



Professional HEAVY DUTY

GWG 12V-50 S

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GERMANY

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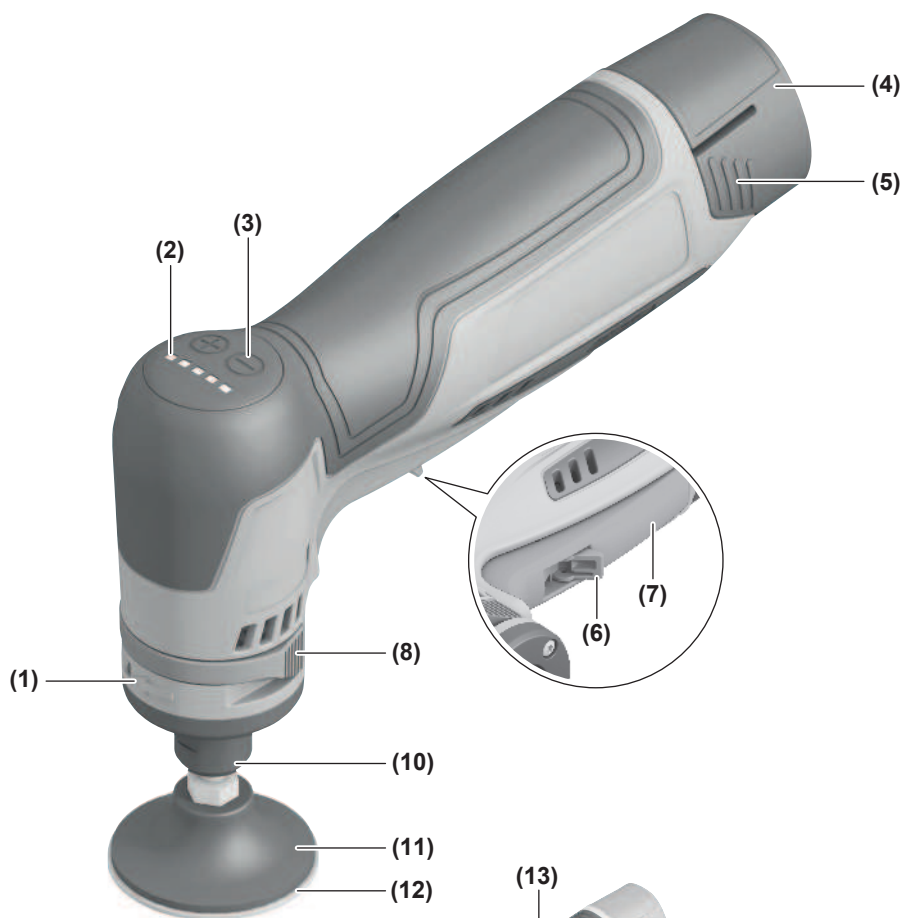


zh 正本使用说明书

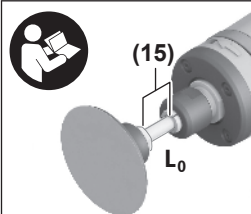


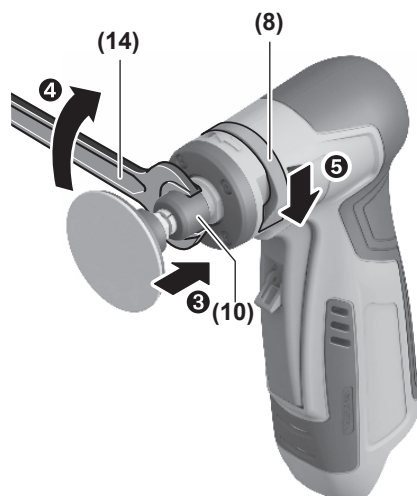
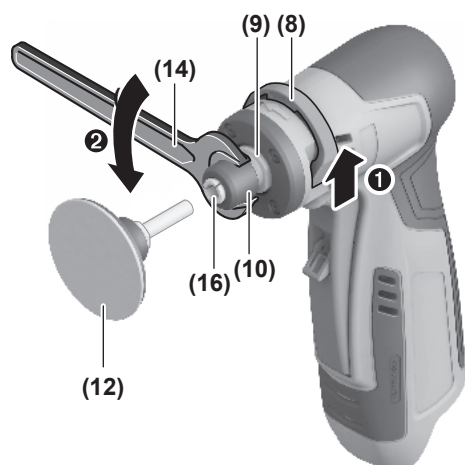
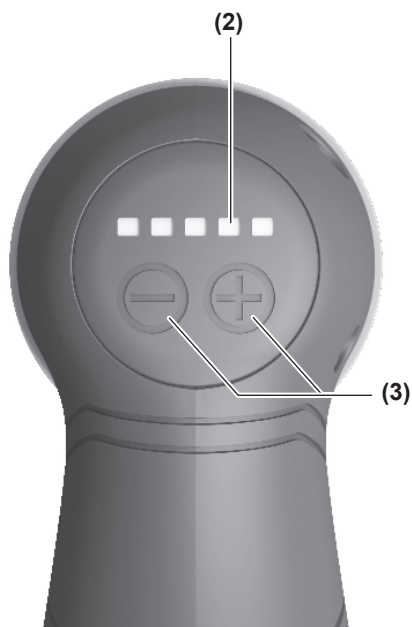
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GWG 12V-50 S



