

OPERATING INSTRUCTIONS

FLEXTOOL PLANETARY CONCRETE GRINDER FCG-450



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INTRODUCTION

Thank you for your selection of Flextool equipment.

Flextool have specialised in the design and manufacture of quality products since 1951. We have taken care in the design, manufacture, and testing of this product. Should service or spare parts be required, prompt and efficient service is available from our extensive dealer network.

General Safety Instructions for the Operation of Power Equipment

The goal of Flextool is to produce power equipment that helps the operator work safely and efficiently. The most important safety device for this or any tool is the operator. Care and good judgement are the best protection against injury. All possible hazards cannot be covered in this manual however we have tried to highlight some of the important items, individuals should look for and obey Caution, Warning and Danger signs placed on equipment, and displayed in the workplace. Operators should read and follow safety instructions packed with each product.

Learn how each machine works. Even if you have previously used similar machines, carefully check out each machine before you use it. Get the “feel” of it and know its capabilities, limitations, potential hazards, how it operates, and how it stops.

APPLICATION

The Flextool Planetary Concrete Grinder FCG-450 has been specifically designed for concrete surface preparation and polishing in residential and small commercial applications. It is ideally suited for preparation of concrete substrates prior to the application of coatings and toppings as well as to produce high quality polished concrete surfaces.

FUNCTION AND CONTROLS



1. Control Panel – The control panel includes start and stop buttons as well as a variable speed control dial.
2. Folding Handle – Equipped with three locking positions for transport and storage, changing of grinding shoes and operation.
3. Weights – Grinding head weights for adjustable grinding head pressure and improved efficiency and performance.
4. Shroud and Dust Port – For the safe and efficient capture of concrete dust during operation.
5. Motor – 2.2 kW / 3 hp electric motor
6. Lifting Hook – For the safe lifting and movement of the machine.
7. Electrical Inverter – Converts power to the motor for use on a standard 240 V / 10 amp power outlet.

HAZARDS AND RISKS

GENERAL GUIDELINES

- NEVER allow any person to operate equipment without adequate instructions.
- ENSURE all operators read, understand, and follow the operating instructions.
- SERIOUS INJURY may result from improper or careless use of this machine.
- USE correct manual handling techniques when moving the grinder. The machine is fitted with wheels for transport.

CRYSTALLINE SILICA AND SILICOSIS

Concrete grinding can expose the operator and bystanders to fine concrete dust particles including crystalline silica that is generated in workplace processes such as crushing, cutting, drilling, grinding, sawing or polishing of stone, concrete and other man-made products that contain silica. Exposure to crystalline silica can be extremely harmful to your health and cause a wide range of respiratory illnesses.

Flextool recommends that all operators of equipment used in the above listed activities familiarise themselves with the "Working with silica and silica containing products" safety handbook available on the Safe Work Australia.

website: www.safeworkaustralia.gov.au

MECHANICAL HAZARDS

- DO NOT operate the machine unless all protective guards in place.
- KEEP hands and feet clear of rotating and moving parts as they will cause injury if contacted.
- ENSURE both the machine and the operator are stable by setting up on a level surface. Make sure the machine does not tip over, slide or fall while in operation or unattended.
- DO NOT leave the machine in operation while it is unattended.
- EXERCISE CARE when operating the unit. Extended exposure to vibration or repetitive work actions may be harmful to hands and arms.
- NEVER stand on the unit while it is operating.
- ONLY USE the recommended grinding plate or shoes. Allow the machine to cool before servicing or replacing parts, severe burns may be caused by coming in contact with hot discs or segments.
- ENSURE that repairs to the motor and machine are carried out by qualified personnel.

ELECTRICAL HAZARDS

- RISK OF FATAL OR SERIOUS INJURY FROM ELECTRICAL SHOCK may arise through incorrect use, operating the equipment where leads and other electrical components are damaged or through ingress of moisture and water.
- ENSURE that the grinder is disconnected from electric power source and motor operation switch is in the OFF position before removing guards, making adjustments or repairs or changing grinding consumables.
- ENSURE that the area requiring grinding does not contain any "live" electrical cables, gas, water or communication services which may be damaged by the action of the unit.

- INSPECT electrical leads, plugs and sockets regularly for damage, if any damage is found, isolate equipment and seek immediate repair.
- ENSURE if the grinder is used in a wet / damp environment that a residual current device (RCD) safety switch is used to reduce the risk of electric shock.
- ENSURE if an extension cord is used, it is suitable for outdoor use and in good working condition. Never connect multiple extension cords and limit the extension cord length to 20 metre. Do not operate the equipment using coiled or tangled extension leads.
- BEFORE USE check the condition of all cables, the motor starter box, and power lead / plug to ensure it is in good working condition. If there are any signs of deterioration and / or damage, do not use the grinder.
- DO NOT adjust any settings within the motor starter box as they have been set to ensure the correct operation of the grinder.
- ENSURE that repairs to electrical components are carried out by a QUALIFIED and LICENCED electrician.

