

PADDOCK 480MM CONCRETE FLOOR GRINDER & POLISHER

- 3 PHASE.

P/N - PCFG480VSD

User and Maintenance Manual



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WARNING: The grinder gearbox requires ~300ml of 85W-140 gear oil. This oil should be replaced every 6 months to ensure a long gearbox life.







1. INTRODUCTION

Congratulations and thank you for choosing the Paddock 480mm Concrete Floor Grinder. This manual is an important part of your machine. It provides critical safety information and operating instructions to help you use and maintain your machine safely and correctly.

Paddock[™] has developed a trade quality set of concrete floor grinders that are affordable yet made to last. Built for tradies - priced for DIYers. Break free from the cycle of hiring concrete grinders and own a high end Paddock floor grinder. Paddock also supports the grinders with a huge range of concrete diamond discs to suit a range of applications. Many grits, bonds and segments are available. Our 250mm option is great for small areas and edging, with a removable shroud allowing you to grind within 1mm of walls. The 480mm triple disc grinder has a high work rate and is ideal for preparing large floor and concrete areas.

Paddock™ Floor Grinders & Polishers

- Trade quality built to last!
- Operate on a standard household power socket
- Use with a range of discs including Paddock and Floorex discs
- Massive 5.3HP 3 phase motors with cooling fans
- Simple to service and maintain

480mm Concrete Floor Grinder

The Paddock 480mm floor grinder is a planetary 3 disc configuration designed for preparing large floor areas. With work rates up to 75m2 an hour this grinder is highly efficient and will make light work of concrete grinding jobs. Concrete discs are changed within seconds as they are securely held in place by magnetic plugs - no screws, bolts or tools required. The 480mm grinder is compatible with the full range of Paddock 175mm discs as well as Floorex discs and many other brands. A 5.3HP fan cooled electric drive is coupled to the disc plate via a gear reduction transmission making sure to get the power to the floor where it's needed. In-built spirit levels will let the operator know when the machine is level. Adjustments can be made in 17 different positions by adjusting the axle height. The shroud is floating and automatically adjusts to the grinding height and disc wear. To prevent bouncing or vibration as well as to increase grinding work rate the unit is supplied with two counter weights which can be added to the front of the machine. For dust suppression the grinder is fitted with a 40mm push on industrial vacuum port. Incorporated into the design is an adjustable vacuum hose guide to keep the vacuum hose out of the operator's way. The handle is adjustable with three operating height positions, a tooling position as well as a folded stow position. Built into the operator's handle is an easy access on/off switch as well as emergency E-stop and overload protection.

A digital LCD display provides current and load data in real time. A single lifting point makes loading the grinder into vans, utilities and trailers simple and safe. As with all Paddock concrete floor grinders the 480mm grinder is fitted with high quality electrics for the demanding service. With all design aspects over engineered, this grinder is of the highest quality!



2. SPECIFICATIONS

Floor Grinder	PCFG250	PCFG480	PCFG480VSD
Model			
Brand	Paddock™ Machinery	Paddock™ Machinery	Paddock™ Machinery
Function	Concrete grinding, polishing and edging	Concrete grinding and polishing	Concrete grinding and polishing
Voltage	220-240V 50HZ	220-240V 50HZ	415V 50HZ
Plug	Single Phase 15A	Single Phase 15A	3-Phase
Power	3 hp (2.24 kW)	3 hp (2.24 kW)	5.36 hp (4.0kW)
Motor RPM	1420 rpm	2850 rpm	2910 rpm
Head RPM	1420 rpm	380 rpm	40-400 rpm
Work Rate	25 - 40 m² / hr	50 - 75m² / hr	75 - 105m² / hr
Head Type	Single	Floating Planetary	Floating Planetary
Max. Head Pressure	28 kg	112 kg	125 kg
Construction	Powder coated steel	Powder coated steel	Powder coated steel
Cooling	Fan cooled	Fan cooled	Fan cooled
Grind Diameter	250mm	480mm	480 mm
Required Discs	1x 250mm (10") disc	3x 175mm (7") discs	3x 175mm (7") discs
Dust Connection	Included	Included	Included
Port	l moradod	moladod	
Wheels	Solid Rubber	Solid Rubber	Solid Rubber
	Diameter 200mm	Diameter 200mm	Diameter 200mm
	Width 50mm	Width 50mm	Width 50mm
Noise Rating	75 - 88 dB(A)	75 - 88 dB(A)	75 - 88 dB(A)
Weight	63 kg	160 kg	171 kg
Includes	Allen keys	2x Counter weights	2x Counter weights
	1x Adaptor Plate	(23 kg)	(23 kg)
	(Compatible with	6x Magnetic plugs	6x Magnetic plugs
	Floorex discs)	*Discs not included	*Discs not included
	Optional: Grinding		
	shoe adapter plate		
	*Discs not included		
Features	Removable shroud for	Digital hour meter	Schneider VSD for
	edging	Quick connect	variable drive speed
	Spirit levels	magnetic plugs	Digital hour meter
	Dust extraction port	Dust extraction port	Quick connect
	Dust suppression	Spirit levels	magnetic plugs
	water port (adjustable) Load rated lifting	Cup holder Vac hose guide	Dust extraction port Spirit levels
	points	Load rated lifting	Cup holder
	points	points	Vac hose guide
		Politio	Load rated lifting
			points
Warranty	24 Months Australian	24 Months Australian	24 Months
- Tailaity	Warranty	Warranty	Australian Warranty
	arrainty	anancy	

