

METABO SXE 450 TURBOTEC ORIGINAL INSTRUCTIONS MANUAL



Quick Links

[Sxe 450 Turbotec](#)

[Original Instructions](#)

[General Safety Instructions](#)

[Cleaning & Maintenance](#)

[Tips and Tricks](#)

Table of Contents

[SXE 450 TurboTec](#)

[SXE Partner Edition](#)

[SXE 425 TurboTec](#)

[Original instructions](#)

[Specified Use](#)

[General Safety Instructions](#)

[Overview](#)

[Use](#)

[Cleaning, Maintenance](#)

[Tips and Tricks](#)

[Changing oscillating circuit](#)

[Accessories](#)

[Repairs](#)

[Environmental Protection](#)

[Technical Specifications](#)

[General Power Tool Safety Warnings](#)

[Work area safety](#)

[Electrical safety](#)

[Personal safety](#)

[Other ManualsLib Projects](#)

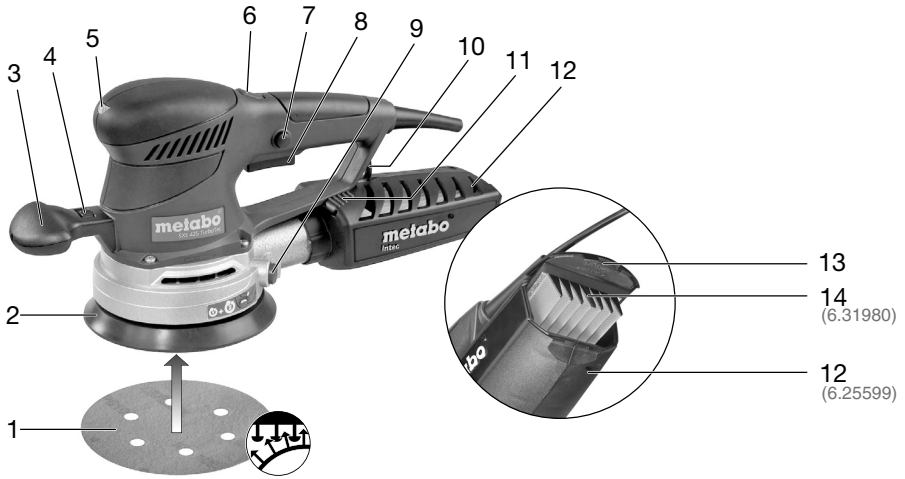
SXE 425 TurboTec SXE 450 TurboTec



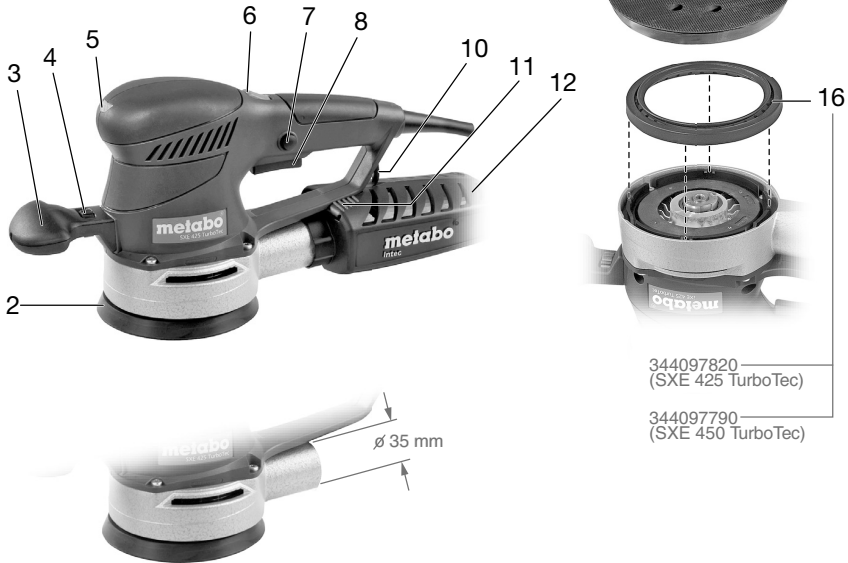
(PRC) 使用说明4

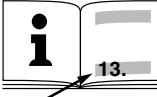
(ENG) Original instructions.....7

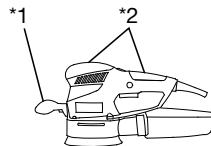
SXE 450 TurboTec SXE Partner Edition




SXE 425 TurboTec



		SXE 450 TurboTec	SXE 425 TurboTec
A	mm (in)	150 (5 ²⁹ / ₃₂)	125 (4 ¹⁵ / ₁₆)
P₁	W	350	320
P₂	W	180	160
n₀	min ⁻¹ (rpm)	4200-9200	4200-9200