A**B**

中文

安全规章

电动工具通用安全警告

⚠ 警告！

阅读随电动工具提供的所有安全警告、说明、图示和规定。

不遵照以下所列说明会导致电击、着火和/或严重伤害。

保存所有警告和说明书以备查阅。

警告中的术语“电动工具”是指市电驱动（有线）电动工具或电池驱动（无线）电动工具。

工作场地的安全

- ▶ 保持工作场地清洁和明亮。杂乱和黑暗的场地会引发事故。
- ▶ 不要在易爆环境，如有易燃液体、气体或粉尘的环境下操作电动工具。电动工具产生的火花会点燃粉尘或气体。
- ▶ 操作电动工具时，远离儿童和旁观者。注意力不集中会使你失去对工具的控制。

电气安全

- ▶ 电动工具插头必须与插座相配。绝不能以任何方式改装插头。需接地的电动工具不能使用任何转换插头。未经改装的插头和相配的插座将降低电击风险。
- ▶ 避免人体接触接地表面，如管道、散热片和冰箱。如果你身体接触接地表面会增加电击风险。
- ▶ 不得将电动工具暴露在雨中或潮湿环境中。水进入电动工具将增加电击风险。
- ▶ 不得滥用软线。绝不能用软线搬运、拉动电动工具或拔出其插头。使软线远离热源、油、锐边或运动部件。受损或缠绕的软线会增加电击风险。
- ▶ 当在户外使用电动工具时，使用适合户外使用的延长线。适合户外使用的电线将降低电击风险。
- ▶ 如果无法避免在潮湿的环境中操作电动工具，应使用带有剩余电流装置（RCD）保护的电源。RCD的使用可降低电击风险。

人身安全

- ▶ 保持警觉，当操作电动工具时关注所从事的操作并保持清醒。当你感到疲倦，或在有药物、酒精或治疗反应时，不要操作电动工具。在操作电动工具时瞬间的疏忽会导致严重人身伤害。
- ▶ 使用个人防护装置。始终佩戴护目镜。防护装置，诸如适当条件下使用防尘面具、防滑安全鞋、安全帽、听力防护等装置能减少人身伤害。
- ▶ 防止意外启动。在连接电源和/或电池包、拿起或搬运工具前确保开关处于关断位置。手指放在开关上搬运工具或开关处于接通时通电会导致危险。
- ▶ 在电动工具接通之前，拿掉所有调节钥匙或扳手。遗留在电动工具旋转零件上的扳手或钥匙会导致人身伤害。

- ▶ 手不要过分伸展。时刻注意立足点和身体平衡。这样能在意外情况下能更好地控制住电动工具。
- ▶ 着装适当。不要穿宽松衣服或佩戴饰品。让你的头发和衣服远离运动部件。宽松衣服、佩饰或长发可能会卷入运动部件。
- ▶ 如果提供了与排屑、集尘设备连接用的装置，要确保其连接完好且使用得当。使用集尘装置可降低尘屑引起的危险。
- ▶ 不要因为频繁使用工具而产生的熟悉感而掉以轻心，忽视工具的安全准则。某个粗心的动作可能在瞬间导致严重的伤害。

