# VERTIGRIND 270 SAFETY & OPERATORS MANUAL AND PARTS LISTING

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### **FLOOREX PRODUCTS**

BUILT IN AUSTRALIA

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#### SAFETY INSTRUCTIONS

- 1. Read and understand the instructions on the machine and in this manual. Different models may have different parts and controls.
- 2. Equipment should only be operated by trained personnel, in good physical condition and mental health (not fatigued). The operator and maintenance personnel must physically be able to handle the bulk weight and power of this machine.
- 3. This is a one person machine. Maintain a safe operating distance to other personnel. Remember 'one machine, one operator'.
- 4. This equipment is intended for commercial use.
- 5. for the operators' safety and the safety of others, always keep all guards and shrouds in place.
- 6. Never start or run machine when unattended.
- 7. This machine is intended for use on floor and wall surfaces only with the assistance of a load balancer in the wall application.
- 8. Never start or run machine with when disks are not in contact with the surface.
- 9. Do not lend or rent machine without the operating instructions for the machine.

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#### SAFETY INSTRUCTIONS CONT...

- 10. Wear clothing suitable for the job and for the work place including, safety shoes, hard hat, hearing protection, non fogging vented safety goggles, and dust mask suitable for dust.
- 11. Keep body parts or any loose clothing away from moving parts. Failure to comply could result in bodily injury.
- 12. Do not modify machine in any way. Only use genuine VERTIGRIND 270 parts and accessories.
- 13. Repairs should be performed by qualified persons only.
- 14. Ensure parts have stopped moving and disconnect power when servicing or changing blades or accessories.
- 15. Never operate machine in rain or if heavy moisture is present.
- 16. Petrol is extremely flammable and poisonous. Petrol should only be dispensed in well ventilated areas, and only when engine is cool.
- 17. WARNING! POISONOUS EXHAUST GASES. Do not operate petrol powered equipment without adequate ventilation. Carbon monoxide is and invisible odorless gas that can harm or can kill you.

#### **OPERATING INSTRUCTIONS**

- 1. When using the VERTIGRIND 270 on a wall or vertical surface Ensure the load balancer is adjusted correctly. Use a load balancer suspended from a certified anchor point at the top or above the top of the wall. This takes all the weight of the machine and when adjusted correctly it should take very little force to move the machine up the wall.
- 2. Wear clothes suitable for the job and for the work place including, safety shoes, hard hat, hearing protection, non fogging vented safety goggles, and dust respirator suitable for dust.
- 2. WARNING! POISONOUS EXHAUST GASES. Do not operate petrol powered equipment without adequate ventilation. Carbon monoxide is an invisible odorless gas that can harm or can kill you.
- 3. All equipment must be tested and tagged prior to use on any job.
- 4. Inspect entire area to be ground before grinding and remove any bolts or concrete nails (etc) that could damage diamond tooling or machine and which could cause a hazardous situation.
- 5. 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.
- 6. Disconnect unit from all power sources.

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#### **OPERATING INSTRUCTIONS CONT...**

- 7. Lay machine over and inspect blades and blade retainers for wear. Replace as necessary.
- 8. The blades are removed by unscrewing the blade retaining nuts by hand or in unusual circumstances use the wrench supplied.
- 9. Install appropriate diamond tooling into the machine. Only use genuine VERTIGRIND 270 tooling. Failure to comply could result in bodily injury.
- 10. Tilt machine back onto the disk
- 11. Connect machine to suitable power outlet. Only use heavy duty power lead suitable for high current use (preferably 2.mm2 cable), no longer than 40 meters. (For petrol powered equipment, refer to engine manual for start up procedure).
- 12. When no power is available within the specified distance, have a qualified person install a suitable power outlet closer to your work. Alternatively use 4.mm2 cable for up to 60 meters max.
- 13. Connect a suitable dust extractor to the machine via a 38mm flexible hose. The machine is designed to take the standard FLOOREX hoe with 1x 38mm hose end and 1x 50mm hose end to make connection of dust extractors easy and hassle free.