n_{0, TB}	min ⁻¹ (rpm)	11000	11000
n_{1, TB}	min ⁻¹ (rpm)	8500	9000
s₀	min ⁻¹ (opm)	8400-18400	8400-18400
s_{0, TB}	min ⁻¹ (opm)	22000	22000
s_{1, TB}	min ⁻¹ (opm)	17000	18000
S	mm (in)	2,8 / 6,2 (1 ¹ / ₈ / 1 ¹ / ₄)	5 (3 ¹ / ₁₆)
m	kg (lbs)	2,2 (4.9)	2,0 (4.4)
a_{h,DS}/K_{h,DS}	m/s ²	9,0 ⁺¹ ; 6,0 ⁺² / 1,5	3,5 ⁺¹ ; 2,0 ⁺² / 1,5
a_{h,P}/K_{h,P}	m/s ²	5,0 / 1,5	4,5 / 1,5
L_{pA}/K_{pA}	dB(A)	82 / 3	83 / 3
L_{WA}/K_{WA}	dB(A)	93 / 3	94 / 3




 EN 60745
 2006/42/EC, 2004/108/EC, 2011/65/EU

ppac:  2012-11-28
 Volker Siegle

Director Product Engineering & Quality
 Responsible Person for Documentation
 Metabowerke GmbH, 72622 Nuertingen, Germany

使用说明

1 一致性声明

作为唯一责任人，我们特此声明，本产品符合第3页所列指令和标准。

2 规定用途

本工具适用于平面、曲面，木料、塑料、有色金属、金属板和其他类似材料，涂料表面及油漆表面的干打磨。也适用于抛光。

因使用不当造成的损坏责任由用户自负。

必须遵守通用事故预防规章和附带的安全资料。

3 一般安全规则



为了您的安全及保护您的电动工具，请特别注意文中中有此警示标志的地方！



警告—仔细阅读该使用说明可减少损伤的危险。



警告—请仔细阅读所有安全警告及说明。若不遵守，可能引起电击、火灾和/或严重损伤。

保留所有安全警告及说明，以备日后参考。

如需转交电动工具，必须将这些文件一同转交。

4 特殊安全规则

加工诸如含铅漆材、木材、矿石及金属时产生的粉尘可能对身体有害。接触或吸入此种粉尘可能导致操作者或旁观者产生过敏反应和/或呼吸性疾病。

甚至某些粉尘被归类为致癌物质，例如，橡木和山毛榉粉尘，尤其当混合木材调湿添加剂(如铬酸盐，木材防腐剂)时。加工含石棉材料时，必须由专员进行处理。

- 如有需要，可使用吸尘器或吸尘箱。
- 使用合适的麦太保真空吸尘器配合本电动工具，可达到最大吸尘效果。
- 加工区域必须良好通风。
- 建议使用过滤等级为P2的防尘面罩。

