

RISK ASSESSMENT

FLEXTOOL CONCRETE GRINDER ALL MODELS



Version 1.0 (June 2023)

EQUIPMENT RISK ASSESSMENT



INFORMATION

Equipment description:	Concrete Grinder
Make / manufacturer:	Flextool
Model number/s:	FCG-450
Assessment date:	1 st April 2023
Link for manuals:	flextool.com.au
Additional information	Parchem Construction Supplies 1956 Dandenong Road Clayton VIC 3168 Ph: 1300 353 986



WARNING

To reduce the risk of injury, all operators and maintenance personnel must read and understand this risk assessment before transporting, operating, changing accessories or performing maintenance on this power equipment. The most important safety device for this or any equipment is the operator. Care and good judgement are the best protection against injury. All possible hazards cannot be covered in this risk assessment, but we have tried to highlight some of the important items. Risks associated with the use of equipment may vary based on jobsite and environmental factors and operators should assess these prior to each use. Operators should look for and obey Caution, Warning and Danger labels placed on the equipment. You should read this risk assessment and the corresponding equipment and engine (if applicable) operating instructions carefully and consider the information in the context of how the product will be used. Even if you have previously used similar equipment carefully check out each machine before you use it, get the "feel" for it and know its capabilities, limitations, potential hazards, how it operates, and how it stops. This risk assessment summarises our best knowledge of the product, based on the information available at the time. Our responsibility for products sold is subject to our standard terms and conditions of sale. Parchem does not accept any liability either directly or indirectly for any losses suffered in connection with the use of the product whether or not in accordance with any advice, specification, recommendation or information given by it.

This equipment risk assessment has been undertaken in accordance with the Plant Regulations of 2007 & 2011 and Australian Standards AS 4024 for Safe Guarding of Machinery and ISO 31000:2009 Risk Management Standards.

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HAZARDS ASSOCIATED WITH THIS EQUIPMENT

Hazards: Potential to cause harm to people, property or the environment. Tick the applicable hazards.

ENTANGLEMENT		EXPLOSION	
Can anyone's hair, clothing, gloves, necktie, jewellery, cleaning brushes, rags or other materials become entangled with moving parts of the plant, or materials in motion?	Y	Can anyone be injured by explosion of gases, vapours, liquids, dust or other substances, triggered by the operation of the plant or by the material handled by the plant?	Y
CRUSHING		SLIPPING, TRIPPING OR FALLING	
<i>Can anyone be crushed due to:</i>		<i>Can anyone using the plant or in the vicinity of the plant, slip, trip or fall due to:</i>	
Material falling off plant?	Y	Uneven or slippery work surfaces?	Y
Uncontrolled or unexpected movement of the plant or its load?	Y	Poor housekeeping?	Y
Lack of capacity for the plant to be slowed, stopped or immobilised?		Obstacles being placed in the vicinity of the plant?	
The plant tipping or rolling?	Y	Other factors not mentioned	Y
Parts of the plant collapsing?	Y	<i>Can anyone fall from a height due to:</i>	
Coming in contact with moving parts of the plant during testing, inspection, operation, maintenance, cleaning or repair?	Y	Lack of work platform?	
Being thrown off or under the plant?		Lack of proper stairs or ladders?	
Being trapped between the plant and materials or fixed structures?		Lack of guard rails or other suitable edge protection?	Y
Other factors not mentioned?	Y	Unprotected holes, penetrations or gaps?	Y
CUTTING, STABBING AND PUNCTURING		Poor floor or walking surfaces, such as, the lack of a slip resistant surface?	Y
<i>Can anyone be cut, stabbed or punctured due to:</i>		Steep walking surfaces?	Y
Coming in contact with sharp or flying objects?		Collapse of the supporting structure?	
Coming in contact with moving parts of the plant during testing, inspection, operation, maintenance, cleaning or repair?	Y	Other factors not mentioned?	Y
The plant, parts of the plant or work pieces disintegrating?		ERGONOMICS	
Work pieces being ejected?	Y	<i>Can anyone be injured due to:</i>	
The mobility of the plant?		Poorly designed seating?	
Uncontrolled or unexpected movement of the plant?	Y	Repetitive body movement?	Y
Other factors not mentioned?	Y	Constrained body posture or the need for excessive effort?	
SHEARING		Design deficiency causing mental or psychological stress?	
Can anyone's body parts be sheared between two parts of the plant, or between a part of the plant and a work piece or structure?		Inadequate or poorly placed lighting?	
FRICITION AND ABRASION BURN		Lack of consideration given to human behaviour?	Y
Can anyone be burnt due to contact with the moving parts of surfaces of the plant, or material handled by the plant?		Mismatch of the plant with human traits and natural limitations?	
STRIKING		Other factors not mentioned?	Y
<i>Can anyone be struck by moving objects due to:</i>		SUFFOCATION	
Uncontrolled or unexpected movement of the plant or material being handled by the plant?	Y	Can anyone be suffocated due to lack of oxygen, or atmospheric contamination?	Y
The plant or parts of the plant or work pieces disintegrating?		TEMPERATURE / THERMAL COMFORT OR FIRE	
Work pieces being ejected?	Y	Can anyone come into contact with objects at high or low temperature that are likely to cause burns, scalds or other injuries (hot or cold)?	Y
Mobility of the plant?		Can anyone suffer ill-health due to exposure to high or low temperature work environment?	
Other factors not mentioned?	Y	Can anyone be injured by fire?	Y
HIGH PRESSURE FLUIDS		MATERIAL AND SUBSTANCES	
Can anyone come into contact with fluids under high pressure, due to plant failure or misuse of the plant?		<i>Can anyone be injured or suffer ill-health from exposure (inhalation or direct contact) to:</i>	
ELECTRICAL		Chemicals or harmful fluids (incl. batteries)	
<i>Can anyone be injured by electrical shock or burnt due to:</i>		Toxic gases, vapours, fumes dust or mists	Y
The plant contacting live electrical connections?	Y	Biological or microbiological hazards	Y
The plant working in close proximity to electrical connections?	Y	OTHER HAZARDS	
Overload of electrical circuits?	Y	<i>Can anyone be injured or suffer ill-health from exposure to:</i>	
Damaged or poorly maintained electrical leads and cables?	Y	Noise – Hearing loss or other physiological disorders?	Y
Damaged electrical switches?	Y	Vibration – Handheld power equipment / whole body vibration?	Y
Water near electrical equipment?	Y	Radiation – Radio frequency, infrared, UV, x-rays, lasers?	
Lack of isolation procedures?	Y	Other factors not mentioned?	Y
Other factors not mentioned?	Y		

