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# ANGLE GRINDER 20 V (NO ACCU) POWDP35100

## 1 APPLICATION

The angle grinder is designed for grinding metal and stone when using the appropriate grinding wheel and guard. Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Do not use tool attachments for works other than those for which they are designed for! Not suitable for professional use.



WARNING! Read this manual and general safety instructions carefully before using the appliance, for your own safety. Your power tool should only be passed on together with these instructions.

## 2 DESCRIPTION (FIG. A)

- Gear box
- 2. Spindle lock button
- Safety switch
- 4. Lock lever for protection guard
- 5. Wrench
- 6. Metal grinding guard
- 7. Auxiliary handle
- 8. Flange nut

- 9. On/off switch
- 10. Grinding disc (NOT included)
- 11. Charger (NOT included)
- 12. Battery pack with battery capacity indicator (NOT included)
- 13. Battery pack release button
- 14. Button for battery capacity indicator

## 3 PACKAGE CONTENT LIST

- Remove all packaging materials.
- Remove remaining packing and package inserts (if included).
- Check that the package contents are complete.
- Check the appliance, the power cord, the power plug and all accessories for transportation damage.
- Keep the packing materials as far as possible till the end of the warranty period. Dispose it
  into your local waste disposal system afterwards.



WARNING: Packaging materials are not toys! Children must not play with plastic bags! Danger of suffocation!

1 x machine

1 x auxiliary handle with wrench

1 x disc guard



If any parts are missing or damaged, please contact your dealer.

## 4 SYMBOLS

In this manual and/or on the machine the following symbols are used:



Denotes risk of personal injury or damage to the tool.



In accordance with essential requirements of the European directive(s).



Read manual before use.		Class II - The machine is double insulated; Earthing wire is therefore not necessary (only for charger).
Wear noise protection.	MAX. 40°C	Ambient temperature 40 °C max. (only for battery).
Wear eye protection.		Use battery and charger only in closed rooms.
Wear a mask in dusty conditions.		Do not expose charger and battery pack to water.
Wear gloves.	my	Do not incinerate battery pack or charger.

## 5 GENERAL POWER TOOL SAFETY WARNINGS

Read all safety warnings and instructions. Failure to heed warnings and follow instructions may result in electric shock, fire and/or serious injury. Keep safety warnings and instructions for future reference. The term "power tool" in the safety warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

## 5.1 Working area

- Keep working area clean and well lit. Untidy and dark areas can lead to accidents.
- Do not operate power tools in potentially explosive surroundings, for example, in the presence of inflammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- Keep children and bystanders at a distance when operating a power tool. Distractions can cause you to lose control of it.

## 5.2 Electrical safety

- Always check that the power supply corresponds to the voltage on the rating plate.
- Power tool plugs must match the outlet. Never modify the plug in any way. Do not use adapter plugs with earthed power tools. Unmodified plugs and matching outlets will reduce the risk of an electric shock.
- Avoid body contact with earthed surfaces such as pipes, radiators, kitchen ranges and refrigerators. There is an increased risk of an electric shock if your body is earthed.
- Do not expose power tools to rain or wet conditions. If water gets inside a power tool, it will increase the risk of an electric shock.
- Do not damage the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep the cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of an electric shock.
- When operating a power tool outdoors, use an extension cable suitable for outdoor use.
   Using a cord suitable for outdoor use reduces the risk of an electric shock.
- If operating a power tool in a damp location is unavoidable, use a power supply protected by a residual current device (RCD). Using an RCD reduces the risk of an electric shock.

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## 5.3 Personal safety

- Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool when you are tired or under the influence of drugs, alcohol or medication. A moment of inattention when operating a power tool may result in serious personal injury.
- Use safety equipment. Always wear eye protection. Using safety equipment such as a dust mask, non-skid safety shoes, a hard hat, or hearing protection whenever it is needed will reduce the risk of personal injury.
- Avoid accidental starts. Ensure the switch is in the off position before inserting the plug. Carrying power tools with your finger on the switch or plugging in power tools when the switch is in the on position makes accidents more likely.
- Remove any adjusting keys or spanners before turning on the power tool. A spanner or key left attached to a rotating part of the power tool may result in personal injury.
- Do not reach out too far. Keep your feet firmly on the ground at all times. This will enable
  you retain control over the power tool in unexpected situations.
- Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from the power tool. Loose clothes, jewellery or long hair can become entangled in the moving parts.
- If there are devices for connecting dust extraction and collection facilities, please ensure that they are attached and used correctly. Using such devices can reduce dust-related hazards