对于所加工材料请遵循国家要求。

进行任何调整或维修工作之前，先从插座中拔出插头。

对于长时间作业，请戴上护耳器。长时间的高噪音会影响听力。

请勿加工在处理过程中会产生有害粉尘或蒸气的物料(例如：石棉)。

请保持工件稳固以防滑落，例如使用紧固设备。

5 概述

参见第2页。

- 1 砂轮片
- 2 支撑盘
- 3 附带手柄(可取下)
- 4 滚花螺丝
- 5 设置轮(用以选择振荡频率)
- 6 涡轮增压开关
- 7 锁定按钮(用以连续操作)
- 8 触发开关
- 9 锁定按钮(用以“双”振荡电路设置)*
- 10 六角扳手
- 11 按钮(用以取下储尘盒)
- 12 储尘盒
- 13 清洁折板
- 14 过滤槽
- 15 支撑盘锁定螺丝
- 16 支撑盘制动器的制动环

* 依型号而定

6 调试



接上电源前，请查看额定主电压及主频率(标明在额定值标签上)是否与供应电源相吻合。

6.1 附带手柄

可移除附带手柄(3)可通过滚花螺丝(4)安装到工具上。

如有必要，将飞利浦螺丝刀插入附带手柄末端孔以松动或拧紧滚花螺丝(4)。

6.2 安装砂轮片

由于具有velcro型扣件，安装和拆卸都很简单。

按住砂轮片，使砂轮片(1)与支撑盘(2)上的孔相吻合。

7 使用

7.1 双振荡电路设置(只有SXE 450 TurboTec)



有以下两种振荡频率设置可选择：

- 振荡电路高设(6.2 mm)：粗磨，高的材料去除率
- 振荡电路低设(2.8 mm)：精磨，抛光

更换振荡电路：

- 断开主电源！
- 按下并按住锁定按钮(9)。
- 逆时针旋转支撑盘(2)直到听到啮合声。
- 继续按住按钮。
- 继续旋转支撑盘半转到下一个咬接点。
- 松开锁定按钮。

7.2 接通和切断，连续操作

接触发开关(8)启动工具。

通过锁定按钮(7)锁定触发开关可进行连续操作。
再次接触发开关(8)可关闭工具。

7.3 设定振荡频率

若涡轮增压开关(6)关闭，则振荡速度可通过设置轮(5)设置。这在工具运行中也是可行的。

建议振动频率如下设置：

塑材.....	1-2
金属、有机玻璃®及旧的漆材.....	3-4
粗、精磨，抛光及木材.....	5

确定理想设置的最好方式是进行试验。

7.4 涡轮增压开关

操作中可启动涡轮增压开关(6)以打开附带有电源而获得最大材料去除率。

7.5 吸尘器

为了优化吸尘器的性能，请调整砂轮机(1)，使其上的孔与支撑盘(2)上的孔相吻合。

自吸尘系统：

将储尘盒(12)安装到排气口上直到其契合为止。要取下储尘盒，按按钮(11)，向后拉下储尘盒(12)。

为了优化吸尘器的性能，请在适当的时候清空储尘盒(12)并清洁过滤槽(14)。

外接吸尘系统

连接适合的吸尘设备。

8 清洁与维护

清空储尘盒(12)。

- 打开清洁折板(13)。
- 清空储尘盒(12)。
- 拆除过滤槽(14)并敲下或用刷子刷下附着的灰尘。
- 插过滤槽(14)时，确保横向插入。

有规律地、经常地并且彻底地清洁工具。将电机上的通风槽的粉尘吸净或通过通风槽将压缩空气排走。此时，必须握紧工具。

更换损坏的支撑盘

注：如果经常打磨研磨材料(例如，镀金或涂漆面)，支撑盘不可避免会较快地磨损。

- 用六角扳手(10)旋下支撑盘上的锁定螺丝(15)。
- 拆下支撑盘(2)。
- 关于支撑盘的更换，请参阅“配件”一章。
- 安装支撑盘(2)时，旋转直至与砂轮机啮合。
- 再次插入锁定螺钉(15)并拧紧。