RISK ASSESSMENT

HAZARDS DESCRIPTION	IMPACT DESCRIPTION	LIKELIHOOD	CONSEQUENCE	RISK RATING	RISK CONTROL MEASURES TO ELIMINATE / REDUCE RISKS
STORAGE AND TRANSPORT					
Lifting and manual handling when manoeuvring equipment from transport vehicle and around the job site	Equipment could tip or fall due to unbalanced load resulting from the use of the wrong or unsafe lifting points or loading ramps. Muscular strain, back injury and crushing	D	3.2	Medium	<ul style="list-style-type: none"> • Only use designated crane points for mechanical lifting. • Always use certified and tested lifting slings, chains and loading ramps • Regular inspection by competent person of lifting and crane points and loading ramps for damage or material fatigue. • Never drag or pull the concrete grinder by the hose or power cord. • Always follow correct manual handling techniques. • Wearing of PPE (steel cap boots and gloves). • Manual handling training.
Transporting the equipment	Equipment not suitably restrained during transport. Damage to equipment or other property due to loss of load from vehicle	C	3.2	Medium +	<ul style="list-style-type: none"> • Ensure all equipment is restraint according to the NVHR load restraint guidelines. • Inspect straps and ropes for damage prior to use. • Secure equipment using suitable tie down points on both equipment and vehicle.
OPERATION					
Unexpected movement of equipment with or without operator	Bystanders and operator being struck.	E	3.1	Low	<ul style="list-style-type: none"> • 'Deadman' switch is installed on the handle and is operational. • Only trained operators are allowed to operate the equipment. • Wearing of PPE steel capped boots is mandatory. • Maintain a safe working distance of approx 3m from bystanders. • ALWAYS disconnect power lead when changing grinding accessories. • ALWAYS ensure grinder is leaning back fully and is secured when changing grinding accessories. • Develop a Safe Work Method Statement for the operation of the equipment.
Mechanical failure of equipment	Serious injury	C	2	Medium	<ul style="list-style-type: none"> • Complete service and maintenance as scheduled in the equipment owners' manuals. • Complete a prestart checklist prior to use. • Report faults to management for repair. Do not use unsafe equipment.