#### 5.4 Power tool use and care

- Do not expect the power tool to do more than it can. Use the correct power tool for what
  you want to do. A power tool will achieve better results and be safer if used in the context
  for which it was designed.
- Do not use the power tool if the switch cannot turn it on and off. A power tool with a broken switch is dangerous and must be repaired.
- Disconnect the plug from the power source before making adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
- Store power tools, when not in use, out of the reach of children and do not allow people
  who are not familiar with the power tool or these instructions to operate it. Power tools are
  potentially dangerous in the hands of untrained users.
- Maintain power tools. Check for misalignment or jammed moving parts, breakages or any other feature that might affect the operation of the power tool. If it is damaged, the power tool must be repaired. Many accidents are caused by using poorly maintained power tools.
- Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to jam and are easier to control.
- Use the power tool, accessories and cutting tools, etc., in accordance with these
  instructions and in the manner intended for the particular type of power tool, taking into
  account the working conditions and the work which needs to be done. Using a power tool
  in ways for which it was not intended can lead to potentially hazardous situations.

## 5.5 Battery tool use and care

- 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.
- Use power tools only with specifically designated battery packs. Use of any other battery packs may create a risk of injury and fire.
- 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.



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- 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.
- Do not use a battery pack or tool that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behaviour resulting in fire, explosion or risk of injury.
- Do not expose a battery pack or tool to fire or excessive temperature. Exposure to fire or temperature above 130 °C may cause explosion.
- Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions. Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

#### 5.6 Service

 Your power tool should be serviced by a qualified specialist using only standard spare parts. This will ensure that it meets the required safety standards.

## 6 SPECIFIC SAFETY INSTRUCTIONS FOR ANGLE GRINDERS

- Remove any packing material and loose parts from the unit.
- Check the accessories before use. It should be fit with the machine and your purpose.
- If the machine is new, the battery must first be charged.
- Check that the maximum speed indicated on the grinding disc corresponds to the maximum speed of the machine. The speed of the machine must not exceed the value on the grinding disc.
- Make sure that the dimensions of the grinding disc correspond to the specifications of the machine.
- Make sure that the grinding disc has been mounted and fastened properly. Do not use reducing rings or adapters to make the grinding disc fit properly.
- Treat and store grinding discs in conformance with the supplier's instructions.
- Do not use the machine for grinding workpieces with a maximum thickness exceeding the maximum grinding depth of the grinding disc.
- Do not use grinding discs for deburring.
- When grinding discs have to be mounted on the thread of the spindle, make sure that the spindle has sufficient thread. Make sure that the spindle is sufficiently protected and does not touch the grinding surface.
- Before use, inspect the grinding disc for any damage. Do not use grinding discs which are cracked, ripped or otherwise damaged.
- Before use, let the machine run idle for 30 seconds.
- Immediately switch off the machine in case of abnormal vibrations or occurrence of another defect. Carefully inspect the machine and grinding disc before switching the machine on again.
- Make sure that sparks do not put people into danger or that they contact highly flammable substances
- Make sure that the workpiece is sufficiently supported or clamped. Keep your hands away from the surface to be cut.
- Always wear safety goggles and hearing protection. If desired or required also use another kind of protection like for example an apron or helmet.
- Ensure that mounted wheels and points are fitted in accordance with the manufacturer's instructions.
- Ensure that blotters are used when they are provided with the bonded abrasive product and when they are required.
- If a guard is supplied with the tool never use the tool without such a guard.
- For tools intended to be fitted with threaded hole wheel, ensure that the thread in the wheel is long enough to accept the spindle length.
- Ensure that ventilation openings are kept clear when working in dusty conditions.