更换支撑盘制动器/制动环

如果支撑盘的空载转速在一段时间内增加，那么制动环可能损坏，请更换损坏的制动环(16)。

注：如果经常打磨研磨材料(例如，镀金或涂漆面)，制动环不可避免会较快地磨损。

- 用六角扳手(10)旋下支撑板上的锁定螺丝(15)。
- 拆下支撑盘(2)。
- 将旧的制动环(16)更换为新的制动环(参见“配件”一章)，确保新制动环放置的位置与旧环一致。确保制动环上的标记正确。
- 安装支撑盘(2)时，旋转直至与砂轮机啮合。
- 再次插入锁定螺钉(15)并拧紧。

9 提示与技巧

不要将设备与要打磨的表面压得太紧。这样不但不会增强反而会降低打磨性能。

为了优化吸尘器的性能，请在适当的时候清空储尘盒(12)并清洁过滤槽(14)。

使用合适的砂轮机以达到最佳工作效果：

除去旧漆层 = P 40

木料的预打磨 = P 60, P 80

木料打磨结束 = P 100, P 120

打磨薄板，密封胶，填充剂和油漆 = P 180, P 240, P 320, P 400

10 配件

只能使用麦太保原厂配件。

如需了解全部配件，请参见www.metabo.com或主目录。

11 修理

只能由合格电工修理电动工具！

如果本充电器的主连接线损坏，必须由制造商或其维修部门进行更换，以免造成人员伤亡或财产损失。

如有麦太保电动工具需要维修，请联系当地的麦太保代理商。地址请见www.metabo.com。

可从www.metabo.com下载零件表。

12 环保

遵守国家制定的关于与环境相协调的处理以及废弃工具，包装品，配件回收的法规。

13 技术规格

规格注释见第3页。

保留因技术发展而进行变更的权利。

- D = 支撑盘直径
- P_1 = 额定功率输入
- P_2 = 功率输出
- n_0 = 空转速度(设置轮)
- $n_{0, TB}$ = 空转速度(涡轮增压开关)
- $n_{1, TB}$ = 额定负载速度(涡轮增压开关)
- s_0 = 空转时的振荡频率(设置轮)
- $s_{0, TB}$ = 空转时的振荡频率(涡轮增压开关)
- $s_{1, TB}$ = 额定负载时的振荡频率(涡轮增压开关)
- S = 振动电路直径
- m = 不含主电缆的重量

上述振动传导值已经根据EN 60745规定的标准化测试进行了测量，且可以用于在工具间进行比较。还可用于初级暴露评估。

上述的振动传导等级代表了工具的主要应用。但若工具用于不同用途、配备不同配件或维护不当，振动传导值可能发生变化。这可能大幅增加整个加工过程的暴露水平。

进行振动暴露等级评估时，应将工具切断或空转时的次数考虑在内。因为其可能大幅减少整个加工过程的暴露水平。

采用其它安全措施保护操作者免受振动影响，如：恰当维护工具及其配件，双手保持一定温度、组织工作模式。

依照EN 60745规定的振动总值(三个方向上的矢量和)：

- $a_{h, DS}$ = 振动传导值(打磨面)
- $a_{h, P}$ = 振动传导值(抛光)
- $K_{h, DS}/K_{h, P}$ = 不安全(振动)

典型A荷重声音水平：

- L_{pA} = 声压水平
- L_{WA} = 声压功率水平
- K_{pA}, K_{WA} = 不安全(噪音等级)

操作过程中，噪音水平可能超过80 dB (A)。



戴护耳器！

测量值依照EN 60745确定。

防护等级II级

~ 交流电

引用的技术资料皆含有公差值在内(依照相关有效标准)。



警告 阅读所有的警告提示和指示。如未确实遵循警告提示和指示，可能导致电击、火灾并且/或其他的严重伤害。妥善保存所有的警告提示和指示，以便日后查阅。在警告提示和指示中使用的“电动工具”是指必须连接电源的电动工具（配备电线）和使用蓄电池的电动工具（无电线）。