电动工具使用和注意事项

- ▶ 不要勉强使用电动工具，根据用途使用合适的电动工具。选用合适的按照额定值设计的电动工具会使你工作更有效、更安全。
- ▶ 如果开关不能接通或关断电源，则不能使用该电动工具。不能通过开关来控制的电动工具是危险的且必须进行修理。
- ▶ 在进行任何调节、更换附件或贮存电动工具之前，必须从电源上拔掉插头和/或卸下电池包（如可拆卸）。这种防护性的安全措施降低了电动工具意外启动的风险。
- ▶ 将闲置不用的电动工具贮存在儿童所及范围之外，并且不允许不熟悉电动工具和不了解这些说明的人操作电动工具。电动工具在未经培训的使用者手中是危险的。
- ▶ 维护电动工具及其附件。检查运动部件是否调整到位或卡住，检查零件破损情况和影响电动工具运行的其他状况。如有损坏，应在使用前修理好电动工具。许多事故是由维护不良的电动工具引发的。
- ▶ 保持切削刀具锋利和清洁。维护良好地有锋利切削刃的刀具不易卡住而且容易控制。
- ▶ 按照使用说明书，并考虑作业条件和要进行的作业来选择电动工具、附件和工具的刀头等。将电动工具用于那些与其用途不符的操作可能会导致危险情况。
- ▶ 保持手柄和握持表面干燥、清洁，不得沾有油脂。在意外的情况下，湿滑的手柄不能保证握持的安全和对工具的控制。

电池式工具使用和注意事项

- ▶ 仅使用生产者规定的充电器充电。将适用于某种电池包的充电器用到其他电池包时可能会发生着火危险。
- ▶ 仅使用配有专用电池包的电动工具。使用其他电池包可能会产生伤害和着火危险。
- ▶ 当电池包不用时，将它远离其他金属物体，例如回形针、硬币、钥匙、钉子、螺钉或其他小金属物体，以防电池包一端与另一端连接。电池组端部短路可能会引起燃烧或着火。
- ▶ 在滥用条件下，液体可能会从电池组中溅出；应避免接触。如果意外碰到液体，用水冲洗。如果液体碰到了眼睛，还应寻求医疗帮助。从电池中溅出的液体可能会发生腐蚀或燃烧。

- ▶ **不要使用损坏或改装过的电池包或工具。**损坏或改装过的电池组可能呈现无法预测的结果，导致着火、爆炸或伤害。
- ▶ **不要将电池包暴露于火或者高温中。**电池包暴露于火或高于130 °C的高温中可能导致爆炸。
- ▶ **遵守所有充电说明，给电池组或工具充电时不要超出说明中规定的温度范围。**错误充电或温度超出规定的范围可能会损坏电池并提高着火的风险。

维修

- ▶ **由专业维修人员使用相同的备件维修电动工具。**这将保证所维修的电动工具的安全。
- ▶ **决不能维修损坏的电池包。**电池包仅能由生产者或其授权的维修服务商进行维修。

所有应用的安全警告

研磨或砂磨操作的通用安全警告：

- ▶ **本电动工具可作为研磨机或砂磨机使用。请阅读本电动工具附带的所有安全警告、说明、图示和技术规格。**未遵照下面列出的所有说明会导致电击、着火和/或严重伤害。
- ▶ **不建议使用该电动工具执行钢丝或尼龙丝清洁、抛光或切断等操作。**将电动工具用于非指定操作可能产生危险，造成人身伤害。
- ▶ **不得使用非由工具制造商专门设计和推荐的附件。**附件仅仅能安装到本电动工具上并不能保证操作安全。
- ▶ **打磨附件的额定转速必须至少等同于标注在电动工具上的最大转速。**如果打磨附件转速超过其额定转速，可能会断裂并飞出。
- ▶ **附件的外径和厚度必须在电动工具的额定载荷内。**尺寸不正确的附件无法得到妥当控制。
- ▶ **砂轮、砂鼓或其它任何附件的芯轴尺寸必须适合电动工具的芯轴或夹头。**如果附件与电动工具的安装硬件不匹配，它会失去平衡、剧烈振动并可能导致失控。
- ▶ **安装在芯轴上的砂轮、砂鼓、切割片或其它附件必须完全插入夹头或卡盘。**如果芯轴未充分固定和/或砂轮的伸出量过长，则安装的砂轮可能会在高转速下松动并弹出。
- ▶ **不得使用损坏的附件。**每次使用前，检查砂轮等附件是否有碎片和裂纹，砂鼓是否有裂纹、裂口或过度磨损以及钢丝刷是否松动或钢丝开裂。如果电动工具或附件掉落，应检查其是否损坏或安装一个完好的附件。检查并安装附件后，使自己和旁观者远离旋转的附件的平面，并让电动工具以最大空载转速旋转一分钟。损坏的附件通常在测试期间会裂开。
- ▶ **佩戴个人防护装置。**根据应用情况，使用面罩或护目镜。视情况而定，戴上防尘面具、听力保护装置、手套和能够阻挡小块磨料或工件碎片的车间用围兜。眼部保护装置必须能阻挡由各种操作所产生的飞溅碎片。防尘面罩或呼吸器必须能过滤操作所产生的颗粒。长时间处于高强度噪音中可能导致失聪。