3. WARNING

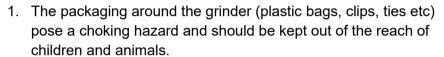
Carefully read and understand all instructions and warnings in this manual before operating the Concrete Grinder. Failure to follow the safety precautions may result in serious injury or death.

This product is designed for certain applications only. The manufacturer cannot be responsible for issues arising from modification. It is strongly recommended this product not be modified and/or used for any application other than that for which is the product of the product



modified and/or used for any application other than that for which it was designed. If you have any questions relating to a particular application, DO NOT use the product until you have contacted Paddock Machinery to determine if the Concrete Grinder is suitable for the application.

4. SAFETY MANAGEMENT PROCEDURES





- This machine is not designed to be used by children. The operator and maintenance personnel must physically be able to handle the bulk weight and power of this machine.
- 3. Do not use adapters or multiple sockets, without performing an analysis of the electric voltage and current drawer. Consult an electrician if required.
- 4. If any electrical extension is used, ensure it matches the electrical specifications of the machine and that the connection of the plug with the socket is compliant and sealed.
- 5. Take care of the electrical cable. It must be protected from water, tears and chemical agents. Do not repair the cable in case of damage, but replace it with a new one. All repairs must be done by the manufacturer, service agent or a similarly qualified person.
- 6. DO NOT pull the cable to drag the machine into position or to remove the plug from the power socket.
- 7. Only disconnect the power plug when the machine is turned off.
- 8. DO NOT handle the plug with wet hands.
- 9. UNPLUG the power cable before changing discs or servicing the machine.
- 10. Never use flammable liquids or operate machine in or near flammable liquids, vapours or combustible dusts or gases.
- 11. Familiarise yourself with the controls and emergency off switches.
- 12. Leave shrouds and guards in place.
- 13. Never run the machine or have the machine powered on when unattended.
- 14. For use on floor surfaces only.
- 15. NEVER start the machine with the handle in the storage or tooling position. Never adjust the handle while the grinder is on.
- 16. NEVER start the machine when the discs are NOT in contact with the floor surface.
- 17. Keep body parts, hair and clothing away from moving parts.

- 18. Use only genuine Paddock spare parts.
- 19. Do not operate the machine in rain or damp environments. Keep all electrical components free from water ingress.
- 20. USE hearing protection.
- 21. Abide by the maintenance schedule
- 22. Use the rated lifting point only for lifting and tie down.
- 23. Always leave enough room around the grinder to reach the controls and off switches.
- 24. Improper connection of the equipment-grounding conductor can result in a risk of electric shock., Check with a qualified electrician or service person if you in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the appliance. If it will not fit the outlet, have a proper outlet installed by a qualified electrician.
- 25. Make sure that the appliance is connected to an outlet having the same configuration as the plug. No adapter should be used with this appliance. If the appliance must be reconnected for use on a different type of electric circuit the reconnection should be made by a qualified service personnel.
- 26. Ensure all equipment is test & tagged prior to operation.
- 27. Keep machine clear of drainage pits and grates or any such hazard. Failure to comply could result in bodily injury and or could damage the machine or property.
- 28. Keep the wheels in contact with the floor at all times.
- 29. CAUTION Line terminals may be alive when the main switch is in the off position. Disconnect all power at source before performing any maintenance or repairs.
- 30. The overcurrent device is there to protect you and the machine from harm. DO NOT alter or adjust the over load in any way. If it is faulty, only replace with original part that is identical to the faulty one.
- 31. Never bypass over-current devices in this machine.
- 32. Never connect or disconnect power cables with voltage present or while under load.
- 33. Disconnect all power connections and observe lock out / tag out procedures before attempting to carry out any maintenance or repair on any equipment.