1) 工作场所的安全规章

- a) 工作场所必须保持干净并且照明要充足。杂乱或昏暗的工作场所容易导致意外。
- b) 不可在有爆炸危险的环境下操作本电动工具。有爆炸危险的环境是指充斥了易燃液体、瓦斯或尘埃的工作场所。操作机器时会产生火花，火花容易引燃尘埃或易燃蒸汽。
- c) 操作机器时不可让儿童或旁观者靠近工作场所。工作时候如果因为第三者的干扰而分散注意力可能导致操作失控。

2) 使用电器用品的安全指示

- a) 使用的插座必须能够配合电动工具的插头。切勿擅自更改插头。转接插头不可以和接了地线的电动工具一起使用。使用机器出厂时的原装插头和合适的插座可以降低遭受电击的危险。
- b) 避免让身体接触接地的物体，例如水管、散热器、电炉和冰箱等。如果您的身体接地了，非常容易遭受电击。
- c) 机器必须远离雨水或湿气。如果让水渗入电动工具中，会提高操作者遭受电击的危险。
- d) 正确地处理电线。不可以使用电线提携电动工具、悬挂电动工具或者以抽拉电线的方式拔出插头。电线必须远离高温、油垢、锋利的边缘或转动中的机件。电线如果受损或缠绕在一起，会提高操作者遭受电击的危险。
- e) 如果在户外使用电动工具，只能使用合适的户外专用延长线。使用合格的户外专用延长线，可降低操作者遭受电击的危险。
- f) 如果无法避免的，必须在潮湿的环境中使用时，得使用剩余电流保护开关。使用剩余电流保护开关可以预防遭受电击。

3) 针对操作者的安全指示

- a) 工作时务必要全神贯注，不但要保持头脑清醒更要理性地操作电动工具。疲惫、喝酒或服用毒品、兴奋剂、药物之后，切勿操作电动工具。使用电动工具时只要稍微分心便可能发生后果严重的意外。
- b) 穿好您个人的防护装备并戴上护目镜。根据所使用的电动工具穿戴合适的防护装备，例如防尘面罩、止滑工作鞋、安全帽或耳罩，可降低工作伤害的发生机率。
- c) 避免意外启动机器。插上插头并且/或安装蓄电池之前，提起或搬运机器之前，务必先检查电动工具是否处在关闭状况。如果您在提携电动工具时，手指触碰了开关，或者在连接电源时，起停开关仍然设定在启动位置，都可能造成极严重的意外。
- d) 开动电动工具之前必须拆除仍然插在机器上的调整工具/或螺丝扳手。如果机器已经开始转动，而机器上仍然插着调整工具，很容易伤害使用者。
- e) 避免错误的持机姿势。操作机器时要确保立足稳固，并要随时保持平衡。正确的操作姿势能够帮助您在突发状况下及时控制住电动工具。

- f) 穿着合适的工作服。工作时不可以穿太宽松的衣服，也不可以戴首饰。不可以让头发、衣服和手套接触机器上的转动机件。宽松的衣物、长发或首饰容易被卷入转动的机件中。
- g) 如果能够在机器上安装吸尘装置、集尘装备，务必按照指示安装此类辅助工具，并且正确地操作该装置。使用吸尘装备可以防止工作尘危害人体。

4) 小心地使用和处理电动工具

- a) 勿让机器承载过重的负荷。根据工作性质选择适合的电动工具。正确地选用电动工具可以在规定的功率范围内，更有效率更安全的操作机器。
- b) 勿使用开关故障的电动工具。如果无法正常操控起停开关，极容易在操作机器时产生意外。尽快将故障的机器送修。
- c) 在调整机器设定、更换零件或不使用机器时，都必须先从插座上拔出插头并且/或取出蓄电池。这个预防措施可以避免不小心开动电动工具。
- d) 不使用电动工具时，必须把机器存放在儿童无法取得之处。勿让不熟悉机器操作方法及未阅读本说明书的人使用本机器。让经验不足的人操作电动工具容易发生意外。
- e) 细心地保养、维护电动工具。检查机器上的转动零件是否运作正常，并确定是否有零件断裂或损坏。故障的机件会影响电动工具的运作功能。使用机器之前务必先更换或修理故障的机件。若未彻底执行机器的维护工作容易导致工作意外。
- f) 切割工具必须保持锋利、清洁。经过细心保养而且刀刃锋利的切割工具不易被夹住，而且较容易操作。
- g) 遵照这些指示使用电动工具、配件及安装在机器上的工具。另外也必须注意有关机器操作方式及机器适用范围的解释。如果使用电动工具执行不符合该机器性能的工作，极容易发生意外。