- ▶ **让旁观者与工作区域保持一定的安全距离。任何进入工作区域的人员都必须佩戴个人防护设备。**工件或断裂的附件碎片可能会飞出，并造成操作区域以外的损害。
- ▶ **如果在操作期间，切割工具可能接触暗线，则仅可握住电动工具的绝缘握持面。**切割工具一旦接触“带电”导线，可能会使电动工具外露的金属部件“带电”，并使操作员触电。
- ▶ **在启动期间，始终用双手牢牢持握工具。**当电机加速到全速时，其反扭矩会导致工具扭转。
- ▶ **在切实可行的情况下，使用夹箍支加工件。**在使用时，切勿用一只手握住小型加工件，用另一只手握住工具。夹紧小型加工件，以便您用双手控制工具。在切割过程中，传动杆、管道、管材等圆形材料易发生滚动，并可能导致钻头粘滞或弹向您。
- ▶ **在附件完全停下前，切勿将电动工具放下。**旋转的附件可能会钩住物体的表面，并使电动工具失控。
- ▶ **更换钻头或执行任何调整后，确保夹头螺母、卡盘或任何其它调整装置已牢牢拧紧。**松动的调整装置会发生意外位移，导致失去控制，而松动的旋转组件会被猛烈甩出。
- ▶ **当电动工具朝向您时，不得运行电动工具。**意外触碰到旋转的附件会钩住您的衣物，将附件拽向您的身体。
- ▶ **定期清理电动工具的通风口。**电机风扇会将粉尘吸入壳体，大量聚集的粉末状金属可能导致电气危险。
- ▶ **不要在可燃材料附近操作电动工具。**火花可能点燃这些材料。
- ▶ **不要使用需要液体冷却剂的附件。**使用水或其他液体冷却剂可能导致触电或电击。

回弹和相关警告

回弹是针对旋转的砂轮、砂圈、刷子或其它附件被夹住或钩住的突然反应。夹住或钩住会导致旋转中的附件快速停止转动，导致失控的电动工具冲向与附件旋转相反的方向。

例如，当砂轮被工件钩住或夹住时，进入夹点的砂轮边缘可能插入材料表面，造成砂轮爬出或回弹。砂轮可能会跳向或跳离操作者，取决于砂轮在夹点的移动方向。在这些条件下，砂轮也可能断裂。

回弹是电动工具不当使用和/或操作流程或条件不正确的结果，可通过采取以下预防措施来避免。

- ▶ **牢牢把握住电动工具，将身体和手臂摆好位置，以抵挡回弹力。**如采取适当的预防措施，操作者可以控制回弹力。
- ▶ **当加工边角或尖锐边缘等时，必须特别小心。**应避免附件反弹或被钩住。边角、尖锐边缘或反弹均可能使旋转中的附件被钩住，从而导致失控或回弹。
- ▶ **不要安装齿锯片。**这类锯片会造成频繁回弹和失控。
- ▶ **当切削刃移出材料时，始终顺着相同的方向（即与碎片甩出相同的方向）将钻头送入材料。**工具

