**FOR YOUR SAFETY
READ BEFORE USE!**



Attention, dangerous operation!

The small chip and particles separated while operating the power tool, as well touching its rotating parts could cause severe physical injuries, and noise loading from continuous operation could damage the operator's hearing if the below-mentioned instructions and those in the enclosed Safety Instructions are not observed.



Safety operation instructions and precautions

Before starting to operate the power tool, always check the following:

- Make sure power supply voltage corresponds to the value indicated on the name plate with technical data of the power tool.

- Always check the position of ON/OFF switch. The power tool must be connected to the power supply socket only when this switch is in OFF position.
- Make sure the cord and the plug are in order. If the replacement of the supply cord is necessary, this has to be done by the manufacturer or his agent in order to avoid a safety hazard.



**DURING CARRYING OUT ANY WORK,
PLEASE DO OBSERVE THE FOLLOWING
SAFETY REQUIREMENTS:**



Do not operate the machine without goggles!



Wear ear protectors!



Always wear dust-proof mask!

- Unplug the machine prior to any adjustment, repair or maintenance or in case of mains drop out.
- Always tie long hair behind and do not wear loose clothing while working.
- Always keep the cord away from the working area of the machine.
- Always use the auxiliary handle.
- Always search for a secure and stable position of your body.
- Fix the machined piece in vice or in another appropriate way.
- The chuck key should always be kept in its holder provided on the cord.
- Watch out for the initial torque reaction of the machine, especially when drill bit is tight.
- The power tool must not be used outdoors in rainy weather, or in moist environment (after rain) or in close vicinity with easily flammable liquids and gases.
- The working place should be well lit.
- Noise and vibration values:

The values typical for the device measured according to EN 60745 are:

Sound pressure level	- 94 dB (A)
Sound power level	- 105 dB (A)
Weighted acceleration	- 14 m/s ²

OPERATING DIRECTIONS

Switching on - switching off

- Brief activation

Switching on: press ON/OFF switch 11.

Switching off: release ON/OFF switch 11.

- Continuous use

Switching on: press ON/OFF switch 11 and in pressed position lock it by button 12.

Switching off: press ON/OFF switch 11 once and release it immediately.

Stepless electronic rpm control

Light pressure on ON/OFF switch 11 results in low rotation speed, further pressing the switch results in stepless increase of the rpm to maximum upon reaching the extreme position.

Selection of rpm value

The necessary speed can be pre-selected by rotating the regulator dial 13 in direction towards "+" for increasing, and towards "-" for decreasing the speed, thus ensuring the optimum mode for drilling in different materials - metal, wood, plastics, etc.

Reversing

The extreme position of lever 10 to the right is equivalent to clockwise rotation, the extreme position to the left - to anti-clockwise rotation. When the ON/OFF switch 11 is depressed lever 10 cannot be actuated. Reversing can be performed only when the spindle is not rotating!

Operation mode selection

Switching the operation modes must be performed consecutively only at standstill or stopping machine. Press the release button 5 on mode selector switch 6 and rotate the switch to select:



- Drilling - drilling in metal, wood, plastics, etc.



- Hammer drilling - hammer drilling in concrete, stone, etc.

Inserting and fastening SDS-Plus drill bits

Pull backward the dust cup of socket 2 and insert the SDS-Plus drill bit until stop. Ensure that the socket grooves correspond to the shank channels and release the cup to fix the drill bit.

A special device prevents extracting the drill bit, without performing the above-described procedure. The rotary hammer is equipped with adapter and three-jaw chuck, thus enabling utilization of straight shank drill bits. Insert adapter 3 in socket 2, following the above-described procedure. Screw three-jaw chuck III onto adapter 3 and fix it by securing screw 1. In this configuration the rotary hammer can be operated in mode "drill bit".

Inserting and fastening drill bits with straight shanks

- For three-jaw chuck rotary hammers

By turning the collar of chuck III clockwise or anti-clockwise, the jaws move to a position ensuring inserting the bit shank. Rotate the collar of chuck II clockwise to tighten the drill bit shank. Fix the drill bit finally into the chuck by means of the special chuck key, tightening equally in all three bores.

- For keyless-chuck rotary hammers

Grip rear collar of chuck III and rotate front collar until chuck III is opened sufficiently for the tool to be inserted, then tighten front collar. An audible "click" indicates that the chuck has automatically locked.

Removing the chuck

- For three-jaw chuck rotary hammers

Open the jaws of chuck III completely, and by means of a screwdriver unwind the left-threaded securing screw 1. Fix the adapter 3 by an open-end spanner S17. Insert the special key for chuck tightening in one of the three bores and rotate the chuck anti-clockwise, using the chuck key as a lever, to unscrew chuck III from the adapter.

- For keyless-chuck rotary hammers

Grip rear collar of keyless chuck and rotate front collar until chuck is opened. By means of a screwdriver unwind the left-threaded securing screw. Insert Allen key or screwdriver bit into the chuck and clamp its free end in appropriate way. Grip the adapter 3 with a spanner S17 and rotate the chuck anti-clockwise.

Screwing / unscrewing bolts, screws and nuts

Following the above-described procedure, tighten the corresponding accessory into chuck III. Set mode selector switch 6 to symbol "drill bit". Select the rotation necessary by lever 10. These operations must be performed only at low speed.



In case of driving long bolts and screws there is a danger of slipping the rotary hammer.

Auxiliary handle

Tighten the auxiliary handle 9 on the journal 4 of the rotary hammer. In the interests of safety, the auxiliary handle 9 should always be used. The depth gauge 8 can be used for fixing the depth of the drilled bores.

Recommendations for operation

Apply moderate pressure during drilling in concrete (approximately 80-100 N). Higher pressure will not increase drilling efficiency, but will lead to decreasing the operation life of the machine.

Take the drill out of the opening from time to time to remove dust.

Watch out the stage of blunting of the bit and replace it if considerable decrease of efficiency is observed.

Before drilling large-diameter holes in metal, first drill a small pilot hole.

The optimum capacity when drilling in concrete is up to 16 mm, and the possible capacity is up to 22 mm.

Maintenance and servicing

These models rotary hammers do not require any special maintenance. Ventilation slots 7 on the motor casing should be cleaned out periodically. If the rotary hammer should happen to fail despite the care taken, please notify the authorised service centres for warranty and post-warranty servicing of SPARKY power tools.

In case the supply cord is damaged, it must be replaced with a special cord or assembly, available from the manufacturer or its service agent.

Warranty

The guarantee period for SPARKY power tools is determined in the guarantee card.

Faults due to normal wear, overloading or improper handling will be excluded from the guarantee.

Faults due to defective materials implemented as well as defects in workmanship will be corrected free of charge through replacement or repair.

The complaints for defective SPARKY power tools will be recognised if the machine is sent back to the dealer or is presented to the authorised warranty service centre undismantled, in its initial condition.



Environmental Protection

The machine, accessories and packaging should be sorted for environmental-friendly recycling.

These instructions are printed on recycled paper manufactured without chlorine.

The plastic components are labelled for categorised recycling.