NOISE HAZARDS

- EXCESSIVE NOISE can lead to temporary or permanent loss of hearing.
- WEAR approved hearing protection as required by Occupational Health and Safety regulations while operating the machine to limit noise exposure.

PERSONAL PROTECTIVE EQUIPMENT

- WEAR eye protection and dust mask when working in a dusty environment.

OPERATION

The Flextool Planetary Concrete Grinder FCG-450 operates from a standard 240 volt / 10 amp power outlet. Prior to connecting the unit to the power socket, ensure there is a clear and safe working environment that is free from hazards, and complete the following checks.

It is important to ensure the grinder is set up correctly to ensure safe operation. Ensure the grinder is fitted with the appropriate grinding shoes for the application and that they are fitted securely to avoid dislodgement during operation. To do this, place both the grinding head weights and the handle into the 12 o'clock position and tilt the machine all the way back. The handlebar should now be resting on the ground and the grinding heads exposed.

Ensure the grinder is switched off or unplugged before changing or fitting shoes.

Fit the required grinding shoes into position using the tapered easy lock mechanism, to lock them into position you may need to give them a gentle tap with a small hammer. (Do not hit them too hard or you may damage the grinding segment) For correct fitment of the polishing resins ensure the adaptor plate is used and that the velcro pad is clean and provides a strong hold of the resin pad, ensure the adaptor plate is seated into the grinding head and has a strong hold with the magnetic retainers.

Now that the necessary grinding shoes or resins have been fitted, the handlebar can now be lifted and the grinding head can carefully be lowered onto the ground. Always ensure a firm grip and a balanced wide stance when lowering the grinder and never drop the grinding head, this can cause damage and lead to costly repairs.

Concrete grinders must always be used in conjunction with a suitable dust collector equipped with H-Class filtration for the safe extraction and capture of concrete dust. This is done by connecting the hose of the dust collector unit to the 50 mm dust outlet situated at the rear of the grinder beneath the main electrical inverter box. It is also important to ensure the rubber shroud is in contact with the ground to ensure all grinding dust is captured, this is done by pushing downward on the floating rubber shroud.

Move the handlebar into the operating position and adjust the hand grips to the desired height for optimal control and comfort specific to the operator's height.

The operation of the concrete grinder is managed via the control panel situated at the top of the handlebar. This panel is equipped with a Start and Stop button as well as a speed controller dial which adjusts the grinding head speed, this function can be particularly useful when removing coatings and in combination with PCD grinding shoes.

CARE AND PREVENTIVE MAINTENANCE

- CAUTION: Prior to undertaking any maintenance ensure the unit is switched off at the power outlet and the power lead is disconnected from the wall outlet.
- ALWAYS use personal safety equipment while undertaking repairs to the grinding head that could expose the user to fine concrete dust particles – always wear a dust mask.
- Inspect the grinding plates and shoes before each use for damage.
- Check all fasteners for tightness as the machine is subject to vibration.
- Clean the underside of the unit regularly to prevent a build-up of material.

CLEANING AND STORAGE

- ENSURE to switch off the machine and remove plug from outlet prior to cleaning and servicing.
- AVOID cleaning the machine with a high-pressure cleaner, this can damage filters and electronics.
- Wear proper personal protective equipment while cleaning the machine.

TECHNICAL DATA

Model	Grinding Width mm (in)	Operating Weight kg (lb)	Voltage V/Hz	Max Current A	Power Output kW	Power Output hp	Grinding Speed rpm	IP Rating	Dust Outlet mm (in)	Lifting Hook	Grinding Shoes
FCG-450	450 (18)	145 (320)	240 50/60	9.57	2.2	3	300 to 1800	55	50 (2)	Yes	Easy Lock (Redi-Lock Compatible)



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This manual summarises our best knowledge of the product based on the information available at the time of publication. You should read this manual carefully and consider the information in the context of how the product will be used. Our responsibility for products sold is subject to our standard terms and conditions of sale.

DISCLAIMER:

Any advice, recommendation, information, assistance or service provided by us in this manual is given in good faith and is believed by us to be appropriate and reliable. However, any advice, recommendation, information, assistance or service provided by us is provided without liability or responsibility PROVIDED THAT the foregoing shall not exclude, limit, restrict or modify the right entitlements and remedies conferred upon any person or the liabilities imposed upon us by any condition or warranty implied by Commonwealth, State or Territory Act or ordinance void or prohibiting such exclusion limitation or modification. The product can be expected to perform as indicated in this manual so long as operation and operational procedures of the individual products are followed as recommended in this manual.

Design and technical specifications may be subject to changes.

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