放入方向错误会导致锯片的锯齿爬离工件，并将工具拉向放入的方向。

- ▶ **始终牢牢夹紧工件。**如果附件在沟槽中略微倾斜，会致使其切入沟槽，从而发生回弹并导致工具失控。

打磨操作的特定安全警告：

- ▶ **只能使用推荐用于您的电动工具的砂轮类型，并仅将其用于推荐应用。**

其他安全规章

请佩戴护目镜。



- ▶ **在砂轮冷却之前，切勿持握砂轮。**工作时砂轮会变得非常炎热。
- ▶ **固定好工件。**使用固定装置或老虎钳固定工件，会比用手持握工件更牢固。
- ▶ **本电动工具不适合固定式应用。**例如不允许夹在虎钳上或固定在工作台上。
- ▶ **如果充电电池损坏或者未按照规定使用，充电电池中会散发出有毒蒸汽。充电电池可能会燃烧或爆炸。**工作场所必须保持空气流通，如果身体有任何不适必须马上就医。蒸汽会刺激呼吸道。
- ▶ **切勿改装并打开充电电池。**可能造成短路。
- ▶ **钉子、螺丝刀等尖锐物品或外力作用可能会损坏充电电池。**有可能出现内部短路、蓄电池燃烧、发出烟雾、爆炸或过热。
- ▶ **仅在制造商的产品中使用充电电池。**这样才能确保充电电池不会过载。



保护充电电池免受高温（例如长期阳光照射）、火焰、脏污、水和湿气的侵害。有爆炸和短路的危险。

产品和性能说明



请阅读所有安全规章和指示。不遵照以下警告和说明可能导致电击、着火和/或严重伤害。

请注意本使用说明书开头部分的图示。

按照规定使用

配有支撑板和相应垫片的电动工具适用于研磨金属、磨削金属上的毛边以及清洁金属。

插图上的机件

机件的编号和电动工具详解图上的编号一致。

- (1) 主轴的旋转方向箭头
- (2) LED指示灯
- (3) 转速预选按钮
- (4) 充电电池^{a)}
- (5) 充电电池盒的解锁按钮^{a)}
- (6) 起停开关的解锁杆
- (7) 起停开关

- (8) 主轴锁
- (9) 研磨主轴
- (10) 夹紧螺母
- (11) 支撑板及夹紧面^{b)}
- (12) 垫片^{b)}
- (13) 手柄（绝缘握柄）
- (14) 开口扳手
- (15) 柄部净长L₀
- (16) 夹钳

a) 该附件并不包含在基本的供货范围中。

b) 市售（不包含在供货范围之内）

技术参数

磨机		GWG 12V-50 S
物品代码		3 601 CA7 0..
额定电压	伏特=	12
最大转速n ^{A)}	转/分钟	16000
转速设定范围n ₁	转/分钟	5000-15000
最大夹钳直径	毫米	8
扳手安装位置		
- 夹紧螺母	毫米	17
最大磨具直径	毫米	50
转速预选		●
恒定电子装置		●
重量 ^{B)}	公斤	0.53
充电时建议的环境温度	摄氏度	0至+35
运行时允许的环境温度 ^{C)}	摄氏度	-15至+50
存放时允许的环境温度	摄氏度	-20至+50
推荐的充电电池		GBA 12V...
推荐的充电器		GAL 12... GAX 18...

A) 在20至25摄氏度下带充电电池测得**GBA 12V 3.0Ah**，并与充电电池的充电量以及设备的工作温度有关

B) 不含充电电池（充电电池重量请查看 www.bosch-professional.com）

C) 温度<0摄氏度时功率受限
数值可能因不同产品而异，并且受到应用和环境条件影响。
更多信息请参见www.bosch-professional.com/wac。

充电电池

Bosch也销售不带充电电池的充电式电动工具。您可以在包装上查看电动工具的供货范围内是否包含充电电池。

为充电电池充电

► **请只使用在技术参数中列出的充电器。**只有这些充电器才适用于本电动工具上的锂离子电池。

提示：鉴于国际运输规定，锂离子充电电池在交货时只完成部分充电。首度使用电动工具之前，必须先充足充电电池的电量以确保充电电池的功率。

安装充电电池

将充好电的充电电池推入电池座，直到嵌入。

取出充电电池

如需取下充电电池，则请按压解锁按钮，然后拔出充电电池。**在此过程中请勿过度用力。**

充电电池电量指示灯

LED指示灯的5个LED灯显示充电电池的电量。LED指示灯在接通后亮起5秒。

LED	容量
5个绿灯长亮	80–100 %
4个绿灯长亮	60–80 %
3个绿灯长亮	40–60 %
2个绿灯长亮	20–40 %
1个黄灯长亮	1–20 %
1个红灯常亮	0–1 %