5. GENERAL SAFETY

WARNING: Read and understand all instructions. Failure to follow all instructions listed as follows may result in serious injury or death.



CAUTION: Do not allow persons to operate or

assemble this Concrete Grinder until they have read this manual and have developed a thorough understanding of how the Concrete Grinder works.

WARNING: The warnings, cautions, and instructions discussed in this manual cannot cover all possible conditions or situations that could occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product but must be supplied by the operator.

WORK AREA

- Keep work area clean, free of clutter and well-lit.
 Cluttered and dark work areas can cause accidents.
- 2. Keep children and bystanders away while operating the Concrete Grinder. Distractions can cause you to lose control, so visitors should remain at a safe distance from the work area.













3. Be alert of your surroundings.

PERSONAL SAFETY

 Stay alert, watch what you are doing and use common sense when using the Concrete Grinder. Do not use the Concrete Grinder while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating the Concrete Grinder may result in serious personal injury.



- 2. Dress properly. Do not wear loose clothing, dangling objects, or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
- 3. Use personal safety equipment. Use safety goggles or safety glasses with side shields which comply with current national standards, or when needed, a face shield. Use a dust mask or respirator if working in dusty work conditions. This applies to all persons in the work area. Also use non-skid safety shoes, hardhat, gloves, dust collection systems, and hearing protection when appropriate.

GRINDER USE AND CARE

- 1. Do not modify the grinder in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the equipment. There are specific applications for which the grinder was designed.
- 2. Always check for damaged or worn out parts before using the grinder. Broken parts will affect the grinder operation. Replace or repair damaged or worn parts immediately.
- 3. Do not exceed the grinder load capacity.
- 4. Store idle grinder. When the grinder is not in use, store it in a secure place out of the reach of children. Inspect it for good working condition prior to storage and before reuse.





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6. ELECTRICAL REPAIRS

WARNINGS:

1. All electrical repairs must be performed by qualified person only!

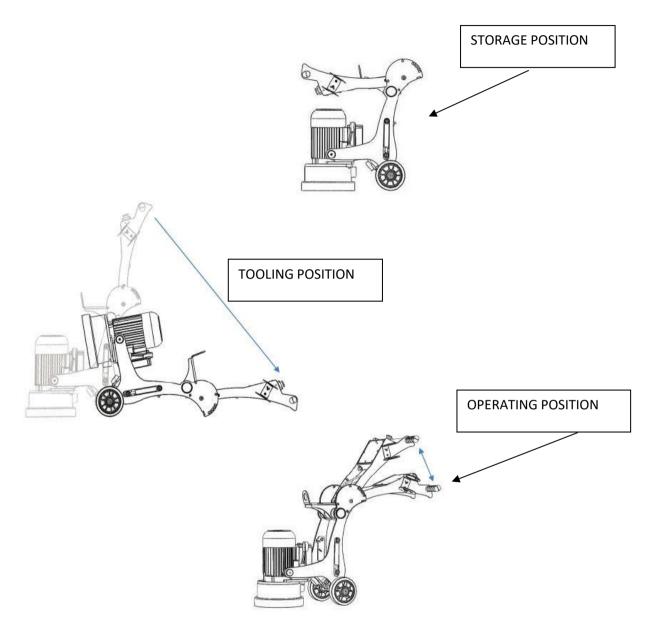
2. Paddock cannot be held responsible for any damage/injury caused to persons or property, because of the incorrect use of the machine.

7. EQUIPMENT SAFETY GUIDELINES

- 1. Improper connection of the equipment-grounding conductor can result in a risk of electric shock., Check with a qualified electrician or service person if you in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the appliance. If it will not fit the outlet, have a proper outlet installed by a qualified electrician.
- 2. Make sure that the appliance is connected to an outlet having the same configuration as the plug. No adapter should be used with this appliance. If the appliance must be reconnected for use on a different type of electric circuit the reconnection should be made by a qualified service person.
- 3. Use of the Concrete Grinder is governed by the laws in force in the country where it is used.
- 4. Besides the operating instructions and the laws in force in the country where the Concrete Grinder is used, the technical regulations for ensuring safe and correct operation must also be observed.
- 5. Do not carry out any operation that could jeopardize the safety of people, property and the environment.
- 6. This equipment is dangerous to children and persons unfamiliar with its operation. The operator should be a responsible, properly trained and physically able person familiar with machinery and trained in this equipment's operations.
- 7. Personal protection equipment including hardhat, safety glasses, safety shoes, and gloves are recommended during assembly, installation, operation, adjustment, maintenance, repairing, removal, or moving the implement. Do not allow long hair, loose fitting clothing, or jewellery to be around the equipment.
- 8. Do not modify the equipment in any way. Unauthorized modification could result in serious injury or death and may impair the function and life of the equipment.
- 9. PADDOCK Machinery, or any of its subsidiaries will not be held liable for any damages, losses or injury due to the misapplication or misuse of this product or for any other reason. Always wear ANSI approved safety glasses, protective clothing, and proper hand and foot protection always. Keep all people, pets or animals, clear from work area.
- 10. Always leave enough room around the Concrete Grinder to reach the controls easily.
- 11. Abide by the maintenance schedule.