5) 小心地使用和处理充电式机器

- a) 只能使用制造商推荐的充电器为蓄电池充电。不可以使用针对某些特定蓄电池的充电器，为其他的蓄电池充电，可能引起火灾。
- b) 务必使用电动工具的专用蓄电池。使用了不合适的蓄电池可能发生工作意外并引起火灾。
- c) 不使用的蓄电池必须远离回形针、硬币、钥匙、钉子、螺丝或其他的金属物体。上述物体可能连接蓄电池上的触点引起短路。蓄电池的两个触点如果发生短路，可能引起火灾。
- d) 如果使用不当可能从蓄电池渗出液体。避免接触此类流动物体。如果不小心触摸了，马上用水冲洗。如果上述液体侵入眼睛必须即刻就医。从蓄电池流出的液体会刺激或灼伤皮肤。

6) 检修服务

- a) 只能将电动工具交给合格的专业人员检修。检修时只能换装原厂零、配件。唯有如此才能确保机器的安全性能。

Original instructions

1. Conformity Declaration

We, being solely responsible, hereby declare that this product conforms to the standards and directives specified on page 3.

2. Specified Use

The disc sander is suitable for dry sanding of flat and curved surfaces, wood, plastics, non-ferrous metals, sheet steel and similar materials, spackled and painted surfaces, and is also suitable for polishing.

The user bears sole responsibility for damage caused by improper use.

Generally accepted accident prevention regulations and the enclosed safety information must be observed.

3. General Safety Instructions



For your own protection and for the protection of your electrical tool, pay attention to all parts of the text that are marked with this symbol!



WARNING – Reading the operating instructions will reduce the risk of injury.



WARNING Read all safety warnings and instructions. Failure to follow all safety warnings and instructions may result in electric shock, fire and/or serious injury.

Keep all safety instructions and information for future reference.

Pass on your electrical tool only together with these documents.

4. Special Safety Instructions

Dust from material such as paint containing lead, some wood species, minerals and metal may be harmful. Contact with or inhalation of the dust may cause allergic reactions and/or respiratory diseases to the operator or bystanders.

Certain kinds of dust are classified as carcinogenic such as oak and beech dust especially in conjunction with additives for wood conditioning (chromate, wood preservative). Material containing asbestos must only be treated by specialists.

- Use a dust extractor or the dust collection box where possible.
- To achieve a high level of dust collection, use a suitable Metabo vacuum cleaner together with this tool.
- The work place must be well ventilated.
- The use of a dust mask of filter class P2 is recommended.

Follow national requirements for the materials you want to work with.

Pull the plug out of the plug socket before any adjustments or servicing are performed.

Wear ear protectors when working for long periods of time. High noise levels over a prolonged period of time may affect your hearing.

Materials that generate dusts or vapours that may be harmful to health (e.g. asbestos) must not be processed.

Secure the workpiece against slipping, e.g. with the help of clamping devices.

5. Overview

See page 2.

- 1 Sanding disc
- 2 Support plate
- 3 Additional handle (removable)
- 4 Knurled screw
- 5 Setting wheel for selecting oscillating frequency
- 6 TurboBoost switch
- 7 Locking button for continuous activation
- 8 Trigger switch
- 9 Locking button for "Duo" oscillating circuit setting *
- 10 Hexagon spanner
- 11 Button for removing the dust collection box
- 12 Dust collection box
- 13 Cleaning flap
- 14 Fluted filter
- 15 Locking screw for support plate
- 16 Braking ring of support plate brake

* depends on model

6. Commissioning



Before plugging in, check to see that the rated mains voltage and mains frequency, as stated on the rating label, match your power supply.

