


SPECIFICATIONS

Model	M 850 M 1050 M 1200	M 850E M 1050E M 1200E	MB 850CE MB 1200CE plus MB 1400CE plus
Power input	850/1050/1200 W	850/1050/1200 W	850/1200/1400 W
No load speed	10000 min ⁻¹	2800-10000 min ⁻¹	2800-10000 min ⁻¹
Spindle thread	M14	M14	M14
Spindle thread length	20 mm	20 mm	20 mm
Wheel arbor	22,23 mm	22,23 mm	22,23 mm
Wheel diameter, max	125 mm	125 mm	125 mm
Wheel thickness, max.	6 mm	6 mm	6 mm
Weight	1,7/1,7/1,8 kg	1,7/1,7/1,8 kg	1,7/1,7/1,8 kg
Safety class (EN 50144)	II 	II	II

This model SPARKY power tools is supplied from single-phase alternating current mains. It is double insulated according to EN 50144-1 and IEC 60745 and can be connected to grounded or not grounded sockets. This 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

This power tool is designed for cutting, grinding and brushing metals without using water. Models with electronic speed pre-selection, equipped with proper sanding and polishing accessories, can be used for sanding and polishing.

MAIN COMPONENTS

1. Spindle
2. Wheel guard
3. Base support washer
4. Grinding / cutting wheel
5. Lock nut
6. Auxiliary handle
7. ON/OFF switch
8. Electronic regulator of rotation speed (M 850E, MB 850CE, M 1050E, M 1200E, MB 1200CE plus, MB 1400CE plus)
9. Spindle lock button

ACCESSORIES TO BE USED WITH THIS POWER TOOL

10. Wire cup brush
11. Plastic (rubber) backing pad
12. Sandpaper or polishing bonnet
13. Lock nut



**FOR YOUR SAFETY
READ BEFORE USE!**



Attention, dangerous operation!

The small particles separated from the abrasive wheel and from the machined piece, as well as touching rotating parts of the grinder could cause severe physical injuries, and noise loading from continuous operation could damage the operator's hearing if the below-mentioned requirements and those in the enclosed Safety Instructions are not observed.



Safety operation instructions and precautions

Before starting to operate the grinder, always check the following:

- Make sure power supply voltage corresponds to the value indicated on the name plate with technical data of the tool.
- Always check the position of ON/OFF switch. The angle grinder must be connected to the power supply socket only when this switch is in OFF position.
- Make sure the grinding wheel diameter and thickness do not exceed the values specified on the name plate. The peripheral speed indicated on the wheel must not be less than 80 m/s. Store the wheels and operate them carefully according to the recommendations of the manufacturer.
- Make sure the cord and the plug are in order. 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, in order to avoid hazard due to the replacement.



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

- Always use the auxiliary handle and hold the grinder with both hands.



- Never operate the machine without goggles!



- Wear ear protectors!

- Never switch on the machine under load, and leave it down only after final rotation stop of the wheel.

- Always keep the cord away from the working area of the wheel.

- Fix the machined piece in vice or in another appropriate way.

- Fasten the wheel only by a special wrench, using the original base support washer and clamping nut.

- Never use grinding wheels with cracks and indents.

- The wheel is still rotating even after the machine has been switched off.

- Never apply side pressure to stop the wheel rotation after switching off the grinder, or when using wheels for cutting.

- Unplug the machine prior to any adjustment, repair, maintenance or in case of mains drop out.

- When operating in dusty environment, the ventilation slots must be kept clean. If it should become necessary to clear dust, first disconnect the tool from the mains supply (use non metallic objects) and avoid damaging internal parts.

- Do not use reduction bushes or extensions to adapt wheels with arbour exceeding the recommended.

- Ensure that the sparks, separated during operation, are not a threat for people or that they do not fall on inflammable substances.

- SPARKY power tools 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 levels

The values typical for the device measured according to EN 50144 are:

- Sound pressure level - 89 dB (A)
- Sound power level - 102 dB (A)
- Weighted acceleration - 3,3 m/s²

OPERATING DIRECTIONS

Switching on - switching off

Switching on: push the slider of ON/OFF switch 7 forward in the direction of the arrow until its front end will sag, thus fixing itself.

Switching off: press the back, lifted end of switch 7 and release it to return in its initial position.

Adjusting the rotation speed (M 850E, MB 850CE, M 1050E, M 1200E, MB 1200CE plus, MB 1400CE plus)

Continuous operation at low rpm is not recommended for the following machines: M 850E, MB 850CE, M 1050E and M 1200E.