温感式过载保护装置

按照规定使用时不会造成电动工具过载。过大负荷或超出允许的充电电池温度范围会导致转速降低或造成电动工具关闭。如果转速降低，电动工具只有在达到允许的充电电池温度或负荷降低后，才会重新全速运行。如果自动关闭，请关闭电动工具，让充电电池冷却，然后重新开启动电动工具。

如何正确地使用充电电池

保护充电电池，避免湿气和水分渗入。

充电电池必须储存在–20 °C至50 °C的环境中。夏天不得将充电电池搁置在汽车中。

充电后如果充电电池的使用时间明显缩短，代表充电电池已经损坏，必须更换新的充电电池。

请注意有关作废处理的规定。

安装

► **对电动工具执行任何操作（比如保养、更换刀具等）前需将充电电池从电动工具中取出。**意外操作起停开关可能会造成伤害。

安装磨具（参见插图A）

► **请只使用匹配的未损坏的开口扳手（参见“技术参数”）。**

► **该电动工具仅可使用从专业商店购得的品牌附件进行打磨，该附件允许的转速至少为16000转/分钟⁻¹，直径最大为50毫米，由支撑板承载，其直径同样最大为50毫米，其夹紧面的直径为6毫米，1/4"或8毫米。**

- 清洁研磨主轴(9)和所有待安装的零件。
- 如需**松开夹钳(16)**，将主轴锁(8)向前推。
- 逆时针转动开口扳手(14)的扳手面，松开夹紧螺母(10)。
- 将支撑板(11)的夹紧面插入夹钳(16)直到极限位置。
- 通过用开口扳手(14)顺时针旋转夹紧螺母(10)来夹紧支撑板(11)。
- 将垫片(12)安装到支撑板(11)上。
- 然后将主轴锁(8)再次推回。