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#### **OPERATING INSTRUCTIONS CONT...**

- 14. When using the VERTIGRIND 270 on a wall or vertical surface, ensure the load balancer is adjusted correctly. Use a load balancer suspended from a certified anchor point at the top or above the top of the wall. This takes all the weight of the machine and when adjusted correctly it should take very little force to move the machine up the wall.
- 15. Switch on the dust extractor.
- 16. Ensure machine is on a smooth surface.
- 17. 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.
- 18. Never start or run machine with when disks are not in contact with the surface. Failure to comply could result in bodily injury and or could damage the machine or property.
- 19. Hold the handles firmly and push firmly against the wall or floor and switch the machine on by activating the two toggle switches beside each hand grip. Do not modify the switches in any way the dual activation is required to stop one hand operation.
- 20. Do not attempt to make any adjustments while the machine is in operation. Any adjustments must only be performed when machine is stopped <u>and</u> power disconnected.

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#### **OPERATING INSTRUCTIONS CONT...**

- 21. After a few minutes of grinding check the wear of the diamond tooling. This is a good idea if the diamonds are wearing out fast due to soft concrete / abrasive concrete. FLOOREX has a wide range of diamonds to suit every need. See page 11 for a guide...
- 20. See the chart on page 10 for tips on how to grind faster on tough concrete and other ways problems can be rectified.
- 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.

#### **ELECTRICAL SAFETY**

- 1. All electrical maintenance and repairs to be carried out by qualified persons only.
- 2. CAUTION Line terminals may be alive when main switch is in the off position. Disconnect all power at source before performing any maintenance or repairs.
- 3. WARNING DO NOT operate the machine with any electrical panels open.
- 4. Never operate machine in the rain or if heavy moisture is present.
- 5. The Vertigrind 270 is equipped with a pair of safety switches that stop one handed operation. Do not bypass or modify any electrical equipment in any way
- 6. Never connect or disconnect power cables with voltage present or while under load.
- 7. Disconnect all power connections and observe lock out / tag out procedures before attempting to carry out any maintenance or repair on any equipment.
- 8. Avoid any contact with any rotating parts or driven parts.
- 9. Never use equipment that has not been tested and tagged (including cords).

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#### **ELECTRICAL SAFETY CONT...**

- 10. Before connecting the machine to power, check the condition of all power leads and cables on, or used in conjunction with the machine. DO NOT USE it if any fault(s) cuts; wear marks, Bare wires out of plugs or sockets, etc... Get qualified persons to repair and re-tag it as required by regulations in your country.
- 13. Connect machine to suitable power outlet. Only use heavy duty power lead suitable for high current use (preferably 2.mm2 cable), no longer than 40 meters. (For petrol powered equipment, refer to engine manual for start up procedure).
- 14. If no power is available within the specified distance have a qualified person install a suitable power outlet closer to your work. Alternatively use 4 mm2 cable for up to 60 meters.

### **PROBLEM SOLVING**

Diamond Grinding has many variables. When you understand some of these, you can solve many problems without a lot of bother and expense.

PROBLEM	CAUSE	REMEDY	WHAT IS IT DOING?
Machine will not start / run.	No power is present at cable end.	Check the power is present with another tool.	Using another tool confirms power is present
	Machine is trying to start on glue or other sticky substance.	Clear a patch with a scraper and grind into the glue a little at a time.	This means it only tackles a small amount of glue at a time and keeps the glue residue coated with dust, preventing glue build-up on the diamonds.
	Power lead is too small in capacity or too long.	Upgrade the power lead to 2.5mm² (15meters) max or 4mm² (40 meters max).	The long / small capacity cable is too restrictive and can't allow enough power through for the machine to start / run properly.
Machine is not grinding at all.	No blade / accessories in unit.	Fit blade. Note; check wear on machine.	
	Very hard concrete or glazed topping on concrete.	Turn dust extractor down / restrict flow. Only just control the dust from escaping.	The extra dust accumulating on the floor acts as an abrasive between the segments and the floor thus exposing the diamonds better.
		Place river sand or equivalent on the floor. (if applicable)	The sand is an abrasive as described above.
		Use softer grade of diamond tooling.	The softer grade will expose the diamonds better.
		Use coarser diamond tooling.	The coarser diamond tooling can get through the hard topping without wearing out the diamonds too fast.
The diamonds are wearing out too fast.	The concrete is: *Soft *Abrasive *Rain Damaged *A rough finish (Scarified).	Use a powerful dust extractor to remove as much dust as possible.	The dust, as described acts as an abrasive between the segments exposing the diamonds prematurely, wasting them.
		Use harder diamond matrix.	The harder segments don't expose as easily.
		Use tooling with more segments or area <sup>2</sup> of segment.	The tooling with more segments or area <sup>2</sup> doesn't have the same weight on them, reducing wear.