The rotation speed can be varied smoothly by turning electronic regulator 8, placed on the rear of the grinder. In the table below the recommended regulator positions for the different areas of applications are specified:

<u>Area of application</u>	<u>Regulator position</u>
1. Plastics grinding with plastic disk and abrasive cloth (paper)	A - C
2. Wood grinding and removing lacquer and dye coatings	B - D
3. Metal grinding with plastic disk and abrasive cloth (paper)	C - F
4. Dust removing with cup brush	D - F
5. Rough cleaning, metal or stone cutting	G
6. Polishing with plastic disk and polishing jacket	A - B

Models M 850E, M 1050E, M 1200E are equipped with full-wave electronics for speed preselection and control.

Models MB 1200CE plus and MB 1400CE plus are equipped with full-wave tachocconstant electronics for:

- Soft start and restriction of the starting current;
- Speed pre-selection and control and maintaining constant rpm upon overloading;
- Overload protection:

A current clutch actuates upon considerable brief overload to switch the machine off until the load drops down.

Upon minor continuous overload the thermal overload protection actuates, to reduce motor rpm. The machine becomes disabled. To resume operation after the machine has cooled down for 2-4 minutes, first turn off and then turn on the ON/OFF switch;

- Non-self starting safety (NVR) at restoring the mains supply. To resume operation after the current clutch has switched the machine off, release the ON/OFF switch and then press the switch again.

Model MB 850CE is equipped with full-wave tacho-constant electronics for:

- Soft start and restriction of the starting current;
- Speed pre-selection and control and maintaining constant rpm upon overloading;
- Overload protection:

A current clutch actuates upon considerable brief overload to switch the machine off until the load drops down.

Wheel guard

Wheel guard 2 must always be mounted on the machine! The wheel guard can be rotated as necessary after turning off the clamping bolt by a screwdriver. Its position can be different and depends on which side the auxiliary handle is placed, as well as when the machine is mounted on a stand.

Grinding wheel replacement

Secure spindle 1 by depressing the spindle lock button 9 provided on the gear case.



Never press the button while the spindle is still rotating!

(With this button depressed turn the spindle till its pronounced going deeper). Unscrew lock nut 5 by a lock nut wrench. Use blotters if the wheel has been delivered with them. Place the new wheel on the base support washer 3 with the inscriptions facing up, and screw down nut 5 facing its flat side towards the wheel, using the lock nut wrench. After replacing the wheel operate the machine with the new wheel in no load mode for one minute. Vibrating or otherwise improperly rotating wheels must be replaced immediately and discarded. Wire cup brush 10 is screwed directly on spindle 1 by means of an open-end spanner. (Check if the brush thread length is sufficient to accept the spindle thread.)

Grinding and polishing with abrasive sanding disks is accomplished by means of plastic rubber backing disk (pad) 11, under which sanding disks and polishing jackets 12 are mounted. Place plastic disk 11 on base support washer 3 and secure it with lock nut 13, delivered with the tool. In case the flexible backing pad is equipped with a flange nut, the pad is screwed directly onto the spindle without using lock nut 5. The pad with flange may be a resin filled sponge, foam polyurethane sponge with plastic insert for the nut with hook-and-loop fastening to the sandpaper or the bonnet.

Auxiliary handle

Normally auxiliary handle 6 is screwed on the machine left side. It can be mounted also on the machine right side if this is more convenient for the operator.

Turning the machine case

The machine case can be turned to 90° or to 180°. The first way of mounting is implemented when the machine is used mainly for cutting, and the second - in case the operator works better with his left hand. In both cases the case turning must be carried out in a specialised service centres for SPARKY power tools.

Recommendations

When grinding do not apply pressure to the processed surface by rearing down on the machine but move the wheel regularly backwards and forwards. Special wheels are to be used for work on light metals (e.g. aluminium). Best results when roughing can be achieved with the wheel inclined at 30° and 40° to the processed surface. Never use cutting wheels for roughing operations. Usage of wheels thicker than 6 mm is not recommended.

When cutting, do not apply pressure, do not oscillate the wheel. Work with moderate feed rate, suited to the material to be machined.

The direction of cutting is very significant. The machine must always be fed against the direction of wheel rotation. Otherwise, danger exists for the wheel to be forced uncontrolled out of the cut.

When cutting profiles or rectangular pipes, it is best to start with the smaller cross section.

Maintenance and repair

These models grinding machines do not require any special maintenance. Any work on the machine, save wheel replacement and guard turning to the fixed angle, must be accomplished by authorised persons in authorised service centres for warranty and post-warranty servicing of SPARKY power tools.

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 are to 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.