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## 7 ADDITIONAL SAFETY INSTRUCTIONS FOR BATTERIES AND CHARGERS

#### 7.1 Batteries

- Never attempt to open for any reason.
- Do not store in locations where the temperature may exceed 40 °C.
- Charge only at ambient temperatures between 4 °C and 40 °C.
- Store your batteries in a cool dry place (5 °C-20 °C). Never store batteries in discharged state.
- It is better for Li-ion batteries to discharge and reload them regularly (at least 4 times a year). The ideal charge for long-term storage of your Li-ion battery is 40% of capacity.
- When disposing of batteries, follow the instructions given in the section "Protecting the environment".
- Do not cause short circuits. If connection is made between the positive (+) and negative (-)
  terminal directly or via accidental contact with metallic objects, the battery is short circuited
  and an intense current will flow causing heat generation which may lead to casing rupture
  or fire.
- Do not heat. If batteries are heated to above 100 °C, sealing and insulating separators
  and other polymer components may be damaged resulting in electrolyte leakage and/or
  internal short circuiting leading to heat generation causing rupture or file. Moreover do not
  dispose of the batteries in fire, explosion and/or intense burning may result.
- Under extreme conditions, battery leakage may occur. When you notice liquid on the battery, proceed as follows:
  - -Carefully wipe the liquid off using a cloth. Avoid skin contact.
  - -In case of skin or eye contact, follow the instructions below:
    - ✓ Immediately rinse with water. Neutralize with a mild acid such as lemon juice or vinegar.
    - ✓ In case of eye contact, rinse abundantly with clean water for at least 10 minutes. Consult a physician.



Fire hazard! Avoid short-circuiting the contacts of a detached battery. Do not incinerate the battery.

#### 7.2 Chargers

- Never attempt to charge non-rechargeable batteries.
- Have defective cords replaced immediately.
- Do not expose to water.
- Do not open the charger.
- Do not probe the charger.
- The charger is intended for indoor use only.

## 8 CHARGING AND INSERTION OR REMOVAL OF BATTERY

#### 8.1 Charger indications (Fig. 1)

Connect the charger to the power outlet socket:

- Solid green: ready to charge.
- Flickering red: charging.
- Solid green: charged.
- Solid green and red: battery or charger damaged.







Note: if the battery does not fit properly, disconnect it and confirm that the battery pack is the correct model for this charger as shown on the specification chart. Do not charge any other battery pack or any battery pack that does not securely fit the charger.

- 1. Frequently monitor the charger and battery pack while connected.
- 2. Unplug the charger and disconnect it from the battery pack when finished.
- 3. Allow the battery pack to cool completely before using it.
- 4. Store the charger and battery pack indoors, out of reach of children.



NOTE: If battery is hot after continuous use in the tool, allow it to cool down to room temperature before charging. This will extend the life of your batteries

## 8.2 Removal / insertion of battery (Fig. 2)



WARNING: Before making any adjustments ensure the machine is switched off or remove the battery pack.

- Hold the tool with one hand and the battery pack (12) with the other.
- To install: push and slide battery pack into battery port, make sure the release latch on the rear side of the battery snaps into place and battery is secure before beginning operation.
- To remove: Press the battery release latch and pull the battery pack out at the same time.

#### 8.3 Battery capacity indicator (Fig. 3)

There are battery capacity indicators on the battery pack, you can check the capacity status of the battery if you squeeze the button (14). Before using the machine, please press switch trigger to check if the battery is full enough for properly working.

Those 3 LED might show the status of the capacity level of the battery:

3 LED's are litt: Battery fully charged.

2 LED's are litt: Battery 60% charged.

1 LED is litt: Battery almost discharged.

#### 9 ASSEMBLY

#### 9.1 Fitting the auxiliary handle (Fig. 4)



Warning: Prior to assembly and adjustment always switch off the grinder and pull out the battery pack from the angle grinder body.

- The auxiliary handle (7) can be attached to the angle grinder in 2 different positions: left and right.
- To assemble the handle, simply screw it into one of the attachment points. Check that the handle has been securely fastened, but don't screw it in too tightly.

## 9.2 Assembly the protective guard (Fig. 5)

- Loosen the clip of the protective guard (6) by pulling lock lever of protective guard (4) outward.
- Turn the protective guard so that uncovered part of the disc is as far apart as possible from the hand on main handle
- Fix the protection guard by pushing the lock lever inwards (the protective guard should no longer be able to move).