6.1 Additional handle

The removable additional handle (3) can be screwed onto the machine with the integrated knurled screw (4).

If required, insert a Phillips screwdriver in the hole at the end of the additional handle to release or tighten the knurled screw (4).

6.2 Installation of sanding disc

Simple attachment and removal thanks to the velcro-type fastening.

Simply press on the sanding disc thanks to the holes in the sanding disc (1) are aligned with the support plate (2).

7. Use

7.1 Duo oscillating circuit setting (only with SXE 450 TurboTec)



You can choose between two oscillating frequency settings:

- Oscillating circuit high setting (6.2 mm): coarse sanding with high material removal rate
- Oscillating circuit low setting (2.8 mm): fine sanding, polishing

Changing oscillating circuit:

- Disconnect the mains plug!
- Press in the locking button (9) and hold in place.
- Rotate support plate (2) in a counter-clockwise direction until you can hear it engage.
- Continue holding in the button.
- Continue turning the support plate half a revolution to the next snap-in point.
- Release the locking button.

7.2 On/Off switch, continuous activation

To start the machine, press the trigger switch (8).

For continuous operation the trigger switch can be locked using the lock button (7). To stop the machine, press the trigger switch (8) again.

7.3 Setting oscillating frequency

When the TurboBoost switch (6) is switched off, the oscillating speed can be set at the setting wheel (5). This is also possible during operation.

Recommended oscillating frequency settings:

Plastic materials, 1-2

Metal, Plexiglas®, old coats of paint, 3-4

Coarse and fine sanding, polishing, wood 5

The best way to determine the ideal setting is through a practical trial.

7.4 TurboBoost switch

Actuate the TurboBoost switch (6) during operation to switch on additional power reserves for maximum material removal rate.

7.5 Dust extraction

To optimise the dust extraction performance, fit the sanding disc such that the holes on the sanding disc (1) are aligned to the support plate (2).

Own extraction system:

Fit the dust collection box (12) onto the exhaust nozzle until it engages. To remove, press the button (11) and pull off the dust collection box (12) to the rear.

To optimise the extraction performance, empty the dust collection box (12) in good time and clean the filter (14).

External extraction system:

Connect a suitable extraction device.

8. Cleaning, Maintenance

Empty dust collection box (12).

- Open cleaning flap (13).
- Empty dust collection box (12).
- Remove fluted filter (14) and knock off dust stuck to filter or remove with brush.
- When inserting, ensure that the fluted filter (14) is inserted in the lateral guides.

The clean the machine regularly, frequently and thoroughly. Vacuum clean the ventilation slots on the motor or blow compressed air through the ventilation slots. Hold the machine firmly at the same time.

Replacing a worn support plate

Note: If abrasive material (e.g. filled or painted surfaces, etc.) is being sanded, the support plate inevitably wears faster.

- Use the hexagon spanner (10) to unscrew the fixing screw (15) on the support plate.
- Remove support plate (2).
- For replacement support plates, refer to the Accessories chapter.
- Mount support plate (2) and rotate until it engages on carrier disc.
- Insert locking screw (15) again and tighten.

Replacing support plate brake / braking ring

If the idling speed of the support plate increases in course of time, the braking ring (16) is worn and must be replaced.

Note: If abrasive material (e.g. filled or painted surfaces, etc.) is being sanded, the braking ring inevitably wears faster.

- Use the hexagon spanner (10) to unscrew the fixing screw (15) on the support plate.
- Remove support plate (2).
- Replace the old braking ring (16) with the new braking ring (see Chapter on Accessories), ensuring that the new braking ring is in the same position as the old braking ring. Ensure that the position of the marking on the braking ring is correct.
- Mount support plate (2) and rotate until it engages on carrier disc.
- Insert locking screw (15) again and tighten.

9. Tips and Tricks

Do not press the device too firmly against the surface being sanded. This does not improve, but rather impairs, the sanding performance.

To optimise the extraction performance, empty the dust collection box (12) in good time and clean the fluted filter (14).