HAZARDS DESCRIPTION	IMPACT DESCRIPTION	LIKELIHOOD	CONSEQUENCE	RISK RATING	RISK CONTROL MEASURES TO ELIMINATE / REDUCE RISKS
Electrical failure of equipment	Electrocution	E	4.1	Medium	<ul style="list-style-type: none"> ALWAYS inspect power leads and cables for damage (cuts and abrasions, exposed wires, damaged plugs, etc.) prior to and periodically during operation. If damaged cables are identified, isolate equipment and have it repaired immediately by a licenced electrician. ALWAYS fully uncoil electrical leads during operation. ALWAYS inspect electrical switches for damage and correct operation. Never allow exposure of the electric motor, switches and other electrical components to water.
Vibration exposure (through handle to operator)	Injury to hands fingers and wrists	C	2	Medium	<ul style="list-style-type: none"> Operator to take regular breaks when required to operate equipment over a long continuous period. Stop using equipment if any discomfort, tingling sensation or pain occurs and seek medical advice before resuming use. Complete service and maintenance as scheduled in the equipment owners' manual.
Noise exposure	Loss of hearing	C	2	Medium	<ul style="list-style-type: none"> Wear PPE hearing protection. Complete service and maintenance as scheduled in the equipment owners' manuals. Replace damaged or missing warning decals requiring the use of hearing protection.
Dust and airborne particles	Eye injury and respiratory problems	C	4.1	Medium +	<ul style="list-style-type: none"> P2 Dust mask and safety glasses must be worn during operation and maintenance. ALWAYS operate with a suitable H-Class dust collector, ensure hoses and other accessories are fitted correctly. Replace damaged or missing warning decals that relate to dust exposure.
Hot equipment and motor parts part.	Risks of burns to body	C	2	Medium	<ul style="list-style-type: none"> Do not touch electric motors that generate heat during or immediately after operation. Wait for electric motors and equipment to completely cool down prior to commencing repairs or maintenance. ALWAYS wear PPE gloves when changing grinding shoes.
Exposure to rotating wheels	Injury to feet	C	3.2	Medium +	<ul style="list-style-type: none"> Wear PPE (steel cap boots). Never operate equipment with damaged, broken or missing guards.

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Operator slipping or tripping during equipment operation.	Loss of control of equipment, personal injury, damage to equipment	C	3.2	Medium +	<ul style="list-style-type: none"> Always push the equipment with two hands on the handlebar for maximum control. Assess work area prior to operating equipment, always operate and store the concrete grinder on stable and even ground. Maintain good housekeeping of hoses and power cables, these can create a tripping hazard.
MAINTENANCE					
Maintenance and repair	Eye injury and respiratory problems Cuts and burns (heat) Entanglement of clothes, hair etc. Electrocution	C	3.2	Medium +	<ul style="list-style-type: none"> Only trained and competent personnel to undertake maintenance and repair on equipment. All electrical related maintenance and repair must only be completed by a licenced electrician. Complete service and maintenance as scheduled in the equipment owners' manuals. Use only genuine parts and accessories to ensure correct compatibility and safe use of equipment. Always ensure power cable and plug are isolated and removed from power outlet prior to undertaking any maintenance and repair. Always ensure guards, safety switch and any other safety mechanisms are free from damage and installed prior to testing and returning product to service. Always wear PPE when servicing and repairing equipment (gloves, glasses, dust mask and steel cap boot) to reduce risk of cuts, burns, crushing, eye injuries, dust inhalation, etc. Never work underneath equipment suspended by lifting device or on ramps.

RISK RATING MATRIX

LIKELIHOOD OF HAZARD OCCURRING				CONSEQUENCE IF HAZARD OCCURRED			
CATEGORY	EXPLANATION	CATEGORY	EXPLANATION AND SAFETY HEALTH	EXPLANATION ENVIRONMENT			
A. Almost Certain	It is expected to occur in most circumstances	Cat 1. Notable Event	Minor injury – first aid injury	Very minor pollution			
B. Very Likely	Has occurred in some circumstances (known to have occurred)	Cat 2. Significant Event	Single MTI	Minor local pollution			
C. Likely (Possible)	Might have occurred at some time but details not known	Cat 3.1. Highly Significant	Single LWC or multiple MTI	Evident pollution local concern			
D. Unlikely	Could occur but has not at yet happened	Cat 3.2. Serious Event	Permanent disability or multiple LWC	Significant local pollution			
E. Very Unlikely	Has occurred somewhere (heard of it happening)	Cat 4.1. Extremely Serious	Single fatality	Major local pollution			
F. Extremely Unlikely	Could theoretically occur but not aware of any instances	Cat 4.2. Catastrophic	Multiple fatalities	Extremely severe pollution			

		CONSEQUENCE						RISK LEVEL CLASSIFICATION		
		Cat 1	Cat 2	Cat 3.1	Cat 3.2	Cat 4.1	Cat 4.2			
LIKELIHOOD	A	Medium +	Medium +	High	High	High	High	High	Unacceptable	Job must stop and not proceed without resolving this risk issue, for example by adding more risk controls or substituting existing controls with more effective ones.
	B	Medium	Medium +	Medium +	High	High	High	Medium +	Tolerable	Job may proceed if further risk reduction is not practicable. Take action to reduce risk where possible.
	C	Medium	Medium	Medium +	Medium +	High	High	Medium	Acceptable	Job may proceed if further risk reduction is not practicable. Review risk on subsequent jobs to determine whether further action is appropriate.
	D	Low	Low	Medium	Medium	Medium +	High	Low	Negligible	Job may proceed. Further risk reduction should always be considered but may not be practicable.
	E	Low	Low	Low	Low	Medium	Medium +			
	F	Low	Low	Low	Low	Low	Medium			

END OF ASSESSMENT



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