Note: If the protective guard cannot be fixed firmly by the lock lever (4), use a hexagon wrench to tighten the hexagon nut.



Warning: the protective guard must be positioned to protect the user if the disc shatters during use.

9.3 Replacing the grinding disc (Fig. 6a-7b)



Beware - a disc which has been used may be very hot!



Warning: prior to assembly and adjustment always pull out the battery pack from the grinder body.

- Depress and hold down the spindle lock button (2) to secure the spindle.
- Turn the spindle until it locks.
- Remove the outer flange and the disc, the inner flange can remain in place.
- Always check if the inner flange is slotted correctly on to the spindle using the corresponding slots on both spindle and flange. (Fig. 6a - 6b)
- Place the alternate disc you want to use on top of the inner flange and check the disc manufacturer instructions for the correct orientation of the disc. (Fig. 7a)
- Screw the outer flange back on to the spindle and fasten it with the wrench. (Fig. 7b)
- Make sure using the spindle lock that the disc cannot slip.



Important! Only ever press the spindle lock when the motor and grinding spindle are at a standstill!

You must keep the spindle lock pressed while you change the wheel! Switch the grinder on using the ON/OFF switch (3+9), and let it run for 30 seconds to check that it is working correctly and that there are no abnormal vibrations. Stop the grinder

immediately if heavy vibration occurs, and investigate the cause. For grinding disc and cutting wheel with a thickness up to approx. 3 mm, screw on the outer flange with the flat side facing the grinding disc or cutting wheel.

## 10 OPERATION

#### 10.1 Switch on/off (Fig. 8)



Before engage the ON/OFF switch button, check that the grinding disc is properly fitted and run smoothly, the outer flange is well tightened.

Connect the battery pack onto the angle grinder body.

## 10.1.1 Switching on

Push the safety switch (3) forward to unlock the ON/OFF switch, afterwards depress the ON/OFF switch (9) completely.

## 10.1.2 Switching off

Release the ON/OFF switch (9). The safety switch (3) will automatically return to the locked position.



The wheel continues to rotate after the tool is switched off.

#### 11.1 Wrench storage (Fig. 9)

- For a convenient use and storage, this tool features a wrench storage function. You can store your wrench into the auxiliary handle after use.
- Insert the wrench into the slot available in the auxiliary handle.
- The wrench is totally stored until the prominences on the wrench is locked on the auxiliary handle sockets.
- To use the wrench and take it out of the handle, simply hold the tow sides of the wrench pin and pull it out.

## 11.2 Rough grinding (Fig. 10)



Warning: Never use a cutting disc for grinding. To grind, only use the guard designed for grinding.



CAUTION: Never press the spindle locking button while the disc is rotating. For best grinding results, position the tool at an angle of between 30° and 40° Move the tool backwards and forwards applying light pressure. This way, the item being worked on will not heat up too much, will not discolour and avoids forming grooves.

## 11.3 Cutting (Fig. 11)

To cut metal, always use the guard designed for cutting.

- While cutting, move the tool forward without forcing it, depending on the material you are cutting.
- Don't apply pressure to the cutting disc.
- Don't tilt the tool or move it from side to side.
- Do not reduce the cutting disc speed when it's been turned off by applying lateral pressure.
- The tool must always work in an abrasive movement directed upwards. Otherwise, it risks being propelled in an uncontrolled manner away from the cutting line.
- When cutting bars with square sections or profiles, it's preferable to start with the straightest part.



NOTE: When you use the right angle grinder for cutting purposes, avoid tilting it in the cutting plane. The cutting wheel must have a clean cutting edge. A diamond cutting wheel is advised to cut hard stone.



WARNING: Never use a grinding disc for cutting.

WARNING: Never use a cutting wheel for rough grinding.

WARNING: Materials containing asbestos must not be processed!



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## 12 CLEANING AND MAINTENANCE

## 12.1 Cleaning

- Keep the ventilation slots of the machine clean to prevent overheating of the engine.
- Regularly clean the machine housing with a soft cloth, preferably after each use.
- Keep the ventilation slots free from dust and dirt.
- If the dirt does not come off use a soft cloth moistened with soapy water.