Use a suitable sanding disc to achieve the best possible work results: Removal of old paint layers = P 40

Pre-sanding of wood = P 60, P 80

Finishing of wood = P 100, P 120

Sanding of veneers, sealing primer, filler, paint = P 180, P 240, P 320, P 400

10. Accessories

Use only genuine Metabo accessories.

For a complete range of accessories, see www.metabo.com or the main catalogue.

11. Repairs

Repairs to electrical tools must be carried out by qualified electricians ONLY!

If the mains connection cable of this machine is damaged, it must be replaced by the manufacturer or an authorized service centre to avoid hazard.

Contact your local Metabo representative if you have Metabo power tools requiring repairs. For addresses see www.metabo.com.

You can download a list of spare parts from www.metabo.com.

12. Environmental Protection

Observe national regulations on environmentally compatible disposal and on the recycling of disused machines, packaging and accessories.



Only for EU countries: Never dispose of power tools in your household waste! In accordance with European Guideline 2002/96/EC on used electronic and electric equipment and its implementation in national legal systems, used power tools must be collected separately and handed in for environmentally compatible recycling.

13. Technical Specifications

Explanatory notes on the specifications on page 3. Changes due to technological progress reserved.

D	=	Diameter of support plate
P ₁	=	Nominal power input
P ₂	=	Power output
n ₀	=	Idle speed (setting wheel)
n _{0, TB}	=	Idle speed (TurboBoost switch)
n _{1, TB}	=	Speed at rated load (TurboBoost switch)
s ₀	=	Oscillating frequency at idle speed (setting wheel)
s _{0, TB}	=	Oscillating frequency at idle speed (TurboBoost switch)
s _{1, TB}	=	Oscillating frequency at rated load (TurboBoost switch)
S	=	Oscillating circuit diameter
m	=	Weight without mains cable

The vibration emission level given in this information sheet has been measured in accordance with a standardised test given in EN 60745 and may be used to compare one tool with another. It may be used for a preliminary assessment of exposure.

The declared vibration emission level represents the main applications of the tool. However if the tool is used for different applications, with different accessories or poorly maintained, the vibration emission may differ. This may significantly increase the exposure level over the total working period.

An estimation of the level of exposure to vibration should also take into account the times when the tool is switched off or when it is running but not actually doing the job. This may significantly reduce the exposure level over the total working period.

Identify additional safety measures to protect the operator from the effects of vibration such as: maintain the tool and the accessories, keep the hands warm, organisation of work patterns.

Vibration total value (vector sum of three directions) determined in accordance with EN 60745:

$a_{h, DS}$ = Vibration emission value (sanding surfaces)

$a_{h, P}$ = Vibration emission value (polishing)

$K_{h, DS}/K_{h, P}$ = Unsafe (vibration)

Typical A-effective perceived sound levels:

L_{pA} = Sound pressure level

L_{WA} = Acoustic power level

K_{pA}, K_{WA} = Unsafe (noise level)

During operation the noise level can exceed 80 dB(A).



Wear ear protectors!

Measured values determined in conformity with EN 60745.

Machine in protection class II

~ Alternating current

The technical specifications quoted are subject to tolerances (in compliance with the relevant valid standards).

General Power Tool Safety Warnings



WARNING Read all safety warnings and all instructions. Failure to follow the warnings and instructions 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, clothing and gloves 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.

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. 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.

5) Battery tool use and care

- a) **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
- b) **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
- c) **When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another.** Shorting the battery terminals together may cause burns or a fire.
- d) **Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.** Liquid ejected from the battery may cause irritation or burns.

6) 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.

Metabowerke GmbH
Metabo-Allee 1
72622 Nuertingen
Germany
www.metabo.com

metabo[®]
PROFESSIONAL POWER TOOL SOLUTIONS

Other ManualsLib Projects



www.manualslib.com



www.manualslib.de



www.manualslib.es



www.manualslib.fr



www.manualslib.nl



www.manualslib.mx



www.manualslib.tech 30+ Languages