磨具必须能够顺畅而均匀地旋转。不要继续使用已经变形的磨具，而是要马上更换。

► **只要还未安装磨具，就绝不可拧紧夹钳和夹紧螺母。**否则会损坏夹钳。

► **请只使用柄径合适的支撑板。**如果支撑板的柄径与电动工具的工具夹头不一致（参见“技术参数”），则无法正确固定住支撑板，而且会损坏夹钳。

► **切削附件必须至少夹紧10毫米。**利用柄部净长L₀，可以从切削附件制造商的数据中计算出切削附件的最大允许转速。该转速不得低于电动工具的最大转速。

吸锯尘/吸锯屑

含铅的颜料以及某些木材、矿物和金属的加工废尘有害健康。机器操作者或者工地附近的人如果接触、吸入这些废尘，可能会有过敏反应或者感染呼吸道疾病。

某些尘埃（例如加工橡木或山毛榉的废尘）可能致癌，特别是和处理木材的添加剂（例如木材的防腐剂等）结合之后。只有经过专业训练的人才能够加工含石棉的物料。

– 工作场所要保持空气流通。

– 最好佩戴P2滤网等级的口罩。

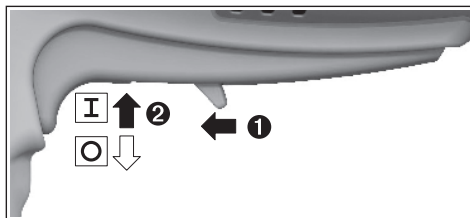
请留心并遵守贵国和加工物料有关的法规。

► **避免让工作场所堆积过多的尘垢。**尘埃容易被点燃。

运行

投入使用

接通/关闭



如要**运行**电动工具，请将解锁杆(6)向前推，然后向上按压起停开关(7)。

如要**关闭**电动工具，请松开起停开关(7)。

转速预选（参见插图B）

利用两个转速预选按钮(3)也可以在运行过程中预选所需的转速。正确的转速必须视工件材料和工作条件而定，唯有实际操作才能够找出最合适的转速。

LED指示灯	[转/分钟]
1个白灯长亮	5000
2个白灯长亮	7500
3个白灯长亮	10000

LED指示灯	[转/分钟]
4个白灯长亮	12500
5个白灯长亮	15000

▶ 附件的额定速度必须至少等于电动工具上标出的最大速度。附件以比其额定速度大的速度运转会发生爆裂和飞溅。

LED指示灯（参见插图B）

以下表格说明可能的LED指示灯(2)。

颜料	状态	含义/原因	解决方案
白色	长亮 (1个~5个灯)	转速预选	(参见“转速预选（参见插图B）”，页 9)
绿色	长亮 (2个~5个灯)	充电电池已充电	(参见“充电电池电量指示灯”，页 8)
黄色	长亮 (1个灯)	充电电池的电量几乎耗尽 (参见“充电电池电量指示灯”，页 8)	尽快更换充电电池或为其充电
	闪烁 (5个灯)	已达到临界温度 (电机、电子系统、充电电池)	让电动工具空转、冷却
红色	长亮 (1个灯)	充电电池的电量用尽了 (参见“充电电池电量指示灯”，页 8)	更换充电电池或为其充电
	闪烁 (5个灯)	电动工具过热并关闭	冷却并再次接通电动工具
		电动工具卡住并关闭	排除卡滞并再次接通电动工具
		主轴锁激活且电动工具关闭	停用主轴锁并再次接通电动工具

恒定电子装置

不论机器处在负载或空载状态，恒定电子装置都能够稳定转速，确保一致的工作效率。

工作提示

轻轻施压并且均匀地左右移动支撑板及垫片，以便获得最佳的工作效果。用力按压会降低电动工具的工作能力并导致研磨体迅速磨损。

▶ 妥善保管磨具，防止撞击。

维修和服务

维护和清洁

- ▶ 对电动工具执行任何操作（比如保养、更换刀具等）前需将充电电池从电动工具中取出。意外操作起停开关可能会造成伤害。
- ▶ 电动工具和通气孔必须随时保持清洁，以确保工作效率和工作安全。

客户服务和应用咨询

中国大陆

电话： 400 826 8484-3-2

制造商地址：

Robert Bosch Power Tools GmbH
罗伯特·博世电动工具有限公司

70538 Stuttgart / GERMANY

70538 斯图加特 / 德国

询问和订购备件时，务必提供机器铭牌上标示的10位数物品代码。

搬运

所推荐的锂离子充电电池必须符合危险物品法规。使用者无须另外使用保护包装便可以运送该充电电池。

但是如果将它交由第三者运送（例如：寄空运或委托运输公司）则要使用特殊的包装和标示。此时必须向危险物品专家请教有关寄送危险物品的相关事宜。

确定充电电池的外壳未受损后，才可以寄送充电电池。粘好未加盖的触点并包装好充电电池，不可以让充电电池在包装中晃动。必要时也得注意各国有关的法规。

处理废弃物

必须以符合环保的方式，回收再利用损坏的电动工具、充电电池、附件和废弃的包装材料。

不可以把电动工具和充电电池/蓄电池丢入一般的家庭垃圾中！



产品中有害物质的名称及含量

部件名称	有害物质					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr ⁺⁶)	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
外壳的非金属部分	O	O	O	O	O	O
机械传动机构	O	O	O	O	O	O
电机组件	O	O	O	O	O	O
控制组件	X	O	O	O	O	O
附件	O	O	O	O	O	O
配件	O	O	O	O	O	O
连接件	O	O	O	O	O	O

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- O：表示该有害物质在该部件所有均质材料中的含量均在GB/T 26572规定的限量要求以下。
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**S**

6 mm / M 15

2 608 570 084

1/4" / M 15

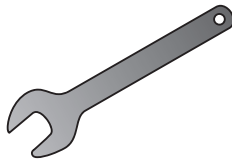
2 608 570 085

8 mm / M 15

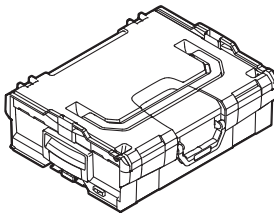
2 608 570 086



2 608 000 857



1 607 950 525



(L-BOXX 102)

1 600 A00 1DY



1 600 A02 K82

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