Never use solvents such as petrol, alcohol, ammonia water, etc. These solvents may damage the plastic parts.

## 13 TECHNICAL DETAILS

Model nr.	POWDP35100
Rotation speed	8500 min-1
Disc diameter	115 mm
Rated voltage	20 V
Spindle lock	Yes
Battery connection	Slide-on
Spindle thread	M14
Soft grip	Yes
Safety guard	Yes
Soft start	Yes

## 14 NOISE

Noise emission values measured according to relevant standard. (K=3)

Ì	Acoustic pressure level LpA	84 dB(A)
	Acoustic power level LwA	95 dB(A)



ATTENTION! Wear hearing protection when sound pressure is over 85 dB(A).

aw (Vibration)	Max. 4.3 m/s <sup>2</sup>	$K = 1.5 \text{ m/s}^2$

#### 15 WARRANTY

- This product is warranted for a 36-month period effective from the date of purchase by the first user.
- This warranty covers all material or production flaws excluding: batteries, chargers, defective parts subject to normal wear & tear such as bearings, brushes, cables, and plugs, or accessories such as drills, drill bits, saw blades, etc.; damage or defects resulting from maltreatment, accidents or alterations; nor the cost of transportation.
- Damage and/or defects resulting from inappropriate use also do not fall under the warranty provisions.
- We also disclaim all liability for any bodily injury resulting from inappropriate use of the tool.
- Repairs may only be carried out by an authorised customer service centre for Powerplus tools.
- You can always obtain more information at the number 00 32 3 292 92 90.
- Any transportation costs shall always be borne by the customer, unless agreed otherwise in writing.
- At the same time, no claim can be made on the warranty if the damage of the device is the result of negligent maintenance or overload.
- Definitely excluded from the warranty is damage resulting from fluid permeation, excessive dust penetration, intentional damage (on purpose or by gross carelessness), inappropriate usage (use for purposes for which the device is not suitable), incompetent usage (e.g. not following the instructions given in the manual), inexpert assembly, lightning strike, erroneous net voltage. This list is not exhaustive.
- Acceptance of claims under warranty can never lead to the prolongation of the warranty period nor commencement of a new warranty period in case of a device replacement.
- Devices or parts which are replaced under the warranty therefore remain the property of Varo NV.
- We reserve the right to reject a claim whenever the purchase cannot be verified or when it
  is clear that the product has not been properly maintained. (Clean ventilation slots, carbon
  brushes serviced regularly, etc.).
- Your purchase receipt must be kept as proof of date of purchase.
- Your appliance must be returned undismantled to your dealer in an acceptably clean state, (in its original blow-moulded case if applicable to the unit), accompanied by proof of purchase.
- Your tool must be charged at least 1x per month to ensure optimal operation of this tool.

## **16 ENVIRONMENT**



Should your appliance need replacement after extended use, do not dispose of it with the household refuse, but in an environmentally safe way.



Waste produced by electrical machine items should not be handled like normal household rubbish. Please recycle where recycle facilities exist. Check with your Local Authority or retailer for recycling advice.



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17 DECLARATION OF CONFORMITY





VARO – Vic. Van Rompuy N.V. - Joseph Van Instraat 9 - BE2500 Lier - BELGIUM, declares that,

Product: ANGLE GRINDER 20 V – Battery Operated

Trade mark: PowerPlus Model: POWDP35100

is in conformity with the essential requirements and other relevant provisions of the applicable European Directives, based on the application of European harmonized standards. Any unauthorized modification of the apparatus voids this declaration.

European Directives (including, if applicable, their amendments up to the date of signature):

2011/65/EU 2006/42/EC 2014/30/EU

European harmonized standards (including, if applicable, their amendments up to the date of signature):

EN60745-1: 2009 EN60745-2-3: 2011 EN55014-1: 2017 EN55014-2: 2015

Keeper of the Technical Documentation: Philippe Vankerkhove, VARO – Vic. Van Rompuy N.V.

The undersigned acts on behalf of the company CEO,

Ludo Mertens

Regulatory Affairs - Compliance Manager

24/03/2021, Lier - Belgium