8. OPERATION

Figure 1 - Handle Positions



CLEAR THE AREA

- 1) Inspect the floor surface and remove all loose items such as nails, screws, bolts and other objects. These can damage the diamond tooling or create a hazard.
- 2) Ensure there are no obstacles or existing structures that could present a hazard to the operator. If so, take necessary action to eliminate the hazard.
- 3) Ensure all other personnel are at a safe distance from the grinder.

INSTALLING OR CHANGING DISCS

- 1) Lift the release lever and place the handle into the tooling position. See Figure 1.
- 2) Carefully lower the handle to the floor to give access to the disc mounting plate.

NOTE: The Paddock grinders are designed to take a range of disc types and brands.

- 3) Remove magnetic retaining plugs by hand or by carefully levering out.
- 4) Install the desired tooling and replace the magnetic retaining plugs. Three discs must be fitted at all times of operation. Install the discs in an equal triangle to maintain balance.

WARNING: The discs installed should be of equal wear and thickness.

NOTE: Paddock genuine diamond discs and tooling are recommended.

5) Spin the discs by hand to ensure they spin freely and level.

USING THE MACHINE

- 1) Lift the release lever and place the handle into the operating position. See Figure 1. Adjust height to suit the operator.
- 2) Connect machine to suitable power outlet. Only use heavy duty power leads suitable for high current use (minimum 2.5 mm² cable), no longer than 20 meters.
- 3) Connect a suitable dust extractor to the machine via the 40mm dust port for dry grinding. Configure the hose guide to the desired position.
- 4) Level the machine using the spirit level as an indicator. This is achieved by varying the height of the axle. Pull the Level Adjustment Fastener outwards and rotate counterclockwise to lower or clockwise to raise the axle height. See Figure 2.
- 5) Switch on the dust extractor.
- 6) With the operator at the handles and in the ready position, turn on the grinder using the green on switch. Ensure E-stop is turned to the out position.

WARNING: Always have the discs in contact with the floor surface when turning the grinder on.

WARNING: If the over-current device trips a problem is present. (Undersize power lead or poor power to GPO outlet). Rectify the problem or decrease the load on grinder by using tooling with more surface area. Continuing to use the grinder when constant tripping occurs will void the warranty.

- 7) After a few minutes grinding check the wear of the diamond discs. Select different discs as required to maximise tooling life.
- 8) If required load the weights into position on the head of the grinder. This will increase downwards pressure on the discs, increase grinding speed and smooth out vibrations in some instances. See Figure 3.

Figure 2 – Levelling



Level Adjustment Fastener

Figure 3 - Weights





9. TROUBLESHOOTING

Symptom	Possible Cause	Action
Grinder runs for a short time then stops.	The electrical power current limit screw is not adjusted properly.	Adjust the current limit screw located in the Schneider housing to the appropriate setting.
Grinder runs but does not perform adequately.	Tooling is not matched to the application.	Re-evaluate tooling selection.
Grinder vibrates during use.	Grinding plates not correctly balanced.	Replace grinding plates.
Grinding noise coming from grinding head under no-load operation.	Worn motor bearing or drive coupling.	Have machine evaluated and serviced by an authorised service professional.
Grinder does not start / run.	 Power not present. Grinder trying to start on glue or sticky surface. Power lead too long or insufficient load capacity. 	 Check power present using another tool. Clear glue with a scraper and grind into the glue in small passes. Upgrade the power lead to 2.5mm² (20 meters) max or 4mm² (50 meters max).
Machine not grinding.	No disc fitted. Very hard concrete or glazed top layer.	Fit blade. Turn down dust extractor. Place river sand or equivalent on the floor. Use softer bond discs. Use coarser grift discs.
Discs wearing too fast.	Concrete is soft, abrasive, damaged or scarified.	Turn up dust extractor. Use a harder bond diamond disc. Use discs with more surface area or segments.