**NOTE: THIS IS A GUIDE ONLY** 

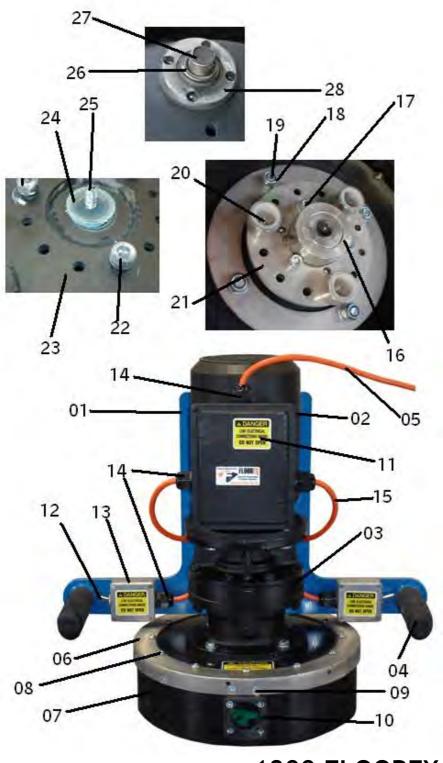
### **DIAMOND TOOLING SELECTION GUIDE**

5" VERTIGRIND 270 DIAMOND CUP WHEEL				
5" CONTRACTOR RANGE				
BCG 420 DTY	5" Diamond Wheel - 9 Segment - Hard Concrete, coating removal	YELLOW		
BCG 425 DTS	5" Diamond Wheel - 9 Segment - Coarse Grade 25#	SILVER		
BCG 4445 DTG	4.5" Diamond Wheel - 9 Segment - Medium Concrete	GREEN		
BCG 445 DTG	5" Diamond Wheel – 9 Segment – Medium Concrete	GREEN		
BCG 455 DTG	5" Diamond Wheel - 18 Segment - Fine Finish, soft/medium concrete.	GREEN		
BCG 4515 DTR	5" Diamond Wheel - 18 Segment, Fine Grade 150#	GREEN		

5" VERTIGRIND 270 DIAMOND CUP WHEEL			
5" PREMIUM RANGE			
CG 445 DTG	5" Diamond Wheel – 9 Segment – Aggressive removal	GOLD	
CG 455 DTG	5" Diamond Wheel – 18 Segment – Fine Finish, Hard Concrete	GOLD	
CG 4515 DTR	5" Diamond Wheel - 18 Segment - Fine Grade 150#	RED	

### **PARTS LISTING VERTIGRIND 270**

NUMBER REFRENCE IS IN THE PART NO. Example 15 = V27015



1 111 2 1 151	
V27001. V27002. V27003. V27004. V27005. V27006. V27007. V27008. V27010. V27011. V27012. V27013. V27014. V27015. V27016. V27017. V27018. V27019. V27020. V27021. V27022. V27023. V27024. V27025. V27026. V27027. V27028.	Chassis Motor .55kw 2pole Transmission Rubber handle grip Lead inlet with plug Floating shroud s/steel Poly shroud 85x6x1m Shroud screw (rubber) Shroud screws (poly) Vac port screws Sticker set complete Switch toggle Enclosure toggle switch Gland M16 Lead toggle switch Hub Socket headM6x15 Nut Nyloc M8 Bolt M8x40 Drive cup M6 Hub flange Drive socket head M8x40 Disc main Poly urethane disk30x8 Disk bolt M8x40 Rubber damper Disk retainer

Part no. Description