10. MAINTENANCE

Daily cleaning: The motor should always be kept clean. No water, or foreign materials should be allowed to get into the interior of the motor. Keep the fan guard clear.

Check operating amperage draw: While the motor is in operation, take care to keep the operating amperage below maximum level.

Operational sounds: During operation of the motor there must be no rubbing sounds, squeals or other random noises. Stop the motor immediately and restart after inspection and corrections have been made.

Check the security of the adjustable folding handle latch periodically. The wheel bearings use sealed bearings and require no regular greasing.

Check magnetic disc retaining plugs for wear every 3 hours of use. Replace as required.

Gearbox: The grinder gearbox requires ~300ml of 85W-140 gear oil. This oil should be replaced every 6 months to ensure a long gearbox life.



WARNING: Breathable silica may be generated by use and maintenance of this machine. Silica can cause severe and permanent lung damage, cancer, and or other serious diseases. Do not breathe the dust. Do not rely on your sight or smell to determine if dust is in the air. Silica may be in the air without a visible dust cloud. If air monitoring for silica is not provided by your employer at your work site, you must wear appropriate respiratory protection when operating or maintaining this equipment. Consult your employer for proper respiratory protection.

11. EXPLODED PARTS DIAGRAM



Item No.	Part No.	Description	Qty
1	1	Lower Support frame	1
2	2	Axle	1
3	3	Axle baffle	2
4	4	M6X20 round head hex head bolt	6
5	5	Level adjustment lever	1
6	6	Level adjustment lever	1
7	7	Ø plain Gasket	1
8	8	M8 Welded nut	1
9	9	M8X25 Hexagon socket head bolt	1

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10	10	Wheels	2
11	11	Hexagon socket head screw M10X25	2
12	12	Ø12 plain Gasket	2
13	13	Ø18 plain Gasket	6
14	14	Leveler	1
15	15	M4X15 Round head hexagon socket head cap bolt	2
16	16	Gearbox	1
17	17	M10 screw nut	8
18	18	Ø10 Spring washer	8
19	19	Ø10 plain Gasket	8
20	20	Motor 2.2KW 240V	1
21	21	M10X40 Hex bolts	4
22	22	Ø10 Spring washer	4
23	23	Ø10 plain Gasket	4
24	24	Wheel cover	1
25	25	M12X30 Round head hexagon socket head cap bolt	3
26	26	Motor output shaft fixed plate	1
27	27	M8X25 Hexagon socket head bolt	1
28	28		1
29	29	Ø8 Spring washer Ø8 plain Gasket	1
30	30	Upper and lower rubber pads	3
31	31		
		Grinding disc	3
32	32	Ø10 plain Gasket	3
33	33	Ø10 Spring washer	
34	34	M10 screw nut	3
35	35	Left and right rubber pads	6
36	36	M10X30 Hexagon socket head bolt	6
37	37	Ø10 plain Gasket	6
38	38	dust cover	1
39	39	Upper support frame	1
40	40	Angle adjustment lever	1
41	41	Hexagon socket head screw M6X12	4
42	42	Gasket	2
43	43	M14X40 Round head hexagon socket head cap bolt	2
44	44	Ø14 plain Gasket	4
45	45	M14 Anti-loose nut	2
46	46	Handle	2
47	47	Cup holder	1
48	48	M6X10 Hexagon socket head bolt	2
49	49	Straw support rod	1
50	50	LCD display	1
51	51	Emergency stop switch	1
52	52	Start switch	1
53	53	Wire fixing bracket	1
54	54	Indicator light	1
55	55	Special protection plug	1
56	56	Electrical box cover	1
57	57	M5X12 Round head cross bolt	6
58	58	Hose ø55X220	1
59	59	Ø50 Hose clamp	2
60	60	Vent cover	1
61	61	Counterweight block	2

12. WARRANTY INFORMATION

The below information is an addition to information covered under the standard Terms and Conditions of sale at your place of purchase.

CONCRETE GRINDER – Is warranted for manufacturing faults and defects for a period of 12 months from date of purchase.

ACCESSORIES / ATTACHMENTS – 12 months

EXCLUSIONS - Normal wearing parts and consumables are not covered by warranty. Examples include: filters, hoses, tires. Equipment damaged, misused, not maintained, adjusted incorrectly, effected by fire, rain, accident or flood will not be covered by warranty.

13. SUPPORT INFORMATION

SALES ENQUIRIES:

P: 1300 246 406

E: <u>info@paddockmachinery.com</u>

SUPPORT REQUESTS

Via the website support request - www.paddockmachinery.com

ADDRESS:

47 Eagleview Place

Eagle Farm QLD 4009

Australia